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LOK SABHA

JOINT COMMITTEE
ON
THE PATENTS BILL, 1965

EVIDENCE

(Volume I)

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(Volume II)

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	-do- Evidence (Volume I)
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7.	The Seeds Bill, 1966 - Report of the Select Committee (Presented on the 4th November, 1966)
	-do- Evidence

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JOINT COMMITTEE ON THE PATENTS BILL, 1965

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36. Shri Vimalkumar M. Chordia
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*Ceased to be members of the Committee w.e.f. 2nd April, 1966 on their retirement from Rajya Sabha and were reappointed by Rajya Sabha on the 7th April, 1966 except Shri Dalpat Singh who was reappointed on the 13th May, 1966.

39. Shri B. T. Kulkarni
40. Shri P. K. Kumaran
*41. Shri Shyamnandan Mishra
42. Shri Dahyabhai V. Patel
43. Shri Mulka Govinda Reddy
†44. Shri D. Sanjivayya
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*47. Shri Dalpat Singh
*48. Shri R. P. Sinha

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1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks, Trade Marks Registry, Bombay.*
3. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*
4. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

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†Appointed on the 17th May, 1966 *vice* Shri T. N. Singh resigned.

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JOINT COMMITTEE ON THE PATENTS BILL, 1965

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Thursday, the 27th January, 1966 at 14.00 hours

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*

MEMBERS

Lok Sabha

2. Seth Achal Singh
3. Shri Peter Alvares
4. Shri Ramchandra Vithal Bade
5. Shri Panna Lal Barupal
6. Shri Dinen Bhattacharya
7. Shri Bibhuti Mishra
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35. Shri D. P. Karmarkar
36. Shri B. T. Kulkarni
37. Shri P. K. Kumaran

38. Shri Dahyabhai V. Patel
39. Shri Mulka Govinda Reddy
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4. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

L. S. Davar & Co., *Patent & Trade Mark Attorneys, Calcutta.*

Shri L. S. Davar

L. S. Davar & Co., Patent & Trade Mark Attorneys, Calcutta.

Spokesman:

Shri L. S. Davar

(*The Witness was called in and he took his seat*).

Mr. Chairman: We have received your memorandum which has been distributed to all the Members. Do you want to add anything to it? You may add now, and then Members will ask you questions. I presume you represent the Patent and Trade Mark Attorneys, Calcutta.

Shri L. S. Davar: Yes, Sir. May it please Your Honour, if I may be permitted, I would like to give to the hon. Members a general idea of the development of the patent system in this world. That will be the basis upon which the patent system has been formed not only in other countries but also in India. Then, I will deal with the philosophy of the patent system and then I will deal with the points which have been raised in the memorandum which I have already submitted to the Committee, and then the implications of the submissions which I have made on the proposed Bill.

Regarding the development of the patent system, in the middle of the 16th century, when England was in a low stage of industrial development in relation to its neighbouring countries, it had the desire to industrialise itself. To fulfil that desire, England imported the craftsmen as well as the inventions from other countries. As an inducement to the importation of the knowledge and the know-how of the inventions, they gave what they called a certain amount of privilege which resulted in patents. That formed ultimately the basis of the patent system in England. The same thing happened about 200 years afterwards in the United States. When the United States got its independence in 1774,

the know-how and the inventions as well as the machinery were all in the hands of the British people, and they controlled the import of the know-how and the inventions as well as the machines to America. The United States was faced with a predicament as to how to industrialise itself. At that time, George Washington, in his inaugural address "urged the expediency to give effectual encouragement as well to the introduction of new and useful inventions from abroad as to the exercise of skill and genius at home." as a result of the policy of the first President of the United States, the patent system was introduced in the United States in 1790.

Coming to the patterns of the other Governments, firstly; the USSR, historically, the USSR introduced the patent system in 1812 and a planned and co-ordinated development of science and technology has therefore made Russia a great industrial and technical power. The introduction of a system of encouraging inventions played a large role in the economic and industrial development of that country. The patent system in Russia is based on public recognition of the personal interest of the inventor. When the new regime came to power, a new law relating to the patents was introduced and although it is the general belief among the public that there is no patent system in Russia, I would like the hon. Members to know that in 1964, 91,000 patents were filed in Russia as against about 65,000 in America and about 45,000 in England, and a similar number in countries like Germany and Japan. Of course, in Russia, there are two systems of patents: one is the system which we understand in the non-communist countries or what we understand in this country, and the other is the author's certificate, namely, the Government has got the right to use the invention, but when the Government uses the invention, it pays a certain amount of royalty or remuneration to the inventor, depending upon the profit which the organisation of the Government realises in that particular field, although the maximum profit which an inventor can get from his invention is limited to 22,000 dollars. The other system which Russia has got is the normal patent system. For example, any person in India can apply for a patent and if Russia respects the rights of the patent in the sense that if anybody else from another country or even in his own country wants to infringe the rights of a foreigner in Russia who is the patent-holder, then the Government will protect that right and prevent the importation of machinery or any article made according to the process into Russia and if at all it is necessary to import, they will ask the importer to pay a certain amount of royalty to the patent-holder. That is the position in Russia.

I have given to the hon. Members, the basis of the patent system both in the communist countries and the non-communist countries. I would now like to explain to the hon. Members what is the philosophy of the patent system.

Shri Shervani: He might give us the history of development of the patent laws in Japan also, before he proceeds to the next point.

Shri L. S. Davar: In view of the fact that one of the hon. Members has raised the point as to the history of patent law in Japan, I might say that the patent law in Japan is based on the system as obtains in any other country.

Shri Arjun Arora: When did that come into being in Japan?

Shri L. S. Davar: With your permission, Mr. Chairman, I might answer this question straightway.

Mr. Chairman: The questions will follow afterwards; otherwise, there will be no end.

Shri L. S. Davar: I might as well deal with one point here with regard

to Japan. Although it has been considered, and many people have the impression, that Japan is the biggest imitator, I may point out that that conception might have been right perhaps 20 years ago or in the pre-war period, but since the war period, Japan has improved its technology by importing the know-how from other countries and obtaining licences from other countries and at present, Japan is the leading country in the world in respect of the number of patents which are being granted there. The law is the same as in any other country, whether it be the United States of America, the United Kingdom or, for that matter, India; only certain details or provisions may slightly differ, but the principal basis upon which patent law is framed in Japan is the same as in any other country.

What is the philosophy of the patent system? We must appreciate that the inventor, the man who creates anything new, has the inherent right to keep what he invents secret and work it himself. It depends upon what profit he makes—that is immaterial—but he has the inherent right, the natural right to keep it secret to himself. Now, if he discloses to the public or discloses to the Government on behalf of the public, the Government says, since he has faithfully and honestly disclosed what he had the inherent right to keep a secret they will give him a reward. That reward is not in the form of a monopoly but a reward for the scientific achievement or improvement which the man concerned has made and which he discloses to the Government.

What is the effect of that on the economy or what is the social effect of that in the country? When a new invention comes out in the country it gives a cue to the other people to know that here is a field in which they can also develop or find out alternative products or alternative processes. Secondly, supposing a man comes to me and says: "I have got a wonderful idea; are you prepared to invest Rs. 5 lakhs?" Then I will ask him: "What is that wonderful idea?" Naturally, he will say: "First promise me that you are going to put in the money, otherwise I am not going to disclose". But, if he has a patent he can openly go to any prospective investor and say that he has such and such an idea, he has the patent which covers that idea, he has the protection and then ask him whether he is prepared to invest the money in it or not. Therefore, it can induce the prospective investor to invest money in developing that particular invention. That is another advantage, that development of industry can take place by virtue of the patent system.

Now, the other philosophy is that once an idea becomes common to the public after 17 years or 15 years of protection—whatever the term is—when the term of patent expires everyone is entitled to use it. That is another advantage to the public, namely, that the disclosure of the invention results in the prospect of people investing money in that industry and making the invention free to the public after the term of patent expires and thus giving inspiration to others to make inventions in the same field.

This is the philosophy of the patent system and the whole philosophy, therefore, turns round on this point, namely, that the industrial development in the country should take place. That is the whole idea behind it. Therefore, the object of our patent law should be that industry in our country should develop.

Now, in many countries, not only in India, there is a general feeling that this sort of monopoly is being abused. How is that being abused? It is abused in this way that a foreigner has got patent in this country, he does not work that invention, he has the monopoly in that particular product or particular process, he is the only person who can export from his country into our country, his

industry is developing while we are merely importers of that machinery. That is what they call the abuse of the patent system.

Therefore, in 1961, in the General Assembly of the United Nations this question was raised by Bolivia and the General Assembly of the United Nations requested the Secretary General to go into the question as to how the patent system is being abused by developed countries in developing countries and, also, what role do patents play in the industrial development of developing countries. In 1964, the Secretary General, after making enquiries from 55 different countries, prepared a report. I will give to the hon. Members just a gist of the report—this is the publication by the United Nations on the role of patents in the transfer of technology to developing countries—which was published.

Several hon. Members: We have not got that report. It is not available in the library also.

Mr. Chairman: I have also not received it. The Ministry will try to supply more copies.

Shri L. S. Davar: I have, for the convenience of hon. Members, prepared a gist of the report published in a public document published by the United Nations and which is available from the United Nations at a cost of $1·5. The resolution is this:

> "That on the 19th December, 1961, the General Assembly of the United Nations in its resolution 1713 stated . . . ."

Mr. Chairman: You need not read that. The resolution has been circulated to hon. Members.

Shri L. S. Davar: I will now give hon. Members a gist of the replies from the various countries. Australia said:

> "The patent system has fulfilled its function of industrial progress."

France said:

> "60 per cent of patents are from foreigners.
>
> The country pays 300 million new Francs, that is, equal to 300 million rupees, in payment of know-how and the transfer of technology is facilitated by the Patent System which gives assurance of protection to the owners of know-how.
>
> *Israel*: The utilisation of foreign inventions by domestic enterprises will be rendered impossible in the absence of Patent protection.
>
> *Italy*: The country is primarily a recipient of foreign inventions access to which is helped by Patent System.
>
> *Japan*: Introduction of new foreign technology has contributed greatly to the development of industries and the right of Patents of foreigners is protected."

I may pause here and submit to the hon. Members that during the period of 1958 to 1962, Japan paid, in 1958, 40 million dollars in the form of royalty of patents and 2 million dollars for the know-how; in 1959, paid 51 million dollars in royalty and 4 million dollars on the know-how; in 1960, it paid 80 million dollars in royalty and 7 million dollars for the know-how; in 1961, Japan paid 99 million dollars in royalty and 11 million dollars on the know-how and in 1962, it paid 103 million dollars in royalty and 10 million dollars on the know-how. These amounts were paid as royalty for patents and the know-how respectively notwithstanding the fact that payment of foreign exchange is controlled in the same manner in Japan as it is in India.

Dr. M. M. S. Siddhu: You should have also read the Indian Govern-

ment's opinion on it. You are only giving the views of other countries.

Shri Sham Lal Saraf: The Government of India has said that the present patent law is functioning well.

Shri L. S. Davar: I submit the view of the Government of India should be known to hon. Members. I am giving the views of other countries. These are the views expressed by various countries which I have taken as extracts from the United Nations' publication for the convenience of the hon. Members here. I quote further the views of other countries:

"*Mexico*: Equality before the law of national and foreign inventors facilitates availability of foreign know-how.

Holland: Due to Patent System, foreign patentees are prepared to give licences and know-how for new inventions.

New Zealand: The Government has come to realise that it should not expect to be a recipient of inventive skill from abroad without payment of royalties towards cost of research and rewarding inventors.

Switzerland: To encourage the supply of inventions and know-how to developing countries, measures are taken to see that effective protection is given to patents."

In the United Kingdom, more than half the patents applications come from abroad. From early days, the British law recognises the advantages to the economy in exploiting of the new inventions in the country.

Shri R. Ramanathan Chettiar: In Switzerland, there is no patent law, I suppose.

Shri L. S. Davar: They have a patent law. We have obtained patents in Switzerland on behalf of Indian parties.

Then, this is what did Czechoslovakia say:

> "There is an increase in the number of foreign patents applications in our country. Majority of agreements are based on undisclosed know-how and experience.
>
> *Hungary*: The use of inventions and know-how has been secured on the basis of agreements with foreign patent-holders."

Now, the Secretary-General's Report further included the following conclusions:

> "There is an extensive range of national legislation directed against practices that are considered abusive of the national patent system, such as, non-use of patents, restrictive practices and excessive royalties."

Provision for compulsory licensing exists in many countries. Here, I might tell the hon. Members that in order to overcome the abuses of the patents system, many countries, practically all countries, excepting United States and Russia, have a system of compulsory licensing, that is, if the invention is not being worked in the country and if anyone from within the country is anxious to work the invention, then he makes an application to the Controller and after due consideration, if the party is found to be suitable, the Controller can grant a licence.

Now, the experience of many countries has been that this compulsory licensing system has not been found to be very practicable. For example, I would give the figures for five years in different countries. In United Kingdom, only 7 applications were filed in five years; in Canada, only 5 applications were filed; in Denmark—7 applications; in Philippines—8 applications; in Ireland—1 application; in India—4 applications; Israel—3 applications; Japan—nil; New Zealand—nil; Switzerland—nil; Holland—nil; Germany—nil. In Norway, in 27 years, 3 applications were filed, but all those applications were not from nationals of the country but from foreigners asking for licences to work within the country.

There is a very pertinent question as to why, in spite of the fact that licensing system is there and it has failed, this system is still on the statute book. It has been well recognised throughout the world—that has also been confirmed in the Report of the United Nations after consulting several countries—that what is more important is the know-how. It is not patent alone that matters. Patent merely acts as a vehicle. I will show you what a patent document is. (A copy of the patent document was then circulated by Shri L. S. Davar for the perusal of the hon. members.) The patent document merely gives a general idea of the invention. Let me put it this way. If somebody gives me a sketch of this instrument (the microphone) and asks me to manufacture this, I will have to find out as to what metal I should use, what shou'd be height of this and what should be the weight. Thus, in the manufacture of every article, whatever it may be, there is a technical know-how involved and, therefore, patents by themselves are useless without the technical know-how except in some cases where the patent is of a very minor nature. For example, I remember, in 1934, there was a patent for a clamp. The clamp was of a simple nature made of hoop iron, one end turned this way and the other like this (the witness explained this by demonstration with a piece of paper). It was fixed at the end of a railway sleeper in order to prevent vertical cracks. Millions of these were ordered from England. One of the Indian parties realised in 1934, when we had the provision that a patent could be revoked if it was not worked in the country, "why can't I manufacture this." So we approached that party, "if you do not give the licence to us, we are going to make an application for compulsory licensing or revocation of your patent". This used to come from England. In those days when steel was very cheap it was imported at 4 annas and they would supply to the Railways at 8 annas, while the Indian party could manufacture at a cost of 2 pice. The man, in view of the provisions in the Act, readily agreed. The result was that importation of this thing from England was completely stopped and all the clamps since 1934 even today are being manufactured in this country. Those are exceptional cases. But when we come to the complex type of inventions with which we are now faced, for instance, in the petro-chemical field or in the machinery of a complicated nature, there we essentially want the know-how. From whom do we want the know-how? We want it from the man who has developed the know-how, who has worked it from the very beginning. Therefore, patent merely acts as a vehicle. It is a legal document, one which can establish a relationship between the man who has the know-how and the man who wants to establish the manufacture of that particular article according to the patent. This view has been established not only in this country but in every country of the world. How has Japan industrially advanced in the post-war period? It is because they have obtained the know-how and now you will see that, in countries like Germany or America which are highly industrialised, Japanese goods are being openly offered. These provisions of compulsory licensing or revocation are there, but where the technology is of a very advanced nature, there the know-how is very important.

I might give to the hon. Members another picture of this. What happened during the Second World War? In 1940 when England was invaded by Germany and many of the neighbouring countries had fallen, there was a great need for England to have aircraft as well as to make the radar and other weapons for defence. England could not do it firstly because of the restricted capacity of manufacture it had and secondly because it was always in the danger of being bombarded. What did England do? It went to America. The Tizard Com-

mission was appointed. He went to America and asked the Americans, "will you manufacture these things for us? Here are the patents; you manufacture the Rolls Royce engines according to these patents, radar according to these patents and other weapons for war according to these patents". The Americans said, "we cannot do it without the know-how". What happened on the other side? The English people who had the know-how refused to give the know-how. They said, "what will happen after the war? When the war is over, America will come in competition with us. We do not want to give the know-how notwithstanding the fact that the war is on." The patent is not so important as the know-how in the modern complex type of science. However, the Government prevailed upon them to give the know-how. The Rolls Royce people, for example, took an assurance from the Government that all engines manufactured under the know-how of the English people would be given back to England and not sold in the open market nor used in the open market. In addition to that, when America started manufacturing war weapons as well as the Rolls Royce engines, naturally they also had to develop a certain new technique during the course of manufacture. Then there was an agreement between the Government of the United States and the Government of the United Kingdom, which is known as the P.I.A., *i.e.*, the Patents Interchange Agreement, *i.e.*, the Patents of one country will be given to another country and free use will be made by either of them. The same arrangement now exists between the countries which have a Mutual Defence Pact. In the Mutual Pact, one of the clauses is that an invention which has been made by a member country can be freely used by another country which is a member of the Mutual Defence Pact and that is, of course, England and many of the European countries.

This is how the patents have been playing an important role in the transfer of technology or in the development of science, not only during peace but also during the period when the war is on. The efforts of the United Nations are still continuing to find out ways and means as to how the laws of developing countries should be formulated in order that transfer of technology takes place effectively from the developed to the developing countries. I am only dealing with transfer of technology from the developed to the developing countries because, in so far as the development of technology in our own country is concerned, of course, that is the business of our Government or the business of our industrialists.

BIRPI is an inter-governmental organisation in Geneva which looks after the patent system of various countries and it is organizing, in the second week of February an Asian Seminar in Colombo in order to consider again what should be the laws of the developing countries in relation to patents. I had the privilege of being invited to Washington to become a co-Chairman on world peace through law conference on the Industrial Property Committee and I was specially asked to deal with the subject of transfer of technology from the developed to the developing countries and the role of patents in that technology. The U.S. State Department particularly mentioned that India is not to be considered as an under-developed country and, therefore, my subject had to be as to how, after we have received the technology from other countries, we have developed our own technology and how can we transfer our technology to under-developed countries. Therefore, it is not that we are only going to be the recipient of technology from other countries, but we have to give technology to other countries which are much less developed than we are. There is going to be an international conference in Tokyo in April to consider the law which should be applicable to developing countries particularly in relation to the transfer of technology. This is what has happened throughout the world and what is the intention of the developed coun-

tries, how they want our laws to be framed so that transfer of technology is encouraged to the developing countries. Let us not think that we can get technology from any country. I have been told in many countries: Look, probably you can get technology from East European countries or from Russia for which you don't have to pay. I would like to give the position obtaining in the Soviet Union. During the Hanover Fair in 1965 Soviet Union offered 700 patents and technical processes for use by western countries (*Interruption*). Authorship as well as patents are there. Rights only vest with the government. For patents the right vests with the inventor and nobody else. Now, the Russian Government is setting up an office in West Germany in order to licence the patents which they have taken out in other countries. Offices are being opened in France, Italy and U.K. During the international conference held in Geneva in March 1965 Russian delegation manifested their interest in cooperation with western patent offices in order to remove misinterpretation about the practical procedures and to contribute to a better mutual understanding between the western countries and Russia.

The number of patents from Russia as well as from East European countries is steadily increasing in this country. They are anxious to give out licenses to Indian manufacturers on payment of royalty or lumpsum. The object of giving of this information to hon. Members is this, namely, to show what are the activities of the world wide organisation and not only the activity of the UN but also what other countries are also doing in this field because they have realised that prosperity in their own country cannot be maintained unless they share that prosperity with the countries which have the desire to develop themselves. I will just take a few more minutes.

Shri R. Ramanathan Chettiar: About West Germany please tell us something. What is the position of patents in West Germany?

Shri L. S. Davar: It is the same as in any other country.

Shri R. Ramanathan Chettiar: How patent law is operating there?

Shri L. S. Davar: The most severe patent law they have for examination procedure is in Japan, USA and West Germany. The only difference in the law in West Germany is that their scope of claims is given a much wider interpretation than in other countries. Each country is having its own system.

Shri R. Ramanathan Chettiar: It is more broadbased.

Shri L. S. Davar: They go into the spirit of the invention. In France there are no claims of a patent. Again when the suit is filed they come to know what an invention is. Each country has got its own system.

Shri K. K. Warior: Please tell us something about your experience with the Indian patents. Of course, you will take some time before you come to that.

Shri L. S. Davar: I will take up Indian patents. I have been connected in this field for over 35 years. It is my interest to see that industrial development takes place in the country. Before the independence, before our government started the plan periods, the number of Indian inventions used to be very small. The quality was so poor that it is a shameful thing to look at those inventions. The invention may relate to a *hooka* or a *chuhla* or some such article, no invention of any high merit was made by the Indian inventor. I am talking in general terms. No great invention was coming out of the country before Independence except in case of some companies like Tatas or Associated Cement Companies who have their own research departments.

How the patent system induces people to make inventions? Let me give one illustration. In 1933 a British company, Dorman Long applied for

patents for the manufacture of steel which had to be used in Howrah bridge. That composition was covered by a patent to Rendell Palmer who were consulting engineers to Government of India at that time. They said the steel required will be high tensile steel and this is the only steel to be used. We were faced with a problem like this. We said: Look here, we have a big work like the Tata Iron and Steel company and if these people are going to get a patent then we will not be able to supply an ounce of steel for the manufacture of the Howrah bridge which was at that time going to be the longest bridge in India. We opposed that patent—not only opposed that patent, but also Tatas started developing their own high-tensile steel. Before we were successful in throwing out that patent, we had developed our own high tensile steel which had better properties—at least as good properties as the steel developed by the British company. If Dorman Long had not come into the picture, Tatas would have gone on with the old type of steel and would not have thought about that. Since then they have been developing various processes in order to manufacture better quality of steel in a cheaper way.

After the war, things have improved in this country. Who can make inventions? It can be either by an individual or by collective efforts. The days of an individual as an inventor are gone. Technology has advanced to such an extent that individuals cannot be regarded as those who can give us good inventions. Individuals can be divided into two different categories. One is the ordinary individual and the other is an individual engaged, for example, in an industry, or in the Government. I am glad to inform the hon. Members that our Government officials for whom I have the highest regard have made some remarkable inventions which are being considered as good inventions throughout the world. I had the privilege of handling the well-known case of Mr. Suri and several other Railway officials because we help Government in these matters. Their inventions are considered to be of real practical value. You cannot say that patent system has not been responsible for stimulating inventions. As soon as we get opportunities and as soon as we know that Indian inventions can be used within the country, inventions are coming up. Our boys are very bright and clever. Slowly and slowly as the industries develop, things will come up. It is not the fault of the patent system. It was the fault of the Government. When I first went to Calcutta in 1930, letters came from all the people saying: Get us a good agency. Now there are no more agency systems. Everybody is interested in manufacturing. If industries develop, if there are more free enterprises, if there are less restrictions by the Government, if regulation Acts are removed, if more foreign exchange is available, if more raw materials become available and if more industries develop, there will be more competitions and more patents and more genius will develop. This is automatic.

Dr. M. S. Siddhu: Wait for the Dooms Day!

Shri L. S. Davar: Let us not.

The other is invention by collective efforts. The example is CSIR. The number of patents from the CSIR has increased considerably. They are being exploited. How can we say that the patent system has not performed its function? It is a complete misnomer. It is because our country is not industrially developed. As the development takes place, things will become better. Therefore, the object of the patent system should be to see that not only are the inventors encouraged, but also the industry is encouraged to take up inventions and risk their capital in those inventions rather than strangling them. I have made some cryptic remark in my memorandum. I could not help saying that if a man is foolish enough to go to the patent office, the patent office

puts a string round his neck to strangulate him. If he escapes, he is shot in the back. That is the exact feeling I have after reading this Bill. I am an Indian. I am sorry to say that the clauses which have been provided are most impractical, most unworkable even in the working of the patent office. The first duty of the Government should have been to see that the patent office works properly. What do the provisions say? They say that a patent will not be granted for seven years and eight years. The patent office can sit on it as long as it likes.

Shri D. P. Karmarkar: Can you cite a single case where the patent officer has taken seven or eight years to give the patent?

Shri L. S. Davar: The present Act provides that a patent must issue within a period of two years or within an extended period of 31 months. The present proposals do not make any provision as to the duration within which patent should be granted....

Shri D. P. Karmarkar: Can you give any instance where it has taken seven or eight years?

Shri L. S. Davar: The present Act provides that the patent must issue within a certain period. Does the Bill say that?

Shri D. P. Karmarkar: I see, it is a prophecy about the Bill.

Shri L. S. Davar: I will say something about the examination system. The examination system provides that search for novelty should be made on a world-wide basis. If that provision is implemented, what will happen? Although we have now got a staff...

Mr. Chairman: You have referred to staff in your memorandum and said that it should be increased ten times.

Shri L. S. Davar: That is a moderate estimate. It may be much more.

Mr. Chairman: You need not refer to that.

Shri L. S. Davar: I think I have finished what I have to say.

Dr. C. B. Singh: On the first page of your memorandum you have stated:

> "Further stimulation of inventions will obviously demand incentive which can only be achieved by strong patent protection and....

What do you mean by this expression 'strong patent protection'?

Shri L. S. Davar: I would define it in this way: Firstly, when you give protection to a person, do not give him the protection that the Government have the right to take away the right which has already been given to him.

Dr. C. B. Singh: How can that be? That cannot happen.

Shri L. S. Davar: That is what the Bill says.

Mr. Chairman: That is only under certain conditions which they have laid down.

Shri L. S. Davar: Under clause 48 Government have the right to use it at any time it likes.

Mr. Chairman: Yes, for public purposes.

Shri L. S. Davar: If it is for security purpose, yes, I am for it, but not for use by the Government.

Mr. Chairman: You want Government to pay compensation?

Shri L. S. Davar: Yes; otherwise, what will happen?

Mr. Chairman: Every Government has that right.

Shri L. S. Davar: Yes. But then pay compensation to the inventor.

Mr. Chairman: That we can understand.

Dr. C. B. Singh: The second point is about recognition of the inherent right of the inventors. According to you, how long this inherent right is to go on or will there be a fixed period?

Shri L. S. Davar: The period in various countries varies from 15 to 17 years or even 20 years. For example, in Australia, it is 16 years; in Austria it is 18 years; in Belgium it is 20 years. It takes about 2, 3 years before you get a patent. Then, you go to the man who looks into the possibility of exploiting it. He takes time in developing it; he is not going to work it out straightway. He takes time in marketing it. What is the inventor going to get all this time? Take, for example, the chemical field. The well-known medicine Thialamidine took 7 years before it came into the market.

Dr. M. M. S. Siddhu: Do you know that many more drugs like Chlortetracycline came into the market within one year?

Shri L. S. Davar: I am giving one example.

Dr. M. M. S. Siddhu: That is an exception.

Shri L. S. Davar: There are mechanical, electrical, electronic and hundred other types of inventions. In order to give a practical shape to a specification, it will take two, three years. Then the prototype which is made has to be tried and then put to commercial use and then exploitation. It will take 5, 7 years for the invention to come in the market.

Dr. C. B. Singh: The main complaint about the life saving drugs is, after being given the patent, it becomes very costly; it is not within the reach of common man. What steps are to be taken to bring the price down?

Shri L. S. Davar: That again, in my humble submission, is a misnomer. During the last three years no drug patent has been granted. Has the price of any drugs come down?

Dr. C. B. Singh: The prices of some have come down.

Shri L. S. Davar: On the other hand I will agree with you on this point. Another Conference in the month of October was held in Washington, which I attended. Then, I raised this very question which the honourable Member has raised now, when the Vice-President of an established firm was giving evidence. I said, 'my Government has raised this question; what answer can you give to that?' He evaded the answer before 1500 people present and he could not give a satisfactory answer. I said, 'if you can sell this product for Rs. 5,000 a kilo, have you gone and proved to the people who make the complaint that it costs you Rs. 4,000 a kilo and that your demand is not much. He replied, 'I am not here to answer your questions as to what is my cost price. This complaint is not only restricted to India; this is there all the world over. I have studied this problem. The people spend millions of rupees on research work on certain products which later prove a complete failure. They must recover their loss in some other items where they succeed. The price of sugar is high; the price of wheat is very high; the price of all other consumer goods is high. Why pick up only the poor medicine?

Dr. C. B. Singh: This is a very old argument that they spend so much money on research and sometimes they fail and they want to make up this loss elsewhere. I would like you to give some way out by which this can be minimised. Something has got to be done in this direction.

Shri L. S. Davar: Of course I will be giving you the commercial point. At the last meeting of the International Chamber of Commerce which took place here, the suggestion which I had given to the pharmaceutical manufacturers was this. I told them, 'out of every product that you sell for Rs. 100, 20 per cent or 25 per cent goes to the retailer and the wholesaler; 20 per cent goes on advertisement; out of 50 per cent perhaps 10 per cent or 20 per cent is your cost and the rest is your profit. I asked them, 'why don't you give all your products, whether covered by patents or not covered by

patents, to the Government for its hospitals under the generic names?

This is what happened in America. One store suddenly said that they will reduce the price of drugs to 25 per cent. He sold all the drugs under the generic name and not under the trade mark of a particular manufacturer; the prices came down. I told the drug manufacturers here also to adopt this policy. Don't give the profit to the retailer or to the wholesaler nor you spend any money on advertisement. I don't know whether they would do that.

Shri Dinen Bhattacharya: The Government is not the purchaser always.

Dr. C. B. Singh: Mr. Chairman, I would like you to consider whether this question of selling under generic names can somehow be brought in the Bill itself, so that the prices can be brought down.

Shri Sham Lal Saraf: Mr. Chairman, I would request you to call one member that side and another member from this side so that all of us get a chance to put our questions.

Shri Himmatsinhji: You suggest that the period of licence should be such that the cost can be recovered. Under Clause 53, in one case it is 14 years and in another 10 years. Do you think that is less?

Shri L. S. Davar: Very much less.

Shri Himmatsinhji: In almost all the countries generally the period allowed is 12 to 14 years.

Shri L. S. Davar: I have got a list before me. If the honourable Member wants to see it, I will pass it on.

Shri Bibhuti Mishra: The witness has made a long statement lasting more than one hour. He has spoken about all other countries of the world. India is also considered as a developed country now. He stated that the UK has made so much money by selling patents to France and *vise versa* I want to know how much we have earned as foreign exchange by selling our patents to other countries. During all these years we must also have developed some patents.

Shri L. S. Davar: Other countries...

Shri Bibhuti Mishra: I want to know in terms of money how many patents we have sold to other countries.

Mr. Chairman: How many patents we have sold to other countries and how much foreign exchange we have earned in that process?

Shri Bibhuti Mishra: When the witness knows so much about other countries, he must know something about our country also.

Shri L. S. Davar: I have already made my submission that since independence and since the Plan period, the quality of inventions and the number of inventions from within the country is increasing.

Mr. Chairman: He wants to know as to how many patents we have sold and how much foreign exchange we have earned as a result? If you have got the information then say so.

Shri L. S. Davar: I have no information on this except for a few patents of the railways which are being arranged to be exploited in other countries of the world.

Mr. Chairman: What is the foreign exchange that we have earned?

Shri L. S. Davar: I won't be able to give an answer to this.

Shri D. P. Karmarkar: You spoke about the international conferences. In that connection I want to put one question. Are you aware of the fact that in the international conferences ever since 1947 till 1965, there is a conflict between the developing and developed countries?

Shri L. S. Davar: We are aware of this.

Shri D. P. Karmarkar: Do you agree that what is being done is the best for our country?

Shri L. S. Davar: Yes, Sir.

Shri D. P. Karmarkar: The third question is this: Do you or do you not agree with the reasoning that under compulsory licensing, where a patentee is not having the capacity to produce and where he has not enough capital and know-how, when he applies for a licence, it is only after the Controller has satisfied himself that this can be issued?

Shri L. S. Davar: I think this needs explanation. I suppose I am not under cross examination to say 'Yes' or 'No'.

Shri D. P. Karmarkar: It is not a cross examination. I am a lawyer. I cannot cross examine a lawyer. But, what I want to know from you is this. There is a provision in the Bill similar to that for in the most industrially advanced countries that when the patent has not been put to the best advantage within a period of time, then it is open to any applicant who is fully comptent to produce that stuff from the point of view of know-how, capital and everything else to have a compulsory licence under such circumstances. Would you or would you not agree with this?

Shri L. S. Davar: I agree that the compulsory licences are good. In fact that will act as a threat to the other persons to come and give us the know-how. If we have provisions without having a compulsory licence, perhaps the Government might say that we shall take away the patent and we are going to make use of it.

Shri D. P. Karmarkar: The provision is there that the Controller should satisfy himself before issuing a compulsory licence. Otherwise this question would not arise.

Shri L. S. Davar: I know that provision is already there in our Act.

Shri D. P. Karmarkar: Are you aware that in most countries including England, there is a system of issuing of compulsory licence? Are you aware of the practice there to make arrangements with other licensees when a patentee is otherwise too idle to make the best advantage of his patent? Do you agree with that practice?

You know that the number of applicants for compulsory licensing is very few. This provision for a compulsory licence is good where a patentee has not exercised the best care to make use of his patent to bring his product into commercial use and things of that sort and where the applicant is competent to produce this patent. In those circumstances the existence of this provision by itself automatically induces him to manufacture this product. Otherwise he would remain idle. Are you agreeing with this?

Shri L. S. Davar: I agree to this extent that compulsory licensing is necessary.

Mr. Chairman: In spite of a few applicants is there any country which has thought fit to revoke that provision? Do you agree with this provision?

Shri L. S. Davar: I agree with this because the compulsory licensing may be useful in one invention but it may not be useful in another invention. As I have explained just now to the hon. Members, for an invention of some nature, compulsory licensing is very necessary.

Shri D. P. Karmarkar: I hope you will agree that in order to speed up the applications recording of patents registered should be kept uptodate?

Shri L. S. Davar: It is very necessary and I agree with this. The hon. Mem-

bers might be knowing that during the last four years or so, inspite of best efforts made, because of the shortage of staff, with the increase in the number of applications, indexing of the patents during the last four years has not been done. If I want to set up an industry, and wait to see what patent has been granted. I do not know as to why it has not been done.

Shri D. P. Karmarkar: We appreciate that.

Shri K. K. Warior: From what you say, I see that whereas the developing countries including India do not get the advantage whereas the developed countries take advantage of the Patent Law. Is that correct? You have inferred like that and that controversy is unsettled.

Shri L. S. Davar: That is the bone of contention that out of the Patent Laws, it is the developed countries which take advantage of that. For that reason, the laws relating to compulsory licences are introduced in the various countries. But how far it is true there are no statistics to prove. Nobody has yet been able to say definitely as to how much more relative advantage the developed countries have derived as compared to the developing countries by the Patent Laws.

Shri K. K. Warior: Our country has given patents to some of the foreign manufacturers where the manufacturing is not actually taking place here. How far have we stood in advantage or disadvantage in regard to that according to your knowledge?

Shri L. S. Davar: According to my knowledge, I would say the law should be so made that it should be conducive to the foreign patent-holder to come and work the invention within the country.

Shri K. K. Warior: Do you agree that the patent right should not be given to any foreigner if he does not intend to have the manufacturing also here?

Shri L. S. Davar: Whether you give the right to a foreigner or not, that point I might make it clear. In India there are only 5000-6000 patents granted at present every year. In other countries probably a million patents are being granted. We are free to use them. But can we use them? Have we used them? There were 3 million patents granted till 1961 in the USA while India had only one lakh patents and 2.9 million patents were available to us for use. Did we use them? Can we use them? No. It is the know-how which is important. As I have said, tender a small amount for the transfer and have the know-how. I can buy any patent copy for 2 shillings from England and use it here. Nobody can stop it. The value of the patent applies only to this country. Any patent granted anywhere in the world I am entitled to use so long as it is not patented here.

Shri K. K. Warior: Why should the foreigners come up for patents here as long as they are not prepared to give the know-how as well?

Shri L. S. Davar: It is for us to pay for the know-how. If the laws are stable; if we can give them the inducement to bring the know-how, then, of course, they will bring the patent and the know-how. And the man who invests money in this country will know by virtue of the patent that he has got a certain amount of protection for his investment in that particular industry.

Therefore, patents are very important for a psychological effect on the man who has the know-how, and the man who is paying in the money from this country. If somebody comes to me and says: "Look Mr. Davar: Can you put in Rs 5 million in this industry? I will say: 'All right. I will start my industry. Tomorrow another person comes and takes away my

workmen and sets up another industry of a similar nature. What protection have I got?'." Therefore, Patents Act has a protection for the man who invests money in that particular industry. That is the advantage of the patent system.

Shri K. K. Warior: Is it not also a fact that the larger interests of the community should be looked into when protection is given to individual concerns or manufacturers? In that case, what is the amount of protection? How that quantum of protection is determined? What are the criteria for that? Suppose the market is a very limited one, then there is necessity for more protection. Suppose the market is unlimited as in India. Then why should that amount of protection be given to manufacturers' work where they have scope for abnormal profit?

Shri L. S. Davar: The remedy is compulsory licensing system. I find the compulsory licensing system provides that even when somebody is working the invention, another person can ask for licence for the same invention within the country provided he is prepared to pay royalty for it.

Shri M. R. Shervani: The basic idea behind the Patent law in various countries was to import the inventions for exploitation within the country. If that is so, why should at all a patentee be granted the exclusive right to import a product at the cost of manufacture in India. According to the present law you just patent a product for setting up a plant here, but do not manufacture it within the country.

Shri L. S. Davar: That is not the only advantage of the Patent Law. There are other advantages with it, ramely, if there is an invention within the country, supposing that thing is imported and is covered by a patent, then I would be induced to manufacture it or invent a better type of thing. Take the case of Penicillin. Here is a commodity coming into the market. I will invent a better penicillin.

Shri M. R. Shervani: With the technical know-how you cannot produce it if you patent a process here and a product. Then you just do not start manufacturing it here; you only import. In that case, why should that protection be there?

Shri L. S. Davar: Again when I said that it depends upon the nature of the invention, if it is of a complex nature you cannot help it. Nobody can deny that if a man possesses a particular technical knowledge even in this country, you cannot force him to give it to you—whether he is a foreigner or a citizen of the country. Supposing you take away his patent, how are you going to benefit?

Shri M. R. Shervani: My point is: that patent should be there, but that patentee should not be given the exclusive right to import the product. Let him put up a manufacturing plant within the country.

Shri L. S. Davar: The other thing as I said: what are the advantages of the patent system. There is also an international basis upon which you have to go. To-day you do not give the rights to another country. To-morrow they will not give their rights to you.

Shri M. R. Shervani: That tomorrow is 50 years hence.

Shri L. S. Davar: It is not 50 years hence.

Shri M. R. Shervani: My second question is: we have said that collaboration and technical know-how is more important than the patent process. There are many patents all over the world. But you are not able to accept that technical know-how is not patentable. Therefore, we have to go for technical know-how, pay royalties pay lump sum payment to get the know-how although the particular process is not patented. What harm

will come to the industrial development if we do not have any patent law. Actually industrial development depends upon the technical know-how.

Shri L. S. Davar: Where is the safety to the man who is giving you the know-how or the man who is receiving the know-how? As I just now explained, what was the position in England and America during the war period? The know-how was not protected by any patent. The Americans could not work the patents. Know-how is important.

Shri Arjun Arora: So you think it is useless. Even if you know what is contained in the patent, you cannot work it and you have to pay for the know-how.

Shri M. R. Shervani: The point was that technical know-how is not patentable and there is no guarantee that it will not be misused by somebody else. Technical know-how is given on certain payment and royalty. This technical know-how is protected without being patentable. Why cannot the invention also be protected because the man who invented is the best man to know the thing.

Shri L. S. Davar: This is a two-way trade. A man sitting abroad has a patent and the know-how. The man sitting here wants the know-how as well as the patent. He gets the patent to safeguard himself. Would you set up an industry, pay a large amount for the know-how and see that within the matter of one year your know-how is stolen and worked by other people?

Shri M. R. Shervani: Has the expansion of a patented industry been more during the life of the patent or has it been more in the decade following the life of the patent?

Shri L. S. Davar: It generally starts in the middle of the life of the patent. Science is advancing at such a rapid rate that whatever was invented 10 years ago is useless to-day . . .

Shri M. R. Shervani: You have not answered my question. For instance, take any drug or any other mechanism. After the licence has been granted and the thing has been patented, people start putting up factories. My question is whether the expansion or production is great after the expiry of the patent or during the life of the patent.

Shri L. S. Davar: I think this question is related to various factors like the capacity of the man to commercialise the thing and manufacture the article on a large scale. Patent is not the only factory which is responsible. In any business whether there is patent or no patent, there are several factors which come into the picture. I think it would be very wrong on my part to give an answer that only patent is responsible for this and nothing else. There are various other factors. I shall give a very simple example. I remember in 1936 an elderly gentleman came to us and asked for a patent for a tiffin carrier. We thought the idea was silly as there were hundreds of carriers of this type. But we took the patent for him. Later on they were taken up by a gentleman in Poona and we were surprised to know, when an application for expansion was filed, that business for Rs. 1.20 crores had been done. How was it? I think it was entirely due to the efforts of the man who commercialised it.

Shri M. R. Shervani: You said that this patent business is two-way traffic. Before India can develop enough technical know-how and scientific knowledge to be able to have more inventions, it would be one-way traffic and harmful to the country. Even to-day it is one-way traffic. Should not our scientists be allowed to learn from the experience of others, practise it here and take it further on as in Japan?

Shri L. S. Davar: Barring two countries in the world—the United States

and Japan—in all other countries, the number of foreign applications is more than that of the local ones. Therefore, we cannot isolate ourselves and make laws for our own convenience. We have to move in the international field. Why are not other countries stopping the grant of patents? In England also, 60 per cent are foreign patents and in Holland, 80 per cent.

Shri Sham Lal Saraf: While deposing before the Committee, you said that some inventions may also be kept secret. Should it be made obligatory upon the inventor to get registered under the patent law?

Shri L. S. Davar: No, it is not obligatory. You can still work it secretly.

Shri Sham Lal Saraf: For the common good of the community, if a particular person or a unit is in possession of an invention which has got something novel in it and can be patented, why not make it obligatory under law on the person to get it registered under the patent Act?

Shri L. S. Davar: I think it is an inherent right of a person to disclose or not to disclose. There are hundreds of medical prescriptions which are passed on from one generation to another in this country. You can't force them to disclose.

Shri Sham Lal Saraf: With the social objectives of our Constitution in view, should it not be made obligatory on the individual to get it registered?

Shri L. S. Davar: I would put it this way. Instead of making it obligatory, which is not practical, it would be better if as in other countries, it is popularised more. Supposing in London, you ask a taxi man to take you to the Patent Office, he will immediately take you there; you need not tell him that it is in Chancery Lane. If you ask any man in America where the Patent Office is, he will say it is in Washington. But here I know of a case where a man went to America to ask where the Patent Office is. It has not been popularised in this country.

Shri Dinen Bhattacharya: Is he an American citizen?

Shri L. S. Davar: Unfortunately, he is very much an Indian.

Shri Sham Lal Saraf: The days of individual inventors are gone. It is only the organised units that can invent things. But with your permission, I may mention a particular case in this connection. A few months back, an engineer who was drawing a handsome salary, went for a further course of training in some foreign country. On coming back, he invented a contrivance which was covered under the Patents Act. He did not have adequate finance. He shared the know-how with a financier who invested money on this. Later on the person who invested came to know of everything about this know-how and squeezed him out of that whole concern and the entire benefit has been going to the financier. How do you protect such inventors who make such inventions and which are patented under the law?

Shri L. S. Davar: There are two ways: one is, as I advocated way back in 1937 before the Shanmugam Chetty Committee, that, as in England, you should be able to buy a patent application in any of the post offices. The patent system has not been popularised in this country. Regarding the second point, about the case which you mentioned, the five-man world committee, on which I happen to be a member, is discussing the question whether the technical know-how should also be protected or not. And if we come to the conclusion that it should be protected, of course we can only make recommendations to the various Governments.

Shri Sham Lal Saraf: What is your personal opinion?

Shri L. S. Davar: Nothing can be done. That is why I said the lot of the individual inventor is not good.

Shri Sham Lal Saraf: It is accepted that particularly in the case of underdeveloped countries unless the know-how is imported from fairly advanced countries, the backward countries cannot progress much. Till now, as some friends have put it, comparatively a lesser number of these inventions or know-how could be imported to this country. What is the reason for that, and could you suggest ways and means as to how it will be possible to get more—whether it is from the Russian bloc or the American bloc or from any other country?

Shri L. S. Davar: It is a very long subject, and if the hon. Member is interested I would like to send him a copy of the paper that I submitted to the World Patents Conference on this subject.

Shri Sham Lal Saraf: Sir, the Secretariat may note it.

I have one or two more questions. I am not taking the industrial or the research aspect; I want to ask something about the compulsory licence. When a person or a group or a unit that is less resourceful is in a position to invent something and get it registered and they are able to derive some benefit, a person or a unit or an organisation which is more influential and resourceful and which can command a better organisation can force a unit like that under this compulsory licence. What safeguards have you got for genuine people, with genuine patents, to work up to the time they are permitted to work?

Shri L. S. Davar: That is absolutely a matter of discretion for the Controller. He has fairly wide powers, and that is what I have suggested, that the appeal from the Controller's decision should lie to the High Court and we have the highest regard for our judiciary—in order to safeguard the interests of every individual.

Shri Sham Lal Saraf: Everybody has been hearing about corruption in certain Government ranks and otherwise also. From experience we have seen, the more the discretion and the more the discretionary powers you give, the more chances for corruption. Are you of the opinion that people in the hierarchy of these officers, whether it is the Controller or anybody, should be given more discretionary power or less? Do you think that is the answer to this?

Shri L. S. Davar: I would tell the hon. Member one thing with pride. Throughout the world there is no patent office, including India, which is corrupt. That is one thing.

Shri Sham Lal Saraf: That is not my contention.

Shri L. S. Davar: I can stand up and say, and I want to challenge anybody to deny, that our patent office or any patent office anywhere in the world is free from corruption.

Shri Sham Lal Saraf: I would respectfully submit, it is agreed on all hands, a number of committees on this have been set up....

Shri K. V. Venkatachalam: He says, take away the word 'discretion'.

Shri L. S. Davar: The discretion is exercised on certain judicial principles and according to the law which has been laid down in relation to the grant of compulsory licences. Of course, every officer has got discretion.

Shri Sham Lal Saraf: In the present law, on an appeal from the Controller you can go to the High Court. The Bill that is before us intends to take away that right of appeal to the High Court and leave it to the discretion of the Central Government. If the *status quo* is restored that an appeal should go only to the High Court and not to the Central Government, again, for the reason that it would be interference on the part of

the executive in interpreting our law and our Constitution, may I know what is your reaction to that?

Shri L. S. Davar: I have already made my recommendation that an appeal from the decision of the Controller should be to the High Court, because, after all, the Central Government is again an administrative body.

Shri Sham Lal Saraf: My friend has said that the Controller's organisation is not working to the satisfaction of the people at the moment, for the reason that it has less staff, the staff is not enough to deal with the work that is coming up before them. May I ask him whether he means to say that physically they are not able to handle all the work that is coming up before them, or the working of the organisation is such that it cannot satisfy or meet with what this law demands from them in order to satisfy industry and all those covered under the Patents law?

Shri L. S. Davar: Physically, for the simple reason that the number of applications have increased. While in other countries one examiner is doing 50 cases in a year, in India an examiner is expected to do 200 cases a year. And he cannot do justice to the job properly.

The second thing is, the other job which has to be done, namely indexing of patents so that industry should know what new inventions have come, what new ideas have come into the market, that job is equally important, but they cannot do it, because the staff is short.

Shri Sham Lal Saraf: Do you think that the time has come when the non patentable inventions or novel things that may come to light need to be codified? Because, we find from experience that there is a lot of confusion to determine what is a patent and what is not. Do you think it should be codified, so that you know what inventions can come and be subject to patent?

Shri L. S. Davar: I would respectfully submit, we should say what are inventions but we should not say what are not inventions.

Shri Sham Lal Saraf: Therefore, when you codify, I think that is perfectly legal, and that should answer your feeling as well, the feeling that you have expressed just now.

Shri L. S. Davar: But nowhere in the world has any court yet been able to decide what is an invention and what is not.

Shri Sham Lal Saraf: Cannot we do a novel thing ourselves?

Shri L. S. Davar: No, we can only codify according to our experience. Sciences are of such a complex nature and the results can be such that you cannot codify these things. What you may think to be an invention, I may not think to be so. We handle the cases of Indian people in many countries of the world. The law is the same everywhere. The Indian patents office grants patent for something, the German patents office grants, but America refuses, England grants, but Japan refuses. They say, in view of the art or in view of the combination of the art in this patent, in that patent or the other, no inventive skill has been exercised as to be worthy of the grant of a patent. It is purely a matter of interpretation, how our office interprets and how other countries interpret. Therefore it is very very difficult to codify. We may codify as to what is an invention, but we cannot codify what is not an invention.

Dr. L. M. Singhvi: You have cited the UN report. I would like to draw your attention to what India has to say in respect of patents on drugs and articles of food. This is from the statement made on behalf of India:

> "It is a fact that the price of the same drug varies considerably from country to country. The

question of public interest is involved in these cases."

In this connection, is it a fact that India has perhaps the highest scale of prices of drugs all over the world?

Shri L. S. Davar: I beg to differ on that point. India does not have the highest price or drugs.

Dr. L. M. Singhvi: Could you kindly give statement to substantiate your point of view?

Shri L. S. Davar: I have not got any figures off hand to present to hon. Members.

Dr. L. M. Singhvi: You can present it to us at a later date.

Shri L. S. Davar: A statement of the relative prices of drugs in various countires—I would be please to do that.

Dr. L. M. Singhvi: I have here several tables which go to show that the prices of drugs in India are anywhere between two to three times those prevailing in countries where they are manufatcured or in other countries. Here I would cite a Senate Report which says:

"India which does grant patents on drug products provides an interesting case example. The prices in India for broad spectrum antibiotics aureomycin and achromycin are among the highest in the world. As a matter of fact, in drugs generally, India ranks among the highest priced nations of the world and gives an inverse relationship between per capita income and the level of drug prices".

Shri L. S. Davar: There has a lot of controversy about drug patents unfortunately. Firstly, in spite of our sending questionnaire to the chemical manufacturers' association and to various organisations, we have not been able to find what is the percentage of drugs available in the country which are covered by patents. Is it one per cent or two per cent? Many people have the impression that milk of magnecia is covered by a patent. I am sorry to say it is not. We are talking of patents. What is the relationship of patents in regard to the prices of drugs. What is the percentage of drugs covered by patents? Is penicillin covered by a patent? No. The patent expired long ago. Why is the price high? There are other factors. Are we looking into those factors? Are we looking into the price structure of the manufacturers or the profit they are charging? Why give a dog a bad name in order to hang it?

Dr. L. M. Singhvi: I would appreciate if you can give figures to substantiate your contention, because there are figures made available to us. For example it has been reported to us that vitamin B-6 now manufactured by Merck-Sarabhai in this country is priced at Rs. 800 per kg. whereas the international price is Rs. 200 per kg.

Shri L. S. Davar: Is it covered by any patent?

Dr. L. M. Singhvi: That is what we would like to know—the part played by patents in India in this. Is it only a general phenomenon which is irrelevant so far as patents are concerned or is it because of patents coming into play?

Shri L. S. Davar: I would give the hon. Member some more information which appeared in *Fortune* two years ago only on this question, because this controversy is not only in this country; it is everywhere, even in America. As I have just now submitted, one of the proposals which I had made at the International Conference in February last year was: sell the products under a generic name and save the cost to government. This problem is there even in West Germany. Why are the prices of drugs high? I have known of the prices of three small tablets there—16 marks. Why so much?

I would give the hon. Member further information on the point he has raised.

Dr. L. M. Singhvi: The reply sent on behalf of India in the course of the UN study emphasises two factors particularly; one was the factor of the non-working of foreign patents and the other was the factor that patents were worked abroad wholly and not in this country, that is to say, patents were secured in this country merely to protect their export markets. What have you to say on these two factors?

Shri L. S. Davar: I would not make a general statement of this nature, nor would I agree with the statement of the Government unless statistics are produced. There are general causes, of what are known as abuses of the patent system which are known everywhere throughout the world.

Dr. L. M. Singhvi: Have you made any study of any such abuses being known in this country?

Shri L. S. Davar: I do not know any.

Dr. L. M. Singhvi: Would you say that most of the foreign patents which are secured in this country are not merely for the purpose of protecting export markets but also for developing indigenous production. If so, is this substantiated by actual experience.

Shri L. S. Davar: I want to give impetus to people who want to come and manufacture in this country. Give them tax relief, give them other facilities. They will come here. Why is it that in spite of the fact that India has been getting about a thousand million dollars from the aid-India consortium every year, the total foreign investment is 60 million dollars? Is it the fault of patents? No. It is the fault of our system. Have we given them certain reliefs? Have we given them certain impetus, inducement, to come and work in this country?

Shri Arjun Arora: You want the whole economic policy to be changed merely because you consider that the patent system is not responsible for this state of affairs.

Shri L. S. Davar: I am saying that patent is not the only factor. I am saying the other way. There are other factors.

Shri Arjun Arora: Because of the patents, they can make money from India sitting at home.

Dr. L. M. Singhvi: It would appear that you are pitting one generalisation against another. I would like to know whether you have any specific experience or study made in regard to these two factors, namely, utilisation of patents in this country and the fact that patents are used mainly for protecting their own export markets rather than for developing them indigenously.

Shri L. S. Davar: I would support my answer by one simple example, namely this: notifications requesting people to take licences for foreign patents are periodically issued by us in newspapers, and you would be surprised that nobody comes forward. Hundreds of them appear in the newspapers. Out of a hundred, there may be one solitary reply by a postcard 'Please send me particulars of this patent'—that is the end of the enquiry. This is the interest we are taking when a foreigner makes a public announcement, 'I prepared to give a licence to you if you want to manufacture in this country'. Nobody replies. Can you say that the foreigner is exploiting? No.

Dr. L. M. Singhvi: Would you say that this is on account of the fact that economic and technological conditions in this country are not sufficiently developed?

Shri L. S. Davar: No, as soon as more and more industrialisation takes place, within the country, things will be all right. That is my own view. If there is lack of industrialisation, how have things improved during the last ten years? Why are better class inventions coming from within the country itself? How are we producing more of the type of things which we want than the ordinary *chula* or hook or some such things we were producing in the prewar period?

Dr. L. M. Singhvi: I would like to know whether you would favour the system practised in South American countries as pointed out by you—Argentina, Chile, Columbia, Venezula and also Spain and Belgium, the system of patent import so that we do not grant patents broader than the patents available to the inventors in the country in which they are first and originally registered.

Shri L. S. Davar: That is one system of granting patents, and I would recommend that system to our government too.

Dr. L. M. Singhvi: Do you think it has some advantages?

Shri L. S. Davar: Great advantages.

Dr. L. M. Singhvi: What are the main advantages?

Shri L. S. Davar: At present, the novelty in regard to the patent is limited only to what is available within the country. Therefore, if a man in Chile or Argentina has a patent or has made an invention which he brought out 20 years ago, he can still come here and take protection for 17 years. But if we give him protection for the confirmation, he will get only protection for the unexpired term in his own country. If he took out a patent 10 years ago and only six years are left, he will get protection in this country only for six years. Therefore, it is of great advantage of our country.

Dr. L. M. Singhvi: You have suggested that a separate enactment should be brought forth for providing in respect of restrictive conditions and no provision should be made in respect of restrictive conditions in this enactment. What are your reasons for making this suggestion?

Shri L. S. Davar: My reasons are these: the business restrictive practices are not only related to patents; as hon. Members are aware, the report of the committee which considered all the business restrictive practices, covers various subjects on this topic, and patents can be included in that as a separate enactment.

Dr. L. M. Singhvi: In another part of your memorandum, you have said that any provision for such restrictive conditions would only generate a psychological fear and it should be avoided altogether.

Shri L. S. Davar: We are now talking on two different points: one is whether it should be there, and the other is, whether it should form part of this Bill or not. I repeat what I have said: it will cause psychological fear and it is only in highly industrialised countries where they have got anti-trust laws, for example, in Germany and America and the United Kingdom, and not in every country, and every country has not got an anti-trust law.

Dr. L. M. Singhvi: Would you like a provision for final appeal to the High Court in all instances or a restricted right of appeal as provided in the present Bill in respect of only certain provisions?

Shri L. S. Davar: In all cases, the right of appeal should lie to the High Courts. I will give you a very concrete example: at present, when a patent application is opposed, and the Controller gives a decision, an appeal lies to the Central Government. I want to know one case where the Central Government has reversed the decision. All that the Central Government says is contained in just one sterotyped reply,

consisting of one line: "The Central Government has no reason to change the decision of the Controller." That is the way in which the appeals are heard. Therefore, I submit that all appeals from the decision of the Controller should lie to the High Courts.

Dr. L. M. Singhvi: You have mentioned, while commenting on several clauses of the Bill, that the Bill seeks to vest very wide and untrammelled powers in the administration. Would you suggest any specific means for curtailing, regulating or reducing such discretionary powers?

Shri L. S. Davar: My submission is, if you ask me candidly, there is nothing wrong with the present Act, except that if there is any particular provision which has to be changed and some people have to be satisfied, modify those provisions. No industry wants it and there has been no demand from the country, as far as I know, for a wholesale revision of the existing Act.

Dr. L. M. Singhvi: Would you say that, in spite of the fact that two committees, one being an informal committee and another being the committee, headed by Justice Ayyangar, who came to the conclusion that the present patent law has failed to fulfil the functions in the interests of the country?

Shri L. S. Davar: For the hon. Member's information, I may point out that the second committee was not a committee; it was a one man's report; evidence from the industry must be taken, evidence of the people who are interested. I would ask if Justice Ayyangar ever did it.

Dr. L. M. Singhvi: I would like to draw your attention to the opening portion of the report which says that such evidence was taken, that the persons whose interests were involved were consulted.

Shri L. S. Davar: It is one thing to issue a questionnaire and it is another thing to take evidence, as the Joint Committee of Parliament is now taking. When an enquiry committee meets, it is one thing; but when a single person makes a recommendation, it is entirely different.

Dr. L. M. Singhvi: I would like to know whether you are in agreement with the report made by BIRPI, the international organisation, and with the model law which has been evolved by that organisation, and would you say that this legislation will fulfil the needs of our national economy or do you think various departures would have to be made from the model law evolved by BIRPI?

Shri L. S. Davar: Pardon me if I say that I have to answer that question at another conference and so I would not like to disclose here as to what my reaction to the BIRPI proposals is, but if the hon. Members want to know it individually, I would say it, but I would not like to disclose it openly, as to what my personal views on it are.

Dr. L. M. Singhvi: For the time being your answers are confidential. The evidence is confidential until it is placed on the Table of the House or is made public. I would not like to press you to answer anything like that, but it is an important question and we are in the course of evidence going to consider the relevancy and the adequacy of the model laws evolved by BIRPI.

Shri L. S. Davar: If this part of the evidence is not published, I am prepared to answer it.

Dr. L. M. Singhvi: That is for the Chairman to decide.

Mr. Chairman: The answer to this question will not be published; you can answer it.

Shri L. S. Davar: ***.

Dr. L. M. Singhvi: You have made a detailed reference to the examination of patents and you have indicated that the present system of examination in India cannot possibly meet the accidents which would be created or which are contemplated in the present Bill. Would you suggest any measures to make our examination system more adequate and more efficient?

Shri L. S. Davar: Yes, Sir. I have made a suggestion that so long as we are not highly developed, we should stick to the present system of examination that is a novelty in the country and no novelty from without the country. We should look into the literature available within the country in respect of any invention rather than look for literature throughout the world.

Dr. L. M. Singhvi: Would you suggest that we should set up a central institute within the country, say, a central international institute, as has been suggested in some quarters?

Shri L. S. Davar: The International Institute is at the Hauge, and in view of the fact that there are great resources in the western countries, they are taking advantage of the institute, but I am sure our Government would not like to spend so much money in foreign exchange in going to that institute. If the system is maintained as it is,—the system of examination as it is in the present Act and not in the proposed Bill—then the staff of examiners can manage to do the work properly if the staff is further supplemented by a few more officers, rather than going into the wider novelty question as has been proposed in the Bill.

Dr. L. M. Singhvi: Would you suggest that the period of 10 years is highly inadequate or just not quite adequate?

Shri L. S. Davar: I would say highly inadequate, more so because of the present provisions of the Bill which does not say how long it will take for the patent office to issue a patent. It may take them 7 or 8 years.

Dr. L. M. Singhvi: What in your views is a reasonable period?

Shri L. S. Davar: Before 1930, it used to be 14 years. Then it was increased to 16 years. Before the patent is granted and before the invention can see the commercial working of it or find a party who can work it, four or five years are normally lost out of the term of the patent.

Dr. L. M. Singhvi: What would you say if we make the period run from the time the patent is granted?

Shri L. S. Davar: I have said 14 years from the time the patent is granted.

Shri Kashi Ram Gupta: Do you think the present Act is much better than the proposed Bill?

Shri L. S. Davar: In my humble opinion, yes.

Shri Kashi Ram Gupta: Do you say the present Act does not need any amendments?

Shri L. S. Davar: It would require amendments of a very minor nature.

Shri Kashi Ram Gupta: What are they?

Shri L. S. Davar: I think it will be a pretty long job to enumerate them now.

***Omitted at the request of the witness.

Shri Kashi Ram Gupta: Out of 169 clauses in the Bill, you have suggested amendments only for certain clauses; Does it mean the other clauses are acceptable to you?

Shri L. S. Davar: In my opinion, the law for a developing country should be made as simple as possible. Unfortunately I have yet to see a masterpiece of obscurity as you find in this particular Bill. It has taken me 10 readings before I could understand what it implies. Either I am foolish or my 35 years of experience have all gone to waste.

Shri Kashi Ram Gupta: In your opinion, the present Act does not need any change at present?

Shri L. S. Davar: Not till we come to a certain stage of industrialisation should we modify our law.

Shri Kashi Ram Gupta: For what period should we wait for the amendment?

Shri L. S. Davar: So long as our plan periods go on, we should not touch the Bill.

Shri Kashi Ram Gupta: That means for an indefinite period.

Shri L. S. Davar: I think it will not go on indefinitely.

Shri Kashi Ram Gupta: Government propose to have the plan for the next 30 or 40 years.

On the one side you say great changes are going on and a thing which is good now may not be good after 10 years. Still you say the patent must be not below 10 or 15 years. This is a contradiction.

Shri L. S. Davar: There are two types of patents, of a simple nature and of a complex nature. The technology is moving very fast as far as complex nature of inventions are concerned. 10 years ago, the speed of the aeroplane was 300 miles. Now it is 500 miles. In another 5 years it may be 1000 miles. But changes are not so swift in other fields. We must take the overall picture.

Shri Kashi Ram Gupta: Do you think for simple things, a lesser period may be prescribed?

Shri L. S. Davar: It is very difficult to confine it like that. Nowhere else in the world it has been done. It is not practical to do it.

Shri Kashi Ram Gupta: You say the time of individuals is gone and this is the time for collective working. Then why should you insist on a period of more than 10 years?

Shri L. S. Davar: These two are not inter-related. I say the period should be more because it takes sometime before that piece of paper takes a practical shape.

Shri Kashi Ram Gupta: If a limit is put on the time taken by government and if the clause is so amended that the time will start from the date on which the patent is granted, do you think 10 years should be sufficient?

Shri L. S. Davar: In my paper I have said that we want 16 years, but if you want to reduce it to 14 years, give it from the date of granting the patent.

Shri Kashi Ram Gupta: You say, in Russia there are two sorts of patents—authorship certificates and patents. You say that here also patents can be held by the individual?

Shri L. S. Davar: Yes.

Shri Kashi Ram Gupta: The individual here is nowhere except where he works in the government laboratories. How can an individual working in government laboratories get the sole patent for his invention?

Shri L. S. Davar: Patents are generally taken out in Russia by foreigners. But authorship certificates are taken out by Russian nationals.

Shri Kashi Ram Gupta: You said there is not much relationship between patents and prices. But members feel that this is a very big factor. How will you be able to differentiate between the two, whether the high prices are due to patents or other factors? What percentage of it is due to patents and what percentage due to other factors?

Shri L. S. Davar: Let us see what was the price of Milk of Magnesia 10 years ago and what is its price today. Let us also see what was the price of another antibiotic ten years ago and what it is today. If you see any difference in the relationship of prices, you can say the prices are higher in respect of patented articles.

Shri Kashi Ram Gupta: We have received a memorandum from Messrs. Remfry and sons who are also Attorneys. You are also an Attorney. They have tried to deal with each and every clause of this Bill, but you have given comments only about certain clauses. It means that so far as the other provisions of the Bill are concerned, you are agreeable to them.

Shri L. S. Davar: They are harmless.

Shri Kashi Ram Gupta: In other words, only this is harmful.

Shri L. S. Davar: I did not want to waste your time by referring to provisions which are harmless.

Shri Bade: Is it a fact that 90 per cent of the patents in the field of drugs and medicians in our country is held by foreigners?

Shri L. S. Davar: I think it is the fault of Indian inventors.

Shri Bade: Is it a fact? All those who have submitted their memorandum are against section 87 which provides that certain patents shall be deemed to be endorsed with the words "Licences of right". If it is a fact that the licences are held by the foreigners, why should you object to this section? Because, our nationals will be benefied by this provision.

Shri L. S. Davar: I agree with you on that point. But I think hon. Members will realise one thing. When we talk of medicines we are playing with human lives. Would you like to take a medicine which is being sold on the street corners? You may know that it is the same generic product but you would not buy it. If my child is not well, I would not care what I pay but I will buy a product which I know has been manufactured by reliable and reputable persons, a product which has gone through many tests.

Shri Bade: But we do not want to be exploited by the foreigners.

Shri L. S. Davar: I agree with you hundred per cent when you say that we do not want foreigners to exploit us. Let us take the know-how of the foreigners. When a man is prossessing something you must induce him to give it to you.

Shri Bade: So, if the compulsory licence of patents is accompanied by know-how then you have no objection for section 87?

Shri L. S. Davar: Here again you cannot force a person to give the know-how. He will say "here is the patent, you can do whatever you want". It may be that 90 per cent of the patents in this country are held by the foreigners but let us see how many patents are there. Here we have 2,000 as against 20,000 patents granted in America and Germany. Why can't I pay a few rupees and get some of these patents? I can, but I know that I cannot make the drug as effective and as good as the person who has the

know-how and has developed the drug.

Shri Bade: In countries like Israel and Turkey they are imitating Belgium in this respect.

Shri L. S. Davar: The point is that each country is trying to have perfect drug patents but nobody has yet been able to find out what the real solution is. Everywhere people think prices are high. But what are we going to do about it? Even America says the prices are high. So also Germany and England. Recently, there was a case in a High Court in England about the right of the Government to make use of an invention in the interests of the public. For some time when they imported drugs from Italy, they found they were sub-standard drugs.

Dr. M. M. S. Siddhu: Italian drugs are not sub-standard. You should be factual when you refer to these things.

Shri L. S. Davar: I will put it in a different way. Are you going to be sure that a drug manufactured by any person is as good as the drug manufactured by the person who has invented it?

Dr. M. M. S. Siddhu: Sir Alexander Fleming discovered penicillin and gave it to the world. Since then penicillin is made all the world over. Is it being suggested that the Penicillin now being manufactured in various countries is different from the one invented by Sir Fleming?

Shri L. S. Davar: May I tell you one thing. I will show you a remark by Sir Fleming where he said the greatest folly which he did in his life was not to patent his drug. I have got that in writing.

Shri Bade: Section 35 refers to secrecy directions relating to inventions relevant for defence purposes. The same provision is there in the model law for developing countries. I hope you have no objection to that provision.

Shri L. S. Davar: None whatsoever when it is for the defence of the country.

Shri Bade: Not only for defence but for health also.

Shri L. S. Davar: Health is a very wide term. If my teeth are bad I can say that my health is bad. We must say something specific. Let us not generalise things.

Shri Bade: Since 90 per cent of the patents are held by the foreigners and none by our people it is being suggested that the patent law should be abolished and there should be no patents as long as there are no reciprocal arrangements. What have you to say in the matter?

Shri L. S. Davar: I would simply say this. All right, let us abolish it. But what are we going to gain? As against 1,500 or 2,000 patents of drugs which are taken out in India, there are 15,000 patents for similar drugs in America. Am I not right?

Shri Bade: The only point is that there should be no monopoly.

Shri L. S. Davar: I am coming to that. Those 15,000 patents which have been taken in America are free for us to use. I do not have to pay any royalty. But why is it that we are not using them again, because we will have to have the know-how. As I said, 3 million patents were granted till 1951 in America as against 1 lakh in India. These 29 lakh patents are available to us free, without any royalty. All that we have to pay is 50 cents for the patent specification. You can take it from anywhere in the world and use it; nobody is going to stop you from doing it. There is no monopoly. Patent is applicable only to that country; nowhere else. An American patent is applicable only in America. If it is not patented here, I can copy it, anybody can copy it.

Shri Bade: I will now come to the provisions of the Bill. We are exploited by the foreigners in the field of medicine. We have seen so many booklets about the difference between the international price and Indian price of medicine. So, we have to do something to put a stop to this exploitation. Now, regarding the compulsory licence, should it be given by the Controller or by the court?

Shri L. S. Davar: Court procedure becomes too expensive and too lengthy. In France what they have done is that they have appointed a committee of medical experts which goes into this question. I have suggested that we might adopt that practice, as is done in France, that a committee of medical experts be appointed by the Ministry of Health of the Government of India to go into the question whether the licence for drugs should be given or not.

Shri Bade: This again will be a lengthy procedure.

Shri L. S. Davar: These are alternative procedures.

Shri Bade: You have said that you cannot define "invention" while this Bill tries to define "invention" Some suggestions have been made that it should be "new" or "useful". What is your opinion about this?

Shri L. S. Davar: I would say that the addition of the word "useful" is good. Whether it is there or it is not there, if the invention is not useful, it is of no use to the public and nobody is going to bother about it. But my objection is: define what is an invention if you can, although the courts have not yet been able to give a proper definition, but do not say what is not an invention. That is the only submission I have made in my memorandum.

Shri Bade: If it is an invention, it is new; if it is old, it is not an invention. So, what is your view about the word "new"?

Mr. Chairman: New is new. We will adjourn here now and continue the examination of Shri Davar tomorrow at 14.00 hours.

(The witness then withdrew).

The Committee then adjourned.

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Friday, the 28th January, 1966 at 14.00 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

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2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
5. Shri Panna Lal Barupal.
6. Shri Dinen Bhattacharya.
7. Shri Bibhuti Mishra.
8. Shri P. C. Borooah.
9. Sardar Daljit Singh.
10. Shri Basanta Kumar Das.
11. Shri V. B. Gandhi.
12. Shri H. K. V. Gowdh.
13. Shri Kashi Ram Gupta.
14. Shri Prabhu Dayal Himmatsingka.
15. Shri Madhavrao Laxmanrao Jadhav.
16. Shri Mathew Maniyangadan.
17. Shri M. R. Masani.
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20. Shrimati Sharda Mukerjee.
21. Shri P. S. Naskar.
22. Shri Chhotubhai M. Patel.
23. Shri Naval Prabhakar.
24. Shri R. Ramanathan Chettiar.
25. Shri Sham Lal Saraf.
26. Shri A. T. Sarma.
27. Dr. C. B. Singh.
28. Dr. L. M. Singhvi.
29. Shri P. Venkatasubbaiah.
30. Shri K. K. Warior.
31. Shri Balkrishna Wasnik.
32. Shri Ram Sewak Yadav.

Rajya Sabha

33. Shri Arjun Arora.
34. Shri Babubhai M. Chinai.
35. Shri Vimalkumar M. Chordia.
36. Shri D. P. Karmarkar.
37. Shri B. T. Kulkarni.
38. Shri P. K. Kumaran.
39. Shri Shyamnandan Mishra.
40. Shri Dahyabhai V. Patel.
41. Shri Mulka Govinda Reddy.
42. Shri M. R. Shervani.
43. Dr. M. M. S. Siddhu.
44. Shri Dalpat Singh.
45. Shri R. P. Sinha.
46. Shri T. N. Singh.

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks, Trade Marks Registry, Bombay.*
3. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*
4. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. L. S. Davar & Co., *Patent & Trade Mark Attorneys, Calcutta.*

Shri L. S. Davar.

II. Remfry & Son, *Patent & Trade Mark Attorneys, Calcutta.*

1. Mr. Harold Holloway.
2. Mr. Desh Pal Ahuja.
3. Mr. Baldev Chaturbhuj Ojha.

I. L. S. Davar & Co., Patent and Trade Mark Attorneys, Calcutta.

Spokesman:

Shri L. S. Davar.

(The Witness was called in and he took his seat

श्री चौरड़िया : दावर साहब, यह जो आपने मेमोरेंडम दिया उसमें आपने बताया कि प्रोसेस पेटेंटिंग करने से इन्वेन्शंस में भी दिक्कत होगी और कई तरह के रिमार्क्स दिये तो मैं जानना चाहूंगा कि जिन देशों में प्रोसेस पेटेंटिंग होती है जैसे जर्मनी, स्विट्जरलैंड वगैरह में वहां इन्वेन्शंस जब ठीक तरह से हो रहे हैं तो अपने यहां इन्वेन्शंस क्यों नहीं हो सकेंगे ?

Shri L. S. Davar: The reply to that is that, so long as the product covered by that particular process is patented or is given protection, there should be no objection at all. I do not recommend that the product as such should be given protection, but the product according to that particular process should be given protection, so that others can also find out alternative processes for manufacturing a similar product. That is exactly what is happening in other countries where they have only the process and not the product *per se*. It is only in America that the product *per se* is covered by a patent, but in many other countries it is the product covered by that particular process which is patented and my submission is that that should be the law in this country.

श्री चौरड़िया : यह जो आप बता रहे हैं कि कुछ मामलों में प्रोडक्ट को पेटेंट किया जाय और कुछ मामलों में प्रोसेस को पेटेंट किया जाय तो ठीक रहेगा . . . .

श्री एल० एस० दावर : यह तो मैंने नहीं कहा ।

श्री चौरड़िया : तो जब मिक्स्ड है, हो सकता है, प्रोसेस भी कहीं पेटेंट होता है, कहीं प्रोडक्ट पेटेंट होता है, और कुछ कमोडिटीज ऐसी हो सकती हैं जिसमें केवल प्रोडक्ट को पेटेंट करवाना पसन्द करते हैं, तो वैसी सूरत में आप क्या सजेस्ट करते हैं ?

Shri L. S. Davar: For example, in the case of alloys which relates to the metallic industry, generally it is the composition and the end product which are covered by the patent. In such cases, it is preferable to give protection for the end product and not only for the process. It all depends upon each individual case—what type of invention it is—but the general principle which should be followed is that the end product should be covered only in respect of the process which has been developed for producing that end product.

श्री चौरड़िया : आपने यह बताया मेमोरेंडम में कि पेटेंट की अवधि दस या चौदह साल की जो है यह बहुत कम पड़ती है इन्वेन्टर्स के हिसाब से और हमारे ख्याल से उपभोक्ता के हिसाब से बहुत ज्यादा है, तो दोनों का इन्टरेस्ट सेफगार्ड हो सके उस दृष्टि से कुछ इसका क्लासिफिकेशन करते हुए आप बता सकेंगे कि कौन सा प्रोडक्ट किस प्रकार कब तक के लिये पेटेंट किया जाय ?

Shri L. S. Davar: The law has to be uniform in all cases, but as I made my submission yesterday to the hon. members, it takes some time before what is written on the paper takes a practical shape. It is for this reason that I have suggested that the term of the patent should not be reduced.

श्री चौरड़िया : हमारे सामने ऐसे भी उदाहरण हैं कि जो चीज आज आठ आने में मिलती है वह किसी जमाने में 14 रु० में मिलती थी और उसकी प्राइस कम तभी हुई जब उसके पेटेंट की अविधि समाप्त होने के बाद वह चीज मार्केट में आयी तो ऐसी स्थिति में ज्यादा समय रखा जाता है तो

उपभोक्ता को उसमें कठिनाई पड़ेगी तो इसके बारे में कुछ सेफगार्ड और हो सके, कन्ज्यूमर का भी इन्टरेस्ट सेफगार्ड हो सके, इसके लिये कोई सजेशन आपका है ?

Shri L. S. Davar: But the hon. member has to see this: we must also benefit by the experience of other countries. After all, each country makes laws for its own benefit. If we take guidance from other countries—and that is what we have done—from the experience of highly industrialised countries or the countries which went through the same stage of development as we are now going through, they have found that the period of sixteen or seventeen years is the right period within which an invention can properly be put into a practical shape. It is very difficult to say for a particular invention the term should be so much and for another the term should be less. There should be one uniform law in regard to all inventions and we must follow the practice, what is being done in seventy or eighty other countries.

श्री चोरडिया : आपने यह बताया कि एग्जामिनेशन की व्यवस्था जो रखी गई है उसके आप पक्ष में नहीं हैं और कारण आपने बताया कि पेटेंट आफिस डिले होता है और इससे दिक्कत होती है तो अगर इस कठिनाई को दूर कर दिया जाय टेक्निकल स्टाफ बढ़ाकर या किसी तरह से तब आपको एग्जामिनेशन व्यवस्था से कोई विरोध न होगा ? यही एक विरोध का कारण आपका है या कोई और विरोध इससे आपको है ?

You say that the examination should not be there.

Mr. Chairman: He never said that. He said the staff has to be increased. He said it may take seven years, so increase the staff. That is what he wants.

Shri Bade: Does he want that as soon as the application is filed it should be accepted without examination?

Mr. Chairman: He wants examination, but he says that can be done only by increasing the staff. I do not think there is any point in that.

Shri Vimalkumar M. Chordia: On page 8 of their memorandum it is said:

> "The present draft Bill in India proposes examination system similar to that which exists in other developed countries. If that is adopted, the strength of technical staff will have to be increased five times. Such staff is not available. Even with the present system which is less stringent than proposed, the staff is not enough to cope with the work. The Patent Office has since the last four years been neglecting its primary duty of indexing patents so that under present conditions any one cannot make a search in the Patent Office to ascertain if a certain invention has been patented during the last 4|5 years."

यह जो इन्होंने कहा उसके ऊपर से यह इन्फरेंस ड्रा होताहै कि he is not in favour of examination.

Mr. Chairman: Is that your opinion?

Shri L. S. Davar: No, Sir, I am in favour of examination.

I think this is a purely technical matter which the hon. Member may like to know and if you permit me I can give an explanation as to what is the practice and what I want to be done.

The practice at present is that when an application is filed, the application is accompanied by a technical document, what we call the specification. It is referred to the examiner and there is a certain provision, namely section 5 of the existing Act, under which the examiner makes a search or makes his report with regard to the application which has been filed.

What does the examiner do at present, or what is he expected to do? According to the present Act the examiner, in order to find out whether the invention is novel or not, what part of it is novel, makes a search through the records of the prior Indian patents which are lying in the Indian patents office or such publications which are available within the country. That is the practice in India. In some countries, for example, Germany or the United States, the practice is that they search through the literature of the whole world. They have got the facility to make it; we have not got it. We have not got such big libraries, nor have we got patent specifications of all the 110 countries in the world who have got their patents system.

According to the proposed Bill it says the novelty examination shall be extended to novelty anywhere in the world, which in my humble submission is impossible with the present staff, and although I have said that the staff will have to be increased by five times, it may perhaps by twenty times.

श्री चौरड़िया : आपने इसमें टाइम लिमिट के बारे में बताया है कि पहले टाइम लिमिट थी कि पेटेंट इतने दिन के अन्दर हो जाय और जब वह इसमें से हटा रहे हैं, तो आप क्या सुझाव देना चाहेंगे कि कितना टाइम लिमिट इसमें रखा जाना चाहिए ताकि पेटेंट के लिए अप्लाई करने वाले को दिक्कत न हो और कंट्रोलर भी उसको कर सके ?

Shri L. S. Davar: At present a patent must be accepted within a period of eighteen months or an extended period of twenty-one months, and the patent must issue within a period of two years, or thirty-one months including the extended period. In the proposed Bill there is no provision that the patent must issue within a specified time. And my submission is, if you do not do that, then the patent office can sit over it for several years. And they may have to sit for several years if they have to look into the novelty of the inventions in relation to what is available throughout the world. It may take twenty years before the patent is granted. And therefore I have suggested that the present system of the search for novelty should remain as it is and that a time-limit should be specified within which the patent must issue. Every inventor is like a child. Let us take the case of an individual inventor. He is very keen, firstly whether he is going to get a patent or not. If he is to hang on for five, six or seven years, he loses interest.

Mr. Chairman: You have not given any example where it has taken five or seven years.

Shri L. S. Davar: Now it cannot take.

Mr. Chairman: You mean, you expect it would take seven years.

Shri L. S. Davar: At the present moment the patent must issue within thirty-one months latest. But there is no provision in the Bill before us that the patent must issue within a specified period.

श्री चौरड़िया : पेटट करवाने के लिए जितना टाइम लिमिट आप रखना चाहते हैं, आपने जो पेटेंट रजिस्टर्ड करवाये उनके आधार पर क्या आप बता सकते हैं कि इन-इन चीजों के लिये इतनी-इतनी अवधि तय कर दी जानी चाहिये जिससे कि अप्लीकेंट को भी कठिनाई न हो और पेटेंट आफिस भी उसको आसानी से कर सके और काम जल्दी हो सके?

Shri L. S. Davar: This is again a related matter in relation to examination. If you ask the patent examiner to make a search through all the records available in the world, then it is impossible to lay down the time-limit, because he has neither the facilities, nor the time, nor the means to

do it. And therefore these two things are inter-related. If we stick to the present system, then we may say, instead of two years, or thirty-one months, the patent must issue within the maximum period of three years and not more.

Shri R. Ramanathan Chettiar: Since the time at our disposal is limited and there are many Members who would like to put questions, it is better if the questions are restricted to two in number. Otherwise the time must be extended.

Mr. Chairman: I shall leave it to the good sense of the Members.

श्री अचल सिंह : जो मेमोरेंडम्स हम को प्राप्त हुए हैं उनमें से कुछ ने भारत जैसे देश में पेटेंट्स ऐक्ट की अनावश्यकता बताई है तो इसमें आपकी क्या राय है ?

श्री एल० एस० दाबर : राय के मैं बरखिलाफ़ नहीं हूं लेकिन पेटेंट्स एक्ट तो होना ही चाहिये ।

श्री अचल सिंह : भारत एक गरीब देश है तो इस बिल में क्या-क्या सुधार किये जायं ताकि दवाओं के दाम, इंजैक्शनों के दाम चोकि बहुत ज्यादा हैं वे सस्ते दामों पर जनता को सुलभ हो सकें ?

श्री एल० एस० दाबर : यह कमर्शिल मैटर है । गवर्नमेंट के पास बहुत ताक़त है कि प्राइस कंट्रोल कर सके पेटेंट माल की । मैंने कल भी अर्ज किया था कि एक मामूली चीज़ है और सब दवाएं पेटेंट में नहीं आतीं । यूनानी दवाओं में कोई पेटेंट नहीं हैं लेकिन उनके दाम ज्यादा हैं वह बातें तब प्राइस स्ट्रक्चर की होती हैं वह इतना पेटेंट से रिलेशन नहीं रखतीं ताकि आप यह कह सकें कि खाली पेटेंट की ही वजह से दवाओं के दाम बढ़ते हैं ?

श्री अचल सिंह : जो दवाएं पेटेंट हैं उनको वही बना सकते हैं, वही कीमत निर्धारित कर सकते हैं अगर आम लोग बनायें तो वे सस्ती मिल सकती हैं ।

श्री एल० एस० दाबर : बनाने का तरीका भी तो चाहिए । लाइसेंस फ़ी अगर कोई पे कर के बनाये तो वह लाइसेंस एक्ट में प्रोवाइड किया हुआ है जो बनाना चाहे आवे भी पुराने एक्ट में यह था कि पेटेंट होने के बाद कोई टाइम लिमिट नहीं थी । कोई भी आदमी जो बनाना चाहे और कहे कि मैं यह दवाएं बना सकता हूं और सस्ती बेच सकता हूं मुझें लाइसेंस मिल जाना चाहिए तो वह मिल सकता था लेकिन अफसोस की बात यह है कि दस-पन्द्रह साल से खाली 3–4 आदमियों ने लाइसेंस की अर्जी दी है तो इसका क्या मतलब निकलता है मेरी तो समझ में नहीं आता । मेरी राय तो यह है कि हर एक चीज़ के लिए कुछ न कुछ एक तरीक़ा होता है बनाने का । आप चूर्ण भी बनायें तो भी एक तरीक़े से बनाया जाता है । एक कुक खाना बनाता है वही दूसरा कुक अच्छा खाना बनाता है ।

The same rule applies as far as medicine or any other commodity is concerned.

Shri R. P. Sinha: The witness has been pleading for a longer period of patent rights. I would like to seek this clarification from him: what is the motive in asking for a longer period? Is it because the company concerned may not get adequate return on the investment? Here is a Reserve Bank Bulletin which made a study of the investments and profit earned by the pharmaceutical and other chemical industries. From this it is clear that these companies make adequate profits in a very short period. I find that the average for 1961 to 1962-63 of gross profits as a percentage of the total capital employed works out to 17.7 per cent....

Mr. Chairman: The time is very limited. The hon. member may ask his question.

Shri R. P. Sinha: We have to make up our mind on the question.

Mr. Chairman: Yes; he may proceed.

Shri R. P. Sinha: In the pharmaceutical industries the profit was 22.9 per cent; in the basic industrial chemicals it was 20.5 per cent; in the other chemicals it was 10.8 per cent; and the average of all the three works out to 17.7 per cent. That was the return on capital invested—gross profit. What does it mean? If a man invests Rs. 100, in ten years' time he will get Rs. 170 by way of return on the capital invested. When we take into account the foreign participation and not the indigenous capital, we find that the total capital employed by the foreign participants was Rs. 14.87 crores and the dividend remitted was Rs. 204 lakhs, *i.e.* about Rs. 2 crores.

Mr. Chairman: What is the hon. member's question? The witness knows all these details.

Shri R. P. Sinha: But the Members may not know.

Mr. Chairman: The Members also have been supplied with these: The hon. member may now ask his question.

Shri R. P. Sinha: One more point and I would finish with that. The remittances on royalty and technical service on all these investments were Rs. 5.28 crores.

Shri L. S. Davar: In how many years?

Shri R. P. Sinha: For the period, 1961 to 1962-63, *i.e.*, in one year, on an investment of Rs. 14 crores, they took about Rs. 2.04 crores by way of dividend remitted. During 1956—63, they took away Rs. 5.28 crores by way of remittances on royalty and technical services. All these show that they get adequate return in ten years' time. You have been pleading that the patentee will not be able to get adequate return on the capital invested. If you have got some figures to contradict my statement, we would like to have them. The pharmaceutical industry gets a profit of 22.9 per cent.

Shri L. S. Davar: My first observation to that will be: how is that related to patent?

In any pharmaceutical industry, as I said yesterday, it is perhaps 2 per cent of the products which are covered by patents. Milk of magnesia is not covered by a patent and there re hundreds of products which are not covered by patents.

Shri R. P. Sinha: Whether it is covered by patent or not, the return is the same.

Shri L. S. Davar: If the return is higher, surely the Government have powers to reduce the profit. But that has nothing to do with patents.

Shri R. P. Sinha: Why do you want 14 years?

Shri L. S. Davar: Experience throughout the world has shown that this is the minimum adequate period within which an invention can be given a practical shape. Are we going against the experience of 70 or 80 countries?

Shri R. P. Sinha: Can you give us the figures of other countries to show that they have not been able to get adequate return on the capital invested in ten years?

Shri L. S. Davar: I am sorry I was not prepared for this question as to what have been the returns in other countries, but I have some figures and if the hon. members want, I can supply them.

Shri R. P. Sinha: The return on investment is higher in a developing country than in a developed country.

Mr. Chairman: We can have this information from the Government.

Shri R. P. Sinha: You want fourteen years. We are prepared to concede fourteen years if you give us facts and figures to show that the return will not be adequate if it is less than ten years.

Mr. Chairman: The Government spokesman will explain to you.

Shri R. P. Sinha: I leave it to the witness. If he wants to say something he may do so.

Shri L. S. Davar: I have already made my submission that it is not because of the profits earned during a particular period; it is the development of an invention which according to the experience of other countries takes a certain period of time before the thing can be put into a patent.

Shri R. P. Sinha: Every country makes its own patent law to suit the genius or the interests of the country.

Shri L. S. Davar: Correct.

Shri R. P. Sinha: We are now enacting our law for the benefit of our own country. We are anxious to have the flow of information and know-how from other countries. If you can give us figures to prove that for less than fourteen years there will not be adequate return, we shall consider it. But our experience in the country shows that you can get back your capital in less than ten years.

Shri L. S. Davar: That is in respect of those pharmaceutical preparations which have already been developed and are in the process of manufacture. Patents only relate to a new product or process. When we talk of any normal pharmaceutical preparation the process has been developed. No time is spent in developing from the very beginning. When you talk of patents you have to develop from the initial stages, give it to the guinea pigs and give it to human beings, and it takes some time before you can say that it can be safely taken by human beings. The hon. Member will agree with me that no pharmaceutical preparation of a drastic nature can be just doled out to human beings unless it has gone through proper tests.

Shri R. P. Sinha: I will put only one more question as other Members are waiting. We have found from the report of the Haffkine Institute that the patent system in India has strangulated the growth of the pharmaceutical industry and the drug industry in this country. And they have given instances of their own experience that in the case of cholera and plague drugs the foreign patent holders did not permit the processes to be developed and the products to be marketed here for seven or eight years and they carried on litigation in order to stop the processes from being used. They have given figures to show that what they could manufacture in India for Rs. 20 they had to import at Rs. 259. I am talking of the plague medicine—I do not recollect the technical name. You say that the patent system should be so devised that it should help the growth of the drug and the pharmaceutical industry in the country. That is what we are trying to do. But in your submissions and in your memorandum you have been saying that this will rather retard the growth of this industry. What have you to say to that?

Shri L. S. Davar: To what year does that report of the Haffkine Institute relate?

Shri R. P. Sinha: It is the latest report.

Dr. M. M. S. Siddhu: That was started in 1939, that medicine.

Shri L. S. Davar: May I submit to the hon. Member that in 1952 or 1953 the Indian Patents Act was amended by the introduction of section 23 CC which says:

> "Without prejudice to the foregoing provisions"—

this relates to food or medicine—"where a patent is in force in respect of a substance capable of being used as food etc., the Controller shall on application"—no time limit is provided, the moment a patent is granted anybody could go and ask for licence—"the Controller shall on application made to him by any person interested, order the grant to the applicant of a licence under the patent on such terms as he thinks fit."

I am surprised why in spite of this provision the Haffkine Institute . . .

Shri D. P. Karmarkar: What happened in 1939.

Shri L. S. Davar: In 1953 the Act was amended. But in spite of the amendment of the Act it is rather unfortunate that very few people have come forward for this licence.

Dr. M. M. S. Siddhu: When by the order of the Madras High Court sulphathyocol was allowed to be imported, the price came down to nearly one-fourth the cost.

श्री ब्रज बिहारी मेहरोत्रा : आपने कहा कि पेटेंट की मियाद हर चीज के लिए एक ही होनी चाहिए तो एक चीज तो वह है जिसमें आदमी साधारण बुद्धि लगा कर बना लेता है और उसे पेटेंट कर देता है जैसा कि आपने टिफिन कैरियर्स का जिक्र किया था और एक वह चीज भी हो सकती है जिसमें कि वह आदमी वर्षों खोज करता है और तब उसके बाद कोई चीज का इन्वेन्शन करता है तो दोनों को एक ही मात्रा में समय देना यह कहां तक मुनासिब होगा ?

श्री एल० ए० दावार : उसको तो देखेंगे कि किस को कितना समय देना चाहिए, अमुक को कितना समय देना चाहिए और दूसरे को कितना समय देना चाहिए । उस में तो और ही ढंग लगाया जायगा ।

And where is the proof that the man has taken such a long time in inventing an article? All that proof will have to be submitted. Let us go by our past experience. Nobody has said that "I should be given more protection". But apart from that I am glad the hon. Member raised this question. In the present Act there is a provision that if a man has not made sufficient profits commensurate with the nature of the invention and the time and money spent in developing the invention, he can go to Government and ask for an extra provision of five years and in extreme cases ten years. Unfortunately, Sir, that provision has been deleted in the present Bill. I have to recommend that provision should not be deleted. That meets exactly the point that we have raised now.

Dr. M. M. S. Siddhu: I would like Mr. Davar to recall that he said that the imports of streptomycin were sub-standard. I would like him to see what has been stated in reply to a question in the Parliament in U.K. The Minister said that arrangements were made for inspection of overseas factories and samples of each batch were taken on importation and tested by the Government chemist for compliance with the British Pharmacopoeia requirements before issue to hospitals. Regarding the view that non-patented country's products are substandard, I would like to know what you have to say in this regard.

Shri L. S. Davar: My observations which were made yesterday were based upon what I heard only about 3 months back from people in the phamaceutical industry, who were representing England at a particular conference. I have no citation to place before the hon. Members. I have no reason to disbelieve what the hon. Member is saying, but I am only quoting what I heard about 3 months ago.

Dr. M. M. S. Siddhu: I would tell one instance. Alexander Fleming was taken round the United States. He was asked by the head of the firm which had become the largest manufacturer of penicillin in the world why he had not insisted on the rights and rewards which would enable him to live in the manner fit for so great a benefactor of mankind. 'I have never thought of it'—Fleming replied. Fleming was actually held in greater esteem because of his lack of commercial acumen.

Shri L. S. Davar: Not just now but at a later stage if the hon. Member so desires, I will place before you the evidence given in the Keafuour Committee in America and what were the observations of Fleming himself and

what were the observations also of the other people who were working along with Mr. Fleming after he went from England to the U.S.A.

Dr. M. M. S. Siddhu: The Reserve Bank, in its bulletin has observed: "Lumpsum royalty is treated as technical fee, while a so-called technical fee linked to output or sales is considered as a royalty". What is the effect of this observation? The question of royalty payment, when it is linked with the technical fee, becomes in such a way, a bigger thing than the mere royalty. What he has to say about the observations of the Reserve Bank?

Shri L. S. Davar: The Reserve Bank figure did not indicate separately how much was paid as royalty for the patent and how much was paid as royalty for the know-how. I have the figure, not just now here, but I have the figure with me and I don't think I will be wrong in saying that that figure is very very much less than the figure I quoted yesterday. As far as royalty payments on patents made during 1958—62 is concerned, I have the figures of the Reserve Bank with me, but not here just now. I can send it on to you.

Dr. M. M. S. Siddhu: The recent cases did not relate to pre-1951 period, but they relate to post-1951 period. Even if the Indian manufacturer were to work for no loss will it not be correct for right of licence to be given for the drugs?

Mr. Chairman: It is a matter for the committee to decide.

Dr. M. M. S. Siddhu: When I quote cases which are post-1951, that makes the difference in the answer.

Shri L. S. Davar: I have only to repeat my observations which I made before that after 1952, there was provision in the Act that anybody can ask for the licence. If people have not done it, it is entirely their fault and not the fault of the system, nor of the patent Act.

Mr. Chairman: Are you satisfied with his answer? It is for the committee to decide. It is for you to decide.

Dr. M. M. S. Siddhu: Is it a fact that the products of the patentee countries are imported in our country at very high price. Is it a fact that the products are patented, not the processes?

Shri L. S. Davar: Even according to the existing practice, it is the product made by a particular process. Supposing product 'A' is covered by patent in India, the protection is limited only in as much as the scope of the process is concerned. If anybody else or any other country can find out alternative process, he is entitled to get a patent for the same.

Dr. M. M. S. Siddhu: Production-cum-process is patented.

Mr. Chairman: It is to be interpreted by us.

Dr. M. M. S. Siddhu: He would like process to be patented?

Mr. Chairman: He says his view.

Dr. M. M. S. Siddhu: Would he like the process to be patented alone?

Mr. Chairman: Is there any answer?

Shri L. S. Davar: Product should be patented or covered by a patent only to the extent of the process by which that product is made and not product *per se* which is the position in America. In America you get patent for product *per se*, but here you don't get that protection.

Dr. M. M. S. Siddhu: Will the industry ask for still higher return over 20 per cent, while the 6 per cent which they spend on research is already covered? Certain pharmaceutical industries spend not more than 6 per cent and the return, after all the expenses, is 20 to 25 per cent.

Shri L. S. Davar: As I have already said, everything which the pharmaceutical industry does is not covered by this; and the Government have got

sufficient power with them to control the price structure of the various commodities.

Dr. M. M. S. Siddhu: A surgeon, after a good deal of research, finds out a new method of surgery. As a physician cures with his medicine, this surgeon cures by this newly invented method. Will the hon. witness like the surgeon to get his method of operation patented?

Shri L. S. Davar: In that case every housewife who can cook a better meal can get a better patent.

Shri Peter Alvares: You have stated in your memorandum that an importer should be recognised as an inventor more or less and given the same rights. In the absence of any corresponding provision for the compulsory working of patent in India, don't you think that these two, when combined, would deprive the country of any benefit of any invention?

Shri L. S. Davar: With due apology, I think the hon. Member has not appreciated the particular provisions of the Act. When we talk of an importer, he is an importer not of a commodity. He is an importer of an invention. You go abroad and visit various countries to see various processes. You see how various articles are manufactured. Then you decide that something is good for our country. You bring it to this country and start working it. Are you not entitled to get a patent?

I can give you an example. In 1934 we used to import bangles from Czeckoslovakia at a price of Rs. 2.50 per gross. One Mr. Mehta went to Japan and found out the process by which lustre bangles could be manufactured. He found out what the process was, came back to India and started working that process in his own factory. The result was that the price of those bangles came down to Rs. 1.25 per gross. Would he not be antitled to get protection for his wonderful choice of finding out some thing which will save foreign exchange and bring a new industry to the country? This is what I meant by importation of an invention.

An hon. Member: That is importing the know-how.

Shri L. S. Davar: Along with that you are importing know-how also. This is something which is beneficial for the country. We should continue that practice for a few years to come. As far as compulsory licensing is concerned, that provision is already there.

Shri Peter Alvares: In view of the fact that in the international field today developed nations are paying attention to the needs of the developing countries, is it not in the interest of India or any underdeveloped country for that matter to insist that the product should be worked out in India?

Shri L. S. Davar: I entirely agree with the hon. Member. There are two types of people who have got patents—one is the local people and the other foreigners.

Shri Peter Alvares: What I said applies to foreigners.

Shri L. S. Davar: When we talk of a foreigner, if you give him enough inducement to come and work in this country, why would he not do it? I can give you an example. Mexico which is a developing country is offering considerable advantages to the investors there is other countries and money is being spent in developing industries, by the developed countries, in Mexico. If we give enough empetus to the foreigners, they will come and do it.

Shri Dinen Bhattacharya: Yesterday you were telling us that patent is nothing today; what is important is technical know-how. Why then you are so much interested in opposing this Amendment Bill?

Shri L. S. Davar: This will take a long time to answer. In one sentence I can explain it in this way that the Patent acts as a legal vehicle for the transfer of technology. It gives a good

psychological feeling to a person who has got the know-how.

Shri P. S. Naskar: It is not an individual as you seem to say, but a company who gets the patent.

Shri Dinen Bhattacharya: You have said that the price has nothing to do with the patent. May I draw your attention to the furore created in our country about the import of librium which was sold at the rate of Rs. 5,000 a kg. Then, suddenly, a small firm of Delhi imported the same material from an Italian firm. That cost was Rs. 300 a kg. How did it happen? Has it got anything to do with the existing patent law which requires immediate amendment so as to remove these difficulties?

Shri L. S. Davar: The story of librium has travelled throughout the world. You cannot make a law on the basis of a particular instance. You must look into the overall picture. I have myself asked questions about librium. I have asked those people: Have you gone and explained to the Government why you are charging such high price? You cannot make a law on the basis of a particular instance. That is my answer.

Shri Dinen Bhattacharya: Is it not a fact that before the First World War, in America chemical industries were totally and fully dominated by German companies? America continued to get patent rights and built up their own chemical industries issuing licences to the American firms. Is it not time for India to follow the same example in respect of so many things which are still being imported by the monopolists from foreign countries?

Shri L. S. Davar: We did that during the War. All the patents belonging to Japan and Germany, the enemy countries, were being given freely to anybody who wanted.

Shri Dinen Bhattacharya: That was the starting point of the chemical industry in the USA. From that time it started developing.

Shri L. S. Davar: I think that again will need a long reply.

Mr. Chairman: Then, it is not necessary.

Shrimati Sharda Mukerjee: In your memorandum you have referred to Clauses 87 and 88 regarding the 'Licences of right' in respect of food and drugs and you have said that these two clauses in your opinion should be deleted because they will be a disincentive to foreign drug companies to come and work their patents here. You have also mentioned that where the process is very complicated then the provision of such a section in the Act will not in fact benefit the country because of lack of technological base or industrial base. I would like to know whether you would have any suggestions whereby instead of deleting these clauses the intention of these clauses can be safeguarded. Even Justice Iyengar has mentioned that Licences of Right should be included in view of the fact that in future there will be industrial development in this country and that we should not thereby block this possibility. Would you have any suggestions to make?

Shri L. S. Davar: I would suggest that just as in the U. K. the patentee should have the right to say, 'mark this as Licence of Right' and not the Government.

Shrimati Sharda Mukerjee: You, know that these drug companies are very powerful organisations. You have Rs. 6 crores; even then you cannot compete with the drug manufacturers of the USA and the U. K. So a small man will not be able to compete with them. What you suggest will provide blanket protection. Would you still say that the practice in England should be adopted in India?

Shri L. S. Davar: I think this is purely an economic question in the sense that, if there is a powerful group what will happen to others. There are so many powerful groups in this country or in any country for that matter. When we talk of laws, we should not

discriminate one person from another. Government have acted strongly in countries like America. You probably know what happened to Dupont. They were going to take over General Motors. The Government came into the picture under the powers of Anti-Trust Law and said that they cannot control so many companies. We are also proposing now to have Anti-Trust Laws. The Government have got enough measures to prevent the domination of powerful groups.

Shrimati Sharda Mukerjee: These groups are outside our country. How can we control them? Therefore, in this Bill it is proposed that there should be protection for all the newcomers. You are objecting to that by saying that Clauses 87 and 88 are to be deleted.

Shri L. S. Davar: As I submitted, you cannot fix royalty straightaway for every product.

Shrimati Sharda Mukerjee: Only with regard to food and drugs.

Shri L. S. Davar: There are drugs and drugs. You cannot say that for all the cloth sold in India there should be a particular profit or so much should be royalty. Each case must be considered on its merit If there is more benefit to the community by a particular product, that should get more royalty. If there is less benefit to the community by a particular product, then that should get less royalty. I think that every businessman sets a balance when he is making a contract with the man who is giving the know-how or patent and the man who is receiving the benefit from it. I can tell you that all the businessmen are not fools. They will not pay much if they are not going to benefit much.

Shri M. R. Masani: I want to ask only one question to draw some more information out of the witness. The impression that has been given is that there is one way traffic between the rest of the world and India and that India is at the receiving end of a raw deal. Can you, from your experience, tell us if this impression is correct? In our country also the trend towards inventiveness in the people is growing. Indians also have abundant inventive genius to make inventions just like people in more advanced countries. To what extent do you feel that this inventive trend has increased in our country an what benefits have we derived out of that?

Shri P. S. Naskar: In which field?

Shri M. R. Masani: In all fields.

Shri L. S. Davar: I don't bother about the quantity of inventions although the quantity is also increasing. The quality of our inventions is increasing to a very very large extent. Let us take, for example, the pharmaceutical industry. I cannot disclose the name unfortunately. But one of our American clients has paid probably 200,000 dollars for buying a process from this country because they felt that it was so good. I drafted the agreement for them. So we cannot say that there is no genius in this country and my submission is that we should encourage them in order to develop it further rather than strangle them.

Shri P. S. Naskar: Is that product not being sold at a very high cost?

Shri L. S. Davar: It has not yet started working. If the honourable Member is interested to know, that company is operating in this country.

Shri R. Ramanathan Chettiar: There is the following note in the Reserve Bank of India which has made a survey of the pharmaceutical industry on page 1389 of November 1964 issue.

> Although the burden of foreign collaboration is perhaps most readily apparent in the form of payments for patents, knowhow and other ancillary services, the real effect of such collaboration has also to be evaluated in terms of the contribution of the transmitted technology and management

practices to the development of a particular industry and the long-run contribution that it makes to decreasing the country's dependence on imports and increasing its exports.

Do you find any trend towards this objective?

Shri L. S. Davar: I think it is a very sensible statement.

Shri R. Ramanathan Chettiar: Are these people to whom we have given the licence taking steps to meeting the desire expressed here?

Shri L. S. Davar: If overall conditions for foreign investment is improved in this country, you can see that a number of industrialists will come and invest in this country.

Shri R. Ramanathan Chettiar: It is one-way traffic now.

Shri L. S. Davar: When we reach a particular stage of development, then we are going to give the know-how to the other countries. That is the proposal which I had made to the United Nations. Look, we want knowhow from the developed countries and we are prepared to give knowhow that we develop because we are industrially better developed than many other countries; we can synthesize our genius with the knowhow of the foreign cauntry and the process which we will develop will be more applicable to developing countries than the processes which have been developed by highly developed countries. Therefore, I said, 'you give us an opportunity to take the know-how from highly advanced countires and we will synthesize that with our practices and knowledge; we will develop our own processes which will be more applicable to other developing countries.' For instance, in America they would manufacture one million pieces of this microphone. We do not need one million of these microphones. To manufacture one million microphones they will adopt a particular process. But we may need only 10,000 and we shall adopt another process. Therefore, we shall take their process, and see how it can be applied to the technical conditions of this country, and the moment we have developed that, we are prepared to give it to other countries, and I can assure you that other countries are looking forward to receiving the technical know-how from our country. That is what I gather from my contacts with people in the other international fields.

Shri R. Ramanathan Chettiar: How would you like the idea of the system prevalent in Switzerland to be adopted here? That system is that the patents are only for the process and not for the products. In Switzerland the drugs are free from being patented.

Shri L. S. Davar: We must consider the conditions of each country. In my opinion what is good for our country is that we should give protection, as I have said before, for the product covered by that particular process, which as I said, each country must consider according to its circumstances; each country must consider the laws according to its own convenience; what is good for us, in my opinion, should be the practice.

Shri R. Ramanathan Chettiar: Take the question of baby food. At present, is not the manufacture of baby food the monopoly of only three firms? Is that monopoly not being perpetuated, if these patent rights were to continue like this?

Shri L. S. Davar: I do not know how baby food comes into the picture, because I have not seen a process for baby food being patented so far.

Shri R. Ramanathan Chettiar: It is hampering the development of our indigenous industry.

Shri L. S. Davar. So long as the clauses for compulsory licensing are there, any abuse of the patent system is very well covered by these clauses.

Shri R. Ramanathan Chettiar: Yesterday, in the course of your remarks, you had made an astonishing statement that startled some of us here,

when you said that the present Act was enough and there was no need for this Bill.....

Shri L. S. Davar: It is enough; I would repeat that statement.

Shri R. Ramanathan Chettiar: I am really surprised at this statement, and I believe some of my colleagues were also surprised when you made that statement. The present Act was based on the pattern of UK in 1911, that is, about fifty-five years ago. In the context of the fast changing economic development of our country and the other under-developed countries, *vis-a-vis* the developed countries, I am really surprised that you should think on those lines, even though you are an experienced person in this line.

Shri L. S. Davar: May I submit that this Act has been amended several times? Prior to one particular year which I cannot mention just now, we had a provision for revocation of a patent if it was not being worked in India. That clause was amended and we have now got the compulsory licence system. The Act was amended to provide for compulsory licence for food and medicine. As the requirements are coming up, we are entitled to amend our Act. But all that I am against is the wholesale revision of the law which no industry, as far as my information goes, has asked for.

Shri R. Ramanathan Chettiar: But in the same breath you also said that we should move with the times. So, do you not think that we should also streamline our legislation to suit the changing needs.

Shri L. S. Davar: The point is that if the legislation is such that it suits the requirements of the country at the present moment, then we should not disturb it. I have said already that during the Plan periods, when we want foreign investment and we want the local technological experience to develop and so on, we should not disturb the law; the law should remain as it is so that the foreigners as well as the local people can develop their industries in a proper manner.

Shri R. Ramanathan Chettiar: Even though it be of a reactionary nature? After all, we have adopted democratic socialism and we shall have to base our laws within the four corners of the policy of our country.

Shri L. S. Davar: Yes, but my submission is that our present law is much stricter than other laws; our present Bill is completely different from what appears in the socialistic countries.

Shri R. Ramanathan Chettiar: It is in consonance with the policy.

Shri L. S. Davar: No; it is not so in socialistic countries. In Russia you are entitled to get a patent and the Government will not allow importation from another source in violation of the rights of the patentholder.

Shri R. Ramanathan Chettiar: While answering a question of a colleague of mine earlier, you said that you were not quite sure whether an industry could come to fruition within a period of ten years, and you, therefore, wanted a longer period. But from the figures of investment and the return thereon, you will find that on an investment of Rs. 14 crores, a return of Rs. 7 crores was there; in 1962-63 the people concerned got a return of Rs. 2 crores by way of remittances of dividends, and Rs. 5 crores by way of royalties, which means a return of nearly 50 per cent. I do not think that in any other country, the pharmaceutical industry gives a return of 50 per cent. This is due to the patent laws being so elastic in our country.

Shri L. S. Davar: No, I do not agree with the hon. Member.

Shri R. Ramanathan Chettiar: I think Shri P. S. Naskar will bear me out on this point.

Shri L. S. Davar: I am sorry to repeat that when we talk of a royalty of Rs. 5 crores, we are talking of things which have already been developed, and when I say that the period

of protection should be extended, I am taking into consideration the period for the development of the inventions into a practical shape. Surely, it is not the pharmaceutical industry only but perhaps there are several industries which give so much profit, but considering that they do make profit, you must see that you have got the accumulated know-how of people who have worked perhaps for five years before or ten years before and who have come and given you the know-how now, and who are making profits now.

Shri R. Ramanathan Chettiar: But does it not tend to a monopolistic pattern?

Shri L. S. Davar: Again, unfortunately, I would submit when you talk of monopolistic pattern, that we have got other provisions of law in order to overcome that.

Shri R. Ramanathan Chettiar: Even the Monopolies Inquiry Commission has referred to that.

Shri L. S. Davar: Even under the present Act there is monopoly but I would say that the monopoly is mostly in the technical know-how; in so far as patents ore concerned, the existing provisions are sufficient to break that monopoly completely.

Shri R. Ramanathan Chettiar: Therefore, we should tighten the law now.

Shri L. S. Davar: How much more can we tighten the law? The more you tighten the law, the less the people will be inclined to give you the know-how.

Shri R. Ramanathan Chettiar: Should the period not be made less than ten years?

Shri L. S. Davar: No; I am afraid it is going to hit back the Indian industry itself.

Shri Balkrishna Wasnik: Does the witness agree that there is misuse of patents which this Bill is trying to prohibit? Supposing this Bill is not passed, then what method would he suggest to prohibit this kind of misuse?

Shri L. S. Davar: There has been no misuse. If there has been any abuse, the provisions are already there and if the people are not enlightened enough to take advantage of the provisions it is not the fault of the Act.

Shri A. T. Sarma: May I know whether you are supporting this Bill or opposing it? After going through your memorandum I was under the impression that you are opposed to this Bill, but yesterday you supported the Bill. I want to know whether you stick to what you have stated in your memorandum or you are sticking to the oral evidence that you gave yesterday?

Shri L. S. Davar: I do not think there is any conflict between the submissions I made yesterday and the statement I have given in writing.

Shri A. T. Sarma: The Government has stated that the existing Act has not achieved its purpose. You say there is an improvement in the quality of the patents though the number is less. It is an ambiguous term. What is the improvement in quality? You have stated in the memorandum that in certain cases the rights of the patentees have been curtailed. You have listed many objections. But yesterday you said that the licensing system is necessary, whereas in your statement you say that it has totally proved a failure in the advanced countries. You now say that the existing Bill provides a better procedure of examination and it has been done on the model of advanced countries. Again, you threaten that if the proposals are implemented then the expenditure will go up five times and you ask whether the Government is prepared to bear such a huge expenditure. From the grounds stated by you it seems you are opposed to the Bill. Do you agree with that?

Mr. Chairman: Take it by what it is. He stands by his statement and also his oral evidence.

Shri P. K. Kumaran: Mr. Davar, you are very clearly in favour of the continuance of the present Act and not in favour of the proposed Bill. The main difference between the present Act and the proposed Bill is that as far as drugs and other things are concerned the process is going to be patented and not the product. You seem to think that the process cannot be separated from the product. If the present Bill becomes an Act and the processes are only patented, what do you think will be the impact of such a patent system on the manufacture and sale of drugs and other things in India.

Shri L. S. Davar: I do not agree with the first observation which the hon. Member has made, that I am absolutely against the Bill or the only improvement or the only amendment in the Act is in relation to drugs. It is a wholesale revision of the present Act, and I have in my memorandum detailed only such criticism of such clauses which have a certain impact either on the existing industry and development of further industries or on the inventor, and I think it would take a long time if I go through all those things again. My memorandum is already in the hands of Hon. Members. With regard to the point about the process and the product, the answer is very simple. If you give protection for the product covered by a process, then it will give impetus or inducement to others to find out alternative processes. I have already elaborated that point.

Shri P. C. Borooah: In regard to the terms of existing patents it seems you are opposed to the entire concept of reduction irrespective of the merits of each case on the ground that it would be unconstitutional and it will violate the existing agreements. What will be your opinion if it is done in the case of an emergency in the country?

Shri L. S. Davar: In the case of emergency it is all right. We are not in any state of emergency. This law is being made for posterity. When once the Government has given a right, why should it take away that right? Many people have made agreements on the basis of those rights and made investments on the basis of those rights. The legislature should not take away those rights merely by passing a law.

Shri P. C. Borooah: If it is done in the public interest, for the purpose of defence or....

Shri L. S. Davar: Under the Defence of India Rules you can do anything, but do not make that as part of the statute.

Shri B. K. Das: Shri Davar is of the opinion that 4 per cent maximum royalty is insufficient. May we have an idea as to what according to him should be the maximum royalty?

Shri L. S. Davar: It all depends upon each individual case. I have given an example where in one particular instance our Government allowed 15 per cent royalty on a non-exclusive basis because the art was such that even if we paid 15 per cent royalty we were benefiting by it. Each case depends upon its own merit. Therefore, as I said, royalty should not be fixed, it should depend upon the benefit that a person or an industry is deriving from the patent or know-how.

Shri B. K. Das: Do you mean to say that the Central Government should judge that maximum limit?

Shri L. S. Davar: Of course, all agreements are screened by the Government because it involves payment of foreign exchange. They have the right to refuse any agreement being executed if they find that the royalty is too much. Why should the Act lay down the limit?

Shri Babubhai M. Chinai: May I know from the witness whether he subscribes to the view that there should be a good flexible patent law under which industries can develop just like Japan which even today is paying nearly 100 millidn dollars by way of royalties to other countries but it is set off against the increased trade and its cost of production by making use of the know-how which has been given by others, even though they had to pay very high patent charges? Is it possible that under these circumstances you would advocate that this country should also adopt a little less restricted patent law so that they will be able to take advantage of it since this country is also under-developed and requires more know-how than many other under-developed countries? If so, does he subscribe to this view also that in the ultimate analysis even though you pay more royalties you are actually benefited by way of your export trade increasing by leaps and bounds?

Shri L. S. Davar: I entirely endorse the view of the hon. Member. That is why I quoted the example of Japan which has paid 300 million dollars as royalties within the period of five years and is benefited to a great extent.

Shri P. S. Naskar: You said that you are in favour of the patent of the process and not the product.

Shri L. S. Davar: Yes, not the product *per se*. It should be made clear in the clause that the patent is for the product made according to the process.

Shri P. S. Naskar: The clause says:

> "....no patent shall be granted in respect of claims for the substances themselves, but claims for the methods or processes of manufacture shall be patentable."

Shri L. S. Davar: What about the product made by that process? The process of manufacture of penicillin consists of this, this and this. Then the final claim will be penicillin manufactured by the processes aforesaid. So long as protection is given to that process....

Shri P. S. Naskar: Kindly read clause 47(1)(b) which says:

> "Where a patent is for a process of manufacturing an article or substance, the exclusive right by himself, his agents or licensees to use or exercise the process in India and of using or selling in India articles or substances made by such process and of authorising others so to do."

Shri L. S. Davar: I have read that clause. The wording of clause 8 should be made clear to make it in conformity with clause 47. On the one hand, you do not clearly say that the product made according to the processes will be given protection. On the other hand, in clause 47 you say about substances manufactured by the process. Therefore, clause 8 should be amended in order to make it specific that the product made by that particular process will be given protection.

Shri P. S. Naskar: Do you agree with me when I say that there should be one process for one product and not a multiplication of processes?

Shri L. S. Davar: I am afraid, it is not a practical way of thinking. I will tell you something from my own experience. Let us take an ordinary composition which results in a particular product. Let us take a refractory material which consists of a particular composition—alumina 5 to 10 per cent, chromium oxide 2 to 3 per cent and so on. When we talk of one process, according to the existing law or according to the modified Bill, it is always one process which is covered. But there is a general process in which there is variation.

Shri P. S. Naskar: Drug is a composition of intermediates. Each

intermediate will have its own process. Do you think that all these individual processes should be allowed to be patented or only the final process should be allowed to be patented?

Shri L. S. Davar: It depends upon particular inventions. One could not generalise. I would put it this way. If there are certain variants coming within the broad aspect of the whole invention, then you give claim for the broad aspect of the invention including the details of that process.

Dr. C. B. Singh: There is a statement which reads:

> "So drastic are the terms now proposed that there seems little doubt that India, if she should so desire at any time in the future, would not be able to become a member of the Iternational Convention if the Bill in its present form is passed."

Would you like to make any comments on this?

Shri L. S. Davar: There is an International Convention of which 70 countries are members. Certain principles are laid down which have to be followed by each member country. One of such principles is that so far as the patent law is concerned, the same treatment should be given to both the nationals and foreigners. This has been agreed to by all the member countries of the Convention, including Russia. Now if we adopt certain discriminatory clauses in our law, we cannot join that convention.

Mr. Chairman: Thank you for your evidence.

Shri L. S. Davar: Sir, may I thank you and the members of the Joint Committee for giving me an opportunity to express my viewpoint?

(The witness then withdrew

II. Remfry & Son,

Patent and Trade Marks Attorneys, Calcutta.

Spokesmen:

1. Mr. Harold Holloway.
2. Shri Desh Pal Ahuja.
3. Shri Baldev Chaturbhuj Ojha.

(The witnesses were called in and they took their seats).

Mr. Chairman: Mr. Holloway, the evidence that you give will be treated as public. It will be printed and distributed to all the Members and also placed on the Table of the House. Even if you want any portion of it to be treated as confidential, it will be distributed to our Members.

We have received your Memorandum and we have distributed it to all our Members. If you want to add anything in addition to what you have said in that Memorandum, you may do so and then our Members will put questions and you may answer them.

Mr. Harold Holloway: I thank you, Mr. Chairman and the Members of the Committee, for giving us this opportunity of expressing our views on this subject. We are here to help the Committee. I hope you must have seen our written Memorandum and you will appreciate that we have aimed in our comments to provide material that may help in pinpointing difficulties and showing what improvements can be made.

My two colleagues and myself have between us some 50 years of experience and participation in work relating to industrial property. I have spent more than half of my life in India, much of it in connection with this work. My colleague, Mr. Ahuja, has spent many years in dealing with industrial property matters. He is a Master of Science and he had himself been engaged in research for several years with the Government of India. Mr. Ojha is a Barrister-at-Law. He has also been the Registrar of a High Court, a Deputy Registrar of Trade

Marks, and a Registrar of Joint Stock Companies. So, we have some experience of the matters which you, Sir, and the Members of your Committee are considering.

We felt that we had something to contribute in helping you to decide what form the new legislation should take. It is only right, I think, to say that, in general, many people may have overlooked the fact that there has really been no recent inquiry into this. In 1948, the Tek Chand Committee was set up. That Committee did circulate a very detailed questionnaire to which my firm, amongst others, also replied. That covered the whole range of patents law. The Committee which consisted of a number of persons presided over by the distinguished ex-Judge examined 122 witnesses. Its members visited 13 different cities. There was, therefore, a very thorough inquiry. The Committee was appointed on the 1st October, 1948 and it reported in April, 1950. Now, the main point that I would submit here is that it was set up very shortly after India had her Independence and shortly after India began seriously to tread the path of industrialisation.

Then, when the Ayyanger Commission was appointed in 1957, it was not in the same way as the Tek Chand Committee was.

Shri R. Ramanathan Chettiar: In what way?

Mr. Harold Holloway: I have got the exact language here. The learned judge was asked to advise with regard to the provision of law relating to patents and designs. He did not examine any witnesses other than three Government or semi-Government officials. The questionnaires were sent out and 79 replies were received. But those questionnaires—I have got the copies of them—related only to the question of product patents concerning chemicals and foodstuffs and compulsory licensing. The Tek Chand Committee covered all the points. Certainly, I think, all of you will agree with me in paying a tribute to the learned Justice Ayyangar for the wonderful appraisal he carried out. But the important point is that it was a personal appraisal. His appraisal did not rest upon a comprehensive study of evidence as was taken by the Tek Chand Committee.

Mr. Chairman: You want the whole ground to be gone over again by another Committee?

Mr. Harold Holloway: I leave it to this august Committee. I am only making a point which, I think, is relevant to the background of this Bill.

You have got our Memorandum. On p. 5, you will find we have listed many points. There are 23 main points set out there. It is interesting to note that each one of those 23 points rests not upon the Tek Chand Committee's recommendations but on the Ayyangar Commission's recommendations with the exception of 3 points which have been added since the Ayyangar Commission's Report.

I think there were certain practical considerations which came before the Tek Chand Committee—no doubt, they would be regarded by you as relevant—which perhaps were not brought before the Ayyangar Commission because evidence was not invited. The questionnaires also were limited only to the two aspects of compulsory licensing and product patents. If you look at the 23 points which have been enumerated, you will find that those rest upon the recommendations of the Ayyangar Commission with the exception of 3 points which have been added since the Ayyangar Commission's Report. They are not based upon a wide-ranging of inquiry of the kind which was undertaken before. There has been no evidence taken since 1949-50 with the exception of those questionnaires relating to the only two aspects of compulsory licensing and product patents. That much is clear. We should be specific concerning the particular clauses. We cannot avoid feeling that the main predicament, relates to the criterion to be applied to the particular clauses. I have in

mind particularly the lines at the bottom of page 4. I would like to read out these few lines. It says:

> "The obvious principal criticism which can be made against the Bill is that it neither ends Patent Law nor gives adequate protection to inventors. Patent Law everywhere rests upon the premise that in the case of inventions some element of monopoly, although subject to suitable safeguards, is in the public interest. If this were not so, then there would be no place for Patent Law."

This is the basic predicament, which is reflected throughout the clauses of the Bill.

In our submission there cannot be any patent system, unless it is attractive or sufficiently attractive to inventors. I would like to refer to the Tek Chand Committee Report. They Reported in page 71 as follows:

> "Another suggestion is that the provisions in regard to the granting of compulsory licences should be made applicable at least to patents for inventions relating to food, medicine and surgical appliances. We have given careful consideration to the arguments advanced for and against these suggestions. As regards the first suggestion, we are wholly opposed to it. The 'exclusive right' conferred by a patent is the essence of the Patent system and compulsory licences are a negation of such 'exclusive right'. A patent which is liable to be restricted by the granting of compulsory licences would confer 'exclusive right' neither on the patentee nor the licensee. Most of those who take out patents do so with a view to enjoying the 'exclusive right' conferred thereunder, and the system of granting compulsory licences in respect of patents generally would not be attractive to them."

This is what they said. The point I wish to make is this. We are all compulsorily amenable to the taxation laws, income-tax laws and things of that sort. Regarding patent laws, the question is whether a patentee considers it to be worthwhile endeavouring to make an invention, and, if he does make an invention, his decision whether to secure a patent is his own personal choice which can certainly be affected very considerably by the legislation in any particular country. That view is reflected in the Ayyangar Committee report. It is said on page 19 as follows:

> "Patent Laws rest upon the assumption that it is desirable to encourage inventions for their own sake and that monopoly privilege is the best way of doing it. The Swan Committee observed:
>
> " . . .The theory upon which the patent system is based is that the opportunity of acquiring exclusive rights in an invention stimulates technical progress in four ways: first, that it encourages research and inventions; second, that it induces an inventor to disclose his discoveries instead of keeping them as a trade secret; third, that it offers a reward for the expenses of developing inventions to the stage at which they are commercially practicable; and fourth, that it provides an inducement to invest capital in new lines of production which might not appear profitable if many competing producers embarked on them simultaneously. Manufacturers would not be prepared to develop and produce important machinery if others could get the results of their work with impunity."."

Looking into the individual clauses of the Bill, the balance is so very heavily weighted against inventors. If one looks at the additional liabilities which we enumerated in the introductory chapter, the cumulative burden on an inventor is very heavy.

Under clause 102 Government is entitled in certain cases, to acquire patents. The "Notes on Clauses" against clause 102 read: "It will be useful to enable the Central Government to acquire an invention in certain circumstances, as for example, where it would be economical to acquire the patent instead of obtaining compulsory licences in respect thereof". I will cite an invention which is a worldwide invention, namely, "Terylene", covering synthetic fibres. If there were no patent in India then under the new Bill, by virtue of prior publication overseas no one else would be entitled to secure such a patent in India, and the inventor but he could not then be prevented from manufacturing as could happen if he had a patent, and it was acquired. If he secures a patent, it would become liable to be acquired by Government. He could then not use his own invention without first becoming a licensee or he would be an infringer. This is not all: under Clause 93. The Controller possesses considerable powers to deprive altogether such a patentee of his rights. The patents also acquire an obligation to give a great deal of commercial information to the Controller under penalty of fines. All these are factors which cumulatively must influence the inventor in deciding whether it is worth his while to secure such protection. A little earlier I did mention the question of the time lag. One of the aspects that has naturally been given much attention in the drafting of this Bill has been the effect of foreign-owned patents. During the public controversy which preceded the introduction of this Bill, there was much reference to the majority of patents being owned by foreigners, although that applies to many other countries also.

In this connection, I would like to draw your attention to page 13 of the Ayyangar Report where there is a list of the percentage of patents in different countries which are foreign-owned. This relates to the years 1930-37. At that time, it is known that the pattern of production and manufacture throughout the world was very different from what it is today. If the Members look at these figures, they will see that they are very much out-of-date today. As a matter of fact, a majority of patents are owned by foreigners. This is so in almost every country, because protection is usually secured for a good invention in a large number of countries, and in only one of them the inventor is not a foreigner.

This need to consider the international position is particularly important, because, while in every country the legislators can decide the laws in their own country, nowadays when patented goods are extensively exchanged in the ordinary course of international trade there is really only a very limited variation in patent laws, as between different countries which is feasible. Otherwise one would have to face a situation in which goods, which were not covered by patents in India, had been manufactured here, and when they came to be exported. Inevitably, the inventor who had been unable to obtain a patent, or who had not considered it worthwhile to obtain one in India, would hold patent rights in other countries where the import of such goods from India would constitute infringement. This would inevitably be detriment to the production of those goods here in India. These are practical considerations which, I believe, would have emerged, could there have been an inquiry in 1964 as well as in 1950. It is regrettable that there was no Inquiry Committee before introduction of this Bill. It is a matter of cumulative experience. In considering the position, it is not only right to look at the individual clauses of the Bill, but also at the overall impact of the Bill. Half of our anxiety—I do not say objections, because we are not in a position to object—concerns its cumulative effect.

We have set out these 23 points here. We believe that these are very relevant. Taken together they have

destroyed, or are likely to destroy, the balance of advantage. Unless there is an element of monopoly in the patent law, there is a contradiction in terms. Patent law does depend upon this.

It is being suggested in some quarters that the Bill which is now under consideration merely brings uptodate the Tek Chand Committee's recommendations which found place in the 1953 Bill. But this is not really so. None of those 23 points appears in that particular Bill. They have all been added subsequently. Perhaps we are a little biased, but those who have spent a good number of years working with the Patent Office here have full admiration for its wonderful performance, not within the last two years, but really ever since Independence. They have been handling a number of increasingly complicated applications rising from 800 to 6,000 per year. We are full of admiration for them. We know from our contacts with overseas inventors that they too are appreciative. They also have great appreciation for the way in which our Courts of Law work. I was concerned here in Delhi in negotiations involving Government with the President of an American Company, who took the opportunity to visit the Supreme Court. He told to me that it should be a compulsory visit for every foreign visitor, since it gave him so much confidence in India. This feeling has greatly encouraged foreign investors. They know that India cannot compete in the matter of financial return with such countries as South America. You may sometimes get a return on capital thereof 30 or 40 per cent in the first years. One of the main attractions here to overseas investors is the way in which the Patent Office functions, the way in which the Trade Mark Registry works, and the way in which industrial property rights are respected. These are things which are built only by years of hard work. Overseas investors greatly appreciate and admire the integrity and competence of our courts.

It is of particular regret to us and to them that whereas the Tek Chand Committee proposed that all appeals should lie to the Courts, this new Bill proposes that there should be no appeals to the courts in the matter of compulsory licensing, acquisition of patents by Government, etc. It is worthy of note that even at that time in 1950, when it was not intended that any such additional rights, as are now sought to be secured by Government, should be given to the latter, the Committee recommended that there should be appeals to the courts. As today Government's position is intended to be one of particular advantage, it is absolutely necessary that there should be a right of appeal to the courts. There are good grounds for this. I think I can illustrate this point by mentioning the matter of applications for extensions of the terms of patent. Now, in the new Bill, it is proposed that there should be no right to apply for extension of the terms of patents. Under the existing Act, there is a right to apply for an extension and there is discretion on the part of the Central Government to grant such extensions.

When the Central Government look at a particular Section of the Act, it is inevitable that its interpretation will be different from that of the courts because Government are bound to be influenced by considerations of policy. The Courts are not concerned with matters of policy. We are not saying that the Sections of the Act should remain permanently static. If the Legislature wishes to make any change, then we believe that the right way to do this is by amending the sections openly rather than by interpreting them differently. On the basis of the Tek Chank Committee's recommendation, there was provision in the 1953 Bill for the grant of extensions of the term of patents in certain cases. The Ayyangar Commission was opposed to this, and recommended that there should be no provision for extension, accordingly such provision was dropped altogether. During the period 1954 to 1957, 12 applications for exten-

sions of the terms of patents were filed, of which one was later abondoned. 5 applications out of the remaining 11 were granted. This was the position upto the time of the Ayyangar Commission. With the change of view that the Ayyangar Report produced, between 1958 and 1965 there have been 48 such applications, and not one has been allowed. You will see that whereas formerly almost 50 per cent of such applications were allowed, since the time of the Ayyangar Commission, every application, although based on exactly the same section, has been rejected, no doubt on account of such change in attitude. Probably the officials of the Central Government in this Branch are convinced of their fairness, but we have no doubt that considerations of policy have influenced them in the interpretation of these sections. If it was decided that there should be no extensions in any case, the right course for the legislature is to alter the section rather than to alter the manner in which it is applied. Having regard to the fact that the life of patents is short, the right to grant extensions in suitable circumstances as recommended by the Tek Chand Committee should be retained. India needs many of these inventions. Some inventions, by their very nature, require long periods of testing before there can be any exploitation of them. Amongst the 48 applications rejected, one application related to a certain insecticide. As you are all aware, certain insecticides require long testing before it can be known with certainty that no toxic residues will be left in crops, edible or otherwise, which have been so treated. Here, the question of human safety is involved. Approval was not given to utilise this invention any where till 1956, though the date of the patent in India was some time in 1948. Although such permission was given to use the invention only in 1956 in the USA, tests had taken place in India as early as 1957. This invention would be of great benefit to the cultivators of India. As I have stated earlier, it can take some time before such an invention, having regard to the public interest, can safely be exploited. If all opportunity to secure extension of term of such patents is denied, the country will stand to lose much benefit, as these inventions will not be adopted to Indian conditions or commercially exploited here.

In all these circumstances inventors, whether Indians or overseas people, do believe that the sections of the Act which affect their rights should be amenable to challenge on appeal to the Courts. If there is an apprehension of delay in the making of these references to the court, then a special Patents Appeal Tribunal consisting of a High Court Judge should be appointed, so that such matters can be dealt with speedily. If this is not done, then Government's position will be one of undue advantage. There is a basic principle, which I don't think anyone of us would dispute, memo index in causa saus that is to say, "no one should be judge in his own cause". If there is fear as to delay, then it should be possible for Government to cope with this difficulty without taking away the right of reference to the Courts, which latter inspire so much confidence in those not only in this country but also outside. This right is being taken away particularly with regard to compulsory licensing. One of the proposals in the Bill is that the Central Government as the appellate authority will have the final say with regard to compulsory licences, while in certain cases the Controller, under Sub-clause 85 (iii), must even concern himself with whether the applicant will be permitted to manufacture once a compulsory licence was granted to him. In ordinary course, the Central Government will have been concerned with the matter of issue of any industrial licence, in which the applicant who proposes to manufacture, will have been involved but not the patentee. It is desirable that justice should not only be done,

but that it should appear to be done, and yet the patentee may later be in conflict with the holder of the industrial licence granted by Government, the outcome of which dispute will depend on an appeal to the Central Government, which had itself already granted the industrial licence. We have been concerned in cases relating to compulsory licences in which the applicants have previously managed to secure industrial licences from Government, and have thereafter sought to weight the controller's consideration of the compulsory licence appplication against the patentee. Thus, these are genuine apprehensions, and the Committee upon consideration of these representations may feel that a right of reference to the Courts is desirable. I cannot carry this point any further. I believe that if it is felt that the present situation is unsatisfactory from the standpoint of delay, then it would be reasonable to request this Committee to have a further look at the idea of creation of a Patent Appellate Tribunal as it might prove successful. It is not fair that delays of great magnitude should have been attributed to patentees during previous public discussions nor is it enough to say, in order to justify the proposed change, that appeals to the Central Government would be disposed of quickly. I would like to give you certain facts very briefly of one of the main cases in which delay is alleged. My firm has been engaged on the side of the patentees in practically all these compulsory licences applications, so that, we have comprehensive knowledge of these. A little while ago a paper was submitted to a meeting in India, concerning industrial property rights, in which allegations of delay by patents in compulsory licence proceedings were made. In the latter connection, one case is most commonly mentioned and will no doubt be referred to this Committee. In this particular case we would like to cite the broad facts as they are revealing. With your permission I would like to read these particulars.

Patent Nos. 43678 and 43679.

"The responsibility for delay cannot be attributed to the patentees.

After filing their applications on the 28th September, 1956, it took the applicants for reasons best known to them, until the 24th September, 1957, *i.e.*, approximately a year, before true copies *i.e.*, exact copies, were served on the patentees.

"Moreover, as late as the 2nd September, 1958, and the 30th October, 1958, *i.e.*, two years and a month after the filing of these applications, the applicants lodged Petitions for leave to submit furthere evidence, both of which were dismissed by the Controller on the 20th January, 1959. It is surely inarguable that this delay is attributable to the applicants, and was not due either to the patentees or to any statutory deficiency.

"On the 9th February, 1959, the applicants made a further attempt, by lodging another Petition, to obtain leave to file additional evidence, and this was eventually allowed on the 30th June, 1959, whereafter, as is customary, the petitioners were, as a direct consequence, afforded opportunity to file additional evidence in reply, which they did on the 2nd November, 1959. In the result, the hearing of the applications was therefore able only to commence on the 22nd February, 1960.

"Thus, the applicants' own dilatoriness, in the matter of submission of evidence, was alone responsible for delaying the hearing during such period extending from the 2nd September, 1958, to the 22nd February, 1960, *i.e.*, for almost 18 months.

"If to such period of 18 months there be added the period of one year, *i.e.*, from the 28th September, 1956, to the 24th September, 1957, taken by the applicants to supply to the patentees true copies of their application, it is found that an aggregate of 2

years and 6 months' delay resulted solely from the applicants' own actions.

"The hearing of such applications took place on the 22nd, 23rd and 24th February, 1960, whereafter the then Controller delivered Judgment only on the 21st March, 1961, *i.e.*, 13 months later.

"If to such 13 months be added the period of delay directly attributable to the applicants of 2 years and 6 months, a combined total of 3 years 7 months delay in obtained for which, by no strength of imagination, could any lacuna or fault in the Patent Act or Rules (or indeed on the part of the patentees,) be held responsible.

"Accordingly, at the time of delivery of such judgment on the 21st March, 1961, a period of 4 years and 6 months had elapsed since the first filing of the applications."

Here I should say that if the combined total period of 3 years and 7 months delay is deducted, it will leave only 11 months with which the patentee is at all concerned. A brief reference may also be made to other cases allegedly, indicating dialatory tactics on the part of patentees. Suffice it to say that the facts are broadly similar in the case of the compulsory licence application relative to Patent No. 48416, in which delivery of the Decisions and Orders occupied more than 2 years and one month. I would respectfully request you to enquire into any such the cases which may be mentioned to you the facts of which should not be taken as established. Of course occasional advantage is taken of the rules by every part or litigant. This mention of delays is just to show that these one-sided allegations are without justification. I believe that the information in such statement will prove, therefore, to be interesting.

Shri M. R. Masani: Will that statement be available to us?

Mr. Harold Holloway: With the Chairman's permission I would like to make that statement available to the Members. I believe I need give only the numbers of the patents concerned. On that basis verification from the Patent Office could be made.

Shri M. R. Masani: Would you kindly circulate that statement?

Mr. Harold Holloway: I shall have it cyclostyled tomorrow morning, so that it can be distrituted tomorrow. I have not mentioned the names of the parties but I shall give the patent numbers.

Mr. Chairman: Here the case number is enough.

Shri R. P. Sinha: It seems that the witness has very long experience. Can you tell us as to whether there are any cases where the patentholders were also responsible for such long delays? I think invariably in almost all the cases, the patentholders prolong such litigations.

Mr. Harold Holloway: I could not concede on that point. I would only say that all patentholders are not saints. Certain procedural advantages can sometimes be taken by them. There have also been a number of cases where delays have been caused by the Applicants, But, where the patentee is allegedly at fault there may have been valid reasons for opposing the applications.

In the well-known case relating to chloram-phenicol the international patentee had six licensees, including its own associated company in India, who were licensed to produce chloram-phenicol in India. Three of them, prior to the submission of the application for a compulsory licence, had already obtained industrial licences to produce, and the total of such licensed production capacity exceeded Government's estimate of requirements for Chloram-phenicol. Of these six companies who were licensed, five were competitors of the patentee. They had no connection whatsoever with the latter. The other company was a subsidiary of the Patents. In so far as the applicant was concerned it is a fact that, the applicant had itself been associated with a licence of the patentee. That connection

had been terminated and the patentees rightly or wrongly, but genuinely considered that the applicants were not suitable. It cannot be said to be an unreasonable monopoly when a patentee has licensed five of its competitors.

Accordingly, as I said, we hope that the Committee will reconsider the question of appeals.

Now so far as the Bill itself is concerned, it does seem to us to contain a number of oddities. For want of a better word, I call them, 'oddities' and by that we have particularly in mind those clauses which provide for retrospective effect.

Now, it is never enough to say that in no circumstances should there even be retrospective provisions, but, generally speaking, there should always be close examination before introduction of any retrospective provision,—and there are six main clauses which affect the position of patentees adversely and retrospectively.

The first one concerns the term of patents which is clause 53. We have made our comments on this on page 54. I do not propose to add anything to that.

Shri P. S. Naskar: Mr. Holloway is just elaborating the points that he has given in his memorandum. But is he prepared to answer questions on the basis of the written memorandum he has submitted. He is only just recapitulating what he has said in this memorandum. I think we have all gone through his memorandum. If he has any new points, he can put forward them rather than elaborating his memorandum.

Mr. Chairman : You can go on.

Mr. Harold Holloway: You will appreciate this is a very long and important Bill, sometimes it is very difficult to recall precisely whether one has included a point or not. I do not want to recapitulate. I apologise.

Shri P. S. Naskar: You can supplement it.

Mr. Harold Holloway: I want to add one or two points of information.

Cl. 64(1) (*h*):—We believe that this may even not five been intended, but it does seem rather less than equitable that a patent granted on the basis of the law as it existed at a particular time, and which complied with such law, should become liable to be revoked as a result of a subsequent change. We have in mind, particularly, the question of novelty as it is proposed to be affected by prior publication outside India. We also have in mind the position of importers who have already secured patents, and there is nothing wrong in that. Many countries do refuse to grant patents to people who, having seen inventions overseas, have brought them into the country and then manufactured under them. But, if the legislature changes its mind on the question of communication patents or the obtaining of patents by importers, then we say that it is undesirable that these changes should be made retrospectively effective. Drafting of clauses of such technicality is always difficult and any criticisms that we have made, have been made with humility. It is easy to throw stones. It is a highly difficult Bill to draft and anybody who has attempted to do so would, we hope, welcome comments which are based on practical experience. It does seem in this case that the draftsmen may perhaps have overlooked the consequences of the new revocation grounds, which have been specified elsewhere in the Bill, upon patents which will have been granted before the Bill becomes law. For example, take the matter of destruction of novelty, anticipation as it is called by prior publication overseas, i.e. anywhere outside India, as opposed to only inside India—it may be that this Committee will feel that it is a right step that publication anywhere should destroy, novelty, but that is a separate question. The point here is, whether any person should be able to go to a Court to apply for revocation of a patent, granted before the new Act, only on the ground that some

years ago there had been some publication overseas prior to the grant of the particular patent in India. That could only lead to great uncertainty. My respectful submission is that consideration should be given to remedying this defect.

The third point concerns Cl. 68: Interests are not to be valid unless registered within 3 months. This is likely to lead to difficulties in the case of agreements that have previously been executed. One would prefer to ensure that this should apply only to agreements executed after the coming into force of the Act. Fourthly, under clause 107, in an infringement suit, every ground on which a patent may be revoked is to be a ground of defence. This would mean that after infringing your patent, I could go along and say to the Court that although your patent had been valid for say nine years, it had now become liable to revocation by virtue of this new Act, since there had been publication, possibly even by yourself, the patentee outside India, at some time prior to the filing of the Indian application . . .

Mr. Chairman: How do you say clause 68 is retrospective?

Mr. Harold Holloway: It is retrospective because it requires all agreements, even previously concluded agreements . . .

Mr. Chairman: The agreements are only with regard to those registered under the present Act and not with regard to those registered under the previous law.

Mr. Harold Holloway: With respect, all patents, even if they were secured under the earlier Act would surely be regardable as having been granted validly and held on the register under the new Act. If that is not so, then it is difficult to know what the status of those "old" patents would be.

Shri M. R. Shervani: Then what is the position of the patents which are already existing?

Draftsman: Sir, wherever we have applied the provisions of the present law to the patents issued under the existing law, we have specifically said so. But wherever we have not specifically said so, the patents granted under the existing law will subjected to the provision of clause 162 be governed by that Act and not by this law.

Shri M. R. Masani: You mean the old law will continue for the old patents?

Draftsman: So far as this point is concerned, kindly refer to the repeal clause, clause 162. It says "(2) Notwithstanding the repeal of the Indian Patents and Designs Act, 1911, in so far as it relates to the patents, the provisions of section 21(a) of that Act and of any rules made thereunder shall continue to apply in relation to any patent granted before the commencement of this Act in pursuance of that section. (3) Save as otherwise provided in sub-section (2), the provisions of this Act shall apply to any application for a patent pending at the commencement of this Act and to any proceedings consequent thereon and to any patent granted in pursuance thereof." Wherever there is an application pending, to that, of course, this law will apply.

Mr. Harold Holloway: But clause 64(1) which relates to revocation reads: "Subject to the provisions contained in this Act, a patent, whether granted before or after the commencement of this Act may, on the petition of any person interested or of the Central Government, be revoked by the High Court on any of the following grounds . . .

Draftsman: That is retrospective. Wherever we have provided retrospective effect, we have said so. Clause 53(2) also has retrospective effect.

Mr. Harold Holloway: The fifth is Clause 141 relating to determination of certain contracts . . .

Draftsman: That is retrospective; that is made clear.

Mr. Harold Holloway: Then the sixth one is Clause 87—that patents already granted are to be endorsed at once with the words "Licences of right . . ."

Draftsman: That is also retrospective.

Mr. Chairman: Wherever it is retrospective, it is mentioned in the section itself.

Mr. Harold Holloway: In these cases, there is no doubt that it is retrospective and that is an aspect which is causing considerable concern, understandably, to patentees. These are the six anxieties concerning the retrospective consequences to patentees. Then there are some clauses which do seem to us to be inappropriate. I have here seven of those clauses. I am not going to make again all the comments which are already there in our memorandum.

Mr. Chairman: You have already given them.

Mr. Harold Holloway: I now come to clause 90 which is dealt with at page 79 of our memorandum. Subclause (a) (iii) of this clause provides for inclusion of the additional words:

> 'or developed or such market capable of being created is not being created.'

Our submission is that while it is quite reasonable to expect the Controller to ascertain whether an existing market is being satisfied to an adequate extent, it is not reasonable to expect the Controller to determine whether a market is capable of being created. Whether a market is being supplied is a matter of fact. Whether a market is capable of being created is really not possible of judicial or semi-judicial determination. We do believe that in this case the words 'a market for the export of the patented article manufactured in India is not being supplied' are fair and reasonable but that the reference to possible creation is something which even Socrates could hardly have decided fairly. Therefore, we do hope that our recommendation will be accepted and that those additional words will be deteted.

Then, I come to clause 8 about which you must already have heard a great deal, and that is referred to at page 31 of our memorandum. This relates to the obligation upon an applicant to keep the Patent Office informed of the filing of applications in other countries and of official objections and the amendments made thereon. I would like you and the Members to consider the additional expense that this would involve, and this will become evident when you take into account the fact that any major patent today is protected in eighty or more countries. Also, the obligation on our friends—because they are all friends— in the Patent Office would be such that the task of keeping these extra records would be as impossible as it would be for my firm or any other.

Shri R. Ramanathan Chettiar: What is the practice in the UK?

Mr. Harold Holloway: In the UK there is no such obligation. This proposal is based, I believe, on the Canadian practice, since the Canadians sometimes, but very rarely, make such enquries; I say this on the basis of experience because my firm has on behalf of Indian applicants, filed applications in Canada, and very occasionally we have had an enquiry because the Canadians are sometimes interested in what has happended in the USA. Although we file applications all round the world for Indian parties, we have no experience of anybody else calling for this information. I do not know how the successive Controllers, even though they be men of great wisdom and learn-

ing, will be able to translate some of these other applications and documents or what they would do with them.

Shri R. Ramanathan Chettiar: Can you enlighten us about any other easier method by which Government could obtain this information?

Mr. Harold Holloway: I do not think it is really possible and I do not think that there would be any utility in securing this information, because the law in India is already different from that in other countries. When this Bill comes into effect, it will be even more different. So, I do not think that much guidance would be available from what happens in other countries. We have made an appraisal and we reckon that it could land an applicant from the USA in an additional expenditure of Rs. 10,000. That is not an arbitrary figure it is based on calculation which we have made.

Shri R. Ramanathan Chettiar: What is the practice in the USA?

Mr. Harold Holloway. There is no such obligation in the USA.

Shri R. Ramanathan Chettiar: It is there only in Canada?

Mr. Harold Holloway: Even in Canada, to the best of our knowledge, it is not a statutory or official obligation; it is merely a case of the examiners sometimes asking for information with reference only to the USA. But we do not believe that it would ever be an advantage. It would be a disadvantage to the applicants, in the matter of expenditure, to the agents in the matter of handling, and also to the Patent Office. Therefore, there can hardly be any justification for this new burden. So we do ask you to look particularly carefully at the necessity for this clause.

The third one of these particular anxieties is in regard to Clause 89 which is dealt with at page 76 of our memorandum. Our anxiety here is this. There are overseas patentees particularly who would like to manufacture in India, but nobody from overseas can manufacture here unless he can get the necessary permission. If an inventor obtains a patent in this country, which he is not permitted himself to work, and it is notified as "licences of right",—you know what that means; it means that anybody can use it—or a compulsory licence has been granted in its respect it does seem to us unreasonable that the patent should then, on the top of all that, be liable to be revoked. For, as we have pointed out, it could happen that after it was revoked, a licence to manufacture might be granted to the Patentee. We hope therefore that you will rest content in such cases with the power to grant compulsory licences and you will not insist also on having the power to revoke. India's position is unusual in that the system of industrial licensing is rather tighter, for understandable reasons, than in most other countries.

The fourth point is in regard to clause 102 which is dealt with at page 88 of our memorandum. I am referring to item (a) on this page. I have mentioned this before so I will not repeat it. I did indicate, however the case of a patentee who could be in a worse position by securing a patent here, in that he might, as a result of acquisition of the patent, be prevented from himself manufacturing, so, we would ask you to reconsider this clause, because it will have a deterrent effect upon the making of applications for patents both in regard to Indian inventors as well as in regard to overseas inventors.

Shri R. Ramanathan Chettiar: It is in respect of defence inventions.

Mr. Harold Holloway: There is no such restriction in that respect. It is for a "public purpose" which includes a Government undertaking. It is a very wide term and that is one of the points of anxiety.

Then, I turn to clause 47, on page 51, of our memorandum which will have an adverse effect on exports. It would mean—and this is what would happen—that if there is going to be no protection for the products even when achieved by specific processes, you would then find that parties are to be put, as they are put under the Bill, in a more favourable position if they import from outside India a product, than if they manufacture it in India, because, if they manufacture it in India, they will be infringing the process, whereas if they import it from overseas, as there would be no protection for the product, there would be no infringement.

Then clause 141(1), page 98. As we have noted in our memorandum, the effect of this provision would be that it would become a matter of chance as between two contracts: whether one is liable to be invalidated and the other should continue to be valid. This particular clause was considered at length in the Ayyangar Commission's report, and the Author came out there strongly against it, but it has reappeared here.

Shri D. P. Karmarkar: Could you elaborate this point?

Mr. Harold Holloway: I think that is quite easy. If you take the case you were mentioning earlier, the case of chloramphenicol, then, under the Bill, to import chloramphenicol would not constitute an infringement, because the product would be brought in and the product would not be protected, but if a party other than the patentee, instead of importing it, were to manufacture it in India, he would be using the process, so, he could be restrained. I do want to say that we have in my firm a very large number of people, over a hundred, who are concerned in tabulating what is going on outside as well as where in India. It is difficult enough for us to keep abreast, so we appreciate the difficulties of Ministers, but it is a fact that the Minister was misinformed in the speech that he made as to the position of product—patents in other countries. Would I be permitted to refer to that?

Mr. Chairman: Yes.

Mr. Harold Holloway: I quote from the speech of the Minister, who said:

> "Shri Dandeker and Shri N. C. Chatterjee think that nowhere was this difference existing between processes and products. I would submit that this difference exists already in many countries. I have got a long list of such countries here with me, namely, Argentina, Austria, Brazil, Belgium, Canada, Chila, Czechoslovakia, Denmark, Finland, the Federal Republic of Germany, etc., where foodstuffs, pharmaceutical preparations and product—obtained by chemical processes are not patentable, but only processes for preparing them are patentable."

The difficulty here is understandable. Different Acts take different forms. In certain cases, one Act may say that certain things only are patentable, and at a different place deal with infringements so that it would be quite natural for somebody who perhaps had not seen the Act, to assume that a product, even when achieved by a particular process, is not protected; if this were not listed but, if you look elsewhere in the statutes, you would find that for the purposes of establishing infringement, protection is given to such a product.

Argentina, for example, far from not allowing products when achieved by a process, allows clinical products *per se*, and there is a very good reason for this. The whole tendency in the world today, I submit with respect, is to extend protection to products *per se* in the interests of the little man; for example, if you are a big company, when you make an invention and you achieve a product by means of a specific process, then you set out, with the aid of massive research, to discover all the other processes by which you can achieve the

same product. If you are a small individual you may, with a little capital, perhaps discover a process which gives you a particular product, but you have not got the means nor the resources to discover all the other possible processes. In India, heretofore, although it has not been specifically stated in the statute, it is well-established practice that one only gets protection for a product when achieved by the process which is specified, and there would be no objection from the standpoint, I think, of patent practitioners, if a specific effect were to be given to this in the statute. That was proposed in the Tek Chand Enquiry Committee, and in the 1953 Bill it also found place. In Argentina, far from having no protection for products when achieved by processes, they have gone the whole way, so that, a patentee secures protection for such a product, howsoever achieved. The next country is Belgium; there is no such restriction there. In Canada, the products prepared by particularly described processes are allowable.

Shri D. P. Karmarkar: Clause 5 specifically relates to medicine, drugs and substances produced by chemical processes. In those cases, the products cannot be patented.

Mr. Harold Holloway: That is right, but the term "chemical products" covers almost all products.

Mr. Chairman: What is your next point?

Mr. Harold Holloway: Really you have a list there of six countries—Argentina, Belgium, Canada, Austria, Brazil and Germany—where the position is very different, as members might have gathered. I do not want to say this critically. As I said, it is very difficult to ascertain the true position. It is only by getting our fingers burnt that we have over the years been able to ascertain these things. This is a very difficult subject. That is why we have to point out some of these things to you and to this committee.

Mr. Chairman: How much more time do you require?

Mr. Harold Holloway: I will try to finish in half an hour.

Mr. Chairman: You may cantinue your evidence tomorrow. We shall now adjourn and meet again at 1.30 P.M. tomorrow.

(The witnesses then withdrew)

(The Committee then adjourned)

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Saturday, the 29th January, 1966 at 15.30 hours

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*

MEMBERS

Lok Sabha

2. Seth Achal Singh
3. Shri Peter Alvares
4. Shri Panna Lal Barupal
5. Shri Bibhuti Mishra
6. Shri P. C. Borooah
7. Sardar Daljit Singh
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19. Shri Chhotubhai M. Patel
20. Shri Naval Prabhakar
21. Shri R. Ramanathan Chettiar
22. Shri Sham Lal Saraf
23. Shri A. T. Sarma
24. Dr. C. B. Singh
25. Dr. L. M. Singhvi
26. Shri P. Venkatasubbaiah
27. Shri K. K. Warior
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Rajya Sabha

29. Shri Arjun Arora
30. Shri Babubhai M. Chinai
31. Shri Vimalkumar M. Chordia
32. Shri D. P. Karmarkar
33. Shri B. T. Kulkarni
34. Shri P. K. Kumaran

35. Shri Shyamnandan Mishra
36. Shri Dahyabhai V. Patel
37. Shri Mulka Govinda Reddy
38. Dr. M. M. S. Siddhu
39. Shri Dalpat Singh
40. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks, Trade Marks Registry, Bombay.*
3. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*
4. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

Remfry & Son, *Patent and Trade Mark Attorneys, Calcutta.*

1. Mr. Harold Holloway.
2. Mr. Desh Pal Ahuja.
3. Mr. Baldev Chaturbhuj Ojha.

Remfry & Son, Patent and Trade Mark Attorneys, Calcutta

Spokesmen:

1. Mr. Harold Holloway
2. Mr. Desh Pal Ahuja
3. Mr. Baldev Chaturbhuj Ojha

(*The witnesses were called in and they took their seats*)

Mr. Chairman: You were on clause 102 yesterday.

Mr. Harold Holloway: In accordance with your instructions, we have submitted a note concerning the two points.

There was one point which arose yesterday when the Draftsman drew attention to the fact that 'patent' was defined in the Bill by reference to patents granted under the present Act. It was pointed out that one of my apprehensions concerning the effect of a clause on patents already granted was ill-based, because of the definition, and that wherever patents which were granted under the previous Act were to be affected, it was specifically stated. If the Bill is examined, then it will be found that there are many discrepancies. For example, Clause 84(1) which deals with compulsory licences, says:

> "At any time after the expiration of three years from the date of the sealing of a patent . . ."

"A patent" means, according to the definition, "a patent granted under

this Act". Now there are a wide variety of other references; as for example, concerning the restoration of patent rights, when there is a similar reference only to "a patent". Again a patentee in India gets his right to file a suit for infringement by virtue of the statute and not as in England by virtue of the terms of letters patent. The clause dealing with the right to bring an infringement suit refers only to "a patent"; it does not make any reference to patents previously granted. I think the reason for that is intended to be the savings clause which is to be found in paragraph 3 of Clause 162:

> "Save as otherwise provided in sub-section (2), the provisions of this Act shall apply to any application for a patent pending at the commencement of this Act and to any proceedings consequent thereon and to any patent granted in pursuance thereof."

So the applications which are pending at the time when the new Act comes into force are well taken care of.

But there appears to be no other provision except 162(4):

> "The mention of particular matters in this section shall not prejudice the general application of the General Clauses Act, 1897, with respect to repeals."

The learned Draftsman made the point that 'patents' meant the new patents except where it is specifically stated otherwise in the Bill. It does seem undesirable that, while in some cases reference is made in the clauses to the fact that such clauses are to cover all patents, whether they were granted under the previous Act or under the new one, in other clauses there is no such reference. I would suggest respectfully that consideration be given to the possibility of following the same pattern throughout. At one place it has been specified that a clause is to apply to all those patents granted under the earlier Act as well as under the present Act. That pattern should be followed throughout; otherwise, misunderstandings of the sort to which I was a party yesterday, are likely to occur.

In the 1953 Bill there was an additional provision which read like this—this is 115(3):

> "Save as otherwise provided in sub-section (2) the provisions of this Act shall apply to any application for a patent pending at the commencement of this Act, and to any proceedings consequent thereon to any patent granted in pursuance thereof".

There was thus more extensive provision in the 1953 Bill. In the Patents and Designs Act of the U.K. of 1907 a rather easier procedure was, I think, followed. 'Patent' was defined to mean "letters patent for an invention."

Shri R. Ramanathan Chettiar: Since then a lot of water has flowed underneath the bridge. You are referring to the 1907 Act.

Mr. Harold Holloway: Quite, but in this country we have never had any occasion to repeal any Patents Act. It is the first time that this is occurring. Of course, no one is bound by what has occurred anywhere else, but it is of interest that they define, in such 1907 Act, "patent" to cover all patents and then put in a further specific provision which was 98(2).

> "Except where otherwise expressly provided, this Act shall extend to all patents granted and all designs registered before the commencement of this Act, and to applications then pending in substitution for such enactments as would have applied thereto if this Act had not been passed."

In that case there is no doubt. It might be worth while for you to con-

sider inclusion of a definition of a "patent", by referring in to the same way as it occurred in this (1907) Act, to any patent, that is under whatever Act, and then to make it plain that all the provisions would apply except where it is expressly stated otherwise, irrespective of the Act under which the patent had been obtained. At the moment it does seem as if we are doing some of the one and some of the other, which is certainly inconsistent and liable to make it more difficult for patentees and others to interpret. these provisions.

Shri R. P. Sinha: You mean that our definition of 'patent' should be revised accordingly?

Mr. Harold Holloway: Yes, I think that would be easier. At the moment the definition a patent is to a patent granted under the new Act. For the next fourteen years anyway there should be patents on the Register that have been granted under the 1911 Act, and it certainly will make it more difficult for the Patent Office staff and for everybody else if, instead of a clear provision of the type I have just read out that was followed not only in 1907 but subsequently also in other British Acts, you introduce a clause which is not so clear; then all the time one will have the initial problem of deciding whether any particular clause, by virtue of the General Clauses Act or some other provision, means what it says to the extent of covering all patents or only patents under the new Act, and there will be confusion. The learned Drafts man pointed out yesterday that in certain clauses mention was made of the fact that the clause would apply to both, classes of patents. If in some cases this is stated, I think it should be similarly stated in all other cases where this is intended.

Shri D. P. Karmarkar: Your point, I take it, is that the Act should be so worded, all the clauses, so that what is applicable only to new patents and what is applicable to both patents ought to be clear?

Mr. Harold Holloway: The whole Act should apply to every patent except where it is specifically stated otherwise. That is the simplest procedure.

Sir, yesterday when you concluded the proceedings I had just referred to the fact that there were certain inaccuracies concerning the countries in which protection for products where obtained by specific processes is given and is not given. Moving on from there, I think that point is important, because clearly India, like every other country, must in a matter of this sort pay some respect to the practices that obtain in other countries. Otherwise, if one is completely out of step, the question of the commercial exchange of Patented goods and other things, the question of joining the International Convention, etc. would become complicated, if not impossible.

On this matter of inventions which are not patentable I would invite your attention to page 27 of our memorandum. It is under this clause 5, that products are said not to be patentable even when achieved by a specific process. Now, if one looks at other portions of the Bill, they would seem to indicate that these products are patentable. I am comparing clause 5, referred to on page 27 of our memorandum, with clause 47 (1)(i) referred to on page 51 of our memorandum. Clause 5 says that products are not patentable in India, but clause 47(1)(b) suggests that substance as by process and Patentable. Elsewhere in the Act (clause 48) we are told that it will not constitute infringement if Government imports, or authorises the import of these products. Clearly, if products even when obtained by particular processes which are thus protected are not to be protected, then there would seem

to be no reason why there should be a particular exemption in respect of Government concerning the imports of these products. If these products are not covered by patent protection, then if Government or anybody else imports them, there would be no infringement.

The hon. Minister in the Lok Sabha on the 22nd November, 1965 said: "Thirdly Government could authorise such licensees to import the patented article from any source, wherever it is available at a cheap price for sale in India, subject to the payment of a reasonable royalty to the patent-holder."

That quotation followed a discussion on drug patents. The quotation does suggest that the Minister was under the impression that there would be protection for products when secured by the particular process, and that is borne out by the language of clause 48.

Clause 48 reads thus:

> 'Notwithstanding anything contained in this Act,—
>
> • • • •
>
> (b) the importation by or on behalf of the Government of any patented medicine or drug for the purpose merely of its own use..
>
> Shall not be deemed to constitute an infringement of the rights conferred on the patentee by this Act.',

I think, therefore, that it will need a policy decision by Parliament or by this Committee, no doubt, as to whether protection is to be granted to products as is suggested by clause 48, or whether there is to be no such protection as envisaged by clause 5, because clearly, if there is no protection, then there is no reason why the Minister should have suggested that royalty would be paid to the patent-holders. We are wholeheartedly in favour of some protection for the product. I mentioned yesterday that it was in the interests of the little man particularly, that there should be such protection, and, if there was no such protection, then these patents would be virtually valueless because anybody could import the product. We do ask you to consider this question of product patents. We have put forward a suggestion in this regard at page 29, of our Memorandum as to how this clause 5 could be redrafted so as to bring it in line with the rest of the Bill. Our recommendation is set out at page 29 in paragraph 7. If that draft is not acceptable, then it might be worth-while having a look at the 1953 Bill. Sub-clause (d) of clause (3). of Bill says what is not patentable. The language used there is very felicitious. It is as follows:

> "A substance prepared or produced by a chemical process or intended for food or medicine other than a substance prepared or produced by any method or process of manufacture particularly described in the complete specification of the invention or by its obvious chemical equivalent."

There are a number of variations which could easily be made so as to give the some effect as this sub-clause (d).

If it is decided that products when secured by a protected process should also be protected, then there is another problem which I would like to put before you. This is not covered in our memorandum except in the introduction. In such introduction, we have referred at the bottom of page 2 to the fact that in the UK it was found that it was not really enough merely to give protection to a product, as was the case in the UK up to 1919, and as is, of course, the position in India today, because if somebody imported a product, a chemical product, it was very difficult for a patentee to establish that such product had been manufactured by any particular process. So, the UK Act, section 38A (2) not unreasonably, in those circumstances, declared that a product would be

deemed to have been manufactured by the protected process unless it could be proved that some other process had been used.

A lot has been said about the delays. Delays in these matters do result from proving or endeavouring to prove that no other process but the protected process could have been used. I would suggest that that matter also be looked into.

The other two points that I would like to deal with concern food and drugs. The definition of food in clause 2 has been covered at page 12 of our memorandum. At the present time, the definition is proposed to be.

> "'food' means any substance intended for the use of, or capable of being used by, babies, invalids or convalescents as an article of food or drink . . .".

Most of you will have heard of the English proverb 'One man's meat is another's poison'. I think most Members would agree that it is impossible to think of any item of food which somebody during some human malady could not be advised to consume as a food. If you are going to include 'intended for the use' of, then these words are more than covered; the words 'capable of being used'. Since the latter would really cover every sort of food.

We have the same sort of problem with regard to sub-section (1) of section 20 of the Atomic Energy Act. If you would kindly look at page 25 of our printed memorandum, you would see that mention is made in the Atomic Energy Act that:

> "As from the commencement of this Act, no patents shall be granted for inventions which in the opinion of the Central Government are useful for or relate to the production....".

As we have pointed out, even a brick wall could be useful for such production. In actual working, this has been found to give a great deal of trouble, because many applications which have only had the most incidental use for atomic purposes have been held not to be patentable by virtue of the words 'or useful for'. We would like to see the words 'primarily relate to' substituted. Similarly, with regard to the definition of 'food', we would like to see the words 'primarily intended' introduced in the Bill. There could never be any doubt in the mind of the learned Controller whether something was "primarily" intended to be food for babies or convalescents, but if we include in the definition the words 'capable of being used' then it would mean that all food would be covered.

Mr. Chairman: You have stated all this in your memorandum.

Shri Ramanathan Chettiar: Mr. Harold Holloway has been only repeating whatever is contained in the memorandum. I think it would be better if he were to supplement what he has said and also bring in new points. Otherwise, I think we should be permitted to ask him questions now.

Mr. Harold Holloway: Can I bring in immediately two new points that have not been covered?

Shri Sham Lal Saraf: Certain points made by the witness are such that if some of it is accepted then consequential changes would naturally follow. Therefore, the witness need not take pains in explaining all those things in detail now.

Mr. Chairman: That is what I have been suggesting that he need not repeat what is there in his memorandum, which is already there before us all. He has already dealt with all these points in detail in his memorandum. So, he need not repeat those things.

Mr. Harold Holloway: Can I deal with two additional points?

Mr. Chairman: If you have anything new or anything to supplement what you have stated in your memorandum, you may do so.

Mr. Harold Holloway: This is entirely new, Cl. 87—p. 73 of our memorandum, in that we have dealt solely with food and medicines; we have not dealt with sub-clause (a) (iii) which renders all patents relating to methods or processes for the manufacture or production of chemical substances liable to endorsement with the words 'Licences of right'. If you would look to the notes on clauses in the Bill against cl. 87, you will find the statement:

> "These provisions are intended to secure the proper development of the drug and chemical industries in the country".

We have not commented on the chemical industries part of the clause, but there appears to be no reason why the chemical industry, quite apart from the food and drug industry, should be singled out for marking immediately as 'Licences of right'. If it is really accepted that this provision is necessary to secure the proper development of the food, drug and chemical industries—and we agree that customarily special considerations are felt to apply to food and drug patents —then if chemicals are brought in here, it does seem difficult to make any distinction between them and patents relating to machinery of telecommunications and so on. If it is really felt that these industries cannot be properly developed if these patents are not marked with the words 'Licences of Right', then that argument could be considered equally applicable to every other kind of patent. If that view is really felt, with respect then it would probably be worth considering whether any Patents Bill is desirable. We do not really see why the chemical industry should be singled out in this particular way.

Another point—the final point—concerns the qualifications for patent agents. One of the things that has occurred in this country, in the profession relating to patents and trade marks, has been that much benefit has been derived from the rich experience of senior officials when they have retired, in assisting others and in helping to train younger people in their profession. Now everybody knows that last year twice as many patent applications were filed as in 1956. There is a shortage of staff at the Patent Office. If we are going to make provision in the Act to prevent any officer who has been a hearing officer for more than twelve months from practice, that will mean that a large number of examiners, before they have been in offices for more than a year will leave the Patent Office after 7 years or so because they will be disqualified from practice in later life if they do not do so. Under existing regulations, so I understand, in Government service, class I officers cannot take such private employment except with special permission, within two years of retirement from Government Service. It does seem that this general provision is quite sufficient to cover these cases and that it is not necessary or desirable to impose a particular restriction on the staff of the Patent Office, which does not apply for example, against High Court Judges or others.

The relevant clause is 126(c)(iv):

> "has served in the office of the Controller as an examiner of patents or in any higher capacity for a period of not less than seven years:
>
> Provided that he had not exercised the functions of a hearing officer for a period exceeding twelve months in all during his tenure of office".

I think that will create administrative problems. In our note I did ask leave to be able to add to the comments on the qualifications of patent agents.

It is, as was noted in the Ayyangar Commission Report, a matter of fact that in other countries where specific requirements have been imposed, they

have been brought into effect gradually. In our very first note in the memorandum on the "commencement of the Act" we have suggested that, as in the case of the Merchant Shipping Act and one or two other such complicated Acts, power should be taken to make it possible to bring the statute into operation in phases, if Government feels at the time that this is right. Clearly, if this part of the Bill concerning Patent Agents and Firms were to become law very shortly, there would be complete dislocation. In my own firm, for example, we have some members of our staff who have been doing the same job for 40 years or so, as for example in the matter of filing. Similarly, in the Patent Office, they no doubt have staff who are employed on work peculiarly adapted to the existing Act. If immediately there are to be fundamental changes without anybody having had time to adapt himself or to qualify himself, there will be dislocation, and the Controller of Patents would be very much in the position of a Judge having to decide cases without counsels' aids, because there will be so few people who qualify immediately to become patent agents. I would ask that the Committee give consideration, no doubt after consultation with the officials, who, I think, would reflect this view, to our recommendation that there should be a period of grace of say five years or so, if these clauses concerning practice are really going to be adhered to.

Another alternative which has been suggested by other practitioners in India is that a list might be compiled at once of *bona fide* practitioners, as happened in the UK, by the Controller, to whom application would have to be made within a year from the coming into force of the Act.

This is really vital to the administration of any Act. All those who practice get on very well with the Patent Office. For example, if we practitioners were to put in all our hundreds of applications in disorder, chaos would result at the Patent Office. They are used to receiving applications in good order. Therefore, it is essential that any changes should be made gradually, so as to permit this state of affairs to continue.

On the point of administration, I would like to draw attention to the fact that this Bill will impose a very heavy additional burden on the Patent Office. Some of the clauses on which we have commented do involve some extra work which we believe is unnecessary.

Mr. Chairman: That is for Government to consider.

Shri R. Ramanathan Chettiar: No chaos.

Mr. Harold Holloway: The Clauses which require particular attention are 2, 7, 8, 10, 12, 13, 18, 21, 39, 42, 57, 69, 85 and 93. They all involve additional work.

On the position of the Indian inventor, I want to say this. First, the Act should have as a main object the encouragement of research. Secondly.....

Mr. Chairman: You have stated that in your memorandum.

Mr. Harold Holloway: I have not quite said that.

Now, under clause 13, Indian inventors are going to be very seriously hit.

Mr. Chairman: You may leave the rest to the Committee.

Shri P. S. Naskar: Mr. Holloway, you are representing a very old firm and a very reputable firm. Your concluding sentence was that the purpose of this Patents Bill should be to see that the inventions and the research or rather the industrial growth is helped. You are in this line for many years. The Patents law is in existence for a long time. Can you

tell me out of the number of patents that have been granted, how many are owned by Indians and how many are owned by non-Indians? The non-Indians who are having the patents are not working them inside the country. How can it help the industrial growth.

Mr. Harold Holloway: I think, today, for obvious reasons, there have to be stringent import controls....

Shri P. S. Naskar: I am not talking of today. The Patents law has been in existence in the country for a long time. I have got the figures. Very few patents especially in the pharmaceuticals industry have been granted to Indians and quite a very large number, I should say 80 per cent, of patents have been taken up by the non-Indian concerns who just do not work them inside the country. They do not function inside the country. In this way, they are retarding our industrial growth. Don't you agree with me?

Mr. Harold Holloway: I agree that in this country, as in every other country, excluding the United States, the majority of patents, not only in the pharmaceuticals industry but in every field, are owned by foreigners. In India, in the pharmaceuticals field which involves a very costly research, it is quite likely that the majority of the patents will continue for a long time to be held by foreigners.

Shri P. S. Naskar: I do not mind research being done by them. They are holding the patents but they are not working them inside the country to help our industrial growth. By this they are retarding our industrial growth. Do you agree to that?

Mr. Harold Holloway: I will not agree with that. I share the view of one of the critics of the present patent situation who mentioned in the Lok Sabha that in 1948 the drugs that were produced were worth Rs. 10 millions and today that figure has risen to Rs. 1000 millions, which represents a hundred times growth. We want to see even quicker growth....

Shri P. S. Naskar: But how? You take the patents but you do not work them in the country and you have the monopoly of importation of the bulk supply in this country. You just put it in bottles and sell them here. How does that help our industrial growth?

Mr. Harold Holloway: In the pharmaceutical industry, in India there is a good amount of collaboration between the overseas companies, who are engaged in research, and the local manufacturers. Indian technicians are being trained here and overseas.

With regard to the importation of products, I agree that some years ago, it was commonplace that even intermediates had to be imported.

Shri P. S. Naskar: Even today. I restrict the scope of my question to this. There are quite a few life-saving drugs. Can you tell me in respect of how many life-saving drugs, the bulk is imported under the monopolistic system and how many drugs are being manufactured under the patents inside the country?

Mr. Harold Holloway: For instance, take the case of chloramphenicol. I am taking one specific case of which I know something. You have one company which developed this drug. Five of its competitors and its own subsidiary in India, have been licensed to manufacture here. The Government decided the capacity which it wanted, and that capacity was met by such local manufacturing arrangements. Since 1961...

Shri P. S. Naskar: Who supplied the raw material?

Mr. Harold Holloway: ... there has been no import of any intermediates but only of raw materials.

Shri M. R. Masani: I would like the witness to tell us a little about the statement made on p. 7 of their Memorandum to the effect that there are several aspects of this Bill which would prevent India from becoming a member of the International Convention. What are the aspects which would come in the way?

Mr. Harold Holloway: I would refer you to p. 118 of the Ayyangar Commission's Report. I would like to make this point: the Ayyangar Commission never envisaged the abolition of appeals. It did not envisage the licensing of right which is proposed in respect of a wide range of patents. This Bill goes much further. The Ayyangar Report did note the danger. It says in para 307:

> "Apart from any theoretical or ideological preference for or against the Convention, I would point out two matters which have a vital bearing on any decision on this matter. The first is that some of the recommendations which I have made and which I consider essential to achieve the adequate working of inventions in the country are not in accordance with the Convention...."

In this country, we need assistance in developing our industries. I think it is a serious step to introduce the Bill which would later on make India inadmissible to join the Convention. One such disability results from the London and Lisbon amendment of the International Convention.

Shri Sham Lal Saraf: How does it militate against the present convention?

Mr. Harold Holloway: Thus the Lisbon revision says:

> "(3) Revocation of the patent shall not be provided for except in cases where the granting of compulsory licences would not have been sufficient to prevent such abuses. No proceeding for the cancellation or revocation of a patent may be instituted before the expiration of two years from the granting of the first compulsory licence."

This Bill envisages a more drastic procedure.

Shri M. R. Masani: My next question is about the Soviet Union. In what year did the Soviet Union join the International Convention? What are the factors that led the Soviet Union to change its position and become a member of the International Convention?

Mr. Harold Holloway: I was not aware of it. I accept the Hon. Member's information that Russia is a member of the Convention. Personally, we have always found that, when in India we have told Russians that they were infringing somebody else's patents, they have been anxious to respect such patent rights. They have a slightly different system in Russia. They have also certificates of authorship which, I think, involve payment of royalty. Anybody can use an invention so held subject to payment. The reasons, I think, for Russians instituting a patent system are exactly those which prevent Italy, in practice, from abolishing permanently the patent system concerning medicines. In fact, most of the big Italian manufacturers conducted a private system of voluntary licensing with the bigger companies throughout the world, because if they had not done that, they would not have been able to export. That is one of the dangers that we apprehend in India.

Shri M. R. Masani: Can you tell us anything about the proposed move in Italy to bring the patent law in conformity with the International Convention?

Mr. Harold Holloway: The immediate occasion for the new Bill is the need for uniformity with the other countries of the European Common Market. But, as I have said,

there are already many cases of private licensing arrangements, while their exports would be affected.

Shri M. R. Masani: We shall be grateful if you can make available a copy of the new Bill.

My next question is this. The present Bill seeks to abolish the time limit within which a patent must be issued. Would you favour the restoration of the time limit so that long delays do not take place and would you think that the limits in the present Act are roughly fair and adequate for that purpose?

Mr. Harold Holloway: The period is proposed to be 15 months, subject to a three monthly extension from the date of the first official examination. I think we are dealing with that. As a result of accumulation of work, an impossible situation has already been reached in the Patent Office, and applications are now able only to be examined just before the expiry of the existing 18 month statutory period. Under the new system it is clear that patents are going to be granted three years after filing, or even four or five years after. If the period is to be calculated from the first examination report, it means that more time will be taken which also has the consequence of reducing further the effective life of the patents from 14 or 10 years to a lesser term.

Mr. Chairman: Would you like to put any time limit?

Mr. Harold Holloway: I think the factual situation is such that we must accept the inevitable. May I, in this connection, read out a short letter which has come to us from a foreign Government, which applied for a patent in India; it has a direct bearing on this matter?

"In this connection we wish to draw attention to the fact that the relevant official letter, dated 20th August, was a first official action and allowed a period of only 14 days in which to file a response. The action was not, in fact, received by us until 1st September making it absolutely impossible to reply within the stipulated period. It is considered quite unreasonable that patent Office should exact from an applicant a fee for an extension of time which was only necessary because of its own delay in issuing a first official action a mere fourteen days before the expiration of the normal period for securing acceptance. This is felt to be a special hardship in the case of an applicant, abroad where the whole of the short term available for response can be lost, as it was in this case, in quite normal postal transit times.

Will you, therefore, on our behalf, please make the strongest possible protest to the Patent Office in respect of this gross imposition."

We did nothing of that sort. We have loyalty also to the Patent Office here. We know the present problems of examination, so, in these circumstances, we have explained the position to the Government concerned.

Dr. L. M. Singhvi: Regarding Clause 115, you have pointed out that it would be improper for the Government to draw up a list of experts to be consulted in matters where litigation arises. Would you like to suggest an alternative means of drawing up the list of experts or would you like to leave it to the Court to determine as to who is an expert on a particular subject as and when occasion arises?

Mr. Harold Holloway: The 1953 Bill would have permitted the Courts to seek the assistance of experts, but the Courts, no doubt, after hearing the parties would themselves have been responsible for deciding who the experts should be. It seems to me that, when you have a new Bill which gives Government a special position

with regard to the manufacture of patents, commercial use and so on, it is really undesirable that there should be a Government-controlled list. It would be fair to leave it to the Court, as was proposed under the 1953 Bill, to make its own selection and to fix *ad hoc* remuneration.

Shri R. Ramanathan Chettiar: The 1953 Bill was introduced but was withdrawn.

Dr. L. M. Singhvi: You have opposed the abolition of appeals to High Courts and have advocated that an appeal should invariably and in all cases lie to High Court. Would you suggest that in between an appeal to the High Court and a writ proceeding before the High Court there should be interposed a proceeding before a Specialists Tribunal specially constituted for the purpose of patents?

Mr. Harold Holloway: In the note that we have submitted today, in the final paragraph we have expressed the desirability of a Patents Appeal Tribunal consisting of a High Court Judge which could hasten disposal of these matters. Our own view is that the Ayyangar Commission, as also the Tek Chand Inquiry Commission, were correct in saying that it was necessary that these appeals should all go to the High Court and having regard to the increased Government powers and benefits such as in Clauses 102, 99, 48 and 87, I think it would be better if the appeals did go to the High Court.

Dr. L. M. Singhvi: If you provide for an appeal before a Patents Tribunal, would you still insist on a second appeal before the High Court because if, in the first appeal, the Patents Tribunal were not able to adjudicate to the satisfaction of the aggrieved party, as writ petition might still lie before the High Court and, therefore, it would be superfluous to provide for a second appeal before the High Court.

Mr. Harold Holloway: While the general law of the country allows second appeals, there seems to be no reason why there should not be a second appeal in respect of patents. If there is not to be a second appeal, but there is to be one appeal to the Patents Appeal Tribunal or to the High Court, that it would be much better than to have no appeal at all.

Dr. L. M. Singhvi: You have made a reference to the fact that processes and technical know how continue to come from outside into the country and that the Patents Bill, as it is proposed, would emasculate the possibility of transfer of technology. Are you aware, in the context of the fact, that the patents secured in the country have not been utilised and there is an allegation that these patents have generally been secured only to protect export pockets and not really to secure transfer of technology and secure transfer of technology and indigenous manufacture in this country?

Mr. Harold Holloway: Whatever was true in the past, today those items which are desired to be manufactured in India are being manufactured in India. We have thrown out the challenge that if anybody suitable anywhere in India wants to obtain a licence and assistance we would be ready to put him in touch with those who are engaged in that line. Government should encourage patents to manufacture here in India, but the Bill will not.

Dr. L. M. Singhvi: The Kefauver Committee of the United States pointed out that India is having the highest incidence of prices of drugs. There is the unhappy relationship between the cost of living here and the prices of drugs and other essential commodities. Do you think patent protection has played a certain part in keeping these prices high? The prices are very high in this country compared to international prices.

Mr. Harold Holloway: There are various observations which should be

made on the prices of patented and unpatented medicines. We cannot see any great differential. If one looks at the general level of rising prices in this and other countries, one tends to see the position in better perspective and not to attribute those to the existence of patents. A certain enquiry went out from Government whereby certain companies in India were asked to report whether they were manufacturing goods under patents, and if so, what goods. The majority of them had no idea for the simple reason that they were not being charged anything by their parent companies. The patent companies say: Manufacture like this, send us your technicians, we will train them. The local companies were thus manufacturing in complete ignorance of whether there were patents or no patents at all. I don't think those patents have a decisive bearing on prices. One of the common solvents in the case of drugs is alcohol. That is subject to excise and various other charges. There is one big company in Bombay a subsidiary of an overseas company, which has been manufacturing drugs in India since 1904, and I understand they have never paid the parent company one anna of royalty during that period. I think that unless there were an investigtion as to whether there is any differential in the increasing costs of unpatented medicines and patented medicines it would be premature to draw any conclusion.

Shri P. S. Naskar: In respect of patented drugs coming from outside the same thing is sold cheaper outside and it is sold so costly in India. That is just imported. Why it is more costly here than in other countries? That was Dr. Singhvi's question.

Mr. Harold Holloway: A number of these drugs are partly imported and partly made here.

Shri P. S. Naskar: Price is so high because of taxation only, or is it due to the high profit motive there?

Mr. Harold Holloway: Patents have nothing to do with it....

Shri P. S. Naskar: The same company sells at one price which is called international price outside and that very drug is sold in India very much higher.

Dr. L. M. Singhvi: The figures that we have in this regard have pointed out the very wide variation in the prices of the same drug in different companies manufactured and sold by the same agency. My question is this. What part do patents play in this regard? Are they interested in preserving export market and making such profit as they can make by exporting these things rather than furthering the possibility of idigenous manufacture of these medicines or drugs which would bring down the pries?

Mr. Harold Holloway: There are specific drugs the prices of which are lower. If you were able to manufacture in India in sufficient quantities, then it would follow that the bigger the production the lower would be the price. If you look around you will find that prices of a lot of drugs are coming down.

Dr. L. M. Singhvi: For the same drug the same company charges different prices when it is sold in India and in other countries. Why this variation?

Mr. Harold Holloway: There are lot of other goods....

Shri P. S. Naskar: That is because of patents? Or, because of other considerations?

Mr. Harold Holloway: If a man looks for profit, then he is as anxious to make a profit on a product that is upatented as it is patented.

Dr. L. M. Singhvi: Patents make him sure because he has monopoly in this market. He can make any profit without any fear of competition from any quarter. What is the

period that we should prescribe? From when should this period begin and what are the reasons for indicating as to the suitability of indicating particular period?

Mr. Harold Holloway: Do you mean the life of the patent?

Dr. L. M. Singhvi: Period of the life of the patent.

Mr. Harold Holloway: I like the idea of 16 years.

Dr. L. M. Singhvi: Is it 16 years from the date of grant of patent or from the date of application?

Mr. Harold Holloway: The date of grant as the longer the period the better it would be for patentees. I would like to refer you to what the Tek Chand Committee suggested.

Shri Kashi Ram Gupta: In your memorandum you suggested amendment of section 20 of the Atomic Energy Act. Are you not aware of the fact that this committee is not supposed to go into that sort of arrangement? What was the purpose of your bringing this into the Memorandum?

Mr. Chairman: He has referred to it only as an example.

Shri Kashi Ram Gupta: He has said that it should be amended.

Mr. Harold Holloway: Clause 4 of the Bill reads thus:

> "No patent shall be granted in respect of an invention relating to atomic energy falling within sub-section (1) of section 20 of the Atomic Energy, Act, 1962".

As reference was being made in the Bill to that section, it appeared appropriate to draw the members' attention to the difficulties experienced in its administration.

Shri Kashi Ram Gupta: You have suggested amendments, modifications and deletions of about 50 clauses. Does it mean that the rest of the clauses are agreable to you?

Mr. Harold Holloway: In paragraph 2 of our Introduction we have stated as follows:

> "In short, we would ask that our detailed comments, many of which are of a technical nature, against the various Clauses, should not be construed as implying approval either of the shape of the Bill as a whole or of any individual Clauses".

Shri Kashi Ram Gupta: It means that you do not take responsibility for anything—even for your suggestions for amendment.

Mr. Harold Holloway: I am sorry if we have given that impression. These suggestions have been made in the interest of patentees and are aimed at improving the working of the law. We naturally take responsibility for these recommendations, and we shall help to work the new Bill to the best of our ability. We are also prepared to render any other assistance, either informally or formally to make the Bill workable.

Shri Kashi Ram Gupta: In view of the fact that lot of clauses are for deletion, do you mean to say that the old Act should be there and there should be no amendments?

Mr. Harold Holloway: Yes, but I think some clauses of the Bill would have to be deleted, especially the provision which makes it obligatory that one must give enough information to make it workable by the average skilled technician in India. That really means that you must give "know-how" which is inappropriate and impossible in a specification. If you could get all the information you want from a specification, there would then be no need nor use to send Indians

overseas to get training. There is a lot more involved in this. Such a clause in a U.K. Bill was found on examination to be utterly unworkable. A clause like that cannot be amended. It can only be retained, although unworkable, or in the alternative deleted. Anyone could say "I am an average technician. I cannot understand your specification. Therefore, I am entitled to have the patent revoked". How can one expect the Indian Courts to decide what an average technician knows or does not know? That really is not proper.

Shri Kashi Ram Gupta: You have suggested so many amendments. Why don't you bring forward a parallel Bill so that we can consider that, instead of this?

Mr. Harold Holloway: I will be very happy to do so if I am given time.

Shri Kashi Ram Gupta: In 1963 your firm together with four others had put in a representation to the Cabinet. You have not mentioned what those firms are.

Mr. Chairman: He has given them in the memorandum.

Shri Kashi Ram Gupta: In that representation you feared that the patent policy should be abolished. In this Bill it is not abolished. There is a reduction of the period. I think you must be satisfied now.

Mr. Harold Holloway: Dealing with the first point, we did not mention the names of the other firms in our Memorandum because we did not want to associate them either informally or directly with something to which they might not have agreed. If the Committee require the names of the other firms, I will gladly give them. As regards the other point. We still have our apprehensions. In our Introduction we have listed 23 main burdons which are sought to be imposed. Of those 19 or 20 are new in the sense that....

Mr. Chairman: You have already said that yesterday.

Shri Kashi Ram Gupta: Are you aware of the fact that there are so many Indian firms who produce pharmaceutical products. They are all in favour of total abolition of the patent so far as pharmaceuticals are concerned. Have you studied their point of view?

Mr. Harold Holloway: Yes. Some of these companies are our clients and we have assisted them in securing patent protection in the country, and in others we are therefore aware that there are a very large number of Indian companies who are working in India's interest and are efficiently producing wonderful drugs.

Shri K. K. Warior: Can we have a brief account from the learned witness as to how the patent Act is working in the newly independent countries like Egypt, Ghana, etc.?

Mr. Harold Holloway: I am aware of the position in Indonesia, Vietnam, Egypt and West Indies (Trinidad) who are members of the International Convention. Their statutes must therefore conform to the generally accepted pattern.

Shri K. K. Warior: In the Ayyangar Report, as Mr. Masani was pleased to refer, he had recommended certain provisions in the new Bill which may militate against the Convention. But still he recommended them to be included in the Bill. Is it not in the national interest that they should be added in this Bill?

Mr. Harold Holloway: It will make India ineligible to become a member of the Convention. Thereby you will also be penalising the Indian inventor who will be denied the priority privileges which inventors all over the world value.

Shri K. K. Warior: Does it not imply that until and unless Indian in-

ventor comes of age he can avail of the favours from the International Convention and until that time these provisions should be included?

Mr. Chairman: It is for you to decide.

Shri K. K. Warior: I want to know his opinion.

Mr. Harold Holloway: Very useful inventions are increasingly made in India. Some years ago it was very difficult to get permission from the Reserve Bank for the foreign exchange involved. They have now become fairly familiar with the procedure, and it is working very satisfactorily. I think it will be a great pity if an Indian citizen, before obtaining a patent, overseas, has not only to refer to the Controller but also to the Central Government. We want to encourage Indian inventors. I think a number of these provisions as to prior publication overseas, novelty, etc. are going to hit the Indian inventors very heavily. For example an Indian pharmaceutical company may make an invention, and to expect them to discover whether there are any prior patents in India before applying for a patent is reasonable, but to expect them to ascertain whether there has been any prior publication anywhere overseas is not, and is going to add to the cost. Why should an American company, for example come to India and challenge a patent which somebody in India has obtained as a result of research merely because in Argentina, for example, some earlier document had referred to the invention unknown to the Indian inventor?

Shri K. K. Warior: Do you think that certain products and processes which are not having the luxury of patent right in their own country should have patent right in India?

Mr. Harold Holloway: That is really a matter of the inventors preference. For example, inventors may only want to have patent protection for jute machinery in those countries like the U.K., Belgium or Thailand, where the jute is used and where they have business connections. There is nothing wrong in that.

Shri K. K. Warior: Some of the rights patented are really blocking inventions idigenously. What is your comment on this?

Mr. Harold Holloway: That is always alleged, but you have provisions for compulsory licences etc. and you have got hundreds of examples of happy voluntary collaboration.

Shri Sham Lal Saraf:. You have said that the present Patents Law is encouraging collaboration and also it has helped our export trade. Do you by implication mean that the proposed bill will impede both and if so in what way?

Mr. Harold Holloway: It will certainly impede both because many patentees, looking at the situation will decide that it is not worthwhile to obtain such patent protection and collaborate in manufacturers here. After others have secured patent protection in this country and if licenses are granted summarily in the way now proposed it may well be, and this is a matter of practical reality that when exports are made from this country, the inventors will treat them as constituting infringement in other countries. That will affect India's export trade, in the same way as it has affected Italy's.

Shri Sham Lal Saraf: In certain cases, some substances are manufactured or prepared elsewhere outside the country and are sold as patent commodities here. How would you react to the idea that wherever it is possible the law should make it incumbent upon these patentees to manufacture their products here within the country?

Mr. Chairman: He has said enough about that. Dr. Singhvi raised that question and he has answered.

Shri Sham Lal Saraf: As you know, the patents or inventions are always unpredictable. Therefore, would you suggest that the codification of patents or such inventions that need not come under the law of patents should be attempted?

Mr. Harold Holloway: Under Clause 13 it is proposed to examine the applications in India to find out whether there has been any anticipatory publication outside India. Because of the unpredictability of some inventions, their utility at that stage may not be known completely until a period of time has elapsed. One can always apply to revoke a patent on the ground that there is no utility in that invention.

Shri Sham Lal Saraf: When the first law was enacted, it might have been argued in this way. In the context of present day with the ever-changing technology, would you agree that the period of 10 years should be enough time for registering the patent from the date the goods are sealed or manufactured?

Mr. Harold Holloway: The tendency today is for inventions to cease to be simple and to become very complex. As I mentioned yesterday, in the case of insecticides and things like that a longer time is required before an invention is able to be exploited commercially at all.

Shri Sham Lal Saraf: You said that where goods are patented at present the law provides that the Government may import such patented commodities or goods from elsewhere, of course on payment of reasonable royalty to the patentee here in the country. In case the Government do it for their own use, what is your objection to that?

Mr. Harold Holloway: We have made our comments against Clauses 99 to 103 of the proposed Bill. We see no reason why the Government should not have certain rights, but when you extend those rights to Government undertakings and other for the purpose of earning profits, it seems to us that there is a fudamental conflict with the whole idea of a Patents Act, since there can be no system of patents without some element of monopoly, albeit subject to appropriate safeguards. The whole idea of giving any benefit to the inventor would then be undermined. That is where the point of departure come in. The bill goes very much wider than is necessary.

Dr. C. B. Singh: On page 4 of your memorandum you have stated in para 3 that 'with the growing demand in India, it is necessary, we believe, that the Pharmaceutical Industry, like other industries, should continue to expand, and so long as India's technicians are concerned, as they must be for some time more, with the battle of production rather than with research, it will be necessary to ensure continuing co-operation from those whose men, money and massive research are achieving the advances from which many of us have already benefitted.' Do you mean to suggest that research should be given the secondary place or be given a go-by?

Mr. Harold Holloway: There has to be a balance between production and research. As you develop your techniques in producing goods of high quality in quantity, you acquire a base from which you can engage in research. Here in India there is so much immediate need for so many of these products, that it is obvious that for some time to come the number of technicians who will be available for research, will be nothing like the numbers available in the more industrially advanced countries. Therefore, I think it is in India's interest that we continue to encourage people overseas to work their inventions here in association with Indian industry.

Dr. C. B. Singh: Are you envisaging big export market for Indian pharmaceutical goods and that is why the patent law should be tightened and protection given for a longer period?

Mr. Harold Holloway: In general, exports are likely to be encouraged, if there is an effective patent system in this country, because when goods are exported they will not constitute infringements in other countries.

Dr. C. B. Singh: You probably know that the result of research is very often accidental. Mr. Roentgen was experimenting Photographic with high machines where certain current generating electrical plates were kept which were found to have been affected by some current and he accidentally discovered X-Ray. So also Prof. Fleeming discovered penicillin while doing some experiments. The results have come out of smaller routine laboratory experiments and not of highly developed experiments. Then, how does it happen that high cost should be given to patentees' drugs etc on this score?

Mr. Harold Holloway: Many inventions may be simple and may have been discovered by chance. But the fact remains that they have been discovered. When an invention is made, it can either be kept secret or it can be exploited. One of the purposes of patents law has always been to encourage publication of the discoveries, And I think that whatever kind of invention is made, it is desirable that patenting thereof should be encouraged.

Dr. C. B. Singh: Do you agree to exceptions being made in respect of life-saving emergency drugs and inventions in the interests of the country's defence?

Mr. Harold Holloway: Yes, certainly, of the kind we have got in the present Act. It is working very well.

Dr. C. B. Singh: You have pointed out that communist countries which did not have any patent law are now gradually coming to patent law. Could you give us some explanation why they have come back to patent law?

Mr. Harold Holloway: I think they want to encourage research in their own factories in the communist, as in the western countries. I think there is also this consciousness of the need to facilitate interchange of goods in normal cause of international trade.

Dr. C. B. Singh: From your wide experience, may we have a few big examples of infringement of patent laws dealt with by your firm, especially in pharmaceutical products in this country?

Mr. Harold Holloway: Yes, we have been concerned with a number of them. A recent one, as I mentioned, concerned chloromphenicol. Most of these matters, when there are infringements, are settled as a result of negotiations between the parties. That is the only recent one that has gone to court, as far as I can remember.

Dr. C. B. Singh: Although only a small per cent of drugs and pharmaceuticals are covered by patent in this country, I have a lurking fear in my mind that a reputed firm enhances the prices like any other commodity, for example tincture, ginger etc., to make high profits.

Mr. Harold Holloway: As I have said before, people are just as greedy with regard to unpatented goods as to patented goods. There is no difference in the human greed.

Shri Himatsingka: Have you any idea as to the proportion of patented drugs to the unpatented drugs?

Mr. Harold Holloway: Our estimate is it is something like 2 per cent. We did it on our own enquiries and examination three or four years back, and nobody has scrously challenged such conclusion. Somebody once said it was nearer 5 per cent, but if this was so, it is still a very tiny fraction. Even if it were 6 per cent, it is a tiny proportion of the whole.

Shri P. S. Naskar: Are unpatented drugs costlier, or patented drugs are costlier—as a general rule?

Mr. Harold Holloway: The general rule is, that if a drug has been costly to develop, therefore it would be costlier to buy, not because it is patented but because it proved more difficult to develop. Therefore, on the whole one would expect that patented drugs resulting from research would be slightly more expensive.

Shri Himatsinka: Even under the present law the Government have a right to have licences issued up to three years. There is that provision that articles can be protected by the issue of licence. You are objecting to that now.

Mr. Harold Holloway: I am sorry if I have misunderstood the question. What we don't recommend is this—I think it is under clause 87 whereby all pharmaceutical patents are to be marked at one as "licences of right". This is one of those considerations that would cause the Bill to run foul of, or counter to, the International Convention. They have made such patents it liable to the grant of licence immediately—not after a period of time—irrespective of whether the inventor works, or is going to work, them in India or not.

Shri D. P. Karmarkar: In page 27 of your memorandum you refer to clause 5, and later you refer to clause 47 which relates to rights etc. Do you agree that so far as the advantage is concerned, clause 5 and clause 47 are satisfactory, taken by themselves—I am not referring to the impiging of the rights—do you agree that a patentee is privileged to the processed product as produced by that particular process?

Mr. Harold Holloway: I think on balance, that of it would perhaps be asking too much to expect you now to grant patent protection to products *per se*. It seems, however, not only reasonable but necessary that you should continue as at present to grant protection to products when they are produced by a particular process. Otherwise these patents would be valueless.

Shri D. P. Karmarkar: Then on page 31 of your memorandum, in respect of clause 8, your principal complaint is that the work of the Patent Office will be unnecessarily overcrowded and that this provision is unnecessary.

Mr. Harold Holloway: Yes.

Shri D. P. Karmarkar: That is your only camplaint. Suppose it could be managed, do you agree that a positively useful purpose will be served?

Mr. Harold Holloway: No. In all these Bills it is very easy to see afterwards that some of the information which is sought has proved not to be necessary. In another recent Bill there was the requirement that copies of the memoranda and articles of association of the parties should be submitted with each application. That produced the odd situation that in connection with one series of applications with which my firm was concerned, we were involved in the need, technically, to submit nearly a thousand copies of these memoranda and articles to a Government office. The Government office concerned accepted that they and we could not cope with a thousand such copies although the law required that we should submit five hundred copies of each. We therefore reached a compromise; we wrote and said "here are six copies of each, the rest will follow", and the Government office agreed never to ask for the others. We have sometimes to get round these provisions. It really is not, I think, sensible to insist, for example, upon specifications, and other documents, in Spanish and in half a dozen other foreign languages which we cannot translate here, being submitted to the Patent

Office. We could not cope with this, and I am sure the Controller, and all the other officials concerned would agree, that they could not examine them. One could not cope with the tremendous volume of additional information, indexing etc, while even get these papers from New York for example, would cost you a thousand rupees in postage. I do not know how any of us could cope with this, or what purpose it could serve, because every application in every other country will be examined on a different legal basis from what is now envisaged in our new Act.

Shri D. P. Karmarkar: From clause 42 you propose the omission of the words "or any department thereof". Are you aware that a department of Government is not different from Govt.

Mr. Harold Holloway: And yet it is "the Central Government or any department thereof" that is the expression used there and elsewhere.

Shri D. P. Karmarkar: Arising out of your observations on page 84 of your memorandum, with regard to public interest, as you have observed, and rightly, where the policies of Government are concerned, you have nothing to say—you may have your own private views. But situated as we are, if public interest is to be the dominant motive power behind Government's activties, though it results in loss to the patentees, do you agree that it is a progressive suggestion?

Mr. Harold Holloway: Certainly. This is why I feel it is quite outside my province. It is a fundamental policy decision whether or not you believe the public interest demands the granting of some element of monopoly. If you don't—and you are entitled not to—then, of course there can be no room for any Patent Bill. Our anxiety is that the 'public interest' is at each decisive point regarded as operating to justify the withdrawal of every effective element of advantage which should be left, and is left, under the existing Act to inventors. Now, the balance is proposed to be tilted so much one way that I am quite confident that if you hold to this Bill, then in honestly we would have to tell some applicants. You are far better off without seeking patent which would render you liable to fines for not giving information, and which would expose you to all the burdens which we have enumerated in our introduction.."

Shri D. P. Karmarkar: At page 93, of course, you have given your final opinion in paragraph 3, with regard to appeals. Suppose what you are suggesting does not happen. In that case, in view of the fact that these matters arising in respect of patent law have to be speedily decided, and in view of the fact that the High Courts are all busy with so many other things and they are not able to cope with the work, would you agree if as in the case of the Income-tax law or the sales-tax law, a tribunal would be set up with a person with some judicial experience at its head to decide these cases? In your opinion will that tribunal be found sufficient?.

Mr. Harold Holloway: Yes; I think a tribunal, particularly if it consists of a high Court judge who is accustomed to hear and weigh evidence, would be acceptable here and overseas.

Shri D. P. Karmarkar: Ultimately, in respect of what you call the advantages to be given to the patentee or the applicants for patents, taking all things into consideration including the exclusive monopoly for the thing and so on—let us leave aside delays etc. for the present—in the case of patents as a whole, what should be the effective period for which the patentee should be allowed to enjoy his rights?

Mr. Chairman: He has already said that it should be sixteen years.

Mr. Harold Holloway: Very occasionally I think it has occurred that a patent application has been accepted without any official objection. In those cases, the Patent Office could proceed to grant the patents very much more quickly than in the case of applications where there were a good number of objections raised. I do not think you can ever achieve a uniform period for the term of a patent; you may say that it should be sixteen years but some patents will take longer inevitably for a variety of reasons before they are granted.

Shri D. P. Karmarkar: You are not able to say what the minimum effective period should be?

Mr. Harold Holloway: I would say two things. A period of sixteen years would be satisfactory; ten years would be too short, because four years could be taken before the patent was granted leaving an effective period of six years only; I do not think that any of the officials would take a different view as to future grants taking a lesser period.

Shri D. P. Karmarkar: If is possible for a patent-holder in a sense to help the arranging of patents and things like that and sometimes raise the prices to more than justifiable levels. What should be the effective method to check such unconscionable rise in prices?

Mr. Harold Holloway: I think that really is outside my province.

Shri M. L. Jadhav: The cost of labour in India is lower as compared to that in other countries, whereas the cost of medicines is more than in the Western countries. Do you think that the provisions of this Bill would help to bring down the prices?

Mr. Harold Holloway: No, I do not. I think that when they start manufacturing something new—and by every standard, India is a country which is developing—then naturally it is more costly and more troublesome, but when you have been doing so for a longer period, then the cost would come down. The other problem of course, as we are all aware, is that there is to shortage of raw materials, due to foreign exchange, and by other things, which prevents people from manufacturing always in economic quantities.

Shri M. L. Jadhav: Could you say that the profits made by the drug companies or the patentees is very high in India as compared to other countries?

Mr. Harold Holloway: That is a matter of fiscal policy. If the profits are too high, that is a matter for taxation rather than for a Patents Act.

Shri Arjun Arora: Do you have any idea of the percentage of patents being held in India which are not actually exploited in this country?

Mr. Harold Holloway: I should think that as in every other country in the world, probably a majority of them are not; that is just my personal impression.

Shri Arjun Arora: Suppose a patent is held in India and the patentee does not start manufacture in India. Do you still insist that he should have the right of exploitation of the Indian market for sixteen years?

Mr. Harold Holloway: That should not affect the period of the patent, but there should be provision whereby somebody could obtain a compulsory licnce for it, as under the present Act, under which, if the patentee does not work his patent, then it is open to somebody else to go along and seek a compulsory licence, or it is possible, in certain circumstances, for the patent to be marked as "licences of right".

Shri Arjun Arora: A number of patentees are not utilising the majority of the patents held by them in India. This Bill will not affect adversely the holders of those patents?

Mr. Harold Holloway: I think a lot of them are not being worked because patentees have not yet had an opportunity to work the. Last year, there were about 6000 applications filed; in the two preceding years the number was only a little less. So, at any one time, a very large number of patents on the register, which are subsisting, are new patents, because if a patent is not being worked and is not found to be useful, then the annuities are not paid and it lapses.

Shri Babubhai M. Chinai: I have gone through what you have stated in your memorandum in regard to clauses 4 to 8, and chapters VIII and XVII. I would like you to be a little more clear than in the memorandum on one point. If Government for their own purpose say that they are going to import certain things, such as medicines etc. then it is provided that there is no infringement of the patent law. Suppose such a thing is permitted, then will you not think in terms of any compensation to the patentee? If so, kindly suggest the way or mode of payment of compensation in such

My second question is related to this. In all cases where Government allow the public sector undertakings to utilise these patents, where no compensation is envisaged under the law, will you consider the public sector undertakings which are also supposed to make profits to be on a par with other private sector projects, or will you differentiate between the two and say that compensation should be paid by the one only and not by the other, or will you say that it should apply to both?

Mr. Harold Holloway: I think many people feel that in this matter all parties should compete equally. If the public sector trading concerns are to have special advantages, then it does mean that the patentee, who may be a private party, is at a disadvantage. One of the things that strikes so many patentees as being undesirable is that under the Bill, for example, if Government wanted typewriters that were covered by a patent and those typewriters were being produced in India by the patentee—that is to say the patent was being worked—it would still be quite open to Government to go along to somebody else and say, 'You can manufacture these typewriters with exactly the same inventive features, but without any royalty payments. That results from cl. 48 and from other clauses.

It may be in the "public interest" that there should be no effective monopoly for patentees and that these extra rights should be given to this, but if that is in the public interest then that view of the matter there would not seem to be any place for a Patents Bill.

Shri Babubhai M. Chinai: May first question was not answered, whether for importing any drugs etc. any compensation should be paid to the patentee, and if so, what should be the mode of payment.

Mr. Harold Holloway: Yes these things, it is normally a matter of negotiation between the parties. I think there is also provision for settlement by the court.

Shri Vimalkumar M. Chordia: You object to compulsory acquisition of patents. If they are properly compensated, what is the objection?

Mr. Harold Holloway: I have every objection, for this reason. As I indicated yesterday, if you have an important invention and you have it patented, then it is able to be acquired by Government so that you could be prevented from using it but you have no patent then there is no risk of acquisition by Government and you would be able to continue to manufacture the item.

Mr. Chairman: If compensation is given what is the objection that is the question.

Mr. Harold Holloway: Compensation is clearly not going to be adequate be-

cause Government has said it is only going to acquire where it is cheaper to do so. That, I think, is in the "Notes on Clauses"—against cl. 102.

Shri Vimalkumar M. Chordia: You are opposed to compulsory supply of information also. Why? If the Controller requires that information, which will be kept with him, what could be the objection to supplying it?

Mr. Harold Holloway: Because the Ayyangar Report has said that it is not essential. I share that view. The "Notes on Clauses" say it is desirable for statistical purposes. Now, in the case of some of these big companies over here, big pharmaceutical companies over here, they do not know what patents of their parent companies they are using. They would have to search to discover that information, and even if they did it would not be complete, because many of the products manufactured would be unpatented. It would involve a great deal of extra and unnecessary work.

Shri Dalpat Singh: On p. 24 of our memorandum, you have raised objection against sub-clause (h) of cl. 3, saying that 'method of agriculture or horticulture' is a very wide term. What particular method do you want to be treated as invention for the purpose of patent?

Mr. Harold Holloway: This idea is not a new one. In other countries, a distinction is made between treatment of land and treatment of plants. We suggested that just as on various other points there has been a great deal of uncertainty in Indian practice, it would be desirable so as to avoid doubt, to make it clearer whether the sub-clause covered treatment of land which we anticipate the framers of the Bill did not intend, or only the treatment of plants.

Dr. M. M. S. Siddhu: Which are the developed countries which have not process patented rather than products patented, as far as pharmaceutical drugs are concerned?

Mr. Harold Holloway: We could certainly prepare a list. The Hon. minister did enumerate 9 or 10 countries, but we excluded from that list half a dozen; as to the balance, I think we would agree. We have also told you of the position in the U.K.

Dr. M. M. S. Siddhu: I have noted from the charts in the UN publication on the subject that nearly 20 out of 64 have only product patents; the rest of them are process patented.

Mr. Harold Holloway: Yes, but I think the point there is that you also have to have regard to what is provided in the laws of those countries for infringements. They may say that a product is not patentable and that only processes are, but they sometimes go on to say that for purposes of infringement suits, the product would be regarded as protected. If desired, we could prepare a list, but I would not like to give detailed information as to all other countries without verifying the position further.

Dr. M. M. S. Siddhu: Do you think that patents regarding medicines whose widespread distribution is necessary for the immediate benefit of the community, should be made available to the community at a cost which it can bear?

Mr. Harold Holloway: Yes, that is a wonderful idea.

Dr. M. M. S. Siddhu: Do you have any information to the effect that the big cartels of the industry, specially Chas Pfizer, Cynamide, Bristol etc. have entered into an agreement with one another to keep the prices of tetracyclene and broad-spectrum antibiotics very high throughout the world and if similar practices have been adopted by other firms, do you not think that administered prices brought about in such manner would adversely affect the country as a whole?

Mr. Harold Holloway: If that is occurring, it would clearly be wrong, but I do not think that a Patents Bill is the right means of rectifying such a state of affairs.

Dr. M. M. S. Siddhu: As a matter of fact they have taken advantage of patent rights to do so. That has been brought out in the Kofauvour Report and also in the report of the Public Accounts Committee of the House of Commons.

Mr. Harold Holloway: That report is not concerned with India. Here we are concerned with what is happening here, namely, that the growth of the pharmaceutical industry has been phenomenal.

Dr. M. M. S. Siddhu: You said that intermediates are not being imported now. Am I correct?

Mr. Harold Holloway: To a very much lesser extent than heretofore. Previously, the companies could have made profits in three ways. They would have gained from sale of the intermediates, not raw materials, and some would have received royalties and some dividends. Today it is mainly dividends. That can be controlled by taxation rather than by any Patents Bill.

Dr. M. M. S. Siddhu: As far as tetracyclene is concerned, UK was able to import it at one-tenth of the price and thereby save £12 million during two years. So, that is the position in a country with patents. Even in countries that have patents different rates exist.

Mr. Harold Holloway: If pharmaceuticals they are imported from a country where there is no patent control, no royalty at all has had to be paid and the cost of research has not had to be shared, so, they may come in cheaply, but the consequence of that would be that any such country, like Italy, would soon have no real pharmaceutical research at all. That is why in Itay you have a chemical industry which is one of the most advanced in the world but it has a pharmaceutical industry which has no major invention to its credit, since the Patent law in respect of pharmaceuticals was revoked.

Dr. M. M. S. Siddhu: I may correct you. Italy has go a good pharmaceutical industry and new drugs are coming up. Since they could not patent them in their country, they have patented them in USA and USA is going to exploit them. Therefore, to say that the countries which have no patents are not able to build a drug industry is not correct.

Mr. Chairman: That is this opinion.

Dr. M. M. S. Siddhu: But his is a fact. There is difference between an opinion and a fact.

Then, as far as drugs are concerned, you think they should not be treated different from any other inventions in spite of the fact that drugs form a way of alleviating the human sufferings while other things are not of such a direct consequence to human life?

Mr. Harold Holloway: No, Sir, That, I think, would be an extremely unreasonable position. Section 23cc of the present Act does make a very important exception in respect of medicines. We have no objection to that section, as it stands, but we agree with you that in India's present position there are special considerations in the field of drugs, but to let everybody make use of an invention before the inventor is given any chance to work the invention himself is not, according to our view, a desirable feature.

Shri S. N. Mishra: With regard to one of the points mentioned by the learned witness I would like to ask a clarification because, to my mind, there seems to be a contradiction, may be more apparent than real. That contradiction relates to the basic position. The basic position taken by the witness seems to be that the country's interest is best served by continuing the present state of affairs. If that is so, in the same breath to take up another position that before undertaking this measure there should have been another inquiry instituted, that does not seem to fit in quite well. Secondly, there are certain factors

which have taken place after 1957 which should have been taken into account before undertaking a measure of this kind. Which are those factors?

Mr. Harold Holloway: I think the answer to that is this. The Ayyangar Commission have stated in their report that they looked into the questionnaire and evidence that had been given 7 or 8 years earlier. The Ayyangar Commission interviewed only 3 witnesses, so much of the evidence which the Ayyangar Commission considered was not of even 1957 or 1958 vintage but of 1948 or 1949, as was stated by that Commission itself. So we can say that many basic points of information, particularly as to the consequences on exports, are not reflected in the Report of the Ayyangar Commission, although it is undoubtedly a very brilliant summary. Also it is not based on important events which have taken place later, so, we would have liked to have had another inquiry, if Government thought that major changes were involved, before the Bill was published. Of course, the 1911 Act cannot be regarded as being immutable. There are a number of sections that require to be modified—points like the position of joint owners, conflicts between joint owners of a patent which the Controller should be able to settle, the obvious difficulty in proving that a product has been made by a particular process and thus constitutes an infringement, for which something along the lines of section 38A(2) of the United Kingdom Acts (1907-1932) should be introduced, and so on.

Shri S. N. Mishra: So far as the justification for taking into account the various developments that have taken place during this period is concerned there can be no doubt at all. But I was simply asking whether on the same account was he justified in asking for a change of the present position when he seems to be arguing all the time that the interest of the country would be best served by continuing the present Act.

Mr. Chairman: We can discuss it amongst ourselves.

Shri S. N. Mishra: The second point relates to export. He seems to suggest that our export would be very adversely affected because of this "unique severity" as he has chosen to call it. I am not able to grasp his point fully as to how our exports are going to be very adversely affected because of this measure.

Mr. Harold Halloway: In the same way as it has occurred in Italy. If people are given licences compulsorily or independently of the patentees as "licences of right", when they try to export they will find difficulty of the kind which exactly happened in Italy. When their goods reach other countries, patents covering inventions will be found to exist in the countries to which exports are made where there is no patented invention, as in India.

Shri P. C. Borooah: The witness seems to agree that in licensing or granting patents the interests of the nation and the interests of the consumer are to be protected. Will he enlighten us as to how we can achieve those objects other than by the provisions which have been made in the Bill?

Mr. Harlod Holloway: Yes, Sir; we want to avoid the cumulative weakening of the position of the patentee to such a point that protection is inadequate to justify the development and manufacture of inventions that may necessitate not only the purchase and installation of costly plant but the training of technicians. Under the protection of a patent industrial investors are ready to put up plant and to train technicians, all of which may take a certain time. I think, it is less a matter of royalty or money because many people are getting no royalty but they desire that their inventions which they have made or caused to be made should first be put into effect by them. They believe, they are entitled to some benefit for their research and

some protection for the initiation of their manufacture.

Shri P. K. Kumaran: Suppose, we do away with the patent system altogether, in respect of drugs and medicines, in India, what will be its effect on the country?

Mr. Harold Holloway: We were concerned the other day with an inquiry from somebody who manufactures veterinary products. Veterinary products are covered by one of the definitions in the Bill and experience of manufacturing veterinary products is certainly something that India needs desperately. They are awaiting are to see what happens to this Bill before they go on with their project. I do not think anybody would get out of India because of the Bill but I do think that what would happen is that people will hesitate to expand and to put in additional money and technicians of which there is a worldwide shortage, which we here all need, and which we have been doing our best in our different ways to encourage. We firms sometimes have a very hard battle to encourage people to come here and co-operate.

Shri P. K. Kumaran: Do you think that in countries like Italy, Switzerland and USSR, where the patent system does not obtain in respect of drugs and medicines, people did not invest in that industry and those countries suffer because there is no patent law in those countries?

Mr. Harold Holloway: Generally speaking, I would say that if there was not a patent system, research would be affected. You mentioned the particular case of Italy where, I think you will agree, there has been some private system of licensing and pharmaceutical patenting being restored. Switzerland is always an exceptional case because nobody really wants to go to Switzerland to manufacture because the market is too small. The Swiss, for example, do not manufacture a motor car although they are highly industrialised. Therefore they are more concerned with the export position, so the absence or presence of patent protection in Switzerland would really be no criterion, I think, for any other country. They can only survive by manufacturing and producing for specialist export purposes, Yes and by tourists.

Shri R. Ramanathan Chettiar: What comments have you to make on the observation made in the Monopoly Inquiry Commission's Report that continuation of these patent laws will lead to monopolistic tendencies in the drug industry particularly?

Mr. Harold Holloway: I think that the position concerning patents has been enormously misunderstood. For example, a year and a half ago it was generally thought in India that products *per se* were protected and many knowledgeable people, in the press and elsewhere, made these statements. The Monopolies Commission, with great respect, I do not think was concerned with patents; if it was concerned with patents, I think their views might have been different had they got the evidence that would have been put before an Inquiry on that point.

Mr. Chairman: Thank you, Shri Holloway.

(The witnesses then withdrew.)

(The Committee then adjourned.)

Monday, the 31st January, 1966 at 10.00 hours,

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Shri Peter Alvares
3. Shri Ramchandra Vithal Bade
4. Shri Panna Lal Barupal
5. Shri Bibhuti Mishra
6. Shri P. C. Borooah
7. Sardar Daljit Singh
8. Shri Basanta Kumar Das
9. Shri V. B. Gandhi
10. Shri H. K. V. Gowdh
11. Shri Kashi Ram Gupta
12. Shri Madhavrao Laxmanrao Jadhav
13. Shri Mathew Maniyangadan
14. Shri Braj Behari Mehrotra
15. Shri Bibudhendra Mishra
16. Shrimati Sharda Mukerjee
17. Shri Chhotubhai M. Patel
18. Shri Naval Prabhakar
19. Shri R. Ramanathan Chettiar
20. Shri Sham Lal Saraf
21. Shri A. T. Sarma
22. Dr. L. M. Singhvi
23. Shri K. K. Warior
24. Shri Ram Sewak Yadav

Rajya Sabha

25. Shri Vimalkumar M. Chordia
26. Shri D. P. Karmarkar
27. Shri B. T. Kulkarni
28. Shri P. K. Kumaran
29. Shri Shyamnandan Mishra
30. Shri Dahyabhai V. Patel
31. Shri Mulka Govinda Reddy

32. Dr. M. M. S. Siddhu
33. Shri Dalpat Singh
34. Shri R. P. Sinha (absent)

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*
3. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Mr. A. G. Shah, *British Pharmaceutical Industry Association, England.*
II. Dr. K. M. Parikh, *Zandu Pharmaceutical Works Limited, Bombay.*

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1. British Pharmaceutical Industry Association, England.

Spokesman:

Mr. A. G. Shaw

(*The witness was called in and he took his seat*).

Mr. Chairman: Gentleman, the evidence that you give will be treated as public because it will be printed and distributed to our Members and also placed on the Table of the House. Even if you want anything to be treated as confidential, that will be printed and distributed to the Members.

We have received your memorandum and it has been distributed to all the Members. If you want to add anything apart from what is contained in the memorandum, you may please do so. Afterwards, the Members will ask you questions.

Mr. A. G. Shaw: Mr. Chairman and Members of the Joint Select Committee of the Parliament of India on the Patents Bill, First of all, may I express my deep and sincere appreciation for the honour which you have accorded to me by permitting me to attend before you this morning. The number of Members which the Parliament of India has appointed to this Committee indicates the importance which your Parliament attaches to this subject and the impartial manner in which the Parliament of India in accordance with democratic traditions deals with its important work. I am, therefore, deeply conscious of your kindness in extending to me as a member of another Commonwealth country the opportunity to speak to you about my memorandum of evidence.

As you will have seen from the preface, my name is Arthur George Shaw of 27, Moorhurst Avenue, Goffs Oak,

Waltham Cross, Hertfordshire, England I am a Fellow of the Pharmaceutical Society of Great Britain and qualified in January 1939. I am also a Barrister-at-Law and was called to the Bar in 1959.

I would explain Mr. Chairman and Members that I am not in practice as a Pharmacist or a Barrister. Indeed, although I was employed as a Pharmacist at one time I have never practised in the courts because, since 1954, I have been employed in a full time capacity as Assistant Secretary to the Association of the British Pharmaceutical Industry. This is not a company or an undertaking but an organization which pharmaceutical companies join on their own free will. This organization, like all good organizations takes interest in all matters which concern the health and well being of the people and it has, therefore, studied with great interest the Patents Bill introduced by the Parliament of India.

As the Bill contains certain provisions which are similar to the law at present in force in Britain and because those provisions have been in use in my country in recent years, it was thought that I should submit to you the knowledge and experience which I have acquired as an Assistant Secretary of that organisation and I submit this knowledge in the belief that knowledge gained in one country may prove to be of interest and benefit to another.

As I have explained, the Association is an organisation the membership of which is voluntary. It has its offices in London. Consequently, I come into close contact with the Ministry of Health and other Government Departments and as Assistant Secretary of B.P.I., I have seen developments which have occurred in the application of the particular sections of the British Patents Act which is the subject of my memorandum. It is because of my special position in such an organisation that I wish to offer evidence which is purely a factual statement of what has occurred.

I do not, in my evidence which I have the honour to present, offer any personal opinion. It is a statement of facts which, I sincerely trust, will be of interest and assistance to this Committee of Parliament of India in its important work.

I would like to explain Mr. Chairman and the Members of the Committee that because of other duties in my organisation, it was not possible for me to complete all my detailed enquiries before I prepared the written document which is before you. Before coming to Delhi at your kind invitation I made further enquiries to which, with your permission, I shall refer in my *expose*. In particular, I consulted officials of the Ministry of Health and the Patents Office in London as to the correctness of what I had written to you. These Officials suggested minor additions to the text and this will be mentioned in my oral evidence. During the course of my *expose*, I should like to refer to certain documents which I have brought with me. As I have come from England, I have brought the original papers which I shall be pleased to pass to the Chairman at any time if it is your wish and to leave some documents with you if that is your wish. Certain documents which I have brought are taken from our library and copies are no longer available, but if it is your wish, Mr. Chairman, I will have copies made on my return to England and send them to you.

If members of the Committee would also like copies, I will do my best to provide them on my return to England.

Shri Sham Lal Saraf: Thank you for that.

Mr. A. G. Shaw: Mr. Chairman and Members of the Committee, may

I now have your permission to take each paragraph from Sections B and C in my memorandum in turn and to comment on them and to add to the information contained therein. Thereafter, I will be pleased to answer any questions to the best of my ability which the Committee may wish to ask on my memorandum or my *expose*.

In paragraph 4 I reproduce Section 41 of the British Patents Act of 1949— in your present Patents Act under Sec. 23CC there is a similar provision. This section 23CC is not continued in the Bill but is replaced, as I understand it, by Clauses 87 and 88, which require patents for foods, drugs and methods and processes for the manufacture of foods and chemicals to be endorsed with the words 'licences of right'. These clauses also impose a ceiling rate of royalty in certain instances of 4 per cent and in this connection a resume of the decisions of the British Comptroller of Patents which I mentioned in paragraph 17 of my memorandum may be of interest to you.

In paragraph 5, the section to which I referred to does not now occur in your Bill because the new Bill requires licences to be endorsed.

In paragraph 6 you will note that I refer to the fact that before 1919 the British Patent Law did not contain any special provision for the grant of complusory licences in respect of food and medicines but later on such provisions were introduced by Section 38A. I am informed by the British Patents Office that upto 1949 when the particular Sections were in force, there were four applications for compulsory licence under Section 38A(2).

In paragraph 7 of my memorandum I referred to a report of a Committee which led to the amending Act of 1919. The deliberations of that Committee were not published but some reference was made to them in another Committee called the Sargant Committee which was appointed in 1929 and reported in 1931. You will note the reasons that they gave for the introduction of the particular Section.

This Sargant Committee which was considering in 1929 or 1930 the position with regard to this Section and the general question of patents for medicines and drugs considered a suggestion that such patents should be dedicated to the State. You will note their conclusion to which I have referred in paragraph 8 of my memorandum. You will note that having heard even in 1929 the arguments for a suggestion that patents for medicine should be dedicated to the State, the Committee came to the conclusion that no sufficient case has been made out for such a dedication and that an alteration in the law would operate adversely against the British industry and discriminate against research workers in Great Britain.

In paragraph 9 I refer to a further Committee which was set up to review the Patent Law in 1944. That Committee was called the Swan Committee and it published in all 3 reports, the first interim report, the second interim report and a final report.

In the second interim report the Swan Committee having considered the question of the special provisions for patents for drugs and medicines which then existed, came to the conclusion that such provisions cou'd be withdrawn from the new legislation. However, in the final report, a copy of which I have got here, the Committee examined the desirability of granting what are known as product patents for chemical compounds including those which could be used for food and for medicine and if I can, Mr. Chairman, I would refer to this report and in particular to paragraph 93 of the report in which the Comittee report that it has been strongly urged that

the limitation imposed on not being able to claim a patent on a substance in itself should be removed as not being in accordance with modern technical developments. The Committee said that it has been argued that the real invention lies in the discovery of a new substance with new and useful properties and that the process of manufacture often involves little novelty in itself. Many valuable new substances are produced by synthesising a large number of possible compounds by known methods and then determining of which of the new substances have useful properties.

Having looked at this argument put before them this Committee which reported in 1947 said as follows in paragraph 95:

"We are impressed by the arguments which have been advanced in support of the proposal for removing this limitation on the claiming of new substances produced by chemical processes and we recommend this limitation be repealed.

Mr. Chairman: Is it the final report of the Swan Committee?

Mr. A. G. Shaw: This is the final report which I will be very pleased to give you if you so like.

Mr. Chairman: Please give us a copy.

Mr. A. G. Shaw: Having decided that a product patent should be granted in respect of a chemical substance the Committee looked at the difficulty of distinguishing between chemical substance which can be used for purely chemical purposes and which can be used for foods or a medicine. They found that it would be difficult to distinguish between a chemical which can be used for one purpose and one which can be used as a drug or a medicine or in the production of a drug or a medicine. And, therefore, recommended that the conclusion in the second document which stated that the special provisions concerning food and drugs might be withdrawn, should be withheld, and consequently this finely balanced decision has resulted in carrying forward into our present Act of 1949 the special provisions for food and for drugs. Now in paragraph 11, I explain section 41 of our present Act continues the special provisions of this earlier legislation. I also point out that the section is not applicable to other classes of inventions and in order to seek a compulsory licence for an invention that is not a food or a medicine or a surgical or curative device, it is necessary for an applicant to proceed under another part of the Act, Section 37. Now Sections 37 and 41 differ in a number of important respects and for an application to succeed under Section 37, it is necessary to show some abuse of monopoly on the part of the patent-holder. The various reasons which an applicant can advance under Section 37 are set out in greater detail in the appendix to my paper, but I have instanced one or two examples in my paper which are perhaps most important.

Further, I also point out that no proceedings can take place under Section 37 until three years have elapsed from the date of sealing; but in the case of Section 41, applications may be made at any time.

I now turn to reviewing the applications which have been made under this Section of the Patents Act passed in 1949 Here, Mr. Chairman, there are certain corrections which have been made to the figures. With your permission, I will now read from my expose so that I can give you the latest information which was kindly provided by the British Patents Office before I left. Between 1949 and 1965, there have been 45 applications made under Section 41 of the Patents Act. Of these, 40 related to medicine; one application is classified by the Patents Office as surgical or curative device;

and four related to food. The years in which the applications in respect of medicine were made are correctly set out in the table which is reproduced in paragraph 14. At the end of 1965, the position with regard to these applications is as follows: in the case of medicines, where there was a total of 40, nine have been granted, none has been refused, 17 have been withdrawn and 14 were pending waiting attention by the Patents Office and the comptroller. The one application which was submitted for a surgical or curative device was withdrawn, and the four applications submitted in respect of foods were refused. Now in the case of medicines, where there were nine licences granted, six applications were subsequently withdrawn . . .

Shri R. Ramanathan Chettiar: For what reasons?

Mr. A. G. Shaw: The applications were abandoned, Mr. Chairman, as I understand it, because having examined the possibility of placing the particular drug on the market, the company, which was granted the application, was not satisfied that it would than be a commercial proposition to do so. This was the information given to me before I left London.

In para 16 of my memorandum, I say that of the licences which have been granted, only three are in force at the present time and royalty rates have been determined in respect of those licences.

Referring to paragraph 17, in the second case which I mentioned, *i.e.* Biorex Laboratories Ltd. and J. R. Geigy S.A., the Comptroller ordered a royalty of 16 per cent But this was increased to 18 per cent when the matter was taken on appeal to the Patents Tribunal. The figure which I have quoted of 18 per cent is operative royalty, but I wish to explain that it was 16 per cent with an additional 2 per cent added to it to make a total of 19 per cent.

I would now like to refer, Mr. Chairman, to comments made by the Comptroller in giving his decision in these first two cases. This is a copy of the decision in that case. It is at your disposal if you wish to see it later, Mr. Chairman. As the committee will note, the terms of section 41 provide that the Comptroller shall grant an application unless it appears to him that there are good reasons for refusal. In giving his decisions, the Comptroller examined what might be accepted as good reasons for refusing an application. The reasons included the need for him to satisfy himself that the applicants were capable of manufacturing the articles in question and possessed full knowledge and equipment for the purpose. Unless he was so satisfied, he would not feel inclined to grant the licence. In examining the facts to be taken into account, in assessing the amount of royalty which should be awarded, the Comptroller referred to this matter as an extremely difficult and complicated question, particularly in reference to drugs and medicines. However, he took the view in coming to his decisions—which as I have explained were 15 per cent in one case and 16 per cent originally in the other case—that the licensee in his royalty payment must make a contribution to the cost of research which led to the discovery and development of the new drug and medicines and also to the cost of the work which the inventor had had to carry out in order to demonstrate to the medicl profession the value of the product in the treatment of disease. There are appropriate references to his remarks in the document which I have brought with me.

Now, I turn to other developments which have occurred in connection with section 41 of the Patents Act. As you will note certain companies which have submitted applications under section 41 of the Patents Act have offered for sale to chemists and doctors medicines which are the subject of a patent. In many of these instances these products were being imported from abroad and they were offered for sale and in that way, at that time, it

was contrary to the law, and that was why, as I have explained in paragraph 19, the patent-holders challenged the sale.

Then, the companies submitted applications under section 41 and said that having submitted an application under section 41 they were then entitled, although their applications had not then been heard, to import the drug and to offer it for sale to chemists and doctors.

Some of the products to which reference is made in this paragraph were examined by Mr. F. G. Stock at the City of Birmingham Analytical laboratories. Mr. Stock is an independent analyst who is employed by Birmingham City just as he might be employed by the corporation of Delhi (?). A report published in the Pharmaceutical Journal gives a survey of his findings. I have brought with me an extract from the report of the Pharmaceutical Journal which again if it is your wish I am very willing to leave with you here or of which I am prepared to have additional copies made in England and sent on to you.

In his report, Mr. Stock draws attention to some deficiencies in cheap drugs. While some of the samples which he examined were quite satisfactory, others were badly prepared and showed marked deterioration in potency when he examined them. In one case quoted by Mr. Stock, the deficiency was very high; the various samples of the same product which he examined showed deficiencies which ranged from 57 per cent to 73 per cent in the potency of the product.

Mr. Stock makes the comment that these products were badly prepared and badly formulated; by 'badly formulated' I mean that they were not correctly compounded in the best way. The product in question was drops intended for administration to small children it was prepared in a liquid form for convenience to administer by a dropper to small children. They had not been correctly prepared. The material according to Mr. Stock tended to stick at the bottom of the bottle, and, therefore, when he examined the product, it showed these large deficiencies. I shall leave with you the extract from the Pharmaceutical Journal if you require it.

In paragraph 19, I have already mentioned that these drugs which had been imported were coming from unlicensed sources and were the subject of patents held in Great Britain. Therefore, the companies which held the patents challenged the action of importing the products.

In paragraph 20 I point out that this matter went to the Court of Appeal in London, and it was held that the fact that an application had been submitted under section 41—not examined or a licence granted—was not of itself any reason why the court should refuse to grant relief to the patent-holder by way of an injunction which would restrain and stop the company offering this imported product for sale. Accordingly these injunctions were granted and the company was prevented from importation and sale.

In giving that decision, which I have with me, these reasons are set out in the copy of the judgment there. Since this decision was given, a number of applications which have been submitted under that section have been withdrawn. This refers to the figures which I have mentioned in my earlier report. Now, of course, it is not possible to say that the sole reason for the withdrawal of these applications in 1965 was a decision given by the Court of Appeal. But as many of the applications which have been submitted recently under section 41 are for the importation of products rather than for manufacture in Great Britain, I think that the decision must have had some consequence in those withdrawals.

In section VI I explain the views of the British pharmaceutical industry on this subject. It is purely factual, and I draw your attention to the rapid increase in the number of applications which has occurred in recent years and which is set out in the table in paragraph 14.

This caused serious concern to the pharmaceutical industry in Britain because it was evident that many of these applications were being made for the importation of drugs and the Association of British Pharmaceutical Industry as representing pharmaceutical manufacturers in the U.K. made representations to Her Majesty's Government requesting that the section be repealed. Here is a copy of the actual memorandum reproduced as an extract from the journal, which I shall be pleased to leave with you if it is of interest to you or to the Members of your Committee.

In paragraph 24 I draw attention to some of the principal arguments which have been advanced why the section should be repealed. The reason is that it discriminates unfairly against the pharmaceutical inventor by not providing comparable protection to that afforded to holders of patents of other articles. In his decision, when he examined the question of royalties, to which reference is made in the document here, the Comptroller said that many substances had to be made and examined before it could be found that a particular one was of value in the treatment of disease and of value to humanity. Therefore, this is one of the reasons why the association suggests that the inventor of a new drug is no less worthy of the praise and patent protection of the country than the inventor of some mechanical device.

I also point out in paragraph (b) the benefit to the health of the nation and to its economy which follows from research and discovery by the pharmaceutical industry in Great Britain. In this connection, I would like to draw your attention to the views expressed by a Government Committee appointed in 1959 which investigated the cost of prescribing in the National Health Service. This Committee, which is called the Hinchliffe Committee—with your permission, Mr. Chairman, I would like to quote the relevant paragraph and the document is available to you and the members of the Committee—in paragraph 258 of its report under the heading "Conclusions on research"—I will read out only those conclusions which relate to the pharmaceutical industry and to the production of new medicines—says:

> "Our investigations into the research activities of the British Pharmaceutical Industry led to the following conclusions:
>
> > The pharmaceutical firms which do research are making a valuable contribution to the National Health Service. Such research is essential for advances in therapeutics. The costs of research on therapeutics and prophylactics product are considerable but no higher than in other countries making comparable effort. Firms should be encouraged to increase their research effort. The conditions which favour profits for research such as patent rights, publicising of proprietary names and the price agreement with the Ministry of Health should be accepted. No changes in the organisation of pharmaceutical industry should be recommended without a detailed enquiry as we have been able to make."

A little later on, towards the end of my memorandum I will draw your attention to the fact that such a committee has recently been appointed in the United Kingdom.

Mr. Chairman, with your permission, I would now like to turn to section 'C' of my paper which deals with section 46 of the United Kingdom Patents Act, 1949. I now turn to that part of the memorandum which is concerned with the use of patents by government departments which generally correspond to provisions of section 48, section 99 and section 100 of your Bill.

Sub-section (i) of Section 46 of the British patents Act is the relevant section under which the Ministry of Health imported drugs from abroad

for the hospital services. Clause 100 of your Bill contains similar though somewhat wider provisions than in section 46. The principal of 'government use' is taken much further by clause 48 of your own Bill.

In paragraph 26 I refer to one case which has been heard in various courts in England, concerning government use, in order to establish whether the provision of drugs for the hospitals, which is a social service, can be considered as coming within the services of the Crown and the use of section 46. The point I wish to make in this paragraph is this. In the judgment in one of the cases, which may be of interest to you in relation to clause 48 of your own Bill, there is a comment which defines a government undertaking. In his judgment, Lord Reid—I have here a copy of the Judgment which I shall be pleased to leave with you—said:

> "But I think that it is now well recognised that by reason of the structure of their organisation the nationalised industries, for example are not services of the Crown."

I now turn to paragraph 28—Paragraph 27 is merely an explanatory paragraph. It would be more explicit if it read: "On the introduction of the National Health Service in 1948, individual hospital authorities were given general responsibili- to ryparagraph. It would be more exty for the purchase of pharmaceutical products for use in the hospital service." I did not intend to infer that this was a power that was only given to hospitals when the National Health Service was introduced; the hospitals always had the power to purchase their own requirements. I mentioned that in general the responsibility rested with each hospital authority and that central contracts were only made for specied drugs. Examples of where central contracts were made is in the antibiotics such as penicillin when they were first introduced and were in short supply, or cortisone or similar materials when they were first made in the United Kingdom and their supply was very short with the result that the Government had to enter into contract wih the manufacturers to ensure that the supplies went primarily to the hospital services.

Shri K. K. Warior: Do you make any distinction between private hospitals run by private people and government hospitals under this law?

Mr. A. G. Shaw: There are very few private hospitals now in the United Kingdom. Practically all hospitals are now controlled by the National Health Service. There are very very few indeed and I think for general purposes they may be ignored with regard to the question of application of this section.

Shri R. Ramanathan Chettiar: What about some of the infirmaries?

Mr. A. G. Shaw: Infirmaries and hospitals were all taken over by the National Health Service in 1948 and were vested in the Ministry of Health. They all form part of the National Health Service.

In paragraph 29 I drew attention to the fact that several reports appeared that hospitals were achieving alleged savings by purchasing drugs from unlicensed sources outside the United Kingdom. This clearly created difficult problems because of the uncertainty of the position as to whether Government's use of section 46 extended to individual hospitals.

This again is amplified in paragraph 30 in which I say that subsequently Mr. Enoch Powell, who was the then Minister of Health replied to a number of parliamentary questions announcing his intention to use section 46. In 1961 he stated that he proposes to use section 46 to obtain certain drugs and he gave instructions that individual hospitals themselves were to stop purchase of drugs from abroad. The hospitals originally were pur-

chasing the drugs from abroad. When the Minister of Health stated that he was going to use section 46, he told the hospitals to stop purchases because he, as the Minister of Health, will arrange to get those drugs by using section 46. So, the hospitals stopped buying these drugs from abroad.

Mr. Chairman: And the UK Government took the responsibility of supplying these drugs?

Mr. A. G. Shaw: Yes.

The point I was making there was that the Minister himself decided that he would use the powers to supply the hospitals and the individual hospitals stopped purchasing themselves.

Mr. Chairman: Those powers exist even now?

Mr. A. G. Shaw: Yes, but they are not being used now. The Minister is no longer using those powers.

Mr. Chairman: But they have not been revoked?

Mr. A. G. Shaw: No. The fact remains that at the present time the Minister has stopped using them. He used them from 1961 to 1965, for a period of four years. Now he has stopped it.

Shri K. K. Warior: When the Minister took action no hospital raised any objection to it?

Mr. A. G. Shaw: No, because the Minister himself is responsible for the provision of all hospital services under the National Health Service.

In paragraph 31 I explained that the Ministry of Health announced that they proposed to invite contracts for the supply of certain drugs to the hospitals. The drugs which were supplied came from manufacturers outside the United Kingdom and none of the companies which were awarded these contracts was a patentee or licensee. They were coming from unlicensed sources. The drugs in question came mainly from Italy and were supplied through small companies which imported them from that source.

In paragraph 32 I explained, as I have already said, that this action was continued until 1965. Although there was some change in the companies which were awarded contract by the Ministry of Health and some changes in the countries from which these drugs came, they all came from unlicensed sources.

In paragraph 33 I go on to state that the Minister of Health announced, before taking any further action to continue the contract for a further period that he had invited patentees and licensees in the United Kingdom to quote for the supply of these drugs for the hospitals and armed services. He also gave the same invitation in respect of three other patented drugs which are widely used in hospitals. Subsequently, in Parliament the present Minister of Health, Mr. Kenneth Robinson made a statement with regard to the use and purchase of drugs under section 46. You will note that he says that with two exceptions satisfactory arrangements have been made with manufacturers and that, therefore, he would negotiate prices with manufacturers in the United Kindgom who were the patentees or licensees of the drugs in question.

In paragraph 35 I stated that subsequently satisfactory arrangements have been made with the patentees or licensees of the two outstanding drugs to which he refers earlier and, consequently, now, as I have mentioned, no purchases of drugs are being made from unlicensed sources under the authority of section 46(1) of the Patents Act, 1949. There has been no formal announcement of this but this decision was conveyed to my Association in a letter from the Ministry of Health, of which I have a copy and

in order to substantiate the statement which I have made, I have brought a copy of the letter for you to see, if you so wish.

Shri R. P. Sinha: Will you kindly read that letter?

Mr. A. G. Shaw: I will read it. It is addressed to Mr. Duckworth, who is the Secretary of my Association, my superior officer. It is from the Ministry of Health. It says:

"Dear Duckworth,

You wrote to Mr. Hunt on 3rd December about the supply of drugs to hospitals under section 46(1) of the Patents Act, 1949. Satisfactory arrangements were made with the patentees or licensees of the two outstanding drugs, chlorothiazide and hydrochl rothiazide. This means that there are now no purchases of drugs being made under the authority section 46(1), but the Minister said in a written answer to a parliamentary question on 21st June last that he would continue to use his power under this section as and when it seemed to him right to do so."

Mr. Chairman: So the section is there.

Mr. A. G. Shaw: The section is there. The Minister says he would continue to use section 46(1) if he thought it were necessary to do so. One could not expect any Minister to make any other statement. The Act is there on the statute book, it gives him powers. Therefore, he must say that he will use the powers which the Parliament has given him, if he thinks it is right and in the interests of the nation for him to do so.

Shri K. K. Warior: There was no instance of any import under section 46(1) after that statement in Parliament in June?

Mr. Chairman: The power was there.

Shri K. K. Warior: Were there any instances of any import?

Mr. Chairman: The patentees came to terms with him. You may continue, Shri Shaw.

Mr. A. G. Shaw: In the reply given by Mr. Robinson he refers to drugs used in the pharmaceutical service. I think, it would be helpful if I explain this term and why it differs from "the hospital service". The pharmaceutical service to which Mr. Robinson refers is the supply of medicines to National Health Service patients through the retail chemist when they have consulted the doctor in his surgery or when he has visited them at their homes. When he visits them at their homes or when they go to his surgery, if they require medicine, he will write a prescription and they take the prescription to the chemist who makes up the medicine and then gives it to the patients.

Shri D. P. Karmarkar: This service also is a part of the National Health Service.

Mr. A. G. Shaw: Yes. The National Health Services extends to hospitals and also to the doctors in relationship with their patients at home as also to the welfare and clinic services for mothers and young children. This is all part of the National Health Service in the United Kingdom. If I could just interpose an example, before I came to India I had to have some inoculations. Before I came I went to see my doctor as a National Health Service patients and I received the inoculations as part of the National Health Service in Great Britain.

Shri Bibhuti Mishra: Is Health Service compulsory for all people?

Mr. A. G. Shaw: The Health Service is not compulsory in the sense that you need not take advantage of the Health Service if you do not want to. If you want to employ a private doctor, you can employ a private

doctor and pay him; but if otherwise you want to use the National Health Service in Great Britain, it is there for you to use as a citizen of Great Britain.

In referring to the pharmaceutical service, which I have explained what I mean by pharmaceutical service, the Minister refers to negotiations of prices. By this Mr. Robinson refers to the voluntary prices regulation scheme, a copy of which I have here, which regulates the prices of branded prescription medicines when supplied through chemists to the National Health Service patients. This scheme was entered into voluntarily by the pharmaceutical industry in Great Britain with the Ministry of Health. The purpose of this scheme is to establish that the prices charged by the manufacturers are fair and reasonable. It was negotiated first in 1957, again in 1960 and the last agreement was made in 1964.

Mr. Chairman: What is the organisation?

Mr. A. G. Shaw: The organisation which negotiates it with the Ministry of Health on behalf of the pharmaceutical industry is the organisation of which I am an assistant secretary. I should add that this agreement does not apply to the hospital service, but this is for historical reasons. This agreement was originally negotiated following recommendations by a committee which was concerend with the supply of branded prescription products by doctors for National Health Service patients. The present scheme is complex and complicated as one might expect in dealing with such a diverse range of products and a diverse industry, but I should like to mention to you four important points in connection with this scheme.

Firstly, as I have mentioned, the scheme applies to prescription products only; it is not concerned with the prices of medicines for which the public may wish to go to the chemist or anywhere else and purchase for themselves as an individual. It is only concerned with the prices of branded prescription products which are supplied on prescription and which are paid for by the National Health Service.

Secondly, the price control which is applied by this scheme does not apply when a new product is first placed on the market. A new product when it comes on to the market has a freedom from price control. This freedom period extends for two to four years according to the amount of original research that went into the discovery and development of the medicine. If a lot of research has gone into a product, it has a longer period than one which is a formulation.

Thirdly, after the freedom period has expired, the price of the product is determined by various methods in which export sales are taken into account. This is an important point because a part of the scheme is to encourage the industry at home to export its sales and if it has a good export performance, it has better treatment under the scheme.

Fourthly, if a product has a very large use for the Health Service, the Minister has the right to enter into separate negotiations with the company and also if the manufacturer himself wishes to negotiate directly without recourse to the scheme, he can go to the Ministry of Health and do so. All members of the organisation by whom I am employed have agreed to accept this scheme voluntarily and not to increase prices without the approval of the Ministry of Health.

Shri Bibhuti Mishra: What is the difference in the export price and the internal use price?

Mr. A. G. Shaw: That I cannot answer.

Shri R. P. Sinha: Will it be possible for the witness to supply this information later; or, he would not like to do that?

Mr. Chairman: You can ask the question later. Let him finish his evidence.

Mr. A. G. Shaw: The present scheme will last for three years and may be continued unless either side gives six months' notice to terminate the agreement. That is all I want to say at the moment about the particular scheme.

I turn now to section 4, which is the legal proceedings arising out of the use of section 46.

I may merely summarise that sight of the Minister of Health to exercise powers in relation to supply of drugs to National Health Services hospitals was challenged.

In 1961 proceedings were commenced which did not terminate until 1965 when there was a decision by the House of Lords. You will know that the House of Lords is, however, the highest court in England. You will also note that the decision of the House of Lords in this case was not unanimous but was reached by a majority of 3 to 2.

In his speech whilst he was delivering his judgment, a copy of which I have already given, one of the judges said that the acceptance of the principle of Crown use for the National Health Services hospitals seemed to be alarmingly wide and to be a formidable incision into the rights which the Crown had granted. His views were endorsed by another member of the Court.

Now, under Sec. 5, I set out the views of the British Pharmaceutical Industry on the use of Section 46 and the reasons why they have been concerned on the importation of drug from unlicensed sources because of the effect which it can have upon the research and development in the U.K. In particular, they are concerned that if these importations continue on the products which are the most popular and in the greatest demand, it will take away the ability of the company to carry out adequate research in the U.K.

Now to paragraph 43 I draw attention to some views which have been expressed by the Patent Advisory Committee of my Association and I can now say that that has been approved by the Association for incorporation into the evidence which they will submit to the Committee recently appointed by Government to enquire into the relationship of the Pharmaceutical Industry and the National Health Service.

The Committee, which was appointed in 1965, is known as the Sainsbury Committee. You will note that except when the Section is to be used for defence purposes, here it is recognised that there is an overriding priority, it has recommended that there should be an equiry to establish such use of the section by Government in the interests of the national economy and the nation's health. The procedure suggested is similar to that which the British Parliament has accepted for the compulsory purchase of land.

You will note that one of the consideration which it is suggested should be taken into account is whether the use by the Government of this Section is likely to discourage manufacture or research in the U.K. In this connection, and it is relevant in relation to Section 41, to draw attention to the results of surveys carried out on expenditure by the pharmaceuticals industry association from time to time. The following figures which are readily available are for the years 1956—1963. They are:—

	(In £ & $)
1957	4.2
1958	.. 5.1
1959	.. 6.3
1960	.. 7.5
1961-62	.. 7.8
1962-63	.. 8.3

This is the latest information which is available at my disposal. From this, it can be seen that in the recent years for which the figures are available, the rate of expansion on expenditure on pharmaceutical research in the U.K. has not been maintained. One might assume from these figures that the use of Sec. 46 and 41 must influence the owner of any company is in deciding upon the amount of money which one can devote upon reseach for new medicines.

Dr. M. M. S. Siddhu: In this connection, can Mr. Shaw tell us as to whether there has been any change in the position of the British Pharmaceutical Industries as a result of the American subsidiaries having taken over the British industries and consequently the research being carried out in America?

Mr. Chairman: You can ask this question at the end after he finishes his evidence. Please note down the points. You can ask him later on. Mr. Shaw, you may continue the evidence.

Mr. A. G. Shaw: Mr. Chairman, this is the *expose* which I wish to give. I am sorry to have taken so much time of the Committee. I am grateful to you and the Members of the Committee for your patience which you have shown to me in making this *expose*.

Shri R. Ramanathan Chettiar: May I ask the learned witness one question? During the course of his observations, he mentioned that out of 9 licences granted (patent rights) in the U.K. under Sec. 41, as much as 2|3rds (6) were abandoned.

Shri A. G. Shaw: Yes, Sir. Nine were granted of which six were abandoned.

Shri R. Ramanathan Chettiar: Can you explain the reasons that impelled the manufacturers to come to the decision in abandoning those six?

Mr. A. G. Shaw: Those applications were for separate patents which related to licences to deal with a particular material. I have already explained earlier that the company decided after a careful consideration not to use them as a commercial proposition.

Shri R. Ramanathan Chettiar: In the U.K. there large cartels (syndicates) in the pharmaceutical drug industry.

Mr. A. G. Shaw: Yes, Sir.

Shri R. Ramanathan Chettiar: If you realy analyse the worldwide organizations of the pharmaceutical industry, I think it is not more than 200. After all, about six or seven are cartels or syndicates that operate in the U.K. So, don't you think that these patents rights given to such cartels will lead to monopolistic tendencies?

Mr. A. G. Shaw: I don't think so because there have been few applications under Sec. 41 of the Act. The reason why there have been few applications is as follows:—

First of all, the manufacture of chemicals and medicines is very complex and a costly process and requires much complicated equipments and plants. Before applying for a licence, a company must be satisfied that it has got equipments and plant in order to carry that out. Having done so, it has also to be satisfied that it can establish a suitable market for the drug in the U. K. Then, it has also to be satisfied that it has the know-how in order to prepare a product of the correct standard and to offer it in the correct form which is required for the patient.

For a pharmaceutical product you might have to manufacture a chemical and then you have to convert it into an appropriate form in which it has to be administered.

Shri Vimalkumar M. Chordia: Please see para 14 of your memorandum. There you say only 4 applications were given for compulsory licence and none was accepted. May I know what are

the reasons that only 4 applications were given and even they were not accepted?

Mr. Chairman: That has been modified. He has said that 47 applications were made.

Shri Vimalkumar M. Chordia: It has been modified. He said that only 4 compulsory licences were given for food and not a single one was accepted; all were refused.

Mr. A. G. Shaw: They were refused because as I understand the reason—I have not got the decision of the Comptroller with me here—they were going to import those foods into the U.K. Sec. 46 is Govt's use and Sec. 41 is other than Govt's use where one can apply for a compulsory licence and these applications for food, as I understand it, were for the importation of the particular food into the U.K. and these applications were refused. I have not got the details of that judgment with me. If you like, on my return to England I will look into the question and obtain further information.

Shri Vimalkumar M. Chordia: Please refer to para 35. There you say that the Government have made satisfactory arrangements with the patentees or licensees of the two outstanding drugs and, consequently, no purchases of drugs are now being made under the authority of Sec. 46(1) of the Patents Act 1949. May I ask: was it possible for the U.K. to reach those arrangements without previously using the power of importing of patented drugs and products?

Mr. A. G. Shaw: Undoubtedly they used Sec. 46. But as I explained the Ministry of Health is negotiating with the manufactures both in relation to the prices which are to be charged to hospitals and also in relation to the royalty payments which have to be made. At the present time these negotiations have not been completed. So I cannot, nor indeed can I expect to have any information about the prices because these are confidential between the Government and the manufacturer.

Shri Bibhuti Mishra: Is there any difference in the prices that are charged to hospitals and those charged to private persons?

Mr. A. G. Shaw: Very few private people get their medicines to-day because all the people or a very large proportion of people in U.K. obtain their medicines through the National Health Service. Very very few people buy the medicines themselves.

An hon. Member: What is the difference between the retail prices and the hospital prices?

Mr. A. G. Shaw: As I understand the question I have no information about the prices which have been agreed to by the Ministry of Health for these contracts. This information is confidential between the Ministry of Health and the contractor.

Shri Vimalkumar M. Chordia: What is the attitude adopted by the other industries in the U.K. to the use of Sections 41 and 46?

Mr. A. G. Shaw: The reply to that, Mr. Chairman, is that other British industries have submitted memoranda of evidence to the Sainsbury Committee. Towards the end of my address I mentioned that the Government have set up a Committee of Inquiry to go into the relationship of the pharmaceutical industry and the National Health Service. This Committee is called the Sainsbury Committee. The confederation of the British Industries which represents all British Industry has sent a memorandum to the Sainsbury Committee in which it supports the suggestion that the discrimination put forward in Sec. 41 should be removed and that also the use of Sec. 46 to provide articles for such purposes as National Health Service should be reviewed. So, in general, the views which I have expressed in my document consisting of the views of the industry on Sec. 41

and 46 have been endorsed by other British industry.

Shri A. T. Sarma: In your statement you have said that even a single supplier supplies drugs or medicines in various rates and prices vary from one supplier to another.

Mr. A. G. Shaw: Could you mention the paragraph in my document?

Shri D. P. Karmarkar: If I may put it correctly, is it not a fact that the negotiated prices do not apply to any private doctors who would like to prescribe medicines? Differentiation of prices is as between the negotiated prices.

Mr. A. G. Shaw: I think I understand the question. I must apologise to the questioner for not understanding it at the first time. These prices which are agreed to by this National Health Scheme will determine the prices at which the manufacturer will supply to the chemist and for the National Health Service it is the same price. There is no difference in the prices charged to the chemist for the product whether it is for the National Health Service or whether it is supplied on a private prescription. But as I have explained there are very very few people who obtain private medicines to-day; they all use National Health Service. But if they do obtain the medicines through their chemists and pay for them, the basic price of the medicine which they would obtain would be determined by this Scheme.

Shri A. T. Sarma: In paragraph 14, you have given a statement showing the number of applications submitted. But the number of applications is very small. Even out of that number, 13 have withdrawn their applications and others are pending. What is the use of having Section 41 if there is no use of it.

Mr. A. G. Shaw: I tried to explain a little earlier why there had been so few applications under Section 41—that you have, in fact, to be satisfied that you have the requisite plants and the capability to manufacture; you have to be able to satisfy that you have the know how in order to prepare the product and to prepare it in the proper form.

Dr. M. M. S. Siddhu: Referring to the expenditure on research, may I know what is it as a total percentage of the sales, and secondly, what percentage of the amount the pharmaceutical industry has been spending on sales promotion and advertisement?

Mr. A. G. Shaw: The amount which the industry spends on research in Great Britain in relation to its sales to the National Health Service is about 10% and it spends about the same amount of money on sales promotion.

Dr. M. M. S. Siddhu: I want to know it in respect of the total sales.

Mr. A. G. Shaw: It is difficult to relate it to total sales because the total production of the industry, which is about 200 million pounds, includes many things which are sold as medicines over the counter to the public and also veterinary medicines.

Dr. M. M. S. Siddhu: Mr. Brian Inglis in his book "Drugs, Doctors and Deaseses" surveying the pharmaceutical industry, says (on page 102) that "research and information are not services which the pharmaceutical manufacturers provide at great trouble and expense simply for the benefit of the medical profession and the community. Both are basically promotional activites indulged in at great cost because of the still greater returns." May I know whether the observation is correct?

Mr. A. G. Shaw: Mr. Chairman, I have not dealt with this aspect of sales promotion expenditure of the pharmaceutial industry in my brief and I would like to have a further opportunity of studying it. I do not wish to give a quick answer to this

question conerning the extract taken from a book I would most welcome the opportunity of taking the question and giving you a written answer.

Dr. M. M. S. Siddhu: What, in your opinion, is the life span of modern drugs which are being produced these days? After how much time they are not being prescribed?

Mr. A. G. Shaw: Again, Mr. Chairman, these are questions which come outside my memorandum. I came here to talk to you, if I may say so, about sections 41 and 46 and if there are questions outside my brief for which the Committee would like me to give an answer, by all means I would write them down, take them back with me and study them. I have not come prepared in my brief to deal with these questions.

Dr. M. M. S. Siddhu: You may please think over and give us replies afterwards.

Mr. Chairman: You can study them and send your comments afterwards.

Mr. A. G. Shaw: I think it would be better and preferable to the Committee, if they wish me to study something which is not in my brief, to give those questions to me before I leave and allow me to study them.

Dr. M. M. S. Siddhu: What has been the impetus on research programmes in those countries of Europe where the process for the product is patented. It has been made out that if the product is not also patented along with the process, then then research promotions do not get the impetus. There are countries in the Continent where the process is patented and not the product. What is the research programme of those countries as compared to U.K.? You may give the answer after your return.

Mr. A. G. Shaw: Again, these are questions which I would like to have an opportunity of taking away with me and studying them. I am very willing to help you, Mr. Chairman, in every way I can. I do not think it would be desirable for me to give answers here without information.

Dr. M. M. S. Siddhu: It is stated here in the same book (page 102) that "with the pharmaceutical industry established internationally on a cartel basis and protected by patent laws, such a competition can be minimised. I may add that Cyanamide Pfizers, Brystol and Parke Davies have their subsidiaries in England and one reason why the research programme of England suffers is that these subsidiaries instead of doing research work in London or England are doing it in Washington and New York.

Mr. A. G. Shaw: Equally I may say in turn, Mr. Chairman, that these companies have established themselves and are manufacturing in the United Kingdom for so many years and the British public gets the benefit of the research which is carried out in other countries.

Shri R. P. Sinha: I would like to know what has happened to the memorandum that you submitted on Section 46 for its repeal. Are you satisfied with the letter from the Minister of Health or are you still pursuing for the repeal of that section?

Mr. A. G. Shaw: They have appointed a committee of enquiry and in its submissions to this committee of enquiry, the Association will suggest, as I have pointed out in my memorandum, that consideration should be given to the method of use of Section 46. I have explained that in my memorandum.

Shri R. P. Sinha: Do you think that the repeal of section 46 as suggested by you will be in the national interest of UK?

Mr. A. G. Shaw: I think that it will be in the national interest of England because, in fact, we are not suggesting that the section should be done way with but we are suggesting that the section should in the first instance, be retained primarily for the purpose for which it was introduced into the legislation, that is, for the Armed Services and the defence of the realm. We freely admit that section 46 must be there to enable a Government Department to exercise an invention for the defence of the realm. What we suggest is that before a Government Department would use section 46 to purchase drugs for hospitals, there is an enquiry in which the company concerned can state its case and state its objections. And when there has been enquiry there can be a report and on the basis of that report action can be taken, and we wish to suggest that the whole aspect of the national interest, of the effect on production and the effect on exports and so on is taken into account.

Mr. Chairman: National interest should be of prime importance?

Mr. A. G. Shaw: National interest is whether it is going to assist in research in the country, whether it is going to assist in growth of the industry in the country and whether it is going to assist in the promotion of exports from the U.K.

Mr. Chairman: Do you agree that national interest should be of primary importance in deciding these matters?

Mr. A. G. Shaw: These we consider to be in our national interest; the growth of the industry is national interest.

Shri R. P. Sinha: I would like to seek a further clarification on one point regarding the views of the association. Suppose the pharmaceutical industry England, in spite of the agreement that they have got with the Health Ministry with regard to the prices, cannot reduce the prices to bring them on par with the international prices in the case of a certain drug or pharmaceutical product; suppose in respect of a product A, the international price is 50 per cent or 30 per cent lower than the British prices of that particular drug; would you like the Health Ministry to enforce section 46 and compel the industry to reduce the prices? If this particular drug or product could be sold at a cheaper price in the world, then national interest does demand that you should so improve your research and production processes that you could also give the item at the correct price.

Mr. A. G. Shaw: I think the answer is that we have an effective pharmaceutical industry established in the U.K., and we would hope to be able to produce our drugs at competitive world prices. Indeed, our industry exports about 30 per cent or 33 per cent of its total production. I think that shows that the industry is effective and is competitive with the world prices.

Shri R. P. Sinha: Previously, before secion 41 came, it was found that the patents were mostly used for purposes of foreign patent-holders to import their products into the U.K. The patent law had been revised in order that new industries could be put up to manufacture those new drugs. I find that in the USA, the new inventions of drugs are far more than in Britain. What you have been able to invent in England by way of new drugs is far less than what they have been able to do. Is England satisfied that all those new drugs that are being invented in the USA are now being manufactured in the UK as a result of section 41? For, if those inventors abroad do not manufacture them in UK, then sec-

tion 41 could be enforced and a compulsory licence could be given. Has that helped in the expansion of the pharmaceutical industry in England?

Mr. A. G. Shaw: I think that the expansion of the pharmaceutical industry in England takes place because these drugs which are developed in the USA are manufactured in Great Britain by the companies which have come and established themselves in Great Britain. They also are assisted by licence agreements and research agreement between the one company and the other, as a result of which one particular company in Great Britain will manufacture a drug which has been developed by somebody else. This is the pattern of development in the UK.

Shri R. P. Sinha: With regard to section 41, there is in England a differentiation in the matter of compulsory licence, between the drug and the food industry and other industries. Do you think that such a differentiation is correct?

Mr. A. G. Shaw: There is a difference between section 41 and section 37, and this is the difference. As I have explained, I think it is wrong that there is this discrimination against the inventor of a new and valuable medicine, because in order to develop a medicine today, the pattern of research is that you have to discover and manufacture many many compounds; it is not in the manufacture of the compound that the value lies but in the use of that compound in the treatment of disease. As I have mentioned in one of the documents which I have here, the comptroller of patents states that the relationship of discovery is probably in the ratio of 2500 substances to one substance which may have some use in the treatment of disease; the others are far to toxic. Because the value lies there and because of the value of the product, I think that this discrimination against drugs and medicines in section 41 should go.

Shri P. K. Kumaran: Before being the powers under section 46(1), the British Government started importing medicines from unlicensed sources, from countries like Italy. The British Government were not able to procure locally, that is, from England, the medicines which they required for the national services. Was that not so?

Mr. A. G. Shaw: The drugs which were imported from abroad were being made in Great Britain.

Shri P. K. Kumaran: But the local manufacture did not find it convenient to supply the thing to the British Government at reasonable prices. The prices quoted by the local manufacturers were high when compared with the import prices.

Mr. A. G. Shaw: The prices quoted by the local manufacturers were high in relation to the prices at which the drugs were imported, because, as I understand it, the companies which had manufactured the drugs in other countries had not done research which led to the discovery of the particular drug. They have no research cost to cover. As I have already said, you have to search for a long time to get a new product which is useful in the treatment of diseases. It is obvious that certain drugs that you manufacture can be cheaper if you are a country carrying on no research.

Shri P. K. Kumaran: In that case, later when the Government started using powers under section 46(1) and the local manufacturers found it convenient to come to some sort of agreement with the British Government, do you think they will supply after incurring a loss?

Mr. A. G. Shaw: The position is that the Ministry of Health is no longer using section 46.

Shri P. K. Kumaran: But a situation has been created whereby the

local manufacturers agreed to supply at reasonable rates. That was because the British Government used power under section 46(1).

Mr. A. G. Shaw: I do not know at what rates the drugs have been supplied, I have not got that information. I know that at the present time these negotiations on prices are proceeding; in the meantime, drugs are being supplied and hospitals are told that they will be charged at agreed prices later.

Shri P. K. Kumaran: That is true. We do not expect you to give the details of the prices, but we can infer. Keeping section 46(1) in the Act has now proved that it is in the interests of the British nation. Is it not?

Mr. A. G. Shaw: The inclusion of section 46(1) in the Act is there, and I am quite sure it will continue to remain there. What we are suggesting is that when it has to be used for purposes other than defence, there should be an enquiry to establish that its use is in the national interests. This is the point in the memorandum which we have submitted to the Committee.

Shri Tulsidas Jadhav: In India, the cost of labour is low and the prices of drugs are very high. Is it not desirable that certain measures suggested in the present Patent Bill should be there to reduce the prices?

Mr. A. G. Shaw: With the greatest respect, I know little of India. This is my first visit to India. I arrived three days ago. I do not know the conditions here. In any event, this is a question which is surely for the Parliament of India to decide. It is not for me to offer any personal observation on such a point.

Shri D. P. Karmarkar: Page 12, para 46. What are the provisions of section 32(3) and 40 referred to therein, in brief?

Mr. A. G. Shaw: In brief, section 32(3) is a revocation of the patent by the court. In other words, the Government would have to apply to the court and ask for the patent to be revoked, and the court would then decide whether it should be revoked. Section 40 gives the power for a licence to be endorsed on application.

Shri D. P. Karmarkar: We should like to know the rationale behind sections 41 and 46. Is it a social purpose?

Mr. A. G. Shaw: The rationale of section 41 is that it makes special provisions for food, drugs and medicines on the assumption that this was necessary, there may be special need. As I have explained, in today's circumstances such a discrimination is unnecessary. Section 46 is used to give the Government the right to use certain patent inventions for Government use.

Shri D. P. Karmarkar: Under sections 37 and 41 there is a difference in time.

Mr. A. G. Shaw: Under section you can make an application at any time; under section 37 you have to wait for a period of three years.

Shri D. P. Karmarkar: This was the discrimination you referred to a little while ago?

Mr. A. G. Shaw: Yes.

Shri D. P. Karmarkar: So far as you are aware, this definition of a substance "capable of being used as food or medicine or in the production of food or medicine" in section 41 has not given rise to any difficulties?

Mr. A. G. Shaw: Not as far as I am aware, there was one case when it was argued—I have not got the details—whether or not a particular compound was a food or a drug, and they came to the conclusion that it was a drug.

Shri D. P. Karmarkar: Normally this has not given rise to any difficulties?

Mr. A. G. Shaw: No. There is no definition provided in the Act itself.

Shri D. P. Karmarkar: What are the terms of reference of the committee you referred to that was appointed?

Mr. A. G. Shaw: This Sainsbury Committee was appointed in March, 1965 and its terms were:

> "To examine the relationship of the pharmaceutical industry in Gt. Britain with the National Health Service, having regard to the structure of the "industry, its commercial policies and the firms comprising it, its pricing and sales promotion practices and their effects on patents and the relevance and value of research, and to make recommendations."

Shri D. P. Karmarkar: Normally export prices would be more than what has been negotiated as the agreed price between Government and industry.

Mr. A. G. Shaw: Normally the export price is taken into consideration in determination of the price that is charged in the home market by the price regulation scheme. One would expect the export price to be slightly higher than the home market because of the cost of transporting the drug to the market, and due allowance is made for that in the scheme, but if a company establishes that it exports 25 per cent of a particular product in export markets then the price which it charges to the home market is in relation to the price which it obtains in export markets . . .

Mr. Chairman: What will be the difference between the internal price and export price?

Mr. A. G. Shaw: Only the cost involved in transportation.

Mr. Chairman: Could you give the percentage?

Mr. A. G. Shaw: Not without detailed examination. If you would like to see this scheme I will leave it here.

Shri D. P. Karmarkar: It would be better, Mr. Chairman, if he leaves all the relevant documents to which he has referred.

Am I correct, if I infer from what you told us, that the principal reason why the Government either imported or permitted other importers to make importation of patented medicines was the difference in price and that, so far as you know, they could buy cheaper from the outside market than the prices offered by the local concerns?

Mr. A. G. Shaw: Only the Minister himself can answer as to why he decided to do this. I can only offer my personal opinion.

Shri D. P. Karmarkar: Have you in the course of your studies or even earlier found that the prices at which the Government imported patented medicines were advantageously lower than the prices at which similar medicines were offered by local concerns?

Mr. A. G. Shaw: Obviously, Mr. Chairman, the prices at which Government imported the drugs from abroad were lower than the prices in Great Britain; otherwise they would not have gone to the trouble of importing them.

Mr. Chairman: Do you agree that the Government has reserved the right to control the prices for internal consumption?

Mr. A. G. Shaw: The Government has agreed with the pharmaceutical industry on this scheme which in fact controls the prices at which drugs are supplied to the chemists and to the

public, but the scheme provides for certain incentives to the manufacturers.

Mr. Chairman: You should have no such objection if the Government of India also reserved the same rights?

Mr. A. G. Shaw: That is for the Government of India to decide.

Mr. Chairman: Considering the powers your Government have reserved for themselves, you should have no objection if the Government of India reserved the same rights.

Shri R. Ramanathan Chettiar: In 1960 the prices had fallen from £ 60 per 1000 tablets to £ 9.10 sh.

Mr. A. G. Shaw: I do not know the prices at which the Government imported because these were never disclosed, not even to my association. I know there has been speculation in the Press and elsewhere, but I have not seen any information about the prices at which the Government imported the drugs.

Shri R. Ramanathan Chettiar: It had fallen even to £ 4.10 for 1000 tablets.

Shri D. P. Karmarkar: Earlier, were the patentees given the right of exclusive importation for the period of validity of the patents or there as no such privilege granted?

Mr. A. G. Shaw: This, Mr. Chairman, is a very detailed question on the general aspects of the Patent Law on which I do not claim to be an expert. I am not, at any rate, a patent lawyer. If you would like me to answer that question, I can study the question and prepare an answer on this point, but now it is not a point within the brief on which I have come.

Shri D. P. Karmarkar: According to the Indian law, anyone granted patent rights for manufacture is also simultaneously given the rights for exclusive importation of the particular product or process.

Shri Bibhuti Mishra: Ours is an under-developed country, Mr. Shaw and yours is a very developed country. I want to know how far your country has been able to help this country in the matter of research and technical know-how?

Mr. A. G. Shaw: I have not got the answer to that. It is something in relation to India which I cannot answer.

Shri Bibhuti Mishra: Is there any difference in the prices charged by you for those who take medicine from your stock and those who are under your National Health Service?

Mr. Chairman: He has already said that there is no difference.

Shri Bibhuti Mishra: You said that some years back England banned the import of medicines. Is it good for this country to ban import of medicines from other countries?

Mr. Chairman: That is for you to decide.

Shri Bibhuti Mishra: He has come all the way from England to help us by giving his opinion. His country is much more advanced than our country. I want to seek his advice about my own country.

Mr. A. G. Shaw: I am unable to give any such opinion.

Shri Bibhuti Mishra: When the Patent Law was enacted in your country, it was done keeping in view the interests of your own country. May I know how far those interests correspond to the interests of this country?

Mr. A. G. Shaw: Mr. Chairman, I have come here, if I may say so, to explain two developments which have occurred in the United Kingdom in regard to certain aspects of this law

which are comparable to certain provisions of your Bill. This is the basis of my memorandum and that is why I have come to talk to you this morning. I do not think I can usefully answer the question that the hon. Member has put.

Shri Sham Lal Saraf: May I know whether the law of patents has given rise to monopolistic tendencies and there are international combines and groupings, specially in the field of drugs, medicines and pharmaceuticals?

Mr. A. G. Shaw: Here again it is a general question of the patent law which is outside my brief. If the Committee would like me to answer that question, I would like to study it and write to you later I have returned to England.

Shri Sham Lal Saraf: There is a lot of criticism in India of the patent law because it has given rise to monopolistic tendencies.

Mr. Chairman: He says he has not studied this question.

Shri Sham Lal Saraf: We would be very thankful to him if he enlightens us on this point later.

I understand that your country and your law is more in favour of registering under the patents law the end product and not the process.

Mr. A. G. Shaw: The reason why our present law provides for product proteotion is set out in the recommendations of the Swan Committee. I did refer to that earlier on, and I am quite willing to leave the document with you. If I could add my own personal observation, I think product protection would help to stimulate the advance of pharmaceutical research in Great Britain.

Shri Sham Lal Saraf: Is it to encourage incentive for research and inventive genius that your law treats on par inventions of drugs and pharmaceuticals along with mechanical and other devices that are patentable?

Mr. A. G. Shaw: If I have understood the question correctly, we have explained our view to our government and it is that in order to encourage the maximum inventive genius and use of the development of medicines there should be no difference between drugs and pharmaceuticals and other type of inventions.

Mr. Chairman: The hon. Member wants to know whether the UK law is on par with the laws in other countries so far as this aspect is concerned. Have you studied the comparative position in different countries?

Mr. A. G. Shaw: As I explained earlier, I am not a patent lawyer and I have not made an international survey of patents and patent laws. I am the Secretary of an Association.

Shri Sham Lal Saraf: In view of the fact that very few applications have been addressed to the Controller of Designs and Patents what impression do we get about the present law? Is it working satisfactorily, as far as the operation of registration is concerned?

Mr. A. G. Shaw: To the best of my knowledge, yes.

Shri Sham Lal Saraf: With regard to the percentage of royalty on what basis does your Controller of Designs and Patents fix it?

Mr. A. G. Shaw: The provisions of section 41 in regard to royalties etc. are set out in the text which I reproduced, and during my expose I referred to the way in which the Comptroller gives his decision.

Shri Sham Lal Saraf: It is reported that in Italy, for example, there is no patenting of drugs and pharmaceuticals. Is it as a result of this that the medicines imported from that country were not only found to be defective but also deficient in a number of substances? Can the reason be that because they had not patented the inventions so people began to

manufacture all sorts of things, making it all the more necessary to patent drugs and medicines?

Mr. A. G. Shaw: I am not an international expert on patents. But I understand that a Patent Bill is now before the Italian Parliament, just as the Patents Bill is before your own Parliament. In that Bill it is suggested that drugs etc. should be patented.

Shri Kashi Ram Gupta: I conclude from what you have stated up till now that you are not agreeable to sections 41 and 46(a) as they stand.

Mr. A. G. Shaw: No, Sir. We have suggested that section 41 should be repealed to avoid this discrimination. In section 46, in the application of the way in which that section should be applied, should be reviewed. We have not suggested that section 46 should be repealed.

Shri Kashi Ram Gupta: But you are not agreeable to sections 41 and 46(a) as they stand?

Mr. A. G. Shaw: We have not suggested that section 46 should be altered. We have only suggested modification of its method of application.

Shri Kashi Ram Gupta: Does it mean that you are suggesting that in our proposed Bill sections 87 and 88 and 98 to 100 should not be there?

Mr. A. G. Shaw: I am not suggesting anything at all to your Committee. It is for the Committee to decide. I have come here to tell you what the position in Great Britain is.

Mr. Chairman: He has not made any comments on our Act. He has only spoken about the sections in the British Act and how it has worked.

Shri Kashi Ram Gupta: Are you in favour of compulsory licensing system, as provided in the Act, or not?

Mr. A. G. Shaw: It is not for me to give replies or comments on your own Act. In my opening remarks also I made only comparisons.

Mr. Chairman: The witness says that he is not competent to make any comments on our Act.

Shri Kashi Ram Gupta: But there is section 41 in his own Act.

Mr. Chairman: He has stated that it has not been repealed.

Shri Kashi Ram Gupta: He is in favour of repealing section 41.

Mr. Chairman: They are trying to repeal it.

Shri Kashi Ram Gupta: That means, he is in favour of removing the licensing system. That is what I conclude. Then, he has referred to the rate of royalty and in our Bill it is provided that there should be a fixed rate of royalty. In his opinion does UK also favour such fixation of the rate of royalty or will it be in the interest of the industry as a whole?

Mr. A. G. Shaw: There is no fixation of royalty in the U.K. law. Each one is decided by the Comptroller on application.

Mr. Chairman: By negotiation.

Shri Kashi Ram Gupta: The highest court in England has given the decision to retain the powers with the Government about section 46(a) and now, you say, the Government has set up a committee to go into the whole affair. Does it mean that the problem is there before the Government for a change in spite of the decision of the highest court?

Mr. A. G. Shaw: The decision of the highest court in the land was on the interpretation of the statute as to whether the supply of drugs to National Health Service hospitals was within the term "Services of the Crown". The House of Lords, the

highest court, decided that that was the case by three to two; but the committee which has been established and to which I have referred has very much wider terms of reference than that.

Shri Kashi Ram Gupta: You say that you are neither competent nor do you have the mind to say anything about our Act and Bill, but you have come to give evidence before us in relation to your Act, which means that we can conclude that so far as the application of those clauses in our Bill is concerned, your opinion has to be counted in respect of your sections.

Mr. Chairman: It is for us to consider. What can he say?

Shri Kashi Ram Gupta: He has come here to give evidence in respect of some sections of their Act. He must have studied the question of limitation of period of patent.

Mr. A. G. Shaw: I have not dealt with this point.

Shri Kashi Ram Gupta: You have not dealt with other points of your Act except these two sections.

Mr. A. G. Shaw: In my evidence here I have dealt with two specific sections.

Shri Warior: How far will the comparable provisions in the Indian Act to the provisions in sections 41 and 46(a) affect the pharmaceutical industry in Britain?

Mr. A. G. Shaw: They have affected the pharmaceutical industry in Great Britain by giving it a period of uncertainty as not to know what further development might occur. The Government, when it first used section 46, bought only five drugs from abroad. The industry did not know whether in the next year the five drugs would be 20, 25, 30 or 50. So, this is a period of uncertainty which must cause manufacturers in the country to wonder as to what proportion of their resources they can continue to devote to research. I think, this is shown out in a way by the figures which I gave which showed that there has been a levelling off in research expenditure.

Shri K. K. Warior: You said in your statement that new inventions made in countries other than Britain are taken to Britain by the same manufacturers; they establish their manufacture there and they process it there. Suppose, a firm is not willing to give such know-how, will Britain allow the import of the product for sale by these sections?

Mr. A. G. Shaw: Know-how does not go in the patent specification; the know-how is contained in what the manufacturer knows. I do not think that we have any instances where we think we are short of any essential medicines because they are not being developed in the United Kingdom by one company or another.

Shri K. K. Warior: Where a product or process is not patentable in the country of origin, will Britain allow that product or process to be patented in Britain under the Patents and Designs Act?

Mr. A. G. Shaw: The British Patent Act stands on its own. If you apply for a patent in Britain, you apply under the conditions which apply under that Act.

Dr. L. M. Singhvi: What is the composition of the Association of the British Pharmaceutical Industry; in particular, are there any members of this Association who are principals or who have a holding interest in any drug manufacturing companies in this country?

Mr. A. G. Shaw: I am sorry, I have not got a list of the members of my Association with me, but I know that there are a number of British companies who are established in this country. For example, the British company, Glaxo, I know, has a factory in Bombay because I passed it

on the way to the airport. I also know that the British Drug Houses is also established here.

Dr. L. M. Singhvi: Would you, as Barrister-at-Law and as one associated for a number of years with the pharmaceutical industry in Great Britain, say that the exigencies and the controlling considerations of patent legislation would have to vary from one country to another in accordance with the demands of a given national economy as also the stage of scientific and technological development in that country?

Mr. A. G. Shaw: That is a very wide question which, with respect, I do not feel competent to answer.

Dr. L. M. Singhvi: I would like to draw your attention to a statement that you have quoted on page 2 of your memorandum where you quote a departmental inquiry committee. Do you hold that this was a legitimate reason, at least historically, at the stage at which the amending Act in 1932 was enacted?

Mr. A. G. Shaw: At the time the 1932 Act was enacted the situation with regard to the development of medicines was quite different to what it is today. I am sure, all Members of this Committee will know the vast changes which have occurred in the practice and treatment of diseases in the last 20 or 30 years since the advent of, what is known as, chemotherapy. I think, the comment which is made in this document here should be looked at in relation to the state of medical knowledge and treatment which existed in the world at that time.

Dr. L. M. Singhvi: I invited your attention specifically to this statement which was contained in this Committee's Report somewhere in 1932. Conditions in 1932 were somewhat more comparable to those in India today.

I would like to know whether this change of circumstances which you referred to has come about mainly because of a greater pace of technological development in your country and therefore, the considerations which might have been applicable and relevant in 1932 in your opinion are no longer relevant and valid?

Mr. A. G. Shaw: I think that the technological advance has come about in every country.

Dr. L. M. Singhvi: I would like to invite your attention to para 9 on page 3 about the Swan Committee Report. They put forward the new recommendation that novel chemical compounds, including those intended for use as food or medicine, should be made patentable *per se*. What was your Association's point of view in respect of this recommendation?

Mr. A. G. Shaw: My Association at that time did not give evidence before the Swan Committee. But the principle which is contained therein has been accepted that the products should be made patentable *per se* by my Association because we believe that it is related to technological development in Great Britain and that the Great Britain has found important drugs.

Dr. L. M. Singhvi: How long, on an average, does it take for an application under Sec. 41 to mature in your country?

Mr. A. G. Shaw: I am afraid that without looking into the record I am not in a position to give my answer. But, I would say that perhaps it takes about 18 months or so to mature. Anyway I have not got the information on this matter just now.

Dr. L. M. Singhvi: You have made a reference at page 5 on para 23 that the rapid increase in the number of applications submitted since the time has caused serious concern to the pharmaceutical industry in the United Kingdom. I take it that your

reference is to the year 1960. However, I invite your attention to the figures given by you at page 4 which did not disclose any rapid increase in the number of applications submitted since 1960. You would yourself notice that according to your statement, in 1961, the number of applications submitted was only 3 whereas it was four in 1962 and 1963 but in 1964 it has risen to 15.

Mr. A. G. Shaw: In 1960-61 and 1964 the number of applications submitted was more. But, no application has been submitted in 1965. But, upto 1959 beginning from 1949 (for ten years), there were only 8 applications but from 1960 to 1964 there were about 30 applications which were submitted. To my mind, there is a fairly rapid increase in the number of applications.

Dr. L. M. Singhvi: In 1960 there were six applications; in 1961 to 1963 there were only 3, 4 and 4 respectively.

Mr. A. G. Shaw: During the period from 1949-1959—in this ten-year period—you would have seen that only 8 applications were submitted. I admit that the figures from 1961 to 1963 are only 3, 4 and 4. But, in 1964, it jumped to 15. I think there is a significant difference in the figures of 8 applications in ten years from 1949-1959. Whereas there were 8 applications in this period, the number of applications submitted was 32 from 1960 to 1964—a significant increase in these five years.

Dr. L. M. Singhvi: What was the nature of the concern of the pharmaceutical industry in the U.K.?

Mr. A. G. Shaw: The concern of the pharmaceutical industry was to have compulsory licences for importation into the U.K.

Mr. Chairman: He has given the facts and he gave that answer; it was for importation.

Dr. L. M. Singhvi: You have mentioned about Sec. 41. According to your Association this discriminates unfairly against the pharmaceutical inventor by not providing a comparable protection to that afforded to holders of patents for other types of invention. Would you not consider this from another point of view *viz.*, the importance and significance of a particular kind of invention or product of an industry is not in terms of how an inventor of a particular kind of a product is treated?

Mr. A. G. Shaw: We feel, Mr. Chairman, that Section 37 provides adequate grounds upon which anyone can come and apply to the Court or to the Comptroller in order to secure a compulsory licence.

Dr. L. M. Singhvi: It is your Association's contention that the power to give adequate protection to the pharmaceutical industry would result in condemnation of its research efforts. Whether this is substantiated by experience and actual facts and whether there was really a very substantial condemnation of research in your country as a result of somewhat lesser protection afforded to the pharmaceutical industry.

Mr. A. G. Shaw: I had mentioned in my expose, Mr. Chairman, certain figures which give the results of research expenditure from 1957 to 1963. I pointed out that in recent years it has shown that the expansion has not been maintained. I also said that the effect of Secs. 41 and 46 did influence the amount of research which the industry was contemplating to do.

Dr. L. M. Singhvi: One more question that I would like to ask is this. What was the result of the decision of the House of Lords in the Swan's case? Can you give us a copy of it?

Mr. A. G. Shaw: I have got the decision with me. I have given the recommendation of the Swan Committee on page 3 of my memorandum.

Dr. L. M. Singhvi: On page 12 of your memorandum you have mentioned several points in respect of providing against the arbitrariness under Sec. 46. At the end you say that instead of exercising Sec. 46 the Government department were to make use of its powers under Sec. 32(3) or 40 of the Patents Act, 1949, the interests of the public would be equally well served and the interests of the patentee better protected. You have also suggested that a specific enquiry should be followed by various methods including the one which I have just now mentioned. If such an enquiry is made, whether it would be more beneficial to Government or not? Or whether it would be more beneficial to have the proceedings instituted under Sec. 33(3) or 40 of the Evidence Act? What is the specific purpose of this suggestion?

Mr. A. G. Shaw: The purpose of this suggestion is to refer it to the Tribunal so that both the parties can appear and put their points of view when the Tribunal will be able to decide whether, in the national interest, the Government should proceed to use its powers having regard to such considerations as I have mentioned there as that would not discourage the growth of industry and research in the U.K.

Dr. L. M. Singhvi: Would you suggest that here, in India, there should be a Specialised Patent's Tribunal as has been suggested for your country or would you like this enquiry to be made by an *ad hoc* tribunal or by a common Court of Law?

Mr. A. G. Shaw: I am afraid I cannot give a quick answer to this question. That would be done by an independent tribunal.

Mr. Chairman: Would you want a judicial tribunal?

Mr. A. G. Shaw: Not necessarily a judicial tribunal.

Shri Shyamnandan Mishra: We quite appreciate the anxiety of the learned witness to confine himself to two limited points. But, we would also like him to appreciate us to ask him to give those very points in a somewhat wider context. In our anxiety to do so we would like to seek some information with regard to certain points and I hope they would not be outside his brief. The first one relates to the ratio of utilisation of patents in his country; the second one is the ratio of patents to inventions over a period. What is the trend of the ratio of inventions to patents? So far as I could see from a distance, it appears that in England the inventions have been rather on the decline and the patents have been on the increase. That would be a matter from which one can take a lesson. I would like to seek information on these two points.

Then, what is the amount of royalty paid and received by the United Kingdom?

Mr. A. G. Shaw: I have mentioned in my memorandum about the royalty that was awarded by the Comptroller in these two cases. Sec. 46, that is a negotiated royalty.

Regarding the utilisation of patents in the country I have no information.

The only information which I know is available is published in the report of the Patents Office in London. It shows the number of applications and specifications which are filed.

Shri Shyamnandan Mishra: What is the number of patents effective at a particular point of time in UK and what is the number of inventions which have occurred during a particular period—that information is not available in the UK?

Mr. A. G. Shaw: Not to my knowledge. I would try and make inquiries when I go back.

Shrimati Sharda Mukerjee: The learned witness has particularly stressed on the royalty which comes under compulsory licence and in the UK after 1949 under Section 46. As you know, the Bill provides for a maximum 4 per cent royalty under Clause 88. I would like to know if he has any information regarding the percentage of royalty which is paid to the pharmaceutical companies and other industrial companies which may have similar kind of agreements in other developing countries. Has he got any information on that?

Mr. A. G. Shaw: No information on that point at all.

Shrimati Sharda Mukerjee: You have no information regarding the rate of royalty in the other developing countries. Particularly you have mentioned that in Great Britain you have given a reference to a judgment in which the decision was 18 per cent royalty ex-factory price. The Bill here provides for 4 per cent royalty. I would like to know what is the general trend of royalties given in other developing countries.

Mr. Chairman: He has given the answer. He has not studied the position in other countries. In UK it is negotiated.

Shrimati Sharda Mukerjee: Has he got any idea that 15 or 17 per cent is above the average because his experience may be 4 or 5 or do we take that 15 or 17 per cent is normal?

Mr. A. G. Shaw: There are only very few decided cases under Section 41 which was the Section I came to talk to you about, I have given you the three cases where at the present time the royalties are working. It is a very limited number. But I have given you all the information that is available at my disposal.

Shri P. S. Naskar: You have referred to one of the recommendations of the Swan Committee that novel chemical compounds including those intended for food should be made patentable. Has this recommendation been accepted in this 1949 Act?

Mr. A. G. Shaw: Yes, indeed.

Shri P. S. Naskar: Under which Section?

Mr. A. G. Shaw: I am sorry I cannot give it immediately. It would be somewhere within Sections 19—26 of the Patents Act 1949 which talk about the grant, effect and the terms of the patent. It includes chemical products *per se*.

Shri P. K. Kumaran: Will he be able to tell us the number of patents which the members of his association have taken out in India?

Mr. A. G. Shaw: I am sorry I have no information on that.

Mr. Chairman: It is only two companies which have Branches here. He is not fully conversant.

Shri P. S. Naskar: It is not there. I went through Sections 19 to 26. I have not come across the use of the words '*per se*'.

Mr. A. G. Shaw: By '*per se*' means the product patent for a chemical substance in the UK. These words '*per se*' are not there. I am sorry if I have misused the term.

Mr. Chairman: You told the Committee some time back that the prices for the manufacture of an article are fixed. Who does fix that? You said that after a certain time the Comptroller comes in and refixes the internal prices. But just in the beginning of the manufacture you said that the prices are for a certain period. If it is not fixed by the Comptroller is it naturally within the discretion of the manufacturer to charge any price?

Mr. A. G. Shaw: The price which the manufacturer can charge for his product is determined by the manu-

facturer himself when the product comes into the market for the first time. It possesses a certain freedom period during which the manufacturer's price is charged. But after that period ends, it comes under the control of the Scheme.

Mr. Chairman: What is that period?

Mr. A. G. Shaw: 2—4 years. Four years for a product which has had a specific research; 2, years for other products.

Shri D. P. Karmarkar: That is also a voluntary scheme? There is no statutory backing?

Mr. A. G. Shaw: That is a voluntary scheme.

Mr. Chairman: In spite of the decisions and inquiries held in UK, Sections 38, 41 and 46 still remain on the statute?

Mr. A. G. Shaw: Yes, Sir.

Mr. Chairman: Thank you.

Mr. A. G. Shaw: May I thank you very much indeed for your kindness in receiving me—some one coming from quite an another country and talk to you on a subject which is of great concern to India.

Shri Sham Lal Saraf: Chairman Sahib: thank the gentleman on our behalf also.

Mr. Chairman: Your evidence is very illuminating and will be useful to this Committee because our Act is mainly moulded on your Act.

(The witness then withdrew)

(The Committee then adjourned to meet again at 14.30 hours).

(The Committee reassembled at 14.30 hours)

II. Dr. K. M. Parikh—Zandu Pharmaceutical Works Ltd., Bombay.

(The witness was called in and he took his seat).

Mr. Chairman: Dr. Parikh, we have received your memorandum and we have circulated it to all the Members. If you want to add anything, you may do so. Afterwards, the Members will ask questions which you may reply.

Dr. K. M. Parikh: Hon'ble Chairman and hon'ble Members, I am very happy to tender my evidence here before your learned Committee. I would like to point out at the outset what is patent. Normally, a contract between the Inventor and the State, so that State grants limited monopoly in order to encourage invention and inventor is required to make full disclosure of the invention, and so that at the expiration of monopoly it can be used by the public at large. Also during the time of his monopoly inventor is required to satisfy the reasonable requirements of the public. Thomas Jefferson says, 'Society may give the above rights, but this may or may not be done according to will and convenience of the society without claim or complaint from anybody'. I would like to put forward the following quotations from the United Nations Economics and Social Council Report on the role of patents in the transfer of technology to under-developed countries dated 9th May, 1964.

> "In the case of inventions of special interest to the public welfare or security, provisions have been made in many laws to throw their use open to other than the inventor. Thus, in many countries no patents may be issued for inventions in certain fields (especially food and medicine). In cases where patents are issued, provision is made in the public interest.

In conclusion it may be stated that the creation and delimitation of the inventors right is essentially a process in which account is taken of and attempt is made to reconcile and satisfy the whole scheme of public and private interests pressing for recognition, i.e., interest of inventor, social interest of encouraging invention, the interest of the buying public to enjoy the fruit of the invention upon fair and reasonable conditions, and the interest of the national government to accelerate and promote the economic development of the country."

Shri Bade: How are the inventors delimited?

Dr. K. M. Parikh: It is delimitation of the rights of inventors.

Shri Peter Alvares: May I submit that the witness makes his statement in full and then we ask questions?

Mr. Chairman: Yes, questions afterwards.

Shri Sham Lal Saraf: C'arifications too.

Dr. K. M. Parikh:

"It is recognised even under the Paris Convention—under the principle of National treatment that, 'each country applies its own standards to all applicants and patentees....with regards to patentability, formalities, duration of patents, conditions of use etc. This may result in a situation in which nationals of a given country receives less-generous treatment in other countries.... than afforded in one's own country or *vice versa*. Since each national treatment country is free to determine, according to its own needs....the degree of such protection will vary from country to country' ".

It was the practical experience of our Government that is given below in a reply to U.N. Economic and Social Council.

"Patent system, which yield advantages to highly industrialised countries, does not produce the same results when applied to the under-developed countries."

It further states, "there is no doubt that normally granting of patents to foreign firms stimulates the rate of invention in foreign country....Most countries have little if anything to gain economically from such grants.

"The matter assumes great importance in respect of patents for drugs and food articles. It is a fact that the price of the same drug varies considerably from country to country. The question of public interest involved in these cases."

From the above considerations and conclusions of the U.N. Economic and Social Council, the following points are clearly established and are having universal acceptance:

(1) Patent may or may not be granted for a class of commodity.

(2) Pharmaceuticals are to be treated on different grounds—and this does not amount to any discrimination.

(3) No industrial property rights are involved or violated.

(4) No country (particularly members of Paris Convention) shall have any objection to such special treatments.

Now I will discuss a little on the patents in pharmaceuticals (drugs).

In recent years in the United States, Canada, New Zealand and South Africa—special committees have considered this problem at length. New Zealand agreed for restriction on drug patents, Canada suggested abolition of drug patents. In United States, in the bill, it was contended that three years should be ample

time to recover research outlays and maximum royalty of 8% for "unrestricted licence" that includes grant of all technical information required for sale and manufacture by the patentee. The Syman Commission in South Africa suggested five years for drug patents.

Looking to the above and uniform conclusions of various Committees of experts in developed countries suggests that there is something radically wrong with the drug patents and is commonly abused. The best is abolition or otherwise restrict the same to the minimum possible number of years which was found to be three to five years for a drug patent. This is mainly because the drug's life is very short and hardly lasts a decade in this fast moving time. The abuse of patent is on a large scale, also mainly due to: he who orders does not buy and he who buys does not order; sometimes sentiments and helplessness of public are exploited. For example, a poor man drawing hardly Rs. 100 a month will spend any amount, even borrowing, for his ailing relation, loved ones, wife or a child, etc.

Thus it is very right that drug patent be abolished or a period of three, five or seven years may be imposed but not more.

Even if it is feared that this may harm some few inventors for good reasons, one extension of three years be provided by Controller or the proper authority if fully satisfied on such application and verification. This is with regard to clause 53.

Now I have given a small table where you see the items, the imported C.I.F. price, the local manufactured price, the percentage difference. and the finished stage price, that is when put in formulation form and these formulations are sold directly. For Vitamin B12 the C.I.F. price is Rs. 30 per gram while the local firms are manufacturing it at about Rs. 230 per gram. Similarly for Chloromycetin, it is Rs. 80 while the local manufactured price is Rs. 400. You will see that in all other cases, Tetracyetin, Prednisolon and Tolbutamide, the local manufactured prices are much higher. Of course, in Tolbutamide, the patentee who is manufacturing this, is not selling this particular item to anybody and reserves it for his own use. An indigenous process for this particular item has been developed by the Haffkine's Institute, but this has been challenged as an infringement by the patentee and the matter is now before court.

The Development Council after taking into consideration all the aspects affecting the Indian production suggested that the local manufactured price should not be more than 60% above the c.i.f. price.

If the suggestion is considered with above quoted prices, it will reveal the true picture of the thing as it exists.

I have also given another table a little below on page 4 showing the patented items, the price of the item in some European and other countries and its price in India—a comparison of the two prices. Regarding Tab. Tolbutamide, in some countries including Germany and England it is sold for $1.85, while in India, it is sold for $3.57. These are figures existing roundabout 1958 or 1959. These I have taken from a published report.

Tabs. Chlopropamide is $1·41 in Italy while in India it costs $4. Aureomycin was sold in Argentina for $1·19 while in India it was $6·92. Tetracycline was sold in Argentina for $1·19 while in India, it was sold for $6·52.

Mr. Chairman: What is the unit?

Dr. K. M. Parikh: The price units are the same.

Particularly with regard to Aureomycin and Tetracycline, you will

see that the prices in India are the highest throughout the world, even higher than what were existing in the United States.

Now I will look at the pharmaceutical industry of this country. There are three groups that we can consider for our purpose here; that is, (i) those which are wholly foreign concerns; (ii) foreign collaborators, i.e. Indian plus foreign; and (iii) only Indian Industries. The first two, namely foreign and foreign collaborators, are having their vested interests and so instead of accepting the faults and remedying, they are all out to say the bill is fully harmful and the present law is very good. Particularly the second group of collaborators are more virulent than the former one.

The collaborators and the foreign vested interests point out the false advantages of the present patent law and disadvantages of this present Bill as follows. These I have gathered as and when I went through different literature. They say that (1) the present patent system stimulates research and technical progress. (2) The patentees disclose their inventions. (3) It is in the interest of the national economy. (4) The present law helps to create new products and processes. (5) The present system is not the reason for high prices. (6) It is in the interest of the national development; and (7) It will help the ability of the country to be independent of foreign advances in therapy.

Also they fear that if the present Bill be passed as it is, it will affect very badly in the following way: (i) Because of the point seven above, the country will require additional foreign exchange; (ii) export of Indian drugs will diminish; (iii) domestic know-how cannot be developed without foreign assistance; (iv) flow of foreign know-how will be slowed down; and (v) technical level and expansion of the Indian industry will be reduced.

Now we will discuss the so-called advantages due to the present Patent Law and the disadvantages shown if the present Patent Bill is enacted as it is.

Now we will be discussing it in detail. The first point is that they say that the present patent system stimulates research and technical progress.

Merely by looking to the number of patents obtained by the Indians under the present Patent Law in the last 100 years, it will be clear that it has neither stimulated research nor assisted technical progress under the present Patent Law in this country. In pharmaceutical industry, it is likely to be point few per cent.

The second point is that the patentees disclose inventions. It is true that when the patent rights are granted, it is understood that they have to disclose their inventions. But if it is really disclosure of invention, then why there should be a special agreement and charges for technical know-how which is required for the working of these inventions. If these inventions disclose the exact nature of everything in detail, then this may not be required. If you look into the conditions and specifications of various patents, such statements do not bring any one near the performance of these inventions.

I would like to take as an example one of the patents from Germany, namely manufacture of new sulphonyureas, Specification No. 58716 dated 8th May, 1956. In the Case Study I have pointed out the vagueness of their claim to the conversion of benzene-sulfonylthiourea into the corresponding sulfonylureas by treating sulfonylthiourea with agents eliminating sulphur. 'Agents eliminating sulphur' includes the present known methods which may be hundreds plus the additional ones which are not developed; even if somebody develops something by which sulphur can be eliminated, that is also covered and they are granted protection.

Thus it is not right to say that they disclose the inventions in right perspective.

It is said that the present law is in the interest of the nation's economy and development. A number of foreign-collaborated companies have sprung up. We call this as development. These companies are fully controlled by their parent bodies, and that only with the view of taking out the maximum for their parent bodies from this country. There is also a tendency to delay the process of manufacture under one pretext or the other so as to continue more and more import from their parent body. Under the plea of local manufacture in most of the cases it is merely bottling or repacking or gradually importing semi-finished products from their parent body and carrying out only the last stages here.

Here I would like to take one point with regard to Tolbutamide. As far as my knowledge goes, they are manufacturing it here from a raw material known as p toluene sulphonial carbamate which is imported at the c.i.f. cost of Rs. 20·70 per kg., against which the imported tolbutamide c.i.f. price is about Rs. 21·40 per kg. That is if we import the tolbutamide as it is from outside, the c.i.f. price is only Rs. 21·40, but the cost of the intermediate is Rs. 20·70 per k.g. This intermediate is not, as it is, made into a patent product, but has to be mixed with others and the processes are to be carried out. You can see how this helps our foreign-exchange saving!

In this industry it is more a production of Proprietary than that of basic. Some may say that the production in 1948 was 110 million rupees worth, and now it is Rs. 1350 millions worth. These figures are given just to show what progress the pharmaceutical industry has made in this country. There are various things to look at. But I will give a simple instance of a product like Aspirin Tablet which was manufactured by a firm in India and compare the price of the same in 1956 and 1964, and you will observe whether it is the difference in the production or the value alone. In 1956 the price of 1000 tablets was Rs. 4·50 and in 1965 the price of 1000 tablets is Rs. 9·00. So this value of 1350 million rupees might have become in that fashion. But the actual production could be the same. The same drug cost Rs. 4·50 in 1956 but it was sold at Rs. 9·00 in 1965.

Also, some of the Pharmaceutical Industries Associations constituted of the foreign collaborated firms plead that they repersent 70 per cent of the total production. This may be true so far as the production is taken on the basis of the sales value. But the following clarification will clearly bring out the real position.

I am giving below the installed capacities of Messrs. Glaxo Laboratories Ltd. and Messrs. Zandu Pharmaceuticals Ltd. as mentioned in the booklet *Indian Pharmaceuticals Industry* published by the Development Council —Drugs and Pharmaceuticals, Government of India in 1962.

Your honour will see from the figures that in the case of tablets and capsules and pills, as well as injectables, the capacity of Glaxo Laboratories is double that of Zandu Pharmaceuticals; it is the same in the case of Liquids; while in the case of ointments and powders the capacity of Zandu Pharmaceuticals is double that of Glaxo Laboratories. If you will consider the sales figure of these two firms you will very easily find out the difference in the prices of the two. Thus with merely the same capacity of production in terms of units your honour will observe the difference may be 10 times in terms of value.

Your honour will also note from the following example the difference of the prices of the stuff manufactured by the Indian manufacturers and a foreign manufacturer.

To give just one example, take Chloramphenical. The price of the Indian manufacturer is Rs. 3 per

dozen, while that of the foreign manufacturer is Rs. 11 per dozen.

We can see that the difference in price will clearly bring out the production in terms of value and production in terms of quantity. As the production in terms of value is represented at about 70 per cent. by these foreign units, it may be inversely true about the production in terms of units for the Indian Industries. There are about 2,000 licensed concerns, drug concerns, in this country. Out of them, less than 100 may be foreign or foreign-collaborated ones, while the balance of 1,900 are Indian. And it amounts to this that 30 per cent of the value of the drugs and 70 per cent of the production is done by the 1,900 firms, while the hundred firms are doing 30 per cent of production and enjoying 70 per cent of the value. And this is mainly because in our country we have got a flair or craze for everything with a foreign label.

From the above explanation your honour can very well observe how our firms can be developed under the present patent law; but it is to enable the existing patent-holders to take away the maximum of our foreign-exchange in innumerable ways under the heads of Royalty, technical know-how, service, fair return on capital, Analytical Controls and Machineries.

I have given a annexure which will clearly show—which has been published by the Reserve Bank—that in a period of three to five years these concerns take away their capital back. At the same time how the capital has been brought is again to be seen. They may send a machine from there to here, which may be owned by them there and the collaborators may agree to that, and it will be treated as capital participation.

It is claimed the present law creates new production and process.

So far as India is concerned, nothing new has developed in this country. But it may be true that our patent law has helped foreigners to create new things in their country out of the foreign exchange paid by us through our nose.

It is claimed that the reason for high prices of drugs is not this Patent Law.

It is very well clear and shown in my memorandum on pages 4 and 5 and page 8 how the patent law is directly affecting the present high prices. It is also very clearly brought out by the American Senate Report No. 448.

I have given also a table which shows how patented products are very highly priced in this country. Therefore I do not see how it can be insisted that the patent law is not the reason for the high prices.

Almost all the well known companies in this trade all over the world are already having their subsidiaries in one form or the other in this country and now many small or medium class Foreign Industries are also attempting to enter. I do not understand how the present patent law increases the ability of the country to depend less on foreign advances in therapy. On the contrary it has hit hard our national development because it is always difficult for a new one, whatever he could do against the existing foreign well-known brands. Our dependence grows more on foreign collaboration; even the individual capacities are afraid of facing the giants and are tempted to go in for colloboration which is a fashion of today.

These collaboration firms are mainly governed by their present companies and thus the only intention is to serve the interest of the parent body in the best possible way. Therefore, it is too much to imagine that these collaboration firms will give out the know-how and train or develop our industry.

As mentioned before, the present patent-holders put forward the dis-

advantages of the proposed patent Bill if it is enacted as it is. We shall discuss them individually later on.

As seen in point 7 above, the present patent law has made us more dependent on foreign advances and because of that we need more and more foreign exchange, while if the Indian research and development will progress under the present proposed Bill it is clear that the foreign exchange requirement will be decreased and in turn it will earn the exchange.

The second point is that they fear that the export by these foreign units will diminish. May I know at present what the export of the patented drug is? It is practically nill. They export to earn import values, which help them to make large profits and considerable exchange for their home country in different ways.

How does this export help us? There is no question of diminishing export. On the contrary, the export of these products should have been increased and at a better price.

The third point is this. It is said that domestic know-how cannot be developed without foreign assistance. But the main purpose of the patent law should be to encourage the domestic know-how which is already existing so that it can be developed. We should rightly refuse them by abrogating the patents.

By our flying Boeings they are not built here; by collaboration nothing is developed; in order to have them here, we have to build them here. Similarly, by collaboration nothing can be obtained or developed here.

The fourth and fifth points are as follows. Flow of foreign know-how will be slowed down. This amounts to a threat. In India, we are doing everything for the uplift and betterment of our nation and within our framework those who can fit in and really wish to assist us are welcome and so we should not submit to any such threats.

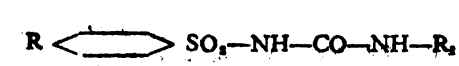
Also, what know-how has been brought into this country by these foreign pharmaceutical industries, or what products have been manufactured here by them? Whatever products are manufactured by them are all manufactured by other indigenous manufacturers too. This is concerning the proprietary medicines.

Now, let us take the example of tolbutamide. I have just now stated that the imported raw material costs Rs. 20.70 per k.g. while the imported tolbutamide would have cost us only Rs. 21.40. This clearly indicates the fact that the technology of the patentee is obsolete and old and it also suggests that indirectly a large amount of foreign exchange is taken out, and the Indian industry is prohibited from the manufacture of this material by legal threats. Thus, the present patent law has hindered the technical level and expansion of the Indian industry.

I would like to discuss the case study which has been given. I have already stated that I would like to discuss one of the patents here so that one could get a clear idea of the things.

As I have said, Hoechsts have the manufacturing patent for tolbutamide now. I may state that this tolbutamide is a substance belonging to the group of substances known as sulphonylureas. This group consists of a large variety of compounds; hundreds of thousands or millions of them can be included under that category, and tolbutamide is just one of those sulphonylureas just one of those millions of compounds.

The general formula has been given as a combination of R with R1 as shown below:



When R and R1 is substituted with the proper radical, that is, methyl and Butyle radical, then it is called tolbutamide.

If R and R1 can be changed, then it will result in a number of compounds whose number would go to millions. It is the general formula for sulphonylureas which has been shown in this particular patent No. 58716.

The present patent 58716 covers the synthesis of an exceedingly large number of benzenesulphonylurea derivatives. As claimed in claim 1, compounds with the general formula:

will come under that patent. Normally, under this patent specification, whatever is supposed to be claimed under this formula could be claimed by them as their property; under this particular claim No. 1, they are claiming this particular compound of R with SO2-NH-CO-NH-R1.

Now, what is the definition of R and R1? Here are some of the forms which R and R1 can take. R can mean a phenyl radical or may contain any of the following namely: Alkyl branched or unbranched, alkoxyl residues or Dialkyl and Diakoxyl Halogens, Aliphatic hydrocarbons or Cycloal.phatic hydrocarbons.

So far as R1 is concerned, it can be any one of the following namely: Aliphatic hydrocarbons, cycloaliphatic hydrocarbons and its salts, straight branched chains.

The compound described by the formula is a combination of these two namely R and R1. Suppose R is a phenyl radical, then R1 can be any one of the combinations which I mentioned earlier; so the compounds that could be formed are not just one but several. It can be the methyl, ethyl or butyl radical; if you make a permutation and combination of these things, it will result in an astronomically high number of compounds, and all those are supposed to be covered by this claim 1 of this patent.

If an organic chemist is to sit down and calculate the innumerable possibilities as described above, he will find, after reckoning for a few hours, that the number of compounds covered in this omnibus claim will amount to tens of thousands if not hundreds of thousands.

Here, I would like to quote what Justice Lord Loreburn has observed in one of the cases he has stated:

> "This patent is bad for ambiguity in the specification. There seems to be some danger of the wellknown rule of the law against ambiguity being in practice invaded. Some of those who draft specifications and claims are apt to treat this industry as a trial of skill, in which the objects is to make the claim very wide upon interpretation of it . . .".

I shall come to the question of trial of skill a little later. In this particular claim No. 1, the claim is made in such a way that they can claim the whole lot of compounds under that claim. If others are going to manufacture the substances, then they can stop other people from working those things by virtue of this claim; even if that is challenged, then they can show this original patent for one compound and claim all the other compounds as their property. If amendments to permit such things are going to be made then I am afraid that would not be an incentive but a disincentive to the research workers here in our country.

Another thing is this that so many compounds are covered in this particular claim practically. The small people or the ordinary people would not like to enter into any dispute with them because even if they find out a

new compound they will have to find a new name for it, and the legal trial will go on for years as has happened in the case of the Haffekine Institute. They have prepared a sulphonylurea tolbutamide by a different process patented by themselves. Yet it is being challenged and it has been pending before the court for the last three or four years. Lakhs of rupees are required to fight out the case in the court. Most of our industries today are not in a position to undertake such heavy legal expenses.

Now, I would like to mention the name of another compound with the name of chloropropamide which belongs to the same sulphonylurea group. Pfizers who are a giant corporation also patented it and they put it out in the market. Immediately when this came to their notice, Hoechsts said 'This comes under our patent; you are infringing on our patent rights'. And they begain to fight. And they could fight because both were giant corporations and each one of them had a patent which could make a very wide claim. For four or five years the fight went on; ultimately when they knew that both were giant corporations, they granted the licence, so that Pfizers also could put the product in the market, as part of their patent.

The industry is a trial of skill. In writing a patent, it is only a matter of skill than anything else. If it were for one process only, then automatically the patentee would have been restricted to that process and he could not claim other processes.

Mr. Chairman: Is it your view that this patent can be claimed for all other combinations?

Dr. K. M. Parikh: Yes. According to their claim of R.I, it covers formulae with R and R 1, that means so many millions of compounds.

Mr. Chairman: This has been prohibited in the Bill.

Dr. K. M. Parikh: Not properly. In the Bill, it has been said that process is patented and not product. What I mean to say is that here also for these particular products, they have covered as many as 13 processes, all conceivable processes as their claim. All the 13 processes are included in these 30 claims. That means, I have no option; I cannot manufacture these products. They have made these claims all in such a way that I cannot reach that particular stage.

Therefore, it should be so provided in the law that that it should be process patent and one process only which actually they want to use which will be most economical to them, so that research incentive will be there and people will find out a better process and make it more economical and better. That will be in the public interest.

Further, Lord Loreburn states:

> "Some of those who draft specifications and claims are apt to treat this industry as a trial of skill, in which the object is to make the claim very vide upon one interpretation of it, in order to prevent as many people as possible from competing with the patentee's business, and then to rely upon carefully prepared sentences in the specification which, it is hoped, will be just enough to limit the claim within safe dimentions if it is attached in court. This leads to litigations as to the construction of specifications which could generally be avoided, if at the outset a sincere attempt were made to state exactly what was meant in plain language. The fear of a costly law suit is apt to deter any but wealthy competitors from contesting a patent. This is all wrong. It is an abuse which the court can prevent, whether the charge of ambiguity is or is not raised on the pleadings, because it affects the public by practically enter into the monopoly and does so by a kind of pressure which is very objectionable. It is the duty of a patentee to state clearly and distinctly either in direct words or by

distinct reference, the nature and limits of that he claims. If he used language which when fairly read is avoidably obsure or ambiguous, the patent is invalid whether the defect be due to design or to carelessness or to want of skill".

The reference is 32 RPC.

The claim 11 of the Patent refers to the conversion of benzenesulfonylt-hiourea into the corresponding sulfonylureas by treating sulfonylthiourea with agents eliminating sulpher. This means they cover everything, things not even known now. Here also Lord Ressel observed:

"The function of the claim is to defeine clearly and with precision the monopoly claimed so that others may know the exact boundaries of the area within which they will be trespassers. Thier primary object is to limit and not to extend the monopoly."

I would like to discuss this case further. On p: 3 of my memorandum, I have given the costing of these tolbutamide tablets as in the vs fixed by the kefauver Committee which clearly shows that even the Hoechest Chemical Corporation after taking their products and everything were selling to their licensee in America, M/s. Upjohn at $3.39 per 500 grammes, that is, to manufacture 1,000 tablets. The entire cost is given. The tableting charge is $2.00 in America which is hardly Rs. 2.83 2½ in India. Even if we calculate on the US standard, it will be $0.86 per 1000 tablets. On that, they used to pay a royalty to Hoechst at the rate of 7½ per cent, and the selling price used to came to 13.11. The same thing was sold to the trade at about $83.40 dollars, which is comparable with the Indian selling price. The same thing is being sold in Germany and England; it is cheaper there.

Shri R. Ramanathan Chettiar: Under the guise of the patent, they do this.

Dr. K. M. Parikh: Here there is no authority that can stop them. They take advantage of what is written in the law.

Continuing further with the case of tolbutamide, I would say that it is not to my knowledge that any company has started the research laboratory first, invested money and then afterwards they start manufacturing. Normally, they start manufacturing the unit first and from whatever profit they get, they assign 3, 4, 5 or 6% of their sale value. This is already calculated in the cost of the product which is marketed. This amount is put in successive years on a research laboratory. So there is no other capital as such created for research laboratory. It only means that research is done from the money obtained from the consumer. It is not that these corporations have invested money in it. It is the consumer's money.

Shri R. Ramanathan Chettiar: Is the practice different in your company?

Dr. K. M. Parikh: I am also doing it the same way; it can be the only way of doing research.

I was pleading that if fair chance is given to Indian concerns to be in this market at least, they can earn and spend more on research so that we can see that the development of this industry is tremendous. But today the real Indian industry has suffered greatly, because right after 1948, the Indian industrial concerns did not know how to create public opinion in this democracy so as to effect Government policy. Therefore, the policy has gone in such a way that it has always encouraged collaboration; the collaborators have come up and flourished. You see that hardly 100 firms take away 70 per cent of the total valume of sales in spite of the fact that these Indian concerns were existing long before independence.

Regarding cl. 5, only process is to be patented. Quite all right. But I would like to amend it further to say

that only one process which is effective and which is economical and which the patentee wants to use should be patented and not all the conceivable processes. I would then refer to the quotation from Mr. Leonard J. Robbins given in pages 7-8 of my memorandum and on the basis of that submit that the following change be made in Clause 4: "inventions where substances are not patentable but only one method or one process may be etc."

Clause 48. Normally tender buying is done by Government, local bodies, municipalities etc., not for profit but to distribute the medicines to the poor masses of the people who cannot afford to buy the drugs. Therefore, I feel that Clause 48 is very essential and should be retained as it is.

Clause 53, I have already made the point that the period should not in any case be more than seven years. The United States committee suggested three years, the South African committee suggested five years, the Canadian Committee suggested abrogation. Even the United States put in their Bill three years with 8 per cent royalty, including the royalty that the patentee has to give on technical knowhow, for manufacture as well as sales. So, when ours is a developing country where we have got the knowhow which we can develop, these patents should be limited to a maximum of seven years, from the date of application. I may also submit that all concessions and restrictions should relate to only one date, the date of application, as otherwise there will be confusion.

Clause 58(1). There was a case in 1948. CIBA took a patent for sulphathiazole, and May & Baker was the licencee in England. They had taken a patent not only for sulphathiazole but the compounds covering the whole group. This particular compound was being prepared by Boots, England, who had filed a patentee. So, they went to court and won the case, and the patent of May & Baker was revoked because it was wide and ambiguous. They asked for permission to amend their patent, saying they would have it only for sulphathiazole but the court did not allow it. So, if amendments are allowed in the court in the course of litigation, it will give the patentee wider scope. Therefore, I strongly feel that under this clause amendments at the court should not be allowed. Moreover, if for any one claim the product or the patent is declared invalid, it should be treated as invalid *in toto*. Only such strict rules and regulations will make the patentee a little careful while drafting his claims, so that he will not claim everything possible.

Clauses 87 and 88—licences of rights with respect to patents in pharmaceuticals and drugs. This is absolutely necessary and must be retained. It is argued why there should be discrimination between pharmaceutical and other patents, why there should be compulsory licence in the one case and not in the other, but as I said in the beginning, it is common practice throughout the world that there are different systems for different commodities, and pharmaceuticals and drugs are being treated by most countries on special lines for licensing. Compulsory licence was there, but it was not so far utilised mainly because the process was complicated, and therefore there is nothing wrong in having licences of right. If anybody wants to prepare, why should he not if he has the capacity to do it?

I do not know how the Controller of Patents is the proper man to find out whether the applicant has the capacity to manufacture or not. We have got a very strict Drug Control Administration in this country which looks after the quality, the purity and capacity to manufacture. It is necessary according to the schedules that they have to go and inspect the equipment, procedures, laboratories, standards etc. So, they are the pro-

per authority to look after this. If the licence is once granted under the licences of right and he is able to manufacture anything, he has to get the necessary permission from the Drug Control Authority, whether it is a small-scale or a medium-scale industry; large-scale industry automatically comes under the Industries (Development and Regulation) Act for purposes of development, regulation, licensing etc. These are the authorities who will see whether he is the proper man or not. Why should there be duplication at the level of the Controller of Patents? So, if an application is made for licences of right, it should be immediately granted, because whatever the fees or the loss is borne by the applicant and nobody else. Even if he wishes to throw away money and not utilise the licence afterwards, there is nothing wrong in it.

The Senator E. Fefauver Committee in their report have stated:

> "The conclusion would appear to be warranted that in this industry, the mere existence of patent protection is not a guarantee of invention, nor is its absence much of a barrier."

So, the best thing in the interests of this country is to abrogate the patents especially in the field of drugs and medicines. If this is done even for a short period of say ten years, you will see the difference.

I have also given one annexure published by the Reserve Bank which has already been discussed and which shows how by means of royalty etc. foreign exchange which is very scarce is being lost. The matter will be crystal clear to your honour that it is amply proved that the prices of the patented drugs are higher in this country even compared to the other developing countries. Why should Indians alone pay more to the giant corporations to meet their research expenses? In their characteristic way many foreigners and their friends will post various points and see that under the law this countinues to flow out from this country. The main point still remains. Are we to be influenced by the specialised techniques of the vested foreign interests and give up our grim determination to maintain our individuality?

In the memorandum I have suggested one point. From these calculations you may see that a royalty of four per cent or five per cent or ten per cent makes no difference so far as the price of these patents are concerned.

I may clarify one point. Who wants that the inventor should not benefit. He may be from any part of the world. The inventor must be encouraged. The royalty may be given. Only this patent Bill is necessary in order to stop the undue exploitation of people.

Shri Bibhuti Mishra: How many patentees are foreigners, how many are collaborators and how many Indians?

Dr. K. M. Parikh: I do not see much difference between collaborators and foreigners. Indian patents so far as pharmaceuticals are concerned may be about 3.5 per cent previously; it may be about 2·5 per cent now.

Shri Bibhuti Mishra: How much money is drained out through this business to the foreign country?

Mr. Chairman: He has submitted those figures which are published by the Reserve Bank. That will be circulated to the Members. I am requesting the witness also to send 65 copies.

Shri Bibhuti Mishra: What is your suggestion to have the know-how here —research scholarships to be set up in this country.

Dr. K. M. Parikh: My suggestion is very clear. These industries should be protected in the sense that only those who are really independent Indian industries—not collaborators or foreign firms—be given a chance to sell their products. They will defini-

tely do it. Not only that. I think about Rs. 15 crores is being spent by our government on researches in this country. I would like to give one example of Hoffkine Institute. They found a particular drug which was useful for the plague and they manufactured it. But they could not manufacture it because it was a patented product. The whole thing went to a court of law and one of the points in the court that it was not available in India. When the case was going on I have been told that patentee flooded the market with their products. Then the court went round and found that it was in the market and the case was rejected.

Now another example of the same institute is with regard to paludrine. They developed a process without any help, on their own. They asked the patentee, I think the ICI, to allow the manufacture of this particular product. They went on corresponding with regard to royalty, etc. It went on for five years and by the time it was resolved, malaria was more or less eradicated in this country.

Another thing with regard to Tolbutamide. The particular process is also absolutely original one. It is a process patented under our patents. But it has been found out that in Japan the same process has been put by a patentee as their process for patent in Japan. The matter could not be decided in the lower court; they had gone on appeal to the higher court.

With regard to Tolbutamide tablets, the price was Rs. 300 or more. Today's price is about Rs. 183 per thousand tablets. The Hoffkine Institute prepared it on their own and without any help from the Hoechst and they sold it at Rs. 60 per kilo. Many people started selling it. Then notices started coming in and many have stopped it also. If you consider the requirement of this, it is a permanent requirement; it is an anti-diabtes drug; diabetes could not be cured; it can only be controlled by this product. It is controlled by this product. These are permanent requirements. The present requirements are about 20 tons per year.

Shri Karmarkar: The case is going on in the court.

Dr. K. M. Parikh: Yes; the litigation is going on. Now, Hoffkine has been given a licence. When the Hoffkine Institute gives it at Rs. 60 per kilo it comes to Rs. 30 per thousand tablets. According to this, Indian firms were selling it at Rs. 50 for thousand tablets. Toray, Hoescht is selling it at Rs. 183. In July, 1961 it was Rs. 285. They are making a net profit of Rs. 150 on this drug. If it is Rs. 150 for 500 grams, it comes to Rs. 300 a kilo and Rs. 3 lakhs per ton, and for 20 tons, per year, it comes to about Rs. 60 lakhs a year. It should have been a little easier if it was shared by Hoffkine, and they would have earned quite a good amount and they would have further developed the research activities in their laboratory. But, instead of that, they are manufacturing same tablets for CSI; this is not economical, because in order to maintain their expenditure, the Government may not be able to grant them more money. While these advantages make the research laboratories flourish, it is not as if from the very beginning, a huge research laboratory has been established.

Shri Bibhuti Mishra: Are you in favour of bringing the drug industry into the public sector so that the poor people of our country may have cheapest medicine?

Dr. K. M. Parikh: I am not in favour of bringing it under the public sector, mainly because it is a very small industry. This is my individual opinion, and my firm has nothing to do with it. I personally feel that there is more of wastage and less of efficiency in the public administration. I am sorry to say it here. In the private undertaking, there is the question of owning it. It makes every individual work and the private sector gives proper attention in day-to-day matters. This industry is so small and we have

so many possibilities of changing the existing law a little here and there and through such changes, the Government can fully control the industry and bring the drugs for the use of the people at a very cheap price. If these changes are effected, definitely the country is going to get many products at very cheap prices. As you will see, chloroemphinicol is being sold by Indian small concerns at Rs. 3 per dozen against Rs. 11 per dozen by others. It is a great difference.

Shri Bibhuti Mishra: Are you in favour of having an appeal against the order of the Controller?

Dr. K. M. Parikh: In most of the cases, appeals are allowed but in some case, where delay is likely to take place, this delay is dangerous to the public, and an appeal in such cases should not be allowed. An appeal may be allowed to a tribunal appointed by the Central Government. The High Courts normally take more time and a lot of money is spent. I suggest a small tribunal to go into such questions, and on this tribunal, a judge may be represented.

Shri Bibhuti Mishra: Within what period, would you suggest, that an appeal should be decided?

Dr. K. M. Parikh: It depends on the court or the tribunal.

Shri Sham Lal Saraf: The hon. witness has made a number of points. Creating interest in research and inventive genius as far as drugs are concerned is absolutely necessary, and that alone will bring us to some stage of development as far as the pharmaceutical and drug industry is concerned. Making the drugs available at a lower or a cheaper price or a reasonable price is a different thing altogether. Do you agree that these are two separate things altogether? Therefore, do you agree that as far as the preservation of research and encouraging research and making the best medicines available to our countrymen, as far as possible, all efforts should be made?

Dr. K. M. Parikh: I have already made it clear.

Shri Sham Lal Saraf: If I have heard you aright, you said that it is only just a small percentage of the present-day patents are registered in name of Indian firms. On the contrary over 90 per cent of patents are registered in the name of foreigners. That being so, all the drugs, chemicals and pharmaceuticals that are sold in this country today are available because either you have got some know-how imported into this country or there is collaboration from firms outside this country.

Dr. K. M. Parikh: I do not agree with it completely, because all the drugs that are available in the country are not mainly manufactured elsewhere. There are manufacturers here, and they are able to manufacture because all the drugs are not patented. There are some which are being manufactured in India and they are sold in India in a free market by Indian concerns.

Shri Sham Lal Saraf: At the moment, the discussion is on patents. May I ask you how many drugs from your firm—which I know for years—have been patented and are sold out as patented drugs of your firm?

Dr. K. M. Parikh: It is only a negligible amount.

Shri Sham Lal Saraf: How many?

Dr. K. M. Parikh: 3·25 or 2·50. From my firm, there is not a single patent.

Shri Sham Lal Saraf: So, do I take it that the hon. witness has little experience about patented drugs?

Dr. K. M. Parikh: To have experience in obtaining and patenting the drugs is entirely different. What I say is, we are not given that opportunity to earn and invest on research as is given in the foreign countries, so that we could produce a sizeable research activity and manufacture medicines

and drugs which could be patented and sold.

Shri Sham Lal Saraf: As far as procuring the drugs for the common man is concerned, everybody agrees that that they should be sold at a reasonable price. Do you agree that that change can be brought about if our administration is geared to that ideal?

Dr. K. M. Parikh: That change can be brought about.

Shri Sham Lal Saraf: You have said at one place that there is discrimination between pharmaceuticals or manufacturers within the country and those who manufacture with the collaboration of, or with imported know-how from, foreign countries. Could you explain that? You have also said that you are being threatened that some of your products would be seized when sold in the market. You have not said by whom you are being threatened and why. Could you please explain both these points?

Dr. K. M. Parikh: Some foreign collaborators are manufacturing some of the patented drugs here in India, and it is their monopoly. In the case of tolbutamide, we bought it from Hoffkine Institute and sold it, and we got a threatening letter, and we have to face court action in this matter.

Shri Sham Lal Saraf: At one place you say that the period in respect of the registration for your patents should be from three to five years. I should expect that you have some experience of research work and, so, may I know how much time, on an average, it takes for developing a genuine research skill in a properly equipped laboratory to find out a particular equipment and then work at it?

Dr. K. M. Parikh: To have an up-to-date pharmacological laboratory, I require a lot of money. Today I have to sell in competition with foreign manufacturers who are already there with established names.

Shri Sham Lal Saraf: I was asking about the time factor, apart from the costs. Taking into account the time taken for completing the processes and then working it out and so on, to make it a patentable thing how much time would you ordinarily require?

Dr. K. M. Parikh: It varies from 1 year to 2 or 3 years. For example, this tolbutamide was a sulpha drug which was used for other purposes. By chance it was found that it lowered sugar in blood. After that, a little work will clearly bring out its properties.

Shri Sham Lal Saraf: Let us leave it to the committee to decide the period. Are you in favour of revoking a patent by a particular time and if so, under what circumstances should this revocation take place?

Dr. K. M. Parikh: If a limit is fixed for a patent, it should not be revoked before that. If the patent is not worked, there is already the provision of 'lenceces of Right'. If that is enforced, it will ensure that all patents are worked.

Shri D. P. Karmarkar: Your two principal points are that the patent clause has come in the way of development of Indian medicine and secondly, the prices charged here are enormous compared with the prices at which they are available outside. Do you agree that apart from some handicaps which arise on account of the fact that we have been backward in the development of modern medicine, in order to make India self-sufficient in medicine, for some time there would have to be foreign collaboration, even at a disadvantage?

Dr. K. M. Parikh: I am not at all against foreign collaboration.

Shri D. P. Karmarkar: When you agree that foreign collaboration will be necessary for some time, arising out of that, do you agree that the terms which we give for collaboration efforts should be not more than absolutely necessary for the purpose?

Dr. K. M. Parikh: That is true.

Shri D. P. Karmarkar: It is not saying anything uncomplimentary about the talents of our people, but on account of historical reasons, we have been slow in catching with modern medicine. Is it a fact that in the last 18 years, compared with the world, we have not come up to anything appreciable at all in the matter of inventions of medicines of large application?

Dr. K. M. Parikh: I would not agree with that completely. There are other factors which have worked against it. Otherwise, we could have come up to the expectations. If there had been free licence for 10 years, many of the concerns in India would have manufactured these things.

Shri D. P. Karmarkar: Do you agree that out of the medicines manufactured, medicines under patents are a very small percentage?

Dr. K. M. Parikh: Today they are very large.

Shri D. P. Karmarkar: I am speaking of medicines which cover a large field, not those used for small things, say, those covering about 70 per cent of the field.

Dr. K. M. Parikh: Most of the important drugs used by allopathic practitioners are patented.

Shri D. P. Karmarkar: Do you agree that amongst the drugs as a whole, during the last 15 or 20 years it is the sulpha drugs and antibiotics which have developed greatly?

Dr. K. M. Parikh: Yes.

Shri D. P. Karmarkar: In that, do you agree the foreign people have been responsible for these inventions?

Dr. K. M. Parikh: If chances had been given to this country, I am sure we would have also come up equally.

Shri D. P. Karmarkar: You mean by way of abrogation of patent law?

Dr. K. M. Parikh: That is one of the things.

Shri D. P. Karmarkar: Or by way of proper protection—either import control or helping with capital on technical know-how—you mean if the industry had been helped by these methods, they would have done it? So far as I know it is being helped.

Dr. K. M. Parikh: By chance I mean, in regard to things which can be very easily made by Indian concerns, licences should not have been granted to foreign manufacturers. Taking aspro, for example, the aspirin tablet which can be sold at Rs. 9 per thousand is being sold at about Rs. 60 or Rs. 70 per thousand. This is because of this foreign collaboration.

Shri D. P. Karmarkar: Is clause 87 of the present Bill completely satisfactory from your point of view?

Dr. K. M. Parikh: It is satisfactory, but I want a small change from ten years to seven years in clause 53. Then it will be more effective.

Shri D. P. Karmarkar: That is another matter. So far as clause 87 is concerned, is it not completely satisfactory?

Dr. K. M. Parikh: Yes; it is completely satisfactory.

Shri D. P. Karmarkar: Do you agree that whatever the concessions in law or in practice we want to give, they should be neither more than necessary nor less than necessary for that purpose? Suppose I am negotiating with a particular party. The

judgments may vary, but do you agree that in order to serve the purpose, the terms should be neither more generous nor less generous than is necessary for the purpose?

Dr. K. M. Parikh: For foreign patents or Indian?

Shri D. P. Karmarkar: Both.

Dr. K. M. Parikh: For foreign patents, it should not be more; it should be less. For Indian patents, it should be more.

Shri D. P. Karmarkar: Even if we find that foreign collaboration is absolutely necessary for the country, you think that the period should be less than what is absolutely necessary, you think that the period should be less for foreign collaboration and more for Indian firms?

Dr. K. M. Parikh: Yes, provided other facilities . . .

Shri D. P. Karmarkar: I am not speaking about facilities at all. This Bill does not deal with facilities. The Industries (Development) Act deals with facilities like free land, free capital and all that. This Bill deals with certain concessions given to certain producing units either here or abroad. One of the things is tenure. Opinions may vary. One may say that it should be five years and another may say that it should be two years. Do you agree that on a balance with what we offer for the development of industries it should neither be too niggardly nor too generous?

Dr. K. M. Parikh: Yes.

Shri M. L. Jadhav: In India the cost of labour is low as compared to other countries while the cost of even indigenous medicines is very high. What have you to say about that?

Dr. K. M. Parikh: The term "high" is a very relative term because it goes with so many other things. I take it that by indigenous medicines you mean foreign drugs produced in India. I have already submitted a whole list. You will notice that they are sold at rock bottom prices and at the highest possible prices. It varies from company to company and some take advantage of certain things.

Shri Kashi Ram Gupta: You mentioned just now that medical practitioners in India use a large portion of patented drugs. What is your opinion about the use of drugs in government hospitals, whether they also use a large portion of patented drugs?

Dr. K. M. Parikh: It is the same thing everywhere. I may give just one example. When a hospital wants Sulphathiazed instead of writing that they prefer to write Cibazol which is a patented drug of a particular firm and they insist on getting that only.

Shri Kashi Ram Gupta: You have suggested a period of seven years. From the note we understand that it is 7 years from the date of the patent whereas you now say that it is from the date of the application. You know that the Patents Office may take some years to finalise it. Suppose it takes seven years to finalise it, then there is no time left.

Dr. K. M. Parikh: It varies. In the case of Tolbutamide it was done in 1954 and marketed immediately. Thereafter if a period of 7 years is given, I think that would be enough. The Patent Office should not take such a long time. If there is no restriction put in the present Bill on the time that the Patent Office can take, it should be done now.

Shri Kashi Ram Gupta: You have put the rate of royalty at 7½ per cent while in the Bill only 4 per cent is provided. What is your reason for raising it?

Dr. K. M. Parikh: I feel that those who are inventors should get a fair

return. Even if 7½ per cent is given I feel that it will be a fair amount.

Shri Kashi Ram Gupta: I invite your attention to the Memorandum of your managing agents, Mr. G. M. Parikh for Jagat Ram and company, wherein they have put down only 4 per cent.

Dr. K. M. Parikh: I know that.

Shri Kashi Ram Gupta: On page 2 of your memorandum you have given the example of Italy and Japan. How many years did it take Italy or Japan to bring in the Patent Act?

Dr. K. M. Parikh: I do not know. I think in Italy it was done recently.

Shri Kashi Ram Gupta: Only yesterday the Japanese industrialists have come out saying that they are against the present Patent Bill of India.

Dr. K. M. Parikh: It might be a timed one.

Shri Kashi Ram Gupta: You have said on page 2:

> "In order to achieve these twin objectives, the best and the only way out is to abrogate the Patents completely till we develop to such a stage when we can enter this convention.

What is your idea about "till we develop"? When do you think we can consider ourselves to have sufficiently developed? How can you measure that?

Dr. K. M. Parikh: I think 10 to 15 years will be enough for development. Once there is no Patent, even American manufacturers will be ready to collaborate with us for giving the know-how etc.

Shri Kashi Ram Gupta: You have given a list of liquids, ointments and powders of Zandu Pharmaceutical works. This means that although these are unpatented so far as Zandu works are concerned, in the case of other firms they are patented.

Dr. K. M. Parikh: I am just telling the class of medicines and not of any paritcular product. I have only said that our processing capacity for liquids is this.

Shri Kashi Ram Gupta: You have put in liquids, ointments and powders of Glaxos. Are they patented or not?

Dr. K. M. Parikh: They include both. I have given the manufacturing capacities of these pharmaceutical preparations.

Shri Kashi Ram Gupta: Now, the old patents are there. We are fast developing and they may be but of use. In any case they have made a lot of profit. Are you in favour of revoking all those patents?

Dr. K. M. Parikh: Who is to decide whether they have made enough profit? It can be generally decided on the basis of the number of years.

Shri Kashi Ram Gupta: When you say that 7 years is enough you think that 7 years is enough to give him the expenses of research and also a good living to him, and after this Bill comes into an Act all those old patents must be revoked?

Dr. K. M. Parikh: All those that are more than 7 years should be revoked.

Shri Kashi Ram Gupta: You have given an idea about your firm. Are there such firms in India whose patents are working in a good way and they are also in favour of abrogation of all patents for the time being?

Dr. K. M. Parikh: I do not know of any Indian firm having patents except one or two in Bengal and one here.

Shri Kashi Ram Gupta: Therefore, that is one of the reasons why this abrogation is sought.

Dr. K. M. Parikh: It is in the national interest.

Shri K. K. Warior: What percentage of the total sale proceeds of your firm is reserved for research work?

Dr. K. M. Parikh: We have not allotted any specific amount. As and when we require it, we go on spending it. At present we are spending a very small amount.

Shri K. K. Warior: What will be the approximate percentage?

Dr. K. M. Parikh: About one per cent.

Shri K. K. Warior: Do you agree with the view that if patent rights are not given there is every chance of many spurious drugs being manufactured?

Dr. K. M. Parikh: No, I do not agree. Because, there is strict drug control administration in this country.

Shri K. K. Warior: Do you not agree that spurious drugs are being manufactured?

Dr. K. M. Parikh: They are manufactured even in the United States. It is something which no one has been able to stop the world over.

Shri K. K. Warior: What will be the approximate profit range of the Indian manufacturers without any collaboration?

Dr. K. M. Parikh: Normally, the profit range of the Indian concern is much less than that of the foreign companies. The cost of raw materials multiplied by twenty will be the standard for foreign concerns. In the case of Indian concerns, if chlorophenical is sold for Rs. 3 it may be only two times

Shri K. K. Warior: If the foreign collaborators are not given patent rights do you think that indigenous manufacturers would be able to cope with the demand?

Dr. K. M. Parikh: Yes, I am confident.

Shri Daljit Singh: Is there any objection if there is a provision for expropriation of patent rights or acquisition of invention by Government?

Dr. K. M. Parikh: I have not studied it so thoroughly. So, I have nothing special to mention about it.

Shri Daljit Singh: You said that there is a vast difference in price between the products of Indian patentees and patentees with foreign collaboration. But is there any difference in quality of the product or process of manufacture?

Dr. K. M. Parikh: No difference. The quality is the same.

Shri Daljit Singh: Then why is it that people do not prefer to buy Indian manufactured products?

Dr. K. M. Parikh: That is individual preference. I cannot explain it.

Shri P. K. Kumaran: In Italy there has been no patent system. Some people hold that the absence of patent system did not encourage the invention of medicines in Italy, for the same although they have been manufacturing a large number of medicines and have been often introducing 20 to 30 variations of the medicines introduced by foreign firms.

Dr. K. M. Parikh: I do not agree there. In Italy they have also found out many of the products which are under trial. Many products have been invented in Italy even in the absence of patents. Even when there was no patent law many things were found out by the foreign countries.

Shri P. K. Kumaran: Is it not a fact that the Italian industry was able to sell its product at lower price than the international market price?

Dr. K. M. Parikh: Yes, they were able to sell even to England, a country which has a patent law.

Shri A. T. Sarma: I was under the impression that your firm is dealing with Ayurvedic pharmaceuticals also.

Dr. K. M. Parikh: We have dealings with allopathy, biological and Ayurved.

Shri A. T. Sarma: But you have not mentioned about Ayurved in your written speech. Do you not think that Ayurvedic medicines also require patents?

Dr. K. M. Parikh: We need not bother about Ayurved because this is the only country which is producing Ayurvedic medicines.

Shri A. T. Sarma: What is your opinion about it?

Dr. K. M. Parikh: It is a very big problem on which I have definite ideas. I have given some lectures on this subject.

Shri A. T. Sarma: Do you think that the provisions of this Bill are beneficial to Ayurved?

Dr. K. M. Parikh: For example, CIBA is doing research on reserpin which is the same as sarpagandha in Ayurved. The thing to remember is if the medicine is prepared in a fine finished form it will have a wider market while if it is in a coarse form, as it exists today, it will have very little market. Therefore, so far as the properties of the medicines are concerned, they should be scientifically explainable by the action of the drug etc.

Shri A. T. Sarma: I am not talking about the medicine. I am asking about the process of research work in Ayurved.

Dr. K. M. Parikh: If a firm deviates from the old process in Ayurved, immediately the vaids criticise it by saying that it is going against the old and well-established Ayurvedic traditions. Many of the vaids may not like it. That is why there is no progress in that field.

Shri A. T. Sarma: I was thinking about Makaradwaja.

Mr. Chairman: Anyhow, that is not the matter under discussion here.

Shri A. T. Sarma: I want to know whether any special provisions are necessary in the Bill for improving Ayurved.

Dr. K. M. Parikh: As we are the only country practising Ayurved, I do not think it is necessary. If it is included in the Bill, there is nothing wrong either.

Shri A. T. Sarma: So, you are not against its inclusion?

Dr. K. M. Parikh: No, I am not against it.

Shri A. T. Sarma: You have mentioned that you anticipated the Bill earlier and that it has come in a mutilated form. What is the meaning of it?

Dr. K. M. Parikh: I have discussed the two points—seven year period and abolition of patents. I think, abrogation will serve the interests of this country much better. But as we have already patentees in India, having big factories and everything, perhaps it may not be possible so to combine two ideas and to come to an amicable settlement. If the period is limited and licence is given, it will be a better solution.

Shri A. T. Sarma: In your memorandum you have stated that some safeguards are needed to protect the interests of Indian drugs. What do you mean by that and what safeguards do you want?

Dr. K. M. Parikh: I do not think so.

Shri Veeranna Gowdh: It is stated that the period should not be more than 7 years while in the Bill it is stated as ten years. What is your opinion if a period of only five years is fixed?

Dr. K. M. Parikh: It can be anything. The exploitation period should be as low as possible so that it gives them enough opportunity to recoup their expenses as they say and, at the same time, it should not give them a longer duration for exploitation. In genuine cases, I have already suggested, an extension of three years may be granted.

Shri Veeranna Gowdh: In your opinion royalty should be about 7½ per cent, not more than that, while in the Bill it is 4 per cent. Suppose, no percentage is fixed and each case is dealt with separately?

Dr. K. M. Parikh: It may delay the matter. As I told you in the case of the Haffkine Institute Paludrine was delayed for fixing up the royalty. After five years they got the permission. So, there must be some period fixed.

श्री ब्रज बिहारी मेहरोत्रा : आपने जितना स्टेटमेंट किया है वह दवाओं को सामने रख कर किया है लेकिन अगर कोई और चीज का उत्पादन हो, छोटे इम्प्लीमेंट्स एग्रीकलचर के या ऐसे इम्प्लीमेंट्स जो जनता को बड़े पैमाने पर काम दे सकें और उसमें इनवैस्टमेंट ज्यादा होगा तो फिर उसमें भी आप चाहेंगे कि चार वर्ष की ही यह अवधि रखी जाय ?

डा० के० एम० पारीख : मैं उसके लिए कुछ नहीं बतला सकता ।

श्री ब्रज बिहारी मेहरोत्रा : आप चाहते हैं कि संरक्षण में भेद रखा जाय . . . .

डा० के० एम० पारीख : जहां जहां अपनी प्रजा और समाज को जरूरत हो वहां वहां भेद रखा जाय लेकिन जहां जरूरत न हो वहां एक ही रखा जाय ।

श्री ब्रज बिहारी मेहरोत्रा : दूसरी चीज आप ने यह कही कि भारतीय चीजों का जहां उत्पादन होता है उनमें और विदेशी चीजों के उत्पादन में संरक्षण में ही भेद रखा जाय तो इससे क्या आप समझते नहीं हैं कि विदेशी लोग आकर उसका फायदा उठाते रहेंगे ?

डा० के० एम० पारीख : मैं ऐसा नहीं कहता । मेरा कहना ऐसा था कि जो हमारा भारतीय उत्पादन होता है वह चीज विदेशों से हमें नहीं लेनी चाहिए । अब जिनका भारतीय उत्पादन होता नहीं है और जिनकी आवश्यकता है तो विदेशी क्यों नहीं लेना चाहिए ।

श्री ब्रज बिहारी मेहरोत्रा : विदेशी चीजें ऐसी हैं जोकि विदेशों ने आविष्कार की हैं, उन्होंने अनुसन्धान किया है और वह आप के देश में आती हैं और अगर वह आपके देश में नहीं बनती हैं तो जाहिर है कि आपको उन्हें वहां से महंगे दामों पर खरीदना पड़ेगा ।

डा० के० एम० पारीख : जब वह चीज हमारे देश में नहीं बनती हैं और वे आवश्यक हैं तो उनको जरूर लेना चाहिए ।

श्री ब्रज बिहारी मेहरोत्रा : वह जो संरक्षण का भेद आप चाहते हैं वह कैसे रहेगा ?

डा० के० एम० पारीख : मैंने ऐसा भेद नहीं चाहा हैं । जो चीजें जरूरी हों और जो यहां नहीं बनती हों उनको वहां से लेना चाहिए अलबत्ता अनावश्यक चीजें यहां बाहर से नहीं लानी चाहिए ।

श्री ब्रज बिहारी मेहरोत्रा : सवाल तो जरूरी चीजों का ही है अब मिट्टी का कौन पेटेंट चाहता है । . . . .

डा० के० एम० पारीख : जिनका उत्पादन यहां होता है उनको बाहर से नहीं लाना है ।

श्री ब्रज बिहारी मेहरोत्रा : क्या यह सही नहीं है कि आपने अपनी फर्म को सामने रख कर ऐसा कहा है चंकि आपकी एक बड़ी मशहूर फर्म है बहुत सी चीजें मैनुफैक्चर करती है इसलिए पेटेंट का समय इतना कम रखा है कि आप उसको एक्सप्लाएट कर सकें ?

डा० के० एम० पारीख : वह तो पेटेंट ग्रांट करने का एक सिद्धान्त है चाहे वह पेटट ग्रांट 7 साल हो, 10 साल हो या 20 साल हो । जिसे पेटेंट ग्रांट मिलती है वही अपना इन्वेन्शन डिस्क्लोज करता है पबलिक को बताता है और यह नम्बर आफ़ इयर्स जो रखा है उसका प्रयोजन ही यह है कि सात साल के बाद वह कर सकता है ।

Shri Peter Alvares: You have been arguing for some time that if the patents are progressively abolished it would be an incentive for Indian industry to develop. If the patents are entirely abolished, that would mean that there would be no protection for Indian industry if by chance you develop an invention yourself. As an investor in the private sector, are you agreeable to this position?

Dr. K. M. Parikh: I think, inventions are not made mainly by beginners and other people with the intention of patent protection only. They are done because it is a creative desire of man. The name is more important than financial gains.

Shri Peter Alvares: Therefore you are of opinion that even when Indian industry comes of age or is competent enough, even in those circumstances the Indian pharmaceutical industry is not in favour of any protection of patents.

Dr. K. M. Parikh: It may be a commercial aspect, as Italy is entering into today. If the people of this country feel like it, they may enter into it at that time.

Shri Peter Alvares: You are not sure about it. You are the first chemist here as a witness. There is a distinction sought to be made between protection of a product and protection of a process. I want to know from your experience or from the experience of the world, whether this distinction is real or whether it is possible to develop a particular product by a a process other than the one patented. Are there theoretically or in practice various ways of arriving at a product? If it is so, it is understandable; but if it is difficult or impossible in practice to arrive at a particular product by any other process, the distinction is only national.

Dr. K. M. Parikh: There is a possibility. The same product can be prepared by more than one process. The Haffkine Institute is a Government institute and their process is open to everybody. Anybody can go and see it.

Shri Peter Alvares: If there are various possibilities of arriving at the product by various other methods, what is the great objection to industrial or pharmaceutical patent?

Dr. K. M. Parikh: All the processes are covered by the specifications and I cannot do it. Here I have a patent of Hoechst which contains 13 process and runs into 56 pages. It has covered all the possible sulphonylureas and all the possible and conceivable processes.

Shri S. N. Mishra: What is the number of Indian patents in the field of drugs?

Dr. K. M. Parikh: I may not be knowing the exact figures but it may be 2.5 to 3.5 per cent. That will, however, include such type of patents which are also challenged.

Shri S. N. Mishra: That means, 97 per cent is the number of foreign patents.

Dr. K. M. Parikh: Yes, Sir.

Shri S. N. Mishra: Why are Indian patents not coming up? What is the

practical difficulty in the way of Indian patents coming up?

Dr. K. M. Parikh: I gave a solid example of the Haffkine Institute. If they had been allowed to do their patent, they would have earned so much money that they could have built a very huge research laboratory and then only the results would come out. To do research is not one or two individual's job.

Mr. Chairman: Is it the current patent law that is in the way?

Dr. K. M. Parikh: To an extent, yes.

Shri S. N. Mishra: How many of these 2·5 to 3·5 per cent patents belong to the private sector?

Dr. K. M. Parikh: I do not know.

Shri S. N. Mishra: Normally, the assumption would be that the private sector is not so well-equipped for the kinds of inventions which are required. If that is the present position, how do you think that you can displace the large number of patents that are granted to the foreigners?

Dr. K. M. Parikh: I do not know about the first part of it . . .

Shri S. N. Mishra: You are not able to get at my point. The assumption would be that the Indian industry is not well-equipped to undertake inventions because of lack of resources or maybe because of lack of talent and so on. Is that assumption correct or is it something else which is coming in the way of the Indian patents coming up?

Dr. K. M. Parikh: It is quite right that if the patents are to be worked out, the finance and other things are required. If a little assistance is given, more and more patents will be worked out.

Shri S. N. Mishra: Do you want the resources to be provided by the Government?

Dr. K. M. Parikh: It will be very difficult for the Government to provide such huge amounts . . .

Mr. Chairman: What is the assistance that you want? That is what you said.

Dr. K. M. Parikh: Assistance, in the sense, to protect the Indian industry in selling their products, etc. so that instead of having competition with other people and selling the products at a low price, they can make a little more money and spend more on it.

Mr. Chairman: You want to introduce Indian monopoly instead of foreign monopoly.

Dr. K. M. Parikh: That is not my submission. As we see, there is a difference of Rs. 150 as profit on a particular product and the Indian capitalist may not take that much but, say, Rs. 20 or Rs. 30 or Rs. 40 which may be utilised for the research.

Shrimati Sharda Mukerjee: From your evidence what I gather is that what seems to be in the way of further research in India is the lack of well-equipped laboratories. Is that not so?

Dr. K. M. Parikh: There are many laboratories which are well-equipped. But further expansion of the laboratories is needed.

Shrimati Sharda Mukerjee: More research is held up due to lack of more facilities.

Dr. K. M. Parikh: By virtue of having more facilities, that is, more and more good laboratories, there will be more people working into them taking up more problems at a time. Today, they may be able to take up a few problems out of which only 3 or 4 may show results.

Shrimati Sharda Mukerjee: There are many processes which are well-known and which are not patantable.

May I know why we have not been able to adopt those processes here and make medicines or even other products of the same standard as obtains in the case of goods which we import?

Dr. K. M. Parikh: The Indian industry is preparing quite a large number of chemicals which are not patantable.

Shrimati Sharda Mukerjee: Why have we not been able to obtain the same standard in the case of medicines or other products?

Dr. K. M. Parikh: Our standard is the same . . .

Shrimati Sharda Mukerjee: Not in every case.

Dr. K. M. Parikh: I would say every case. Whatever drawbacks are there, they are common to both foreign or Indian.

Shrimati Sharda Mukerjee: It has been the experience that where special protection has been given to the Indian industry, the prices have shot up and neither the quantity of commodity available to the market nor the quality has improved.

Dr. K. M. Parikh: There can be a number of factors, namely, the short supply of commodities, the profit element and a number of other factors can also be there.

Shrimati Sharda Mukerjee: Therefore, if we were to abolish patents, it may not necessarily help the drug industry.

Dr. K. M. Parikh: It will help so far as patented drugs are concerned.

Shrimati Sharda Mukerjee: What is the percentage of patented drugs in India? We were told that 3 to 4 per cent of the drugs used in India are patantable.

Dr. K. M. Parikh: If you take all the drugs available . . .

Shrimati Sharda Mukerjee: Out of the drugs which are in use today, what percentage of them are patented?

Dr. K. M. Parikh: There may be some obsolete things which may be in use somewhere in the country . . .

Shrimati Sharda Mukerjee: You take the drugs which are in use today. What is your assessment?

Dr. K. M. Parikh: It will be 40 to 50 per cent.

Shrimati Sharda Mukerjee: We were told that it is only about 4 per cent.

Dr. K. M. Parikh: That is how I have calculated.

Shri V. B. Gandhi: You suggested that the term of patents should be 7 years. As an experienced businessman holding responsible position in a very large Indian firm, you should be able to tell us how it can be worked in 7 years. As you know, before a drug can be put on the market, it requires a chemical trial and all sorts of other trials. The Government requires that it should undergo a thorough trial. It takes some time to obtain an industrial licence. Also, as you know, sometime is taken for marketing the product. Of course, there are some products which were lucky enough to be successful immediately, like, chylromycetin or such other products. But that good luck cannot be expected in every case. So, considering the requirements of chemical trials insisted by the Government and the time taken for marketing and so on, would you not like to reconsider your suggestion?

Mr. Chairman: He has already given the answer.

Dr. K. M. Parikh: The period of 3 years is enough for recouping the expenditure while the period of 4 years is enough for other things. In the case of a really genuine case, it may be given an extension.

Shri V. B. Gandhi: About the prices, it seems everybody wants to blame the present high prices of the patented products in India as Shrimati Sharda Mukerjee and Shri Karmarkar also pointed it out. Actually, the percentage of the products that are pattented in India, according to our information received from our responsible source which we have every reason to believe, is not in excess of 2½ per cent to 3 per cent. So, what applies to 2½ per cent or 3 per cent should not be enough to push up the entire level of prices. The prices of other products which are not patented have gone up. The prices of all other products, even non-medical, have gone up; the toilet soap, Hamam, used to be sold at only 5 annas but now the price has gone up to 8 or 10 annas; the ENOS fruit salt—not patented I hope—which used to be available for Rs. 3 now costs Rs. 6. So we cannot throw the blame for high prices only on the existence of patents.

Dr. K. M. Parikh: It is not a question of high price only; it is a question of exorbitantly high price. This thing happens only when monopoly in some way is created and one of the ways is patent.

Shri R. P. Sinha: Without good chemical engineering we cannot make use of patents even if they are available to us free because it is not only the know-how, but the chemical engineering has not developed to a stage where what you do in the laboratory can be translated into practice. So, in your opinion, what is the stage of chemical engineering that we can take advantage of the patent only provided even the know-how was not available to us or we will have to pay for the know-how.

Dr. K. M. Parikh: We are fairly developed in chemical engineering. Moreover, chemical engineering is a thing which can be bought from any country. We can go out to an American firm of chemical engineering and get the plants; there will be payment only once.

Shri R. P. Sinha: Some of the chemical pharmaceutical manufacturers abroad met us as doctors and they said that, if they were to withhold the know-how when the patent law is changed, then India would suffer. What do you think about this?

Dr. K. M. Parikh: I do not agree with it because the technical know-how is fairly available. Most of the chemical processes are of a common nature with very little difference. Secondly, these foreign collaborators employ a number of scientists at very high remuneration and I do not know how far they have really learnt it; the things come straight from there and they have to act according to what is written down there.

Shri R. P. Sinha: The sales promotion forms a major expenditure item as compared to research. What, in your opinion, those firms which are here either as collaborators or manufacturers are spending, as a percentage, on the sales promotion and on research?

Dr. K. M. Parikh: Sales promotion is essential and they spend money on it. How much they are doing it in India, I do not know, but I can say from the figures elsewhere that the expenditure on sales promotion is fairly very high compared to the expenditure on research.

Shri R. P. Sinha: If the expenditure on sales promotion is cut down from 25 or 30 per cent to 10 per cent, then there will be reduction in the prices. What have you to say on this?

Dr. K. M. Parikh: That is only one aspect, but it will not bring us technology which we are very much wanting.

Shri R. P. Sinha: The Indian firms have to compete with foreign firms. The foreign firms have better means of detailing sales promotion with the result that the Indian firms' goods do

not get the same stamp of respectability as those of foreign firms. As you say, the Indian firms are working at a very meagre margin. So in order to bridge this gap between foreign and Indian firms, the only thing that can be done is to cut down this expenditure. What do you say about this?

Dr. K. M. Parikh: Instead of that, my suggestion would be that we should divide: wherever the Indian firms can do, the field should be open to them; why should there be any competition?

Shri Bibudhendra Mishra: For the information of the members, I may tell about the percentages as given by the Drugs Controller.

Out of the total mass of medicines used in the country, about 60 to 65 per cent is patented, but out of the total number of patentees, the number of Indian patentees is somewhere in the region of 2·5 to 3 per cent.

Shri D. P. Karmarkar: In other words, 65 per cent are alive today.

Shri S. K. Borkar: Of the drugs which are available in the market, 65 per cent constitute those which are patented.

Shri D. P. Karmarkar: Of this 60 or 65 per cent, how many cover 70 or 80 per cent of the field?

Shri S. K. Borkar: I can say that about five groups of drugs constitute about 80 per cent of the consumption.

Shri Bade: You have said in your Memorandum that we should abolish this Patent Bill. But now you have climbed down to this level, namely, instead of abolishing, we should have some curbs on the foreign firms. We have got the Model laws in which it is said that, if this Act was made retrospective—some countries have done like this—the developed countries cannot send their know-how to the under-developed countries and, therefore, there should be no compulsory licensing.

Dr. K. M. Parikh: Even today what is the know-how they have given to us—from the example of Tolbutamide.

Shri Bade: We shall compel them.

Dr. K. M. Parikh: How far is it proper or how far is it correct?

Shri Bade: According to the Bill, only processes would be patented and not the product. Suppose the processes are patented and according to one process, they are manufacturing the product, the other processes will be sealed. Is it not a fact.

Dr. K. M. Parikh: The other processes will be open for others.

Shri Bade: According to this Bill, only processes can be patented. Suppose they have patented ten processes and they are using only one process, then the other processes will be sealed out.

Dr. K. M. Parikh: Therefore, it was my submission that one process should be sealed and the others should be kept open.

Shri Bade: There is a provision in the Bill; it will be sealed for three years.

Mr. Chairman: If they want to manufacture with other processes, they must take patents for those processes also.

Shri Bade: So there should be that amendment here; if they are not using the other processes, they should be open to the public.

Dr. K. M. Parikh: Only one process should be mentioned.

Shri Bade: Regarding the period, you have said that it should be 3 or

5 years. We are also a party to the Model Laws; our representative was there and we have said that the period should be only 10 or 14 years. If you say that it should be 3 or 5 years, then we should give them some royalty.

Dr. K. M. Parikh: We can revise our thinking.

Shri Bade: How can you make it retrospective without giving them compensation or royalty or damages?

Dr. K. M. Parikh: It is not that question. The Bill, which will come into force is there. They are enjoying patent under the new Bill also.

Shri Bade: The section is quite clear. Same royalty should be given to them.

Dr. K. M. Parikh: They have already provided 4 per cent. I am suggesting 7 per cent.

Shri Bade: That is all right.

श्री चौरड़िया : आपने कहा है कि जापान ने बड़ी तरक्की की है । मैं जानना चाहता हूं कि अपने यहां नो हऊ लाने के लिए आप क्या प्रयत्न करेंगे ?

डा० के० एम० पारीख : अपने यहां भी नो हऊ ला सकते हैं

श्री चौरड़िया : आपको शुरुआत करने में क्या कठिनाई है ?

Dr. K. M. Parikh: We can buy this know-how and get this know-how also but we have gat our know-how in our country. The case is such that we have got enough know-how to start within our country.

श्री चौरड़िया : अपने यहां के नो हऊ का ठीक तरह से उपयोग करने के लिए और इनवैंटर को ठीक तरह से लाभ पहुंचाने के लिए यह आवश्यक है कि कानून दोनों के हितों की रक्षा करे । क्या आप कानून को उस ढंग से बनाने के पक्षपाती हैं जिससे अपने नो हऊ का भी उपयोग ठीक से हो और इनवैंटर को भी प्रोटेक्शन मिले ?

डा० के० एम० पारीख : इसीलिए मैंने सात साल का प्रस्ताव किया है ।

श्री चौरड़िया : एक तरफ आप कानून बनाने के पक्ष में नहीं हैं, दूसरी तरफ आप चाहते हैं कि कानून बने तो सात साल की अवधि उसमें रहे । अगर इनवैंटर को प्रोटैक्शन देना है तो जैसा कानून में दस बरस रखा गया है उससे उसे ज्यादा प्रोटैक्शन मिलेगा या कम मिलेगा ? मेरे खयाल में तो ज्यादा मिलेगा ।

डा० के० एम० पारीख : पेटेंटैड प्रोडक्ट्स बनाने में अभी थोड़ी देर लगेगी । खुद अपना पेटेंट निकाल सकें, इसमें थोड़ी देर लगेगी । एक दम से दौड़ा नहीं जा सकता है । पहले आहिस्ता आहिस्ता चलना सीखना होता है और उसके बाद दौड़ना सीखा जा सकता है ।

श्री चौरड़िया : मैंने यह सवाल किया है कि नो हऊ को उपयोग में लाने के लिए सात साल के बजाय दस साल तक प्रोटैक्शन दी जाये तो वह हमारे हित में होगा या अहित में ?

डा० के० एम० पारीख : प्रोटैक्शन उसी चीज में हो सकता है जहां पहले वह चीज पेटेंट हो चुकी है । अलग तरीके से बनती है पेटेंट की वजह से तो उपयोग नहीं कर सकते हैं

श्री बड़े : दस ग्यारह साल लगते हैं प्रोड्यूस करने के लिए अगर कानून में पीरियड के ऊपर कंट्रोल हो जाये तो क्या हरज है ?

डा० के० एम० पारीख: अच्छी चीज है।

श्री बोरड़िया : सात साल का पीरियड रखा गया है और कहीं कहीं अगर एक्सटेंशन देने की जरूरत हो तो क्या आप उसके हक में हैं ताकि कुरप्शन की सम्भावना ज्यादा न रहे ?

डा० के० एम० पारीख : मैंने सजैस्ट किया है कि अगर कोई जनुइन केस हो और एक्सटेंशन देने की जरूरत हो तो तीन साल का दे दिया जाये।

Shri Bade: That is not in the Bill.

Dr. K. M. Parikh: This is indirectly a control. It is valid for 7 years. If I know the same know-how I will go for licence and I will manufacture the same. I will utilise my know-how.

Shri P. C. Borooah: You support the bill in toto. What steps you would suggest to encourage inventions?

Dr. K. M. Parikh: It depends on the development of the country and the country's inventive capacities. Today America or England need this patent bill. India may not require to that extent.

Shri R. Ramanathan Chettiar: While he mentioned about the period of 7 years may I ask him whether it is his contention that this will crub the monopolistic tendencies in the drug and pharmaceutical industry and also bring down the price level of drugs in the country?

Dr. K. M. Parikh: Yes. It will definitely bring it down.

Shri Basanta Kumar Das: I understand that under the present circumstances if this law is enacted then it will be of some disincentive to foreigners to transfer their know-how to us.

Dr. K. M. Parikh: It will curb the period of exploitation, or area of exploitation.

Shri Basanta Kumar Das: Do you think it will not stop know-how?

Dr. K. M. Parikh: It will not stop know-how. It will flow.

Mr. Chairman: You said that the same period for drugs may be fixed as 3 or 5 or 7 years. Some of the witnesses who came before us told us that this discrimination should not be made between drugs and other patents. Is there any such discrimination existing in other countries?

Dr. K. M. Parikh: In some other countries pharmaceutical and drugs are treated on a special level. Even in England compulsory licence is allowed for drugs and medicines.

Mr. Chairman: What is the period fixed for that?

Dr. K. M. Parikh: I don't know much . . .

Mr. Chairman: You gave a table and said that the c.i.f. prices of drugs were far below the local manufactured prices here. What would be your remedy to control those prices? What would be your reaction?

Dr. K. M. Parikh: Allow others to manufacture. It will bring down prices.

Mr. Chairman: It has been stated to us that in spite of the patent law being there for so many years, India has not taken advantage of that.

Dr. K. M. Parikh: In law we have to take the licence and then only we can manufacture. They take so much time in giving terms and then in correspondence and all these things.

Mr. Chairman: You quoted one item where the price of Indian manufacture was Rs. 3 and the price of foreign manufacturer was Rs. 11. Do you

agree that the standard of the two drugs are the same?

Dr. K. M. Parikh: Absolutely same. You can send to any chemical or clinical laboratory for test. It will come to same standards. Basic material is purchased from the same source.

Mr. Chairman: You said that nothing new has developed in this country. Some witnesses have said that the foreign collaborators have helped us with these modern medicines and patented drugs and if these restrictions were to be placed that much of know-how may not be forthcoming to the Indian manufacturers.

Dr. K. M. Parikh: They are helped in the sense that we pay exorbitant price, much higher price than the price prevailing in their own home country.

Mr. Chairman: It is our mistake.

Dr. K. M. Parikh: Our law and our regulations are such that they get all this benefit.

Mr. Chairman: If we do not pay, they won't make such profits. This is a matter for negotiation.

Dr. K. M. Parikh: That is because they are the monopolist under our existing patent law. When the Doctor writes a particular preparation, the patent goes to the chemist and gets it without enquiring the price.

Mr. Chairman: Do you agree by and large with the provisions of the Bill that is now being proposed?

Dr. K. M. Parikh: I fully agree with it except a few modifications about the term of patents.

Shri R. Ramanathan Chettiar: The pharmaceutical industry has been in existence for over 20 years now. Have you made any attempt to have a Research Institute just like the Textile Research Institute in a collective way?

Dr. K. M. Parikh: I feel that in this industry there is no chance for collective research.

Shri R. Ramanathan Chettiar: I want to ask you whether you have explored the possibilities of putting a small percentage towards development of research, which would go to make a fund and you may create a Research Institute for the benefit of the whole industry, not only to individual users.

Dr. K. M. Parikh: If a new substance is found out in a collective laboratory, who will be the owner of it to exploit it commercially?

Shri R. Ramanathan Chettiar: In 1962-63, according to a survey conducted by the Reserve Bank of India, out of 14 crores invested by foreign interests in this country, they have taken away Rs. 7 crores—Rs. 2 crores as dividend remittances and Rs. 5 crores as royalties. The facts are there. If you want to crub the growth of indigenous industry and also want to crub the growth of foreign interests, this is one of the methods. Why don't you explore the possibility?

Dr. K. M. Parikh: We will do that.

Shri D. P. Karmarkar: You have stated that the term of patent should be seven years instead of 10 years from the date of patent with regards to Food, Medicines, etc. You feel that seven years is enough a period for recouping the expenses and particularly that is so in these days of fast development. In the case of existing patents, in the proposed Bill provision is there giving retrospective effect as soon as the Act comes into force. In the case of new patents, so far as medicines and pharmaceuticals are concerned, if the person is in a position to develop a patent for which he is given a licence and to manufacture it, why should you worry about this period of 7 years?

Dr. K. M. Parikh: I am suggesting this period of 7 years even in the case of existing patents in order to stop the high prices and exploitation of a particular firm.

Shri D. P. Karmarkar: If the price is otherwise regulated?

Dr. K. M. Parikh: Then ten year period is all right.

Mr. Chairman: There is another point. Certain patents have already been taken; they have got the right now. By taking recourse to this, if you revoke that, people will go to the Supreme Court.

Dr. K. M. Parikh: I feel that the Government has all the rights to change the number of years in the national interest. The existing people have had all the benefit for all these years now.

Mr. Chairman: Thank you, Mr. Parikh:

(The witness then withdrew)

(The Committee then adjourned).

Tuesday, the 1st February, 1966 at 14.00 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
5. Shri Panna Lal Barupal.
6. Shri P. C. Borooah.
7. Sardar Daljit Singh.
8. Shri Basanta Kumar Das.
9. Shri V. B. Gandhi.
10. Shri H. K. V. Gowdh.
11. Shri Kashi Ram Gupta.
12. Shri Madhavrao Laxmanrao Jadhav.
13. Shri Mathew Maniyangadan.
14. Shri Braj Behari Mehrotra.
14A. Shri Bibudhendra Mishra.
15. Shrimati Sharda Mukerjee.
16. Shri Chhotubhai M. Patel.
17. Shri Naval Prabhakar.
18. Shri R. Ramanathan Chettiar.
19. Shri Sham Lal Saraf.
20. Shri A. T. Sarma.
21. Dr. L. M. Singhvi.
22. Shri K. K. Warior.
23. Shri Balkrishna Wasnik.
24. Shri Ram Sewak Yadav.

Rajya Sabha

25. Shri Arjun Arora.
26. Shri Vimalkumar M. Chordia.
27. Shri D. P. Karmarkar.
28. Shri B. T. Kulkarni.
29. Shri P. K. Kumaran.
30. Shri Shyamnandan Mishra.

31. Shri Dahyabhai V. Patel.
32. Shri Mulka Govinda Reddy.
33. Shri M. R. Shervani.
34. Dr. M. M. S. Siddhu.
35. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*
3. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESS EXAMINED

The Chemical, Industrial and Pharmaceutical Laboratories Ltd., Bombay

Dr. K. A. Hamied.

The Chemical Industrial and Pharmaceutical Laboratories Ltd. Bombay

Spokesman:

Dr. K. A. Hamied.

(*The witness was called in and he took his seat*)

Mr. Chairman: Dr. K. A. Hamied, whatever evidence you give before this Committee will be printed and published. It will be laid on the Table of the House and distributed to members. Even if you want any particular portion of your evidence to be treated as confidential, it is liable to be given to our members.

We have received your memorandum and it has been circulated to all the members. If you want to add anything you may do so now.

Dr. K. A. Hamied: Sir, I am appearing here in my individual capacity.

Mr. Chairman: You are not representing Cipla?

Dr. K. A. Hamied: I am the Chairman of Cipla. I may say a few words about myself because that will reflect upon my evidence. Although it may be against me, I may say that I am holding so many patents, but I believe that the interests of my country are before everything else. I have been associated with Mahatma Gandhi. I have lived with Gandhi in Sabarmati. I am hundred per cent a member of the Congress Party. I was a member of the Bombay Legislative Council for 25 years. I am now Chairman of the Pharmaceutical Drug Research Committee of the Government of India. I have been a member of the Indian Chemical Association and its President continuously for four years. My connection with the pharmaceutical and chemical industry is for the last 35 years and have done something—I am not bragging—for the uplift of the chemical and pharmaceutical industry of my country to its present level, to what it is today, in the last 35 years. Therefore, what I say before you today should be judged from that point of view.

Coming to the patent law, the first patent was granted in England in 1449 for some glass manufactured by some English inventor. There was

no legislation for patents in England at that time. The first legislation came in 1624 or something like that. Then the patent was granted only as a protection for the process of manufacture of certain items. What happended was, after some time Germany and other countries manufactured the same substance and exported it to England at a cheaper rate. Therefore, the U.K. Government brought in an order that nobody can import or sell a product by the process which has been patented in England. Therefore, this process of product and patent started in England first. Afterwards the need arose when Germany, France, America and other countries which were scientifically developed tried to protect each other against the inventions of one country to be exploited by the other countries. They met and thought about it first at the International Patent Club where it was agreed that the patents of Germany should be protected in England, England should protect the inventions of France and so on. So it became a reciprocal law in which no country had the advantage over the other country—Germany took hundred patents in England, England had hundred patents in Germany, France protected American inventions, America protected the inventions by France and so on. In this way the whole thing started.

In India, the patent system was started in 1911 during the British rule. We have no patents to protect. In the Ayyangar Report there is a mention that 1300 patents of foreign companies exist today in drugs and pharmaceuticals, but the report has not mentioned a word about patents of India in America, Germany or elsewhere. Therefore, so far as India is concerned this patent law is a one-sided traffic, it is only exploitation of our country by these patents held by foreigners. We have no patent anywhere, the reason being that we are not so scientifically advanced, we are not so scientifically developed that we can make inventions and discoveries and take patents in the highly developed countries. I hope a day will come when we shall take patents.

An example of this was Japan. Japan had no patent law till 1945. It is surprising that the Japanese delegation which came here yesterday or the day before and saw the Finance Minister and others was opposing this Bill. Japan is the first country which developed on account of the absence of patent law. In Japan they copied everything. They became so big at the time of the Second World War that they played hell with America and England. Their submarines, cruisers, guns where exactly like others. Japan brought in the patent law for two reasons. One is, Japan was at that time—in 1945—under the control of America and it was American pressure that made Japan to bring in the patent law. Secondly, Japan's own inventions became so great—transistors, cameras, television apparatus and others—that Japan was herself interested in protecting her inventions in other countries. Therefore, Japan brought the patent law in Japan.

Today the position is that the foreign companies or scientists who take patents in our country are not even utilising those patents. I have submitted here a list of firms. There are about 2000 patents held in India by foreign companies and foreign persons. How many are they exploiting? They are just holding the patents. They are not utilising them. I have made an estimate that not more than 10 or 15 at the most—I have not got the exact figure—are exploited in India. The rest are not exploited in India. They are simply holding it. I will give you an example. A substance was being sold in India by a firm at the rate of Rs. 8 for 20 tablets. They are holding a patent for that substance but they are not manufacturing it. They are importing it. I also imported that substance. My cost of 40 tablets came to Rs. 2. The moment I put them in the market they filed a suit

against me in the High Court saying that I cannot sell them because they were holding the patent for import, sale and distribution. I lost the case I can understand it if they are manufacturing it. But they are not manufacturing it. They are importing it; but I cannot import because they are holding the patent law should say that if a patent-holder is not making the product for which he holds a patent but imports it and sells it in India, then anyobdy can import and sell it. The moment he starts manufacturing, I cannot manufacture it, but if he is importing, I can also import it. There is no reason why a person should be granted a patent if he is not manufacturing it.

Some people may say that Italy has no patent law. I will read a quotation from "Manufacturing Chemist" London, Vol. XXX No. 10 (page 406) of October 1959:

"Paradoxically, Italy has the distinction of being the only major manufacturing country in Europe that doe snot grant patents for medicines or processes, and yet has a flourishing pharmaceutical industry. This absence of patents has enabled Italian manufacturers to make many valuable drugs discovered elsewhere. The costs of research have thus been evaded, and this has played no small part in the growth of the post-war Italian pharmaceutical output. At the same time, an Italian manufacturer enjoys the patent protection of other countries for his own inventions. This one-sided scheme has aroused considerable resentment, but, as it is due to the economic environment, it is unlikely to change until new factors come into play. When the Italian pharmaceutical manufacturers become more interested in originating their own products, the question of protection in the home market will acquire more than academic interest, and some reciprocal patent arrangements may become an economic necessity."

So, here also they are speaking of reciprocal arrangement. Today Italian inventors and discoverers are at a low ebb that they cannot compete with America in discoveries and inventions. So, they do not allow their inventions to be patented so that their industries flourish. Here arguments are being advanced that the Indian pharmaceutical and chemical industry will go down if the revised patent Bill is passed and the foreign manufacturers will go out of India. Nothing of that sort will happen. I can assure you that even if the Patent Bill is passed as it is, they will never go out of India. We are paying them 4 per cent royalty. So, if our sales go up to Rs. 20 lakhs they will get Rs. 80,000 from the patented firms. So, they will not be at a loss and they will certainly not go out of India.

I will now come to another point which is at the back of this agitation. Today the foreign manufacturers like Sandoz, CIBA, Roche and ICI are protected by these patents. If the patent law is abolished, these firms will have to compete between themselves.

Mr. Chairman: It will be for the good of the country.

Dr. K. A. Hamied: Yes, sure. If the patent law is abolished, it may well happen that one European firm is holding a patent for a product in England. Another European firm may also be holding patent in England but not in India.

Shri R. Ramanathan Chettiar: It does not affect our interests.

Dr. K. A. Hamied: Yes, it will be beneficial for our country.

It is also said that patents encourage development and research. It is just the reverse. The chemical industry is so well advanced in Europe and other countries that for manufacturing one product they have got about 10 methods. What happens is that the foreign manufacturers patent

not only one process but all the ten processes. They do not leave anything to us. They have covered all the processes conceivable in the chemical industry because they are so advanced. So, our scientists or laboratories are not able to adopt any new process. Therefore, I would suggest that if a patent is granted, it should be only for one process which the patentee is using; it should not be for 20 processes. If he is using one process, let him patent only that process. If he wants a patent for the second process, the patent for the first process goes away. This will give an opportunity to Indian scientists and research workers to make use of some processes at least. Today we have not got that opportunity.

I will give an example. There is a machine manufactured in Bombay by a Sindhi called Magamal, a tablet-making machine, exactly identical to the one made by certain foreign manufacturers. When I told him that it is a patented machine, he said that he has changed some screws here and there and so it is entirely a new machine. I told him "all right, you go on with that". Because, if we go on doing that, we shall be able very soon to compete with the foreign manufacturers, as this machine will cost only Rs. 12,000 as against Rs. 20,000 for an imported machine. I was only saying this is how the absence of a patent law will help us.

Shri D. P. Karmarkar: If the patent law is left as it is, will it not mean infringing the patent law?

Dr. K. A. Hamied: He is infringing the patent law. I asked him to go ahead because I do not care for the patent law. Let him file a suit, if he thinks the patent law is infringed.

I think for the development of our country for the next twenty years there should be no patent law. In my opinion, the patent law should be completely abrogated. But, on account of international complications we may not be able to do that. The proposed Patent Bill is better than the existing Act of 1911. It is a compromise, not hundred per cent what I personally wanted for the sake of my country. The country cannot develop with the present patent law. We are completely under the hold of these patent-holders and we cannot manufacture or discover because they have covered all the processes.

When the patent-holder takes a patent in India, he is not allowed by his parent office in Switzerland or France or any other country to export that product which he makes in India under that patent. He is only exploiting the Indian market. I want it to be made a condition that if you want to patent for a particular product, give us an undertaking that you will export that product.

I had a big talk on this subject with our late Prime Minister, Shri Shastri, who was at that time the Minister of Industry. He told me that all these firms about whom I was speaking were Indian firms registered in India. I said that the criterion I would fix for saying whether it is an Indian firm or not is that if the firm exports the products manufactured in India I will consider it as an Indian firm but if the products manufactured in India are mainly for the exploitation of the Indian market and the firms are prohibited from exporting it, it is not an Indian firm. Shri Shastri immediately took a paper and wrote it down. He said, "It is a strong point that you are telling me".

For example, there are certain firms which are making sulphadiazene in India. I got an order for one tonne of sulphadiazene from Singapore. When I contacted those firms, they asked me what for I wanted it and when I said that I wanted it for export, they said that export was not allowed. They are utilising the patent with a foreign collaboration only in India. I do not call such a firm as an Indian firm. This is one point

which should be kept in mind by Hon. Members here. If I am manufacturing something, and my products are being exported, I am proud of it. Which Indian firm can be called a truly, patriotic Indian firm which does not export or is prohibited from exporting its product?

Then, the very fact that so many experts from foreign countries, lawyers and representatives of foreign firms, are being brought to India to oppose the Patent Bill shows how important it is for the foreign firms that the revision of the Patent Bill should not come in; otherwise, they will not do it. If today you draft a Bill which is beneficial to them, they will not care; they will keep quiet and will not agitate at all. But this Bill is in the interest of India and if this is passed—it is very mild today—I am sure, it will help the development of our industries.

Then, the Reserve Bank of India Bulletin for November 1964 at page 1383 has given figures on the collaboration in the chemical and pharmaceutical industry. In the field of basic industrial chemicals, the paid-up capital is Rs. 7.6 crores, foreign capital is Rs. 2.2 crores and remittances by foreign firms abroad is Rs. 32.45 lakhs per year. In the pharmaceutical industry the capital invested is Rs. 8.74 crores, foreign capital is Rs 7.58 crores and the remittance of dividends is Rs. 99.68 lakhs. In the other chemicals, the paid-up capital is Rs. 13.97 crores, foreign capital is Rs. 5.07 crores and dividend remittance is Rs. 72.54 lakhs. Then, royalties are Rs. 2.42 crores and technical services remittances are Rs. 2.86 crores. The total remittances by foreign firms on account of royalties, technical know-how and dividends are Rs. 7.36 crores. I cannot get Rs. 5,000 to go outside but the foreigners can remit Rs. 7.36 crores per year only under these headings only.

Shri M. R. Sherwani: I am sorry to interrupt, but when I said that Rs. 2 lakhs per day are being drained out of the country, it was contested. Here only under one item it is Rs. 7 crores. So, it is not Rs. 2 lakhs per day but it is actually Rs. 5 lakhs.

Dr. K. A. Hamied: Then, 51 firms in India—they are almost all foreign firms with or without Indian collaboration—are producing and selling 1,933 pharmaceutical formulations in India. For these formulations these firms are using imported raw materials. Almost 80 per cent are imported raw materials. For those raw materials they are holding patents in India but they are importing them.

Mr. Chairman: They are not manufacturing it?

Dr. K. A. Hamied: They are holding the patents but are importing them. For example, in a tablet there are three ingredients and for all the three ingredients the firm is holding a patent but it is not manufacturing these three ingredients and is importing to the tune of Rs. 20 lakhs a year. Then, why are they holding the patent?

In my second letter dated the 8th January to the hon. Members I have said, "Will you kindly put these questions to the foreigners as to how many patents they are holding, what are the names of the products for which they are holding patents and how many patents they are utilising in India and then just see their replies". If they are holding 100 patents they are using only one; if they are holding 200 patents, they are utilising only one or two. Why are they anxious when they are not utilising their patents in India? It is for the sake of import and product control so that nobody else can produce. The amount of foreign exchange going on this account is terrible.

Shri D. P. Karmarkar: In case your point of view that there should be no patent law for 20 years is not accepted, you have been good enough to make some specific suggestions on page 8 of your note. They are four.

You say, firstly, that only one process for the product by which they are manufacturing shall be patented. In the second paragraph you say that compulsory licensing shall be enforced even if the patentee is manufacturing the product himself. Are you satisfied with the provision that is already there with regard to compulsory licensing where in the case of drugs and medicines, even in the case of a patent, there should be compulsory licence under those conditions?

Dr. K. A. Hamieds There should be compulsory licensing. Licence of right is also very necessary.

Shri D. P. Karmarkar: Take cl. 87. It says patents covering medicines, drugs etc. shall be deemed to be endorsed with the words 'Licences of Right'. Does that satisfy you?

Dr. K. A. Hamied: It is very necessary under existing conditions.

Shri D. P. Karmarkar: Regarding your para 3, your point is that some measure should be devised..

Dr. K. A. Hamied: What about paragraph 1? Suppose a patentee has got 100 processes patented.

Shri D. P. Karmarkar: If a particular patentee does use a particular process in so far as medicine and drugs are concerned, the other processes could be straightway be thrown open according to the provisions of 87. There is no difficulty about that. Suppose you have patented 100 processes and you are utilising only one process. So far as drugs and medicines and food and chemical substances are concerned, if you do not utilise the other processes, straightway compulsory licences can be obtained by others.

Shri K. V. Venkatachalam: Even if he utilises, it can be done.

Dr. K. A Hamied: I am saying that patent should be granted only for one process.

Shri D. P. Karmarkar: What is the difference? Suppose a man has made a discovery, no matter whether Indian or foreign. I make a discovery today in India. I have it patented immediately. Suppose a foreigner comes in. He immediately gets about 100 patents registered with the Patent Centroller. Now if it is a drug or medecine, on the registration of the patent itself, you can have a compulsory licence. So what is your objection to his obtaining the 100 patents?

Dr. K. A. Hamied: I am not objecting. I am objecting to his patenting 100 processes or one product. There is a lot of difference.

Shri D. P. Karmarkar: He has patented 100 processes for one thing. He is using only one process. For the 99 processes, you should have the freedom. Is that so?

Dr. K. A. Hamied: Not only freedom. I say that the 99 process should not be patented in his favour. Only one patent should be given.

He is using only one. The rest he keeps in his shelf. With the result, that I cannot use any of those processes; I cannot have any of those processes patented if I discover any of them.

Mr. Chairman: Yesterday Dr. Parikh said that so many combinations are possible and he pointed out that the patent is made to cover all those combinations. What Dr. Hamied wants is: give him a process patent for only one product through one process.

Shri D. P. Karmarkar: What is his difficulty if the person gets a hundred processes patented, differently or may be in one combined lot, if he utilises only one process, because this clause then comes in?

Mr. Chairman: What witness say is: do not give him one process and allow him to cover 100 processes for one product.

Shri D. P. Karmarkar: What is his difficulty. If out of 100 processes, the

patentee utilises only one process and then keeps all the 99 to be exploited by others through compulsory licensing, what is the objection?

Dr. K. A. Hamied: No. Chemical science is a very advanced science. To reach a certain product, I can go by many ways. These foreign firms are of highly scientifically advanced nations possessing these process patents. After getting these processes patented, their scientists start work to find out if there is any other method by which the same thing can be made. They have highly qualified scientists at their disposal. They find out: yes, there are 5 or 6 processes more by which the same thing can be made. They immediately include these in their patents.

Take tolbutamide patent held by Hoechst. There are about 17 processes patented by Hoechst for one product, tolbutamide. We cannot reach tolbutamide by any other route.

Shri K. V. Venkttachalam: Cl. 87(1) will permit you to do so.

Dr. K. A. Hamied: My point is: why should he be given all the processes when he is using only one?

Shri D. P. Karmarkar: We shall have to find out some foolproof method in regard to what this witness has said and what the other witnesses yesterday afternoon said, because it is rather important.

Shri M. R. Shervani: The point made is that when all the 17 processes have been patented by that party, all the routes get closed to our scientists and research is closed.

Shri D. P. Karmarkar: I appreciate your point. According to your para 3, you want to devise some measure to stop exploitation by way of unreasonably high prices after the patentee begins to work. We have to find out some statutory measure empowering Government to put a stop to that.

Dr. K. A. Hamied: I am sorry. No statutory measure can control prices. Government has tried it in regard to food, cement and so many other things. Prices can only be controlled by competition. If five people make the same thing, no man will charge high price. If a particular firm is holding a patent and it only is manufacturing that product, it can sell it at its price. The moment I also come into the field, either by licensing or by licence of right or compulsory licensing or by my own skill, it will immediately reduce it. I can give examples. A firm in Bombay was selling a particular injection at Rs. 25 for two. I started manufacturing the same thing. They sent me a notice alleging infringement of patent. I said, I do not care. You fight it out; we shall see. I sold it for Rs. 4.5. Then they reduced it from Rs. 25 to Rs. 14 and now to Rs. 9. The moment competition starts, prices come down.

Another Indian firm, not holding a patent but collaborating with a foreign firm, was manufacturing a product and selling it at Rs. 63. When I got a licence to make the same product, I made it and sold it at Rs. 45. Immediately they brought down their price.

Today these firms are holding not only a patent monopoly but also import monopoly.

Shri D. P. Karmarkar: Under cl. 87, anyone can have a licence of right granted to him under acceptable conditions. That removes your difficulty with regard to competition.

Even in spite of that right, there may not be Indian parties coming up. In that case also, your point is that even if there is one monopolist manufacturer and no other Indian is prepared to come up, you would like that the price he charges for his product in India should not be unconscionably high. For that, if possible, legal provisions should be made in the Bill giving power to Government.

Dr. K. A. Hamied: That can be brought into this Bill, but this is not a Price Control Bill.

Shri D. P. Karmarkar: Witness is not a lawyer. We shall find out how it can be done. The draftsmen know that in some of the clauses reference has been made to public interest. Whether under this, price control can be covered, we shall later decide.

Finally, what is the exact significane of paragraph 4?

Dr. K. A. Hamied: I had explained that. Supposing a patent is granted to a firm in India for the manufacture of cortesone....

Shri D. P. Karmarkar: I understand the process. Supposing it is found on a balance of advantage that even if the party is not prepared to export in the interest of manufacture in India itself, even when that export promotion is of advantage to us, even then you ask us not to allow it?

Dr. K. A. Hamied: In that case it must be allowed.

Shri Jadhav: These foreign firms do exploit. At the same time, do you agree that it did help in bringing in new drugs in the market for the development of the industry.

Dr. K. A. Hamied: I may explain the difference between the word drug and the word chemical industry, which is not clear to many. It is like that of a shirt and a cloth. Shirt is made of cloth; so long as it is cloth you do not call it a shirt. Ascorbic acid is just a chemical; so long as it is in bulk it is not called vitamin C. The moment it is manufactured into tablets and ready for sale it ceases to be a chemical; it is a drug. The drug industry in India during the last eighteen years has gone up considerably manufatcuring tablets, formulations, lotions, etc. But we have not developed the basic industry from which drugs are manufactured. If the import of foreign materials, basic pharmaceuticals are stopped the industry will fall flat. In this connection, I may be allowed to read a quotation from the speech of the late Pandit Nehru which I quoted in one of my speeches. He said that operating a steel mill or a chemical plant set up by foreign assistance would hardly make the country advanced an industrial nation no more than using a car or flying an aeroplane purchased from abroad. It is only when India has acquired the ability to design, to fabricate and to work its own plants without foreign assistance will it be a truly advanced and industrialised counrty." I am say that I entirely agree with this point. We are so much dependent on the foreign technical know-how and foreign money and foreign help that we are ceasing to be a nation on our own. I do not want to boast but I can say that without any foreign help or technical know-how I am able to supply drugs and am even exporting to England and other foreign countries. We can do it provided we work for it increasingly.

Shri M. R. Shervani: You say that no development has taken place in the chemical industry. Is it due to a defective patent law?

Dr. K. A. Hamied. I say that the development that has taken place in the drug industry is not due to any basic development in the chemical industry. I drew that distinction. This patent law, I think, will help us in starting some basic manufacture if we are not hindered by the patents held by foreigners in India.

Shri M. R. Shrevani: The point is that anybody who obtains or patents a certain product here should be forced to manufacture it in India within a reasonable period. Otherwise the patent should not be granted. If you do not do so, they keep on importing. Therefore, it should be obligatory on him to start manufacture in the country. What, in your opinion, is a reasonable period to be given to the patentee to start production of the product? Two, or three or five years?

Dr. K. A. Hamied: Supposing you fix a time and if he does not manufacture within that time, what penalty should be imposed on him?

Shri M. R. Shervani: Cancellation of the patent. Everybody should be free to start the production.

Dr. K. A. Hamied: If he does not manufacture within two or three years, anybody can step in.

Shri K. V. Venkatachalam: There is provision for revocation also.

Shri M. R. Shervani: That is a different thing. If I hold a patent and I do not exploit it but sit tight on it, how long should I be allowed to sit tight because I do not want to take a risk and invest money. Should there not be a clause that the patent will be cancelled if the patentee does not within three or five or ten years or one year—whatever be the period—exploit that patent by starting a manufacturing organisation? If that is so what time should be put for the chemical or drug industry? Three years from the time of granting?

Dr. K. A. Hamied: At pr nt there is no clause like that.

Shri K. V. Venkatachala There is clause 89(1).

Shri M. R. Shervani: It / take two years. Why not put an automatic provision that it should be considered after three years?

Dr. K. A. Hamied: Somebody must apply.

Shri K. V. Venkatachalam: Everything has to come within the process of law.

Dr. K. A. Hamied: With regard to these patents, it should not be a cognizable offence. Somebody has to write, saying, "so and so is holding patents for the last six or 10 years, and he is not using it. I am having a compulsory licence but I cannot proceed."

Shri M. R. Shervani: My next question is this. You said that if patented drugs are being imported, then their free import should be allowed, subject to the restrictions placed through import control, foreign exchange and so on.

Dr. K. A. Hamied: Yes; that is very important. If a gentleman or a firm is holding a patent, and is selling a kind of tablet or injection in which that material is being used, and he is not manufacturing that material in India, and he is importing it, by virtue of the patent, he is stopping me from importing it. So, he has the monopoly for importing it and selling it at any price he likes. That is a very important aspect.

Shri M. R. Shervani: Let us consider the interests of the Indian patentees; let alone the foreigners. There is a provision in the law which says that the Government, even for public undertakings in the State or the Central sphere, can utilise the patent without paying any compensation to anybody.

Shri K. V. Venkatachalam: I think there is a little confusion in this. There are really two clauses in the Bill; one refers to use by Government for non-commercial purposes, for its own use like giving it for hospitals and so on. There, no compensation or royalty is payable. This is in clause 48. Then there is another clause—clause 99 and 100 onwards—which refers to use of patent by Government and Government undertakings which are of a commercial nature. There, compensation has to be paid. If it is a public undertaking, it is not limited only to Government undertakings. For example, in the steel industry, it can apply to both the private sector undertakings and the public sector undertakings in that group. This provision is contained in sections 99 and other following sections.

Shri M. R. Shervani: What in your opinion should be the life of a patent? Should it be 10 years or should it be reduced or increased, particularly in regard to drugs and chemicals, and from when should the life start and from which stage?

Dr. K. A. Hamied: It so happens in India that an application is made for

the grant of a patent, but along with the application, the full specifications are not submitted by the applicant, and the applicant is given about one year to 15 months for submitting the complete specifications of the patent. Now, the period is 10 years, but it really becomes 11 years and three months, because one year is also given for submitting the specifications. So, the time given to him is not exactly 10 years but it is 11 years and more.

Shri K. V. Venkatachalam: In the new Bill, it is suggested that the period should be from the date when the complete specifications are filed before the Controller.

Dr. K. A. Hamied: From the date of application, it becmoes 11 years. As soon as the application and the specifications are filed, the party concerned starts manufacture and he write, "patent applied for" and so, nobody can copy that process. He has actually 11 years to exploit that patent, not from the time of selling the patent but from the time he submits or files his specification, and he can exploit it and nobody can copy it. He has just to mention "patent applied for." Even in respect of a machinery, they can do so.

Shri Atrishi: We cannot have a suit brought against him before the sealing of the patent because the rights accrue to the patentee only after the sealing of the patent.

Dr. K. A. Hamied: No. It cannot be copied. That is the rule in the present Act.

Shri M. R. Shervani: In the sphere of drugs and medicines, tests have to be gone through and the bad effects are observed and discovered. So, it is quite possible that 10 years may not be sufficient; eight years may go by before it is put into use, into commercial production. So, would you like to give power to the Government to extend the time in suitable cases?

Dr. K. A. Hamied: I think the Controller can give it as a concession to the patent-holder; if the patent-holder wants, under certain specific circumstances, saying that such and such a thing is not available and he could not utilise the patent and so the time must be extended by another two years, then, I think it should be allowed.

Shri D. P. Karmarkar: You said that 10 years would amount to 11 years. According to clause 45, you will see that every patent shall be dated as of the date on which the complete specification was filed—not when the original application was filed —but from the date on which the complete specification was filed. So, it would not be 11 or 15 years as the case may be. The effective date is from the date of the completion of the specification.

Dr. K. A. Hamied: Yes.

Shri P. K. Kumaran: You said that you are for the abrogation of the patent law for drugs, if possible. But in the absence of that, you prefer this process. Suppose, the patent law is abrogated completely, don't you think that the market will be flooded with so many drugs and in order to promote their sale in the market, the quality of the drugs would become inferior?

Dr. K. A. Hamied: The hon. Member is confusing the term "drug" with the term "chemical". For preserving the quality of the drugs, there is the Drug Control Order; nobody can make a sub-standard drug in India so long as the Drug Control Order is effective. But for chemicals, there is no such difficulty, because, the manufacturers who buy those chemicals are themselves so careful that they analyse the chemical before they buy it. I analyse all the chemicals from Europe and America before I put it in the market. It is about the medicines that you are talking; they are controlled by the Drug Controller. Nobody can buy and

sell them. There is no patent for the drugs today in India; there is a patent for chemical processes. The hon. Member is confusing the terms with the proprietary registered names of foreign manufacturers such as Paludrine, Tolbutamide, and so on. We are unable to make them, because those names are registered trade marks and there is no law to prohibit them. The quality of the chemicals and pharmaceuticals and basic chemicals manufactured in India will be such that everyone will compete and those who are selling better quality stuff will naturally have some lead. But today there is no such competition.

Shri P. K. Kumaran: I can advertise that such and such a popular drug of the same quality as that brought from elsewhere is available and then manufacture anything.

Dr. K. A. Hamied: The hon. Member is again confusing the two We are now talking about chemicals. You give me the name of the drug.

Shri P. K. Kumaran: I am making a certain thing which I call by some name and it is having the same quality as the popular drug. I can manufacture it according to my own process and market it. It may affect the health of the people.

Dr. K. A. Hamied: But you cannot market it. There is the law.

Shri Arjun Arora: We have been told by some people that the abrogation or the modification of the patent law in India will create a situation under which no Indian will be able to get the patents abroad. How will it affect Indians?

Dr. K. A. Hamied: We have to examine first how many patents Indian inventors and scientists are taking outside India. In America, during the last 20 years, the number may not be more than 3 or 4 or 5 whereas during 1955 to 1959, 2000 patents have been taken in India by foreigners.

Shri Arjun Arora: Do you have any idea of the earnings that Indians make because of patents that they are able to get abroad?

Dr. K. A. Hamied: At the moment it is nil so far as I know.

Shri Arjun Arora: Do you envisage that in the next 10 years, the Indians will be doing a roaring business because of their patents abroad?

Dr. K. A. Hamied: At least I am living on that hope.

Shri Arjun Arora: What is your practical experience?

Dr. K. A. Hamied: The rate at which Indian science is advancing today through the C.S.I.R. and other private enterprises where scientific laboratories are working, we are capable of progressing at a very high speed unless they are not frustrated in their attempts by these hindrances in their ways. You may just see the example of Japan. Today, the Japanese transistors, radios, cameras and photographic apparatus are flooding the world. How did they learn all this? It is by copying anything which others are making.

Shri Arjun Arora: If we do not have the patent law, like the present one—infact, the proposed Bill—the result will be that Indians will not be able to get the know-how from abroad. What is your opinion on this.

Dr. K. A. Hamied: I shall be glad if we do not get the know-how. Then, our know-how will start working. Today, it is lying dormant. The things are being manufactured in India with foreign collaboration which an ordinary M.Sc. in India can make. I was a member of the Finance Corporation and I objected to many licences being granted in collaboration with foreigners. I said, "Why are you giving Rs. 10 lakhs royalty to such and such an American firm? Why don't you come to me? I will give you full advice." But they do not come to me. The foreign technical know-how has got such a halo about it that we are completely ignoring our own knowledge. We are not advancing because

we are getting something free. We want to become rich quicker. If I combine with, say, I.C.I., I shall be able to earn Rs. 1 lakh by next year. If I do it myself, it will take 4 years to earn Rs. 1 lakh. So, I say, why not I combine with I.C.I.?

Shri Arjun Arora: If India is starved of foreign know-how in the field of chemicals and drugs, may I know whether there will be a famine of medicines in India?

Dr. K. A. Hamied: Never.

Shri Arjun Arora: We shall be able to meet our requirements?

Dr. K. A. Hamied: We shall be able to meet our requirements. Even today, we are not able to meet our requirements. 80 per cent of the drugs are dependent on the import of foreign raw materials, not on the import of technical know-how.

Shri Arjun Arora: A number of foreigners take patents in India and they do not start the process of manufacture in this country. Do you have any idea as to what is their percentage? Are they in a minority or in a majority?

Mr. Chairman: He has given the answer.

Dr. K. A. Hamied: I have given the answer.

Shri Daljit Singh: You say in your Memorandum that the compulsory licensing of the patent should be enforced even if the patentee is manufacturing the product himself. Now, the existing Act covers this.

Dr. K. A. Hamied: I think it does. When I wrote that Memorandum, the Act was not printed.

Shri Daljit Singh: You have stated in your Memorandum that Japan did not have the patent law before the Second World War. Is it not a fact that in Japan the patent law was first introduced approximately in 1921?

Dr. K. A. Hamied: Not to my knowledge. I think Mr. Davar who appeared before this Committee confirmed that it was in 1945 that the patent law was introduced in Japan. That is my information also.

Shri Daljit Singh: You have stated that the patent law is one-way traffic so far as India is concerned because the number of patent taken by the foreigners in India is very large. We want to know how this problem can be tackled by India.

Dr. K. A. Hamied: The taking of patents is not according to my wish or according to the wish of our country. It depends on the advancement of scientific knowledge, inventive genius and all that. As our country develops, our inventive genius advances, we shall be able to develop things and make inventions and take patents in other countries. But today that is not the case. Let us have that gap of 20 years in which we can develop ourselves.

Shri Wasnik: You have stated that free competition will check the high prices and not the Government control. What I feel is that the combination of interested parties can dictate the prices and cause hardship to the consumer. In such cases, what do you think the Government should do? Should they make any provision here.?

Dr. K. A. Hamied: The Government can make a provision, as in the United States, against forming cartels. In the United States, the big firms like the Dupont, Monsant, were not allowed to make unions. They were prosecuted immediately and big penalties were imposed on them. So, here also that provision can be made by the Government that no cartels or unions can be made.

Shri Wasnik: What do you think should be the term of patents?

Dr. K. A. Hamied: I think, what is proposed now is all right. I would have chosen a less period. But now that the Bill has come and the period is given there, it is all right.

Shri Wasnik: We can change it.

Dr. K. A. Hamied: Between 7 to 8 years would have been all right.

Shri Arjun Arora: Seven years from the date of certification or application?

Dr. K. A. Hamied: From the date of certification.

Dr. M. M. S. Siddhu: You gave us the example of Testosterone propnate: a foreign firm came in competition and they slashed the price to 50 per cent of its original price. Have there been other cases like that?

Dr. K. A. Hamied: Yes.

Dr. M. M. S. Siddhu: Can you give other examples where a foreign firm and an Indian firm processed their products and the foreign concern brought the price down so that the Indians may not have a market.

Dr. K. A. Hamied: There are cases when the foreign firms were forced to reduce the prices. But the foreign firms are selling their products on the basis of prestige—false or correct. If it is a small firm, then the foreign firm does not do it. If, however, a firm of equal standing makes a product cheaper, then the foreign firm comes into the field; the foreign firms are afraid of competition with firms of equal standing. If a small firm reduces the price, they may not take care of it.

Dr. M. M. S. Siddhu: What is the time delay in the grant of licence for the manufacture? Because it has been pointed out that, once a patent is to be exploited, there are some delays: one is the delay at the patent office; the second is the delay at the licence; and the third is the foreign exchange component. You have been in this chemical industry for a long time. Could you tell us by your experience as to what is the usual time taken for an industry to be set up for a new drug?

Dr. K. A. Hamied: Including the application?

Dr. M. M. S. Siddhu: No; if the patentee himself were to exploit it.

Dr. K. A. Hamied: That means, the patent has been granted to him. Then the process is licensing by the Development Wing. That may take a long time.

Dr. M. M. S. Siddhu: What is the usual time taken?

Dr. K. A. Hamied: It is too much. I know that a very important foreign firm applied for an industrial licence two years ago and only some months ago they have been issued the letters of intent; they are just starting it. It all depends on the influence and pull of the person.

Dr. M. M. S. Siddhu: If that is so, do you think that 7 years' time is enough—I mean, under the present conditions of the country?

Dr. K. A. Hamied: So far as the time taken for the Development Wing to issue a licence to the manufacturer is concerned, that is a different problem, which I cannot answer just now.

Dr. M. M. S. Siddhu: What is the usual time taken in the screening of the compound, toxicity and other clinical tests being done?

Dr. K. A. Hamied: One year or two years or six months; it depends on the nature of the substance.

Dr. M. M. S. Siddhu: Assuming that good scientific talent is available, what is the usual time taken?

Dr. K. A. Hamied: It depends on the product to be tested. Suppose there is a birth control product, it may take five years. Suppose it is a product for heart disease, it may take a long time. In the case of certain products like the product for diabetes, I can give the report within one month.

Dr. M. M. S. Siddhu: You know the recent advances that have been made in the field of antibiotics, in the field of anti-diabetics, in the field of tranquilisers—I am not talking of harmones which take a long time. What is the usual time taken in these fields?

Dr. K. A. Hamied: About a year or 18 months; in the case of diabetes, it may even be less.

Dr. M. M. S. Siddhu: If we were to think in terms of not having the foreign subsidiaries, can we get all the intermediates from which we will be able to have the product manufactured if the compulsory licence is granted or they will hold back the intermediates?

Dr. K. A. Hamied: It will take a long time to reply to this question.

Dr. M. M. S. Siddhu: Suppose we give a compulsory licence to 'A' and the intermediates are controlled by the patentee. If the patentee does not want to co-operate, can we exploit it?

Dr. K. A. Hamied: About two months ago, a Conference was held in Delhi by the Council of Scientific & Industrial Research on the substitution of imported products in India. I was the Chairman of the Group of pharmaceutical chemicals. This question was discussed threadbare there. The point is that the chemical industry on which all the synthetic products are based starts from a very basic raw material called coal tar distillates like tolune, benzene and phenol. These coal tar products are developed by other subsidiary chemicals like sulphuric acid, nitric acid, etc., and are converted into intermediates. These intermediates are made as synthetic chemicals which are used in drug industry, plastic industry, etc. These intermediates are a go-between between coal tar and the final product. In India, there is a great scarcity of coal tar. We have got coke oven plants, under government control as well as under Tatas, but the coal tar which comes out is not further distilled. We are having a big scarcity of basic coal tar distillates and so we cannot manufacture the intermediates. Because we cannot manufacture the intermediates, we cannot manufacture final products. It is a chain reaction. At what stage shall we start? If we start manufacture of final products, we must have intermediates; if we start manufacture of intermediates, we must have coal tar.

I am attending another Conference on the 7th of this month on the very same subject. From which point we shall start? I have suggested that we should start from the basic coal tar. The coal tar is wasted on roads; why is it not distilled?

Dr. M. M. S. Siddhu: In other words, till the petro-chemical complex and the coal tar derivative complex which are the base of the pharmaceutical industry, are developed, we will be at the mercy of the foreign concerns.

Dr. K. A. Hamied: About petro-chemicals also, they are not made here. They are made from petroleum. Petroleum is from crude oil. Where is crude oil in India? It is also being imported. Bulk of the crude oil is being imported for the distilleries in Madras, Bombay and Calcutta. So for petro-chemicals also we are going to import this crude oil; we shall break it up into petroleum and chemicals. We are copying America! In America, this petroleum is natural and it is being utilised for these chemicals. Crude oil is available in Mexico and other places. We are copying that method without having the crude oil. Import licence will increase enormously. We should have some basic thing. Imports of crude oil will still remain.

Dr. M. M. S. Siddhu: What is the expenditure of the Indian firms, purely Indian firms, with Indian capital, know-how etc.—there are three or four of them, as compared to the foreign concerns on sales promotion? Advertising, detailing representative, sampling, all that is concerned with the sales promotion.

Dr. K. A. Hamied: It is almost equal. Foreign and Indian company is equally divided. Not less than 15 per cent and not more than 25 per cent.

Dr. M. M. S. Siddhu: There is great deal of formulations. Manufacture of

mostly formulations has impaired the growth of the pharmaceutical industry because formulations bring easy money with less capital or know-how with the result that Indian pharmaceutical industry has not begun working on the manufacturing side actually.

Dr. K. A. Hamied: May I deal with the working of the pharmaceutical Industry? It is just like the tailoring industry. Materials for the tailoring industry are made by the textile firms. Materials for the pharmaceutical industry are made by the chemical firms. You cannot ask a tailor, why you are not making your own cloth. The tailor is not supposed to make his own cloth. Pharmaceutical manufacturer makes tablets, lotions, injections, ointment and all sorts of things—he is not supposed to manufacture those chemicals. Pharmaceutical industry is basically an industry for the manufacture of ready-to-use drugs and ready-to-use medicines. Pharmaceutical manufacturers in India are manufacturing products which cover a ready market. Today if I can get a formulation for T.B. or influenza and it is useful I will make a formulation for it and sell it. It is not for me to manufacture all the things. Glucose is a thing which is a chemical manufactured by not more than 5 or 10 firms in the whole world. Everybody cannot make. But they are making glucose injections.

Dr. M. M. S. Siddhu: Some of the compounds are of less use. There is a compound for cancer. The sale will be very limited. Do you want for them the same terms of royalty of 4 per cent?

Dr. K. A. Hamied: I am making it without any foreign know-how. We are so bent upon foreign know-how that we forget our own know-how. It is very important. We are getting confidence. I am proud that I am sending the same to foreign firms in India also. I am making a particular hormone drug without any technical know-how. There is no 4 per cent royalty to anybody.

Mr. Chairman: We have got one more witness.

Shri R. P. Sinha: The compulsory licensing system is on our patent law for quite some time now. There have been lot of patents being registered in this country. Why is it that we are not able to take advantage of those things and start manufacturing the chemicals and drugs here under the sections of the compulsory licensing?

Dr. K. A. Hamied: It has been so, but it is correct. The compulsory licensing now is being made very easy under the existing law. Formerly there was some difficulty in getting compulsory licence. Under this new Act I think compulsory licensing will be taken advantage by us, Indian manufacturers. Besides that, another point also we should remember. In the course of these various years the technical know-how of us, Indians, has also grown. At the moment I can assure you that our own technical know-how is so much that we shall start taking advantage of the compulsory licensing. 10 or 15 years ago chemical science was not so much advanced as it is today. For that same reason, the advantages of the compulsory licensing which were there were not made use of.

Shri R. P. Sinha: As per the compulsory licensing section in this bill more industries under this section can be put up.

Dr. K. A. Hamied: Yes. Our own scientific knowledge has advanced so much. Licence which was granted to me also requires some knowledge on my part. Otherwise I cannot make use of that licence. Licensing of a patent process merely will not help one to put up that industry. During the last 18 years or so our own scientific knowledge has gone forward that we can make use of that licence. 10 or 29 years ago we could not make use of that.

Shri R. P. Sinha: If you use these sections for compulsory licensing that means when you use your own technology and know-how you will develop your own processes and know-how. Will you not like that what you develop should receive adequate protection under patent law so that you can flourish?

Dr. K. A. Hamied: The licence which I will acquire by paying 4 per cent royalty I shall be able to utilise that licence and if there is any flaw in that licence or process given to me I can make it up and I can find out where the flaw lies, by my own efforts. All the patents disclosed to patent office are not complete. 50 per cent of them is not complete. Even if we take the licence we cannot work under them. We have to apply our own knowledge to it. They do not disclose anything in the patent.

Shri R. P. Sinha: You don't get the co-operation of the foreign patent-holder and in spite of that you try to develop your own know-how and your own technical knowledge. Now when you develop that, will you like that to be protected under the patent law or not? That is in respect of your own chemical process, your own technical know-how etc. Or, will you like anybody can make use of that once you have developed it?

Dr. K. A. Hamied: If there is patent law I will take advantage of the patent law. If there is no patent law there is no patent law. But of course we shall take advantage when the patent law is existing.

Shri R. P. Sinha: Will you be able to develop your own industry with the help of your own technical know-how and technical knowledge, if there is no patent law?

Dr. K. A. Hamied: We shall develop. We can develop so many new things even for export to the entire world.

Shri R. P. Sinha: I can also start it and put you into difficulty.

Dr. K. A. Hamied: So much the better for the consumer. You and I may have some difficulties. But the prices will go down.

Shri R. P. Sinha: We find—this is not only with respect to pharmaceutical industries, but other industries as well—that the cost of production in India is higher than in other countries. If we permit importation of those articles produced by these industries, then these industries put up at a heavy national cost in India will be hit. How do you solve this problem?

Dr. K. A. Hamied: It is a very important question. First of all, I do not agree that the cost of production in India today is as high as is reflected by the price charged by the manufactures. I am talking of chemicals and basic materials. I am manufacturing some of them. My price say comes to Rs. 30 which is some what higher than the world price. It is being sold in India at Rs. 100/-. Why it should not sold it at Rs. 40/- instead of at Rs. 100? Because I am the only manufacturer.

Shri R. P. Sinha: If there is room only for one industry, we have to control the price by some other mechanism.

Dr. K. A. Hamied: Most of the foreign concerns have taken a licence from the Industry Department on this excuse that there is Room for one manufacture e.g. by Vitamin B12 is manufactured by 20 firms in the world. I am not going to manufacture if there is no Prospect of sale. In India licence has been given only to one firm. The import has been stopped. Please give the licence only to us. And they have been given the licence. They are allowed to sell it at Rs. 220/- a gram whereas the world price is Rs. 30 a gram.

Shri A. T. Sarma: You have stated in your memorandum that the patent law was established in 1911 by British rulers to encourage the British firms

in India. Do you think that the patent protection is harmful to the Indian inventor?

Dr. K. A. Hamied: From 1911 up till now we have not been able to invent anything.

Shri A. T. Sarma: I want you to given concrete instances as to how this has been harmful?

Dr. K. A. Hamied: There is no Indian invention.

Shri A. T. Sarma: Do you mean to say that lack of Indian invention is due to the patent protection?

Dr. K. A. Hamied: When I say 'no invention', it may not be hundred per cent so. There may be one or two inventions.

Shri A. T. Sarma: Was it due to this patent law?

Dr. K. A. Hamied: It was mainly because we werer not given opportunities for research and there were no research facilities and there was no research apparatus.

Shri A. T. Sarma: If it was to encourage British firms, how is it that all foreign firms are opposing this and all Indian firms are welcoming it?

Dr. K. A. Hamied: No. We are favouring this change in the patent law.

Shri A. T. Sarma: According to your calculation, it is harmful to the Indian inventors and more beneficial to foreigners.

Dr. K. A. Hamied: That is the old law, not the present Bill.

Shri A. T. Sarma: Then do you welcome this?

Dr. K. A. Hamied: I am in favour of complete abrogation. Since that is not possible due to political and other reasons, I am supporting this Bill subject to certain modifications.

Shri A. T. Sarma: Do you think that the proposed Bill will be beneficial to the Indian inventors?

Dr. K. A. Hamied: I hope so.

Mr. Chairman: I am raising now a very important point. Big foreign firms established in chemical and pharmaceutical industry in India are remitting over Rs. 5 crores of dividends and reyalties to foreign countries. Why do not they take up motor car industry? Why do not they take up textile industry in India? Why are they not doing locomotive industry? Why only pharmaceutical industry? That is the question. Why are they not coming into any other industry in a big way?

Shri Bade: As far as abrogation is concerned, of course, we are also of your view that there should be abolition so that the foreigners may not exploit us.

Dr. K. A. Hamied: I am very happy.

Shri Bade: At the same time, you have stated that since we are internationally connected we should not abrogate it. Supposing we make it compulsory that they should disclose their know-how before getting the licence, then they may withdraw from India. I would like to know how many years we require to develop all these drugs.

Dr. K. A. Hamied: I cannot say how many years we will take. And it will be very difficult also to judge how many years we will take to develop all these drugs. But, I hope the process of development will be much faster than it has been hitherto. There will be no hindrances in our way.

Shri Bade: Kindly refer to Section 95—page 55—of the proposed Bill. Sub-clause (3) says:

> Notwithstanding anything contained in sub-section (2) the Central Government may, if in its opinion it is necessary so to do in the public interest, direct the Con-

troller at any time to authorise any licensee in respect of a patent to import the patented article or an article or substance made by a patented process from abroad (subject to such conditions as it considers necessary to impose relating among other matters to the quantum of import, the sale price of the imported article, and the period of importation), and thereupon the Controller shall give effect to the directions.

Are you happy with this provision?

Dr. K. A. Hamied: 'To authorise any licensee to import'.

Shri Bade: The whole Bill is nullified by this clause.

Dr. K. A. Hamied: If the original patent holder is not manufacturing the product in the country and if he is allowed to import, then other people also should be allowed to import.

Shri Bade: It is stated in the clause "if in its opinion it is necessary so to do in the public interest, direct the Controller at any time to authorise any licensee in respect of a patent to import the patented article . . . "

Dr. K. A. Hamied: This will kill the whole Patent Bill.

Shri Bade: So you agree with me.

Dr. K. A. Hamied: This is very cleverly put here. The patent holder may appoint as licensee his own firm in India, who is a licensee by right.

Shri K. V. Venkatachalam: It is intended to be there.

Dr. K. A. Hamied: But it is not mentioned. The licensee is sitting in Switzerland. The licensee may be a person belonging to the same firm.

Shri D. P. Karmarkar: He is only a primary licensee.

Dr. K. A. Hamied: Though he is not manufacturing, you allow him to import.

Shri Bade: Supposing there are 3, or 4 processes. Anybody can go to the Court and say that the patentee is using only one process and he is not using three processes. Therefore, there should be compulsory licences for three processes and he will be given compulsory licence.

Dr. K. A. Hamied: He can be given for the first process only.

Shri Bade: That is not the condition here. He can be given compulsory licence for any of the processes.

Dr. K. A. Hamied: They should not be granted patent for any of the processes which they do not use.

Shri Bade: In the proposed Bill, the definition of medicine or drug is all medicines for internal or external use of human beings or animals. In the Drug Act, cosmetics is included in the external use of human beings or animals. I was in that Select Committee also and I objected to that.

Shri D. P. Karmarkar: I thought that was for those intended for curative purposes and not for adornment purposes.

Shri Bade: The definition of drugs given in the Drugs Act is repeated here also.

Shri Bibhudhendra Mishra: I am told by the Drugs Controller that the cosmetics has been separately defined in the Drugs Act.

Mr. Chairman: Anyway, we are not concerned with that here.

Shri Bade: Again, in the definition, Government undertaking means any industrial undertaking. When it is mentioned Government's use, it will mean Corporations also.

Dr. K. A. Hamied: It is only for Government's use, not for trading

purposes by the State Trading Corporation or the IDPL or the Hindustan Antibiotics.

Mr. Chairman: You have already made it sufficiently clear.

Shri P. C. Borooah: Do you agree that with the coming into force of this Act, the terms of existing patents for licence should also come to an end?

Dr. K. A. Hamied: The Bill should have retrospective effect. Licence means patents. The patens will fall in line with the new Bill when it comes into force.

Shri P. C. Borooah: Now India is holding a position because it stands on certain commitments. If we curtail the terms, then we will be falling back on our commitments.

Dr. K. A. Hamied: In those commitments India has never guaranteed that there will be no alteration or changes in the Patent Bill. There is no clause like that.

Shri R. Ramanathan Chettiar: From your experience, are cartels in the drug and pharmaceutical industry operating in India under the guise of the firms enumerated in your list?

Dr. K. A. Hamied: No cartels are operating in India. Cartel can only operate when the drug manufactured is the same. Take tetracycline of Pfizer. It is manufactured by three firms. When it is manufactured by more than one firm, only then cartel can be formed.

Shri R. Ramanathan Chettiar: You referred to Rs. 5.28 crores being remitted by way of royalty and dividend by those 35 firms.

Dr. K. A. Hamied: This is besides the remittance for purchase of raw materials by the 35 firms—another 6 crores.

Shri R. Ramanathan Chettiar: About 11 crores. In these raw materials, they have more or less monopoly. In reply to a question, you said that 80 per cent of the drugs are dependent on imported raw materials.

Dr. K. A. Hamied: May be 75—80

Shri R. Ramanathan Chettiar: The capital invested by foreign companies according to the RBI Survey (Nov. 1964) is Rs. 14 crores in 1962-63, p. 1387.

Dr. K. A. Hamied: It is: chemical 7 crores, pharmaceutical 8 crores, other chemicals 13 crores—in all 30 crores.

That is the total capital.

Shri R. Ramanathan Chettiar: What is the foreign content of the capital?

Dr. K. A. Hamied: About 14—15 crores.

Shri R. Ramanathan Chettiar: Out of that, 2 crores was taken away by dividends in 1962, 5 crores by way of royalty—total 7 crores.

Dr. K. A. Hamied: Out of 14 crores invested, 7 crores are taken out every year.

Shri R. Ramanathan Chettiar: In 1962-63, they had taken. Compared to that, what is the total capital of the indigenous manufacturers in the pharmaceutical and drug industry?

Dr. K. A. Hamied: I cannot say offhand.

Shri B. K. Das: When the new Act comes into force, in your opinion, will foreigners still be tempted to take patents or do you think they will not come at all?

Dr. K. A. Hamied: They would come all right. They are threatening that the Bill will have so many undesirable effects. But the fact is that they are saturated in their own countries. I met a French manufacturer recently. He is starting a factory for manufacturing antibiotics in Vietnam. I asked why he is doing it in that country when there is so much of uncertainty there. He said 'We have no

means of expansion in France. We will go wherever we can'. This is the condition in Europe today.

So I assure you it is merely a threat.

Dr. L. M. Singhvi: I would like to know, in the first instance, whether a provision for compulsory licence or licence of right would not preclude the difficulty that he anticipates in respect of patenting a number of processes, because as soon a person wants to utilise or exploit another alternative process, he can always apply and use that process.

Dr. K. A. Hamied: They generally have the better and easier process which gives more yield at less cost. But in order to prevent others from jumping by other means, their scientists work out all possible means and get those also patented, whether they are workable or not. The others reach the same product, but perhaps at double the cost and at half the yield.

Dr. L. M. Singhvi: Once a provision for compulsory licence or licence of right is already there, there is no monopoly or exclusion in respect of utilisation of these alternative processes.

Dr. K. A. Hamied: That monopoly right is also for the processes which they are not using. What I am saying is that if these processes are not barred, our scientists and technical experts will have free scope to work on various chemical reactions and various processes.

Dr. L. M. Singhvi: Putting it differently, do you not think that by allowing patent of a number of processes, you are making it possible that a number of processes and technical know-how would become public property in the sense of having that information disseminated so that your own scientists would not have to do the process of research all over again? They could use any one of these processes.

Dr. K. A. Hamied: I am a chemist myself. If the process is not known to us, I have my own processes to work. But the moment I start working, I reach a stage where I find it is already patented. I have to stop it there.

Dr. L. M. Singhvi: You mentioned that a certain monopoly is created because only one industrial licence is given in respect of a particular drug. If more than one industrial licence were given, there would be no monopoly. Is that the point?

Dr. K. A. Hamied: Not only licence given, but the manufacture started also. I have got a licence for a product for two years. But I never started it. It should be giving of a licence and manufacturing the product according to the licence within a certain time. The more the manufactures, the cheaper the product.

Dr. L. M. Singhvi: Would it be correct to deduce that if more than one industrial licence were given and if the indigenous manufacturers embarked on the manufacture of that particular commodity, there would be no monopoly and in that case, you could not find fault with the patent law but with the procedure of the licensing Ministry which grants only one licence and not more than one?

Dr. K. A. Hamied: I have never said so in my memorandum that patent law is responsible for high prices. Patent law leads to monopoly.

Dr. L. M. Singhvi: It is intended to lead to a kind of monopoly.

Dr. K. A. Hamied: That monopoly is removed by compulsory licensing or licence of right and further by the issue of industrial licences which has come to stay in our country. Then prices will come down

Dr. L. M. Singhvi: Are you aware that in our country a lot of substandard or spurious drugs are manufactured.

Dr. K. A. Hamied: Mr. Borker will be able to say about that because he is dealing with it.

Dr. L. M. Singhvi: You are the witness now.

Dr. K. A. Hamied: That is the case everywhere, not only in India, but in America, England Germany and so on. In America, there was an injection prepared on using which 10 people died instantly. Nobody blamed the American manufacturer. To err is human. It can happen anywhere. An injection made by a foreign firm when administered intramuscularly resulted in a wound 6 inches long and one inch deep. Nobody blamed the manufacturer. But the Doctor was blamed, that his method of injection was wrong.

Dr. L. M. Singhvi: That is very unfortunate.

Dr. K. A. Hamied: If it was my injection, then the Doctor would not be blamed; they would say that the Indian medicine was bad.

Dr. L. M. Singhvi: The statement is often made, and has been made before us, that abrogation or relaxation of patents might lead to a greater manufacture of spurious/substandard drugs, and therefore, patients would not know what they are buying.

Dr. K. A. Hamied: No medicine is being manufactured by the patentee. They are all formulations based on the chemicals manufactured by the patentee.

Dr. L. M. Singhvi: What is the extent of research being done by indigenous investors and manufacturer?

Dr. K. A. Hamied: Quite a lot today.

Dr. L. M. Singhvi: Is it self-sufficient so much so that we need not draw on research from abroad?

Dr. K. A. Hamied: Research is a very costly process. I have had discussions with government officials and ministers and informed them that research is a costly process. And in India it is ten times costlier than in America and England. The duty on the import of research instrument is 60 per cent. If it costs here Rs. 20,000, I can get it in America for 4,000 dollars. If it gets out of order, I can phone the company and can get it repaired. But here, I have to import another one in a similar contingency. Who is stopping research, government or the people? Sometimes the duty is 60 per cent, 70 per cent or even 100 per cent on research apparatus.

Dr. L. M. Singhvi: How many indigenous manufacturers are there in India in the field of pharmaceuticals?

Dr. K. A. Hamied: Among the big-manufacturers we shall count about 200.

Dr. L. M. Singhvi: What portion of the total consumption of pharmaceutical formulations and drugs is manufactured indigenously?

Dr. K. A. Hamied: Not more than 20 per cent or 25 per cent; the rest goes to the foreign manufacturers.

Dr. L. M. Singhvi: What are the reasons for our not having embarked upon the manufacture of pharmaceutical raw materials which are not covered by any patents?

Dr. K. A. Hamied: The manufacture of these things is not a small process. A costly factory, a big factory has to be started. That can be started by people who hold capital. People who hold money do not understand what a coal tar distillant is, for instance. They are not interested. If I start manufacturing, for instance, glass, they will go into it. Capital is shy. Of course they are coming to this field now.

Dr. L. M. Singhvi: Are you suggesting that even government which is supposed to be omniscient is unaware of the utility of producing these raw materials.

Dr. K. A. Hamied: Application for licences are to be made by the private people, not government. In the last two or three years, they are coming forward.

Dr. L. M. Singhvi: My last question is about the difficulties experienced by the pharmaceutical industry in working or obtaining compulsory licence in respect of patents which could be commercially exploited in the country. What are the main difficulties?

Dr. K. A. Hamied: I mentioned that for us to realise a patent after getting a licence of right or by compulsory licence requires some chemical and industrial knowledge which has developed only during the last few years.

Dr. L. M. Singhvi: It is not the deficiency of the existing patent law but deficiency of our own technical know-how.

Dr. K. A. Hamied: Plus the difficulties in getting a licence compulsorily.

Dr. L. M. Singhvi: What kind of difficulty you face?

Dr. K. A. Hamied: I have not tried to get a compulsory licence; I do not care for these licences as I do everything myself.

Shri V. B. Gandhi: You said that our production of pharmaceutical products has increased tremendously in the last few years, from ten crores to something like 100 crores. Is it right to say that it has happened under the present system of some kind of protection that is being given to the pharmaceutical industry through the existing patents law?

Dr. K. A. Hamied: No, through import control.

Shri V. B. Gandhi: Anyway, larger production helps in diminishing the need for larger imports. If this production had not taken place, we will have had to import a substantial quantity and spend the precious foreign exchange. As a result of the protection extended under the present system, the industry has been able to make a much larger production and that means we have saved so much in imports. Do you agree?

Dr. K. A. Hamied: That is not on account of the patents, as I have told you already, but on account of the ban on imports of finished products and medicines.

Shrimati Sharda Mukerjee: One of the thing which other witnesses tried to impress on us that a mere relaxation of the law in itself will not ensure the growth of pharmaceutical industry in India because we have not the wherewithal in respect of the technology, capital and industrial base. What is your opinion regarding this? For instance, you mentioned the petrochemical industry. The process of the petrochemical industry is not really a great deterrent. It is a Rs. 30 crores industry which requires probably machinery worth Rs. 15 crores, etc. Is it your opinion that it is only the patent law which is a deterrent, or, is it your opinion that equally with the patent law is the fact that the other factors have not been available in to the country in the last 18 years?

Dr. K. A. Hamied: Both.

Shrimati Sharda Mukerjee: To what extent?

Dr. K. A. Hamied: I cannot give the exact difference and say how much it is. But the patent law has been responsible for our not having any knowledge as how to do it. It was controlled by certain firms. American or German, and even if we had the

knowledge, it was difficult to get import of capital equipment, licenses for starting the manufactures and so on. Even then, some raw materials had to be imported, because we cannot start from the basic things. For the petrochemical industry, as I said crude oil is necessary for manufacturing petrol or petroleum products, and then for breaking them up, at some stage, the import of raw material and capital equipment was necessary, and the technical know-how was also necessary. If we had the technical know-how, we did not have the other three things; if we had the other three things, then the technical know-how was not there. So, these have to be developed. The Government is taking interest in petrochemicals; at least they have given facilities to combine with other foreign firms and start petrochemical industries, but they will have to import raw material.

Shrimati Sharda Mukerjee: Do you think that the Bill which is before us is satisfactory?

Mr. Chairman: He has given that answer.

Shrimati Sharda Mukerjee: He said that there should be a much greater relaxation in the law.

Dr. K. A. Hamied: I have answered that question already.

Shrimati Sharda Mukerjee: Regarding products *per se* and the process, you said there should be patent only for the process of the product; is it your opinion that the product should be patented or not?

Dr. K. A. Hamied: The product is patented on account of the process.

Shrimati Sharda Mukerjee: There is a difference between the process and the product.

Dr. K. A. Hamied: I know the difference, but if the product is patented, nobody can make that product unless the process is known. This is happening in India. The product called tolbutamide, is a British pharmacopoeia product. It is not a proprietary name. The patent is held by Hoescht for the manufacture of that product. 17 patents are held by them for the manufacture of tolbutamide. If we import this product, they say that the product is also patented and we cannot import it. This is the position. So, they are today in full control of not only the process but the manufacture of tolbutamide.

Shrimati Sharda Mukerjee: Do you think there should be a shorter term than what is provided in the Bill?

Dr. K. A. Hamied: I have already answered it: 10 years.

Shri S. N. Mishra: Our main object is to restrict or eliminate the scope for exploitation which is inherent in the situation. You have suggested a few methods for doing so. The methods that you have suggested are, so far as I have been able to understand, to restrict the patent to one process. Secondly, to make provision for compulsory export; thirdly, to provide for the import of its products.

Dr. K. A. Hamied: In case the patent-holder does not make it.

Shri S. N. Mishra: Yes; these are the three ways in which the scope for exploitation could be restricted or eliminated. Could we add to them—I am just testing my idea with you, and it may be a kind of compromise—that in the case it is laid down that a particular level of production has to be attained inside the country and if that level is not obtained, the Government would be compelled to allow import? There should be a kind of compromise. The Government can take a view of the requirements or the demand or the potential demand in the country and the Government can lay down that this level of production has to be obtained through

the exploitation of the particular method and so on. If that has not come about, then the Government will be compelled to provide for import. That makes it more reasonable, when you say that there should be sufficient import.

Then, if the development of the basic drugs and the intermediates comes about in a satisfactory way, then also the scope for exploitation would be very much limited, because much of the reasons for the increase in prices may be put down to the import of many of these raw materials too, which they have been using for this purpose. So, as we have been thinking, if in the country we are able to bring about adequate development of the basic drugs and the intermediates, then much of the scope for this can be eliminated. Would you like to lay more stress on that?

Mr. Chairman: What is your question?

Shri S. N. Mishra: It is a simple question. My question is, if it is laid down that a particular level of development has to be attained by the exploitation of a particular method, would not the scope for exploitation be limited. I am trying to test the idea with the learned witness. This is a very important question for which I want to have his advice and his answer.

Dr. K. A. Hamied: Regarding the first question, it will be very good if the patent-holder or the licensee under compulsory licence or other licences, is induced—not forced or compelled but prompted—by the Government to manufacture as much quantity of that substance as is needed in the country; it will be very good if the patent-holders or the licensees try to help and produce as much as is required by the country. In case it is not possible for some reasons, you suggest that this should be imported by the Government, but there comes the foreign exchange difficulty. At the present juncture, the question of import does not arise at all. And therefore, we are not to consider it at the present juncture of the foreign exchange position.

Shri S. N. Mishra: That is something else. The foreign exchange position may be difficult, but you should not go by that; it is only about the principle that I want to have your views.

Dr. K. A. Hamied: If foreign exchange is freely available, you will give notice to the manufacturer saying that we shall allow import, as Mr. Kidwai did when the sugar prices were going high. He issued licences for the import of sugar, to 20 people—I know it—and the sugar prices immediately came down.

Shri S. N. Mishra: So, in each case, would you like the Government to lay down the level of production which has to be attained, keeping in view the requirement of the country with regard to that?

Dr. K. A. Hamied: Yes.

Shri Sham Lal Saraf: Then the question will arise as to whether we have got the wherewithal in the country to get to that level of thinking.

Shri S. N. Mishra: The Government will take a review of the production, keeping in view all these things: the position of the resources, the demand in the country and so on. But it must not fall below a particular level of production.

Dr. K. A. Hamied: I have already replied that the production of one item depends on the import of another five items. We are lacking in the basic drugs and intermediates. I am making certain products for which I am given a licence for the raw material to the tune of three tons. I am producing a vitamin which is very important today in India and which is not made by anybody else. If the Government does not allow me to import my three tons of raw material, I cannot manufacture my vitamins. So, the question is, for the manufacture

of that much quantity laid down by Government, for the use of the whole country, the raw material required for the manufacture must be allowed by the Govenment. Otherwise, it cannot be made.

Shri S. N. Mishra: My question No. 2 is with regard to the development of basic drugs and the intermediates. If the basic drugs and the intermediates are produced in the country in large quantities, would you suggest that there should not be much scope for the grant of patents?

Dr. K. A. Hamied: The grant of patent is quite different. To my knowledge, not many patents are involved in basic drugs and intermediates.

Shri S. N. Mishra: There will not be much scope for that.

Dr. K. A. Hamied: The patents start after the intermediates and when we have a combination of intermediates in 20 different ways, we reach 20 different products. Then, we start patenting. As a Chemist, I have combined one or two intermediates and produced a drug for heart disease. Another man may combine two different intermediates and produce a tranquilliser. Everybody tries to combine intermediates in making new synthetic chemicals which are used as drugs and medicines. That derive for making new inventions and discoveries in the field of medicines will always remain.

Shri S. N. Mishra: The prices will come down.

Dr. K. A. Hamied: The prices will come down when competition starts.

Shri Peter Alvares: You and some other chemists have made out a case that one of the reasons for the stagnation of the Indian pharmaceutical industry is the existence of foreign patents. This implies that because you are not able to work on those foreign patents, you are not able to expand. It is a very sorry state of affairs because it implies that all the research that has been done has been done by foreign patentees and you have nothing else to day. May I ask why is it that the Indian pharmaceutical industry has not been able to achieve a break-through in inventions of essential drugs?

Dr. K. A. Hamied: The break-through is not so easy as the Hon. Member thinks. There are so many factors involved in making a break-through. On the discovery of a new drug, whether it is for diabetics or heart disease, the break-through is a combined process of the chemist, the pharmacist, the bio-chemist, the microbiologist and the medical doctor. The combination of all these factors leads to a drug and leads to a patent.

Shri Peter Alvares: Some of the witnesses have been saying that in the interest of India, this patent law should be abrogated. It has also been said that one should not rely upon copying so much but one should try to do some sort of fundamental research. I would like to know why the pharmaceutical industry has not been able to achieve anything in that matter. Can you tell me what is the percentage of their profits which they invest in research from year to year?

Dr. K. A. Hamied: They invest quite a lot.

Shri Peter Alvares: What is the percentage?

Dr. K. A. Hamied: It will be about 20 or 30 per cent.

श्री ब्रज बिहारी मेहरोत्रा : मैं एक ही सवाल करना चाहता हूं कि यह बिल जिसने कि फौरेन लोगों को इतना विचलित कर दिया है कि वे दौड़े चले आये हैं तो यह बिल अगर ऐसे का ऐसा एक्ट बन जाय तो क्या इससे देश को कुछ लाभ होगा ?

डा० के० ए० हमीद : मेरे ख़याल में ज़रूर मदद मिलेगी ।

श्री ब्रज बिहारी मेहरोत्रा : वह किस दर तक मिलेगी इसकी जानकारी मैं चाहता हूं ?

डा० के० ए० हमीद : मैंने उसका जवाब दे दिया हुआ है ।

श्री ब्रज बिहारी मेहरोत्रा : पेटेंट की मियाद अगर हम दस वर्ष से कम भी कर दें तो क्या आप इसे पसन्द करेंगे ?

डा० के० ए० हमीद : उसका भी मैं जवाब दे चुका हूं

Shri Gowdh: In the present Bill, there is a provision for the payment of royalty at the rate of 4 per cent. Do you think it is reasonable or do you think that no royalty should be fixed or that the rate of royalty should be increased?

Dr. K. A. Hamied: I think 4 per cent is a very desirable percentage provided the person who takes the licence works the patent and sells it in good quantity. It depends on the sale. If the sale increases to Rs. 30 lakhs or Rs. 40 lakhs and he gives Rs. 1½ lakhs to the patent-holder for doing nothing as royalty, it is a very good return.

श्री अचल सिंह : जो आपने मेमोरेंडम दिया है मैंने उसको अच्छी तरह से पढ़ा है और मैं उसको बहुत एप्रीशिएट करता हूं लेकिन मैं इसी के साथ साथ यह आप से जानना चाहता हूं कि अगर हम पेटेंट बिल जोकि हमारे सामने है उसको हम हटा कर बिलकुल इटली, जापान में जसा कि बिलकुल फ्री था वैसा फ्री यहां भी कर दें तो क्या हम उसको ठीक से चला सकेंगे ?

डा० के० ए० हमीद : मेरी राय है कि हम ज़रूर चला सकगे और हम बहुत ज्यादा तरक्की करेंगे ।

श्री अचल सिंह : जिस चीज की कीमत एक रुपये होती है उसके दस रुपये यहां पर वसूल किये जाते हैं अगर यह पेटेंट बिल हट जाय तो क्या वह चीजें यहां पर हमें सस्ती मिल सकेंगी ?

डा० के० ए० हमीद : अब कीमत का तो सवाल दूसरा है । अगर कोई चीज जोकि एक रुपये में आती है वह अगर हमको बारह आने में मिलने लगे तो वह ठीक ही होगा । बाकी मैं यह मानता हूं कि वैसा होने से हमारी तरक्की होगी इल्म में और हम वह चीजें भी बना सकेंगे जिनमें कि हम को आजकल रुकावट हो रही है और हम बना नहीं पाते हैं ।

I am not talking of injections and tablets. I am talking of the raw materials and the patents for the raw materials. Tablets are being made here but the materials coming from there are patented. The drugs are not patented; they are patented only in name.

श्री रामसेवक यादव : आपने अपने मैमोरैंडम में यह कहा कि एक देश से दूसरे देश में, खास तौर से हिन्दुस्तान में जो बाहर से चीजें आती हैं और उन के दामों में फर्क है तो मैं आप से जानना चाहूंगा कि पेटेंट की कीमत बढ़ाना किस हद तक मददगार समझते हैं और क्या पेटेंटी और लाइसेंसी को वह इस शर्त पर दिया जाय कि जो अन्तर्राष्ट्रीय कीमतें होंगी उनके साथ उसको चलना पड़ेगा और ऐसा होने से यह चीज दूर हो सकती है ?

Dr. K. A. Hamied: The patent is responsible for higher price to a certain extent in the early stages of the product. For instance, Cartisone was manufactured by a very big laboratory in America. They spent millions of dollars on that and the price they kept was Rs. 950 per gram. You may say that on account of the patent which they were holding, the price was Rs. 950 per gram. But that is not so. It is because they were the only manufacturers. There was nobody else in the United States

or in England or in Germany. They were selling at a price which they liked because the drug was very important and useful. In America, the scientific workers are so advanced that they started to manufacture Cartisone by 20 different methods which we in India are not able to do. They succeeded in that. When 3 or 4 firms started manuafacturing the product, the price came down to Rs. 95 and today it is standing at Rs. 8 only. So, in the early stages if there is nobody coming forward to utilise that patent, then the patent-holder is the only man who manufactures the product. That is one of the causes of the rise in price. If enough number of persons come forward and take the licence and start manufacturing the product, then the price due to patent will never be high. If there is competition, the price will be less.

श्री राम सेवक यादव: पेटेंट या लाइसेंस के साथ जो गैर मुल्कों की चीजों के दाम हैं उसकी शर्त लगाने से क्या कुछ दिक्कत को दूर किया जा सकता है ?

Dr. K. A. Hamied: There are causes by which the prices of pharmaceutical chemicals are higher in India than in other countries of the world. The price of sulphuric acid is double the world price; the price of nitric acid is three times the world price; that of caustic soda is double the world price. These are basic materials required in the manufacture of various items.

Mr. Chairman: We are manufacturing all of them here.

Dr. K. A. Hamied: Yes. Nitric acid is manufactured only by Government at Sindhri; it is selling at three times the world price.

Shri K. K. Warior: I want to draw the attention of the witness to this position: he said that we were short of the basic materials; then how can he complain that the foreign firms import these materials for finally processing them?

Dr. K. A. Hamied: I have not complained.

Shri K. K. Warior: Dr Hamied, in the event of these firms not importing, do you think that the Indian manufacturers alone should import these intermediates?

Dr. K. A. Hamied: Let me explain this. The foreign firms are holding patent for making, say, Butanol. They are holding patents for making the three ingredients. But they are not making these three ingredients here.

Shri K. K. Warior: Are they importing finished good?

Dr. K. A. Hamied: They import finished raw materials and press them into tablets here. Why are they holding the patents?

Shri K. K. Warior: In the absence of that, what will the indigenous firms do?

Dr. K. A. Hamied: The knowledge of manufacture of intermediates is not available here.

Shri K. K. Warior: First you say that our pharmaceutical industry has developed to such an extent that we would depend on our own know-how and in another breath you say that, if at all we are allowed to import these intermediates or the basic raw meterials, we are not able to do the finished goods. How do you reconcile these two statements?

Dr. K. A. Hamied: We are allowed to import intermediates as much as the foreign firms are allowed to do. But they have the privilege of holding a patent and not utilising it. That is what we are objecting to.

Shri K. K. Warior: You will agree that, if at all we get the raw materials, we do not have the know-how to have the products finished?

Dr. K. A. Hamied: I am not comparing the Indian manufacturers. I am saying that the foreign manufacturers are not utilising the patents which they are holding.

Shri K. K. Warior: What I want to know from you is this. As long as the indigenous firms do not have the knowhow, what is the harm in the foreign firms holding it back or blocking it?

Dr. K. A. Hamied: We have the knowhow.

Shri K. K. Warior: I am sorry you are not catching my point. My point is this: some four processes are patented by a foreign firm; they are using only one and three are left out just to block.....

Dr. K. A. Hamied: My argument is that they are not using even one.

Shri K. K. Warior: Why can't the indigenous firms have their own knowhow to make use of the basic materials which can be imported?

Dr. K. A. Hamied: They are now gradually using it. Our scientific knowledge is slowly advancing; the laboratories are now working. Immediately after Independence, we were passing through difficult times; we had the import control difficulties—raw materials, even for research, were not allowed. But now we have advanced so much that today we are in a position to overcome those difficulties and we are doing some work.

Shri K. K. Warior: Is it your opinion that, even if you had all the facilities of raw materials and the facility of the background of the chemical industry, you will not be able to develop in this country your own inventions and your own production? In other words, is it your opinion that, given all other favourable conditions, the existing Act will come in the way of your developing?

Dr. K. A. Hamied: From my experience I can say that it has come in our way. Whether it will continue in future also after our scientific knowledge advances, I cannot say.

Shri K. K. Warior: Till now even though there was the provision for compulsory licensing, many people did not take advantage of that. Now do you think that the provisions of Clause 95 of the present Bill—for the terms and conditions of compulsory licensing—are all right or do you think that any further advantage should be given to the licencees, apart from the patentees?

Dr. K. A. Hamied: I have already replied. So far as the present Bill is concerned, they are sufficient. If more facilities can be given, so much the better.

Shri K. K. Warior: My question arises this way. When there is no agreement between the patentees and the licensing applicants as far as royalty and other considerations are concerned, when such disputes arise when there is no agreement and the Controller comes into the picture, do you think that the present provisions contained in Clause 95 of the Bill are satisfactory or any amendments are necessary?

Dr. K. A. Hamied: I have already replied to this.

Shri Kashi Ram Gupta: You have given a statement that Japan started its Patent Act in about 1945, after the Second World War. Some say that it was after the First World War. So I want to know whether you have based your knowledge on the fact that you have seen the document itself—the Patent Act—or your knowledge is borrowed from some others.

Dr. K. A. Hamied: It is borrowed from the general information which I have been able to receive. I cannot say from which document I have been saying this. Mr. Davar also has said the same thing.

Shri Kashi Ram Gupta: My point is this. Have you seen the Act itself?

Dr. K. A. Hamied: I have not.

Shri Kashi Ram Gupta: You say that you are exporting your own medicines. Are they patented medicines?

Dr. K. A. Hamied: Medicines we are exporting. We are also exporting raw materials of pharmaceuticals.

Shri Kashi Ram Gupta: Does your firm possess any patents? How many are there in your firm?

Dr. K. A. Hamied: About 4 or 5.

Shri Kashi Ram Gupta: Are they doing quite all right?

Dr. K. A. Hamied: 3 out of them.

Shri Kashi Ram Gupta: Are they being sent outside?

Dr. K. A. Hamied: We are not debarred from sending outside. They are not sent outside beacuse other countries have their own laws, import control orders, etc. I am not allowed to import finished medicines from other countries. They cannot import from my country. There is no bar on me from exporting.

Shri Kashi Ram Gupta: You said that you have experience about research. When you say that it takes long time these days to arrive at any new invention, because it has become more competitive, thousands of compounds may be there and only one of utility may be found. This is a sort of gambling where a lot of money is put in. This is one argument. The other argument on the other side is this. They say that the period for which the patent may be given should be very low. How do you reconcile the two?

Dr. K. A. Hamied: 8 years or 10 years

Shri Kashi Ram Gupta: 10 years from the date of application. It may take 3 or 4 or 5 years for the same.

Dr. K. A. Hamied: They may start the manufacture before the sealing time.

Shri Kashi Ram Gupta: They can start it, but government cannot take action.

Dr. K. A. Hamied: The moment patent application is made and final specifications are submitted....

Shri Kashi Ram Gupta: He won't do it.

Dr. K. A. Hamied: There are articles manufactured in England and Bombay and it is written: Patent applied for. You can't copy it.

Shri Kashi Ram Gupta: The controller cannot interfere so long as it is not sealed. Why should one start like that when a law does not allow?

Dr. K. A. Hamied: Law does not prohibit him from starting. It does not prohibit him from starting. So long as process is known only to me and not revealed to anybody else....

Shri Kashi Ram Gupta: Unless it is sealed he cannot go to court of law. That period cannot be counted that way. You say, it may be less than 10 years.

Dr. K. A. Hamied: I am not able to know the legal point raised by the hon. Member. After specifications are completed and filed by patentee in the patent office, after that, I believe the patent applicant is protected if he makes known to the people that he is manufacturing such and such a product and that the patent is applied for; nobody can copy that under the law.

Representative of the Ministry: Applicant is not sure as to what is going to be the ultimate patent. Some of the claims may have to be amended. So it is only after their acceptance and opposition period is over that patent will be sealed and right accrues after sealing of patent. No suit can be filed under any rule earlier than sealing.

These patents are being sold in England and Germany and they say: Patent applied for.

Mr. Chairman: The witness is not competent. These are all legal points.

Shri Kashi Ram Gupta: Do you agree to the period?

Dr. K. A. Hamied: I have already replied to that.

Shri Kashi Ram Gupta: The rate of royalty of 4 per cent is enough you said. In these days it is a competitive position regarding research. Will that amount spent on research be able to be recovered by this 4 per cent of royalty?

Dr. K. A. Hamied: If licence is granted to several firms and you exclude that licence 4 per cent will be ample. He will get 4 per cent from 10 firms.

Shri Kashi Ram Gupta: You should give your opinion about the rate of royalty.

Mr. Chairman: He has mentioned that 4 per cent is enough.

Dr. K. A. Hamied: Companies declare dividend of 6 per cent. If patent holder gets 4 per cent without trouble and labour, I don't think it is bad.

Shri Kashi Ram Gupta: What are the difficulties for companies like you to have your own know-how patented in the present conditions?

Mr. Chairman: Know-how is not patented.

Dr. K. A. Hamied: Some of our patents are well known ones. Others don't know. We want to hide our research. We apply to the patent office. We are holding a few patents. We consider it as complete secrecy of ours and nobody can copy it. If anybody copies it I will also suffer.

Shri Sham Lal Saraf: You said that the annual return by way of dividend and know-how is over 7 crores of rupees. What is the total investment made by foreign investors in India?

Mr. Chairman: He has given that also.

Shri Sham Lal Saraf: What is the annual return for that investment plus technical know-how?

Dr. K. A. Hamied: This is 7 crores on investment of 14 crores.

Shri Sham Lal Saraf: The entire investment on the part of foreigners is only 14 crores.

Dr. K. A. Hamied: There are 35 concerns.

Shri Sham Lal Saraf: At the present stage there is lack of knowledge and there is lack of inventive genius and technology. What measures do you suggest so that we may come up to the level of the progressive nations of the world?

Dr. K. A. Hamied: This is nothing coming under patent law. There are many methods.

Shri Sham Lal Saraf: This law is brought from England for specific purpose. There are number of members speaking on different aspects of the Bill. Our feelings and fears are there. We do not want to get them from outside for all times to come. You have said that this is a reciprocal law. Today we are not yet in a stage of reciprocating with foreign countries. You know it because you are an expert. How do you suggest that we can at least reach a stage so that we will be able to reciprocate? How long will it take for us to reach that stage?

Dr. K. A. Hamied: About 20 to 30 years.

Shri Sham Lal Saraf: We are at the lowest ebb so far as development is concerned. Our advancement in science and technology cannot be

compared with the achievements of advanced countries.

Dr. K. A. Hamied: I agree that foreign countries are today very much advanced in technical know-how and ingenuity. They have been doing that work for years. But this has nothing to do with the patent law. I can write a thesis on that.

Shri Sham Lal Saraf: Unless there is collaboration we will not go ahead. About abrogation of this law, you might be knowing that in Italy when this law was abrogated for a number of years the goods manufatcured were defective and of low quality. Then the Italian Government was forced to introduce a law. Today the law is on the anvil of the Italian Parliament.

Dr. K. A. Hamied: In Italy the real reason is that certain gigantic institutions do not want smaller firms in Italy to manufacture certain chemical which those gigantic firms are manufacturing. The smaller manufacturers started manufacturing them because they do not care for the patent law. Now the gigantic American and Italian firms are forcing the Italian Government to pass a law. The law is not yet passed. But who are behind this move? They are big firms. Similarly, here also lawyers are flying from Switzerland and Germany to oppose this Bill.

Shri Sham Lal Saraf: Regarding your own firm, how many of your know-how are patented under this?

Dr. K. A. Hamied: About five or six.

Shri Sham Lal Saraf: You said that as far as foreigners who are working in collaboration or on their own are concerned, to the extent of manufacturing within the country, they may be allowed patent rights. Otherwise, they import and let others also be able to import.

Dr. K. A. Hamied: If they are holding a patent for a certain product in our country and are selling it without manufacturing—I can give you so many examples. Acromycin is one such.

Shri Sham Lal Saraf: That means importing a commodity should not come under this.

Dr. K. A. Hamied: It is so also under the existing law. Under the new Act it will be free. They can import.

Shri Sham Lal Saraf: For manufacturing a particular drug there are more than one process. A particular firm is employing just one process. With regard to the rest, it should not be allowed.

Shri K. A. Hamied: I quite agree.

Shri Sham Lal Saraf: With regard to inequality of prices ranging between what is being sold in our country and foreign countries, what would you suggest to regulate the prices?

Dr. K. A. Hamied: I do not think that by statutory regulations prices can come down.

Shri Sham Lal Saraf: With regard to raw materials for manufacturing drugs, you have said that they are to be imported. How long shall we continue to import these? Or, do you think that attempts have to be made to use our own raw materials?

Dr. K. A. Hamied: We are unnecessarily afraid of imports. Switzerland is a country to which God Almighty has given nothing—no steel, no coal, nor coaltar. Still it is the largest producer of chemicals and pharmaceuticals which have flooded the whole world. They have no raw-materials except cheese and butter and milk. How did they achieve this? Because they are allowed to import all types of things for manufacture. Government do not interfere. Their scientific knowledge and development is so high that they are now the experts. They are importing coaltar products from France, Belgium, etc. We are not allowing that. I am trying to tackle

this matter with the new Finance Minister. Please allow us to import all raw materials free of duty. Let us then see how much export we can do. If I import raw materials for Vitamin from Germany at 65 per cent duty, I cannot do anything after that. If the Finance Ministry take a very rational view on imports of raw materials, all these can be converted into finished products as Switzerland is doing. We shall also then flood the world with our things and our science and industry also will develop.

Shri Sham Lal Saraf: Would you please send a note to the Chairman on this question of import of raw materials indicating what type of raw materials will be helpful to us?

Dr. K. A. Hamied: We will.

Mr. Chairman: Thank you very much.

(The witness then withdrew)

(Dr. Abraham Patani was called in)

Mr. Chairman: Dr. Patani, Dr. Hamied has already taken three hours. Our friends are tired. Tomorrow we have got two foreign witnesses. We cannot postpone their evidence. Since you are coming from Bombay, we will give you some other time. Please excuse us. We want to give you full time.

Dr. Abraham Patani: Thank you, Sir.

(The Committee then adjourned)

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Wednesday, the 2nd February, 1966 at 14.00 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*

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3. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESS EXAMINED

Dr. J. M. Hunck, *Chief Editor, Handelsblatt, Duesseldorf, West Germany.*

Dr. J. M. Hunck, Chief Editor, Handelsblatt, Duesseldors, West Germany

(The witness was called in and he took his seat)

Mr. Chairman: Dr. Hunck, the evidence that you give will be treated as public and published and distributed to our members and also placed on the table of the Parliament. Even if you want anything to be treated as confidential, it will be printed and distributed to our members. We have received your memorandum and it has been circulated to all the members. If you want to supplement anything, you may now do so. After that, the members will ask questions.

Dr. J. M. Hunck: May I supplement my memorandum now?

Mr. Chairman: Have you got sufficient number of copies?

Dr. J. M. Hunck: Not now; I can hand it over to you tomorrow.

Mr. Chairman: We will require 65 copies.

Shri R. Ramanathan Chettiar: Before Dr. Hunck begins, we would like to know something more about Dr. Hunck.

Dr. J. M. Hunck: Handelsblatt is an economic and financial paper and I have been the Chief Editor since the starting of this paper; it was started in 1946. It is a new style of financial paper where international relations in the field of commerce play a very important part and this pattern has been followed all these years. To a considerable extent, it

has also promoted our foreign trade whether export or import.

Shri R. Ramanathan Chettiar: We would like to know whether any pharmaceutical industry or drug industry in Germany has got any interest in the economic journal.

Dr. J. M. Hunck: Yes. No financial interest, *i.e.*, capital.

Mr. Chairman: You are not connected with these industries. You are not connected with the Patent Law. You are not a practising agent or attorney for patents. Only as an *amicus curiae*?

Dr. J. M. Hunck: Yes. Some pharmaceutical industries in Germany came to know about my intention to come to India and asked me if I could try to do something for them.

Mr. Chairman: Have you got anything in writing to show that they have authorised you to come and give evidence?

Dr. J. M. Hunck: No. They asked me if and when I go to India I can do something for them.

Mr. Chairman: As one interested in the collaboration between India and Germany?

Dr. J. M. Hunck: Yes, that is my point.

Mr. Chairman: You may begin.

Dr. J. M. Hunck: Hon'ble Mr. Chairman and Hon'ble Members of the Joint Select Committee, at the outset, I would like to thank the Committee for having granted me the opportunity of appearing before you and offering my views on the Patent Bill 1965 and elucidating some of the matters mentioned already in my memorandum. India is by for the largest active democracy of the world and since independence has been a tower of justice and equality. The fact that the Committee has agreed to invite oral evidence from other countries of the world with regard to this legislation bears ample testimony. For this reason, many nations, including West Germany, have maintained friendly relations with India.

I would like to refer to the preface which Dr. Leubke, President of the Federal Republic of Germany wrote for my last book on India entitled *India Tomorrow* which generally states that real friendships always produce new friendships, and to the words of Dr. Leubke:

> "Just as the social duty of the individual to the community of our people has become a fundamental principle of our national life, so our people as a whole feel they have a social duty to the larger community of the peoples. The world will judge our people according to their willingness to aid other peoples. Indians and Germans have co-operated in various fields; scholars from both our countries have worked in close co-operation in the spheres of arts and literary studies. This collaboration is now spreading to the field of technology. May it promote the welfare of the Indian nation and contribute to a flourishing friendship between Germany and India?".

Similarly, the Federal Minister for Economic Cooperation, Mr. Walter Scheel, mentioned on the 13th of January this year, when he held a press conference in New Delhi, that the Federal Government would do its best to help India by capital aid. Besides, it would lay special stress on technical aid which includes education and training. Furthermore, the German Government will promote joint ventures between Indian and German firms in a more intensive manner. The Indian Investment Centre told me yesterday that till September, 1965, a

total of 372 approvals for joint ventures had been accorded. These joint ventures which provide foreign capital and technical aid as well, can, as a matter of fact, only flourish in a favourable investment climate and because your government will only allow new investments in those branches which are of the utmost importance to the health and economic developments of your people, such climate may be called the cornerstone of profitable co-operation for all parties concerned.

In my opinion, international partnerships are the stepping stones to future economic stability. They are the most dependable means of overcoming obstacles. With their aid, India is bound to gain in stature as an international partner in trade and industry. Due to its vast population and the vast untapped resources of mineral wealth, India is most suitable to become one of the most important economic partners in the world. If India were to achieve this, she must lose no time in developing the home market and supplementing it by an export trade with various other countries of the world.

To quote the words of Shri G. L. Mehta, Chairman of the ICICI and India Investment Centre:

> "There is nothing objectionable *per se* in obtaining assistance from other countries whether in the form of government aid or private investment obtained on fair terms and in a selective manner.".

Shri Ashoka Mehta, the non. Minister for Planning has rightly emphasised that self-reliance does not mean self-denial of the essential means of development, which is foreign aid, or even stagnation of the economy.

Mr. Chairman: You are only repeating what is already contained in your memorandum.

Dr. J. M. Hunck: There are two quotations which I have given.

Mr. Chairman: You have already said all this in your memorandum. If you want to supplement anything in addition, you may do so. It is not necessary to read the whole thing again.

Dr. J. M. Hunck: I am only giving these two quotations.

Your Committee is considering a new patent law which amongst other things gives special treatment to articles of food and medicine. Your esteemed Health Minister, Dr. Sushila Nayyar, who being also a medical doctor is extremely competent to deal with all questions concerning health, has tried as far back as 1963 to remodel patent protection for foods and medicines for the main reason that production may rise and that consumer prices might in consequence go down. The hon. Health Minister is making efforts to obtain cheap medicines for the people. But which is the best method to do so?

I have been an economist during all my life and did practical and theoretical work as a scholar, as a businessman, as a writer and as the editor of an economic paper of international reputation. In my opinion, prices will only become lower if the productivity increases and more goods are being offered in relation to a given demand. In the case of pharmaceuticals, this means, in the first place, that research and development goes on in the same intensive manner as has been done in all countries where new drugs have been produced and sold on a large scale. This research and development is very expensive. Proof of this fact is the statistical late about new drugs produced during the last fifteen years in various countries. U.S.A. figures with not less than 353 new drugs, little Switzerland with 44, West Germany with 32, United Kingdom with 27, and France with 21 and the remaining countries including

Italy and Russia produced fewer than five each.

India is trying to achieve self-sufficiency in food by 1971-72. This was even confirmed to me yesterday by your hon. Food Minister, Shri C. Subramaniam, whom I had the pleasure of meeting yesterday. This means increased crop production and cattle improvement, to say the least, according to Dr. P. V. Sukhatme, Director, Statistics Division of the F.A.O., who delivered the Dr. Rajendra Prasad Memorial Lecture in Cuttack on December 31st. Dr. Sukhatme stated that 25 per cent of the Indian people suffered from hunger and malnutrition; in the case of children it was even worse. This makes your endeavours to bring down prices for medicines and pharmaceutical products like vitamin tablets quite understandable. But one should not forget that out of about three thousand experiments in the laboratories only about one product becomes of practical use and will be a commercial success too. The question, therefore, arises, of course, whether the Government itself should be in charge of laboratory research work by means of public enterprises. Research and development of that kind includes pharmacology, toxicology and clinical trials in several hundred clinics in the country and abroad which usually takes four to six years. Very often, it happens that these trials prove to be unsuccessful or that after one or two years the disadvantageous effects of the product are observed. In the meantime, three to four million rupees might have been spent. Perhaps there might be very few directors in the public sector research undertakings who would courageously stop further trials after enormous amounts of money have already been spent and that will be lost. The private entrepreneur, however, it used to take these risks, and he must do it if solely for competitive reasons. He is possessed by the idea that that another time the lost money will be recovered by first class laboratory research. The mere risk element in research might in any case be claimed as justification for higher returns. Surely, in many cases, drug firm is like an economist; its income lies in its brain power, its principal asset. Yet no one has tried to express my own earnings as a rate of return on my capital (*e.g.* car, office, one typewriter).

In the drug industry, the existence of patents does not restrict competition. In fact, patents are essential to competitive endeavours. Drugs have a very inelastic demand. If a patient can in any way manage it, he will consume the drugs of his doctor's choice. Price competition is therefore very unlikely to be effective. Rather it is substitute competition which typifies the drug industry, namely, rapid obsolescence of products, one drug being quickly replaced by a better one. Each company strives to discover new products and to improve its old ones. In other words, the objective must be determined from the point of view of whether it helps to promote (a) research for developing and discovering new drugs and processes by granting rewards for creativity and for the risks which have been undertaken in such research, (b) the cross fertilisation of ideas by encouraging publication of inventions rather than their suppression as a trade secret, (c) by creating a classified source of information concerning existing technology so as to aid in the conduct of research and prevent duplication of efforts, (d) by such cross fertilisation of know-how to improve and develop own know-how and thereby to become a major partner in international economy.

Less developed countries very often complain that young scientists prefer to stay abroad where they might earn more than at home. This situation is not unique to India. I can tell you that in 1962, not less than 356 and in 1963, in total 428 German scientists and technicians emigrated to the

United States. It is estimated that between 2 and 3 thousand German scientists and engineers are working in the U.S. The German Government is trying hard to get them back. So Scientific institutions are being erected on a broader scale. Their salaries will be enhanced. All over the world, skilled people are moving to the more developed countries. We have a lot of young scientists from African countries, from the Near East and also some from India who do excellent work. The British figures since the Immigration Act, analysed by the Ministry of Labour, show that from June, 1963 to June, 1964, some 32,000 employment vouchers were issued to commonwealth immigrants and over 90 per cent of these went to India and Pakistan. Development, as a matter of fact, is not simply a matter of producing skills; it is a matter of producing opportunities to use these skills. This includes laboratories, good salaries and similar incentives. First class laboratories or joint ventures or even foreign firms in India might offer a chance for young Indian scientists to be trained within the country and under conditions which he will meet when doing work within his own enterprise or with an Indian firm later on. This can only be achieved if there is a reasonable opportunity to recoup the capital invested and a reward for the risks undertaken in the shape of patent protection.

Your country, where 80 per cent of the national income comes from the private sector, has spent in 1961-62 on scientific research an insignificant amount of Rs. 46.9 crores which is Rs. 1.07 *per capita* and 0.32 per cent of the national income, while the total investment up to the end of the Third Plan is estimated at the huge sum of Rs. 30,000 crores, most of the investments being based on imported technical know-how. The Federal Republic of Germany with a population only 1/8th of the Indian population has spent in 1962 a total sum of Rs. 517 crores. Nevertheless, the so-called technical balance of payments (which compares the imports with exports of royalties) is highly unfavourable as far as the Federal Republic is concerned. In 1962, 50 million dollars were earned by German royalties whereas German firms paid not less than 135 million dollars for royalties abroad. This results in a negative balance of payments of 85 million dollars. Another statistical data might interest you. 75 per cent of private research and development in western countries is in the fields of aviation, construction of electrical machinery and appliances and the last, but not the least, chemical industry including pharmaceuticals.

It was the German chemical industry which invested most abroad during the last few years. In many Latin American Republics, the big dye-stuff companies and Schering have established factories to produce besides the dye-stuffs, artificial fibres, fungicides, pasticides, pharmaceutical products etc. FARBWERKE HOECHST to give you one example, have invested abroad a total sum of more than Rs. 30 crores of which 44 per cent was invested in less developed countries.

More than half of German private investments abroad were made by 24 big firms out of which 9 hold a leading position. This means that private investment is generally being made by relatively a few big enterprises. This is quite understandable because it must be remembered that especially the chemical and pharmaceutical firms need a lot of money to invest to the advantage of the country where they are carrying on their work.

Now let us look at some leading pharmaceutical firms and their business in India. First there is HOECHST which participates in a joint venture with a majority Indian capital participation. HOECHST also plans to establish in collaboration with Indian partners a research laboratory near Bombay where Indian scientist will be usefully engaged. A few young Indian scientists are at the present moment being trained in Germany and they will, on return to India, occupy leading positions in this re-

search unit. CIBA, by the way, has built a huge research centre in Bombay where Indian scientists are busy. Next comes Bayer with a joint venture and a German part of 50 per cent. Bayer India has almost completed a factory near Bombay at a cost of Rs. 6 crores which will commence production in the beginning of autumn this year. Bayer will develop in this new factory three products which are vital or India's development. First coutchouc (rubber) auxfliaries, second pesticides, insecticides and fungicides, third pharmaceutical products against tropical diseases, besides resochine which fights malaria. In all these cases, it must be found out whether the Indian climate needs a different composition of the product, necessary to make it possible to store these products for a certain period without danger of deterioration. In other words, every foreign enterprise which does work within India must start a certain scientific work to find out whether Indian conditions are appropriate to either store their products or make the best use of it. Furthermore, these firms are experiencing with indigenous plants and active ingredients. Foreign knowledge is being matched, to the advantage of all parties concerned, with Indian knowledge. And everything should be done to protect such a development in the way of a fair patent law.

Boehringer Knoll works with a German partnership of 48 per cent., Sarabhai-Morck with 33 per cent, and German Remedies with 49 per cent. On account of the uncertainties of the Patents Bill, many German firms will hesitate to invest more in Indian laboratories. This, of course, would change at once if and when a patents law will be modled on a basis which is not confiscatory in character and on the basis of international terms to protect private property, whether material or intellectual.

In view of the most unfavourable foreign trade balance, India is highly interested in more exports. If the Patents Bill becomes law in the present form, exports will hardly be possible because expenses and risks are relatively high and could not be covered by the extremely small margin of profits which have been mentioned so often. Foreign partners are quite prepared to agree to exports being undertaken under conditions of a fair Patents Bill. They will do so the more since prices calculated in Western Germany, for instance (which may be considered to be a hard currency area) will naturally be higher than in countries with soft currencies. This export business will, therefore, be an asset which could hardly be over-estimated in joint ventures producing pharmaceuticals.

Foreign investments in Germany might give you another illuminating example of what concentrated international co-operation means. Between September 1961 and June 1965, the amount was Rs. 777 crores, half of which came from neighbouring countries and the rest from the U.S.A. As far as German investments abroad are concerned, they come in the private sector up to 1964 to only Rs. 8.64 crores. West Germany is, therefore, in consequence of the enormous losses due to the last war, walking to a certain degree on foreign crutches. International partnership was an efficient help in the recovery of the West German industry. Capital has been made freely transferable by the then Minister of Economics, Prof. Erhard. West Germany was able to gain its feet and surge ahead. Now it is, as you might know, the second largest trading partner in the world. The principle of its system is not only to assist the economically week but to give full cope to initiative and free enterprise.

I shall now give you another example which refers to an Asian country, Japan, after the second world war, has made rapid progress in technology and industry and accomplished considerable technical innovation. As the Japan Patent Association has explained in its memorandum which was handed over to the esteemed Select Committee, this is all due in an important degree to the introduction of foreign patents, foreign know-

how and foreign capital into Japan under the protection of Japanese Patents Laws which are in lines similar to the laws in other industrialised countries of the Western orbit. The technical balance of trade including patent royalties and payment for know-how amounted in 1964 to foreign expenditure of 146.4 million dollars while Japan received in the same year for patent royalties and know-how from abroad only seven million dollars. This again means, as in the German case, a negative balance of a sum total of 139.4 million dollars. Our Japanese friends reiterate this fact by saying that it is in this way that they have made technical progress in industries and have gained much larger sums in foreign currency by the exportation of the products thus made in Japan. It is exactly such a point of view which should be included in the basic objectives of your Patents Law and play a very important role. It is mentioned furthermore in the Japanese memorandum and I quote: "It is nations such as Japan and West Germany which held a complete Patents System and that have made progress in industry since the Second World War". And I may add in a phenomenal way.

If you consider the Indian Patents Bill under these aspects, one might say that it has restricted essential and substantial rights. The consequence mentioned in the Japanese memorandum is formulated as follows:

> "If any form of property were to be used or acquired by government without payment of reasonable compensation and without due process of law, such use or acquisition would offend the fundamental rights which we have always jealously safeguarded in a democratic country and India is considered as a model case of democracy."

The effect of this Bill, if enacted, is tentamount to taking of property under power of Government without due process of law, without provision for an appeal to a judicial tribunal and without just compensation. To give some data about the recent economic development of Japan, exports have risen in 1965 by 26 per cent after 23 per cent in 1964. The balance of payment came out with additional rupees 96 crores. The German balance of payment by the way in comparison in 1965 ended, for the first time since 14 years due to enormous imports caused by high prices, with a deficit which can be appriased at about rupees 780 crores. And may I add to finish up the Japanese case that the special adviser to the Minister of Foreign Affairs, Mr. Ohkita, mentioned some days ago in New Delhi that though the economic planning agency of the government had produced several plans since the end of World War II, the Japanese economy was predominantly a private enterprise and the per capita income in 1964 stood at 2900 rupees, by far the highest in Asia.

Reference is often being made to Italy and its patent laws. Everybody knows that the Patent Laws in existence have been reformed under the domination of Mussolini in 1939. There is practically no patent protection for pharmaceuticals in Italy, with the consequence that small and obscure firms are flooding the market, but nevertheless, international products are being preferred. HOECHTS, for instance, is in the market with 76 per cent of diabetes tablets consumed whereas 37 Italian firms deliver only 24 per cent. The same is the case with products of other firms who are research oriented. The chemical industry of Italy, as you might know, however, enjoys patent production and has developed a high international standard, if you take f.i. Montecatini and Edison.

Now the Italian pharmaceutical industry wants international exchange of technical progress and the Italian government has drafted a bill according to which patent protection shall be granted for processes to manufacture drugs and medicines. The draft

bill is before the Judicial committee of the Italian Senate.

On the other hand, the European Economic Community has prepared a European patents law which is in conformity with an agreement of the European council to harmonise the sale of all kinds of drugs. This of course will influence action in Italy as well as in Great Britain. May I add that the Council of Europe embraces European countries belonging to the European economic community as well as to the European free trade area and consequently all the States of western part of Europe. A convention on the unification of 13 points of substantive law on patents for inventions has been concluded in November, 1963. According to this convention of the Council of Europe protection will be granted to the substance itself produced by chemical processes in so far as the substance does not relate to food stuff, luxury articles, provisions including sweets, tea, coffee, beverages and tobacco products. Italy, as a member of the Council of Europe, is obliged after a limited period to grant patent protection for such substances produced by chemical processes. As you might perhaps know, the Soviet Union has already adhered to the international convention for the protection of industrial property known as the Paris convention. Further, in the middle of 1965, the Soviet Union has introduced a trade mark law. At a conference held at Munich recently between the representatives of Eastern and Western Europe including the Soviet Union, the above-mentioned information was again disclosed. This indicates reinforced preparedness for international exchange between east and west European countries including the Soviet Union of technical information and the use of patents upon payment of reasonable terms. Since the adherence of Soviet Union to the Paris convention, not a single case has been known according to which the Soviet Union has violated the patent rights. As far as the new Indian patent law is concerned, judicial appeal seems comparatively to be absolutely necessary.

Regarding the term of validity of a patent the exceptional case of ten years only for drugs and foods seems to be discriminatory. It is a basic experience that discrimination tends to breed new discrimination. It is suggested that the term should be ten years at least as of the date of sealing of the patent instead of the date of filing the complete specification.

Sections 5 and 47 provide that for food, medicine or drug patent protection shall be only for processes and to the products produced by such processes. But no provision is made concerning the burden of proof. This should lie in any case with the infringer. And if a licence is granted under a patent or another person is authorised to work the invention for reasons of vital importance, the licencee should start immediately to produce and not be allowed to import only. In any case the licencee should pay reasonable royalty. If a country changes its patent law it is to my mind a bad thing in so far as it offends the international code of fair behaviour and science and development in the whole world in a detrimental way. India, however, has a special place; it is a guiding lighthouse to many countries, especially those which are less developed. For this reason, pharmaceutical firms all over the world are so much interested in the way the Indian government proceeds with the patents Bill. There is always a way to find a solution which gives comfort to both parties.

If for instance prices seem to be extremely high, why not follow the French example: after a period of three years from the date of commercial exploitation, the patentee has to appear before an official committee which controls the whole cost structure and then has to come to terms regarding a fair and decent price. This of course can only be done on

condition that the representative of the government is not just interested to take over but to have the firm calculate a fair price. Needless to say that, for instance, big institutions like Securo Social in Latin America get a substantial discount. The Indian government has always been flexible if necessity arises. I might refer to the substantial tax reductions which will be granted for the erection of the new fertiliser factories.

The late Mr. Lal Bahadur Shastri wanted a purely pragmatic approach to problems. The Shastri legacy in the economic and scientific field is determined pursuit towards self-reliance in a most pragmatic manner which gives the best advantage possible to the Indian people without hurting the foreign investor sincerely. Solid business with a social touch is what you need in the new patent law. This is in conformity with the words of our President Lubuke which I quoted at the beginning of the memorandum. It reminds me of what the foreign minister of Kenya, Josef Murumbi, told me once: "As far as international co-operation is concerned, we do not want charity because charity only comes once. Therefore, we want solid and fair business which helps both the parties."

Thank you once again for having given me an opportunity to place my views before you and, Jai Hind.

Shrimati Sharda Mukerjee: Mr. Hunck, your memorandum which was circulated to us and also your explanation have been of considerable help to us. We would like to ask one or two questions. Would you like to tell us, in regard to the modern research which is being conducted in Germany in relation to drugs, how much of international co-operation you have in modern drug research, for instance? I mean the collaboration between your country and another foreign country, for instance, or foreign countries.

Dr. J. M. Hunck: I can only answer in general terms. I gave you the instance that we have much more royalties from abroad. I should appraise it at about 30 to 40 per cent, and a few of the drugs we are producing in Germany are being produced on the basis of royalties and patents from abroad.

Shrimati Sharda Mukerjee: I am afraid I did not put my question so directly; what I mean to ask is, in the research laboratories themselves, is there any work being conducted in collaboration between Germany and foreign countries.

Dr. J. M. Hunck: No, probably not.

Shrimati Sharda Mukerjee: When you say that international cooperation between India and Germany would be affected by this measure, do I take it that you only refer to the investment aspect or you refer also to the research aspect?

Dr. J. M. Hunck: I should think both, because research also means investment: sending experts to India and invest an amount of money and use technological work and find out the methods which may suit the climatic conditions of India, and find out indigenous plants and all those things. That means investment, of course.

Shrimati Sharda Mukerjee: As you are aware, this Bill is an amending Bill, coming after many years since the existing Act was brought into effect and which is now in force; the present Act is almost 50 years old. I think it has been the experience in this country that there has been very little collaboration in research in regard to drugs and other things. We feel that while European countries are anxious to invest capital here, they are not equally anxious to part with their knowledge.

Dr. J. M. Hunck: They have started the collaboration on a laboratory scale. The first step was, as you

might remember, the Indo-German co-operation with firms in Asia. This started only in 1957-58, that is to say, only six to eight years back, and within these eight years, the first step was to export to India; the second step was to establish its own ventures; for many years, the first difficulty was one of exchange; there was not enough foreign exchange to transfer our profits back to Germany, and for this very reason the German firms told me in the last few years that they even prefer to invest this money in India; probably Hoescht does it and Bayer does it, and similar other firms will do so. Since they were told that this co-operation is of advantage to both parties, they might call new items of research which can be transferred to Germany; it is in fact, not foreign exchange, but it is only intellectual money which can be exchanged with Germany and can be used in Germany for any other country where the climate and other conditions may be similar. The Germans have picked up this idea of erecting more laboratories in your country, especially—India—which has a huge market. I can give you more items.

Shrimati Sharda Mukerjee: As you have rightly said, India has a huge market, but India wishes to develop markets outside India, and it is to safeguard that that this Bill has been presented to Parliament.

Dr. J. M. Hunck: I think I have mentioned in my little memorandum that exporting is another thing; there might be other conditions and countries where exports are possible, especially your neighbouring markets in Asia, and these joint ventures are quite willing to do so. I see that there is quite a lot of such joint ventures of two or three firms here in Delhi, who do export business. Why should it not be done in pharmaceutical interests, which are specially prepared for this part of the world and this part of Asia?

Shri Bibudhendra Mishra: Would you please tell us the exact provision in the Bill to which you object?

Dr. J. M. Hunck: I mentioned in my speech that I consider patents as a method to restrict production or a certain amount of development for a given period to one firm. That is one objection.

Shri Bibudhendra Mishra: I hope you are acquainted with the provisions of your German patent law.

Dr. J. M. Hunck: I have generally presented my ideas. To a certain degree, I am aware of those laws. Basically, I am.

Shri Bibudhendra Mishra: In Germany also, articles of food and medicines—the products are not patentable, but only the process is patentable.

Dr. J. M. Hunck: Patents apply to both.

Shri Bibudhendra Mishra: I find from the United Nations publication that both in Germany and Japan, only the processes are patented, and if the patent is not worked inside the country, they can be revoked.

Dr. J. M. Hunck: But you have to pay compensation and you can apply to the court about it. It is quite natural.

Shri Bibudhendra Mishra: But there is a provision that if it is not worked inside the country, it can be revoked. Also, in the public interest, there is a provision that there can be compulsory licence.

Dr. J. M. Hunck: Yes; it must be, if it is a question of emergency.

Mr. Chairman: That is what this law is doing. What is your objection; those provisions are being sought to be enacted here; so, what is your objection?

Dr. J. M. Hunck: The objection is, it is not clearly explained which are those public undertakings and cases; secondly, by licensing, it does not enable us to go to court against it.

In Germany, there is a special court in Munich which deals with patents and with violations of patents.

Shri Bibudhendra Mishra: This book, published by the United Nations, *The Role of Patents in the transfer of technology to developing countries,* also refers to Germany, and the reply given by the Government of Germany says: "Free use of invention by order of Government in the interests of the public".

Dr. J. M. Hunck: Only with compensation.

Shri R. Ramanathan Chettiar: The compensation may be illusory.

Dr. J. M. Hunck: It must be a fair compensation.

Shri S. N. Mishra: What countervailing actions have you adopted in your country to contain the evil effects of monopoly arising out of patents?

Dr. J. M. Hunck: We do not consider that as an evil effect of monopoly. I have told you about the prices and about obsolescence.

Shri S. N. Mishra: If the prices do not happen to be at the international level, what action do you take?

Dr. J. M. Hunck: We do not take any action. We leave it to the free competition between the producers. Whether the price is high or not, the physician who recommends a drug and the patient who takes it prefer a drug prepared by a first class firm in which they have got confidence.

Shri S. N. Mishra: What is the amount of foreign investment that has taken place in drugs in Germany?

Dr. J. M. Hunck: I cannot give the answer at the moment.

Shri S. N. Mishra: You mentioned the figure of 777 crores so far as foreign investment is concerned. Probably that comprises both on government account and private account?

Dr. J. M. Hunck: Only private account.

Shri S. N. Mishra: Since you are dealing in the field of drugs, was it not reasonable for us to expect you to give some figure about foreign investment in the field of drugs?

Dr. J. M. Hunck: I can give it to you later; not at the moment.

Shri S. N. Mishra: What is the ratio of foreign patents to the indigenous inventions in Germany?

Shri Peter Alvares: In the subject-title of your memorandum you have said "Development of Indian Pharmaceutical Industry to serve the public—Memorandum pleading for competitive prices by fair competition". I do not know if you are aware that the prices of foreign patented pharmaceutical products in India are two to three times the cost in European countries. The other factor is most foreign pharmaceutical companies have secured a monopoly by patenting all processes in this country and thereby preventing the broad-based growth of the pharmaceutical industry. In view of this, how do you justify your own thesis that if the field is kept open for foreign enterprise and participation, the present system as it is will serve the Indian public? The prices are manipulated and the industry is not allowed to grow because of monopolistic tendencies.

Dr. J. M. Hunck: Of course, prices of many other things are also higher in India. An Italian Fiat car costs double the price here as in Italy. You might know the reasons why it is so. Of course, there might be other reasons—the price structure, cost of production, market situation, etc.

Shri Peter Alvares: That is not very correct, because these patents are not worked in India. They are

imported. If they were worked in India, I can understand the argument that cost of production in India is higher.

Dr. J. M. Hunck: I have seen statistics where prices of drugs in India are not high.

Shri P. S. Naskar: It is an acknowledged fact that the price of a particular brand of patented medicine in India is higher than the so-called international price prevailing in other countries. To pinpoint his question, can you tell me in the last 15 years how many patents have been taken by the German firms in India and how many of such patents are worked in India?

Dr. J. M. Hunck: Unfortunately I have no figures about it. I will try to get it.

Shri Peter Alvares: In the last para of page 3 you say,

> "The new Bill will not encourage in particular the foreign patent holders to work the patents in India."

This is what the Bill wants to do, *i.e.*, to try to compel foreign patent holders to work them in India. At present there is no such compulsion. That is why we have the situation where all patents are registered here, but the products for sale are imported from outside. The present Bill will try to do away with that. I do not understand how you say the Bill will not encourage the physical working of patents in India.

Dr. J. M. Hunck: As far as I know, the German firms do not see that there is enough security or the risks may be too high to start laboratories here.

Shri Peter Alvares: At the moment there is no compulsion to start a laboratory to work any patent in India. This Bill will try to do something like that in a half-hearted manner. But you do not want that provision and you want the existing provision to continue, whereby it will not be required that a patent is compulsorily worked in this country. So, this statement is not correct from the point of view of what the Bill seeks to do.

Dr. J. M. Hunck: I see it in a different way. At present there is no opportunity for a foreign patent holder to work on it in this country.

Mr. Chairman: Why is there no opportunity? If he takes a patent here and does not work it here, what is the government to do?

Dr. J. M. Hunck: Government can stipulate that he has to work it here. As I have said in my memorandum, you can always find a way which satisfies both parties.

Mr. Chairman: The very object of having patents is in the interests of the country.

Dr. J. M. Hunck: Yes.

Mr. Chairman: Supposing a patentee does not work that process and produce the product in India?

Dr. J. M. Hunck: After some years he should produce it here.

Mr. Chairman: That is what the Bill tries to do.

Dr. J. M. Hunck: But you must give decent conditions and fair prices on which he can work.

Shri Peter Alvares: India has a low cost structure and America has a higher cost structure. The prices here are four times the prices in America and in real terms the price of a particular medicine will be ten times more in India than what it is in America.

Dr. J. M. Hunck: There is no competition from other international firms.

agree that the standard of the two drugs are the same?

Dr. K. M. Parikh: Absolutely same. You can send to any chemical or clinical laboratory for test. It will come to same standards. Basic material is purchased from the same source.

Mr. Chairman: You said that nothing new has developed in this country. Some witnesses have said that the foreign collaborators have helped us with these modern medicines and patented drugs and if these restrictions were to be placed that much of know-how may not be forthcoming to the Indian manufacturers.

Dr. K. M. Parikh: They are helped in the sense that we pay exorbitant price, much higher price than the price prevailing in their own home country.

Mr. Chairman: It is our mistake.

Dr. K. M. Parikh: Our law and our regulations are such that they get all this benefit.

Mr. Chairman: If we do not pay, they won't make such profits. This is a matter for negotiation.

Dr. K. M. Parikh: That is because they are the monopolist under our existing patent law. When the Doctor writes a particular preparation, the patent goes to the chemist and gets it without enquiring the price.

Mr. Chairman: Do you agree by and large with the provisions of the Bill that is now being proposed?

Dr. K. M. Parikh: I fully agree with it except a few modifications about the term of patents.

Shri R. Ramanathan Chettiar: The pharmaceutical industry has been in existence for over 20 years now. Have you made any attempt to have a Research Institute just like the Textile Research Institute in a collective way?

Dr. K. M. Parikh: I feel that in this industry there is no chance for collective research.

Shri R. Ramanathan Chettiar: I want to ask you whether you have explored the possibilities of putting a small percentage towards development of research, which would go to make a fund and you may create a Research Institute for the benefit of the whole industry, not only to individual users.

Dr. K. M. Parikh: If a new substance is found out in a collective laboratory, who will be the owner of it to exploit it commercially?

Shri R. Ramanathan Chettiar: In 1962-63, according to a survey conducted by the Reserve Bank of India, out of 14 crores invested by foreign interests in this country, they have taken away Rs. 7 crores—Rs. 2 crores as dividend remittances and Rs. 5 crores as royalties. The facts are there. If you want to crub the growth of indigenous industry and also want to crub the growth of foreign interests, this is one of the methods. Why don't you explore the possibility?

Dr. K. M. Parikh: We will do that.

Shri D. P. Karmarkar: You have stated that the term of patent should be seven years instead of 10 years from the date of patent with regards to Food, Medicines, etc. You feel that seven years is enough a period for recouping the expenses and particularly that is so in these days of fast development. In the case of existing patents, in the proposed Bill provision is there giving retrospective effect as soon as the Act comes into force. In the case of new patents, so far as medicines and pharmaceuticals are concerned, if the person is in a position to develop a patent for which he is given a licence and to manufacture it, why should you worry about this period of 7 years?

Dr. K. M. Parikh: I am suggesting this period of 7 years even in the case of existing patents in order to stop the high prices and exploitation of a particular firm.

Shri D. P. Karmarkar: If the price is otherwise regulated?

Dr. K. M. Parikh: Then ten year period is all right.

Mr. Chairman: There is another point. Certain patents have already been taken; they have got the right now. By taking recourse to this, if you revoke that, people will go to the Supreme Court.

Dr. K. M. Parikh: I feel that the Government has all the rights to change the number of years in the national interest. The existing people have had all the benefit for all these years now.

Mr. Chairman: Thank you, Mr. Parikh:

(The witness then withdrew)

(The Committee then adjourned).

Tuesday, the 1st February, 1966 at 14.00 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
5. Shri Panna Lal Barupal.
6. Shri P. C. Borooah.
7. Sardar Daljit Singh.
8. Shri Basanta Kumar Das.
9. Shri V. B. Gandhi.
10. Shri H. K. V. Gowdh.
11. Shri Kashi Ram Gupta.
12. Shri Madhavrao Laxmanrao Jadhav.
13. Shri Mathew Maniyangadan.
14. Shri Braj Behari Mehrotra.

14A. Shri Bibudhendra Mishra.

15. Shrimati Sharda Mukerjee.
16. Shri Chhotubhai M. Patel.
17. Shri Naval Prabhakar.
18. Shri R. Ramanathan Chettiar.
19. Shri Sham Lal Saraf.
20. Shri A. T. Sarma.
21. Dr. L. M. Singhvi.
22. Shri K. K. Warior.
23. Shri Balkrishna Wasnik.
24. Shri Ram Sewak Yadav.

Rajya Sabha

25. Shri Arjun Arora.
26. Shri Vimalkumar M. Chordia.
27. Shri D. P. Karmarkar.
28. Shri B. T. Kulkarni.
29. Shri P. K. Kumaran.
30. Shri Shyamnandan Mishra.

31. Shri Dahyabhai V. Patel.
32. Shri Mulka Govinda Reddy.
33. Shri M. R. Shervani.
34. Dr. M. M. S. Siddhu.
35. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*
3. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESS EXAMINED

The Chemical, Industrial and Pharmaceutical Laboratories Ltd., Bombay

Dr. K. A. Hamied.

The Chemical Industrial and Pharmaceutical Laboratories Ltd. Bombay

Spokesman:

Dr. K. A. Hamied.

(*The witness was called in and he took his seat*)

Mr. Chairman: Dr. K. A. Hamied, whatever evidence you give before this Committee will be printed and published. It will be laid on the Table of the House and distributed to members. Even if you want any particular portion of your evidence to be treated as confidential, it is liable to be given to our members.

We have received your memorandum and it has been circulated to all the members. If you want to add anything you may do so now.

Dr. K. A. Hamied: Sir, I am appearing here in my individual capacity.

Mr. Chairman: You are not representing Cipla?

Dr. K. A. Hamied: I am the Chairman of Cipla. I may say a few words about myself because that will reflect upon my evidence. Although it may be against me, I may say that I am holding so many patents, but I believe that the interests of my country are before everything else. I have been associated with Mahatma Gandhi. I have lived with Gandhi in Sabarmati. I am hundred per cent a member of the Congress Party. I was a member of the Bombay Legislative Council for 25 years. I am now Chairman of the Pharmaceutical Drug Research Committee of the Government of India. I have been a member of the Indian Chemical Association and its President continuously for four years. My connection with the pharmaceutical and chemical industry is for the last 35 years and have done something—I am not bragging—for the uplift of the chemical and pharmaceutical industry of my country to its present level, to what it is today, in the last 35 years. Therefore, what I say before you today should be judged from that point of view.

Coming to the patent law, the first patent was granted in England in 1449 for some glass manufactured by some English inventor. There was

no legislation for patents in England at that time. The first legislation came in 1624 or something like that. Then the patent was granted only as a protection for the process of manufacture of certain items. What happened was, after some time Germany and other countries manufactured the same substance and exported it to England at a cheaper rate. Therefore, the U.K. Government brought in an order that nobody can import or sell a product by the process which has been patented in England. Therefore, this process of product and patent started in England first. Afterwards the need arose when Germany, France, America and other countries which were scientifically developed tried to protect each other against the inventions of one country to be exploited by the other countries. They met and thought about it first at the International Patent Club where it was agreed that the patents of Germany should be protected in England, England should protect the inventions of France and so on. So it became a reciprocal law in which no country had the advantage over the other country—Germany took hundred patents in England, England had hundred patents in Germany, France protected American inventions, America protected the inventions by France and so on. In this way the whole thing started.

In India, the patent system was started in 1911 during the British rule. We have no patents to protect. In the Ayyangar Report there is a mention that 1300 patents of foreign companies exist today in drugs and pharmaceuticals, but the report has not mentioned a word about patents of India in America, Germany or elsewhere. Therefore, so far as India is concerned this patent law is a one-sided traffic, it is only exploitation of our country by these patents held by foreigners. We have no patent anywhere, the reason being that we are not so scientifically advanced, we are not so scientifically developed that we can make inventions and discoveries and take patents in the highly developed countries. I hope a day will come when we shall take patents.

An example of this was Japan. Japan had no patent law till 1945. It is surprising that the Japanese delegation which came here yesterday or the day before and saw the Finance Minister and others was opposing this Bill. Japan is the first country which developed on account of the absence of patent law. In Japan they copied everything. They became so big at the time of the Second World War that they played hell with America and England. Their submarines, cruisers, guns where exactly like others. Japan brought in the patent law for two reasons. One is, Japan was at that time—in 1945—under the control of America and it was American pressure that made Japan to bring in the patent law. Secondly, Japan's own inventions became so great—transistors, cameras, television apparatus and others—that Japan was herself interested in protecting her inventions in other countries. Therefore, Japan brought the patent law in Japan.

Today the position is that the foreign companies or scientists who take patents in our country are not even utilising those patents. I have submitted here a list of firms. There are about 2000 patents held in India by foreign companies and foreign persons. How many are they exploiting? They are just holding the patents. They are not utilising them. I have made an estimate that not more than 10 or 15 at the most—I have not got the exact figure—are exploited in India. The rest are not exploited in India. They are simply holding it. I will give you an example. A substance was being sold in India by a firm at the rate of Rs. 8 for 20 tablets. They are holding a patent for that substance but they are not manufacturing it. They are importing it. I also imported that substance. My cost of 40 tablets came to Rs. 2. The moment I put them in the market they filed a suit

against me in the High Court saying that I cannot sell them because they were holding the patent for import, sale and distribution. I lost the case I can understand it if they are manufacturing it. But they are not manufacturing it. They are importing it; but I cannot import because they are holding the patent law should say that if a patent-holder is not making the product for which he holds a patent but imports it and sells it in India, then anyobdy can import and sell it. The moment he starts manufacturing, I cannot manufacture it, but if he is importing, I can also import it. There is no reason why a person should be granted a patent if he is not manufacturing it.

Some people may say that Italy has no patent law. I will read a quotation from "Manufacturing Chemist" London, Vol. XXX No. 10 (page 406) of October 1959:

"Paradoxically, Italy has the distinction of being the only major manufacturing country in Europe that doe snot grant patents for medicines or processes, and yet has a flourishing pharmaceutical industry. This absence of patents has enabled Italian manufacturers to make many valuable drugs discovered elsewhere. The costs of research have thus been evaded, and this has played no small part in the growth of the post-war Italian pharmaceutical output. At the same time, an Italian manufacturer enjoys the patent protection of other countries for his own inventions. This one-sided scheme has aroused considerable resentment, but, as it is due to the economic environment, it is unlikely to change until new factors come into play. When the Italian pharmaceutical manufacturers become more interested in originating their own products, the question of protection in the home market will acquire more than academic interest, and some reciprocal patent arrangements may become an economic necessity."

So, here also they are speaking of reciprocal arrangement. Today Italian inventors and discoverers are at a low ebb that they cannot compete with America in discoveries and inventions. So, they do not allow their inventions to be patented so that their industries flourish. Here arguments are being advanced that the Indian pharmaceutical and chemical industry will go down if the revised patent Bill is passed and the foreign manufacturers will go out of India. Nothing of that sort will happen. I can assure you that even if the Patent Bill is passed as it is, they will never go out of India. We are paying them 4 per cent royalty. So, if our sales go up to Rs. 20 lakhs they will get Rs. 80,000 from the patented firms. So, they will not be at a loss and they will certainly not go out of India.

I will now come to another point which is at the back of this agitation. Today the foreign manufacturers like Sandoz, CIBA, Roche and ICI are protected by these patents. If the patent law is abolished, these firms will have to compete between themselves.

Mr. Chairman: It will be for the good of the country.

Dr. K. A. Hamied: Yes, sure. If the patent law is abolished, it may well happen that one European firm is holding a patent for a product in England. Another European firm may also be holding patent in England but not in India.

Shri R. Ramanathan Chettiar: It does not affect our interests.

Dr. K. A. Hamied: Yes, it will be beneficial for our country.

It is also said that patents encourage development and research. It is just the reverse. The chemical industry is so well advanced in Europe and other countries that for manufacturing one product they have got about 10 methods. What happens is that the foreign manufacturers patent

not only one process but all the ten processes. They do not leave anything to us. They have covered all the processes conceivable in the chemical industry because they are so advanced. So, our scientists or laboratories are not able to adopt any new process. Therefore, I would suggest that if a patent is granted, it should be only for one process which the patentee is using; it should not be for 20 processes. If he is using one process, let him patent only that process. If he wants a patent for the second process, the patent for the first process goes away. This will give an opportunity to Indian scientists and research workers to make use of some processes at least. Today we have not got that opportunity.

I will give an example. There is a machine manufactured in Bombay by a Sindhi called Magamal, a tablet-making machine, exactly identical to the one made by certain foreign manufacturers. When I told him that it is a patented machine, he said that he has changed some screws here and there and so it is entirely a new machine. I told him "all right, you go on with that". Because, if we go on doing that, we shall be able very soon to compete with the foreign manufacturers, as this machine will cost only Rs. 12,000 as against Rs. 20,000 for an imported machine. I was only saying this is how the absence of a patent law will help us.

Shri D. P. Karmarkar: If the patent law is left as it is, will it not mean infringing the patent law?

Dr. K. A. Hamied: He is infringing the patent law. I asked him to go ahead because I do not care for the patent law. Let him file a suit, if he thinks the patent law is infringed.

I think for the development of our country for the next twenty years there should be no patent law. In my opinion, the patent law should be completely abrogated. But, on account of international complications we may not be able to do that. The proposed Patent Bill is better than the existing Act of 1911. It is a compromise, not hundred per cent what I personally wanted for the sake of my country. The country cannot develop with the present patent law. We are completely under the hold of these patent-holders and we cannot manufacture or discover because they have covered all the processes.

When the patent-holder takes a patent in India, he is not allowed by his parent office in Switzerland or France or any other country to export that product which he makes in India under that patent. He is only exploiting the Indian market. I want it to be made a condition that if you want to patent for a particular product, give us an undertaking that you will export that product.

I had a big talk on this subject with our late Prime Minister, Shri Shastri, who was at that time the Minister of Industry. He told me that all these firms about whom I was speaking were Indian firms registered in India. I said that the criterion I would fix for saying whether it is an Indian firm or not is that if the firm exports the products manufactured in India I will consider it as an Indian firm but if the products manufactured in India are mainly for the exploitation of the Indian market and the firms are prohibited from exporting it, it is not an Indian firm. Shri Shastri immediately took a paper and wrote it down. He said, "It is a strong point that you are telling me".

For example, there are certain firms which are making sulphadiazene in India. I got an order for one tonne of sulphadiazene from Singapore. When I contacted those firms, they asked me what for I wanted it and when I said that I wanted it for export, they said that export was not allowed. They are utilising the patent with a foreign collaboration only in India. I do not call such a firm as an Indian firm. This is one point

which should be kept in mind by Hon. Members here. If I am manufacturing something, and my products are being exported, I am proud of it. Which Indian firm can be called a truly, patriotic Indian firm which does not export or is prohibited from exporting its product?

Then, the very fact that so many experts from foreign countries, lawyers and representatives of foreign firms, are being brought to India to oppose the Patent Bill shows how important it is for the foreign firms that the revision of the Patent Bill should not come in; otherwise, they will not do it. If today you draft a Bill which is beneficial to them, they will not care; they will keep quiet and will not agitate at all. But this Bill is in the interest of India and if this is passed—it is very mild today—I am sure, it will help the development of our industries.

Then, the Reserve Bank of India Bulletin for November 1964 at page 1383 has given figures on the collaboration in the chemical and pharmaceutical industry. In the field of basic industrial chemicals, the paid-up capital is Rs. 7.6 crores, foreign capital is Rs. 2.2 crores and remittances by foreign firms abroad is Rs. 32.45 lakhs per year. In the pharmaceutical industry the capital invested is Rs. 8.74 crores, foreign capital is Rs 7.58 crores and the remittance of dividends is Rs. 99.68 lakhs. In the other chemicals, the paid-up capital is Rs. 13.97 crores, foreign capital is Rs. 5.07 crores and dividend remittance is Rs. 72.54 lakhs. Then, royalties are Rs. 2.42 crores and technical services remittances are Rs. 2.86 crores. The total remittances by foreign firms on account of royalties, technical know-how and dividends are Rs. 7.36 crores. I cannot get Rs. 5,000 to go outside but the foreigners can remit Rs. 7.36 crores per year only under these headings only.

Shri M. R. Sherwani: I am sorry to interrupt, but when I said that Rs. 2 lakhs per day are being drained out of the country, it was contested. Here only under one item it is Rs. 7 crores. So, it is not Rs. 2 lakhs per day but it is actually Rs. 5 lakhs.

Dr. K. A. Hamied: Then, 51 firms in India—they are almost all foreign firms with or without Indian collaboration—are producing and selling 1,933 pharmaceutical formulations in India. For these formulations these firms are using imported raw materials. Almost 80 per cent are imported raw materials. For those raw materials they are holding patents in India but they are importing them.

Mr. Chairman: They are not manufacturing it?

Dr. K. A. Hamied: They are holding the patents but are importing them. For example, in a tablet there are three ingredients and for all the three ingredients the firm is holding a patent but it is not manufacturing these three ingredients and is importing to the tune of Rs. 20 lakhs a year. Then, why are they holding the patent?

In my second letter dated the 8th January to the hon. Members I have said, "Will you kindly put these questions to the foreigners as to how many patents they are holding, what are the names of the products for which they are holding patents and how many patents they are utilising in India and then just see their replies". If they are holding 100 patents they are using only one; if they are holding 200 patents, they are utilising only one or two. Why are they anxious when they are not utilising their patents in India? It is for the sake of import and product control so that nobody else can produce. The amount of foreign exchange going on this account is terrible.

Shri D. P. Karmarkar: In case your point of view that there should be no patent law for 20 years is not accepted, you have been good enough to make some specific suggestions on page 8 of your note. They are four.

You say, firstly, that only one process for the product by which they are manufacturing shall be patented. In the second paragraph you say that compulsory licensing shall be enforced even if the patentee is manufacturing the product himself. Are you satisfied with the provision that is already there with regard to compulsory licensing where in the case of drugs and medicines, even in the case of a patent, there should be compulsory licence under those conditions?

Dr. K. A. Hamieds There should be compulsory licensing. Licence of right is also very necessary.

Shri D. P. Karmarkar: Take cl. 87. It says patents covering medicines, drugs etc. shall be deemed to be endorsed with the words 'Licences of Right'. Does that satisfy you?

Dr. K. A. Hamied: It is very necessary under existing conditions.

Shri D. P. Karmarkar: Regarding your para 3, your point is that some measure should be devised..

Dr. K. A. Hamied: What about paragraph 1? Suppose a patentee has got 100 processes patented.

Shri D. P. Karmarkar: If a particular patentee does use a particular process in so far as medicine and drugs are concerned, the other processes could be straightway be thrown open according to the provisions of 87. There is no difficulty about that. Suppose you have patented 100 processes and you are utilising only one process. So far as drugs and medicines and food and chemical substances are concerned, if you do not utilise the other processes, straightway compulsory licences can be obtained by others.

Shri K. V. Venkatachalam: Even if he utilises, it can be done.

Dr. K. A Hamied: I am saying that patent should be granted only for one process.

Shri D. P. Karmarkar: What is the difference? Suppose a man has made a discovery, no matter whether Indian or foreign. I make a discovery today in India. I have it patented immediately. Suppose a foreigner comes in. He immediately gets about 100 patents registered with the Patent Centroller. Now if it is a drug or medecine, on the registration of the patent itself, you can have a compulsory licence. So what is your objection to his obtaining the 100 patents?

Dr. K. A. Hamied: I am not objecting. I am objecting to his patenting 100 processes or one product. There is a lot of difference.

Shri D. P. Karmarkar: He has patented 100 processes for one thing. He is using only one process. For the 99 processes, you should have the freedom. Is that so?

Dr. K. A. Hamied: Not only freedom. I say that the 99 process should not be patented in his favour. Only one patent should be given.

He is using only one. The rest he keeps in his shelf. With the result, that I cannot use any of those processes; I cannot have any of those processes patented if I discover any of them.

Mr. Chairman: Yesterday Dr. Parikh said that so many combinations are possible and he pointed out that the patent is made to cover all those combinations. What Dr. Hamied wants is: give him a process patent for only one product through one process.

Shri D. P. Karmarkar: What is his difficulty if the person gets a hundred processes patented, differently or may be in one combined lot, if he utilises only one process, because this clause then comes in?

Mr. Chairman: What witness say is: do not give him one process and allow him to cover 100 processes for one product.

Shri D. P. Karmarkar: What is his difficulty. If out of 100 processes, the

patentee utilises only one process and then keeps all the 99 to be exploited by others through compulsory licensing, what is the objection?

Dr. K. A. Hamied: No. Chemical science is a very advanced science. To reach a certain product, I can go by many ways. These foreign firms are of highly scientifically advanced nations possessing these process patents. After getting these processes patented, their scientists start work to find out if there is any other method by which the same thing can be made. They have highly qualified scientists at their disposal. They find out: yes, there are 5 or 6 processes more by which the same thing can be made. They immediately include these in their patents.

Take tolbutamide patent held by Hoechst. There are about 17 processes patented by Hoechst for one product, tolbutamide. We cannot reach tolbutamide by any other route.

Shri K. V. Venkttachalam: Cl. 87(1) will permit you to do so.

Dr. K. A. Hamied: My point is: why should he be given all the processes when he is using only one?

Shri D. P. Karmarkar: We shall have to find out some foolproof method in regard to what this witness has said and what the other witnesses yesterday afternoon said, because it is rather important.

Shri M. R. Shervani: The point made is that when all the 17 processes have been patented by that party, all the routes get closed to our scientists and research is closed.

Shri D. P. Karmarkar: I appreciate your point. According to your para 3, you want to devise some measure to stop exploitation by way of unreasonably high prices after the patentee begins to work. We have to find out some statutory measure empowering Government to put a stop to that.

Dr. K. A. Hamied: I am sorry. No statutory measure can control prices. Government has tried it in regard to food, cement and so many other things. Prices can only be controlled by competition. If five people make the same thing, no man will charge high price. If a particular firm is holding a patent and it only is manufacturing that product, it can sell it at its price. The moment I also come into the field, either by licensing or by licence of right or compulsory licensing or by my own skill, it will immediately reduce it. I can give examples. A firm in Bombay was selling a particular injection at Rs. 25 for two. I started manufacturing the same thing. They sent me a notice alleging infringement of patent. I said, I do not care. You fight it out; we shall see. I sold it for Rs. 4.5. Then they reduced it from Rs. 25 to Rs. 14 and now to Rs. 9. The moment competition starts, prices come down.

Another Indian firm, not holding a patent but collaborating with a foreign firm, was manufacturing a product and selling it at Rs. 63. When I got a licence to make the same product, I made it and sold it at Rs. 45. Immediately they brought down their price.

Today these firms are holding not only a patent monopoly but also import monopoly.

Shri D. P. Karmarkar: Under cl. 87, anyone can have a licence of right granted to him under acceptable conditions. That removes your difficulty with regard to competition.

Even in spite of that right, there may not be Indian parties coming up. In that case also, your point is that even if there is one monopolist manufacturer and no other Indian is prepared to come up, you would like that the price he charges for his product in India should not be unconscionably high. For that, if possible, legal provisions should be made in the Bill giving power to Government.

Dr. K. A. Hamied: That can be brought into this Bill, but this is not a Price Control Bill.

Shri D. P. Karmarkar: Witness is not a lawyer. We shall find out how it can be done. The draftsmen know that in some of the clauses reference has been made to public interest. Whether under this, price control can be covered, we shall later decide.

Finally, what is the exact significane of paragraph 4?

Dr. K. A. Hamied: I had explained that. Supposing a patent is granted to a firm in India for the manufacture of cortesone....

Shri D. P. Karmarkar: I understand the process. Supposing it is found on a balance of advantage that even if the party is not prepared to export in the interest of manufacture in India itself, even when that export promotion is of advantage to us, even then you ask us not to allow it?

Dr. K. A. Hamied: In that case it must be allowed.

Shri Jadhav: These foreign firms do exploit. At the same time, do you agree that it did help in bringing in new drugs in the market for the development of the industry.

Dr. K. A. Hamied: I may explain the difference between the word drug and the word chemical industry, which is not clear to many. It is like that of a shirt and a cloth. Shirt is made of cloth; so long as it is cloth you do not call it a shirt. Ascorbic acid is just a chemical; so long as it is in bulk it is not called vitamin C. The moment it is manufactured into tablets and ready for sale it ceases to be a chemical; it is a drug. The drug industry in India during the last eighteen years has gone up considerably manufatcuring tablets, formulations, lotions, etc. But we have not developed the basic industry from which drugs are manufactured. If the import of foreign materials, basic pharmaceuticals are stopped the industry will fall flat. In this connection, I may be allowed to read a quotation from the speech of the late Pandit Nehru which I quoted in one of my speeches. He said that operating a steel mill or a chemical plant set up by foreign assistance would hardly make the country advanced an industrial nation no more than using a car or flying an aeroplane purchased from abroad. It is only when India has acquired the ability to design, to fabricate and to work its own plants without foreign assistance will it be a truly advanced and industrialised counrty." I am say that I entirely agree with this point. We are so much dependent on the foreign technical know-how and foreign money and foreign help that we are ceasing to be a nation on our own. I do not want to boast but I can say that without any foreign help or technical know-how I am able to supply drugs and am even exporting to England and other foreign countries. We can do it provided we work for it increasingly.

Shri M. R. Shervani: You say that no development has taken place in the chemical industry. Is it due to a defective patent law?

Dr. K. A. Hamied. I say that the development that has taken place in the drug industry is not due to any basic development in the chemical industry. I drew that distinction. This patent law, I think, will help us in starting some basic manufacture if we are not hindered by the patents held by foreigners in India.

Shri M. R. Shrevani: The point is that anybody who obtains or patents a certain product here should be forced to manufacture it in India within a reasonable period. Otherwise the patent should not be granted. If you do not do so, they keep on importing. Therefore; it should be obligatory on him to start manufacture in the country. What, in your opinion, is a reasonable period to be given to the patentee to start production of the product? Two, or three or five years?

Dr. K. A. Hamied: Supposing you fix a time and if he does not manufacture within that time, what penalty should be imposed on him?

Shri M. R. Shervani: Cancellation of the patent. Everybody should be free to start the production.

Dr. K. A. Hamied: If he does not manufacture within two or three years, anybody can step in.

Shri K. V. Venkatachalam: There is provision for revocation also.

Shri M. R. Shervani: That is a different thing. If I hold a patent and I do not exploit it but sit tight on it, how long should I be allowed to sit tight because I do not want to take a risk and invest money. Should there not be a clause that the patent will be cancelled if the patentee does not within three or five or ten years or one year—whatever be the period—exploit that patent by starting a manufacturing organisation? If that is so what time should be put for the chemical or drug industry? Three years from the time of granting?

Dr. K. A. Hamied: At pr nt there is no clause like that.

Shri K. V. Venkatachala There is clause 89(1).

Shri M. R. Shervani: It y take two years. Why not put an automatic provision that it should be considered after three years?

Dr. K. A. Hamied: Somebody must apply.

Shri K. V. Venkatachalam: Everything has to come within the process of law.

Dr. K. A. Hamied: With regard to these patents, it should not be a cognizable offence. Somebody has to write, saying, "so and so is holding patents for the last six or 10 years, and he is not using it. I am having a compulsory licence but I cannot proceed."

Shri M. R. Shervani: My next question is this. You said that if patented drugs are being imported, then their free import should be allowed, subject to the restrictions placed through import control, foreign exchange and so on.

Dr. K. A. Hamied: Yes; that is very important. If a gentleman or a firm is holding a patent, and is selling a kind of tablet or injection in which that material is being used, and he is not manufacturing that material in India, and he is importing it, by virtue of the patent, he is stopping me from importing it. So, he has the monopoly for importing it and selling it at any price he likes. That is a very important aspect.

Shri M. R. Shervani: Let us consider the interests of the Indian patentees; let alone the foreigners. There is a provision in the law which says that the Government, even for public undertakings in the State or the Central sphere, can utilise the patent without paying any compensation to anybody.

Shri K. V. Venkatachalam: I think there is a little confusion in this. There are really two clauses in the Bill; one refers to use by Government for non-commercial purposes, for its own use like giving it for hospitals and so on. There, no compensation or royalty is payable. This is in clause 48. Then there is another clause—clause 99 and 100 onwards—which refers to use of patent by Government and Government undertakings which are of a commercial nature. There, compensation has to be paid. If it is a public undertaking, it is not limited only to Government undertakings. For example, in the steel industry, it can apply to both the private sector undertakings and the public sector undertakings in that group. This provision is contained in sections 99 and other following sections.

Shri M. R. Shervani: What in your opinion should be the life of a patent? Should it be 10 years or should it be reduced or increased, particularly in regard to drugs and chemicals, and from when should the life start and from which stage?

Dr. K. A. Hamied: It so happens in India that an application is made for

the grant of a patent, but along with the application, the full specifications are not submitted by the applicant, and the applicant is given about one year to 15 months for submitting the complete specifications of the patent. Now, the period is 10 years, but it really becomes 11 years and three months, because one year is also given for submitting the specifications. So, the time given to him is not exactly 10 years but it is 11 years and more.

Shri K. V. Venkatachalam: In the new Bill, it is suggested that the period should be from the date when the complete specifications are filed before the Controller.

Dr. K. A. Hamied: From the date of application, it becmoes 11 years. As soon as the application and the specifications are filed, the party concerned starts manufacture and he write, "patent applied for" and so, nobody can copy that process. He has actually 11 years to exploit that patent, not from the time of selling the patent but from the time he submits or files his specification, and he can exploit it and nobody can copy it. He has just to mention "patent applied for." Even in respect of a machinery, they can do so.

Shri Atrishi: We cannot have a suit brought against him before the sealing of the patent because the rights accrue to the patentee only after the sealing of the patent.

Dr. K. A. Hamied: No. It cannot be copied. That is the rule in the present Act.

Shri M. R. Shervani: In the sphere of drugs and medicines, tests have to be gone through and the bad effects are observed and discovered. So, it is quite possible that 10 years may not be sufficient; eight years may go by before it is put into use, into commercial production. So, would you like to give power to the Government to extend the time in suitable cases?

Dr. K. A. Hamied: I think the Controller can give it as a concession to the patent-holder; if the patent-holder wants, under certain specific circumstances, saying that such and such a thing is not available and he could not utilise the patent and so the time must be extended by another two years, then, I think it should be allowed.

Shri D. P. Karmarkar: You said that 10 years would amount to 11 years. According to clause 45, you will see that every patent shall be dated as of the date on which the complete specification was filed—not when the original application was filed —but from the date on which the complete specification was filed. So, it would not be 11 or 15 years as the case may be. The effective date is from the date of the completion of the specification.

Dr. K. A. Hamied: Yes.

Shri P. K. Kumaran: You said that you are for the abrogation of the patent law for drugs, if possible. But in the absence of that, you prefer this process. Suppose, the patent law is abrogated completely, don't you think that the market will be flooded with so many drugs and in order to promote their sale in the market, the quality of the drugs would become inferior?

Dr. K. A. Hamied: The hon. Member is confusing the term "drug" with the term "chemical". For preserving the quality of the drugs, there is the Drug Control Order; nobody can make a sub-standard drug in India so long as the Drug Control Order is effective. But for chemicals, there is no such difficulty, because, the manufacturers who buy those chemicals are themselves so careful that they analyse the chemical before they buy it. I analyse all the chemicals from Europe and America before I put it in the market. It is about the medicines that you are talking; they are controlled by the Drug Controller. Nobody can buy and

sell them. There is no patent for the drugs today in India; there is a patent for chemical processes. The hon. Member is confusing the terms with the proprietary registered names of foreign manufacturers such as Paludrine, Tolbutamide, and so on. We are unable to make them, because those names are registered trade marks and there is no law to prohibit them. The quality of the chemicals and pharmaceuticals and basic chemicals manufactured in India will be such that everyone will compete and those who are selling better quality stuff will naturally have some lead. But today there is no such competition.

Shri P. K. Kumaran: I can advertise that such and such a popular drug of the same quality as that brought from elsewhere is available and then manufacture anything.

Dr. K. A. Hamied: The hon. Member is again confusing the two We are now talking about chemicals. You give me the name of the drug.

Shri P. K. Kumaran: I am making a certain thing which I call by some name and it is having the same quality as the popular drug. I can manufacture it according to my own process and market it. It may affect the health of the people.

Dr. K. A. Hamied: But you cannot market it. There is the law.

Shri Arjun Arora: We have been told by some people that the abrogation or the modification of the patent law in India will create a situation under which no Indian will be able to get the patents abroad. How will it affect Indians?

Dr. K. A. Hamied: We have to examine first how many patents Indian inventors and scientists are taking outside India. In America, during the last 20 years, the number may not be more than 3 or 4 or 5 whereas during 1955 to 1959, 2000 patents have been taken in India by foreigners.

Shri Arjun Arora: Do you have any idea of the earnings that Indians make because of patents that they are able to get abroad?

Dr. K. A. Hamied: At the moment it is nil so far as I know.

Shri Arjun Arora: Do you envisage that in the next 10 years, the Indians will be doing a roaring business because of their patents abroad?

Dr. K. A. Hamied: At least I am living on that hope.

Shri Arjun Arora: What is your practical experience?

Dr. K. A. Hamied: The rate at which Indian science is advancing today through the C.S.I.R. and other private enterprises where scientific laboratories are working, we are capable of progressing at a very high speed unless they are not frustrated in their attempts by these hindrances in their ways. You may just see the example of Japan. Today, the Japanese transistors, radios, cameras and photographic apparatus are flooding the world. How did they learn all this? It is by copying anything which others are making.

Shri Arjun Arora: If we do not have the patent law, like the present one—infact, the proposed Bill—the result will be that Indians will not be able to get the know-how from abroad. What is your opinion on this.

Dr. K. A. Hamied: I shall be glad if we do not get the know-how. Then, our know-how will start working. Today, it is lying dormant. The things are being manufactured in India with foreign collaboration which an ordinary M.Sc. in India can make. I was a member of the Finance Corporation and I objected to many licences being granted in collaboration with foreigners. I said, "Why are you giving Rs. 10 lakhs royalty to such and such an American firm? Why don't you come to me? I will give you full advice." But they do not come to me. The foreign technical know-how has got such a halo about it that we are completely ignoring our own knowledge. We are not advancing because

we are getting something free. We want to become rich quicker. If I combine with, say, I.C.I., I shall be able to earn Rs. 1 lakh by next year. If I do it myself, it will take 4 years to earn Rs. 1 lakh. So, I say, why not I combine with I.C.I.?

Shri Arjun Arora: If India is starved of foreign know-how in the field of chemicals and drugs, may I know whether there will be a famine of medicines in India?

Dr. K. A. Hamied: Never.

Shri Arjun Arora: We shall be able to meet our requirements?

Dr. K. A. Hamied: We shall be able to meet our requirements. Even today, we are not able to meet our requirements. 80 per cent of the drugs are dependent on the import of foreign raw materials, not on the import of technical know-how.

Shri Arjun Arora: A number of foreigners take patents in India and they do not start the process of manufacture in this country. Do you have any idea as to what is their percentage? Are they in a minority or in a majority?

Mr. Chairman: He has given the answer.

Dr. K. A. Hamied: I have given the answer.

Shri Daljit Singh: You say in your Memorandum that the compulsory licensing of the patent should be enforced even if the patentee is manufacturing the product himself. Now, the existing Act covers this.

Dr. K. A. Hamied: I think it does. When I wrote that Memorandum, the Act was not printed.

Shri Daljit Singh: You have stated in your Memorandum that Japan did not have the patent law before the Second World War. Is it not a fact that in Japan the patent law was first introduced approximately in 1921?

Dr. K. A. Hamied: Not to my knowledge. I think Mr. Davar who appeared before this Committee confirmed that it was in 1945 that the patent law was introduced in Japan. That is my information also.

Shri Daljit Singh: You have stated that the patent law is one-way traffic so far as India is concerned because the number of patent taken by the foreigners in India is very large. We want to know how this problem can be tackled by India.

Dr. K. A. Hamied: The taking of patents is not according to my wish or according to the wish of our country. It depends on the advancement of scientific knowledge, inventive genius and all that. As our country develops, our inventive genius advances, we shall be able to develop things and make inventions and take patents in other countries. But today that is not the case. Let us have that gap of 20 years in which we can develop ourselves.

Shri Wasnik: You have stated that free competition will check the high prices and not the Government control. What I feel is that the combination of interested parties can dictate the prices and cause hardship to the consumer. In such cases, what do you think the Government should do? Should they make any provision here?

Dr. K. A. Hamied: The Government can make a provision, as in the United States, against forming cartels. In the United States, the big firms like the Dupont, Monsant. were not allowed to make unions. They were prosecuted immediately and big penalties were imposed on them. So, here also that provision can be made by the Government that no cartels or unions can be made.

Shri Wasnik: What do you think should be the term of patents?

Dr. K. A. Hamied: I think, what is proposed now is all right. I would have chosen a less period. But now that the Bill has come and the period is given there, it is all right.

Shri Wasnik: We can change it.

Dr. K. A. Hamied: Between 7 to 8 years would have been all right.

Shri Arjun Arora: Seven years from the date of certification or application?

Dr. K. A. Hamied: From the date of certification.

Dr. M. M. S. Siddhu: You gave us the example of Testosterone propnate: a foreign firm came in competition and they slashed the price to 50 per cent of its original price. Have there been other cases like that?

Dr. K. A. Hamied: Yes.

Dr. M. M. S. Siddhu: Can you give other examples where a foreign firm and an Indian firm processed their products and the foreign concern brought the price down so that the Indians may not have a market.

Dr. K. A. Hamied: There are cases when the foreign firms were forced to reduce the prices. But the foreign firms are selling their products on the basis of prestige—false or correct. If it is a small firm, then the foreign firm does not do it. If, however, a firm of equal standing makes a product cheaper, then the foreign firm comes into the field; the foreign firms are afraid of competition with firms of equal standing. If a small firm reduces the price, they may not take care of it.

Dr. M. M. S. Siddhu: What is the time delay in the grant of licence for the manufacture? Because it has been pointed out that, once a patent is to be exploited, there are some delays: one is the delay at the patent office; the second is the delay at the licence; and the third is the foreign exchange component. You have been in this chemical industry for a long time. Could you tell us by your experience as to what is the usual time taken for an industry to be set up for a new drug?

Dr. K. A. Hamied: Including the application?

Dr. M. M. S. Siddhu: No; if the patentee himself were to exploit it.

Dr. K. A. Hamied: That means, the patent has been granted to him. Then the process is licensing by the Development Wing. That may take a long time.

Dr. M. M. S. Siddhu: What is the usual time taken?

Dr. K. A. Hamied: It is too much. I know that a very important foreign firm applied for an industrial licence two years ago and only some months ago they have been issued the letters of intent; they are just starting it. It all depends on the influence and pull of the person.

Dr. M. M. S. Siddhu: If that is so, do you think that 7 years' time is enough—I mean, under the present conditions of the country?

Dr. K. A. Hamied: So far as the time taken for the Development Wing to issue a licence to the manufacturer is concerned, that is a different problem, which I cannot answer just now.

Dr. M. M. S. Siddhu: What is the usual time taken in the screening of the compound, toxicity and other clinical tests being done?

Dr. K. A. Hamied: One year or two years or six months; it depends on the nature of the substance.

Dr. M. M. S. Siddhu: Assuming that good scientific talent is available, what is the usual time taken?

Dr. K. A. Hamied: It depends on the product to be tested. Suppose there is a birth control product, it may take five years. Suppose it is a product for heart disease, it may take a long time. In the case of certain products like the product for diabetes, I can give the report within one month.

Dr. M. M. S. Siddhu: You know the recent advances that have been made in the field of antibiotics, in the field of anti-diabetics, in the field of tranquilisers—I am not talking of harmones which take a long time. What is the usual time taken in these fields?

Dr. K. A. Hamied: About a year or 18 months; in the case of diabetes, it may even be less.

Dr. M. M. S. Siddhu: If we were to think in terms of not having the foreign subsidiaries, can we get all the intermediates from which we will be able to have the product manufactured if the compulsory licence is granted or they will hold back the intermediates?

Dr. K. A. Hamied: It will take a long time to reply to this question.

Dr. M. M. S. Siddhu: Suppose we give a compulsory licence to 'A' and the intermediates are controlled by the patentee. If the patentee does not want to co-operate, can we exploit it?

Dr. K. A. Hamied: About two months ago, a Conference was held in Delhi by the Council of Scientific & Industrial Research on the substitution of imported products in India. I was the Chairman of the Group of pharmaceutical chemicals. This question was discussed threadbare there. The point is that the chemical industry on which all the synthetic products are based starts from a very basic raw material called coal tar distillates like tolune, benzene and phenol. These coal tar products are developed by other subsidiary chemicals like sulphuric acid, nitric acid, etc., and are converted into intermediates. These intermediates are made as synthetic chemicals which are used in drug industry, plastic industry, etc. These intermediates are a go-between between coal tar and the final product. In India, there is a great scarcity of coal tar. We have got coke oven plants, under government control as well as under Tatas, but the coal tar which comes out is not further distilled. We are having a big scarcity of basic coal tar distillates and so we cannot manufacture the intermediates. Because we cannot manufacture the intermediates, we cannot manufacture final products. It is a chain reaction. At what stage shall we start? If we start manufacture of final products, we must have intermediates; if we start manufacture of intermediates, we must have coal tar.

I am attending another Conference on the 7th of this month on the very same subject. From which point we shall start? I have suggested that we should start from the basic coal tar. The coal tar is wasted on roads; why is it not distilled?

Dr. M. M. S. Siddhu: In other words, till the petro-chemical complex and the coal tar derivative complex which are the base of the pharmaceutical industry, are developed, we will be at the mercy of the foreign concerns.

Dr. K. A. Hamied: About petro-chemicals also, they are not made here. They are made from petroleum. Petroleum is from crude oil. Where is crude oil in India? It is also being imported. Bulk of the crude oil is being imported for the distilleries in Madras, Bombay and Calcutta. So for petro-chemicals also we are going to import this crude oil; we shall break it up into petroleum and chemicals. We are copying America! In America, this petroleum is natural and it is being utilised for these chemicals. Crude oil is available in Mexico and other places. We are copying that method without having the crude oil. Import licence will increase enormously. We should have some basic thing. Imports of crude oil will still remain.

Dr. M. M. S. Siddhu: What is the expenditure of the Indian firms, purely Indian firms, with Indian capital, know-how etc.—there are three or four of them, as compared to the foreign concerns on sales promotion? Advertising, detailing representative, sampling, all that is concerned with the sales promotion.

Dr. K. A. Hamied: It is almost equal. Foreign and Indian company is equally divided. Not less than 15 per cent and not more than 25 per cent.

Dr. M. M. S. Siddhu: There is great deal of formulations. Manufacture of

mostly formulations has impaired the growth of the pharmaceutical industry because formulations bring easy money with less capital or know-how with the result that Indian pharmaceutical industry has not begun working on the manufacturing side actually.

Dr. K. A. Hamied: May I deal with the working of the pharmaceutical Industry? It is just like the tailoring industry. Materials for the tailoring industry are made by the textile firms. Materials for the pharmaceutical industry are made by the chemical firms. You cannot ask a tailor, why you are not making your own cloth. The tailor is not supposed to make his own cloth. Pharmaceutical manufacturer makes tablets, lotions, injections, ointment and all sorts of things—he is not supposed to manufacture those chemicals. Pharmaceutical industry is basically an industry for the manufacture of ready-to-use drugs and ready-to-use medicines. Pharmaceutical manufacturers in India are manufacturing products which cover a ready market. Today if I can get a formulation for T.B. or influenza and it is useful I will make a formulation for it and sell it. It is not for me to manufacture all the things. Glucose is a thing which is a chemical manufactured by not more than 5 or 10 firms in the whole world. Everybody cannot make. But they are making glucose injections.

Dr. M. M. S. Siddhu: Some of the compounds are of less use. There is a compound for cancer. The sale will be very limited. Do you want for them the same terms of royalty of 4 per cent?

Dr. K. A. Hamied: I am making it without any foreign know-how. We are so bent upon foreign know-how that we forget our own know-how. It is very important. We are getting confidence. I am proud that I am sending the same to foreign firms in India also. I am making a particular hormone drug without any technical know-how. There is no 4 per cent royalty to anybody.

Mr. Chairman: We have got one more witness.

Shri R. P. Sinha: The compulsory licensing system is on our patent law for quite some time now. There have been lot of patents being registered in this country. Why is it that we are not able to take advantage of those things and start manufacturing the chemicals and drugs here under the sections of the compulsory licensing?

Dr. K. A. Hamied: It has been so, but it is correct. The compulsory licensing now is being made very easy under the existing law. Formerly there was some difficulty in getting compulsory licence. Under this new Act I think compulsory licensing will be taken advantage by us, Indian manufacturers. Besides that, another point also we should remember. In the course of these various years the technical know-how of us, Indians, has also grown. At the moment I can assure you that our own technical know-how is so much that we shall start taking advantage of the compulsory licensing. 10 or 15 years ago chemical science was not so much advanced as it is today. For that same reason, the advantages of the compulsory licensing which were there were not made use of.

Shri R. P. Sinha: As per the compulsory licensing section in this bill more industries under this section can be put up.

Dr. K. A. Hamied: Yes. Our own scientific knowledge has advanced so much. Licence which was granted to me also requires some knowledge on my part. Otherwise I cannot make use of that licence. Licensing of a patent process merely will not help one to put up that industry. During the last 18 years or so our own scientific knowledge has gone forward that we can make use of that licence. 10 or 29 years ago we could not make use of that.

Shri R. P. Sinha: If you use these sections for compulsory licensing that means when you use your own technology and know-how you will develop your own processes and know-how. Will you not like that what you develop should receive adequate protection under patent law so that you can flourish?

Dr. K. A. Hamied: The licence which I will acquire by paying 4 per cent royalty I shall be able to utilise that licence and if there is any flaw in that licence or process given to me I can make it up and I can find out where the flaw lies, by my own efforts. All the patents disclosed to patent office are not complete. 50 per cent of them is not complete. Even if we take the licence we cannot work under them. We have to apply our own knowledge to it. They do not disclose anything in the patent.

Shri R. P. Sinha: You don't get the co-operation of the foreign patent-holder and in spite of that you try to develop your own know-how and your own technical knowledge. Now when you develop that, will you like that to be protected under the patent law or not? That is in respect of your own chemical process, your own technical know-how etc. Or, will you like anybody can make use of that once you have developed it?

Dr. K. A. Hamied: If there is patent law I will take advantage of the patent law. If there is no patent law there is no patent law. But of course we shall take advantage when the patent law is existing.

Shri R. P. Sinha: Will you be able to develop your own industry with the help of your own technical know-how and technical knowledge, if there is no patent law?

Dr. K. A. Hamied: We shall develop. We can develop so many new things even for export to the entire world.

Shri R. P. Sinha: I can also start it and put you into difficulty.

Dr. K. A. Hamied: So much the better for the consumer. You and I may have some difficulties. But the prices will go down.

Shri R. P. Sinha: We find—this is not only with respect to pharmaceutical industries, but other industries as well—that the cost of production in India is higher than in other countries. If we permit importation of those articles produced by these industries, then these industries put up at a heavy national cost in India will be hit. How do you solve this problem?

Dr. K. A. Hamied: It is a very important question. First of all, I do not agree that the cost of production in India today is as high as is reflected by the price charged by the manufactures. I am talking of chemicals and basic materials. I am manufacturing some of them. My price say comes to Rs. 30 which is some what higher than the world price. It is being sold in India at Rs. 100/-. Why it should not sold it at Rs. 40/- instead of at Rs. 100? Because I am the only manufacturer.

Shri R. P. Sinha: If there is room only for one industry, we have to control the price by some other mechanism.

Dr. K. A. Hamied: Most of the foreign concerns have taken a licence from the Industry Department on this excuse that there is Room for one manufacture e.g. by Vitamin B12 is manufactured by 20 firms in the world. I am not going to manufacture if there is no Prospect of sale. In India licence has been given only to one firm. The import has been stopped. Please give the licence only to us. And they have been given the licence. They are allowed to sell it at Rs. 220/- a gram whereas the world price is Rs. 30 a gram.

Shri A. T. Sarma: You have stated in your memorandum that the patent law was established in 1911 by British rulers to encourage the British firms

in India. Do you think that the patent protection is harmful to the Indian inventor?

Dr. K. A. Hamied: From 1911 up till now we have not been able to invent anything.

Shri A. T. Sarma: I want you to given concrete instances as to how this has been harmful?

Dr. K. A. Hamied: There is no Indian invention.

Shri A. T. Sarma: Do you mean to say that lack of Indian invention is due to the patent protection?

Dr. K. A. Hamied: When I say 'no invention', it may not be hundred per cent so. There may be one or two inventions.

Shri A. T. Sarma: Was it due to this patent law?

Dr. K. A. Hamied: It was mainly because we werer not given opportunities for research and there were no research facilities and there was no research apparatus.

Shri A. T. Sarma: If it was to encourage British firms, how is it that all foreign firms are opposing this and all Indian firms are welcoming it?

Dr. K. A. Hamied: No. We are favouring this change in the patent law.

Shri A. T. Sarma: According to your calculation, it is harmful to the Indian inventors and more beneficial to foreigners.

Dr. K. A. Hamied: That is the old law, not the present Bill.

Shri A. T. Sarma: Then do you welcome this?

Dr. K. A. Hamied: I am in favour of complete abrogation. Since that is not possible due to political and other reasons, I am supporting this Bill subject to certain modifications.

Shri A. T. Sarma: Do you think that the proposed Bill will be beneficial to the Indian inventors?

Dr. K. A. Hamied: I hope so.

Mr. Chairman: I am raising now a very important point. Big foreign firms established in chemical and pharmaceutical industry in India are remitting over Rs. 5 crores of dividends and reyalties to foreign countries. Why do not they take up motor car industry? Why do not they take up textile industry in India? Why are they not doing locomotive industry? Why only pharmaceutical industry? That is the question. Why are they not coming into any other industry in a big way?

Shri Bade: As far as abrogation is concerned, of course, we are also of your view that there should be abolition so that the foreigners may not exploit us.

Dr. K. A. Hamied: I am very happy.

Shri Bade: At the same time, you have stated that since we are internationally connected we should not abrogate it. Supposing we make it compulsory that they should disclose their know-how before getting the licence, then they may withdraw from India. I would like to know how many years we require to develop all these drugs.

Dr. K. A. Hamied: I cannot say how many years we will take. And it will be very difficult also to judge how many years we will take to develop all these drugs. But, I hope the process of development will be much faster than it has been hitherto. There will be no hindrances in our way.

Shri Bade: Kindly refer to Section 95—page 55—of the proposed Bill. Sub-clause (3) says:

> Notwithstanding anything contained in sub-section (2) the Central Government may, if in its opinion it is necessary so to do in the public interest, direct the Con-

troller at any time to authorise any licensee in respect of a patent to import the patented article or an article or substance made by a patented process from abroad (subject to such conditions as it considers necessary to impose relating among other matters to the quantum of import, the sale price of the imported article, and the period of importation), and thereupon the Controller shall give effect to the directions.

Are you happy with this provision?

Dr. K. A. Hamied: 'To authorise any licensee to import'.

Shri Bade: The whole Bill is nullified by this clause.

Dr. K. A. Hamied: If the original patent holder is not manufacturing the product in the country and if he is allowed to import, then other people also should be allowed to import.

Shri Bade: It is stated in the clause "if in its opinion it is necessary so to do in the public interest, direct the Controller at any time to authorise any licensee in respect of a patent to import the patented article . . . "

Dr. K. A. Hamied: This will kill the whole Patent Bill.

Shri Bade: So you agree with me.

Dr. K. A. Hamied: This is very cleverly put here. The patent holder may appoint as licensee his own firm in India, who is a licensee by right.

Shri K. V. Venkatachalam: It is intended to be there.

Dr. K. A. Hamied: But it is not mentioned. The licensee is sitting in Switzerland. The licensee may be a person belonging to the same firm.

Shri D. P. Karmarkar: He is only a primary licensee.

Dr. K. A. Hamied: Though he is not manufacturing, you allow him to import.

Shri Bade: Supposing there are 3, or 4 processes. Anybody can go to the Court and say that the patentee is using only one process and he is not using three processes. Therefore, there should be compulsory licences for three processes and he will be given compulsory licence.

Dr. K. A. Hamied: He can be given for the first process only.

Shri Bade: That is not the condition here. He can be given compulsory licence for any of the processes.

Dr. K. A. Hamied: They should not be granted patent for any of the processes which they do not use.

Shri Bade: In the proposed Bill, the definition of medicine or drug is all medicines for internal or external use of human beings or animals. In the Drug Act, cosmetics is included in the external use of human beings or animals. I was in that Select Committee also and I objected to that.

Shri D. P. Karmarkar: I thought that was for those intended for curative purposes and not for adornment purposes.

Shri Bade: The definition of drugs given in the Drugs Act is repeated here also.

Shri Bibhudhendra Mishra: I am told by the Drugs Controller that the cosmetics has been separately defined in the Drugs Act.

Mr. Chairman: Anyway, we are not concerned with that here.

Shri Bade: Again, in the definition, Government undertaking means any industrial undertaking. When it is mentioned Government's use, it will mean Corporations also.

Dr. K. A. Hamied: It is only for Government's use, not for trading

purposes by the State Trading Corporation or the IDPL or the Hindustan Antibiotics.

Mr. Chairman: You have already made it sufficiently clear.

Shri P. C. Borooah: Do you agree that with the coming into force of this Act, the terms of existing patents for licence should also come to an end?

Dr. K. A. Hamied: The Bill should have retrospective effect. Licence means patents. The patens will fall in line with the new Bill when it comes into force.

Shri P. C. Borooah: Now India is holding a position because it stands on certain commitments. If we curtail the terms, then we will be falling back on our commitments.

Dr. K. A. Hamied: In those commitments India has never guaranteed that there will be no alteration or changes in the Patent Bill. There is no clause like that.

Shri R. Ramanathan Chettiar: From your experience, are cartels in the drug and pharmaceutical industry operating in India under the guise of the firms enumerated in your list?

Dr. K. A. Hamied: No cartels are operating in India. Cartel can only operate when the drug manufactured is the same. Take tetracycline of Pfizer. It is manufactured by three firms. When it is manufactured by more than one firm, only then cartel can be formed.

Shri R. Ramanathan Chettiar: You referred to Rs. 5.28 crores being remitted by way of royalty and dividend by those 35 firms.

Dr. K. A. Hamied: This is besides the remittance for purchase of raw materials by the 35 firms—another 6 crores.

Shri R. Ramanathan Chettiar: About 11 crores. In these raw materials, they have more or less monopoly. In reply to a question, you said that 80 per cent of the drugs are dependent on imported raw materials.

Dr. K. A. Hamied: May be 75—80

Shri R. Ramanathan Chettiar: The capital invested by foreign companies according to the RBI Survey (Nov. 1964) is Rs. 14 crores in 1962-63, p. 1387.

Dr. K. A. Hamied: It is: chemical 7 crores, pharmaceutical 8 crores, other chemicals 13 crores—in all 30 crores.

That is the total capital.

Shri R. Ramanathan Chettiar: What is the foreign content of the capital?

Dr. K. A. Hamied: About 14—15 crores.

Shri R. Ramanathan Chettiar: Out of that, 2 crores was taken away by dividends in 1962, 5 crores by way of royalty—total 7 crores.

Dr. K. A. Hamied: Out of 14 crores invested, 7 crores are taken out every year.

Shri R. Ramanathan Chettiar: In 1962-63, they had taken. Compared to that, what is the total capital of the indigenous manufacturers in the pharmaceutical and drug industry?

Dr. K. A. Hamied: I cannot say offhand.

Shri B. K. Das: When the new Act comes into force, in your opinion, will foreigners still be tempted to take patents or do you think they will not come at all?

Dr. K. A. Hamied: They would come all right. They are threatening that the Bill will have so many undesirable effects. But the fact is that they are saturated in their own countries. I met a French manufacturer recently. He is starting a factory for manufacturing antibiotics in Vietnam. I asked why he is doing it in that country when there is so much of uncertainty there. He said 'We have no

means of expansion in France. We will go wherever we can'. This is the condition in Europe today.

So I assure you it is merely a threat.

Dr. L. M. Singhvi: I would like to know, in the first instance, whether a provision for compulsory licence or licence of right would not preclude the difficulty that he anticipates in respect of patenting a number of processes, because as soon a person wants to utilise or exploit another alternative process, he can always apply and use that process.

Dr. K. A. Hamied: They generally have the better and easier process which gives more yield at less cost. But in order to prevent others from jumping by other means, their scientists work out all possible means and get those also patented, whether they are workable or not. The others reach the same product, but perhaps at double the cost and at half the yield.

Dr. L. M. Singhvi: Once a provision for compulsory licence or licence of right is already there, there is no monopoly or exclusion in respect of utilisation of these alternative processes.

Dr. K. A. Hamied: That monopoly right is also for the processes which they are not using. What I am saying is that if these processes are not barred, our scientists and technical experts will have free scope to work on various chemical reactions and various processes.

Dr. L. M. Singhvi: Putting it differently, do you not think that by allowing patent of a number of processes, you are making it possible that a number of processes and technical know-how would become public property in the sense of having that information disseminated so that your own scientists would not have to do the process of research all over again? They could use any one of these processes.

Dr. K. A. Hamied: I am a chemist myself. If the process is not known to us, I have my own processes to work. But the moment I start working, I reach a stage where I find it is already patented. I have to stop it there.

Dr. L. M. Singhvi: You mentioned that a certain monopoly is created because only one industrial licence is given in respect of a particular drug. If more than one industrial licence were given, there would be no monopoly. Is that the point?

Dr. K. A. Hamied: Not only licence given, but the manufacture started also. I have got a licence for a product for two years. But I never started it. It should be giving of a licence and manufacturing the product according to the licence within a certain time. The more the manufactures, the cheaper the product.

Dr. L. M. Singhvi: Would it be correct to deduce that if more than one industrial licence were given and if the indigenous manufacturers embarked on the manufacture of that particular commodity, there would be no monopoly and in that case, you could not find fault with the patent law but with the procedure of the licensing Ministry which grants only one licence and not more than one?

Dr. K. A. Hamied: I have never said so in my memorandum that patent law is responsible for high prices. Patent law leads to monopoly.

Dr. L. M. Singhvi: It is intended to lead to a kind of monopoly.

Dr. K. A. Hamied: That monopoly is removed by compulsory licensing or licence of right and further by the issue of industrial licences which has come to stay in our country. Then prices will come down

Dr. L. M. Singhvi: Are you aware that in our country a lot of substandard or spurious drugs are manufactured.

Dr. K. A. Hamied: Mr. Borker will be able to say about that because he is dealing with it.

Dr. L. M. Singhvi: You are the witness now.

Dr. K. A. Hamied: That is the case everywhere, not only in India, but in America, England Germany and so on. In America, there was an injection prepared on using which 10 people died instantly. Nobody blamed the American manufacturer. To err is human. It can happen anywhere. An injection made by a foreign firm when administered intramuscularly resulted in a wound 6 inches long and one inch deep. Nobody blamed the manufacturer. But the Doctor was blamed, that his method of injection was wrong.

Dr. L. M. Singhvi: That is very unfortunate.

Dr. K. A. Hamied: If it was my injection, then the Doctor would not be blamed; they would say that the Indian medicine was bad.

Dr. L. M. Singhvi: The statement is often made, and has been made before us, that abrogation or relaxation of patents might lead to a greater manufacture of spurious/substandard drugs, and therefore, patients would not know what they are buying.

Dr. K. A. Hamied: No medicine is being manufactured by the patentee. They are all formulations based on the chemicals manufactured by the patentee.

Dr. L. M. Singhvi: What is the extent of research being done by indigenous investors and manufacturer?

Dr. K. A. Hamied: Quite a lot today.

Dr. L. M. Singhvi: Is it self-sufficient so much so that we need not draw on research from abroad?

Dr. K. A. Hamied: Research is a very costly process. I have had discussions with government officials and ministers and informed them that research is a costly process. And in India it is ten times costlier than in America and England. The duty on the import of research instrument is 60 per cent. If it costs here Rs. 20,000, I can get it in America for 4,000 dollars. If it gets out of order, I can phone the company and can get it repaired. But here, I have to import another one in a similar contingency. Who is stopping research, government or the people? Sometimes the duty is 60 per cent, 70 per cent or even 100 per cent on research apparatus.

Dr. L. M. Singhvi: How many indigenous manufacturers are there in India in the field of pharmaceuticals?

Dr. K. A. Hamied: Among the big-manufacturers we shall count about 200.

Dr. L. M. Singhvi: What portion of the total consumption of pharmaceutical formulations and drugs is manufactured indigenously?

Dr. K. A. Hamied: Not more than 20 per cent or 25 per cent; the rest goes to the foreign manufacturers.

Dr. L. M. Singhvi: What are the reasons for our not having embarked upon the manufacture of pharmaceutical raw materials which are not covered by any patents?

Dr. K. A. Hamied: The manufacture of these things is not a small process. A costly factory, a big factory has to be started. That can be started by people who hold capital. People who hold money do not understand what a coal tar distillant is, for instance. They are not interested. If I start manufacturing, for instance, glass, they will go into it. Capital is shy. Of course they are coming to this field now.

Dr. L. M. Singhvi: Are you suggesting that even government which is supposed to be omniscient is unaware of the utility of producing these raw materials.

Dr. K. A. Hamied: Application for licences are to be made by the private people, not government. In the last two or three years, they are coming forward.

Dr. L. M. Singhvi: My last question is about the difficulties experienced by the pharmaceutical industry in working or obtaining compulsory licence in respect of patents which could be commercially exploited in the country. What are the main difficulties?

Dr. K. A. Hamied: I mentioned that for us to realise a patent after getting a licence of right or by compulsory licence requires some chemical and industrial knowledge which has developed only during the last few years.

Dr. L. M. Singhvi: It is not the deficiency of the existing patent law but deficiency of our own technical know-how.

Dr. K. A. Hamied: Plus the difficulties in getting a licence compulsorily.

Dr. L. M. Singhvi: What kind of difficulty you face?

Dr. K. A. Hamied: I have not tried to get a compulsory licence; I do not care for these licences as I do everything myself.

Shri V. B. Gandhi: You said that our production of pharmaceutical products has increased tremendously in the last few years, from ten crores to something like 100 crores. Is it right to say that it has happened under the present system of some kind of protection that is being given to the pharmaceutical industry through the existing patents law?

Dr. K. A. Hamied: No, through import control.

Shri V. B. Gandhi: Anyway, larger production helps in diminishing the need for larger imports. If this production had not taken place, we will have had to import a substantial quantity and spend the precious foreign exchange. As a result of the protection extended under the present system, the industry has been able to make a much larger production and that means we have saved so much in imports. Do you agree?

Dr. K. A. Hamied: That is not on account of the patents, as I have told you already, but on account of the ban on imports of finished products and medicines.

Shrimati Sharda Mukerjee: One of the thing which other witnesses tried to impress on us that a mere relaxation of the law in itself will not ensure the growth of pharmaceutical industry in India because we have not the wherewithal in respect of the technology, capital and industrial base. What is your opinion regarding this? For instance, you mentioned the petrochemical industry. The process of the petrochemical industry is not really a great deterrent. It is a Rs. 30 crores industry which requires probably machinery worth Rs. 15 crores, etc. Is it your opinion that it is only the patent law which is a deterrent, or, is it your opinion that equally with the patent law is the fact that the other factors have not been available in to the country in the last 18 years?

Dr. K. A. Hamied: Both.

Shrimati Sharda Mukerjee: To what extent?

Dr. K. A. Hamied: I cannot give the exact difference and say how much it is. But the patent law has been responsible for our not having any knowledge as how to do it. It was controlled by certain firms. American or German, and even if we had the

knowledge, it was difficult to get import of capital equipment, licenses for starting the manufactures and so on. Even then, some raw materials had to be imported, because we cannot start from the basic things. For the petrochemical industry, as I said crude oil is necessary for manufacturing petrol or petroleum products, and then for breaking them up, at some stage, the import of raw material and capital equipment was necessary, and the technical know-how was also necessary. If we had the technical know-how, we did not have the other three things; if we had the other three things, then the technical know-how was not there. So, these have to be developed. The Government is taking interest in petrochemicals; at least they have given facilities to combine with other foreign firms and start petrochemical industries, but they will have to import raw material.

Shrimati Sharda Mukerjee: Do you think that the Bill which is before us is satisfactory?

Mr. Chairman: He has given that answer.

Shrimati Sharda Mukerjee: He said that there should be a much greater relaxation in the law.

Dr. K. A. Hamied: I have answered that question already.

Shrimati Sharda Mukerjee: Regarding products *per se* and the process, you said there should be patent only for the process of the product; is it your opinion that the product should be patented or not?

Dr. K. A. Hamied: The product is patented on account of the process.

Shrimati Sharda Mukerjee: There is a difference between the process and the product.

Dr. K. A. Hamied: I know the difference, but if the product is patented, nobody can make that product unless the process is known. This is happening in India. The product called tolbutamide, is a British pharmacopoeia product. It is not a proprietary name. The patent is held by Hoescht for the manufacture of that product. 17 patents are held by them for the manufacture of tolbutamide. If we import this product, they say that the product is also patented and we cannot import it. This is the position. So, they are today in full control of not only the process but the manufacture of tolbutamide.

Shrimati Sharda Mukerjee: Do you think there should be a shorter term than what is provided in the Bill?

Dr. K. A. Hamied: I have already, answered it: 10 years.

Shri S. N. Mishra: Our main object is to restrict or eliminate the scope for exploitation which is inherent in the situation. You have suggested a few methods for doing so. The methods that you have suggested are, so far as I have been able to understand, to restrict the patent to one process. Secondly, to make provision for compulsory export; thirdly, to provide for the import of its products.

Dr. K. A. Hamied: In case the patent-holder does not make it.

Shri S. N. Mishra: Yes; these are the three ways in which the scope for exploitation could be restricted or eliminated. Could we add to them—I am just testing my idea with you, and it may be a kind of compromise—that in the case it is laid down that a particular level of production has to be attained inside the country and if that level is not obtained, the Government would be compelled to allow import? There should be a kind of compromise. The Government can take a view of the requirements or the demand or the potential demand in the country and the Government can lay down that this level of production has to be obtained through

the exploitation of the particular method and so on. If that has not come about, then the Government will be compelled to provide for import. That makes it more reasonable, when you say that there should be sufficient import.

Then, if the development of the basic drugs and the intermediates comes about in a satisfactory way, then also the scope for exploitation would be very much limited, because much of the reasons for the increase in prices may be put down to the import of many of these raw materials too, which they have been using for this purpose. So, as we have been thinking, if in the country we are able to bring about adequate development of the basic drugs and the intermediates, then much of the scope for this can be eliminated. Would you like to lay more stress on that?

Mr. Chairman: What is your question?

Shri S. N. Mishra: It is a simple question. My question is, if it is laid down that a particular level of development has to be attained by the exploitation of a particular method, would not the scope for exploitation be limited. I am trying to test the idea with the learned witness. This is a very important question for which I want to have his advice and his answer.

Dr. K. A. Hamied: Regarding the first question, it will be very good if the patent-holder or the licensee under compulsory licence or other licences, is induced—not forced or compelled but prompted—by the Government to manufacture as much quantity of that substance as is needed in the country; it will be very good if the patent-holders or the licensees try to help and produce as much as is required by the country. In case it is not possible for some reasons, you suggest that this should be imported by the Government, but there comes the foreign exchange difficulty. At the present juncture, the question of import does not arise at all. And therefore, we are not to consider it at the present juncture of the foreign exchange position.

Shri S. N. Mishra: That is something else. The foreign exchange position may be difficult, but you should not go by that; it is only about the principle that I want to have your views.

Dr. K. A. Hamied: If foreign exchange is freely available, you will give notice to the manufacturer saying that we shall allow import, as Mr. Kidwai did when the sugar prices were going high. He issued licences for the import of sugar, to 20 people—I know it—and the sugar prices immediately came down.

Shri S. N. Mishra: So, in each case, would you like the Government to lay down the level of production which has to be attained, keeping in view the requirement of the country with regard to that?

Dr. K. A. Hamied: Yes.

Shri Sham Lal Saraf: Then the question will arise as to whether we have got the wherewithal in the country to get to that level of thinking.

Shri S. N. Mishra: The Government will take a review of the production, keeping in view all these things: the position of the resources, the demand in the country and so on. But it must not fall below a particular level of production.

Dr. K. A. Hamied: I have already replied that the production of one item depends on the import of another five items. We are lacking in the basic drugs and intermediates. I am making certain products for which I am given a licence for the raw material to the tune of three tons. I am producing a vitamin which is very important today in India and which is not made by anybody else. If the Government does not allow me to import my three tons of raw material, I cannot manufacture my vitamins. So, the question is, for the manufacture

of that much quantity laid down by Government, for the use of the whole country, the raw material required for the manufacture must be allowed by the Govenment. Otherwise, it cannot be made.

Shri S. N. Mishra: My question No. 2 is with regard to the development of basic drugs and the intermediates. If the basic drugs and the intermediates are produced in the country in large quantities, would you suggest that there should not be much scope for the grant of patents?

Dr. K. A. Hamied: The grant of patent is quite different. To my knowledge, not many patents are involved in basic drugs and intermediates.

Shri S. N. Mishra: There will not be much scope for that.

Dr. K. A. Hamied: The patents start after the intermediates and when we have a combination of intermediates in 20 different ways, we reach 20 different products. Then, we start patenting. As a Chemist, I have combined one or two intermediates and produced a drug for heart disease. Another man may combine two different intermediates and produce a tranquilliser. Everybody tries to combine intermediates in making new synthetic chemicals which are used as drugs and medicines. That derive for making new inventions and discoveries in the field of medicines will always remain.

Shri S. N. Mishra: The prices will come down.

Dr. K. A. Hamied: The prices will come down when competition starts.

Shri Peter Alvares: You and some other chemists have made out a case that one of the reasons for the stagnation of the Indian pharmaceutical industry is the existence of foreign patents. This implies that because you are not able to work on those foreign patents, you are not able to expand. It is a very sorry state of affairs because it implies that all the research that has been done has been done by foreign patentees and you have nothing else to day. May I ask why is it that the Indian pharmaceutical industry has not been able to achieve a break-through in inventions of essential drugs?

Dr. K. A. Hamied: The break-through is not so easy as the Hon. Member thinks. There are so many factors involved in making a break-through. On the discovery of a new drug, whether it is for diabetics or heart disease, the break-through is a combined process of the chemist, the pharmacist, the bio-chemist, the microbiologist and the medical doctor. The combination of all these factors leads to a drug and leads to a patent.

Shri Peter Alvares: Some of the witnesses have been saying that in the interest of India, this patent law should be abrogated. It has also been said that one should not rely upon copying so much but one should try to do some sort of fundamental research. I would like to know why the pharmaceutical industry has not been able to achieve anything in that matter. Can you tell me what is the percentage of their profits which they invest in research from year to year?

Dr. K. A. Hamied: They invest quite a lot.

Shri Peter Alvares: What is the percentage?

Dr. K. A. Hamied: It will be about 20 or 30 per cent.

श्री ब्रज बिहारी मेहरोत्रा : मैं एक ही सवाल करना चाहता हूं कि यह बिल जिसने कि फौरेन लोगों को इतना बिचलित कर दिया है कि वे दौड़े चले आये हैं तो यह बिल अगर ऐसे का ऐसा एक्ट बन जाय तो क्या इससे देश को कुछ लाभ होगा ?

डा० के० ए० हमीद : मेरे ख़याल में ज़रूर मदद मिलेगी ।

श्री ब्रज बिहारी मेहरोत्रा : वह किस दर्ज तक मिलेगी इसकी जानकारी मैं चाहता हूं ?

डा० के० ए० हमीद : मैंने उसका जवाब दे दिया हुआ है ।

श्री ब्रज बिहारी मेहरोत्रा : पेटेंट की मियाद अगर हम दस वर्ष से कम भी कर दें तो क्या आप इसे पसन्द करेंगे ?

डा० के० ए० हमीद : उसका भी मैं जवाब दे चुका हूं

Shri Gowdh: In the present Bill, there is a provision for the payment of royalty at the rate of 4 per cent. Do you think it is reasonable or do you think that no royalty should be fixed or that the rate of royalty should be increased?

Dr. K. A. Hamied: I think 4 per cent is a very desirable percentage provided the person who takes the licence works the patent and sells it in good quantity. It depends on the sale. If the sale increases to Rs. 30 lakhs or Rs. 40 lakhs and he gives Rs. 1½ lakhs to the patent-holder for doing nothing as royalty, it is a very good return.

श्री अचल सिंह : जो आपने मेमोरैंडम दिया है मैंने उसको अच्छी तरह से पढ़ा है और मैं उसको बहुत एप्रीशिएट करता हूं लेकिन मैं इसी के साथ साथ यह आप से जानना चाहता हूं कि अगर हम पेटेंट बिल जोकि हमारे सामने है उसको हम हटा कर बिलकुल इटली, जापान में जसा कि बिलकुल फ्री था वैसा फ्री यहां भी कर दें तो क्या हम उसको ठीक से चला सकेंगे ?

डा० के० ए० हमीद : मेरी राय है कि हम जरूर चला सकगे और हम बहुत ज्यादा तरक्की करेंगे ।

श्री अचल सिंह : जिस चीज़ की कीमत एक रुपये होती है उसके दस रुपये यहां पर वसूल किये जाते हैं अगर यह पेटेंट बिल हट जाय तो क्या वह चीजें यहां पर हमें सस्ती मिल सकेंगी ?

डा० के० ए० हमीद : अब कीमत का तो सवाल दूसरा है । अगर कोई चीज जोकि एक रुपये में आती है वह अगर हमको बारह आने में मिलने लगे तो वह ठीक ही होगा । बाकी मैं यह मानता हूं कि वैसा होने से हमारी तरक्की होगी इल्म में और हम वह चीजें भी बना सकेंगे जिनमें कि हम को आजकल रुकावट हो रही है और हम बना नहीं पाते हैं ।

I am not talking of injections and tablets. I am talking of the raw materials and the patents for the raw materials. Tablets are being made here but the materials coming from there are patented. The drugs are not patented; they are patented only in name.

श्री रामसेवक यादव : आपने अपने मैमोरैंडम में यह कहा कि एक देश से दूसरे देश में, खास तौर से हिन्दुस्तान में जो बाहर से चीजें आती हैं और उन के दामों में फर्क है तो मैं आप से जानना चाहूंगा कि पेटेंट की कीमत बढ़ाना किस हद तक मददगार समझते हैं और क्या पेटेंटी और लाइसेंसी को वह इस शर्त्त पर दिया जाय कि जो अन्तर्राष्ट्रीय कीमतें होंगी उनके साथ उसको चलना पड़ेगा और ऐसा होने से यह चीज़ दूर हो सकती है ?

Dr. K. A. Hamied: The patent is responsible for higher price to a certain extent in the early stages of the product. For instance, Cartisone was manufactured by a very big laboratory in America. They spent millions of dollars on that and the price they kept was Rs. 950 per gram. You may say that on account of the patent which they were holding, the price was Rs. 950 per gram. But that is not so. It is because they were the only manufacturers. There was nobody else in the United States

or in England or in Germany. They were selling at a price which they liked because the drug was very important and useful. In America, the scientific workers are so advanced that they started to manufacture Cartisone by 20 different methods which we in India are not able to do. They succeeded in that. When 3 or 4 firms started manuafacturing the product, the price came down to Rs. 95 and today it is standing at Rs. 8 only. So, in the early stages if there is nobody coming forward to utilise that patent, then the patent-holder is the only man who manufactures the product. That is one of the causes of the rise in price. If enough number of persons come forward and take the licence and start manufacturing the product, then the price due to patent will never be high. If there is competition, the price will be less.

श्री राम सेवक यादव: पेटेंट या लाइसेंस के साथ जो गैर मुल्कों की चीजों के दाम हैं उसकी शर्त लगाने से क्या कुछ दिक्कत को दूर किया जा सकता है ?

Dr. K. A. Hamied: There are causes by which the prices of pharmaceutical chemicals are higher in India than in other countries of the world. The price of sulphuric acid is double the world price; the price of nitric acid is three times the world price; that of caustic soda is double the world price. These are basic materials required in the manufacture of various items.

Mr. Chairman: We are manufacturing all of them here.

Dr. K. A. Hamied: Yes. Nitric acid is manufactured only by Government at Sindhri; it is selling at three times the world price.

Shri K. K. Warior: I want to draw the attention of the witness to this position: he said that we were short of the basic materials;, then how can he complain that the foreign firms import these materials for finally processing them?

Dr. K. A. Hamied: I have not complained.

Shri K. K. Warior: Dr Hamied, in the event of these firms not importing, do you think that the Indian manufacturers alone should import these intermediates?

Dr. K. A. Hamied: Let me explain this. The foreign firms are holding patent for making, say, Butanol. They are holding patents for making the three ingredients. But they are not making these three ingredients here.

Shri K. K. Warior: Are they importing finished good?

Dr. K. A. Hamied: They import finished raw materials and press them into tablets here. Why are they holding the patents?

Shri K. K. Warior: In the absence of that, what will the indigenous firms do?

Dr. K. A. Hamied: The knowledge of manufacture of intermediates is not available here.

Shri K. K. Warior: First you say that our pharmaceutical industry has developed to such an extent that we would depend on our own know-how and in another breath you say that, if at all we are allowed to import these intermediates or the basic raw meterials, we are not able to do the finished goods. How do you reconcile these two statements?

Dr. K. A. Hamied: We are allowed to import intermediates as much as the foreign firms are allowed to do. But they have the privilege of holding a patent and not utilising it. That is what we are objecting to.

Shri K. K. Warior: You will agree that, if at all we get the raw materials, we do not have the know-how to have the products finished?

Dr. K. A. Hamied: I am not comparing the Indian manufacturers. I am saying that the foreign manufacturers are not utilising the patents which they are holding.

Shri K. K. Warior: What I want to know from you is this. As long as the indigenous firms do not have the knowhow, what is the harm in the foreign firms holding it back or blocking it?

Dr. K. A. Hamied: We have the knowhow.

Shri K. K. Warior: I am sorry you are not catching my point. My point is this: some four processes are patented by a foreign firm; they are using only one and three are left out just to block....

Dr. K. A. Hamied: My argument is that they are not using even one.

Shri K. K. Warior: Why can't the indigenous firms have their own knowhow to make use of the basic materials which can be imported?

Dr. K. A. Hamied: They are now gradually using it. Our scientific knowledge is slowly advancing; the laboratories are now working. Immediately after Independence, we were passing through difficult times; we had the import control difficulties—raw materials, even for research, were not allowed. But now we have advanced so much that today we are in a position to overcome those difficulties and we are doing some work.

Shri K. K. Warior: Is it your opinion that, even if you had all the facilities of raw materials and the facility of the background of the chemical industry, you will not be able to develop in this country your own inventions and your own production? In other words, is it your opinion that, given all other favourable conditions, the existing Act will come in the way of your developing?

Dr. K. A. Hamied: From my experience I can say that it has come in our way. Whether it will continue in future also after our scientific knowledge advances, I cannot say.

Shri K. K. Warior: Till now even though there was the provision for compulsory licensing, many people did not take advantage of that. Now do you think that the provisions of Clause 95 of the present Bill—for the terms and conditions of compulsory licensing—are all right or do you think that any further advantage should be given to the licencees, apart from the patentees?

Dr. K. A. Hamied: I have already replied. So far as the present Bill is concerned, they are sufficient. If more facilities can be given, so much the better.

Shri K. K. Warior: My question arises this way. When there is no agreement between the patentees and the licensing applicants as far as royalty and other considerations are concerned, when such disputes arise when there is no agreement and the Controller comes into the picture, do you think that the present provisions contained in Clause 95 of the Bill are satisfactory or any amendments are necessary?

Dr. K. A. Hamied: I have already replied to this.

Shri Kashi Ram Gupta: You have given a statement that Japan started its Patent Act in about 1945, after the Second World War. Some say that it was after the First World War. So I want to know whether you have based your knowledge on the fact that you have seen the document itself—the Patent Act—or your knowledge is borrowed from some others.

Dr. K. A. Hamied: It is borrowed from the general information which I have been able to receive. I cannot say from which document I have been saying this. Mr. Davar also has said the same thing.

Shri Kashi Ram Gupta: My point is this. Have you seen the Act itself?

Dr. K. A. Hamied: I have not.

Shri Kashi Ram Gupta: You say that you are exporting your own medicines. Are they patented medicines?

Dr. K. A. Hamied: Medicines we are exporting. We are also exporting raw materials of pharmaceuticals.

Shri Kashi Ram Gupta: Does your firm possess any patents? How many are there in your firm?

Dr. K. A. Hamied: About 4 or 5.

Shri Kashi Ram Gupta: Are they doing quite all right?

Dr. K. A. Hamied: 3 out of them.

Shri Kashi Ram Gupta: Are they being sent outside?

Dr. K. A. Hamied: We are not debarred from sending outside. They are not sent outside beacuse other countries have their own laws, import control orders, etc. I am not allowed to import finished medicines from other countries. They cannot import from my country. There is no bar on me from exporting.

Shri Kashi Ram Gupta: You said that you have experience about research. When you say that it takes long time these days to arrive at any new invention, because it has become more competitive, thousands of compounds may be there and only one of utility may be found. This is a sort of gambling where a lot of money is put in. This is one argument. The other argument on the other side is this. They say that the period for which the patent may be given should be very low. How do you reconcile the two?

Dr. K. A. Hamied: 8 years or 10 years

Shri Kashi Ram Gupta: 10 years from the date of application. It may take 3 or 4 or 5 years for the same.

Dr. K. A. Hamied: They may start the manufacture before the sealing time.

Shri Kashi Ram Gupta: They can start it, but government cannot take action.

Dr. K. A. Hamied: The moment patent application is made and final specifications are submitted....

Shri Kashi Ram Gupta: He won't do it.

Dr. K. A. Hamied: There are articles manufactured in England and Bombay and it is written: Patent applied for. You can't copy it.

Shri Kashi Ram Gupta: The controller cannot interfere so long as it is not sealed. Why should one start like that when a law does not allow?

Dr. K. A. Hamied: Law does not prohibit him from starting. It does not prohibit him from starting. So long as process is known only to me and not revealed to anybody else....

Shri Kashi Ram Gupta: Unless it is sealed he cannot go to court of law. That period cannot be counted that way. You say, it may be less than 10 years.

Dr. K. A. Hamied: I am not able to know the legal point raised by the hon. Member. After specifications are completed and filed by patentee in the patent office, after that, I believe the patent applicant is protected if he makes known to the people that he is manufacturing such and such a product and that the patent is pplied for; nobody can copy that under the law.

Representative of the Ministry: Applicant is not sure as to what is going to be the ultimate patent. Some of the claims may have to be amended. So it is only after their acceptance and opposition period is over that patent will be sealed and right accrues after sealing of patent. No suit can be filed under any rule earlier than sealing.

These patents are being sold in England and Germany and they say: Patent applied for.

Mr. Chairman: The witness is not competent. These are all legal points.

Shri Kashi Ram Gupta: Do you agree to the period?

Dr. K. A. Hamied: I have already replied to that.

Shri Kashi Ram Gupta: The rate of royalty of 4 per cent is enough you said. In these days it is a competitive position regarding research. Will that amount spent on research be able to be recovered by this 4 per cent of royalty?

Dr. K. A. Hamied: If licence is granted to several firms and you exclude that licence 4 per cent will be ample. He will get 4 per cent from 10 firms.

Shri Kashi Ram Gupta: You should give your opinion about the rate of royalty.

Mr. Chairman: He has mentioned that 4 per cent is enough.

Dr. K. A. Hamied: Companies declare dividend of 6 per cent. If patent holder gets 4 per cent without trouble and labour, I don't think it is bad.

Shri Kashi Ram Gupta: What are the difficulties for companies like you to have your own know-how patented in the present conditions?

Mr. Chairman: Know-how is not patented.

Dr. K. A. Hamied: Some of our patents are well known ones. Others don't know. We want to hide our research. We apply to the patent office. We are holding a few patents. We consider it as complete secrecy of ours and nobody can copy it. If anybody copies it I will also suffer.

Shri Sham Lal Saraf: You said that the annual return by way of dividend and know-how is over 7 crores of rupees. What is the total investment made by foreign investors in India?

Mr. Chairman: He has given that also.

Shri Sham Lal Saraf: What is the annual return for that investment plus technical know-how?

Dr. K. A. Hamied: This is 7 crores on investment of 14 crores.

Shri Sham Lal Saraf: The entire investment on the part of foreigners is only 14 crores.

Dr. K. A. Hamied: There are 35 concerns.

Shri Sham Lal Saraf: At the present stage there is lack of knowledge and there is lack of inventive genius and technology. What measures do you suggest so that we may come up to the level of the progresaive nations of the world?

Dr. K. A. Hamied: This is nothing coming under patent law. There are many methods.

Shri Sham Lal Saraf: This law is brought from England for specific purpose. There are number of members speaking on different aspects of the Bill. Our feelings and fears are there. We do not want to get them from outside for all times to come. You have said that this is a reciprocal law, Today we are not yet in a stage of reciprocating with foreign countries. You know it because you are an expert. How do you suggest that we can at least reach a stage so that we will be able to reciprocate? How long will it take for us to reach that stage?

Dr. K. A. Hamied: About 20 to 30 years.

Shri Sham Lal Saraf: We are at the lowest ebb so far as development is concerned. Our advancement in science and technology cannot be

compared with the achievements of advanced countries.

Dr. K. A. Hamied: I agree that foreign countries are today very much advanced in technical know-how and ingenuity. They have been doing that work for years. But this has nothing to do with the patent law. I can write a thesis on that.

Shri Sham Lal Saraf: Unless there is collaboration we will not go ahead. About abrogation of this law, you might be knowing that in Italy when this law was abrogated for a number of years the goods manufatcured were defective and of low quality. Then the Italian Government was forced to introduce a law. Today the law is on the anvil of the Italian Parliament.

Dr. K. A. Hamied: In Italy the real reason is that certain gigantic institutions do not want smaller firms in Italy to manufacture certain chemical which those gigantic firms are manufacturing. The smaller manufacturers started manufacturing them because they do not care for the patent law. Now the gigantic American and Italian firms are forcing the Italian Government to pass a law. The law is not yet passed. But who are behind this move? They are big firms. Similarly, here also lawyers are flying from Switzerland and Germany to oppose this Bill.

Shri Sham Lal Saraf: Regarding your own firm, how many of your know-how are patented under this?

Dr. K. A. Hamied: About five or six.

Shri Sham Lal Saraf: You said that as far as foreigners who are working in collaboration or on their own are concerned, to the extent of manufacturing within the country, they may be allowed patent rights. Otherwise, they import and let others also be able to import.

Dr. K. A. Hamied: If they are holding a patent for a certain product in our country and are selling it without manufacturing—I can give you so many examples. Acromycin is one such.

Shri Sham Lal Saraf: That means importing a commodity should not come under this.

Dr. K. A. Hamied: It is so also under the existing law. Under the new Act it will be free. They can import.

Shri Sham Lal Saraf: For manufacturing a particular drug there are more than one process. A particular firm is employing just one process. With regard to the rest, it should not be allowed.

Shri K. A. Hamied: I quite agree.

Shri Sham Lal Saraf: With regard to inequality of prices ranging between what is being sold in our country and foreign countries, what would you suggest to regulate the prices?

Dr. K. A. Hamied: I do not think that by statutory regulations prices can come down.

Shri Sham Lal Saraf: With regard to raw materials for manufacturing drugs, you have said that they are to be imported. How long shall we continue to import these? Or, do you think that attempts have to be made to use our own raw materials?

Dr. K. A. Hamied: We are unnecessarily afraid of imports. Switzerland is a country to which God Almighty has given nothing—no steel, no coal, nor coaltar. Still it is the largest producer of chemicals and pharmaceuticals which have flooded the whole world. They have no raw-materials except cheese and butter and milk. How did they achieve this? Because they are allowed to import all types of things for manufacture. Government do not interfere. Their scientific knowledge and development is so high that they are now the experts. They are importing coaltar products from France, Belgium, etc. We are not allowing that. I am trying to tackle

this matter with the new Finance Minister. Please allow us to import all raw materials free of duty. Let us then see how much export we can do. If I import raw materials for Vitamin from Germany at 65 per cent duty, I cannot do anything after that. If the Finance Ministry take a very rational view on imports of raw materials, all these can be converted into finished products as Switzerland is doing. We shall also then flood the world with our things and our science and industry also will develop.

Shri Sham Lal Saraf: Would you please send a note to the Chairman on this question of import of raw materials indicating what type of raw materials will be helpful to us?

Dr. K. A. Hamied: We will.

Mr. Chairman: Thank you very much.

(The witness then withdrew)

(Dr. Abraham Patani was called in)

Mr. Chairman: Dr. Patani, Dr. Hamied has already taken three hours. Our friends are tired. Tomorrow we have got two foreign witnesses. We cannot postpone their evidence. Since you are coming from Bombay, we will give you some other time. Please excuse us. We want to give you full time.

Dr. Abraham Patani: Thank you, Sir.

(The Committee then adjourned)

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Wednesday, the 2nd February, 1966 at 14.00 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*

MEMBERS

Lok Sabha

2. Seth Achal Singh
3. Shri Peter Alvares
4. Shri Ramchandra Vithal Bade
5. Shri Panna Lal Barupal
6. Shri P. C. Borooah
7. Sardar Daljit Singh
8. Shri Basanta Kumar Das
9. Shri V. B. Gandhi
10. Shri H. K. V. Gowdh
11. Shri Kashi Ram Gupta
12. Shri Madhavrao Laxmanrao Jadhav
13. Shri Mathew Maniyangadan
14. Shri Braj Behari Mehrotra
15. Shri Bibudhendra Mishra
16. Shrimati Sharda Mukerjee
17. Shri P. S. Naskar
18. Shri Chhotubhai M. Patel
19. Shri Naval Prabhakar
20. Shri R. Ramanathan Chettiar
21. Shri Sham Lal Saraf
22. Dr. C. B. Singh
23. Shri K. K. Warior
24. Shri Balkrishna Wasnik
25. Shri Ram Sewak Yadav.

Rajya Sabha

26. Shri Arjun Arora
27. Shri Vimalkumar M. Chordia
28. Shri R. S. Doogar
29. Shri D. P. Karmarkar

30. Shri P. K. Kumaran
31. Shri Shyamnandan Mishra
32. Shri Dahyabhai V. Patel
33. Shri Mulka Govinda Reddy
34 Dr. M. M. S. Siddhu
35. Shri Dalpat Singh
36. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*
3. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESS EXAMINED

Dr. J. M. Hunck, *Chief Editor, Handelsblatt, Duesseldorf, West Germany.*

Dr. J. M. Hunck, Chief Editor, Handelsblatt, Duesseldors, West Germany

(The witness was called in and he took his seat)

Mr. Chairman: Dr. Hunck, the evidence that you give will be treated as public and published and distributed to our members and also placed on the table of the Parliament. Even if you want anything to be treated as confidential, it will be printed and distributed to our members. We have received your memorandum and it has been circulated to all the members. If you want to supplement anything, you may now do so. After that, the members will ask questions.

Dr. J. M. Hunck: May I supplement my memorandum now?

Mr. Chairman: Have you got sufficient number of copies?

Dr. J. M. Hunck: Not now; I can hand it over to you tomorrow.

Mr. Chairman: We will require 65 copies.

Shri R. Ramanathan Chettiar: Before Dr. Hunck begins, we would like to know something more about Dr. Hunck.

Dr. J. M. Hunck: Handelsblatt is an economic and financial paper and I have been the Chief Editor since the starting of this paper; it was started in 1946. It is a new style of financial paper where international relations in the field of commerce play a very important part and this pattern has been followed all these years. To a considerable extent, it

has also promoted our foreign trade whether export or import.

Shri R. Ramanathan Chettiar: We would like to know whether any pharmaceutical industry or drug industry in Germany has got any interest in the economic journal.

Dr. J. M. Hunck: Yes. No financial interest, *i.e.*, capital.

Mr. Chairman: You are not connected with these industries. You are not connected with the Patent Law. You are not a practising agent or attorney for patents. Only as an *amicus curiae*?

Dr. J. M. Hunck: Yes. Some pharmaceutical industries in Germany came to know about my intention to come to India and asked me if I could try to do something for them.

Mr. Chairman: Have you got anything in writing to show that they have authorised you to come and give evidence?

Dr. J. M. Hunck: No. They asked me if and when I go to India I can do something for them.

Mr. Chairman: As one interested in the collaboration between India and Germany?

Dr. J. M. Hunck: Yes, that is my point.

Mr. Chairman: You may begin.

Dr. J. M. Hunck: Hon'ble Mr. Chairman and Hon'ble Members of the Joint Select Committee, at the outset, I would like to thank the Committee for having granted me the opportunity of appearing before you and offering my views on the Patent Bill 1965 and elucidating some of the matters, mentioned already in my memorandum. India is by for the largest active democracy of the world and since independence has been a tower of justice and equality. The fact that the Committee has agreed to invite oral evidence from other countries of the world with regard to this legislation bears ample testimony. For this reason, many nations, including West Germany, have maintained friendly relations with India.

I would like to refer to the preface which Dr. Leubke, President of the Federal Republic of Germany wrote for my last book on India entitled *India Tomorrow* which generally states that real friendships always produce new friendships, and to the words of Dr. Leubke:

> "Just as the social duty of the individual to the community of our people has become a fundamental principle of our national life, so our people as a whole feel they have a social duty to the larger community of the peoples. The world will judge our people according to their willingness to aid other peoples. Indians and Germans have co-operated in various fields; scholars from both our countries have worked in close co-operation in the spheres of arts and literary studies. This collaboration is now spreading to the field of technology. May it promote the welfare of the Indian nation and contribute to a flourishing friendship between Germany and India?".

Similarly, the Federal Minister for Economic Cooperation, Mr. Walter Scheel, mentioned on the 13th of January this year, when he held a press conference in New Delhi, that the Federal Government would do its best to help India by capital aid. Besides, it would lay special stress on technical aid which includes education and training. Furthermore, the German Government will promote joint ventures between Indian and German firms in a more intensive manner. The Indian Investment Centre told me yesterday that till September, 1965, a

total of 372 approvals for joint ventures had been accorded. These joint ventures which provide foreign capital and technical aid as well, can, as a matter of fact, only flourish in a favourable investment climate and because your government will only allow new investments in those branches which are of the utmost importance to the health and economic developments of your people, such climate may be called the cornerstone of profitable co-operation for all parties concerned.

In my opinion, international partnerships are the stepping stones to future economic stability. They are the most dependable means of overcoming obstacles. With their aid, India is bound to gain in stature as an international partner in trade and industry. Due to its vast population and the vast untapped resources of mineral wealth, India is most suitable to become one of the most important economic partners in the world. If India were to achieve this, she must lose no time in developing the home market and supplementing it by an export trade with various other countries of the world.

To quote the words of Shri G. L. Mehta, Chairman of the ICICI and India Investment Centre:

> "There is nothing objectionable *per se* in obtaining assistance from other countries whether in the form of government aid or private investment obtained on fair terms and in a selective manner.".

Shri Ashoka Mehta, the non. Minister for Planning has rightly emphasised that self-reliance does not mean self-denial of the essential means of development, which is foreign aid, or even stagnation of the economy.

Mr. Chairman: You are only repeating what is already contained in your memorandum.

Dr. J. M. Hunck: There are two quotations which I have given.

Mr. Chairman: You have already said all this in your memorandum. If you want to supplement anything in addition, you may do so. It is not necessary to read the whole thing again.

Dr. J. M. Hunck: I am only giving these two quotations.

Your Committee is considering a new patent law which amongst other things gives special treatment to articles of food and medicine. Your esteemed Health Minister, Dr. Sushila Nayyar, who being also a medical doctor is extremely competent to deal with all questions concerning health, has tried as far back as 1963 to remodel patent protection for foods and medicines for the main reason that production may rise and that consumer prices might in consequence go down. The hon. Health Minister is making efforts to obtain cheap medicines for the people. But which is the best method to do so?

I have been an economist during all my life and did practical and theoretical work as a scholar, as a businessman, as a writer and as the editor of an economic paper of international reputation. In my opinion, prices will only become lower if the productivity increases and more goods are being offered in relation to a given demand. In the case of pharmaceuticals, this means, in the first place, that research and development goes on in the same intensive manner as has been done in all countries where new drugs have been produced and sold on a large scale. This research and development is very expensive. Proof of this fact is the statistical late about new drugs produced during the last fifteen years in various countries. U.S.A. figures with not less than 355 new drugs, little Switzerland with 44, West Germany with 32, United Kingdom with 27, and France with 21 and the remaining countries including

Italy and Russia produced fewer than five each.

India is trying to achieve self-sufficiency in food by 1971-72. This was even confirmed to me yesterday by your hon. Food Minister, Shri C. Subramaniam, whom I had the pleasure of meeting yesterday. This means increased crop production and cattle improvement, to say the least, according to Dr. P. V. Sukhatme, Director, Statistics Division of the F.A.O., who delivered the Dr. Rajendra Prasad Memorial Lecture in Cuttack on December 31st. Dr. Sukhatme stated that 25 per cent of the Indian people suffered from hunger and malnutrition; in the case of children it was even worse. This makes your endeavours to bring down prices for medicines and pharmaceutical products like vitamin tablets quite understandable. But one should not forget that out of about three thousand experiments in the laboratories only about one product becomes of practical use and will be a commercial success too. The question, therefore, arises, of course, whether the Government itself should be in charge of laboratory research work by means of public enterprises. Research and development of that kind includes pharmacology, toxicology and clinical trials in several hundred clinics in the country and abroad which usually takes four to six years. Very often, it happens that these trials prove to be unsuccessful or that after one or two years the disadvantageous effects of the product are observed. In the meantime, three to four million rupees might have been spent. Perhaps there might be very few directors in the public sector research undertakings who would courageously stop further trials after enormous amounts of money have already been spent and that will be lost. The private entrepreneur, however, it used to take these risks, and he must do it if solely for competitive reasons. He is possessed by the idea that that another time the lost money will be recovered by first class laboratory research. The mere risk element in research might in any case be claimed as justification for higher returns. Surely, in many cases, drug firm is like an economist; its income lies in its brain power, its principal asset. Yet no one has tried to express my own earnings as a rate of return on my capital (*e.g.* car, office, one typewriter).

In the drug industry, the existence of patents does not restrict competition. In fact, patents are essential to competitive endeavours. Drugs have a very inelastic demand. If a patient can in any way manage it, he will consume the drugs of his doctor's choice. Price competition is therefore very unlikely to be effective. Rather it is substitute competition which typifies the drug industry, namely, rapid obsolescence of products, one drug being quickly replaced by a better one. Each company strives to discover new products and to improve its old ones. In other words, the objective must be determined from the point of view of whether it helps to promote (a) research for developing and discovering new drugs and processes by granting rewards for creativity and for the risks which have been undertaken in such research, (b) the cross fertilisation of ideas by encouraging publication of inventions rather than their suppression as a trade secret, (c) by creating a classified source of information concerning existing technology so as to aid in the conduct of research and prevent duplication of efforts, (d) by such cross fertilisation of know-how to improve and develop own know-how and thereby to become a major partner in international economy.

Less developed countries very often complain that young scientists prefer to stay abroad where they might earn more than at home. This situation is not unique to India. I can tell you that in 1962, not less than 356 and in 1963, in total 428 German scientists and technicians emigrated to the

United States. It is estimated that between 2 and 3 thousand German scientists and engineers are working in the U.S. The German Government is trying hard to get them back. So Scientific institutions are being erected on a broader scale. Their salaries will be enhanced. All over the world, skilled people are moving to the more developed countries. We have a lot of young scientists from African countries, from the Near East and also some from India who do excellent work. The British figures since the Immigration Act, analysed by the Ministry of Labour, show that from June, 1963 to June, 1964, some 32,000 employment vouchers were issued to commonwealth immigrants and over 90 per cent of these went to India and Pakistan. Development, as a matter of fact, is not simply a matter of producing skills; it is a matter of producing opportunities to use these skills. This includes laboratories, good salaries and similar incentives. First class laboratories or joint ventures or even foreign firms in India might offer a chance for young Indian scientists to be trained within the country and under conditions which he will meet when doing work within his own enterprise or with an Indian firm later on. This can only be achieved if there is a reasonable opportunity to recoup the capital invested and a reward for the risks undertaken in the shape of patent protection.

Your country, where 80 per cent of the national income comes from the private sector, has spent in 1961-62 on scientific research an insignificant amount of Rs. 46.9 crores which is Rs. 1.07 *per capita* and 0.32 per cent of the national income, while the total investment up to the end of the Third Plan is estimated at the huge sum of Rs. 30,000 crores, most of the investments being based on imported technical know-how. The Federal Republic of Germany with a population only 1/8th of the Indian population has spent in 1962 a total sum of Rs. 517 crores. Nevertheless, the so-called technical balance of payments (which compares the imports with exports of royalties) is highly unfavourable as far as the Federal Republic is concerned. In 1962, 50 million dollars were earned by German royalties whereas German firms paid not less than 135 million dollars for royalties abroad. This results in a negative balance of payments of 85 million dollars. Another statistical data might interest you. 75 per cent of private research and development in western countries is in the fields of aviation, construction of electrical machinery and appliances and the last, but not the least, chemical industry including pharmaceuticals.

It was the German chemical industry which invested most abroad during the last few years. In many Latin American Republics, the big dye-stuff companies and Schering have established factories to produce besides the dye-stuffs, artificial fibres, fungicides, pasticides, pharmaceutical products etc. FARBWERKE HOECHST to give you one example, have invested abroad a total sum of more than Rs. 30 crores of which 44 per cent was invested in less developed countries.

More than half of German private investments abroad were made by 24 big firms out of which 9 hold a leading position. This means that private investment is generally being made by relatively a few big enterprises. This is quite understandable because it must be remembered that especially the chemical and pharmaceutical firms need a lot of money to invest to the advantage of the country where they are carrying on their work.

Now let us look at some leading pharmaceutical firms and their business in India. First there is HOECHST, which participates in a joint venture with a majority Indian capital participation. HOECHST also plans to establish in collaboration with Indian partners a research laboratory near Bombay where Indian scientist will be usefully engaged. A few young Indian scientists are at the present moment being trained in Germany and they will, on return to India, occupy leading positions in this re-

search unit. CIBA, by the way, has built a huge research centre in Bombay where Indian scientists are busy. Next comes Bayer with a joint venture and a German part of 50 per cent. Bayer India has almost completed a factory near Bombay at a cost of Rs. 6 crores which will commence production in the beginning of autumn this year. Bayer will develop in this new factory three products which are vital or India's development. First coutchouc (rubber) auxiliaries, second pesticides, insecticides and fungicides, third pharmaceutical products against tropical diseases, besides resochine which fights malaria. In all these cases, it must be found out whether the Indian climate needs a different composition of the product, necessary to make it possible to store these products for a certain period without danger of deterioration. In other words, every foreign enterprise which does work within India must start a certain scientific work to find out whether Indian conditions are appropriate to either store their products or make the best use of it. Furthermore, these firms are experiencing with indigenous plants and active ingredients. Foreign knowledge is being matched, to the advantage of all parties concerned, with Indian knowledge. And everything should be done to protect such a development in the way of a fair patent law.

Boehringer Knoll works with a German partnership of 48 per cent., Sarabhai-Morck with 33 per cent, and German Remedies with 49 per cent. On account of the uncertainties of the Patents Bill, many German firms will hesitate to invest more in Indian laboratories. This, of course, would change at once if and when a patents law will be modled on a basis which is not confiscatory in character and on the basis of international terms to protect private property, whether material or intellectual.

In view of the most unfavourable foreign trade balance, India is highly interested in more exports. If the Patents Bill becomes law in the present form, exports will hardly be possible because expenses and risks are relatively high and could not be covered by the extremely small margin of profits which have been mentioned so often. Foreign partners are quite prepared to agree to exports being undertaken under conditions of a fair Patents Bill. They will do so the more since prices calculated in Western Germany, for instance (which may be considered to be a hard currency area) will naturally be higher than in countries with soft currencies. This export business will, therefore, be an asset which could hardly be over-estimated in joint ventures producing pharmaceuticals.

Foreign investments in Germany might give you another illuminating example of what concentrated international co-operation means. Between September 1961 and June 1965, the amount was Rs. 777 crores, half of which came from neighbouring countries and the rest from the U.S.A. As far as German investments abroad are concerned, they come in the private sector up to 1964 to only Rs. 8.64 crores. West Germany is, therefore, in consequence of the enormous losses due to the last war, walking to a certain degree on foreign crutches. International partnership was an efficient help in the recovery of the West German industry. Capital has been made freely transferable by the then Minister of Economics, Prof. Erhard. West Germany was able to gain its feet and surge ahead. Now it is, as you might know, the second largest trading partner in the world. The principle of its system is not only to assist the economically week but to give full cope to initiative and free enterprise.

I shall now give you another example which refers to an Asian country, Japan, after the second world war, has made rapid progress in technology and industry and accomplished considerable technical innovation. As the Japan Patent Association has explained in its memorandum which was handed over to the esteemed Select Committee, this is all due in an important degree to the introduction of foreign patents, foreign know-

how and foreign capital into Japan under the protection of Japanese Patents Laws which are in lines similar to the laws in other industrialised countries of the Western orbit. The technical balance of trade including patent royalties and payment for know-how amounted in 1964 to foreign expenditure of 146.4 million dollars while Japan received in the same year for patent royalties and know-how from abroad only seven million dollars. This again means, as in the German case, a negative balance of a sum total of 139.4 million dollars. Our Japanese friends reiterate this fact by saying that it is in this way that they have made technical progress in industries and have gained much larger sums in foreign currency by the exportation of the products thus made in Japan. It is exactly such a point of view which should be included in the basic objectives of your Patents Law and play a very important role. It is mentioned furthermore in the Japanese memorandum and I quote: "It is nations such as Japan and West Germany which held a complete Patents System and that have made progress in industry since the Second World War". And I may add in a phenomenal way.

If you consider the Indian Patents Bill under these aspects, one might say that it has restricted essential and substantial rights. The consequence mentioned in the Japanese memorandum is formulated as follows:

> "If any form of property were to be used or acquired by government without payment of reasonable compensation and without due process of law, such use or acquisition would offend the fundamental rights which we have always jealously safeguarded in a democratic country and India is considered as a model case of democracy."

The effect of this Bill, if enacted, is tentamount to taking of property under power of Government without due process of law, without provision for an appeal to a judicial tribunal and without just compensation. To give some data about the recent economic development of Japan, exports have risen in 1965 by 26 per cent after 23 per cent in 1964. The balance of payment came out with additional rupees 96 crores. The German balance of payment by the way in comparison in 1965 ended, for the first time since 14 years due to enormous imports caused by high prices, with a deficit which can be appriased at about rupees 780 crores. And may I add to finish up the Japanese case that the special adviser to the Minister of Foreign Affairs, Mr. Ohkita, mentioned some days ago in New Delhi that though the economic planning agency of the government had produced several plans since the end of World War II, the Japanese economy was predominantly a private enterprise and the per capita income in 1964 stood at 2900 rupees, by far the highest in Asia.

Reference is often being made to Italy and its patent laws. Everybody knows that the Patent Laws in existence have been reformed under the domination of Mussolini in 1939. There is practically no patent protection for pharmaceuticals in Italy, with the consequence that small and obscure firms are flooding the market, but nevertheless, international products are being preferred. HOECHTS, for instance, is in the market with 76 per cent of diabetes tablets consumed whereas 37 Italian firms deliver only 24 per cent. The same is the case with products of other firms who are research oriented. The chemical industry of Italy, as you might know, however, enjoys patent production and has developed a high international standard, if you take f.i. Montecatini and Edison.

Now the Italian pharmaceutical industry wants international exchange of technical progress and the Italian government has drafted a bill according to which patent protection shall be granted for processes to manufacture drugs and medicines. The draft

bill is before the Judicial committee of the Italian Senate.

On the other hand, the European Economic Community has prepared a European patents law which is in conformity with an agreement of the European council to harmonise the sale of all kinds of drugs. This of course will influence action in Italy as well as in Great Britain. May I add that the Council of Europe embraces European countries belonging to the European economic community as well as to the European free trade area and consequently all the States of western part of Europe. A convention on the unification of 13 points of substantive law on patents for inventions has been concluded in November, 1963. According to this convention of the Council of Europe protection will be granted to the substance itself produced by chemical processes in so far as the substance does not relate to food stuff, luxury articles, provisions including sweets, tea, coffee, beverages and tobacco products. Italy, as a member of the Council of Europe, is obliged after a limited period to grant patent protection for such substances produced by chemical processes. As you might perhaps know, the Soviet Union has already adhered to the international convention for the protection of industrial property known as the Paris convention. Further, in the middle of 1965, the Soviet Union has introduced a trade mark law. At a conference held at Munich recently between the representatives of Eastern and Western Europe including the Soviet Union, the above-mentioned information was again disclosed. This indicates reinforced preparedness for international exchange between east and west European countries including the Soviet Union of technical information and the use of patents upon payment of reasonable terms. Since the adherence of Soviet Union to the Paris convention, not a single case has been known according to which the Soviet Union has violated the patent rights. As far as the new Indian patent law is concerned, judicial appeal seems comparatively to be absolutely necessary.

Regarding the term of validity of a patent the exceptional case of ten years only for drugs and foods seems to be discriminatory. It is a basic experience that discrimination tends to breed new discrimination. It is suggested that the term should be ten years at least as of the date of sealing of the patent instead of the date of filing the complete specification.

Sections 5 and 47 provide that for food, medicine or drug patent protection shall be only for processes and to the products produced by such processes. But no provision is made concerning the burden of proof. This should lie in any case with the infringer. And if a licence is granted under a patent or another person is authorised to work the invention for reasons of vital importance, the licencee should start immediately to produce and not be allowed to import only. In any case the licencee should pay reasonable royalty. If a country changes its patent law it is to my mind a bad thing in so far as it offends the international code of fair behaviour and science and development in the whole world in a detrimental way. India, however, has a special place; it is a guiding lighthouse to many countries, especially those which are less developed. For this reason, pharmaceutical firms all over the world are so much interested in the way the Indian government proceeds with the patents Bill. There is always a way to find a solution which gives comfort to both parties.

If for instance prices seem to be extremely high, why not follow the French example: after a period of three years from the date of commercial exploitation, the patentee has to appear before an official committee which controls the whole cost structure and then has to come to terms regarding a fair and decent price. This of course can only be done on

condition that the representative of the government is not just interested td take over but to have the firm calculate a fair price. Needless to say that, for instance, big institutions like Securo Social in Latin America get a substantial discount. The Indian government has always been flexible if necessity arises. I might refer to the substantial tax reductions which will be granted for the erection of the new fertiliser factories.

The late Mr. Lal Bahadur Shastri wanted a purely pragmatic approach to problems. The Shastri legacy in the economic and scientific field is determined pursuit towards self-reliance in a most pragmatic manner which gives the best advantage possible to the Indian people without hurting the foreign investor sincerely. Solid business with a social touch is what you need in the new patent law. This is in conformity with the words of our President Lubuke which I quoted at the beginning of the memorandum. It reminds me of what the foreign minister of Kenya, Josef Murumbi, told me once: "As far as international co-operation is concerned, we do not want charity because charity only comes once. Therefore, we want solid and fair business which helps both the parties."

Thank you once again for having given me an opportunity to place my views before you and, Jai Hind.

Shrimati Sharda Mukerjee: Mr. Hunck, your memorandum which was circulated to us and also your explanation have been of considerable help to us. We would like to ask one or two questions. Would you like to tell us, in regard to the modern research which is being conducted in Germany in relation to drugs, how much of international co-operation you have in modern drug research, for instance? I mean the collaboration between your country and another foreign country, for instance, or foreign countries.

Dr. J. M. Hunck: I can only answer in general terms. I gave you the instance that we have much more royalties from abroad. I should appraise it at about 30 to 40 per cent, and a few of the drugs we are producing in Germany are being produced on the basis of royalties and patents from abroad.

Shrimati Sharda Mukerjee: I am afraid I did not put my question so directly; what I mean to ask is, in the research laboratories themselves, is there any work being conducted in collaboration between Germany and foreign countries.

Dr. J. M. Hunck: No, probably not.

Shrimati Sharda Mukerjee: When you say that international cooperation between India and Germany would be affected by this measure, do I take it that you only refer to the investment aspect or you refer also to the research aspect?

Dr. J. M. Hunck: I should think both, because research also means investment: sending exports to India and invest an amount of money and use technological work and find out the methods which may suit the climatic conditions of India, and find out indigenous plants and all those things. That means investment, of course.

Shrimati Sharda Mukerjee: As you are aware, this Bill is an amending Bill, coming after many years since the existing Act was brought into effect and which is now in force; the present Act is almost 50 years old. I think it has been the experience in this country that there has been very little collaboration in research in regard to drugs and other things. We feel that while European countries are anxious to invest capital here, they are not equally anxious to part with their knowledge.

Dr. J. M. Hunck: They have started the collaboration on a laboratory scale. The first step was, as you

might remember, the Indo-German co-operation with firms in Asia. This started only in 1957-58, that is to say, only six to eight years back, and within these eight years, the first step was to export to India; the second step was to establish its own ventures; for many years, the first difficulty was one of exchange; there was not enough foreign exchange to transfer our profits back to Germany, and for this very reason the German firms told me in the last few years that they even prefer to invest this money in India; probably Hoescht does it and Bayer does it, and similar other firms will do so. Since they were told that this co-operation is of advantage to both parties, they might call new items of research which can be transferred to Germany; it is in fact, not foreign exchange, but it is only intellectual money which can be exchanged with Germany and can be used in Germany for any other country where the climate and other conditions may be similar. The Germans have picked up this idea of erecting more laboratories in your country, especially—India—which has a huge market. I can give you more items.

Shrimati Sharda Mukerjee: As you have rightly said, India has a huge market, but India wishes to develop markets outside India, and it is to safeguard that that this Bill has been presented to Parliament.

Dr. J. M. Hunck: I think I have mentioned in my little memorandum that exporting is another thing; there might be other conditions and countries where exports are possible, especially your neighbouring markets in Asia, and these joint ventures are quite willing to do so. I see that there is quite a lot of such joint ventures of two or three firms here in Delhi, who do export business. Why should it not be done in pharmaceutical interests, which are specially prepared for this part of the world and this part of Asia?

Shri Bibudhendra Mishra: Would you please tell us the exact provision in the Bill to which you object?

Dr. J. M. Hunck: I mentioned in my speech that I consider patents as a method to restrict production or a certain amount of development for a given period to one firm. That is one objection.

Shri Bibudhendra Mishra: I hope you are acquainted with the provisions of your German patent law.

Dr. J. M. Hunck: I have generally presented my ideas. To a certain degree, I am aware of those laws. Basically, I am.

Shri Bibudhendra Mishra: In Germany also, articles of food and medicines—the products are not patentable, but only the process is patentable.

Dr. J. M. Hunck: Patents apply to both.

Shri Bibudhendra Mishra: I find from the United Nations publication that both in Germany and Japan, only the processes are patented, and if the patent is not worked inside the country, they can be revoked.

Dr. J. M. Hunck: But you have to pay compensation and you can apply to the court about it. It is quite natural.

Shri Bibudhendra Mishra: But there is a provision that if it is not worked inside the country, it can be revoked. Also, in the public interest, there is a provision that there can be compulsory licence.

Dr. J. M. Hunck: Yes; it must be, if it is a question of emergency.

Mr. Chairman: That is what this law is doing. What is your objection; those provisions are being sought to be enacted here; so, what is your objection?

Dr. J. M. Hunck: The objection is, it is not clearly explained which are those public undertakings and cases; secondly, by licensing, it does not enable us to go to court against it.

In Germany, there is a special court in Munich which deals with patents and with violations of patents.

Shri Bibudhendra Mishra: This book, published by the United Nations, *The Role of Patents in the transfer of technology to developing countries*, also refers to Germany, and the reply given by the Government of Germany says: "Free use of invention by order of Government in the interests of the public".

Dr. J. M. Hunck: Only with compensation.

Shri R. Ramanathan Chettiar: The compensation may be illusory.

Dr. J. M. Hunck: It must be a fair compensation.

Shri S. N. Mishra: What countervailing actions have you adopted in your country to contain the evil effects of monopoly arising out of patents?

Dr. J. M. Hunck: We do not consider that as an evil effect of monopoly. I have told you about the prices and about obsolescence.

Shri S. N. Mishra: If the prices do not happen to be at the international level, what action do you take?

Dr. J. M. Hunck: We do not take any action. We leave it to the free competition between the producers. Whether the price is high or not, the physician who recommends a drug and the patient who takes it prefer a drug prepared by a first class firm in which they have got confidence.

Shri S. N. Mishra: What is the amount of foreign investment that has taken place in drugs in Germany?

Dr. J. M. Hunck: I cannot give the answer at the moment.

Shri S. N. Mishra: You mentioned the figure of 777 crores so far as foreign investment is concerned. Probably that comprises both on government account and private account?

Dr. J. M. Hunck: Only private account.

Shri S. N. Mishra: Since you are dealing in the field of drugs, was it not reasonable for us to expect you to give some figure about foreign investment in the field of drugs?

Dr. J. M. Hunck: I can give it to you later; not at the moment.

Shri S. N. Mishra: What is the ratio of foreign patents to the indigenous inventions in Germany?

Shri Peter Alvares: In the subject-title of your memorandum you have said "Development of Indian Pharmaceutical Industry to serve the public—Memorandum pleading for competitive prices by fair competition". I do not know if you are aware that the prices of foreign patented pharmaceutical products in India are two to three times the cost in European countries. The other factor is most foreign pharmaceutical companies have secured a monopoly by patenting all processes in this country and thereby preventing the broad-based growth of the pharmaceutical industry. In view of this, how do you justify your own thesis that if the field is kept open for foreign enterprise and participation, the present system as it is will serve the Indian public? The prices are manipulated and the industry is not allowed to grow because of monopolistic tendencies.

Dr. J. M. Hunck: Of course, prices of many other things are also higher in India. An Italian Fiat car costs double the price here as in Italy. You might know the reasons why it is so. Of course, there might be other reasons—the price structure, cost of production, market situation, etc.

Shri Peter Alvares: That is not very correct, because these patents are not worked in India. They are

imported. If they were worked in India, I can understand the argument that cost of production in India is higher.

Dr. J. M. Hunck: I have seen statistics where prices of drugs in India are not high.

Shri P. S. Naskar: It is an acknowledged fact that the price of a particular brand of patented medicine in India is higher than the so-called international price prevailing in other countries. To pinpoint his question, can you tell me in the last 15 years how many patents have been taken by the German firms in India and how many of such patents are worked in India?

Dr. J. M. Hunck: Unfortunately I have no figures about it. I will try to get it.

Shri Peter Alvares: In the last para of page 3 you say,

> "The new Bill will not encourage in particular the foreign patent holders to work the patents in India."

This is what the Bill wants to do, *i.e.*, to try to compel foreign patent holders to work them in India. At present there is no such compulsion. That is why we have the situation where all patents are registered here, but the products for sale are imported from outside. The present Bill will try to do away with that. I do not understand how you say the Bill will not encourage the physical working of patents in India.

Dr. J. M. Hunck: As far as I know, the German firms do not see that there is enough security or the risks may be too high to start laboratories here.

Shri Peter Alvares: At the moment there is no compulsion to start a laboratory to work any patent in India. This Bill will try to do something like that in a half-hearted manner. But you do not want that provision and you want the existing provision to continue whereby it will not be required that a patent is compulsorily worked in this country. So, this statement is not correct from the point of view of what the Bill seeks to do.

Dr. J. M. Hunck: I see it in a different way. At present there is no opportunity for a foreign patent holder to work on it in this country.

Mr. Chairman: Why is there no opportunity? If he takes a patent here and does not work it here, what is the government to do?

Dr. J. M. Hunck: Government can stipulate that he has to work it here. As I have said in my memorandum, you can always find a way which satisfies both parties.

Mr. Chairman: The very object of having patents is in the interests of the country.

Dr. J. M. Hunck: Yes.

Mr. Chairman: Supposing a patentee does not work that process and produce the product in India?

Dr. J. M. Hunck: After some years he should produce it here.

Mr. Chairman: That is what the Bill tries to do.

Dr. J. M. Hunck: But you must give decent conditions and fair prices on which he can work.

Shri Peter Alvares: India has a low cost structure and America has a higher cost structure. The prices here are four times the prices in America and in real terms the price of a particular medicine will be ten times more in India than what it is in America.

Dr. J. M. Hunck: There is no competition from other international firms.

Shri Peter Alvares: How can there be any competition?

Mr. Chairman: You hold the monopoly and you will file a suit in the court if your patent rights are violated.

Dr. J. M. Hunck: If you allow more firms then there will be competition.

Shri P. S. Naskar: You said that if a patentee after taking a patent inside this country does not function for two or three years then we should revoke that patent. But then you will ask us to pay him the compensation.

Dr. J. M. Hunck: Of course, he is entitled to get some compensation for his patent which you use.

Shri P. S. Naskar: In your speech you laid emphasis on the research part of it. Could you give us an idea, taking any particular pharmaceutical firm in Germany, as to how much money is spent on research, how much on advertisements and so on?

Dr. J. M. Hunck: On research and development they spend about 15 per cent and on advertisements it is substantially less. We in Germany advertise very little because the pharmacies, the physicians and others use what is produced.

Shri Gowdh: You have chosen three or four items with which you disagree. One of them is the question of royalty payable to a patentee. You say that 4 per cent is very low. What in your opinion is the percentage that should be given as royalty?

Dr. J. M. Hunck: In Great Britain they had legal proceedings and 18 per cent was given.

Shri Gowdh: Is it your opinion that no percentage should be fixed?

Dr. J. M. Hunck: Yes.

Shri Gowdh: You say that if the life of the patent is reduced from 6 years to 10 years it is not workable, it is not profitable to the patentee. What do you think should be the reasonable period?

Dr. J. M. Hunck: My idea was ten years. I was saying that it takes about two years in between the date he applies and the date on which he receives the patent.

Mr. Chairman: It is 18 years in Germany from the date of application. Here in India it is now 16 years and now under the Bill it is made 14 years and 10 years from the date of application for medicines and food articles. It actually comes to 12 years. That distinction is made in many countries.

Shri Gowdh: Are you aware of any instances in the recent years where a patented drug has become obsolete or out of date within five years because of the invention of a more effective drug?

Dr. J. M. Hunck: There are many instances of such drugs.

Shri K. K. Warior: In his memorandum, on page 3, Dr. Hunck says:

> "Paragraph 48 enables the State to confiscate all patents without giving any reason or compensation".

Clause 48 is only for certain governmental purposes. Will he explain why he has used the word "confiscation"?

Dr. J. M. Hunck: If you take away without compensation, I should call it confiscation.

Shri K. K. Warior: Is there no such provision in any of the Acts in Germany?

Dr. J. M. Hunck: No, it is not there in any other country.

Shri K. K. Warior: Suppose a situation arises, for defence or in the case of some epidemic or some such thing, where the Government thinks it is necessary should not the Government have the right to import any patented material—either the process, the

material or the product—from outside?

Dr. J. M. Hunck: Of course, it has that right.

Mr. Chairman: The provision in he West German enactment says that the free use of the patent invention is possible by the order of the Government in the interest of public welfare and security.

Dr. J. M. Hunck: Of course.

Mr. Chairman: That is all what we want to do by this Bill.

Dr. J. M. Hunck: It is confiscation if it is done without proper compensation.

Shri K. K. Warior: Suppose the patentee is not in a position to supply enough of that product during a crucial period like an emergency or when there is an epidemic how can the Government safeguard the interests of the community?

Dr. J. M. Hunck: But why do you not pay compensation? That compensation is for his intellectual property.

Mr. Chairman: In your enactment relating to patents there is no question of compensation. It refers to free use of patent invention by the order of Government in the interest of public welfare and security. So, why do you object to this provision in our Bill? After all, Government will exercise that power only for the welfare of the country and for the security of the country.

Dr. J. M. Hunck: Of course, they can do it, but the patentees should be compensated.

Shri K. K. Warior: Then I come to clause 87, relating the licensing rights, to which you have raised objection. Is it not a fact that similar provisions exist in patent laws of developed countries?

Dr. J. M. Hunck: No, I do not think licensing rights in the pharmaceutical field for patents is given anywhere else.

Shri K. K. Warior: Suppose a firm in a developed country takes patent rights for a number of processed for the same product just to block the entry of others into the field, creating or acquiring a monopoly in that product, should that be allowed? Suppose that party is not using all the processes but only one process, should not the local inventors or research workers be given some elbow room to utilize the other processes?

Dr. J. M. Hunck: Of course, provided the party concerned has the brain, the knowledge, the know-how. But no such thing is mentioned in the Bill. It simply says that the licensing rights can be given. It should specify that it will be given only to those who have got the know-how and who know the trade secrets, because they are much more important than the patent proper.

Shri K. K. Warior: In a contingency where a firm tries to block the entry of others by patenting all the processes, should not Government enter the field and encourage the local manufacturers to produce them?

Dr. J. M. Hunck: But how many patents are there in India which stands in the way of curbing the initiative of the local inventors from evolving some new processes? Not many. Why should we concentrate on those few unscrupulous firms and generalise?

Shri K. K. Warior: All right I will not generalise. But in case all the processes are patented only to block the development of indigenous invention, should there be any objection to a provision in this enactment which will lift that blockade and allow free open competition?

Dr. J. M. Hunck: If you kindly make it a little more specific, I can try to answer it. If some one does

something which is against the welfare of the community, It is quite natural to take action against him. But that is an exceptional case.

Mr. Chairman: It is only in an exceptional case that Government will use those powers. Do you mean to say that the Government will use those powers indiscriminately?

Dr. J. M. Hunck: As far as I know sections 87 and 88 say that patents relating to food and drugs shall automatically be endorsed with the words "licensing rights". Furthermore, even a patent held under the old Act will automatically be endorsed with these words from the commencement of the present Act. No appeal is possible against that. The Controller can utilise the patent at any time before the terms of the licence are mutually agreed upon. It is retrospective. He gets it immediately before the terms of the licence are agreed upon.

Shri K. K. Warior: Then I come to the question of royalty. You say that 4 per cent royalty is too low. But it is not as if the patent right is given to somebody and all of a sudden 4 per cent is fixed. There is sufficient scope for all sorts of agreements between the patentees and the licensees. This provision is only to safeguard against extorting exorbitant royalties. It is only there the Controller comes in the way and fixes 4 per cent. Is it not sufficient?

Dr. J. M. Hunck: You are referring to an exceptional case. But I am sure it is not the case everywhere.

Shri K. K. Warior: It is not covering all licenses compulsorily. It is only when the other provisions are not satisfied, in the last resort, it is done under section 88.

Mr. Chairman: It is there in the German enactment also. It says that by declaration to be published and registered any patentee may permit any person to use his patented invention subject to adequate compensation.

Dr. J. M. Hunck: Under this provision anybody can apply for this licence to the Controller and he has to give it immediately without waiting for proper agreements.

Shri K. K. Warior: What will be the impact of this Bill when enacted on the export market of West Germany, so far as medicines, pharmaceuticals and intermediates are concerned?

Dr. J. M. Hunck: On the West German pharmaceutical industry, you mean?

Shri K. K. Warior: What is the assessment of those friends who were happy in giving you the brief and asking you to represent them?

Dr. J. M. Hunck: Those friends, as I told you, are very happy to continue to co-operate and develop more co-bperation with India.

Shri K. K. Warior: We welcome that co-operation. The question is: What will be the impact, adverse or advantageous, on the West German industry if this Bill is enacted, according to their assessment or according to your assessment?

Dr. J. M. Hunck: It depends on individual cases; but, basically you must allow the man who invests money to get a fair profit out of his money if the risk is in a decent limit. There is nothing wrong about it.

Shri K. K. Warior: I understand from your statement that India stands to suffer, but what will be the impact on the West German industry, according to their assessment or according to the assessment of any of the associations which the pharmaceutical industry has or according to your own personal assessment, if any, and not on German investments in India?

Dr. J. M. Hunck: In what respect?

Shri K. K. Warior: In their exports to India or in their taking out patents here for their exports and processes.

Dr. J. M. Hunck: I am afraid, there may not be the desire to establish a laboratory and collaboration will not be as much as it has been up till now.

Mr. Chairman: Please look to clause 88(5). Compensation is provided there. It is not expropriation.

Dr. J. M. Hunck: Expropriation was only under section 48.

Mr. Chairman: That is, for the purposes of Government.

Dr. J. M. Hunck: For the purposes of Government or if anyone does it on behalf of Government.

Mr. Chairman: If it is for Government purposes, Government should reserve those powers. Do you not agree? Many countries have done that. UK has done it; Germany has done it.

Dr. J. M. Hunck: Then we come back to the same old question, that is, decent compensation should be paid.

Mr. Chairman: But you have no objection to the power being retained if compensation is paid.

Dr. J. M. Hunck: Of course. It is quite natural if a country is in a state of emergency and a state of defence.

Shri R. Ramanathan Chettiar: When the Government exercises that power, no compensation is paid under the German patent law.

Dr. J. M. Hunck: I am sorry, there are no cases of taking over patents without compensation. Compensation is paid.

Mr. Chairman: Not even for security purposes?

Dr. J. M. Hunck: It pays for that.

Shri R. Ramanathan Chettiar: It may be illusory or nominal compensation.

Dr. J. M. Hunck: It depends; but at least it is fair compensation, not only nominal. Government does not take anything away from only a small group of people. The taxpayer has to pay the money. He will be compensated.

Shri Kashi Ram Gupta: You must be aware of the fact that during the last ten years there have been patent agreements by German firms in this country and the old Act has not put any limit on royalty, still under the agreements, as they stand, generally the royalty fixed is not more than 8 or 10 per cent?

Dr. J. M. Hunck: Yes, I know.

Shri Kashi Ram Gupta: Agreements entered into during these ten years do not have a rate of royalty more than 8 or 10 per cent—that is the maximum; it may be 5, 4 or 6 per cent even. Then, on what grounds do you say that there should be royalty of 15, 16 or 18 per cent?

Dr. J. M. Hunck: I mentioned the British case. You asked me what royalty should be paid. Then I mentioned what is paid in Great Britain.

Shri Kashi Ram Gupta: In veiw of the fact that German firms agreed to a royalty of less than 8 per cent, as a journalist you ought to have an idea why the Government of India is going to fix it as 4 per cent in special cases. Have you studied it from that point of view?

Dr. J. M. Hunck: May I tell you that royalties are paid in the course of joint ventures of German firms cooperating with Indian firms? Of course, royalty is one small profit which comes out of it; but, there is besides, another kind of profit for producing and selling those goods which may be shared between the

Indian and German partners. They might have additional profit in their general business in this joint venture.

Shri Kashi Ram Gupta: Whether they make additional profit or not is not the question here; the question is about patent royalty to be fixed by the Controller. Under the agreements that royalty is less than 8 per cent, which means that Indian conditions are suited to them for a lower royalty. If it is so, your argument about this clause does not stand.

Dr. J. M. Hunck: 4 per cent is only half the amount of 8 per cent.

Shri Kashi Ram Gupta: But that 8 per cent is the maximum; there are cases of it being 5, 6, 4 or 3 per cent.

Dr. J. M. Hunck: Royalty is besides profits out of mutual business.

Shri Kashi Ram Gupta: The Controller has nothing to do with profits; he fixes it about the patent.

Dr. J. M. Hunck: German firms do go into negotiations regarding the royalty.

Shri Kashi Ram Gupta: Every firm has to negotiate under the old Act.

Dr. J. M. Hunck: In case there is a joint venture, besides royalty he gets additional profit out of that, so, he agrees to royalty of 8 or 6 per cent.

Shri Kashi Ram Gupta: You say that collaboration is welcome. When it is welcome, the net result is there. Everybody knows it. When they will get profit from it, according to you, there should be the least objection to lower royalty.

Dr. J. M. Hunck: Does that 4 per cent include royalties? Or, does it also refer to know-how agreements?

Shri Kashi Ram Gupta: Know-how has nothing to do with it.

Dr. J. M. Hunck: But the Chairman just now referred to some section where it is said "royalties and similar things".

Shri Bibudhendra Mishra: It says: "4 per cent of net ex-factory sale price in bulk of the patented article".

Dr. J. M. Hunck: But does it refer to royalty?

Shri Bibudhendra Mishra: That is a sort of compensation.

Shri K. V. Venkatachalam: Royalty and other remuneration.

Dr. J. M. Hunck: What is meant by "other remuneration"?

Shri K. V. Venkatachalam: It does not include know-how.

Dr. J. M. Hunck: I am happy if it is so.

Shri R. Ramanathan Chettiar: It says, 4 per cent royalty and other remuneration. It is not clear.

Draftsman: The idea is that the maximum that is recovered should not exceed 4 per cent. Supposing we simply use the word 'royalty' only, the object of the provision may be defeated by using some other expression, e.g., royalty 3 per cent, some-other thing 5 per cent or 6 per cent. Whether in the form of royalty or otherwise, all told, it should not exceed 4 per cent.

Shri Kashi Ram Gupta: That has nothing to do with the know-how.

Dr. J. M. Hunck: Could there be other agreement regarding compensation for know-how? Is it included in this? I was told just now that it includes everything. I am not sure.

Shri Kashi Ram Gupta: Supposing the word 'remuneration' is not there, are you then agreeable to this?

Dr. J. M. Hunck: Yes.

Shri Kashi Ram Gupta: You have said that there are huge expenses on research and, therefore, care should be taken to see that all those expenses are covered. As you know, in India there is mixed economy. Here, the Government has also got its own laboratories and they give the facilities and there may be further improvement in that direction. Then, your argument of spending very heavy amounts on research does not stand here. Your argument may be from the German point of view and not from the Indian point of view. In India, the Government also gives facilities in the field of research. When this is the case here, the question of asking for the extension of the period of patent or about the rate of royalty does not stand on that ground.

Dr. J. M. Hunck: Why should the research cost less for the Government than for the private people?

Shri Kashi Ram Gupta: Whether it is lower or higher, the question is this. You say, in India, the German Company spends a huge amount on research. But actually, the amount spent on research can be huge only if the Company is doing it independently. In this country, there are Government laboratories also, and there are other ways of doing it.

Mr. Chairman: Why argue with him?

Shri Kashi Ram Gupta: He has to see to the conditions obtaining here. We are drafting the Bill according to our own conditions.

Therefore, we have given the period as 10 years because we know the amount spent on research will not be so much as they say.

You are a journalist and you should know the position obtaining here and in Germany and other countries. You should examine it.

Shri J. M. Hunck: I am surprised how the time taken on research for certain products should be shorter here than in other countries.

Mr. Chairman: You need not argue.

Shri Kashi Ram Gupta: I am not arguing. I am linking it up with the period of the patent. We have made it 10 years. He is objecting to that; he says that that is not enough. We say that the period of 10 years is enough.

Mr. Chairman: He wants extension of time because they have to spend a lot of money on research in Germany.

Shri Kashi Ram Gupta: My point is that when they have to come here, they are to do it here.

Mr. Chairman: Research is done in Germany also.

Shri Kashi Ram Gupta: He is a journalist also. He ought to know the position obtaining in other countries including India.

Dr. J. M. Hunck: We should always take into account the research cost which the firm undergoes in all places, not in India proper only.

Shri Kashi Ram Gupta: Have you thought of some suggestions by which the Indian inventor may benefit?

Dr. J. M. Hunck: Whether it is an Indian or an alien inventor, everyone should benefit in the same way or everyone should get the same incentives by way of royalties or by way of fair compensation. Whatever I have mentioned does not refer to foreigners only. It does refer only to scientists, whether foreign or Indian. What I suggested was that more Indians should be trained in laboratories which are built up by joint ventures.

Shri Kashi Ram Gupta: You have stated that there should be proper investment climate in India. Do you mean to say that the present Act provides proper investment climate and that the amended Act will not

provide proper climate and, if so, what are your reasons?

Dr. J. M. Hunck: I am afraid that the new patent law will not provide comparably favourable investment climate.

Shri Kashi Ram Gupta: How does he explain the reasons?

Mr. Chairman: He has already replied.

Shri Kashi Ram Gupta: Can you give us an idea about the time taken generally for such research in your country and the percentage, in general, of the amount that is spent on research?

Dr. J. M. Hunck: I have already given the answer—10 to 15 per cent is being spent on research.

Shri Kashi Ram Gupta: On the basis of your knowledge during the last 10 or 15 years, may I know how much has generally been the time taken on research on certain patents?

Dr. J. M. Hunck: It takes from 2 to 4 years.

Shri Sham Lal Saraf: First of all I thank you for the expression that your country owes some social duty to this country also. In this country we want advanced research, know-how and raw materials in order to be able to set out foot on this modern industry of drugs and pharmaceuticals. May I know how and in what way your country can help us in that?

Dr. J. M. Hunck: Advanced research has to be done only when basic research is available.

Shri Sham Lal Saraf: That, I know. What I am asking is this. We are grateful to you for the sentiments that you have expressed on behalf of your country. We need three things, namely, advanced research, technical know-how and raw materials, in order to be put somewhere on the map of manufacture of drugs and pharmaceuticals. How and in what way your country can help us in that?

Dr. J. M. Hunck: I gave you instances of Hoechst and Bayer, the new factories which are established in Bombay. Young Indian scientists are sent to Germany to be trained and later on to take over leading positions in these firms. This is a kind of co-operation which is important and which gives advantage to both the parties. We might give you our experience and by this co-operation of both the partners, I think there will be a good result within a few years.

Shri Sham Lal Saraf: Therefore, keeping, that in view, do you feel that it is all the more necessary that whatever firms get their patents in this country should invariably manufactue and prepare these drugs and pharmaceuticals within this country?

Dr. J. M. Hunck: Yes; it should be done within this country; that is necessary.

Shri Sham Lal Saraf: Today the position is that most of the foreign firms who have got their patents registered here, are not preparing the drugs here.

Dr. J. M. Hunck: The preparation should be done in this country. That is the idea of co-operation.

Shri Sham Lal Saraf: As a columnist, I would ask you what would you consider a reasonable return for investment-cum-knowhow-cum-all that the patentee imports from a foreign country.

Dr. J. M. Hunck: I am afraid it differs from branch to branch.

Shri Sham Lal Saraf: I am talking of drugs and pharmaceuticals.

Dr. J. M. Hunck: As I told you in the beginning, I have not myself had enough practical experience to know how the cost structure is in the production of pharmaceuticals.

Shri Sham Lal Saraf: What I mean here is this. When a drug or a pharmaceutical is in a position to be commercialised, what is the earning; that is, from the day it is commercialised, what would you consider to be a reasonable annual return for all the investment, including the royalty, etc.? What percentage would you consider to be a reasonable return?

Dr. J. M. Hunck: This is a very ticklish question. I cannot tell you whether it is 50 p.c. or 20 p.c. I gave you the suggestion as to how it is done in France. There, he presents his cost structure and they find out a decent price considering all the cost elements. That would be a fair thing.

Shri Sham Lal Saraf: At the beginning you said that, after the present Bill came up, the German investors were hesitating to invest in pharmaceutical industry in this country. After all these discussions which have taken place and in which you wonderfully participated, may I ask you whether the hesitation is more imaginary..

Dr. J. M. Hunck: I am sure that there will be a fair and decant patent law afterwards, fair without these various clauses which are lowering the investment climate; for instance, the clause which makes it retrospective on the patents already given; this is an exceptional case.

Shri Sham Lal Saraf: You have heard from different quarters that medicines and drugs sold here in this country, particularly those that are imported or supplied by foreign inventors, are priced very high. When the Bill under discussion comes into force and along with the administrative action, it will be necessary to regulate and not to control the price structure. Do you agree to that?

Dr. J. M. Hunck: Yes.

Dr. C. B. Singh: We have been told about peop'e having put good amount of money and good amount of money being spent on research in various countries. I would like you to tell me how many nobel laureates have been there in the last few years who have obtained nobel prizes during the last few years on medicine? Have you any such idea?

Dr. J. M. Hunck: I remember my neighbour professor Domagh.

Dr. C. B. Singh: In the last 15 years there have been 13 nobel laureates. Only one of them has been working in the drug research factory. Only one. Out of them only one has been working in a factory and that is Paul Muller, discoverer of insect-killing elements of D.D.T. He was working in a chemical factory producing pharmaceutical drugs. Others had been working in other universities or Government laboratories. The argument that money is required for research by the private firms falls to the ground completely. Research of the type that is known as research has not been carried out.

Dr. J. M. Hunck: They are chosen by other people.. Many of these are not known to the general public.

Dr. C. B. Singh: Those who are selected for the nobel prize—the world knows them. I suppose you will not dispute that. There are many Germans who have obtained nobel prizes. Let me go to my next point. What percentage of the profit should be compulsorily detected for research work in any big manufacturing concern? What percentage should be detected from their income? Do you suggest any figure?

Dr. J. M. Hunck: I can give you the figure of 15 per cent., 15 per cent of the total prize.

Dr. C. B. Singh: Regarding earmarking for research work, 6 per cent is done in this country.

Dr. J. M. Hunck: I have no idea.

Dr. C. B. Singh: Hardly any research work worthwhile in what you call medicines or drug research of

drug manufacture has been done in this country.

Dr. J. M. Hunck: I know...

Dr. C. B. Singh: What is the reason for this?

Dr. J. M. Hunck: In 1957 or 1958 there were certain joint ventures in this country.

Dr. C. B. Singh: They have not produced any result. There have been various patents of foreign countries which have been sold here. Real research is not done by joint ventures also. They are bringing their raw material, bottling them, and they are doing nothing more.

Dr. J. M. Hunck: They try to use indigenous plant. They try to do it under Indian climate and other conditions. They are constantly on Indian surroundings here.

Dr. C. B. Singh: That we understand—that is not my point.

Dr. J. M. Hunck: They are sending scientists to Germany and other countries.

Dr. C. B. Singh: On page 2, on paragraph 4, you have said that there is nothing wrong with foreign investments and that West Germany has made use of them from the very beginning. We are not disproving that. We don't dispute. What we dispute is the amount of investment and the consequent income and profit they take. Suppose we ask you to suggest reasonable ratio of income from the investment, will you suggest something? Sometimes you get 20. Sometimes you get 30. Sometimes you get 40. What do you suggest?

Dr. J. M. Hunck: It should have some relation to cost.

Dr. C. B. Singh: Will you agree to 40 per cent?

Dr. J. M. Hunck: Annual profit of 40 per cent?

Dr. C. B. Singh: They say and put it as high as that.

Dr. J. M. Hunck: It should not be so much.

Dr. C. B. Singh: How can you bring this down? There are very heavy prices as compared to the investment. What do you suggest to bring this down?

Dr. J. M. Hunck: Profits have to be set in relation to costs.

Dr. C. B. Singh: You have mentioned that as far as price is concerned, there should be some discount for hospitals, etc. Can this be done and brought about in this Bill, compulsory discount for this very thing, in this Bill?

Dr. J. M. Hunck: Latin America for instance. They offer a huge discount.

Dr. C. B. Singh: They do it here also. 20 per cent they do even here. That is not enough.

Dr. J. M. Hunck: When you say something apart from price regulation, you must mention its cost . . .

Dr. C. B. Singh: You agree to this to be incorporated in this bill.

Dr. J. M. Hunck: Yes.

Shri D. P. Karmarkar: The principal difficulty is in respect of foreign collaboration. That has been found. There are certain well-placed firms and producers abroad who are collaborators here that maintain the patent. During the duration of the patent as no importation can be made in competition with the sale by the patentee the charges charged by the patent-holder are inordinately high. You mentioned one instance. I am mentioning this because we have a combination of two manufacturers. The reference is to Merck Sarabhai: They are very famous in this field. In respect of Vitamin C their sale price within the country is Rs. 74|-

per kg. The international price is Rs. 18.50/- subject to minor variations. This firm is a first class producer, but the internal consumer has to pay four times the cost of international price for the same product. There is a strong feeling on this.

Dr. J. M. Hunck: Could you kindly give the details of this case?

Shri D. P. Karmarkar: The details are what I said. Vitamin C is being manufactured with German collaboration of a very high standing. The Indian manufacturer is also of high standing. The internal price of the product is four times the external price. I am not asking you to comment on this. If these facts are correct, would you leave some discretion to the public authority to see to it that nothing more than what is considered as a reasonable price is charged for the product?

Dr. J. M. Hunck: In any case, of course. I have mentioned it several times.

Shri D. P. Karmarkar: For this purpose it will be good for the competent authority to take power and to take such measures to make the selling of the products at a very high price almost difficult and impossible. A little increase in price on account of first production or due to local conditions is admissible. But if the difference in prices is so much, then you would agree with me?

Dr. J. M. Hunck: I completely agree. I have mentioned it in my memorandum. Normally the comparison should be with international standard price, but subject to special costs in India.

Shri D. P. Karmarkar: You have made your position clear in regard to 40 and 42. One may or may not agree with that. That is a different matter. You have given reasons also. I have checked up the factual position in Germany. This is a United Nations publication. I think we can take for granted the facts contained in this publication. There I may just invite your attention to one provision, namely: "If working is of public interest, compulsory licence, and possible revocation; revocation by Federal Patent Court two years after grant of compulsory licence is possible. If the invention is exclusively or mainly...' Let us leave it. I am now coming to the most relevant point which says: "Free use of the invention by order of Governments". Government have reserved this right to themselves. "Free use of the invention by order of Government in the interest of public welfare or security'. Public security is clear. If Government are satisfied that the public welfare is so served, then free use of the invention is permissible. Do you agree with this?

Dr. J. M. Hunck: What about compensation then?

Shri D. P. Karmarkar: Let us assume that compensation is there.

Dr. J. M. Hunck: With compensation I agree.

Shri D. P. Karmarkar: So you agree that at any time in the interest of public welfare free use of invention can be made.

Dr. J. M. Hunck: Of course

Shri D. P. Karmarkar: Free use and compensation do not tally.

Dr. J. M. Hunck: What is free? It is liberal use.

Shri D. P. Karmarkar: With this provision you will agree?

Dr. J. M. Hunck: Of course.

Shri D. P. Karmarkar: Cost to the consumer is part of public interest or public welfare. That is obvious.

Dr. J. M. Hunck: What is that?

Shri D. P. Karmarkar: I am manufacturing a medicine. It costs 50 times more here. Obviously public interest is involved in this.

Dr. J. M. Hunck: Then you should say that all consumer prices are for public welfare. How will you fix the price?

Shri D. P. Karmarkar: Price should be reasonable. Would you consider consumer's price as part of public welfare?

Dr. J. M. Hunck: Not in general.

Mr. Chairman: We have authentic information that international prices are lower than the prices that are being charged for patented medicines.

Shri D. P. Karmarkar: I am grateful to you for your observation. He is a distinguished person in the field. I shall pass on this information to you so that you can make use of it. You see that Vitamin B6 manufactured by Merck Sarabhai is sold here at Rs. 800 a kg; its international price is Rs. 206|-. Vitamin B12 manufactured by Merck Sharp & Dohme is sold here at Rs. 215|- a gm; its international price is Rs. 32|- per gm.

Mr. Chairman: Is Merck an American firm or German?

Dr. J. M. Hunck: Merck is American. It was taken away after the first World War.

Shri D. P. Karmarkar: Chloramphenicol manufactured by Parke Davis is sold at Rs. 410|- a kg in India whereas it is sold at Rs. 100|- in international market. Tolbutamide manufactured by Hoechst is sold in India at Rs. 75|- a kg; its international price is Rs. 20|-. Vitamin A (dry powder) manufacured by Glaxo is sold in India at Rs. 421|- a kg; its international price is Rs. 54|- a kg. Procaine Hydrochloride manufactured again by Hoechst is sold in India at Rs. 21|- per 500 gm; its international price is Rs. 8|- per 500 gm. Tetracycline Hydrochloride manufactured by Pfizer—you please note this— is sold internally at Rs. 1,147|- per kilo; in the world market it is sold at Rs. 107|- per kilo. Assuming that these facts are correct, then you have already agreed that Government should take some power in their hands.

Mr. Chairman: They are correct. They are compiled by the Reserve Bank of India.

Dr. J. M. Hunck: There is the question of compulsory licence.

Shri D. P. Karmarkar: In the model law they have agreed that the Minister of Industries concerned should have the power to give a compulsory licence wherever public safety or public welfare is involved. Here we say that compulsory licence should be given. Do you agree that such power should include importation?

Dr. J. M. Hunck: Of course.

Shri M. L. Jadhav: Instead of going to the High Court, if there is a tribunal consisting of a Judge, will you be satisfied?

Dr. J. M. Hunck: Then it should be a special tribunal. The special tribunal should consist of experts. They have to be experts. I am in favour of appeal to the Court. We are living in a democratic society. There should be right of appeal.

Shri P. K. Kumaran: My honourable friend just now quoted to you the prices of different drugs obtaining in India and that obtaining abroad. What in your opinion India should do to bring down the prices of those drugs?

Dr. J. M. Hunck: Of course you will have differences in prices. This happens not only in this country but also

in many other countries. For reasons of scarcity of foreign exchange, you may not be importing the required quantity of some drugs. If you have more imports, then the prices will automatically go down.

Shri P. K. Kumaran: It is not a question of foreign exchange. We can import only those medicines for which the firm has taken a patent in India. If for a particular drug a firm in Germany has taken the patent in India, we cannot import that drug from any other source.

Dr. J. M. Hunck: Cannot you import from any other source?

Shri P. K. Kumaran: They have taken the patent for the drug as well as for the process.

Dr. J. M. Hunck: That comes to the suggestion I made before. The price of the imported drugs should, of course, be controlled. That shall be controlled by the Commission I have suggested.

Shri P. K. Kumaran: Some time back the Government of India issued a licence to a German firm for the manufacture of raw chemicals and intermediate chemicals in large quantity in India. For some reasons that German firm has refused to build the factory. Unfortunately, I don't know the name of the German firm.

Dr. J. M. Hunck: Sometimes there are such cases.

Shri P. K. Kumaran: This firm was to produce 94600 tons of raw chemicals and 33,200 tons of intermediate chemicals from which drugs were to be made. Now the German firm has refused to build it.

Dr. J. M. Hunck: I am sorry I could not tell you the reasons. I don't know the name of the firm.

Shri Dalpat Singh: You have mentioned in your memorandum that international partnership was an efficient help on the way to the recovering of the West German Industry which was completely shattered in 1945. May I know how far this can be attributed to the Patent Law operative in your country?

Dr. J. M. Hunck: With international co-operation the economic development of a country will go faster. If you have a patent law according to international standards and on international basis, naturally the international co-operation will be forthcoming. For the same reasons the Soviet Union agrees to the patent laws of various countries and sticks to them. This is a base for smooth international economic co-operation. Patent law is the pillar of international co-operation.

Shri Dalpat Singh: What is the percentage of appeals to the Federal Court from the Patent Commissioner in Germany? I want to know whether the number of appeals is small or it is a good number.

Dr. J. M. Hunck: It is relatively a small number. During the last 15 years it is 34 out of 3,000.

Shri R. P. Sinha: Dr. Hunck, you have spoken very flattering words about our democracy and about our democratic functioning. You have quoted copiously from our leaders both in the Government and outside the Government. You have also stated that the Patent Law of our country has been largely patterned on your own patent bill in Germany. There may be variation in some details, but the main frame-work is more or less same. You have also stated that the Government there function judiciously not only in the interest of German public but also in the interests of industries there so that they can also function profitably. I don't know why, when you have got so much confidence in our Government and in our way of functioning, you fear that we will not implement this law fairly, in spite of the fact that there are reserve powers.

Mr. Chairman: I don't think that would be justified.

Shri R. P. Sinha: He has stated in his memorandum that with the passage of this Bill there will not be inflow of capital and the knowhow and the patent in this country, although it is a similar legislation and he has confidence that our Goernment would function fairly, and will not see that the patent rights are abrogated in spite of the fact that we have reserve powers.

Dr. J. M. Hunck: After seeing the working of this Committee, the sincere efforts you are really putting to find out the different shades of opinion about this Bill and the democratic way in which you are functioning, I have no doubt that the outcome will be a fair patent law. That your patent law is framed after our patents law is itself flattering to us in Germany. I don't see why we should object to it.

Shri R. P. Sinha: You have stated that HOECHST are selling 76 per cent of their product—pharmaceutical products in Italy and only 24 per cent comes out of indigenous source because their products are so good. Why should they fear that they will not be able to do well in this country even if we have no patent law?

Dr. J. M. Hunck: In Italy, they have no big German firms but they have been getting drugs etc. from the neighbouring countries. Practically there is a large pharmaceutical industry in the neighbouring country and it serves well. Likewise, in Great Britain, whether there is any Patent Law or no Patent Law, we try to export our products there. Here, in this country, the difference is that this is a new market. We try to make good work. In the case of Italy, it is served by the neighbouring countries. We must concentrate all our efforts on good work.

Shri R. P. Sinha: As far as I think, in India, we know that the German manufacturers do very well. I don't think that there is any difficulty with regard to your country. Whether there is any Patent Law or no Patent Law, the name is there; they will be able to sell all their products.

Dr. J. M. Hunck: It is in your interest that these German firms do make their investments in India on laboratories. You should encourage this in order to have production.

Shri R. P. Sinha: That is what we are trying to do exactly. We are encouraging that in order to have production. That is the purpose for which this Committee is sitting to revise the Patent Law in such a way that we have production here.

Dr. J. M. Hunck: Then it is good.

Shri R. P. Sinha: My hon. friend here has referred to you about the different prices obtaining in India and in the international markets for the different products inculding some of the German products.

Here, I would like to know whether it is possible for you to give us the cost of production of the German pharmaceutical firms in India as well as in Germany to find out why the prices here are so high. Is it a fact that the cost of a drug is high because the cost of production here is high or is it because they are trying to profiteer from the nearest market that the cost is high?

Dr. J. M. Hunck: I think this refers to several items which we have to consider. For example here we have to pay higher freight charges, customs and excise duties.

Shri R. P. Sinha: We would like to go into details. Do you feel that the prices here are unreasonable being four times the international prices?

Dr. J. M. Hunck: Now it may be unreasonable. But, in the long run, it will be reasonable.

Shri R. P. Sinha: Will it be possible for you to cooperate with this Committee to furnish us with a certain data to show as to what is the cost of

production in India and in the international markets else-where?

Dr. J. M. Hunck: I shall try to do that.

Shri Peter Alvares: The phrase 'cost of production' is rather a misnomer. The prices in India are not so high because there is no production here. All that is happening here is that in each item a lot of ingredients is involved.

Shri K. P. Sinha: I am only talking about the items which are manufactured here.

Shri Sham Lal Saraf: Very little is manufactured here.

Dr. M. M. S. Siddhu: You have quoted about the cost of research in the pharmaceutical industry. May I quote it that the Medicinal Chemistry by Burger a standard book; here, he says that out of 500 to 1,000 compounds, if you screen all the compounds qualitatively, that cost alone comes to $ 2 to 4 lakhs. At the same time, if one were to take one year's profit of a patented drug and a non-patented drug—in England they call it as branded and non-branded drug—on one item alone, the difference is to the tune of two lakhs and sixty pounds. In other words, the sale of a single drug for one year is able to cover out of the profits all the services and other expenditure which have gone into the research. But it said in the country that the research is a very expensive thing and its cost has to be recovered over a very long period. This is something which I cannot understand. Therefore, will it be possible for you to tell us why in the name of research, the increase in prices of a drug is out of proportion with the expenditure?

Dr J. M. Hunck: Do you want me to tell you about the expenses on a single drug?

Dr. M. M. S. Siddhu: What I want you to tell me is this. Out of 3,000 compounds, what will be the actual expenditure that will be incurred on one compound? If that compound is successful in one country alone, will the profit from that compound cover the cost of the whole project? Will that also not cover up the expenditure on research incurred within one year?

Here is the figure that I have got, I am quoting it from the U. K. Public Accounts Committee's Report. The name of the product is 'Pamedol'. This is one of the German Firm's product. Price difference in one country is £2·60 lakhs. Worldwide patent would be able to recover out of its profits all expenses incurred on research in a short time.

Dr. J. M. Hunck: I might mention that in some cases the research costs will be covered within one year but in other cases, it might take a number of years.

Dr. M. M. S. Siddhu: There is a drug by name sulphanoria of CIBA. They have been able to cover up their expenses out of the profits of this drug; there is another drug by name Tolbutomide. Here also they have been able to cover all their expenses. In England, it is found that from the sale proceeds of one year, the difference between branded and non-branded drugs total investment on research could be met. The profit on one year's sale is equal to the total research done on a product of that firm in England.

Dr. J. M. Hunck: Of course, it is equal to the total research done on a product of a firm in England.

Dr. M. M. S. Siddhu: If the drug is to be sold all over the markets within six or seven years, the total expenses on research are recovered and yet most of the drug manufacturers, as Dr. Singh said, are not doing the fundamental research work. They are thinking in terms of more compounds branching out of a particular compound; comparison with the parent compound makes a difference of

5-10%. That is why in the long run these compounds or drugs become obselent as you have said yourself. The drug industry in order to produce more and more of such drugs are spending money and producing obselent drugs. Because of this real research, as Dr. Singh has said, is still coming out of the Universities, Research Institutes where the understanding of the disease processes is going on whereas the question of marketing of drugs of doubtful value which are not going to last long is being done by the modern drug industry.

Dr. J. M. Hunck: I would not be quite off the mark when I say that I know that many big German pharmaceutical firms like Bayers have had enormous research work done to assist the general development of new products. The very reason that these new drugs will become obsolete very soon itself is an additional impetus to invent new processes to have new drugs invented. It is not that only from the business point of view but at least as much from the scientific point of view also that a man who invents some thing, and invests it for the general good too.

Dr. M. M. S. Siddhu: The German manufacturers and their products have been held in high esteem not only during the last few years but for many years—we can even think of the twenties. Since then the question of collaboration should have come up earlier. I would like you to tell us how much is research done through the Universities and institutes and the drug manufacturers. While they were importing these drugs and making good deal of profits, they were drawing all the profits from out of our county.

Mr. Chairman: Do you want to know the contribution to research in Germany?

Dr. M. M. S. Siddhu: I want to know the financial contribution in India, to the Universities or to the Indian Medical Research Council of India. The drug industries' contribution towards research has been negligible.

Dr. J. M. Hunck: I do not know. How could I know? I have been told by my German friends of a pharmaceutical branch that it costs more money to make their products popular. You talk of India. For instance in Germany there are many magazines for doctors etc. and they are explained in those magazines whereas in this country there are only few, I have been told and so, a man has to cover regularly the various physicians.

Dr. M. M. S. Siddhu: It is not that we do not have enough of medical magazines and journals which will reach medical men. But when the firm have more formulations which are in competition with each other, they detail their representatives to go out with a lot of samples and all that. There what the firms do is to ask the doctor to prescribe 'A' medicine or 'B' medicine of a particular drug manufacturer. It is not due to the fact that the mailing is bad in India or the magazines are not there. It is only for doing more and more promotional work and there the expenditure is about 20% as compared to 6% on research the average all over the world.

In your country it has been pointed out in the United Nations booklet that the medicines are not patentable, the drug is not patentable but the process is. What happens is this: the firm which is going for a process or for a preduct tries to cover all the conceivable theoretical ways of reaching that product with the result that to reach that product or to manufacture the product all the theoretically possible ways have been blocked. The result is that another young scientist in spite of the fact that he is able to discover or manufacture or bring out the same drug by another process finds that theoretically he is blocked. Will you like that the process to be patented should be the one or two which the particular patentee has in view to

exploit rather than all the theoretical possibilities? Patentee should get only those processes patented which he is likely to exploit but not all the theoretical processes which can be conceived in Chemistry.

Dr. J. M. Hunck: I would agree with you.

Shri P. C. Borooah: You said that you have no objection to Government retaining the right of revoking a patent at any time provided compensation was paid. What is your view if suppose a patentee abuses his right? Do you want that he should also be compensated?

Dr. J. M. Hunck: He should be stopped immediately. He should not be allowed to earn any further profits out of his patent. But I would like to know what you mean by 'abuse'.

Shri P. C. Borooah: Suppose he has taken a patent for 15 items but he is working only two items and import the rest. Is it not an abuse?

Shri D. P. Karmarkar: If I may supplement, the hon'ble member's question is: suppose a patentee comes here; he purports to manufacture some items. So he gets the exclusive right of importing the same. He goes on importing them and selling them and making profits and shows no ostensible progress in its manufacture within the country. That is what he calls by 'abuse'.

Shri P. C. Borooah: There also you want compensation to be paid?

Shri D. P. Karmarkar: For 3 years he has done nothing. The patentee's intention is not to work out the patent. In the mean time for 3 years he has had the advantage of importing the product and selling it here, with no corresponding advantage to the people at all. In this situation, why should he be paid compensation; why should we not penalise him and mulct him some of his profits?

Dr. J. M. Hunck: I would put these things in a contract that penalty will be imposed, etc. Then it will be binding if he abuses. It will have a judicial basis.

Shri P. C. Borooah: In 1911 it was considered reasonable that a period of 16 years would do for a patent. Since then the country has developed technologically to an unimaginable content. Why ignore this position? Why should not the period be curtailed because of this technical development, which it has been possible to do research and marketing in a much shorter period. Why should you ignore this technological development and cannot reduce the period to 16 years or 14 years?

Dr. J. M. Hunck: I am not quite sure whether research can be done in a faster way. I would say with the advance of science, the outcome of things is more complicated; you invent for a disease which has not been known before and you don't know the outcome; these can take much more time.

Shri Bade: In your memorandum, on page 3, you have said that this patent Bill is bad both for foreign and Indian investors. The object of the Bill is to encourage Indian investors, according to the statement of the Bill. Then how can you say that it is bad for Indian investors?

Dr. J. M. Hunck: Where have I said so?

Shri Bade: On page 3 of your memorandum, you say "The Patents Bill which is now introduced in the Parliament tends to perpetuate the emergency law which, as the expression says, is only meant for times of emergency. This would be bad for both foreign and Indian investors."

Dr. J. M. Hunck: Because you can't perpetuate the emergency situation which is only for a certain period and you can't normalise these conditions of emergency . . . .

Mr. Chairman: Because foreign investors will not come . . .

Shri Bade: If the foreign investors could not come in, my another question is that the Patents Law should not allow excessive foreign influence in the economic field and it should also protect the country's balance of payments position. Is it not true?

Mr. Chairman: That is for us to decide.

Shri Bade: If he does not agree with me, then is it not a fact also that in India 90 per cent of the medicines are foreign and they are importing all the drugs here? Then there is this question of foreign exchange. Therefore, this Bill is introduced. Do you not agree with us?

Dr. J. M. Hunck: I agree with you that as many patents as possible should be produced as soon as possible within the country.

Shri Bade: If this Patents Law is abrogated, then there will be more firms importing, there will be competition and the consumers will get the products at a cheaper cost and there will be more inventions in India; just as is done in Japan.

Dr. J. M. Hunck: I am not in favour of abrogating the Patents Law . . .

Mr. Chairman: It is for this Committee to recommend. He has given his opinion.

Shri Bade: Then there is another question about this royalty. You have said that some compensation should be given. But there are so many countries—Japan, Jordan, Kuwait, Liberia, Mexico, Netherlands, New Zealand, U. K., etc.—where there is no provision for compensation. Even then the companies are having their sales there.

Mr. Chairman: He has given his views. It is for this Committee to consider. He wants compensation.

Shri Vimalkumar M. Chordia: Some of the firms have got patents for many drugs but manufacture only a few and import others. We want that they should manufacture all here and not import. What procedure will you suggest for that.

Dr. J. M. Hunck: This question has already been put by another Hon'ble Member—about what procedure should be followed to induce these firms to produce here.

Shri Vimalkumar M. Chordia: For example, Hoechst is holding many patents in India but exploit only one, that is for manufacture of Tolbutamide. What should we do to induce these firms to manufacture other drugs also here.

Dr. J. M. Hunck: You can only persuade the firm to manufacture in India if there is a market which takes enough of its production. I am of the opinion that if there is any chance to produce here with profit, then it will be done.

Shri Vimalkumar M. Chordia: Indian market is almost monopolised by foreign patentees and foreign collaborators. Can you suggest any way so that India can be relieved of the dependence on foreign companies?

Mr. Chairman: It is for us to take decisions.

Dr. J. M. Hunck: Sir, three months ago I had a long conversation with Mr. S. L. Kirloskar. I asked him why Indian products were not sold at world market prices in Germany. He said that Indian economy was associated with a closed market for many years and most of the products were sold in India itself. But the international market is a buyers' market where the buyers decide the prices. I think it is a general outcome of a situation of market which is in India for the last 35 years or so.

Shri D. P. Karmarkar: We are happy to learn that. Germany is even now having a very few of our engineering products at prices which are competitive.

Dr. J. M. Hunck: We are sending now two engineers to India to find out which parts of the machines, such as sewing machines etc. can be produced to advantage India and sold in Germany. We have the Business Bureau in Dusseldorf, sponsored by the manufacturers' or anisation, and they are considering this question; they find that the quality etc. can improve in the course of two years, but it would take some time. They always concentrate on two or three qualities which are still in vogue in Germany. In the case of one of the items, about ten years ago, there were 150 varieties, but today there are only five left, and more and more of it is imported from other countries.

So far as the Import quota system is concerned, I am in favour of letting go all these quotas. But I might say that most of these quotas are not even practically used by the Indian exporters to the full today, but when you ask them they only tell you that because of the quota system they are not able to export more.

Shri Vimalkumar M. Chordia: The patent law will apply to all types of industries, but we are seeing that only the pharmaceutical industry is agitating very much against this. Can you attribute any reasons for that?

Dr. J. M. Hunck: You are discriminating against pharmaceutical firms, and there must be a reason for it. And I quite understand it. Your Health Minister has explained it several times that the health and physical status of the whole nation depends on meeting the demands for vitamin tablets, vaccines, medicine for preventing malaria and so on. So, the pharmaceutical industry has a certain distinct and vital position in respect of the life of the nation.

Shri R. Ramanathan Chettiar: May I know how many combines or cartels are there in West Germany in the pharmaceutical industry, such as Bayers etc.?

Dr. J. M. Hunck: Bayers is not a cartel. We have an anti-cartel law in Germany under which cartels are prohibited.

Shri R. Ramanathan Chettiar: You do not have a law such as what exists in the USA?

Dr. J. M. Hunck: We have an anti-cartel law. We have a special cartel tribunal in Berlin. Whenever any case comes up that tribunal goes into the matter. So far as Bayers are concerned, they are an independent firm, and they are not a cartel.

Shri R. Ramanathan Chettiar: While thanking you for having taken the trouble to appear before this committee, I would suggest that it would be advisable for the representatives of your pharmaceutical industry not only in West Germany but in the Central European countries to come and appear before us, because now they have sent you, only a non-technical man on their behalf. That is the only humble suggestion that I have to make to you.

Dr. J. M. Hunck: I am very sorry. I was not sent for this purpose. I told them that I would be going to India but it would be difficult for me to represent them, but they said 'Since you are going to India, why don't you appear before the Committee on our behalf?, and I said 'All right'.

Shri R. Ramanathan Chettiar: It would be helpful to the pharmaceutical industry as well as to the Joint Committee if they could send some of their representatives to appear as witnesses before us.

Dr. J. M. Hunck: Dr. Jucker is coming. He represents the Swiss industry where a similar situation prevails.

Shri B. K. Das: Have you studied the patent law, that is the Patents Act, 1911 as it is in existence now?

Dr. J. M. Hunck: I have studied it broadly, because I intended to refer only to the basic economic facts and not to go into details.

Shri B. K. Das: Do you think that that law as it stands today will be helpful for having foreign capital and for lowering down the prices and for fostering the development of the industry?

Dr. J. M. Hunck: It will be helpful. Of course, some changes or some amendments can be made.

Shri B. K. Das: But you do not want amendments to the extent that the present Bill envisages?

Dr. J. M. Hunck: Giving retrospective effect to certain provisions is a bad thing. Further, the basis of calculation for royalty and other expenses is not quite clear. Then, there is the question of appeal to a special court. I understand that you are going over that provision again. I would suggest that there might be a special court where the person can go in appeal. These are the few suggestions that I would like to make.

Shri D. P. Karmarkar: By special court, you mean somebody with judicial experience?

Dr. J. M. Hunck: Yes, of course, so.

Shri D. P. Karmarkar: It may be a regular civil court or it may be a court appointed by Government but it should be a court manned by persons with judicial experience?

Dr. J. M. Hunck: Yes, it should be manned by persons having judicial experience.

Mr. Chairman: Thank you very much.

Shri D. P. Karmarkar: We deeply appreciate the trouble that you have taken to come and give evidence before us.

Dr. J. M. Hunck: I thank you very much for this opportunity given to me.

(The witness then withdrew)

[The Joint Committee then adjourned]

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Thursday, the 3rd February, 1966 at 14.00 hours

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
5. Shri Panna Lal Barupal.
6. Shri Dinen Bhattacharya.
7. Sardar Daljit Singh.
8. Shri Basanta Kumar Das.
9. Shri V. B. Gandhi.
10. Shri H. K. V. Gowdh.
11. Shri Kashi Ram Gupta.
12. Shri Madhavrao Laxmanrao Jadhav.
13. Shri Braj Behari Mehrotra.
14. Shrimati Sharda Mukerjee.
15. Shri P. S. Naskar.
16. Shri Chhotubhai M. Patel.
17. Shri Naval Prabhakar.
18. Shri R. Ramanathan Chettiar.
19. Shri Sham Lal Saraf.
20. Dr. C. B. Singh.
21. Dr. L. M. Singhvi.
22. Shri K. K. Warior.
23. Shri Ram Sewak Yadav.

Rajya Sabha

24. Shri Arjun Arora.
25. Shri Vimalkumar M. Chordia.
26. Shri D. P. Karmarkar.
27. Shri P. K. Kumaran.
28. Shri Shyamnandan Mishra.
29. Shri Mulka Govinda Reddy.
30. Dr. M. M. S. Siddhu.
31. Shri Dalpat Singh.
32. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*
3. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESS EXAMINED

Dr. E. Jucker, *Incharge of Synthetic Research, Sandoz Ltd., Basle (Switzerland).*

Dr. E. Jucker, Incharge of Synthetic Research, Sandoz Ltd., Basle (Switzerland)

(The witness was called in and he took his seat)

Mr. Chairman: Before we begin, I have to bring one matter to your notice. You have given a Press statement in India. Normally the proceedings of this Committee, until they are placed on the Table of the Houses of Parliament, are treated as confidential. So it was most improper on your part to have given a statement to the Press.

Shri R. Ramanathan Chettiar: He held a Press Conference.

Mr. Chairman: It should not have been done. You are appearing as a witness before this Committee. Till the report is placed on the Table of the Houses of Parliament, the proceedings of this Committee are treated as confidential. Whatever evidence you will give here will be treated as public and it will be printed and placed on the Table of the House and will also be distributed among the Members of Parliament. Even if you want any portion of it to be treated as confidential, it will be printed and distributed to the Members of Parliament.

We have received your Memorandum and copies have been distributed to all the members of this Committee. If you want to supplement anything to that, you can. Then members will ask questions.

Dr. E. Jucker: Hon. Mr. Chairman and Hon. Members of the Joint Committee.

I should like, first of all, to thank you very much for having given me an opportunity to appear as a witness at this meeting of the Joint Committee on Patents Bill. Being a research chemist, being a Swiss citizen, I am very much impressed by the democratic principles of your country, of your Parliament and of this Joint Committee. I will take this experience back with me and I thank you very much once again for the opportunity that you have given me to be here as a witness.

I should like to apologize for not having a full command over English and I should also like to apologize, Mr. Chairman, for what has appeared in the Press and if you permit me, I would like to give a few explanations as to how it had happened.

I have been in India five times, always invited to lecture on drug research, and each time I was asked

by the Press to discuss the most recent achievement in drug research with the Press and each time there were small articles in the Indian papers on the subject of my lectures. Therefore, I was not surprised to be asked this time also to tell the Press as to what was going on in drug research. With respect to the lecture I had to give yesterday at the Royal Society of Chemistry which was presided over by Dr. Seshadri....

Shri R. Ramanathan Chettiar: We are not referring to that.

Dr. E. Jucker: I supposed that the Press-men wanted, as usual, to ask questions with respect to that lecture and I was taken by surprise when they started talking of patents. A few things were published. I sincerely apologize for that; I did not intend to do so. I hope you can accept this.

With your permission, Mr. Chairman I would like to say a few words in addition to what I have stated in the Memorandum that I have submitted.

May I, first of all, draw your attention to the fact that I am only a research chemist. I graduated myself in Organic Chemistry from the University of Zurich where I spent six years with the famous Nobel Prize Winner, Prof. Karrer. I then joined the research laboratory of Sandoz and there I am in charge of synthetic drug research. What I know about patents—I must admit quite frankly—is only as a research chemist and not as a specialist on patents.

I should like to draw the attention of the hon. members of this Committee to the fact that drug research, as it is done today, is done in an entirely different way when compared to what was done perhaps 30 years ago. In those days it was possible for a single research worker to isolate natural products to establish their physiological properties, to have those natural products tested by clinicians and then to see that some of these natural products were used as medicines. Today the situation is a completely different one. Drug research of today is a very complex enterprise. I certainly do not want to make any propaganda for Swiss watches, but I want to point out that the mechanism of drug research can best be compared with the working of a Swiss watch. There are many many wheels which have to turn at the same speed and in the same direction together and only the whole of it is to be considered as drug research. The situation has also changed very much inasmuch as natural products in modern drug research, apart from antibiotics, do not play the same important role as they did 20 or 30 years ago. Drug research of today consits mainly of synthetic work and most of the medicines which we use today are of synthetic origin. I would like, later on, to go into greater details as to how this drug research functions and how long does it take, because it does have a direct relation to the patent systems of various countries.

I have already mentioned that drug research consists of many varied sciences. I should like to give you a proper idea of its functioning according to the chart which was distributed to you. In the development of a new pharmaceutical speciality, many sciences are involved today. The begin of a research project is always an idea. We, synthetic chemists, are used to think in terms of relationship between chemical structure of compounds and their possible physiological activities. Once, such an idea has been conceived, it must be transformed into a working hypothesis and here a very complex and complicated work starts. As a research chemist, I then have to establish the already existing knowledge with respect to my own idea. I must be absolutely sure that what I want to start is new and novel. Otherwise it would mean duplication of work and I could not afford to start it. Therefore, the beginning, after the working hypothesis has been established, is always a very thorough

search of literature and of patents. I mention patent in this connection for the following reasons.

In the patents which can be bought at the patent office, chemical procedures are described and it is said to what final products these chemical procedures would lead. It must also be said in each patent as to what purpose the final products are meant for. Therefore, what is contained in a patent has the same value as a scientific publication. The knowledge of what is published in a patent can under circumstances form the basis from which a new research line can be started. We must consider the literture and patents before we start the research project of our own. Let us assume that this research has shown us that the idea is new and we are persuaded that it is a good idea and we hope that new medicines might result. The first experimental step then is chemical work. The chemist who is usualy graduated from university, starts synthesising new compounds. He builds a complicated compound by adding small compounds together and by subjecting them to chemical reactions. Synthetic research, as it is today, is a very cimplicated procedure and requires thousands of basic chemicals as starting materials. Pharmaceutical industry is not a basic industry. It requires basic materials from other sources. During the synthesis, out of the simpler parts, a complicated product is being built. It is like a house. You have the bricks. You add them together and at the end of it, it is a house. In the same way it works in the synthesis. Usually to start a new project about a dozen of novel substances are required; we consider them as prototypes. Then these substances undergo a thorough pharmacological screening, the purpose of which is to establish the physiological activities of the compounds which we have synthesised. These compounds are new; they were not known up to now, and it is not possible to predict their physiological properties. Those of our colleagues who are pharmacologists, apply these new substances to isolated tissues from animals and later on to the whole animals such as mice, rats or others and see how these substances react and what effects they produce. Sometimes there are good effects. Sometimes there are no effects; and sometimes there are undesirable effects.

Let us assume that the compounds we have built from simple substances produce certain interesting effects in animals. Let us also assume that due to certain activities of these substances a certain percentage of mice fall asleep then it could be considered as a sign of a sedative activity of the substance we were testing. Our next duty is, now to supply many more substances to pharmacologists in order to find out whether the substance produced hitherto is the most active one, the best that is wanted, or whether from the new group there are better substances to be had. It usually requires the synthesis of many hundreds of new chemical substances in order to establish these relationships between the structure of the novel substances and their pharmacological activity. This work takes 2 years, 3 years, or more in the chemical laboratory. Parallel with it, other substances are tested in what you find here as pharmacological screening. This pharmacological screening takes at least as long as the chemical work. Of course, some of the screening is done simultaneously with chemical work. Let us assume that this pharmacological screening has shown that a few of the substances possess interesting properties, and we think that these properties can be used in the treatment of human beings: as sedatives or tranquiliser or whatever it is. These few substances, perhaps six or a dozen out of 500, or out of one thousand, must undergo a very detailed pharmacological screening. Many tests are applied to the substances and together with these new pharmacological screening a very extensive research with respect to toxicology must be done. It is an extremely important factor as you all know of

course, and we must be very careful to have no substances in all these tests and in the tests of human beings which might be toxic. These toxicological tests require half year or one year and only afterwards are we allowed by Government's regulations and by our own conscience to pass on one or two substances into clinics where medical doctors would test them on the patients. Usually it is the chemist who produces the substance itself and the pharmacologist who tests the substance. Usually these people also try the new products out on themselves, in order to be sure that no accidents could happen in the clinic.

Parallel with the clinical tests many other tests should be carried out. Analytical work must be done, in order to be absolutely sure that substances are pure and quality is always the same. This is a very important thing. Lot of effort is spent on the analysis of these new potential drugs. At the same time biochemistry of the substance must also be studied in order to find out what happens to the substance in the human body.

Let us assume that all these tests proceed on well and our clinicians are prepared to look at the substance on human beings. Sufficient amount of the new product must then be produced. And, this is an entirely new task which cannot be carried out by research chemist, but for which special laboratories exist. We call them 'Pilot Plants' because they have fitted their work with quantities of 5 kilos or 10 kilos whereas in the research laboratory, you work with one gramme or five grammes or 10 grammes, but certainly not more.

Therefore, before the substance can go into the clinic, the pilot plant must synthesise 5 or 10 kilos which again requires a certain amount of time, half year, or sometimes longer, if the procedure is a very complicated one. Later on it is upto the physician to tell us whether the substance is good or no good at all. If it is no good at all, we try to produce something better. If it is good, the clinical test goes on for two years, three years or longer and the clinical tests are carried out on thousands of patients. Let us assume that we have been lucky—luck is always required in our field—and one of the substances survives and the physicians say that it could be used. Then, of course, we will start thinking of manufacture. First it will be hundreds of kgs, sometimes even thousands of kgs. At the same time, we must start preparations to inform the medical profession of the new substance. Very often, we are criticised today that our factories spend lots of money on the medical propaganda. I would like to explain here—probably you all know it—that it is not only propaganda that we are doing in this respect, but it is something more. You can never expect the medical profession to be able to make use of a novel substance if we do not explain what the new substance is, how it works whether it is less or more toxic, what are the side effects, where it could be applied and how it could be applied. This is a very difficult job. This is not to be considered as a pure propaganda. It is absolutely needed in this field. All in all, the whole procedure takes on an average six, seven or eight years or even more. From my own experience I can tell you that most of my own medicines which were developed by my collaborators took us seven, eight or more years. When we compare our own results with the results obtained by others, it is all the same and it could even be longer.

Due to the time factor, I should like merely to draw your attention to a very important blood-pressure drug—Alpha Mthyl Dopa. It was synthesized in 1950, but was introduced into therapy only in 1963. It took thirteen years to evaluate this drug in such a way that it could be introduced into therapy.

After this explanation, I would like to answer the question. Where is drug research done today? You have

seen from what I have said up-till-now that in order to carry out drug research you need learned people who can study patents and literature. You need chemists, you need physico-chemists, analytical chemists, bio-chemists, physiological chemists, pharmacologists biologists, micro-biologists, toxicologists and clinicians. You need representatives of about one dozen different sciences. It is so all over the world, with few exceptions. It is only the pharmaceutical industry which can combined all those people together. They must be almost in the same building. They must have daily contacts. They must work hand-in-hand. Drug research is carried out in industrial laboratories in this way. Few drugs result from other sources.

Mr Chairman, I may, with your permission, make one more remark about the contributions of drug research to the welfare of human beings. Yesterday I gave a lecture entitled: Progress in drug research. I spoke on four subjects—High blood pressure, Diuretics, Oral Antidiabetics, and Mental Drugs.

Fifteen years ago not one single drug for the treatment of mental disorders was known. Twelve years ago not one single drug for the treatment of high blood pressure was known. Ten years ago not one drug for oral administration was known to combat sugar diabetes. The last twenty years have seen a tremendous output in this field of entirely new medicines. These medicines have revolutionised our means for therapy. It is true to say that millions of human lives have been saved by new drugs. I can draw your attention to perhaps the case of mental disorders. Ten or twelve years ago mental cases could not be treated properly with drugs. There were only electro-shocks and insuline shocks, but no drug therapy was possible. Many of you who have seen mental hospitals know what they looked like. People were just put away and isolated from humanity. Medical doctors where not in a position to treat them properly. These were the poorest of the poor. Today what is the position? I have seen many mental hospitals myself. There are no patients left in the rubber cell. Most of the patients can live quite ordinary lives with the help of drugs. Many patients have been released from hospitals and are working-patients who otherwise would have spent the rest of their days in the mental hospitals. I am very happy to say that one of our substances has produced such interesting effects in mental disorder cases that patients who have been hospitalised for more than twenty years could be sent him for the first time and remain at home. Of course, many of you know these things yourselves.

Mr Chairman, ladies and gentlemen, I would not like to keep your attention any longer. I can only say that according to my humble opinion and the opinion of research chemists, patent is an absolute necessity for research of any kind and patent is a necessity for drug research for various reasons. There are very few fields in research activities where competition is as tough as it is in pharmaceutical field. Therefore, I am of the opinion that the better the protection the patentce is given for pharmaceutical research, the better will be the output of new substances. I do not want to go into details in this respect. I would be very happy to answer all questions if there are any to be put forward. I will try to answer them to the very best of my knowldge. Thank you very much for your attention.

Dr. C. B. Singh: Dr. Jucker, we are grateful to you for discribing the method of drug research as it happens today. We are very happy about it. I would like to draw your attention to one important point. Here, I have got a paper showing the names of Noble Laureates who have been doing research work on medicine and physiology. Out of 30, only one Noble Laureate, Mr. Paul Mueller, is working with the industry in Basle,

Switzerland. All others have been working either in the University Laboratories or institutions which have nothing to do with what you call pharmaceutical drugs. That is an important point you have to remember. Secondly, you have given in paragraph 4 on page 7 of your memorandum the important new drugs produced by the various countries in the last 15 years. USA 355; Switzerland 44; West Germany 32; U.K. 27; France 21. You also mention that majority of this work was done, rather, was helped by drug manufacturers. I want you to substantiate your point that majority of this research was helped by the drug manufacturers.

Dr. E. Jucker: First of all, you asked how does it come about that Nobel Prize Winners are not with the industry but with the Universities. I have not seen the list of these Nobel Prize Winners which you have and I would like to look at it, before I with the industry and quite a lot of experience with respect to how Nobel Prize is given. I would put it this way. Quite a few of the Nobel Prize Winners, who are probably in this list, were very much supported by the industry. Chemical Professors, who have received Nobel Prize recently had a very close association with the industry and quite a lot of fundamental research has been carried out by them. In this respect, we must differentiate, of course, basic research and the applied research. The purpose of the latter is new drugs. The work of pharamaceutical industry must be based on basic research and it has been established this way that in the Universities people do more of a basic research than in the drug industry. Basic research means that you don't aim at something absolutely special which could as such be used in the therapy. Basic research means that you study fundamental functions of the body; or for example, fundamental chemical reactions. Those who have achieved some outstanding result in their basic research have won this Noble Prize. If I as a research chemist contribute a new drug for mental disorders, such a contribution would never fit into the regulations of the Noble Prize Committee. If something of importance to the humanity is being done at a particular level of basic research, than it is rewarded by the Noble Prize Committee. Such people are seldom with the industry.

Dr. C. B. Singh: Your explanation is there. But the fact remains that real basic research of a fundamental nature anywhere is carried out by these Noble Laureates and the drug companies, if anything, take those ideas and modify those things to suit their own purposes. That point you concede.

Dr. E. Jucker: As much as I am aware, not one single drug has resulted from the work which was done by a Noble Prize Winner.

Shri P. S. Naskar: What about penicillin?

Dr. C. B. Singh: We shall take the question if penicillin as pointed out by the Deputy Minister. In 1928 it was discovered by Flemming and in 1939 Florey was one who discovered the practical use of it. Then there is Chain. How do you say that no one has discovered any drug? Penicillin was not discovered by the research worker in the industry.

Dr. E. Jucker: Drugs are not produced by Noble Prize Winner—it is a fact. Penicillin is one of the very very few exceptions, if it is not the only one. Drugs are not produced by this very important type of people; fundamental knowledge is produced by them. But pharmaceutical industry does not just modify it. Fundamental knowledge is needed, but what is built on top of it is quite enormous. Some of the research work of Chain was paid by the industry.

Dr. C. B. Singh: You will agree with me that, in spite of the researches carried out—sulpha drug you have brought out as an anti-biotic—pencillin still remains the queen of anti-biotics.

Dr. E. Jucker: May I tell you that the first achievement in the fight of infectious diseases was due to Professor Domagk who was associated with the German pharmaceutical industry and who discovered the anti-bacterial effect of the red dye prontosil. Sulpha drug have saved many lives and are extremely important bacticides.

Dr. C. B. Singh: I have used it and in the earlier stages because of its toxic effect some of the patients died.

Dr. E. Jucker: It was not synthesized for the purpose of using as a drug in the initial stages. It was a general observation that Prof. Domagk made that it has anti-bacterial activity. Two years later, it was substituted by sulfanilamide and released as a safer drug. With sulfanilamide probably no people died.

Dr. C. B. Singh: I lost so many patients because of using Prontosil. I have seen patients dying. In your memorandum you have stated that the USA is the largest in producing new drugs. How do you explain it? Why all those drugs have been centralised in America? Have you got any explanations for that?

Dr. E. Jucker: I would put it this way. America's pharmaceutical industry is an extremely developed one. They have very big pharmaceutical firms and they have been spending enormous sums of money on research alone. Last year, more than 300 million dollars were spent by the pharmaceutical companies—not by Government—on industrial drug research. 300 million dollars were spent for this purpose in one year alone. Due to concentration of research workers and also due to all facilities which can be got by spending all this money, it is quite clear that the efforts which are made produce many new substances. If all these substances are tested properly, it is quite clear that more drugs result from them than from a smaller amount of substances.

Mr. Chairman: What is the amount expended by U.S.A. Government on this?

Dr. E. Jucker: I do not know that. But, last year, 300 million dollars had been spent by the private enterprises.

Dr. C. B. Singh: My second question is this. How do you explain that in this country or any other country for that matter, hardly any research worthwhile has been carried out by the institutes or by the technical institutions including the research factories of the pharmaceutical industry? Here no research worth the name has been done in this country. How do you explain that?

Dr. E. Jucker: I would like to explain on the following lines. First of all, I am sorry to say that I am not in complete agreement with his statement.

Dr. C. B. Singh: I would like you to give me one example in this country.

Dr. E. Jucker: I have been in this country five times and I have visited university laboratories as also the Central Drug Research Institute in Lucknow where quite a lot of research works are carried out.

Dr. C. B. Singh: I know much about that. Don't tell me about C.D.R.I.

Dr. E. Jucker: I would like to tell you that the Hindustan Anti-biotics have done very much of research.

Dr. C. B. Singh: This is a Government factory. It has not done research.

Dr. E. Jucker: They do research work on the same line as anyone does. In this country, certainly research is carried out; it has started bearing fruits. I know of private enterprises in the western countries

which are interested in getting new drugs developed by Hindustan Antibiotics. Here I would like to explain one thing, in a different way. In Europe Chemical industry was established in the middle of 19th century. It took the industry a long time to develop its research. You know for research work a lot of financial assistance is necessary. Nobody can afford to do research work unless one builds up financial basis first. This is probably the reason why smaller companies carry out little research, as long as they do not have a proper fundament for it.

As I have already said drug research is not a basic research; it needs intermediaries and it needs starting materials. If you do not supply all these starting materials, you cannot carry out drug research.

Therefore, Sir, in this country, drug research can be carried out either by the Government or by a private enterprise, but only if these starting materials and intermediates are made available. For this purpose a chemical industry must be built up. As long as there is no basic chemical industry, we cannot do drug research properly.

Dr. C. B. Singh: But you have forgotten one important point. For any research, you must have a first-class scientist. To get a scientist it must be made attractive for him to go into research. Can you tell me as to, why in my country, first-class men are not coming over here for research? Or for that matter why they are not coming forward for research of any kind anywhere in this country?

I have got some ideas on this. But, I want you to tell me the reason why first-class scientists are not coming to do research work.

Mr. Chairman: What answer can he give to this?

Dr. E. Jucker: Mr. Chairman, as a Swiss boy do you want me to give an explanation for certain things which are happening in this country? I cannot answer this question.

Dr. C. B. Singh: All right. Will you please refer to page 7 of your Memorandum? Here you have mentioned as follows:—

"In those countries in which most new drugs were produced, the universities conducting basic research are also subsidised very heavily by the relevant industries themselves—in this case, by the pharmaceutical industry." I would like you to tell me as to how the subsidies are given to the universities by these industries?

Dr. E. Jucker: You want to know about the position in Switzerland or in this country?

Dr. C. B. Singh: Any country about which you know you may tell me.

Dr. E. Jucker: About this country, I do not know. But, as regards my country, the following is the position. Basic research is mainly carried out in universities. This type of research is not supposed to have immediate influence on drug research. Basic research will supply the industrial drug research with impulses and will stimulate it, but will as such not result in new drugs. Therefore, if a university professor suggests an interesting project, for example with respect to novel chemical reactions, the industry might agree to support this project even if no direct results which could be used by drug research are to be expected. Upon preliminary discussions we might come to an agreement with respect to the above project and the financial assistance which then is given, is usually meant to cover the costs for substances and personal assistance. The means which are provided by the industry usually cover these expenditures.

Dr. C. B. Singh: You know that in the earlier days there was some en-

quiry about mercury and chlorine. There used to be medicines from out of arsenic chlorine content. I am talking about the earliest period of time. Don't you agree with me that for this purpose one basic unit should be started for doing this work? It may not be difficult to do that. Take the case of sulfonamide. First this was made. Then came sulphadiazine, then came sulphadine etc., etc. That the beginning was sulfonamide itself is an important point. Later on, the synthesis was made under the same constitution, in the same cost and probably in the same circumstances and you were able to synthesise a dozen or more drugs without much difficulty.

Dr. E. Jucker: I would like to answer this question in the following way. Nothing is difficult once you know the answer, but if you work on any new synthesis, as I do often, then you are faced every day with the most difficult problems. Once you have solved them, everything looks very easy. Then there will be no problem anymore. I can tell you one example. We have recently built up a new group of psychothropic substances which could be used against mental depression. It took us 2 years to synthesise one single substance. But to produce it on a longer scale it took 3 more years. I would say that there are substances, the synthesis of which is easy and simple but the longer our activities go on, the more complicated this work does become.

Dr. C. B. Singh: You have seen our Patents Bill. I would like you to tell me a few basic features which you think should be either dropped or modified or redrafted.

Dr. E. Jucker: I feel—I am to some extent entitled to speak on drug research but I am definitely not entitled to go into details of the Patents Bill—I would, therefore, like to draw your attention only to very few points which I know, and which I have come across in my own work. May I start with the problem?

Mr. Chairman: The hon'ble Member wants to know how this Bill that is before our Parliament comes in the way of research.

Dr. E. Jucker: I would put it this way. It comes in the way of synthetic drug research inasmuch as (a) the protection given for the substances which we develop is not enough; the process alone does not give you proper protection. Secondly, the term of patents should be longer. I am absolutely convinced and I talk the truth when I said that on the average it takes you 7 or 8 years to produce a marketable drug. If the term is 10 years, then the effective term that remains is 2-3 years and not longer. These are very important points which affect drug research.

Then, of course, there are other provisions which are foreseen in the Bill and, in the present form, such as licences of right which are unknown in any other country. There is no one single law in the whole world which have licences of right of this type, and I believe that these particular clauses will affect the developing of drug research in the country very badly. May I draw your attention to this point? How can you imagine anybody to take up costly time-consuming drug research if he knows that once he has succeeded in producing a very valuable substance, anybody who asks for a compulsory licence must be given. If according to the Bill the Controller of the Patents Office has to grant anybody who asks for it, the compulsory licence, and the royalty is not more than 4 per cent. Nobody who has ever done drug research would dare to continue under such circumstances, because he must be afraid that once after he spent enormous amount of money and after he reached certain success, the fruits of his work are taken away from him and the insufficient compensation will not enable him to continue his research.

Mr. Chairman: Do you know that in Switzerland, your country, inven-

tions contrary to law, inventions contrary to morality, chemical substances, medicines, foods when they are not made of chemical substances, processes for the manufacture of medicines other than chemical, are not patentable?

Dr. E. Jucker: That is not correct. May I give you an explanation on this point?

Mr. Chairman: What I am reading is a United Nations Booklet.

Dr. E. Jucker: There are three types of patent protection. One type is the French Law; one the American Patent Law and the other the German Law for the French and the American systems the substances as such are protected. This is not done in Germany or in Switzerland. In Switzerland the sustances are protected not as such, but when produced according to a special process, which is covered by the patent. This means here for that the substances are not protected if there is not a particular process for their manufacture. What we protect is the substance when manufactured along a certain route. We have a perfect protection and there are no infringement cases in Switzerland; no infringement cases in Germany. We have exactly the same patent law and I beg you to believe it.

Dr. C. B. Singh: You think there is no provision so far for extension in our Bill. After hearing you, if there is a provision included in the Bill for extension in suitable cases, do you think that it will meet your point?

Dr. E. Jucker: Definitely, Sir.

Shri Sham Lal Saraf: I thank you for giving us some details of this modern way of research, particularly, in drugs and pharmaceuticals. May I know in the first instance whether the Sandoz India Ltd. have got collaboration with Sandoz Ltd., Switzerland or it is an off-shoot of the Swiss company?

Dr. E. Jucker: It is an affiliated company which was founded 15 or 20 years ago by our company in India. Now Sandoz Ltd. India have shareholders all over India.

Shri Sham Lal Saraf: I had the privilege of visiting your Headquarters also and talking to the Minister of Foreign Trade of Switzerland and your representative in Berne in 1960 and later Sandoz became interested in the State I come from, i.e. Jammu & Kashmir. I understand that your company is interested in both herbal drugs as well as synthetic drugs. May I know as far as your efforts or as far as your work that you are conducting within this country is concerned, whether you confine your activities mainly to herbal drugs or synthetic drugs as well?

Dr. E. Jucker: In our company, the main line of production and the main line of research until very recently was with natural drugs. This line started with ergot alkaloids and later on with cardiac glycosides. In the old days we have preferred the natural products to synthetic ones. Our company has always been very much interested in drugs from natural sources. We conceive them of the greatest importance, though the experience of the last, let us say 10 years, shows rather clearly that the main sources—I exclude anti-biotics—of drugs are synthetic sources. If you have a look at modern medicines, you will not find one single new medicine of greater importance from a natural source, which was discovered and introduced into therapy during the last ten years. The last important one was Reserpin from the Indian plant Rauowalfia Serpentina. Since its discovery natural drugs of importance were not found any more. That is probably one of the reasons why we entered the synthetic field and we started to build up substances which are not of natural origin, which are derived from the chemists fantasy. Of course, to a great extent we keep the idea of natural products as a model and we look at the formula of the natural products and try to modify it in our minds so that there is a certain relation to it. Sometimes it does work; sometimes it does not. That is what I call model based synthesis. We have natural product models but to-

day I have to say free systhesis is much more frequent.

Shri Sham Lal Saraf: Some of the learned witnesses who have preceded you, have given us the impression that if to-day the pharmaceutical industry in this country suffers, one of the main reasons for it is the paucity of raw materials for the manufacture of drugs. From your experience that your company has gained in this country, do you consider that even to-day there is a lot of scope for herbs to be raised, handled properly and brought under proper research?

Dr. E. Jucker: I have been asked this question about each time I was in this country. I have discussed these problems with my friends from universities, from other institutes and also from the industry. I believe—this is my personal opinion; I have an experience of 20 years in drug research—that the greatest handicap you face in your country is the lack of raw materials for synthetic drugs. If you want to produce synthetic drugs on a large scale, you need a well-established chemical industry for basic starting materials. If you have to import all the raw materials—the simple chemicals—from abroad, then the whole enterprise of the synthesis of medicines becomes very costly. In order to produce one kilo of a medicine, you might require 100 kilos or even 1,000 kilos of a simple starting material like benzyl chloride or chloracetic acid, because the yield during a complicated synthesis is so small that you start with a huge amount and at the end of the synthesis, there might be a kilo or two. This explains the cost of the substance. And if you have to import all the raw materials and pay transport charges for such huge quantities, it would be too expensive. Therefore, I would like to say that if synthetic drugs are to be produced here, the raw materials, the starting materials, must be made available by your own industry. Of course, there are also possibilities with herbs. But these herbs have been investigated so thoroughly during the last 40 or 50 years that, I think, very few herbs remain uninvestigated, that is, herbs which you can collect in major quantities. Therefore, I believe that if you want to build up a drug industry of your own producing these substances, you should better start with synthesis.

Shri Sham Lal Saraf: May I know, ever since you started manufacturing drugs and pharmaceuticals in this country, how many imported inventions you have got patented in this country, and secondly, how many of these patented drugs are actually being manufactured by you in this country?

Dr. E. Jucker: This question is very easy to answer. Out of all the products which we have on the market here, there is only one drug which is under patent protection. It is Intestopan, used for intestine trouble. All the rest of our products are not under patent protection. It might be that a second product is also under patent protection, but I am not quite sure about it. But in no case there are three patented products. All the rest of our products are not protected by patents. I would like to draw your attention to Calcium preparations, ergot alkaloids and cardiac glycosides—they are not protected by patents.

Shri Sham Lal Saraf: How many processes for manufacturing these drugs are done here? Is it only packing or finishing alone?

Dr. E. Jucker: No. As soon as there was a possibility to manufacture, we have started manufacturing. But, as I have already told you, if you want to manufacture a medicine, you need raw materials and we also, like other firms, had to wait until raw materials were available. We are manufacturing now our Calcium (Sandoz). The whole supply of the country is manufactured here in a place near

Bombay. These manufacturing facilities are now being expanded in order to export Calcium (Sandoz) from India. It is now intended to export Calcium (Sandoz) produced here into Switzerland. Then they are manufacturing now cardiac glycosides. The plant digitalis is cultivated in the country and is used for the manufacture of distatalis glycosides. We have started manufacturing Intestopan. I can tell you frankly that it is almost impossible to synthesise this very simple substance here because of the lack of starting materials. Therefore, we do our very best.

Shri Sham Lal Saraf: You said that even now it takes seven to eight years for fundamental research for some of the drugs. Now, on that we have different opinions. May I know from your vast experience, what would be, in your opinion, the reasonable time for a patent from the date of sealing?

Dr. E. Jucker: The average term of the patents all over the world is about 17 years. We believe that if the present term of 16 years is maintained, it is a fair treatment to the patentee.

Shri Sham Lal Saraf: In the Bill, it is suggested that from the date of sealing, it should continue for 10 years. Keeping in view all the processes that it has undergone—sometimes very lengthy processes also—if the drug is patented for a ten-year period, what would be your reaction to that, as compared to 16 or 17 years?

Mr. Chairman: He has said if it is 16 years, it is quite all right.

Dr. E. Jucker: If the patent is for ten years, then the actual protection is for two or three years and no more.

Shri Sham Lal Saraf: Drugs are sold at very high prices in India when compared to other countries in the world. Also in this country because of the rising standard of living, drugs are very much in demand. How would, in your opinion, we be able to reduce the prices and also be able to import as much of know-how as possible?

Dr. E. Jucker: With respect to the hon. Member's question, I do not think that I am competent to express my opinion on it, because I do not know the prices of this country.

Shri Sham Lal Saraf: What about the import of know-how? How can we do it?

Dr. E. Jucker: The import of know-how depends on the collaboration between those who have the know-how and those who want it. If this collaboration can be established on terms which suit both parties, there should be no problem, and if I may say so, during the last ten or twelve years, this collaboration has worked beautifully. The pharmaceutical industry in India today is much larger than what it used to be about ten years ago; it is about ten times larger today than what it was ten years ago. This collaboration did work, and if one can proceed along the same lines, then there is no difficulty.

Mr. Chairman: This witness has spoken only on research, and therefore I would suggest that the questions also should be only on research. He is a technical witness.

Shri Kashi Ram Gupta: Your memorandum deals with the detailed processes through which a compound has to pass before it becomes useful in the final stage. You have given an idea of the average time taken in these different processes and also indicated the fact that huge sums are involved in the venture. But you have not given any picture of the break-up on the financial side of the matter. After all, there is a process on which the companies big or small have to decide; they decide what percentage of their total assets can be allotted to research for capital investment and what percentage of the profits are to be reserved for research expenses. Unless an idea of this break-up is given, your whole explanation and arguments and phraseology for protecting patents leads us to no conclusion and gives us no help

logy for protecting patents leads us to no conclusion and gives us no help in formulating our correct opinion. Please throw some light on this aspect of the problem.

Dr. E. Jucker: I thank you very much for this question; I am concerned with drugs, as I have already specified, and I work as a research chemist. I am supplied with all the money, and I spend millions per year on synthetic drug research, but I would definitely not be in a position to give you the proportion between the money we spend on drug research and the profits. The definition of the term 'profits' is not the same everywhere. The conditions here are different from ours. What I can tell you is with respect to Swiss companies; there the proportion between the money spent on drug research and the turnover is on an average about 8 to 10 per cent. My company, let us assume has a turnover of 500 million Swiss francs on pharmaceuticals; then the spending on drug research would be about 40 million Swiss francs; it is roughly about 8 per cent.

Shri Kashi Ram Gupta: Your memorandum leads one to conclude that the pharmaceutical industry in the future can deliver the goods only if it is highly centralised both in regard to capital and know-how, productive capacity and marketing, and competition too can only be possible when equally giant firms are there in the market. This means that the older the company, the more are its chances to stand in the market. Such companies possess such varieties of medicines also along with the patented medicines, whose patents time-limit has elapsed but which are in good demand in the market. They are thus in a position to get results by spending on research a lower percentage of their profits than those who are new to the line. Thus having such a law as protects such combines naturally goes against the interests of *entrepreneurs* in undeveloped countries and those whose resources do not match with those of the developed countries. As such, a legislation of your conception which you have just now referred to will naturally go against the interests of our economy. If your reply is in the negative please explain how you can substantiate that it will be in our country's interests.

Mr. Chairman: The hon. Member's questions are too long.

Shri Kashi Ram Gupta: I have written it down purposely so that I do not go astray this way or that way from the main point.

Dr. E. Jucker: I am very happy about this question. I have many very good friends in this country. Despite the fact that I am associated with a private firm, I do not keep what I know as a secret; I lecture about it and then try to give my advice if it is wanted, where I can. I have discussed this particular question many times here with my colleagues at the universities and with my friends, and therefore, I would like to put it this way.

Enterprises which can produce drugs, either governmental or private enterprises, have not been built within five years or within ten years. Many of these enterprises are fifty years old. Some of them are a hundred years old. Thus, the whole procedure requires time. You need time to build up a factory and to build up research work, and you cannot forget about the time-factor; you cannot get round it. You cannot expect your country which is industrially a young country to produce drugs as cheaply and at the same quantity as a country which has been doing so for hundred years. It will need a certain amount of time, but the fundament for manufacturing your own drugs cheaper perhaps than what they are today is research work. If research work is carried out in this country, proper drug research, then you will be able to produce drugs of your own. If drug research is carried out abroad, patented abroad and then you get compulsory licences, then you will always be later than the foreign counrties, and your country would always be depending upon them. I

believe that a country like India should aim at independence at all the levels. And independence in medicines can be achieved only on the basis of drug research of your own, and, that is where I am a firm believer in the fact that if you stimulate drug research in this country, drug research done by Indians, by Indian firms and eventually helped by Government, and you have a patent system which protests the results of those researches, then you will have a proper drug research and drugs of your own. That is the way I see it.

Shri Kashi Ram Gupta: Seeing your reply, I think I have to put my question this way now. Pharmaceutical research goes hand in hand with research in the field of diseases and ailments also. The latter research mostly constitutes a duty on Governmental level or is done by such organisations as may be specified. So far as the pharmaceutical drugs are concerned, do you not think that if the risky processes are covered by Government aid or by Government organisations, then the rest of the process which has eliminated this risk can be taken up by private enterprise? If such a thing is done, then how could you say that the present patent law would not give enough term for the patent? If that is done by governmental agency mostly, then the fear of risk is eliminated; then so far as the term, royalty and other things are concerned, the present Bill should suffice, I think. What is your opinion about it?

Dr. E. Jucker: I hope you do not mind if I do not completely agree with your opinion. I have been born in Russia; I have lived there for 14 years, and I have relatives in Russia, and friends in Russia and friends in my own business in drug research. Russia up till now has not produced anything of importance in the field of drugs. If you go through the list of Russian drugs, that is the drugs which are available in Russia—I have the latest book by Prof. Mashkovsky whom I know very well—you will find that they are all drugs which have been developed in Western countries. Here, you have an example. The whole drug research is started and paid for by Government. I believe that if you let the pharmaceutical industry compete, one firm with another, on the basis of free enterprise but protected by a proper patent law, then you will get better and quicker results than by governmental aid.

Shri Kashi Ram Gupta: I think my question is not very clear to you. My point is this. I have suggested that the risk portion of it may be covered by Government but the other portion could be left to private enterprise. That is not so in Russia.

Dr. E. Jucker: But what is the risky portion of it? The whole is risky. I have projects; I must admit that I might be not too good a chemist; I have worked on rheumatism project for more than ten years, with about 6 Ph.D. chemists and about 40 assistants; we spend perhaps 20 million Swiss francs on it. The results are non-existent. What is the portion which is risky and which is not risky? The whole is risky.

Mr. Chairman: How can you divide the two?

Dr. E. Jucker: You cannot divide it.

Shri Kashi Ram Gupta: At page 10 of your memorandum you have mentioned that the development of drugs has slowed down during the last five years. This in your opinion is due to legislative measures, keen competition and high expenses etc. Do you mean that the Governments of all countries or of some particular advanced countries have introduced such legislative measures during the last five years?

Dr. E. Jucker: I would like to explain it this way. First of all, the developments in the sciences which have led to new drugs—I have described all of them—such as chemistry, pharmacology etc. have been tremend-

ous, and many new drugs were discovered. There are many new drugs available, and the more of them are available, the more difficult it is to find new drugs and to find better drugs. That is one reason why this process of finding new drugs has slowed down.

The second reason is that drug research becomes more difficult as we enter into new fields. Take, for instance, the virus diseases, cancer etc. We know so little about the fundamentals of these fields; that needs much more basic research; so, much more basic research must be done on them. For example, as long as we do not know what is rheumatism or what is cancer, how are we to produce new drugs? That is what I would call basic research. If somebody discovers what cancer is he will not get the remedy but the Nobel Prize because it is only on this discovery that we can produce the remedy, but the discovery is very important. Therefore, I would say that in fields which remain open and which are so difficult we are spending, all of us, enormous amounts of money. For example, take cancer research. We are rather certain that during the next ten or twenty years there will be no drug of choice for cancer, and yet we are spending money on it because we want to do the progress. If we do not, then who does? That is one answer to your question.

Shri Kashi Ram Gupta: But you have not replied to my question about legislation in the countries.

Dr. E. Jucker: I am coming to that. The second part of your question is this. There was a very unhappy experience in Germany and in other countries about five or six years ago. For the first time in the history of drug research, it was found that a certain substance when used by pregnant women had resulted in fatalities and that had caused a tremendous drawback on the whole drug research. Everybody is now afraid of unknown factors in novel substances. If you have something novel in your hands, then it first means that you do not know everything about it. Therefore, we ourselves have become much more careful about introducing new drugs, because no one can afford a second case like that such as we faced five years ago in Germany and other countries.

Shri Kashi Ram Gupta: Do you agree that these regulations of the Government are justified?

Dr. E. Jucker: Absolutely so.

Shri Kashi Ram Gupta: How do you say that this Bill puts hurdles in the way?

Dr. E. Jucker: I do not object to it, but I say that it takes much longer today to find a new drug and to introduce it in the market. Therefore, it becomes much more costly, and the period which is left for the patent is too short. That was the point that I wanted to explain.

Shri D. P. Karmarkar: Are you able to appreciate the fact that there is pretty little invention here, and what we have been doing during the last ten or fifteen years is with collaboration with distinguished firms like yours and it is by this means that they have been having some industrial production in the field of pharmaceuticals here, with proper terms etc. Therefore, the motivation behind the shortening of the period in respect of patents from 16 to 10 years is this that we are anxious to have industrial production started here as early as possible. Are you not in a position to appreciate that this is the reason for the shortening of the period?

Dr. E. Jucker: I fully understand the idea behind this shortening of the term. I fully understand it and I fully appreciate the Indian position. But we must not forget that patent does not give everything. Anyhow, it is not in the

patent that one gets the know-how; it is not in books that one gets the know-how; this know-how must also be made available if somebody wants to utilise what has been described by a patent. Just by shortening the term of a patent one does not find a suitable solution to this problem. I think it would be wiser if conditions could be made such that the patentee willingly gives all that he knows, the whole know-how plus the patent to the licensee; I think that that would be very efficient if it were done that way.

Shri D. P. Karmarkar: Do you agree that for reputed producers of drugs and medicines like your concern, for instance, in the world of pharmaceutical production, whether you have a patent or not does not make a difference? So long as the industry produces things of good quality, and your concern produces things of good standard, and Sandoz will remain Sandoz, whether or not you will have patents would make no difference.

Dr. E. Jucker: With respect to patents and drugs, for our company or for any other company, the following has to be said. We have tried to find out how many drugs out of those sold in India are patented and we have come to the answer that it is only 2.5 per cent; 97.5 per cent of all the drugs in this country are not patented at all; they can be manufactured by anybody in this country. And yet why do people not do it? They do not do it because they lack the know-how; they lack the facilities. This is much more important. But with respect to patents, I still have got to stress the following. This 97·5 per cent covers all the products, so to say. The new drugs which are developed by the industry and which are put on the market require patent protection for a few years. If after a few years this patent protection stops and drugs become free, then the industry does not mind. But to introduce a new pharmaceutical speciality, there must be protection for a while. Just imagine what will happen, if a firm introduces a speciality and gives all the information to the medical profession. Imitators get everything gratis. They would not contribute anything at all. As soon as such a firm puts the product on the market, there are perhaps 20 similar products produced by imitators from all over the world. Then the profit which the patentee must have for a while becomes questionable. That is a very important point. The starting of a new drug must be covered by a patent.

Shri D. P. Karmarkar: It is not as a complaint that I am mentioning this. In so far as your distinguished concern in India is concerned, for instance, they have specialised in belladona alkaloids and ergot alkaloids. I am told it is a fact that they are not making these things in the country, even though the raw material is grown here. Why?

Dr. E. Jucker: I am prepared to take all the blame, if necessary I have been asked why do we sell certain products here like balladona—alkoloids which is derived from a plant which grows in this country but, why do we import this substance from abroad? Why do we not manufacture it here itself? This question is very justified and I am very happy that I am in a position to answer it, because I had a similar request quite recently with respect to another of our drugs.

Certain products are sold in thousands of kilos and others are sold in a few kilos. Bellodona alkaloids are extremely active compounds; they are used in dosages of half a milligram or one milligram. For some of these products which my firm markets here, the basis is just not broad enough to manufacture the amount needed here; it might be perhaps one kilo or 5 kilos. It would be too costly to establish manufacturing facilities for a small amount of active ingredients and it is wiser in every respect to buy it from somewhere where it is produced on a larger scale. It will be cheaper.

Mr. Chairman: What is the quantity you are manufacturing in Switzerland?

Dr. E Jucker: Very small. I do not exactly know, it is perhaps 50 kilos or perhaps 100 kilos. But it is never in tons. It is very little for the whole world.

Mr. Chairman: India is ten times Switzerland.

Dr. E. Jucker: This product has been on the market for a very long time. It has never been developed in significant terms.

Shri Sham Lal Saraf: In Kashmir a substantial quantity of belladona is grown. But the difficulty today is of processing. Is this firm prepared in any way to encourage that State to process belladona?

Mr. Chairman: Is your firm doing anything to help the processing here?

Dr. E. Jucker: Yes. I can give you an example. The amount of substance which one manufactures for a speciality must be of some order in order to justify manufacture. If it is only for a very small quantity, it is too costly to manufacture it.

Mr. Chairman: That can be said of every other product.

Dr. E. Jucker: No, Sir. here are substances which you need for a speciality in sufficient quantities and then you try to manufacture them as is the case with difitalis leaves which is grown here in the country by ourselves and extracted here.

Dr. M. M. So. Siddhu: Will you take Cortisone?

Shri D. P. Karmarkar: Let me finish my questions.

So far as vital medicines are concerned, are you in a position to appreciate that they have been exploited, patents taken and part of the expenditure on research has been covered by profits, and that being so, in view of the large market that exists in India by way of its huge population, not much would be lost by the company or the producer who comes here either in collaboration or by himself, if the period of protection is reduced, so far as medicines and drugs are concerned, from 16 to 10 years?

Dr. E. Jucker: What one must realise is this: You need to synthesise about 3,000 compounds to produce one food drug. That means that this one drug is to pay for all the failures, and the profits we are making on this one drug must finance all the failures and all the research we are carrying out at the present time. We never know how long it is going to take us to produce the next medicine.

Mr. Chairman: But that is not so in the case of all drugs. There are drugs which take two years, some three years and so on.

Dr. E. Jucker: I fully agree. But as I see it, you cannot have a patent law which takes these differences into account. These drugs which are sold on a very broad scale are an exception. We have waited for years and years to bring out a new drug and then if the protection for this one new drug is two years, we are not in a position to compensate, to reimburse our expenditure.

Mr. Chairman: Will you be satisfied if in certain particular cases, the period may be extended by the Controller under powers given to him?

Dr. E. Jucker: Quite frankly, the drug research people would appreciate if there was a proper limit of let us say 15 years for all inventions, but if this cannot be done, of course, even a prolongation of the term is better than nothing.

Shri D. P. Karmarkar: There is a provision in your federal law, a summary of which has been given in the U.N. brochure as follows:

> "Other cases in which patents are subject to public use—Total or partial expropriation in public interest against compensation to be fixed by the State."

Have there been any complaints about this provision in your law either by your own companies or foreign companies having patents in your country?

Dr. E. Jucker: Compulsory licences in the Swiss law, German patents law, European patent law, are of an entirely different character than what is suggested in this Patents Bill. Here everybody would be entitled to a compulsory licence with respect to patents on drugs. In our system compulsory licences are given only in the public interest and then against proper remuneration, the quantity of which is not fixed but is subject to mutual discussion. I must make it quite clear that not one single case of this type has happened in Switzerland during the last 10 or 15 years. There has not been even one single expropriation by the Government of a patent, and if it had to be, then we would accept it for three reasons: firstly because it is needed in the country's interests, secondly because a proper remuneration would exist, and thirdly because we would have access to an appeal at the highest courts of Switzerland.

Mr. Chairman: It might not have happened in Switzerland, but there are several countries which have got this provision of compulsory licensing—U.K., France, Germany, almost all the countries.

Dr. E. Jucker: Yes, but it is always in the public interest and for security purposes.

Mr. Chairman: You have no objection to that.

Dr. E. Jucker: We have no objection to it at all. This is absolutely justified.

Shri M. L. Jadhav: In the law of your country, there is a provision for revocation of patents. Has there been any instance of revocation of patents and for what reasons?

Dr. E. Jucker: In my country, not one single patent has been revoked in recent years. The provision is there, it is in every country for dealing with cases of immorality and things like that.

Shri P. K. Kumaran: After giving number of inventions in your memorandum, you have stated:

> "The remaining countries including Italy and Russia produced fewer than five."

Will you enlighten us why Italy and Russia could not produce modern medicines?

Dr. E. Jucker: I was very careful in putting it down as less than five. I must admit that I know of not a single original drug produced in Italy or Russia. In fact, a couple of years ago the Russian Minister of Health complained badly about the underdeveloped state of the Russian pharmaceutical industry. In Italy very little research work has been carried out by three or four of the major firms only; all the rest of the Italian industry did nothing but copy. Therefore, the research work which was carried out in Italy was of a very limited order, and it never led to one single original pharmaceutical speciality. Nowadays the Italian pharmaceutical industry is going through very bad times. There has been recently a governmental study made of the Italian pharmaceutical industry, and it was asked why certain of the companies were being taken over by firms from abroad, why other Italian firms had started limiting their research activities, and it was answered that in the present situation when

there is no patent protection for pharmaceuticals at all, nobody in Italy can afford research work in this field, and they have never been able to carry out proper research work during the last 20 or 30 years, that is the reason why they have no new drugs of their order.

Shri Arjun Arora: You said that 97·5 per cent of medicines sold in India were unpatented. Is that figure based on turnover in terms of rupees, or items of medicine?

Dr. E. Jucker: Items of medicines or drugs sold.

Shri Arjun Arora: Have you any idea of the turnover of patent medicines in India in terms of rupees?

Dr. E. Jucker: No. It can be done, but it will take some time.

Shri Arjun Arora: Does your firm deal only in patented medicines for both patented and unpatented medicines?

Dr. E. Jucker: Yes, with both.

Shri Arjun Arora: Could you give us an idea of the percentage in terms of rupees of your turnover in India?

Dr. E. Jucker: I am sorry I could not do it. I would say a major part of the sales is with unpatented medicines.

Shri Arjun Arora: You said that in Russia there was not much research. How is it that they are able to produce medicines at cheaper rates without research?

Dr. E. Jucker: I do not know how cheap medicines are there. he only explanation that I can give is that the Russian drugs which you find in Prof. Mashkowski's books, all those drugs had been developed by the west; the west has paid the whole research expenditure for these drugs. They are just manufactured and sold in Russia. They are western medicines.

Shri Arjun Arora: Why cannot you do it in India?

Shri R. Ramanathan Chettiar: Even in Russia the open market prices are very high.

Shri K. K. Warior: I wish to know the proportion of the cost of the starting material, the intermediate and the finished products in the Sandoz factory.

Dr. E. Jucker: I could never answer this question because I just do not know it. I am in research. I understand nothing about the costs of the starting materials or the cost of the end products. But may I give you an example which I was told a few days ago here in India. You can take a cotton shirt and find out the cost of the cotton in it and compare it with the price of the shirt. You can do the same thing in medicines and this will be about the answer. Starting materials are very cheap. But the work involved is very expensive and the yield at the end is very small. That is what makes the cost of the final product. If you add together the price of all starting materials this will never give you an answer.

Shri K. K. Warior: What I mean is this. We get a material worth 100 dollars. How much will research cost? How much will the intermediates cost? Ho much will the finished product cost?

Dr. E. Jucker: We can never generalise like that. It is different in every case. If you have a starting material, sometimes it takes three operations to get the end product; sometimes it takes 15 operations. So, there is no generalisation possible.

Shri K. K. Warior: Do the intermediates cost much more? disproportionately more?

Dr. E. Jucker: No, no. May I clarify? The price of a substance which we use as a drug is composed of various fac-

tors. One of the factors is the price of raw materials. Another factor is the work involved; yet another is the capital involved; then there is the research factor. So, there is no generalisation possible.

Shri K. K. Warior: We have a report here from Justice Ayyangar before us. In that report on page 16, he says that there are some examples where an invention is not patentable in the patentee's home country but is patented in India and they relate to patents for medicine and drugs taken out by Swiss nationals in India.

Dr. E. Jucker: May I tell you that I hold myself a couple of hundreds of Swiss patents. That is the only answer I can give you. In Switzerland we can patent our inventions in the pharmaceutical field like in the whole of Europe. There are only 7 countries in this world where you cannot patent pharmaceutical inventions — China, Afghanistan, Iraq, Iran, Ethiopia and Turkey. Italy is going to have a patent law. In the rest of the world including Switzerland you get patents for pharmaceuticals. I know the Swiss law by heart. What is often being mixed up is product *per se* protection which you have only in France and USA while you have in the rest of the world product by process or process protection. It is a wrong interpretation to say that in Switzerland there is no patent protection for pharmaceuticals.

Shri K. K. Warior: I could not follow.

Mr. Chairman: He says it is wrong interpretation.

Shri Daljit Singh: On page one of your memorandum you say that you do not propose to even attempt to consider the legal provisions of the Indian Patents Bill. And also in the end of the memorandum you say that the prime concern of the legislators dealing with the Patents Bill should be the encouragement of drug research by means of a strong, just patent law which would ensure the unimpeded further development of this most important industry.

In view of that should we think that you support the Bill.

Dr. E. Jucker: Mr. Chairman, this is a very important question. Is the distinguished gentleman asking me whether I support the Bill?

Mr. Chairman: He has come as a research scientist.

Dr. E. Jucker: I wanted to say what I know about drug research and the implications with patents.

Mr. Chairman: That is what he wanted to tell us.

Shri Peter Alvares: I have one simple question. Dr. Jucker, you are a very prominent chemist. The Patents Bill, as is stated in its objects and reasons, is to encourage inventions, etc., but the controversy appears to be on the time-limit of patents. It has been suggested in the case of medicines and drugs the period should be 10 years and otherwise, it should be 14 years from the date of the patent. The date has been defined as the date of the filing of the specifications. May I know what can be the time-limit? Between the filing of the specification and the commercial exploitation of the patent, how much time should be deducted from the span of 14 years?

Dr. E. Jucker: This is a very important question. I will give my absolutely frank opinion about it. Due to very hard competition to which we are submitting in our part of the world, we have to file the applications as soon as we can. That means we file them as soon as we have the pharmacological results. We wait for the first pharmacological results which may be indicative, indicating the proper commercial use of the compound as a medicine. Therefore, from the time of conception of the idea to the time of filing, perhaps one year elapses on an average.

Shri Peter Alvares: From the time of filing of the specifications.

Dr. E. Jucker: From then on, it takes us six or seven years to market it. Out of the eight years we require for the whole research, one year can be deducted. Therefore, from the moment of filing, it is perhaps seven years.

Shri Peter Alvares: I presume you know the meaning of the words "filing of the specifications". From the time of the filing of the specification, the period of the patent is counted. Between the time of filing the specification and the marketing of the product, how many years could be deducted from the 10 years that are available?

Dr. E. Jucker: Seven years.

Dr. M. M. S. Siddhu: Great stress has been laid on the point that unless chemical engineering and chemical industries are developed in this country, research on synthetic products, synthetic drugs, is not possible at this present stage, with the result that we will be dependent on research of other countries and their patents and on large imports, thereby this country will be depleted of its large resources, and it will not be able to carry on with any major chemical programme. So, in such a case, do you think that the production of the period of 10 years is not justifiable. Please take into consideration firstly, the economic state of the country; secondly, the non-development or the infancy of the chemical industry; and thirdly , once a firm has introduced a drug, that product does not go out of the market in spite of the fact that the patent has elapsed, because the doctors, once they are accustomed to a particular brand, go on continuing to prescribe it? In other words, the ten-year period does not mean only 10 years but it means as much time as the doctor can reliably entrust the patient with the quality of the drug and as long as it lies in his memory! Therefore, under these circumstances, would the ten-year period not suffice?

Dr. E. Jucker: You have been judging the present situation on the pharmaceutical market and the present situation arose under the existing patent law where you have the protection of 16 years. First of all, nobody can predict with absolute certainty what is going to happen if the 16 years are reduced to 10 years. But do not forget that in the old times, it did not take as eight years to introduce a substance in the market; even if it took eight years to develop it, then left still another eight years ago protected marketing. And then, it is clear that doctors who get the substance are inclined to stick to it. Let us assume that this Bill becomes law and the protection is 10 years. It takes us eight years to bring a compound to the market. For two years only would the patent protection last. If a compulsory licence is given immediately, the patentee will enjoy no monopoly at all.

Dr. M. M. S. Siddhu: You are presuming that it takes seven years; light drugs such as streptomycine, chloromycetine, etc., started processing earlier, but it is worth-while studying the question in respect of the date of the application of the patent, the sealing of the patent and the manufacture of those products, and studying what is the time taken. The time in America is never more than three years.

Dr. E. Jucker: It has been studied. The cases which you talked about are instances. The antibiotics are got from the fungus and the cultivation of fungus, and needed perhaps as some what shorter time than synthetic drugs.

Dr. M. M. S. Siddhu: And steroids.

Dr. E. Jucker: How long has it taken to develop this steroid field? If you take the modern drugs—of course, chloromycetine and so on related to 10 years ago—on an average, the time taken is much more than it was 10 years ago. Today, you can take

for granted that no synthetic compound can anymore be brought into the market before six years. In this country, it takes two years to get the Government permission to market it in addition to the chemical and pharmacological and toxicological development.

Dr. M. M. S. Siddhu: I do understand it. I do not have the list at present; it was a long list of drugs which are modern in the sense that they have revolutionised the treatment. That is what they call modern in America. I had a list of about 10 drugs containing steroids. Bu azolidiss products and antibiotics and I found that from the filing of the application to the grant of the application, there was one year, and within three years they started the manufacture.

Dr. E. Jucker: It is absolutely impossible today. It might have been possible 10 years ago, but the new law will have an impact on research today and not what was happening 10 years ago. Today, it is just not possible to introduce a compond within four to five years. It cannot be done, and I can give you examples, as many as you want.

Then, I would like to give the answer to your next point. You said that once a substance is introduced by a firm, then the medical profession knows it and sticks to it. But just take this fact: you synthesise a compound and you bring it out and within the first half a year, somebody who had previously asked for a compulsory licence which must be granted according to the Bill—after half an year—also brings out your new product and 20 more imitations come; you said the medical profession would stick to your product. But, after all you were the only one to have all the expenses for the research and the copyist did not contribute anything at all.

Dr. M. M. S. Siddhu: I have before me the book Medicinal Chemistry by Burger. He has worked out the expenditure on the screening, toxicology controlled clinical studies and quality control and he says that out of every 500 to 1000 compounds which are synthesised and tested, if one were to become successful, the cost runs from 2,20,000 dollars to 4,30,000 dollars. This is the Second Edition of his book published in 1960.

Dr. E. Jucker: Six years have elapsed since then and inflation has gone ahead. I am sorry I have to say frankly that Prof. Burger is a very academic man. I know him personally. He is a professor at the university. He has never done drug research on his own and he never had to pay for it.

Dr. M. M. S. Siddhu: When a patentee takes out a patent for a product through a process, through his theoretical knowledge he covers all the possible processes which are likely to lead to that compound. Will it not be correct that the patent should be only of those two or three processes which the patentee is likely to exploit and not all the possible processes, otherwise research in other countries on a similar product is blocked for ever?

Dr. E. Jucker: When you talk about research, you do not quite mean the same thing as myself when I talk about research. When I talk about research, I do not want to find new ways to synthesise known compounds. But I want to find ways to synthesise new compounds, because only if you find new ones which can be used as medicines, you help the progress of medicine. Otherwise, if you find new processes for substances which have been developed by others, you help yourself and the progress of medicine is nil. Therefore, by idea is the best way to protect research is to grant product protection. This is my firm belief. Secondly, I have already pointed out the way it is handled in Switzerland and Germany—it is pro-

duct by process protection. We are not allowed to claim all possible processes. We must describe them properly and they must work. Thefore, no fantasy is allowed in these patents. If somebody finds ot a process which is novel and which adds to the progress he can get a patent of this own.

Dr. M. M. S. Siddhu: In Switzerland, if a particular patent is not worked, then compulsory licence is given.

Dr. E. Jucker: I cannot answer this without reading the corresponding paragraph of the Swiss law very carefully, because to my knowledge in the last 15 years not a single request for a compulsory licence has been made. So far as I am aware, you have perhaps only a summary of the law. It requires much more than non-working. Non-working, according to my knowledge, does not permit a compulsory licence in Switzerland. Otherwise, there would have been requests for it. I believe it is the relation between non-working and a dependent patent. If you have a patent which depends on another patent and this patent is not worked and you are prevented from using your patent, the n after a period of 3 years you can ask for a compulsory licence.

Shri P. S. Naskar: The provision in Switzerland is:

> "On request, compulsory licence may be granted by the court if the invention was not adequately worked in Switzerland within three years from the date of registration of the patent. The patent may be revoked if after the expiry of three years from the issue of an ordinary licence, the granting of licence is not sufficient to satisfy the needs of the Swiss market."

Do you contradict it?

Dr. E. Jucker: I do not contradict it. But I must see the whole law. Reading one paragraph will not do. It is inter-related with the other provisions. Assuming it is correct....

Shri P. S. Naskar: There is no question of assumption. It is a fact I have quited from the United Nations Publication.

Dr. E. Jucker: But still there are three years during which the patentee can decide whether he wants to utilise the patent.

Mr. Chairman: So you cannot object to a similar provision in our country?

Dr. E. Jucker: If a safeguard period is provided for, it is absolutely all right.

Dr. M. M. S. Siddhu: Why is it that medicines other than chemical products are not patentable in the Switzerland?

Dr. E. Jucker: According to the Swiss law, only chemical processes are patentable; physical processes, mechanical processes for the extraction are not patentable. The substance which you obtain as the final product must be obtained by a chemical process. Only then it is patentable.

Dr. M. M. S. Siddhu: If there is a such a provision in our Bill, will it not also protect at least a large number of antibiotics which are not synthetic?

Dr. E. Jucker: In your Bill, there is no distinction between synthetic products and natural products at all. You take pharmaceuticals as a whole class.

Dr. M. M. S. Siddhu: One has been trying to refer to development of drug industry in Soviet Russia. For instance, it will be worthwhile undersanding and studying why only two countries, the United State of America and Soviet Russia, are going into space and not the other people. If one is to compare these two things, one will have to think why U.K. is

not doing it and somebody may say that it is due to the patent law in U. K. In a socialist country they can put their genius to a particular type of work and is possible that the Soviet people are working more on fundamental or basic research but they are not working on drug industry alone—for example Aviation medicine, space medicine, physiological process, genetics, DNA, RNA, and all those factors. Therefore, it is possible that Soviet medicine has neglected drug research work simply because they are more occupied with something more important.

Dr. E. Jucker: First of all, in the Soviet Union, it is a patent law which gives you protection along the lines of the German patent law. Secondly if it has been the case, as what you have said, that they are not just interested in drug research because they are kept busy with the space problem. Now they have realised that drug research is important. Recently when I was in Czechoslovakia I had occasion to discuss this with the people there and also some of my Russian friends. They are reorganising the whole drug research in Russia in order to become independent from abroad. Up to now they have been doing nothing but producing western drugs. Apparently, they find that it is insufficient and therefore they are thinking of changing the system now.

Shri Bade: I believe, Dr. Jucker, you must be knowing that there are two ways of granting patents—patent of introduction and inventor's certificate. Inventor's certificate is the one which is followed in the socialist countries. When your object, as is evident from your memorandum, is that research should be encouraged, supposing our Government purchases the inventions and gives grants to the patentees, have you any objection?

Dr. E. Jucker: In the eastern countries, in Russia and in the whole eastern bloc, as you said, there are two types of patents—one is the patent like the German patent and the other is the 'authorship' or the inventor's certificate, as you call it. This is also a patent, but the patentee or the holder of the letter of inventorship has guaranteed to the State a licence to his invention for which the State will compensate him. This is the difference between the normal Western patent and this sort of, let us say, 'junior patents'. I know from my own experience that in Russia it is easy to obtain these certificates and more difficult to obtain patents. But in principal it would not make too much difference whether you obtained a patent or such a certificate, because each time the Russian Government wanted to take our inventions, whether it was a patent or a certificate, you would be properly remunerated.

Shri Bade: Leaving aside Russia and other countries, by studying our Bill you will find that both the systems are given in this Bill. Clause 87 deals with inventor's certificate. If Government purchases these things by giving sufficient compensation, are you satisfied that research will be encouraged in India?

Dr. E. Jucker: I think it is a better way if the patentee is given the possibility to work it After all an invention is the patentee's baby, if yau call it that way.

Shri Bade: Our difficulty is that the patentees or the manufacturers manufacture the things in foreign countries and flood our drug market. We want them to manufacture the drugs here. Therefore, we want that there should be, what you call, some restrictions on these foreign companies. Does this Bill put that kind of restriction or not?

Dr. E. Jucker: I have already said that if you want to build up the market here you have to encourage the industry and not introduce restrictions. Restrictions in no way will encourage anything. I think if you let the industry compete and they have

a free field, then due to the laws of free market you will get cheaper and cheaper things. If you put restrictions you will not succeed in doing it.

Shri Bade: You said that there should be 'patent product' by a particular process. In one memorandum we have read that if there is one process then the product will be the same. Therefore, if we patent the process, what is the use of having 'patent product' also?

Dr. E. Jucker: If you have one substance which can be used as a medicine and you patent one process to its manufacturer, then it is possible for the organic chemist to find many other ways to manufacture the same compound. Therefore, patenting one process means no protection at all.

Shri Vimalkumar M. Chordia: Is it not a fact that under the protection of patent manufacturers charge too high prices? For example, Ciba, which have a patent for the manufacture and sale of....

Mr. Chairman: Ciba people are coming and you may put your questions to them. He is only a research scientist.

Shri Vimalkumar M. Chardia: He is saying that 17 years patent should be granted. I say that they are charging very high prices. How does he justify this period of 17 years? Cibas were selling two ampules for Rs. 25 and now they are selling the same thing for Rs. 6.

Dr. E. Jucker: I think it is wrong to pick out one or two drugs out of a few hundred and to say that they are selling at a very high price and therefore we should modify the patent law. That is what the answer would be. If you take the whole market you will see that 97 per cent of the drugs are not patented. Therefore, I think we can say that the prices of these unpatented 97 per cent drugs have no relation to the existence of patents. So, there are other factors.

Shri Vimalkumar M. Chordia: India is a developing country. According to you the patents for products in developing countries should be 17 years. What will the Indian inventors do during this period?

Dr. E. Jucker: May I put it this way? First of all, it is often said that most of the Indian patents are held by foreigners. I can tell you that the same is the case in Switzerland, Canada and other countries of the world. It cannot but be that way. It is so even in the United States. Most of the American patents are held by foreigners. Most of the countries are members of the Paris Convention. Scientists do research all over the world and they take patents in various countries. There are many Swiss patents in India and Indian patents in Switzerland. So, that is no argument at all, because the Indian inventor should not copy the foreign patent but do research of his own—even if this one is based on the knowledge supplied by the foreign patent. With respect to seventeen years, I think I have gone into it earlier.

Shri R. Ramanathan Chettiar: How many large combines operate in Switzerland in the field of pharmaceuticals?

Dr. E. Jucker: The six largest firms are Roche, CIBA, Geigy, Sandoz, Wander and Sigfried. Then there is perhaps half a dozen more smaller firms.

Shri R. Ramanathan Chettiar: They function more or less as cartels.

Dr. E. Jucker: No cartels.

Shri R. Ramanathan Chettiar: In your memorandum and also in your press conference....

Dr. E. Jucker: May I say that it was not a press conference? They asked certain questions and I answered them.

Shri R. Ramangthan Chettiar: All right, we will not go into that. You object to the percentage of royalty

being 4 per cent on the ground that out of 4 per cent, 2 per cent will go by way of taxes. But, in your own country, there is no provision in your law for royalty.

Dr.E. Jucker: No. other country than India has a provision like that.

Shri R. Ramanathan Chettiar: In Canada there is such a provision.

Dr. E. Jucker: In England and Canada the royalty is fixed by the Controller of Patent Office and one can go to the Hight Court in appeal if one feels that the amount is too small.

Shri R. Ramanathan Chettiar: How do you say that in an under-developed country like India the percentage of 4 percent is unreasonable?

Dr. E. Jucker: I will try to explain my point. A patent law is enacted by a country for the protection of the patentee and for the protection of the inventor. If I say that 4 per cent is not enough, then I mean that compared with the inventor's effort and compared with the amount of money he has spent, it cannot be enough. I could not, of course, at the same time, take into consideration the national interest of India or of any country. I have to concentrate my thinking on the inventor. He is the one who spends money and in order to continue his research work, in order to continue to contribute for further progress he needs certain remuneration and this he would not get if 4 per cent is fixed because after taxes it would mean only 2 per cent which is too little to be considered proper recompense.

Shri R. Ramanathan Chettiah: I would like to refer to a survey made by the Reserve Bank of India which was published in their bulletin wherein it is stated that in 1962-63 on an investment of Rs. 14 crores by foreign interests in the pharmaceutical industry they had remitted Rs. 2 crores by way of remittances and Rs. 5 crores by way of royalty from our country. So, don't think their profits are meagre as you are trying to make out.

Dr. E. Jucker: I am not trying to make out any case.

Shri R. Ramanathan Chettiar: I may just point out to you that 50 per cent of the capital they have taken out. This is a counter reply to your point that 4 per cent is not enough. Considering the stage of development of our country, some people think that even 4 per cent is too high.

Dr. E. Jucker: Looking at it from the point of view of the patentee it is very little and it is not enough to be considered just compensation.

Shri B. K. Das: Do you want the percentage of royalty to be fixed or it should be left to be settled by negotiation? If you want it to be fixed, how would you like to fix it?

Dr. E. Jucker: I think it is a very important question. First of all, I think it is wrong to fix the royalty because sometimes 4 per cent is too much and sometimes it is by far not enough. I think the royalty must be established in every case individually. First of all, it must be discussed between those who wants to buy something and those who want to sell something. One invention might have cost 10 million dollars to develop and another invention only 500 dollars. So, why should the percentage of royalty be the same for both? A very good comparison is the British system. In Britain there is a proviso for compulsory licence and royalty is established by the Controller of the Patent Office. He fixes for example at 10 per cent. But in England it is not of the bulk price but of the price of the speciality and the decision of the Controller is subject to High Court decision. In one of the most recent cases it was fixed at 18 per cent because the court felt that the patentee has invested such a terrific amount on his invention that one who gets results must contribute something to the research expenditure. I believe that in each individual case it should be discussed, perhaps together with the Controller of Patents.

Shri B. K. Das: If the parties are not satisfied with the decision of the Controller, you want the matter to go to the court or to the Government?

Dr. E. Jucker: It should go to the court.

Shri B. K. Das: You do not like the provision about licensing rights even for a country like India?

Dr. E. Jucker: No.

Mr. Chairman: Even countries like USA and Germany have a provision for licensing rights.

Dr. E. Jucker: No, India is the only country which has got such a provision.

Mr. Chairman: UK has it.

Dr. E. Jucker: I am sorry to contradict you. It is different. It is this way. In various countries the inventors themselves have the right to endorse their patents with the words "licence of right" but in each case it is done individually if the patentee wants to offer his invention for licensing. In the Bill it would be done automatically without the patentee's consent with all pharmaceutical patents. That is the difference.

Shri P. S. Naskar: You have laid so much emphasis on research and basic research of which you are a a scholar. Do you thing that research expenditure is a factor for the high prices of drugs?

Dr. E. Jucker: It is one of the factors.

Shri P. S. Naskar: You said a little while ago that 8 to 10 per cent of the total turnover is spent on research. After that statement, how do you say that it is a major factor for high prices of drugs?

Dr. E. Jucker: I would not say that it is a major factor.

Shri P. S. Naskar: Do you consider that research expenditure is one of the main factors for high prices of drugs? believe that drugs are sold at too hih consider that research expenditure is

Dr. E. Jucker: First of all, I do not believe that drugs are sold at too high a level.

Shri P. S. Naskar: In India.

Dr. E. Jucker: I do not know the Indian price structure.

Shri P. S. Naskar: You said that you have visited India five or six times Do you not care to find out about antibiotics and other life-saving drugs, whether they cost more in India than in other countries? You have come to give evidence before this Committee and I thought you should have had a little information on that point.

Dr. E. Jucker: I am very sorry. I came here as a research chemist and not as an expert on prices.

Shri P. S. Naskar: You made out the point that patent is necessary for an incentive to research; so, I am asking you whether you think that research expenditure is one of the main factors for high prices of drugs. We in India consider that drugs imported into this country from America, Switzerland and other places are costlier than in other countries.

Dr. E. Jucker: It is a very good question, but it is not easy to answer.

Shri P. S. Naskar: If you have no answer, please say so.

Dr. E. Jucker: I would like to tell you that one of the major factors is the packing of the drug for which we are not responsible. The aluminium tube or a proper packaging sometimes is so costly and we can do nothing about it.

Shri P. S. Naskar: I am restricting my question only to research expendi-

ture. I am not going into allied expenditure. Would you say that research expenditure is one of the main factors?

Dr. E. Jucker: Yes, Sir.

Shri P. S. Naskar: If I asked you to give a detailed financial statement of your company, that is, Sandoz....

Dr. E. Jucker: In Switzerland these figures are published; they are available to the public. I do not know how they are handled here.

Shri P. S. Naskar: From your detailed financial statement could you show that research expenditure is higher than 8 to 10 per cent of the total turnover and how much is spent on fundamental research out of those funds for research?

Dr. E. Jucker: When I am speaking about basic and fundamental research, I mean research which is not carried out for the specific purpose of finding out a drug; therefore, our expenditure does not go into what I call basic and fundamental research because that is done by universities.

Shri P. S. Naskar: So, basic research is mainly done in universities or public laboratories.

Dr. E. Jucker: What do you understand by "basic research"?

Shri P. S. Naskar: You said "fundamental research".

Dr. E. Jucker: By "basic and fundamental research" I mean research not direc ly applicable to drugs.

Shri P. S. Naskar: So, basic research has nothing to do with patent. Do I take it?

Dr. E. Jucker: No, Sir.

Shri P. S. Naskar: You said that Sandoz has got only one patent perhaps in this country.

Dr. E. Jucker: Not patent; I said that of our products not more than two are patented.

Shri P. S. Naskar: That means, most of the Sandoz products in this country are unpatented. Has that affected your sales in this country?

Dr. E. Jucker: This cannot be answered because up till now we have been working under the old law.

Shri P. S. Naskar: You say that a patent is necessary for all drugs, but, at the same time, you say that Sandoz has one or two patented drugs; mostly they are unpatented drugs which are sold in this country. That being the position, how has it affected you?

Dr. E. Jucker: I assume that if we had patented all our products our sales would be higher; but it cannot be established because we do not have the patents any more.

Shri P. S. Naskar: It has not affected the sale.

Shri E. Jucker: Of course, it has affected.

Shri P. S. Naskar: Have your sales increased or decreased?

Dr. E. Jucker: Of course, they have increased but with some exceptions If you have competition with those who sell the same substance without having had the research expenditure the price is probably pressed down.

Shri P. S. Naskar: The relationship is between sale of the product and patent, which is not all the time correlated.

Dr. E. Jucker: It must be correlated.

Shri P. S. Naskar: But here you are making so much money on inpatented drugs.

Dr. E. Jucker: I do not know how much money we are making here, but these drugs have been on the market

for so many years and are sold for their quality and the firm's name.

Dr. C. B. Singh: How does payment to a research worker compare with the payment to the administrative head of your department?

Dr. E. Jucker: In my country research workers are paid very well, usually higher than the corresponding ranks in administration.

Dr. C. B. Singh: How much money has your firm spent on research in this country?

Dr. E. Jucker: I am sorry that I am not in a position to answer this question because I do not know the exact figures; but we spend quite a lot of money. I can say that for the following reasons, about ten years or so ago, we extracted a compound from an Indian plant podophyllum. This plant is not available in larger quantities. We had to cultivate it first; the whole botany cultivation and everything had to be studied. We have farms established and we are spending lots and lots of money millions of rupees, on drug research in the natural products field. The exact figure I do not know.

Mr. Chairman: We have the information that international prices of some of the patented drugs are far lower than the prices that they are charging in India; if that is so, do you not want that the Government should take some steps to control prices by way of limiting the period or working of the patent?

Dr. E. Jucker: This question is a very important one, but I do not know the figures.

Mr. Chairman: If you want, I will give you the figures. Vitamin B-6 sells here at Rs. 800 per kilo whereas the international price is Rs. 206 per kilo. The international price of Vitamin B-12 (Merck, Sharpe and Donme) is Rs. 32 per gm. while the indigenous price is Rs. 215 per gm. The international price of chloramphenicol (Parke Davis) is Rs. 100 per kilo whereas the indigenous price is Rs. 410 per kilo. Tolbutamide—the international price is Rs. 20 per kilo and the indigenous price is Rs. 75 per kilo. Vitamin A (Glaxo)—the international prices Rs. 54 per kilo and the indigenous price is Rs. 421 per kilo. Procaine Hydrochloride—Rs. 8 per 500 gm. is the international price and Rs. 21 per 500 gm. is the indigenous price. Tetracycline Hydrochloride—Rs. 107 per kilo is the international price and Rs. 1,147 per kilo is the indigenous price.

Dr. E. Jucker: How was the international price established? For example, Tollulamide is marketed—it is Upgoha product—and there is no such figure of international price for Toleulamide. Is it the price for the bulk? Is it for speciality? All this must be taken into consideration. Do you take into account the packaging cost? The packaging in this country is much more expensive than what it costs in other countries because of the climate. This must also be taken into consideration. Only then, one can compare the prices. May I say your approach is not too good. I think the drug prices must not be controlled by the patent system. Our experience shows quite clearly that in a country like Italy where there is no patent system for pharmaceuticals, the drugs are not cheaper there. Many of the items are very expensive. I do not see how we can relate the prices of pharmaceuticals with the patents system.

Shri D. P. Karmarkar: Along with the grant of patent, you get the exclusive right of sale and, therefore, it is expensive. It is just possible that the prices are lower in the world market because there is competition. Here, because of the protection, the product costs more.

Mr. Chairman: They have a patent for exclusive manufacture and for sale.

Dr. E. Jucker: May I ask one question? Why the cars manufactured in this country cost more than two times or so as compared to the cost abroad?

Shri D. P. Karmarkar: In respect of cars, we have not given them the exclusive right of importation and sale. Now, the moment you get a patent, you have the right to import your own product. It is a fact that what costs Rs. 120 in Switzerland costs Rs. 300 or Rs. 500 here depending on the price. I wish you appreciate that there is a strong feeling in this country. In order to meet the reasonable requirements of the people at reasonable prices, the State may have the power to intervene. If you are going to be unreasonable, then we shall see to it that you are reasonable. That is the point.

Dr. E. Jucker: May I say one thing. The hon. Chairman was going through the list. Not all the drugs that were mentioned are patented. Therefore, this difference in price also exists in respect of those drugs which are not patented in India. So, according to my humble opinion as a chemist, there must be other reasons as to why the drugs are costlier here than abroad and I do not think that the answer to this problem which is a very severe one is patents.

Mr. Chairman: Thank you very much.

Dr. E. Jucker: Thank you, Sir.

(The witness then withdrew)

(The Committee then adjourned)

MINUTES OF EVIDENCE GIVEN BEFORE THE JOINT COMMITTEE ON THE PATENTS BILL, 1965

Saturday, the 23rd April, 1966 at 09.30 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Shri Panna Lal Barupal
3. Shri Dinen Bhattacharya
4. Sardar Daljit Singh
5. Shri Basanta Kumar Das
6. Shri V. B. Gandhi
7. Shri Kashi Ram Gupta
8. Shri Prabhu Dayal Himatsingka
9. Shri Braj Behari Mehrotra
10. Shri Bibudhendra Mishra
11. Shri P. S. Naskar
12. Shri R. Ramanathan Chettiar
13. Shri Sham Lal Saraf
14. Dr. C. B. Singh
15. Shri Balkrishna Wasnik

Rajya Sabha

16. Shri Arjun Arora
17. Shri Vimalkumar M. Chordia
18. Shri R. S. Doogar
19. Shri D. P. Karmarkar
20. Shri B. T. Kulkarni
21. Shri Dahyabhai V. Patel
22. Shri Mulka Govinda Reddy
23. Shri R. P. Sinha

REPRESENTATIVES OF THE MINISTRY

1. Shri K. V. Venkatachalam, *Joint Secretary, Ministry of Industry.*
2. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks, Bombay.*
3. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*
4. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESS EXAMINED

Prof. G. H. C. Bodenhausen, *Director of United International Bureau for the Protection of Intellectual Property (BIRPI), Geneva.*

Prof. G. H. C. Bodenhausen, Director of United International Bureau for the Protection of Intellectual Property (BIRPI), Geneva.

The witness was called in and he took his seat.

Mr. Chairman: Mr. Bodenhausen—we have received your memorandum. The evidence that you give here will be printed and published and distributed to the Members and also laid on the Table of the House. If you want anything to be kept confidential, even that portion will be printed and distributed to the Members of the House. Your memorandum has been distributed to all the Members. If you want to add anything, you may kindly do so.

Prof. G. H. C. Bodenhausen: With your permission I would like to add a few words to the memorandum that has been distributed.

My first remarks concern my personal background because I think members should know something about me to understand my position better. I have been a Barrister since 1928 and took the first patent case in 1931. Afterwards more patent cases and trade-mark cases followed and I have become a specialist in this field. In the last 15 years of my practice I have not taken any case but cases of patents and industrial property and my experience is mainly with patents and trade marks within my country, the Neitherlands. I have been appointed in 1946 as Professor of Intellectual Property Law in the University of Utrecht and I had an opportuniy to teach industrial property law especially patents for 16 years. Then of course I acquired a more general knowledge because I had to survey also other legislations on patents. Then in the beginning of 1963, 3 years ago, I became the Director of the United International Bureaux for the Protection of Intellectual Property in Geneva which, as you may know, is an inter-Governmental organization and the joint secretariat of the Paris and Berne Unions. India, while it is a member of the Berne Union for the protection of copyright, is not a member of Paris Union for the protection of industrial property like patents and trade marks. This latter convention now comprises 74 States—75 States if you take into account the German Democratic Republic. The composition and membership of the Paris Union makes it obligatory for us to be completely neutral—politically neutral and as far as we can technically neutral too. Amongst its members are not only important industrialised countries of the West such as the United States. U.K., Federal Republic of Germany, France and Japan but also all Communist States including the Soviet Union, with the exception of China and Albania Part of our membership consists of States which have a highly developed industry and are very prominent in industry and commerce such as the USA. But a large majority of the Member States are of course developing countries—Many in Asia, many

in Africa and some also in Latin America. This is just to tell you why our approach to problems in the sphere of patents and trade marks has to be neutral and objective.

We try to give, if desired by countries, technical assistance. I have not come here to convince you of anything. I am here at your disposal. If you want to put questions to me I will try to answer them to the best of my knowledge.

But I want to tell you at the start that I do not want to take sides on your Patents Bill. It is your responsibility. I am here to tell you what I think of it as being a Patent specialist for many many years and in charge of an international organization in this field. We have some experience also with the problem of giving technical assistance to developing countries in the field of patents and more with industrial property in general. We have organized seminars in different parts of the world—the first one was held in Africa, the next was in Latin America and the third was held in Ceylon where we had also representatives of India who participated in this Seminar. We had fair and frank discussions on all the problems of industrial property which are interesting to developing countries. I know there connot be any comparison between some of these countries because of differences of development, size and interest. We have had many dealings with them. I think we are making progress in understanding their problems. We have made a Model law on patents and are now working now on a Model law on trade marks. We have a programme of training. We have trained officials—many patent officers of developing countries, who wished to improve their knowledge and we also give technical assistance to Governments which require such assistance on their legislative and administrative problems. We gave assistance to the Government of Algeria on their Patent law and we have given the same assistance to other African States, for instance, Uganda, Kenya and Tanzania. We have assisted the Governments of these countries in drafting patent legislation, of course leaving the entire responsibility to them. I will take one example, Algeria. There they have a new patent law which came into force on 1 March this year. They have ordered that patents or inventors certificates derived from the Communist System can be taken out at the choice of the interested enterprises or men, but for nationals only an inventor's certificate can be granted and no patent. I personally think that this regulation is unwise. It creates an imbalance in the economy, but it is their decision. I have not tried to convince them that it is not the right way to deal with the problem.

I want to come now to the Patent Bill which is before you. I hope that you will not identify me with any particular interests, neither with any group of industries or commercial people nor with any group of States, because in my organisation all States are equal and we do not take sides at all. I am here—I repeat—to give you my views to the extent you wish and not to convince you. The only point of view which is valid on this issue is what is good for India. I have tried very hard to live with this problem in this sense that I can feel what you need and give you advice as to what will be the best procedure to get what you need. My memorandum has also been drafted only from this point of view and I have to apologise to you for the rather critical tone of it. I had to strike this tone in order to make my point clear and to warn you that in my view you will not succeed with this Bill as it stands. In a few moments I will explain my views. Of course, it is true that this Bill has good points too and it has even definite improvements over the U.K. law, which clearly has been the starting point also for the existing Indian Patent Act. The principle of absolute novelty which is introduced now in

your Patents Bill and also the fact that the non-obviousness of an application has to be examined from the start—that from the first moment it has to be judged whether there is invention or not—not as in England where it is left to be considered in a further stage, are the two main improvements.

Mr. Chairman, I regret to repeat that my main impression of the Bill is that it will not be good for India and the reasons are these. I think there is—it is perfectly justified also—a fear of patents, the fear of the restraint of competition which patents may cause. But this fear has overshadowed to a very large extent all other considerations. In the Bill, as it stands, the good influence of patents has practically disappeared. No doubt this Bill is against the abuses, but a patent law is supposed to do some good too. The fight against the abuses has been so strengthened in the Bill that I don't see it will work to a good purpose any more. I will explain that more fully. The country I come from does not have tigers, but you have plenty of them. They are dangerous animals; they are obnoxious and they can present dangers to the society. The measures which have been taken in this Bill reminds me of another measure—which you may take—by which you decide to do away with all animals, to eliminate the danger of tigers. To be sure that all tigers will be killed you would kill all animals. Surely the balance of Nature will be upset. It is not a logical measure which would kill both the advantages and the disadvantages of animals.

On page 5 of my memorandum I have pointed out a few technical features which are most important. The main point is that the very short duration of a patent would not encourage anyone to start an industry, because when the industry starts, the patent will be about to lapse. The intention will have no protection during the time he needs it. Another difficulty lies in the very large powers given to the Government. I know this comes from the British law. Only the countries in the British Commonwealth are under the influence of the British legislation and in no other country such powers are given to the Government. In other countries, if the Government wishes to exploit a patent, it has to take a licence like anybody else. Sometimes they may have to obtain a compulsory licence. The English system dates back even before the Statute of Monopolies in 1624 when the patents were considered a monopoly given by the State, by the Crown, freely and arbitrarily. The Crown then retained of course the power of use for itself, which in modern technology and modern political and economic circumstances, I think, is not justified any more. It is certainly not justified to the extent in which it practically destroy the encouragement which is exists in the patent system to establish industries. Then, under the system of compulsory licences and the automatic licence of right, the patentee has only the right of remuneration. It has been fixed in some cases at 4% which seems unscalistic. If I may add a few words in general about the usefuloss and the dangers of a patent system not only with respect to India but for the economy of any country, the patent system is only one of many many factors that influence the national economy. There are many other factors like the security of investments, education of labour force, tax facilities and so on. The patent problem may not even be a major one. It is scientifically impossibie to prove the value of a patent system. We cannot compare the same situation of the same country in the same period with and without patents: It remains an impression. It is like your getting well after taking medicine for some time. It may be that you would hav got well also without medicine but when? Nobody can prove that it is because of the influence of the medicine you have got well. On the basis of the experience that many people have taken the same thing and become well, you can pro-

bably form to the impression that the medicine has helped you also. The same is the case with the patents. When we compare the U.S.A. and Japan and see that their patent laws have proved a success, we feel that a good and strong patent system has a healthy influence on industrlialisation It encourages research and it encourages investment in industries. I agree it is not scientifically proven, but it is the impression we get when we see the patent system in operation in different countries.

I think another advantage you get is that the patent system provides more transfer of know-how under licence contracts. You get better know-how. It enables you to carry out inventions in the best conditions.

There is an interesting statement in the recent report of a United Nations body. It is in the report of the Advisory Committee on the Application of Science and Technology to Development. It says, even complete and frank disclosure cannot invest the recipient with the integrated operative experience needed to assure the effective and economical adaptation and utilisation of the technology involved.

Now, what are the advantages and what are the dangers of the patent system? I will first deal with some dangers. Of course, the system has dangers. First of all a patent is temporarily a monopoly which can put limitations to the manufacture or importation of useful materials or substances. Its effect is also in most countries to enlarge foreign influence. In many countries, almost all countries, the number of patents taken out by foreigners is greater than the number of patents taken out by nationals. The exceptions are only some industrial giants such as Soviet Union, United States, Federal Germany and Japan where local industry is so strong. There inventions are so many that they beat all the other countries together. But in almost all countries the situation prevalent is that foreign patents out-number national patents. I am familiar with Netherlands and where we have more than 70 per cent foreign patents. It is not entirely disadvantageous because under the foreign patents you can have national licensees. This is the way the patent system normally operates.

The other disadvantage or danger is high prices which is no doubt uppermost in your minds. Under a patent system prices can be higher because the patentees and licensees can control more and there is no free competition. Nevertheless, this has to be considered with great care even in the case of medicines. There is one country in Europe—Italy—where patents are available neither for medicines alone, nor for processes to manufacture medicines. On this basis one would expect that the prices of medicines would be lower in Italy than elsewhere. I do not think this is true. I think in the free competition prices have a tendency to go up because of competition. The competitors make propaganda and publicity and spend more on these than on research. It is however true that patent do not lower prices. The price factor is certainly important and especially in India. What is the remedy for this? It is really necessary to do away with the patent system or part of the patent system or should there be price control by law allowing the patentee or licensee the right to produce or import at fixed prices and if he does not wish to accept these, be subject to a compulsorily licence? Which is more flexible?

I would like to draw your attention to a few comparisons with other countries. The comparison I have in mind is on the one side United Kingdom and on the other side Japan. The United Kingdom patent law is not a very strong patent law when you compare it with other laws of countries which can be compared with United Kingdom. They have a number of exceptions, compulsory licences, shifting of the onus of proof, etc. which

are unusual. I remember the time when this law came into being. It seemed doubtful then whether it could give strong inducement to industries which any patent law is supposed to have. I do not know how for the United Kingdom can get away with that. There is now some economic illness in that country. I do not think it can be attributed to the patent system alone, but perhaps to some extent the patent law is responsible.

Now take the case of Japan which was completely ruined after the last war. Maybe under pressure from Americans, the Japanese adopted a strong patent law. It is even one of the strongest in the world. It may not be entirely due to this that Japan has come up. There may be other reasons. For instance, Japanese are industrious. They have a well developed technology. Maybe they have a good tax system. I am not a tax specialist and therefore I cannot speak of tax system. But one of the many factors influencing industrial development is whether your patent law is good or bad. After giving these examples of United Kingdom and Japan, I will wind up with one other remark.

It is a pity that India is not yet a member of the Paris Union. That would have been better for purposes of consultations with your Government on the modifications of the patent law in order to strive what in my view would be a better balance. It is unfortunate. Nevertheless, I am very happy to be here to give my opinion and have an exchange of views with you. You would have to make a choice whether to keep this Bill or to throw it out. I would say that some of the provisions are good or at least they may be worth while trying. In other respects, I fear it will lead to disaster in the field of patents. One of the things you have to think about is the exclusion of patents in regard to pharmaceutical and chemical products. This exists in many other countries. It is for you to decide whether it is good or bad. I think you have your own experience. If you do not like it, try it without. A thing you should not keep is the limited duration of patents, that is, ten years. It is really too short. Nobody will ever dream of investing his money under a patent when it lapses the minute you invest and you start operation. It should be at least raised to 14 years. I am strongly of the opinion that this should be amended. Government powers are also in my view developed too far. How can you expect anybody to invest lot of money under a patent when he knows Government will be his foremost competitior? He will ask himself the question: Shall or shall I not build an industry in India? He will not do it if the Government could come in and compete royalty fee. Also, compulsory licenses should be limited. They go too far. I don't think this Bill will be good for the development of industry in India.

Thank you very much.

Dr. C. B. Singh: You just now mentioned that India is not a member of the Paris convention. Do you know the reason for that? What is that?

Prof. G. H. C. Bodenhausen: I don't know the reason. The reason may be, or may have been that India wanted to conserve more liberty in drafting legislation.

Dr. C. B. Singh: Government of India must have some good reason not to become a member of this convention. Will you be able to throw light on that?

Prof. G. H. C. Bodenhausen: I am not informed of the reasons.

Mr. Chairman: He does not know.

Prof. G. H. C. Bodenhausen: The reasons are not known to me.

Dr. C. B. Singh: In respect of changes you have mentioned monopoly and heavy foreign influence and prices. Last item is prices. We are concerned with this part of it. How can we safeguard the interest of the general public in this price part of it? Can we do

something by which prices can be so adjusted that heavy charges need not be paid? The prices should be reasonable—not harming the investor, not harming the consumer, not harming the Government. What will you suggest?

Prof. G. H. C. Bodenhausen: There is this proposal of mine to introduce in this Bill the power for the Government to fix prices for patented products. The Government can fix a maximum price. When the patentee does not accept the price he will stop production or stop importation, but then becomes liable to compulsory licences.

Dr. C. B. Singh: What is the basis for fixation of price? Is there some scientific data or what do you suggest?

Prof. G. H. C. Bodenhausen: I don't think you can generalise in this matter. It depends upon various things—it varies from one field to another. You can empower government to fix prices for patented products of drugs from patented processes. There should be some organisation for this including technical and economical experts.

Dr. C. B. Singh: A case was made out that heavy price is one of the reasons, as, they spend lot of money on research. That is what they say and our opinion is this. They spend not so much on research, but on processing, and advertising and other things. One suggestion is made that that money should be earmarked for research. What do you suggest? Can they earmark certain percentage of profit by which research could be encouraged? What do you suggest for that?

Prof. G. H. C. Bodenhausen: It is difficult to suggest a solution. You cannot force an entrepreneur to invest. There may be a period when research is carried out to a great extent. There may be another period when the product described has to be developed and so on and so forth—I don't think you can make a rigid rule. I don't think you can give a general solution to that problem. When the patent system is strong the patentee will, of necessity, invest in research. He will expect that by research he will find out new things and he will profit by such research. When you have a system of price control it is not feasible and not necessary to make a provision that the patentee has to spend all that money on research. That should be left to his discretion.

Dr. C. B. Singh: You said that one of the worst feature is the fixation of the period of ten years. You said ten year period is not advisable, it is one of the worst features, etc. What do you sugegst for that? There are two extremes: One is, no period at all; another view is, have it for 20 years. We have brought down a compromise and we have fixed 10 years. What do you suggest now in this regard?

Prof. G. H. C. Bodenhausen: It is all right having 16 years with possibility of extension in cases where the patentees for some objective reasons have not earned a profit.

Shri Basanta Kumar Das: The Bill should safeguard against the abuses. You said about that. Have you got any idea as to how the abuses are prevailing in our country? What are the abuses that are prevailing in this country?

Prof. G. H. C. Bodenhausen: They are the same abuses you find everywhere. There is the lack of local manufacture and importation sometimes at fairly high prices. The procedure of control may be improved. But the means for this are already there under the existing Act.

Shri Basanta Kumar Das: There is too much of profiteering in this country. Prices of medicines are so high, patented or imported. Do you know some such cases?

Prof. G. H. C. Bodenhausen: I do not know the figures. There may be some cases of high prices in comparison with

other countries, in the East. One thing we should remember. The patentees are not angels. I think every Government and every country is entitled to protect itself against prices that are to high. I do not see any objection to it. Only you should not abolish for that the whole Patent system.

Shri Basanta Kumar Das: But here the Patentees are not manufacturing the product but simply importing them. How can we prevent this abuse?

Prof. G. H. C. Bodenhausen: Both in your existing Patents Act and in the present Bill you have got provisions for compulsory licences and you can apply these. May be it has not been done many times. It may be due to two factors, I believe. I am not absolutely well-informed about Indian Law of procedure. I believe the procedures are cumbersome. Also when there is a threat of compulsory licence, many times people come to terms because otherwise there will be enforcement. So the patentee prefers to grant a licence voluntarily and he would then also give the technical-know-how which is very important.

Mr. Chairman: So, when the patentee abuses his patent you support the compulsory licence provision that is in the Bill?

Prof. G. H. C. Bodenhausen: Yes; only that should not be overdone.

Shri Basanta Kumar Das: Do you think that the provisions of the Patent Law which is already in existence in this country i.e. the 1911 Patent Act are better than the provisions of the present Bill?

Prof. G. H. C. Bodenhausen: Yes.

Shri Basanta Kumar Das: In your opinion we should continue that Act?

Prof. G. H. C. Bodenhausen: I would prefer the existing Act; I would much prefer the existing Act to the present Bill. Of course the present Act can be improved. You can make a few improvements for instance, in procedure; making compulsory licence more accessible and cheaper to get. But I think when you change from the existing law to a law according to the Bill, you would be taking a step backward. It will be a disadvantage to your economy and scare away foreign investors.

Shri Basanta Kumar Das: But as regards investment by other countries in our country we want foreign investment in this country as we are still in the developing stage. In your view this Bill will shut the door completely.

Prof. G. H. C. Bodenhausen: I won't say 'completely', but it will gravely endanger the situation.

Shri R. Ramanathan Chettiar: In your remarks earlier you had said that you do not represent any interests or you do not represent any point of view while giving evidence before this Select Committee. But from the course of your remarks one has to come to the conclusion that you are representing some vested interests who want to have a monopoly in this pharmaceutical industry because you yourself said 16 years and you yourself said that the present Bill is not good in the larger interests of this country and there practically you are voicing the view-point of the vested interests in the pharmaceutical industry. There is one other point and your reasons have not been convincing for us to come to the conclusion...

Mr. Chairman: It is not fair to comment like that. He has given his opinion. You may have your own.

Shri R. Ramanathan Chettiar: He had requested us saying that he has come here as a dis-interested person.

Shri Sham Lal Saraf: I object to this sort of question.

Mr. Chairman: He has given his opinion.

Prof. G. H. C. Bodenhausen: I have no objection to answer that.

Mr. Chairman: He has given his opinion. You may have a different opinion. You can ask questions on facts.

Shri Arjun Arora: The witness is prepared to reply.

Shri R. Ramanathan Chettiar: He is prepared to reply. Had he not said that, I would not have asked him this question.

Mr. Chairman: It is not fair.

Shri R. Ramanathan Chettiar: I have no other question.

Prof. G. H. C. Bodenhausen: It is true that I represent any particular interest, especially in pharmaceutical industry. But, of course, when one studies on a subject like this—the Patents Bill—and one asks self whether this Bill will work well or not, in my view and within my limited experience, the conclusion is that the Bill will not work to the satisfaction of India. The fact that I do not represent or cannot be identified with the interests of pharmaceutical industry is proved by the fact that when summing up I said that if you want to make some changes, you can keep the exclusion of patentability of pharmaceutical substances. If I represented the pharmaceutical industry, I would not have said that.

Shri R. Ramanathan Chettiar: There is another point. How do you say that the present Bill will retard the possibility of foreign investment in this country?

Prof G. H. C. Bodenhausen: Not only foreign investment but also any investment by Indian entrepreneurs. In my view they will be very hesitant to do under the provisions of the present Bill as there will be constant danger. Government will have a free right; there will be compulsory licences and licences of right and the patent will have a very short duration.

Shri R. Ramanathan Chettiar: There are countries which are members of the Paris Convention where the Patent Law is far stricter than as envisaged in our Bill. Yet, it has not retarded the foreign investment.

Prof. G. H. C. Bodenhausen: I do not know any existing Patent law which goes so far in limiting patent rights.

Shri R. Ramanathan Chettiar: Your own country—Netherlands.

Prof. G. H. C. Bodenhausen: No We have a compulsory licensing system just enough for the general interest and the interests of industry. After 3 years you can apply for compulsory licence. Nothing wrong that. It is much weaker and there is no revocation at all like the Japanese law. I think I can fairly say—I have not studied all the Patent Laws of of the world—as far as my knowledge goes, this Bill goes much farther in limiting the Patent system than anything I know.

Shri Arjun Arora: What do you think about the proposition that a country should give patent rights only to those who are prepared to and actually do manufacture the patented item within the country and do not utilise their right of patents to import?

Prof. G. H. C. Bodenhausen: Under that system you can get the patent only when you commit yourself to exploitation in the country itself and not import. The difficulty is this. At the moment one applies for a patent nobody can know what he can invest. It is dependent upon various circumstances on labour force, on establishment of industries, on transport, so may problems are involved. It is better to make the patent freely obtainable but then the patentee has to

exploit. If necesseary there will be a compulsory licence. That will be a better system than to grant the patent only on the condition that patentee will exploit.

Shri Arjun Arora: The proposition which you advocate, in more ways than one, gives the patentee such a right to go on importing for a long time to come.

Prof. G. H. C. Bodenhausen: There should be a procedure quicker and less costly for giving compulsory licences. When you have this, this evil system of importation for a long period will disappear.

Shri Arjun Arora: Is it so, that because of the existing patent law prices of drugs and medicines are abnormally high? Should they be less privileged?

Prof. G. H. C. Bodenhausen: You can limit prices in many ways. Government can fix prices. For that it is not necesseary to abolish the patent system. That was my point. I would remind you of the example of the tigers.

Shri Arjun Arora: What do you advocate as plausible reasons for the period of 16 years—which is fairly long period?

Prof. G. H. C. Bodenhausen: I have no special preference. I don't think it is wise to change your law. 16 years is not a long period. Other countries have 18 years or 20 years. The position is this. In modern technology inventions age quite rapidly. Many inventions are useful only for three or four or fiive years. But there are also exceptions, and for these cases it is not wise to limit the patent to a very short period—it impairs the establishment of industries. I have worked with industrialist for a good part of my life. They are not angels. They will establish industry only when they expect some profit.

Shri Braj Behari Mehrotra: When these patentees charge more higher price than the international price, is not the only remedy to impose restriction for 10 years for patents?

Prof. G. H. C. Bodenhausen: The remedy will be a law enabling Government to fix the ceiling of prices for all products, pharmaceutical products and also others. It will be a good solution, because if the patentee is not willing to meet that ceiling of the price, you give compulsory licences to Indian industry.

Shri Braj Behari Mehrotra: You are prepared to agree for patents of 16 years and 20 years. Will you not agree for 10 years when these high prices are charged in India for medicines in relation to prices of international market?

Prof. G. H. C. Bodenhausen: I can say that too short a period defeats the very purpose. It takes away the harm but it takes away the advantage also.

Shri B. T. Kulkarni: You said that this present Bill is an improvement on the U.K. provisions. I would like to know more about it.

Prof. G. H. C. Bodenhausen: It goes further than the UK Provisions. United Kingdom limits the examination of novelty to publications in England, which means that something which is not novel in another country say, France or Germany, still gets a patent in England, if it is new in England. You may obtain, a British patent for subjects for which you cannot obtain a patent elsewhere. It is a continuation of the old conception of the 17th century. It was difficult for the inventions from other countries to come to England over the English Channel. That was the reason. In your Bill it is said that the patent

cannot be granted when the subject is published wherever and whenever possible. It is a big improvement in my view. It is different in England. It is much better as proposed in your bill and you get better results. You get good patents that way.

Shri R. P. Sinha: So far as the duration of the patent is concerned, 10 years for the pharmaceutical and chemical products is too small a period. You said about that. You said that the investor or the entrepreneur will not be able to earn enough profits in this short period. Profitability in the industry is very high—in chemical industry, in pharmaceutical industry, etc. There is a study made by the Reserve Bank. We find that the return on the invested capital is very high. It is higher than the return in other countries . . .

Mr. Chairman: You may give the figures.

Shri R. P. Sinha: I have not got it. You accept this from me for the time being. I can give the figure later on. The profitability is very high. This is what has emerged out of the independent study made by the Reserve Bank of India. It is accepted by the American and other foreign investors. If that is the criterion what is the justification for patents for such a long period, when the entrepreneur is going to get that much from India in 10 years as he expects from the other countries in fourteen years or fifteen years?

Prof. G. H. C. Bodenhausen: There is relation between the degree of profitability and the necessary duration of a patent. If it is true, I accept your data without questioning, that in India profitability is much higher than some other countries, there will be a motive to limit the duration of a patent because the patentee will have earned enough in first few years. But at the same time, ten years will be too short. Certain chemical and other tests must be carried out. It will take some time even for the Government to give permission to make or sell the product. I think this might be true in India too. Even with higher profitability, what can you do when two years of the patent remain and then it becomes subject to free competition. I think ten years is unrealistic. If you say that there is high profitability, and it might be true, still the patent should last at least 14 years. Nobody will embark on exploitation when he has, after being given Government permission and after he has tested the invention, only two or three years to exploit it.

Shri R. P. Sinha: There are two types of cases: one, the inventions done here; and the other will be inventions done under foreign patents. They are usually put on the Patent Register after the product had been properly tested or tried in other countries. The period will start from the date when you file the complete specifications. We are told that it will take about two-three years for the grant of the patent. Probably the entrepreneur will start to establish his industry after this period. If we put it that the period should start from the period of the grant of the patent, will it serve your purpose and then will you agree to retain ten years without any change?

Prof. G. H. C. Bodenhausen: It makes it better. You give the protection the moment the patent starts. To start protection from the moment of the publication of the specification is illogical because you start protection at a moment when you do not have the patent. You have to wait for the grant of patent. Then only you can fight your competitors. If you say that it will start from the grant, it is better. I still hesitate to say that it should be ten years. It is not a sufficient period.

Shri R. P. Sinha: You get ten plus two.

Prof. G. H. C. Bodenhausen: Maybe ten years with extension. When a patent has reached the exploitation stage and when the patentee is not rewarded, there can be an extension of this period by five years. That is the position in some Latin American Countries.

Shri R. P. Sinha: You mean to say that where the Government find that it will be desirable to extend it, they should have power to extend the period upto five years.

Prof. G. H. C. Bodenhausen: It will be an improvement. Start protection from the grant and give power to the Government to extend the protection period.

Shri R. P. Sinha: Will that be more acceptable to you?

Prof. G. H. C. Bodenhausen: It will be more acceptable.

Shri R. P. Sinha: Would you tell me in how many countries does it start from the date of the filing of the full specifications and in how many countries it starts from the date of the grant and which is more popular?

Prof. G. H. C. Bodenhausen: I cannot exactly tell you. I think it is almost evenly divided. I am familiar with the Netherlands. There protection starts from the grant—it is 18 years from the grant.

Shri R. P. Sinha: The other point is regarding grant of patent of the product and the grant of the patent of the process. We have made that difference in our Bill. Do you think it is good to have the mixed system?

Prof. G. H. C. Bodenhausen: It is illogical to give protection both to the process and the product except in the case of chemical or pharmaceutical industry. I was a delegate at the Lisbon Conference for the revision of the Paris Convention about which there is a reference in the Ayyangar Report. It was discussed whether it should be compulsory under the Paris Union to protect chemical products, not only the process. It was not accepted—those for it and those against it almost being equal in number. But the modern trend is that it is better to give it for both. There is however, a technical difficulty. Your Bill extends this limitation not only to medicines but also to chemicals which may serve as intermediary products. At the date of the application or the date of the grant of the patent or even afterwards, some chemical products may become useful for medical processes. I think you should confine the limitation to pharmaceutical products as such and introduce also the onus of proof which appears in many legislations.

Mr. Chairman: I think your model law says one patent for one product, one process and one patent. Am I correct?

Prof. G. H. C. Bodenhausen: We have this onus of proof question when there is a new product by the patented process.

Mr. Chairman: By the same intermediary products you may derive two or three products and then you claim patent rights for all those products. But your model law says—one product, one process and one patent.

Prof G. H. C. Bodenhausen: It is not so. When you may obtain ten or more products through the same process, you can protect them all.

Mr. Chairman: Same intermediary products can be used for different products. That will be shutting out others.

Prof. G. H. C. Bodenhausen: I do not think that was the intention.

Shri R. P. Sinha: Don't you think it will be more in keeping with the modern trend that we have the process patented and not the products.

Prof. G. H. C. Bodenhausen: No, this is still an open question.

Shri R. P. Sinha: What is your experience in other countries about compulsory licence? Has it led to the industrialisation of the country or led to the putting up of the patented products manufactured in those countries? What is your experience in other countries?

Prof. G. H. C. Bodenhausen: I cannot give figures. The only thing I know is that the granting of compulsory licence is comparatively rare. It does not happen frequently.

Shri R. P. Sinha: The patentees themselves would like sometimes to have the products manufactured in different countries provided there is market for them.

Prof. G. H. C. Bodenhausen: I think the clause of compulsory licence works indirectly by encouraging contractual licences.

Shri R. P. Sinha: We are concerned with the results. If the industrialisation takes place, we will succeed. Does it lead to industrialisation?

Prof. G. H. C. Bodenhausen: I believe it does.

Shri V. B. Gandhi: As you have seen the provisions of this Bill, we have been rather anxious to see that the patent holders are not allowed to charge too high prices for their products. You have suggested as one of the possible remedies some kind of price control. Do you know of any country where such a price control has been instituted and it has been working with some success?

Prof. G. H. C. Bodenhausen: After the last war, nearly all the countries of Europe adopted some system of price control and I think it worked comparatively well. Of course there also some loopholes can exist. But it is better than the drastic remedies proposed in this Bill.

Shri V. B. Gandhi: Do you suggest that provisions for price control could be incorporated in this Bill?

Prof. G. H. C. Bodenhausen: Yes.

Shri V. B. Gandhi: In that case, the incentives to the patent holders which he gets as a result of the monopoly element will be absent or will be to some extent reduced.

Prof. G. H. C. Bodenhausen: You have to strike a balance somewhere. If the prices are too high, then you have to provide measures for lowering prices trying at the same time to keep the incentives to the patentee at least to some extent.

Shri V. B. Gandhi: I want to know from you whether it will be feasible for the Government to consider all the elements before controlling the price, such as the expenditure which the patent holder may have met in arriving at the patent, the publicity expenditure etc. Then it should be ensured that the controlled price should also give some incentives to him.

Prof. G. H. C. Bodenhausen: The Board which advises the Government regarding fixation of ceiling price can hear the patentees individually and then it will be possible to arrive at a satisfactory price both ways.

Shri Himmatsingka: You stated that because of the wide powers taken by the Government under the provisions of this Bill, it will frighten away persons who want to have patents in this country. As regards the compulsory right, you say that if the royalty is fixed it will act as a disincentive. Would you be satisfied if the limit of 4 per cent is not fixed and the right is given to the Controller to fix the amounting according to the circumstances of each case?

Prof. G. H. C. Bodenhausen: That would be an improvement. It is unfair to fix 4 per cent. There might be cases where 4 per cent may be too high when the product is cheap and

sold in good quantity; 1 per cent may be a satisfactory rate in such a case. Where it is very expensive to make a product, 4 per cent royalty will not satisfy.

Shri Himatsingka: Would you agree with the suggestion that the period begins to run from the date the patent is granted and not from the date of application . . .

Mr. Chairman: From the date of specification, not application.

Shri Himatsingka: Yes, from the date of specification.

Prof. G. H. C. Bodenhausen: That would be an improvement.

Mr. Chairman: He has agreed to that.

Prof. G. H. C. Bodenhausen: Yes.

Shri Himatsingka: In that case, what would be the protection in the interim period, i.e. from the date of specification to the date the patent is granted?

Prof. G. H. C. Bodenhausen: Under some legislations there is a stipulation that you can claim damages after grant of the patent even for the period before grant but after submission of the specification.

Shri Himatsingka: If there is a provision limiting the powers of the Government to use patents for its own purposes, will that satisfy the prospective patentees?

Prof. G. H. C. Bodenhausen: It would be an improvement. If you limit it to the extent as in the U.K. law, it would be less dangerous. Basically I don't agree with the whole idea of free use by the Government. When the Government wants to use patents, they can take a licence like anybody else. There can be compulsory licence under which royalty can be given. In Germany, Austria Switzerland, Scandinavian countries, Japan, and also in the USA. when the Government wants to use the invention, it applies for a licence.

Shri Kashi Ram Gupta: You have just mentioned that the Patent Law of the U.K. is a weak one while the Patent Law of Japan is stronger. Please explain it in detail as to how one law is weak and the other is stronger.

Prof. G. H. C. Bodenhausen: There is no revocation of patents under the Japanese system, while there is revocation under the English system. This revocation is an important thing for a patentee. It seems that the idea of this Bill and also of the Report of Justice Ayyanger is that there is advantage in doing away with patents, so that it is better to have revocation. However when you revoke a patent, you get to the situation where there will be no industry; nobody will be prepared to risk on exploitation of the invention. There will be more importation. That is why the Japanese have done away with revocation. The second difference is that the compulsory licence clauses are much narrower in Japan. There one can get a compulsory licence—I have got a book here on Japanese law—only when the patent has not been worked and when it is particularly in public interest.

Shri Kashi Ram Gupta: May I say that the Japanese law when compared to our present Bill in so far as the compulsory licence system is concerned, is more or less similar?

Prof. G. H. C. Bodenhausen: It is very dissimilar.

Shri Kashi Ram Gupta: In India there is a section of the pharmaceutical industry which is of the opinion and which has represented that there should be no patent law for drugs or if at all there should be one, it should be the present Bill enacted in the present form.

Prof. G. H. C. Bodenhausen: I think the Bill admits patentability for processes but not for substances in the pharmaceutical field.

Mr. Chairman: It is for us to decide.

Shri Kashi Ram Gupta: I want to know whether he has studied this aspect. That is my point. There is a section of the Pharmaceutical industry which has represented that there should be no patent law and if there has to be one, the present Bill will suffice.

Mr. Chairman: What is good for our industry—that is for us to decide.

Shri Kashi Ram Gupta: He has also given it to us.

Mr. Chairman: He has made certain general observations.

Shri Kashi Ram Gupta: In view of those observations, is this a fact?

Prof. G. H. C. Bodenhausen: The Indian Pharmaceutical Industry also tried to give me information but I do not want to be identified with their point of view.

Shri Kashi Ram Gupta: So far the pharmaceutical industry works in an organized way and the industry mostly has got its own research laboratories. Generally this research is a part of their annual budget and this is allowed as revenue expenditure under the Income Tax Law. Therefore, when you say that the industry may not be able to recover the money, when that expense has been allowed yearly and so after 8 or 10 years they become successful. Naturally it is not accepted on mathematical grounds to take out that expenditure on which income tax has been allowed. Therefore, that reasoning does not hold good these days. In view of this can we hold that this 10 years after the sanction of the licence as a reasonable period will suffice?

Prof. G. H. C. Bodenhausen: I still believe that the 10 year period is a misjudgment of the situation.

Shri Kashi Ram Gupta: My point is that the research expenditure is allowed as revenue expenditure and income tax rebate is given on that. Therefore, that burden is not there and we have to fix the period in relation to that.

Prof. G. H. C. Bodenhausen: There may be cases where 10 year period is enough and there may even be cases where even 5 years will be enough. But as a rule 10 years is unrealistic.

Shri Kashi Ram Gupta: The question is: the period is related to the amount of expenditure involved. Nowadays that changes vastly.

Prof. G. H. C. Bodenhausen: The patentee may have an invention now which yields enormous profits but which he found after enormous research. He tries money methods or products and only one succeeds.

Shri Kashi Ram Gupta: Can you give the example of any patent law of any developing country which has got similar conditions as India and which differs very much from the Indian law or which does not differ very much from the Indian law?

Prof. G. H. C. Bodenhausen: I do not know any developing country whose patent law resembles your Patent Bill. Your Bill goes much farther in limiting patent rights and allowing exceptions.

Shri Kashi Ram Gupta: Is there any law which resembles our law?

Prof G. H. C. Bodenhausen: There is no law I know of.

Shri Kashi Ram Gupta: My last point is: can you give any suggestion for improvement of the Bill in so far as the question of fixing the period

within which the licence should be granted—say 2 years or 3 years. Formally there was a limit on the period.

Mr. Chairman: He has given us a model law.

Prof. G. H. C. Bodenhausen: 3 years is really the minimum period. If you make it still shorter it is again unrealistic. You will have to give the patentee some time.

Shri Vimalkumar M. Chordia: You must have come across cases where manufacturers charge different prices in different countries and India has been the sufferer in that respect. How to check this tendency?

Prof. G. H. C. Bodenhausen: Again I refer to this Board which would fix price ceilings for certain products. In this Board all evidence should be brought of such prices in other countries and the patentee should be called to explain the differences and why in India he should charge more? Is it because of transportation or any thing else?

Shri Vimalkumar M. Chordia: Do you agree to this point that there should be some provision in this Act so that the patentee should be asked these things and asked to lower down his price compared with the prices in other countries?

Prof. G. H. C. Bodenhausen: If you create this Advisory Board you can oblige the patentee to co-operate and give all information of prices in other countries and the expenses involved in his research.

Shri Vimalkumar M. Chordia: There have been instances were patentees charge twice or thrice the price of the product till their rights are there. But, no sooner, he obtains exports, the prices come down and this tendency is very much. You have suggested price control but controlling of prices is itself a very difficult job and it may involve many things which may result in the increase of prices also. What practical remedy would you suggest so that the consumers' interest can be safeguarded and the patentees may also be benefited to the extent that they may not have to waste money on inventions?

Prof G. H. C. Bodenhausen: I submit that the system of price control is difficult to establish and difficult to implement. But you may have to do it somehow. The patent system should be an incentive to industrialisation and at the same time curb the abuses.

Shri Vimalkumar M. Chordia: Do you not agree to this point that India is suffereing heavily on account of drain of its foreign exchange? India is a developing country. The foreigners take grip of the developing country and we have to suffer every year greatly. Should we not have strict controls so that we may save the difficulty of foreign exchange also and give incentive to local inventors?

Prof. G. H. C. Bodenhausen: The problem of foreign exchange is of course very important. In our Model law we have a special provision that every licence contract has to be contract involving payments abroad has to be controlled by the Government and approved or disapproved. That is to keep the balance of payments position. On the other hand, when the effect of the patent law is that you would not further industrialisation but rather importation, the prices may be lower because of free competition but you would have to pay these prices for ever, which is also a drain of foreign exchange. There will be no industrialisation to take over unless the patent system is strong

Your own pharmaceutical industry is already now working to a large extent on local products, the products of the country itself. Seventy to eighty per cent I believe it is so. It saves you money for payment of importations. I was in the U.A.R. some time ago which can be compared with India. 70 per cent of this pharmaceutical production is independent or foreign imports. It is impressive.

Shri Sham Lal Saraf: I want to know whether you are representing yourself here in your capacity as expert on important aspects of patent law or as representing a great organisation?

Prof. G. H. C. Bodenhausen: I am also representing my organisation.

Shri Sham Lal Saraf: You said, in your organisation you have both the western countries economy or capital system of economy and also the eastern economy. May I know what are the similarities between the patent law in western countries and also dissimilarities apart from whoever may be the beneficiaries.

Prof. G. H. C. Bodenhausen: In some of the Communist countries the patent law is very much like the patent law of the western countries. They rely on the same system. These are Czechoslovakia, Hungary, Yugoslavia and to some extent Poland and Cuba. There are 3 countries which have different system—Soviet Union, Rumania and Bulgaria. The system is different because you have a choice. You can apply for patents or inventors' certificate. In the latter case the right of explanation goes to the State, and you have the right to a remuneration according to certain rules. You can also apply for a patent which has almost the same feature as in western countries. In certain cases you can only have an inventor's certificate.

Shri Sham Lal Saraf: Regarding imparting of know-how, there are various foreign patents in an underdeveloped country and there are various service depots that have come into being and it is found that in over ninety per cent of our foreign patents registered here they import raw materials from their own country—outside India. Little effort has been made to produce patented drugs to a large extent within the State. They did not take steps in this direction. What would you suggest for safeguarding against that?

Prof. G. H. C. Bodenhausen: The problem of transfer of technology is a much wider one; it is studied by several bodies of the U.N. It is a matter of the transfer of the know-how. Know-how has to be paid for. U.N. will have an institution providing for funds to assist developing countries in paying for the technical know-how they need. That is a thing which escapes our organisation which deals with the technical and legal side. This particular problem is under consideration with United Nations.

Shri Sham Lal Saraf: Purchase of know-how is different from getting a patent registered here. Foreign know-how is patented and it is always that the country itself gets something out of it. That country will produce those things. Now, could you suggest something that will help us in this matter?

Prof. G. H. C. Bodenhausen: All these things take time. You have to be a little patient and see how things develop. You can create institutions to promote exchange of know-how and try to institute technical information centres or something like that. There are many means to try to improve the situation as far as the know-how in the developing countries is concerned. You should not cut yourself off from the flow of know-how in the international field.

Shri Sham Lal Saraf: Italy has no patent law for pharmaceuticals, chemicals and drugs. In our country we do have such voices that there is no necessity of having patent law. Please tell us whether this state of affairs has fared well in Italy.

Prof. G. H. C. Bodenhausen: Italy will shortly create patents for pharmaceutical processes.

Shri Sham Lal Saraf: Is it due to the reason that the drugs which they manufactured and sent out were fond to be defective?

Prof. G. H. C. Bodenhausen: I believe they had many quality troubles when competition, completely free.

Shri Sham Lal Saraf: U. K. law is softer. Japanese law is harder. Is it due to more checking or what?

Prof. G. H. C. Bodenhausen: When you call U.K. law weak and Japanese law strong, I would say your Bill is much weaker.

Shri Sham Lal Saraf: What do you mean by that? From what aspect particularly will you say that the Japanese law is harder?

Prof. G. H. C. Bodenhausen: There are few exceptions to the rights of the patentee, few compulsory licences and there is no revocation and no automatic fixation of royalties. It gives the essential protection to the national economy. But it is not spelt out in so many exceptions in the Bill.

Shri Sham Lal Sarf: Instances have come to light where ridiculous prices have been charged for pharmaceuticals and medicines. In certain cases prices have been 300 to 400 per cent higher than those charged for these medicines by foreign manufacturers elsewhere. Keeping that in view would you suggest that Government should have right or authority for importing such drugs and paying certain percentage of commission to the patentees registered in the country?

Prof. G. H. C. Bodenhausen: Under the Bill your Government would have the right of royalty-free importation of medicines. This is authorised by clause 48. This is too much. The system we have proposed in the Model law is quite different. It is compulsory licence with the possibility for the Government to declare certain classes of products for which licence can be given forthwith and also for importation of course against payment. But courts should fix the payment.

Shri Sham Lal Saraf: So the point is agreed upon that Government should have that right.

Prof. G. H. C. Bodenhausen: It is a matter of procedure. The procedure should be different. In your Bill exceptions are so strong and so numerous that the incentive for the investor completely disappears. We have tried in our Model law to keep that incentive.

Shri Sham Lal Saraf: Then I come to the point with regard to process and product. Would you suggest that in certain specifications the process also should be registered and in certain cases only the end product?

Prof. G. H. C. Bodenhausen: Yes.

Shri Sham Lal Saraf: Where the licence-holder or the patentee feels that he is harmed by the actions taken by the Government under the law, he can prefer an appeal. In this Bill it is suggested that such appeals may lie to the Executive. But you recommend that appeals should lie to the judicial authority. May I know what is the main plank on which you base this argument?

Prof. G. H. C. Bodenhausen: It is a matter of confidence. When you induce the industry to invest and when you have compulsory licence, appeal to the Government is not proper. You need a court for that. But it is very important to have the court procedure accelerated.

Shri Sham Lal Saraf: At the time of cancellation of certain data or revoking the licence or somebody placing a different process, at that time in order to prove that it is an improved process than what is patented for, the burden of proof should be on the new person?

Prof. G. H. C. Bodenhausen: Yes.

Shri Dahyabhai Patel: With your permission, I would request the witness to elucidate what he said about UAR. I could not quite follow that. Is their patent law similar to the law that exists here or is it a little harder or looser? What is the reason why they have been able to build up their industry? I can give you the background of my question. In this country, particularly in the matter of drugs and medicines, we had a very old system. The world has taken quite a lot of medicines which are known in this country though they are not perhaps practised in this country in the most modern scientific manner for lack of research. Still some of them have stood the test of time and some of the drugs that are known in the Ayurveda and Unani systems are very potent and effective. Why is it that we have not been able to develop these medicines? Is it because of this that some feel that a Bill of this kind is necessary for us?

Prof. G. H. C. Bodenhausen: With regard to UAR, I am not absolutely sure. I believe that UAR has a patent law which grants protection for both process and product in the pharmaceutical field. With that patent system, they have achieved some progress in the pharmaceutical field.

Your second question was about so many drugs which have not been developed in India. These things do take time. You have already a pharmaceutical industry in India which is now very much concerned with this Bill. Sooner or later research will more be developed. All these things take time—to train the people, to encourage the inventive spirit, etc.

Shri P. S. Naskar: I think we have come to the last lap of this questioning. I see in this booklet it is written—United International Bureaux for the Protection of Intellectual Property. Do I take it that this intellectual property belongs to the inventor? Or, does it belong to some commercial firm who utilises that intellectual property for commercial purposes?

Prof. G. H. C. Bodenhausen: It depends on the national patent law. In many cases the inventor works for a firm in which he tries to invent. When he fulfils that obligation, the invention goes to the enterprise. The patent will go to the enterprise.

Shri P. S. Naskar: You said about investment and patentees. I have not heard anything from you about the individuals who invent. It is necessary to give them protection. Do you think in that context that the patent encourages invention especially in drugs?

Prof. G. H. C. Bodenhausen: If the inventor works for himself, he will get the patent without any difficulty for himself. If he works in any firm, he is working and trying to make inventions because when the firm makes profits he will also be provided for; he will get a higher reward; he will get bonus and also a part of the profit which the enterprise gains from his inventions.

Shri P. S. Naskar: You know that most of the life-saving drugs have

been invented in public laboratories which have no profit-making motive, life-saving drugs like insulin, sulpha drugs, etc.

Prof. G. H. C. Bodenhausen: I may be wrong, but I believe the laboratories of pharmaceutical firms also have inventions to their credit.

Shri P. S. Naskar: India is a developing country. Industrially we are trying to develop technological know-how, etc. But the research has not developed to the extent comparable to other industrially developed countries. Now the patent system as it exists today is detrimental to the national interests of India.

Prof. G. H. C. Bodenhausen: No. I think the patent system is a favourable system almost in any country. It provides incentives for investment in an industry. Of course, in the beginning stages of development it will be partly to the advantage of foreign enterprises. The other day I was talking to the Director of National Patent Office in Algeria. He was saying "we have to pass through that stage; we have to be patient and rely for a certain number of years to a certain extent on foreign inventions; but the Algerian inventions will follow soon after".

Shri P. S. Naskar: If that is so, why research is not being done in our country? Research is always done in their own country. After inventing it, the foreign companies come here and obtain the patent right for commercial purposes. How does it help the development of research in our country?

Prof. G. H. C. Bodenhausen: When you don't have a patent system, there will be no industrialisation at all.

Shri P. S. Naskar: They don't even take up research work in collaboration with our people.

Prof. G. H. C. Bodenhausen: Under the threat of compulsory licence they will do.

Shri P. S. Naskar: No such thing is being done by foreign pharmaceutical industries. Only the patent is taken out so that others are blocked. Hindustan Antibiotics had done a lot of research on tetracyclin, but the Pfizer firm came and held up the work on account of their patent. The whole project is held up now.

Prof. G. H. C. Bodenhausen: Why don't you insist on compulsory licence?

Shri P. S. Naskar: We want compulsory licence. That is why we want to amend the Bill. I would plead with you to understand our difficulties.

Prof. G. H. C. Bodenhausen: I know the tetracyclin case very well. By using your compulsory licensing system you would achieve better results. Even the best law cannot give you a solution when it is not used.

Shri P. S. Naskar: I find that your model law is quite suitable for newly independent countries as in the Continent of Africa where there is no existing patent office or industrial property office and they don't have a well-developed patent system. But we have a well-developed system, a patent office and also an industrial property office and everything. With this background, how does your model law help us?

Prof. G. H. C. Bodenhausen: I know that this Model law is of less use for you. Nevertheless, you can perhaps take out one or two stipulations which could fit into your system too.

Mr. Chairman: My friend referred to you about the foreign remittances. I will give you figures for the year 1956-57 and for 1962-63 in the shape of royalty remittances, technical service remittances, dividend remittances, etc.

	1956-57	1962-63
	(Rs. in millions)	
Roalty Remittances :		
Basic Industrial Chemicals . .	0.07	0.49
Pharmaceuticals	0.39	0.79
Other Chemicals	1.21	3.02
Technical Service Remittances :		
Basic Industrial Chemicals . .	0.11	2.13
Pharmceuticals	..	0.43
Other Chemicals	0.01	5.22
Dividend Remittances :		
Basic Industrial chemicals . .	..	3.24
Pharmaceuticals	0.54	9·96
Other Chemicals	..	7.25
Total remittances of all the above items	2.33	32·5

The prices charged have been nearly 3 to 4 times the international price in antibiotic drugs. You have said in the introduction to your model law that patent law is one of the factors that comes into operation in regard to the question of prices. That is true. But, with these things happening in our country, especially with our very large population and our people being very poor, don't you think that these restrictions for compulsory licence and licence of right are necessary in the interests of our public?

Prof. G. H. C. Bodenhausen: I don't pretend for a moment that the situation in India is satisfactory. I don't question your figures either. The question is whether you will be able to meet the situation with this patent Bill. I am sure that it will make it worse. You may find some temporary influence on the prices. But, as time passes, you will find that the prices will rise again because of the shortage of drugs; and people will not risk investment in India. Some other means should be found to influence the situation.

Mr. Chairman: One of the reasons you have given is that there is no right of judicial appeal. Would you be satisfied with a special Tribunal?

Prof. G. H. C. Bodenhausen: I am in favour of existing courts. Special tribunals are inclined to follow a different pattern.

Mr. Chairman: So you prefer judicial appeal. You also say that 4 per cent. royalty on food and chemicals is rather too small.

Prof. G. H. C. Bodenhausen: I don't say 'too small'. I say it is an arbitrary figure. It can be too high in some cases.

Mr. Chairman: So Government has drawn a *via media* and fixed it.

Prof. G. H. C. Bodenhausen: You cannot fix it once for all products.

Mr. Chairman: You would like it to be left to the parties?

Prof. G. H. C. Bodenhausen: In some cases it may be 1 per cent; and in some it may be 15 per cent. Both may be justified.

Mr. Chairman: So you would leave it to the parties to come to some agreement.

Another objection you raised is that the Government cannot import medicines royalty-free and you want royalty to be paid.

Prof. G. H. C. Bodenhausen: I think the proposed system will hamper industrialisation.

Mr. Chairman: If it is done in the interests of the public?

Prof. G. H. C. Bodenhausen: It depends where the interests of the public lie; 'no industrialisation and free importation'—is this in the public interest?

Mr. Chairman: Government hospitals are in the interests of the public. Some Governments have this power.

Prof. G. H. C. Bodenhausen: There is Sec. 48. I do not know of any parallel to that.

Mr. Chairman: After all Patent law is in the interests of the country where the law is made. It should be in all interests. You agree to that in your introduction.

Prof. G. H. C. Bodenhausen: Only I said that today it may be good for India, but not for ever.

Mr. Chairman: The country's industrial development and the stage of development, richness or poverty of the population—all these things had to be taken into consideration in enacting this law. You agree with that?

Prof. G. H. C. Bodenhausen: Of course, yes.

Shri R. Ramanathan Chettiar: In regard to the figures you quoted it will be better if I also add this....

Mr. Chairman: He does not dispute the figures.

Shri R. Ramanathan Chettiar: In 1962-63—Page 1387 of the Reserve Bank Annual Bulletin, November 1964—Pharmaceutical Industry: investment—Rs. 14 crores; Dividends remitted—2 crores and the royalties etc., Rs. 5 crores. So Rs. 7 crores was the profit on an investment of Rs. 14 crores and most of it is owned by foreigners in this country. Don't you think this is unconscionable?

Prof. G. H. C. Bodenhausen: I do not contest the figures.

Shri R. Ramanathan Chettiar: Mr. Chairman was referring to comparative figures—1956-57 and the present time. Does he know this fact that fictitious profits are made by the Indian pharmaceutical industry under the present Patent Law. That abuse we want to put down. Naturally we want to tighten up the law. The more the number of years we give the more are the chances for the pharmaceutical interests to make more money and also establish cartels and monopolies.

Prof. G. H. C. Bodenhausen: Again I revert to my theme—whether the purpose is to kill only the tiger or all the animals?

Mr. Chairman: The main object of the Patent law is that research should be carried on in India and the manufacture should be done in India. But most of the Indian patentees import some intermediary from outside and finalise the product and label and sell it and make huge profits. Our Bill is designed to prevent such abuses. In the circumstances you have no objection to the provisions of compulsory licensing and licence of right that has been incorporated in the Bill?

Prof. G. H. C. Bodenhausen: I think they go too far. I don't object to the principle. That is necessary.

Shri R. Ramanathan Chettiar: Every other Patent law has such a provision.

Mr. Chairman: And your model law too. Then what is your objection for these provisions?

Prof. G. H. C. Bodenhausen: They go too far in many respects. First of all the compulsory licences are given without appeal to a court. That is one point that may be corrected. Licence of right particularly for pharmaceuticals is automatic.

Mr. Chairman: Naturally before granting a licence of right or compulsory licence Government makes an

investigation. The Drugs Controller makes an investigation and grants the licence after hearing the parties.

Prof. G. H. C. Bodenhausen: He is after all human. He can make errors too.

Mr. Chairman: So you want a right of appeal?

Prof. G. H. C. Bodenhausen: I think it is better to leave the final decision to the Judiciary.

Mr. Chairman: Thank you very much.

(*The witness then withdrew*).

(*The Committee then adjourned*).

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Friday, the 1st July, 1966 at 09.30 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

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3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
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Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESS EXAMINED

National Foreign Trade Council Inc. 10. Rockefeller, Plaza, New York.

Spokesman

Mr Leonard J. Robbins.

National Foreign Trade Council Rockefeller, Plaza, New York.

Spokesman

Mr. Leonard J. Robbins

(The witness was called in and he took his seat)

Mr. Chairman: Mr. Robbins, whatever evidence you give here is public; it will be printed and distributed to the Members of this Committee as well as to all other Members of Parliament. If you want anything to be treated as confidential, even that may be distributed to the Members.

We have received your memorandum and also the latest statement you gave us last night. That has also been sent to the Members. Probably, they had no time to go through it. If you want anything to be stressed upon, you can do so now. Please give us a short resume of the notes that you have submitted.

Mr. L. J. Robbins: Mr. Chairman and Members of this hon. Joint Committee, I should first like to apologize to you for presenting this typed Statement at such short notice before my appearance here, but there is a reason which I hope you will appreciate. When it was initially proposed, at the end of the last year that the American National Foreign Trade Council should request permission for me to appear before you, we were not at that time very familiar with the precise procedure of this Committee. As you know, we only presented a very brief and very generalized statement as to what our ideas were about this Bill. Also, I expected to be called in January or February and just make a verbal statement at rather short notice. In view of the subsequent postponement after the initial hearings, I was not certain whether I would be able to come, owing to other commitments, but there was time for me to prepare a written Statement possibly to be used as a substitute for personal appearnace.

I should like to say that the National Foreign Trade Council gave me a very free hand. However, this text has been studied and reviewed by various committees and you will appreciate that there are various changes made. But I can say that this Statement

does represent a concensus of the American view point.

I do not propose to read this statement straight through, but I would like to emphasize certain points and elaborate on others. Also, during recent months, I have been able to collect a number of documents which I believe are significant, and which I hope you will find of interest, I have them here, and with your permission, I will refer to certain of these documents which I believe are of significance in connection with each of the sections of my Statement, and I will draw attention to certain passages. I propose to leave these documents with you, arranged in order, together with an index, for the Committee's records.

Those of you who may have read through the Statement will realise that certain sections are rather different from each other and have different approaches. Do you wish to put questions right at the end or do you wish to put them after each section?

Mr. Chairman: You may complete your statement; the questions will come afterwards.

Mr. L. J. Robbins: Very Well. I now come to the introduction. In the first paragraph. I naturally refer to my sponsorship by the American National Foreign Trade Council. I have here a report for the year 1963, and a program of the last annual convention and declaration of principles which indicate the vital interests of American business in international co-operation and the relevance of patent protection in this connection. There is a section in the declaration of principles relating to patent problems generally. I have been informed that 35 members of the Council—well known US Corporations—have actual manufacturing operations themselves in India in many fields. Some 20 have licensing and technical assistance arrangements with Indian firms and over 30 have extensive trade and service connections. I need hardly say that I am greatly honoured by your invitation to apear before you, and I earnestly hope that the submissions that I make at this Hearing and the answers to questions you may put to me—based on some 35 years' experience in this field—will be of assistance to you in your deliberations on the Patents Bill of 1965.

I am here before you as an expert in the international patent field. I hope I can furnish any information you require concerning the past and the present patent laws and practices in all countries throughout the world. I can discuss the licensing of patents from the viewpoint of a lawyer who is naturally interested in obtaining the best terms for his clients. I feel sure you will understand that I do not have any expert knowledge in connection with the prices to the public of patented articles and materials. I merely become a member of the public in this area. I may buy something which is useful, but I may complain about prices from time to time, like everyone else.

However, in view of want I will say subsequently, I can venture the following two generalisations on a purely personal basis of conviction: (1) that patent monopolies and royalties based thereon play only a minor part in the price structure of the competitive market place and (2) that any special situations or temporary dislocations in India or any other country should be dealt with by appropriate and flexible regulations or decrees and not by imposing arbitrary restraints on the sensitive and unique operations of the patent system.

In view of the importance of patents in promoting technological development and the resulting effect on international relations, any changes in patent laws anywhere in the world are of major interest, and are followed closely, certainly in the United States and in Europe and elsewhere. However—this is something which I would like to emphasise—in all my experience, this is the first time that

so spontaneous a reaction has occurred and that business organisations from so many countries—from the United States, from Europe and from Japan—have requested permission to send representatives or to submit their views in writing to a Parliamentary Committee of a Sovereign State in connection with patent legislation. It is clear that the significance and implications of Patents Bill, 1965 extend far beyond the borders of India.

My own experience totally convinces me that a sound and generous patent system, with fair and reasonable safeguards of the public interest, is absolutely essential for the future growth of any country, whatever its status in the present industrial hierarchy. Please permit me to quote what can be regarded as unsolicited testimonials from three of America's greatest Presidents:—

Over 150 years ago, Thomas Jefferson, who was an inventor himself, said:

> "The issue of patents for new discoveries has given a spring to invention beyond my conception."

Abraham Lincoln, also an inventor, said:

> "The Patent System added the fuel of interest to the fire of genius."

30 years ago, Franklin D. Roosevelt said:

> "The American Patent System has promoted countless applications of the arts and sciences to the needs and well-being of our people."

This is undoubtedly a very technical field. At this point, I should like to set out a few basic propositions which apply in India, even at the risk of stating what is familiar to you:

(i) Inventions must be distinguished from patentable inventions. Inventions have been made and remade from the dawn of history. The wheel was orginally a patentable invention, if there had then been any patent law. Patentable inventions involve the modern legal concepts developed during the 19th century, of novelty, utility, inventive height, etc.

(ii) The best invention in the world can be ruined by an incompetent patent attorney. The protection against infringers afforded by a patent depends on the scope of its disclosure and the wording of its claims.

(iii) Patents are not things but legal concepts. They cannot all be treated alike by arbitrary rules.

(iv) The very rare pioneer patents create new industries. If they are not adequately worked by the patent owner, third parties can come in through compulsory licensing. Most patents are improvements which may or may not be of interest to competitors. Patents relating to unsuccessful inventions can be ignored; they are merely pieces of paper.

(v) Apart from the USA, West Germany and Japan, the majority of national patents are owned by foreigners. This, of course, is true in India. Why is this? The answer is very simple. The owner of a new invention must essentially be a gambler. It is something like putting on a new play in the theatre. It will be a success or a failure, but you do not know in advance. When a patent application has been filed in the inventor's home country, he must decide promptly whether to file abroad, even though he is still not certain that the invention will be profitable. The International Convention gives him a year. But in India, which does not yet belong to the Convention, any publicity or use in India would destroy the validity of patent rights. Therefore, many patents are obtained in India by foreigners purely as speculations. If they are not successful, they remain paper patents doing no harm and probably abandoned. If

they are useful and are not manufactured in India, then Indians already have the recourse of compulsory licensing, if they wish, under the present law.

I am aware that the Patents Bill, 1965 has been under preparation for several years past, and I do know something about the previous history of this whole proposal. The Bill, of course, demonstrates legal scholarship and sophistication. But in operation its practical effect would inevitably be to restrict, reduce and circumscribe the rights and activities of patentees in India—Indians as well as foreigners.

As a result, if Patents Bill, 1965 should be enacted into law, this law would be unique and far more drastic in overall effect than the patent law of any other country operating under free enterprise conditions, and would, I believe, have a detrimental effect on the Indian economy.

Those of you who have had an opportunity to glance through my Statement will see that I have arranged it in sections and proceeded from the specific to the general. I have included what I believe will be of interest to you including a special section on the U.S. Kefauver investigation.

I start with section 2 which deals with some specific provisions of the Bill. I am aware that a number of detailed and comprehensive analyses of the provisions of the Bill have already been prepared and will be submitted or have already been submitted by various Indian and foreign organisations. I wish to avoid any unnecessary repetition. So, I will only refer to just a few sections of the Bill which based on my own experience would be either ineffective as regards their avowed purpose or would be positively harmful to Indian interests.

Coming to product and process claims, (Chapter II, Clause 5) clause 5 attempts to define certain technical fields in which independent product claims will not be allowed, but only process claims. I consider this actually to be an example of wishful thinking. The apparent prohibition could in practice be easily circumvented by skillful patent attorneys with the cooperation of the inventors while the strict application of this clause would cause enormous difficulties of administration and interpretation in the Indian Patent Office and undoubtedly would result in delays in prosecution.

Such a process limitation, at any rate in the field of chemicals, including pharmaceuticals and foodstuffs, is a 19th century concept in Europe, which arose when technical knowledge and social ideas were very different. It has now become quite academic. In certain countries, such as Germany, Holland, Switzerland and the Scandinavian countries, where the patent laws still do not permit independent chemical product claims *per se*, in actual practice very broad process claims are permitted, even covering conventional reactions, if the product is new and has advantageous and unexpected properties. The emphasis in these countries even though on the surface they only protect process claims, is to protect the product and, of course, in all these countries process claims do automatically protect the immediate product of the process. I say that a broad process claim can be really equivalent to an independent product claim.

It is highly significant that in recent years Great Britain, Australia, New Zealand and France and still more recently Ireland and the new country of Algeria, have switched over to independent broad product patent protection for chemicals and pharmaceuticals. Almost everywhere on the basis of informed legal commentaries and contemplated legislation, this can be regarded as the modern trend to facilitate the work of examining Patent Offices and Courts. I am sure you know that there is a proposal for a European patent. This may never come through, but it was based on the latest thinking which definitely permits inde-

pendent product claims. The same is true in Scandinavia where a proposal for a uniform law is under consideration.

If the chemistry indicates possible alternative routes to obtain a new product, the alert and skilled patent attorney together with the inventor will conduct sufficient experiments in the beginning to justify a broad process claim which will bar infringers. Furthermore, if the product is successful, the patentee is likely to explore all the chemistry involved ahead of competitors and obtain further supplementary patents when advisable. Therefore, I consider there is no basic difference but only a matter of degree between a product patent and a process patent.

Chapter II, clause 5, of the proposed Bill goes far beyond the law of any other country in applying this illusive restriction to fields outside chemistry—namely, alloys, optical glass, semi-conductors and intermetallic compounds. I believe this indicates some lack of technical appreciation by the drafters of the Patent Bill. For example, for many alloys, the only process involved is mixing and heating the ingredients. The invention resides in the combination of ingredients. Thus, process and product claims are actually identical in effect.

I would also point out that the technical border lines of these terms 'alloys', 'optical glass' etc. are so vague that arguments with a Patent Examiner as to whether a given case does or does not fall within Chapter II, clause 5, could be very difficult. Thus, while it is doubtful whether the restriction of the patentee to process claims will produce the desired result, there can be no question that the Patent Office would have a most difficult and frustrating experience in administering this provision.

In the exhibit here I would refer you particularly to item 7 where I have selected some Germanpatents relating to alloys and optical glass. Germany at present, as you know, does not permit independent chemical product claims. However, these two patents, which are typical, do have product claims. So, this clearly indicates that the highly skilled German Patent Office does not regard alloys and optical glass as being result of chemical reactions. This is a most difficult field in the present knowledge of atomic and molecular structure and it would be most unfair to the Indian Patent Office to make it state that a given alloy or glass invention involves a chemical reaction or a physical mixture. The same applies to intermetallic compounds. So, I consider that the proposed restriction in this field is entirely artificial. For your general information as regards what I said about the effect of broad process claims I have in the Exhibits some examples of Indian patents which have already been granted with some extremely broad process claims which would in practice operate just as broadly as product claims. So, it is possible in India now under the present system to do this. I have a chart here prepared in my office to show just what the situation is as regards product and process claims in all countries throughout the world and that I think is the latest information in this field.

We now come to the sections relating to compulsory licensing and licences of rights—Chapter XVI, clauses 87, 88, 89, 95, 96, 97 etc. It is true that in the early years of the 19th century many countries provided for outright revocation of non-worked patents. This was finally considered unjust and impractical and compulsory licensing was proposed as a more equitable and less drastic alternative. The laws of most major countries now provide for compulsory licensing of patents in general (that is, the grant of licenses to approved applicants on suitable terms after Patent Office or Court investigation) after three years from grant, in conformity with the provisions of the International Convention. A few countries, such as

Great Britain, also provide for compulsory licensing of patents for drugs and foodstuffs without any period of delay after grant.

I think you know that the United States does not have any provision as regards working and compulsory licensing in the patent statute, but owing to the different approach in America as regards anti-trust measures and decisions of courts, it is probably true that more American patents are subject to compulsory licence than anywhere else in the world.

The history of statutory compulsory licensing since the beginning of the 20th century is highly significant. Very few compulsory licences have been applied for anywhere. The broad general explanation is that a successful invention is fully exploited by the patentee at a reasonable price to the public and that an unsuccessful invention dies. Intermediate situations are dealt with by voluntary licensing, as a much preferred alternative to the official intervention of compulsory licensing procedures.

At the present time, no country anywhere has fixed any ceiling for royalties under a compulsory licence, but leaves this to negotiation between the parties involved and the appointed authorities, with the right of appeal in the event of disputes. Inventors and industry, throughout the world, have lived and survived with the mild and consistent compulsory licensing provisions of countries which broadly adhere to the International Convention.

I would like to emphasize the next two statements on page 4. The provisions of Indian Patents Bill 1965 are so drastic in respect of compulsory licensing, in comparison with the laws of all other countries, that they are detrimental to Indian interests from every aspect.

Consider, for example, the situation of an American company originating a successful invention and have worldwide patent protection, including India, and willing to invest capital abroad to manufacture the product. It seems obvious that a manufacturing plant would not be established in India if the American company could be compelled to grant a low royalty licence to any and all competitors.

Also, and I would emphasize this, consider the situation of Indian industry itself—assuming, as everyone hopes, that this will expand and that domestic Indian research and development will become an important factor of the economy. Under the compulsory licensing provisions of the Bill an Indian company could in effect appropriate the inventions of its competitors, whether they were Indian or foreign. Indian industry, in certain fields, may not be concerned with this at the present moment, but in the future this could be most harmful to commercial initiative. Furthermore, the possibility of compulsory licences to import products would actually favour foreign over domestic Indian industry.

In connection with this brief statement on compulsory licensing I would very definitely refer you to these Exhibits particularly. There is a most interesting report prepared for the American Congress—the 85th Congress. It was entitled, "Compulsory Licensing of Patents under some non-American systems". This was prepared by a very well known Swedish lawyer who was intimately connected with the problem all over the world. I would draw your attention to the conclusion—the implication is that if you push too hard in this field, you may kill the goose that lays the golden eggs—

> "The dissatisfied inventor will pass over into the area of trade secrets, cease publishing the results of his intellectual research, which if known and available will be useful in further development, or simply stop inventing. Public interest in patent matters, there-

fore, can never neglect the interest of the new inventors without defeating its own purpose."

The very first proposal for compulsory licensing, surprisingly enough, was made in the United States. For the last 50 or 60 years there have been many, many proposals for compulsory licensing in America, but they have not succeeded because, as I said, there is a different viewpoint with regard to anti-Trust.

The Exhibits include a highly interesting list of reported cases on compulsory licensing in both Great Britain and Canada during the last six years and you will see how very few controversies and requests for licences have arisen in these very typical countries.

I have also included a copy of a recent decision in England, which may not be available to you, which denies compulsory licences for importation of a pharmaceutical product and I submit that this decision should be carefully studied. It is by a well known and a highly respected senior hearing officer in the British Patent Office and refers to the possible results of weakening the patent law by permitting importation of patented products from abroad.

I come now to the provisions about Government use of inventions, that is, Chapter VIII, Clause 48, Chapter XII, Clause 66, Chapter XVII etc. The laws of, I think, practically all countries, as in India at the present time, do provide for Government use of inventions for military purposes and in time of emergency. This is considered absolutely legitimate, but in recent years this relatively clearcut proposition has been complicated, it is true, by various countries in which there is socialised medical legislation. In Great Britain, the House of Lords, in a very important decision only last year, did construe the British Patents Act to enable the Government, in the operation of the National Health Scheme, to make unlicensed use of imported patented products, of course subject to compensation. However, in spite of this decision, I am reliably informed that the British Ministry of Health has elected not to import any more but has preferred to resume obtaining its medical supplies from local production. There are a number of reasons for this decision by the British authorities. Partly it involves the question of keeping up the quality of the product. When there is an imported product, it may not be possible to control the vitally necessary quality of the product. I will come to this question of importation later.

The powers granted to the Indian Government in the Patents Bill 1965 are so sweeping, particularly in connection with clauses 48 and 102, that it is quite unlikely that any foreign owner of an important invention would actually apply for patent protection in India at all. It seems much more likely that any operation in India, either by direct investment or by a licensing arrangement, would be based on secret know-how. I would point out that secret know-how would be outside the provisions of the patent law. Of course, these days anything based on secrecy is to be deplored. It is unscientific and it does not benefit the public.

The next of these comments is on special provisions involving examination in the Patent Office, that is, Chapter III, Clause 8 and Chapter IV, Clause 13. An applicant is expected, under the provisions of this Bill, to furnish particulars of all other corresponding foreign applications. I would point out that at the present time—and, of course, probably for some time in the future—the preponderance of applications will be owned by foreigners. There are well over 100 countries having patent laws and many important inventions are widely filed. In view of international trade that is now becoming essential. I can assure you that it would be a clerical task of most appalling proportions for a busy patent department of a large corporation, say,

in the United States or in Europe, handling thousands of pending patent applications all over the world, to compile the information called for under Clause 8 and forward it to India within eight weeks.

I would point out it is quite uncertain what the Indian Patent Office would then do. Clause 8(2) is permissive. The Controller may call for particulars of prosecution of any or all other foreign applications. But foreign examination practices, and novelty and patentability requirements, are extremely variable and in many countries quite different from those of the Indian Patent Office. For example, the average official action in the United States or Germany would result in arguments and amendments based on legal principles not present in the Indian Patent Law. Also in many foreign Patent Offices it may take several years before even a first official action is issued. If the Indian Patent Office invoked Clause 8(2), it would receive an erratic flood of material which it would find either difficult or impossible to digest.

If you will refer to page 5, I refer specifically to the situation now in Canada and also in various other Scandinavian countries and Holland. In the Exhibits I have some examples of what they do require. But I would emphasize that in these countries, the requirement of furnishing information is permissive and voluntary. Some applicants may occasionally furnish information if it is convenient to them. There is absolutely no penalty in any of these countries for not furnishing information of what is done elsewhere.

Clause 13, Chapter IV, provides for a novelty search of publications not only in India but elsewhere also, that is, throughout the world. I submit the Indian Patent Office has no library facilities for such searching. Even in Great Britain the search is confined to domestic publications. It is only a very few highly industrialised countries that provide for world-wide novelty. It is also notorious that the quality of searching even in these countries is becoming very poor owing to the vast increase of the technical literature in recent years.

I refer now very briefly to the Right of Appeal, Chapter XIX, Clause 116. This Bill positively and severely restricts the right of appeal from Patent Office decisions and decisions of the Central Government, to higher tribunals or to the Courts. I could say much more on this point but I do not feel that this is a matter on which outsiders should go very far. I consider this as a matter for the Indian legal profession. I may point out that about a year ago in Washington I had the honour of meeting a number of Indian Judges. I feel quite sure that if this restriction of the fundamental right of appeal is enacted into law, it ought to be a matter of very great concern for the legal profession and judiciary in India.

I would now like to refer in more detail to the general effect of a law based on this Bill on the future functioning of the Indian Patent Office. I consider this as most important from the practical viewpoint.

With your permission, I may point out that I visited the Indian Patent Office in Calcutta in 1953 and met many officials and members of the examining staff. I was greatly impressed by their dedication, hard work and, at that time, their concern about the efficient operation even under an increasing work load. A decade later, it is generally conceded that the Indian Patent Office, as it stands now under the present law, has serious difficulties in carrying out the relatively mild provisions of the existing patent law. I can state quite categorically that the Indian Patent Office, as it is at present constituted and organised, would not be able to administer a new patent law based on this Bill. This would be true even if the present number of patent applications filed per year does not increase. But, as you know, in all

other countries, the number of patent applications is increasing. There is no doubt that it will increase in India also. The efficient administration of clause 8 and clause 13, irrespective of all the other clauses, would call for a large number of highly skilled examiners, familiar with the patent laws and practice of other countries and at any rate conversant with several European languages to enable them to search the technical foreign literture. It would take many years to train such an elite examining crops. I ask: Is the personnel available? Apparently, many odd situations would arise. The Patent Office would have to compete for technically qualified manpower with the industry it is intended to serve—just at a tims when industrial expansion in India will produce a shortage.

Obviously, to carry out the potential requirements of the proposed new patent law, the Indian Government would have to budget for very substantial increases in staff and office space. Would this be justified? If even some of the submissions presented in the present statement, contentious as they may now appear, should turn out to be correct, there might actually be a decline in the number of patent applications filed by both Indians and foreigners, contrary to the normal trend.

Whatever the underlying objectives and reasons may be for the preparation of Patents Bill, 1965, I feel convinced that the legislature as a whole, irrespective of economic or social pressures which may be responsible for some of these provisions, is not yet aware of the purely practical problems the Indian Patent Office would face. There would be no point in enacting a law which could lead either to administrative chaos or to stagnation.

I can well understand that the officials of the Patent Office who are very devoted public officials, would have great hestitation, obviously, in criticising a Patent Bill, which might be regarded as serving their own interests. This problem of the Indian Patent Office can, I think, best be presented from the outside on the basis of a comparative evaluation of what is going on in other patent offices all over the world.

Now I come to Section 4, *i.e.*, the effect of this Bill in certain specialized technical fields. This Bill, of course, would affect patent rights in general but would have very special impact in certain technical fields in which very intensive research is essential for progress, unless human nature in India has become entirely altruistic. These fields include, of course, pharmaceuticals and foodstuffs in particular. All governments throughout the world are concerned with public health and availability of essential drugs and foodstuffs, but the basic issues are the same in all countries, whatever their size, population and the stage of industrial development.

Possibly the drafters of this Bill hope that the result of their efforts will be to provide freedom of action to the public and private sectors of the Indian Pharmaceutical Industry to furnish drugs and foodstuffs to the Indian public at the lowest possible prices. But, I say, gentlemen, that there are no valid and rational arguments that would indicate fulfilment of such a hope. It is far more likely that foreign applicants, now responsible for over 80 per cent of the Indian applications, would gradually find the restrictions too difficult, too onerous, in this highly difficult and technical field and might even bypass India entirely and refrain from filing on new inventions in this field. At the present stage of Indian domestic research, this means that Indian manufacturers might actually have to appropriate and use inventions made abroad which are the legitimate property of others.

I respectfully submit that this Committee should most carefully consider the Italian pharmaceutical situation in all its aspects. I am sure you are aware of it in general, but there are

many particular aspects that are not so well known. It is, of course, a unique situation that the Italians do not grant any type of patents for pharmaceuticals. I will not now explain the reason why this has occurred, but let us treat it as a fact. After the War, the Italian industry did indeed copy many important drugs originating in the United States and Europe. The theory, of course, was that the Italian industry had been so much damaged by the War that this was the only way they could keep the industry going. The industry became quite competent and aided by the publications of foreign inventions did begin to develop its own knowhow. I have referred here in the Exhibits to a situation that you may be aware of that certain Italian firms, in recent years, not only copied but actually stole technical information and even physical organisms that were used in producing antibiotics.

The fact that there are no patents granted on pharmaceuticals in Italy has not led to any great benefit to the Italian public. I can assure you that the prices of pharmaceuticals in Italy are at least as high as, if not higher than, those in other countries and for any given drug, there may be 20 or 30 different products on the market, all under different names, so that the emphasis is on advertising. Owing to the great cost of advertising, each of these 20 or 30 companies fight one another. It has become, I can only say, a ridiculous situation and that is now apparent to the Italian pharmaceutical industry and partly as a result of this and partly due to the Italian entry into the Common Market, it is highly probable that the Italians will enact a pharmaceutical patent law comparable to that in other countries. In other words, having been in a unique situation for many years, Italy may now join with the rest of the world in handling pharmaceutical inventions.

You are, of course, aware that, during the last generation, a medical revolution has occurred particularly owing to the discovery of sulfa drugs and antibiotics. But in countries having strong patent systems, competition has actually been intense due to the stimulation of research. If in certain instances and at certain times, costs to the patient may appear to be high, this is not due to the existence of patents, but to research costs. Alleged unsatisfactory or inappropriate commercial practices in any country should be controlled by government by suitable regulations.

I would again say that the patent system is not the correct system to apply restrictions against commercial practices. I say that this is true in India and I say that the Legislature should look forward into the future and not consider merely the present situation and I would emphasize that the nature of medical research is changing very rapidly everywhere. A great deal is being conducted by Universities and Foundations, intimately tied up with biology, physics, chemistry and what is known as the group of "life sciences"; there is pure research and there is applied research. Startling discoveries will undoubtedly be made, which will become available to everybody. The initial patent protection is the price you must necessarily pay to encourage this research. It is only of limited duration and after that, the results of these discoveries will be available to all mankind permanently without any patents being involved.

The next Section, on the Kefauver investigation, I believe, will be considered by you as of considerable importance because there has been so much of misunderstanding about the Kefauver investigation. Senator Kefauver, many years ago, started an investigation through his sub-committee of the Judiciary Committee to investigate what he called "administered prices", *i.e.*, prices he did not consider the result of the natural operation of commercial market conditions. He first of all investigated automobile

industry prices; he then investigated the baking industry and then some other industries. It was, more or less by accident that he finally got down to investigate the pharmaceutical industry. Before going into this discussion, I want to point out the result. I am sure you will understand that, since Senator Kefauver was the Chairman of his Sub-Committee, his political Party was in power. After years of investigation—I think you have the full Kefauver Committee Report available—his own Party disagreed with him. The net result on the patent laws of America was absolutely negligible and the practical result was nothing. Senator Kefauver tried to do in a way what this Indian Patent Bill is aiming at—I would not say wholly because American law is different—but he was trying to use the patent law to control prices of drugs. As I said, the net result was zero. The main result of Kefauver's investigation was in an entirely different field which the pharmaceutical industry in America welcomed. That was somewhat stricter investigation of the quality of drugs and of their effect, because most of the manufacturers in America felt that this was a way of keeping the marginal producers in this highly competitive field in line. So, I would just emphasize—I will not go into all the details—that the net result of the whole Kefauver Investigation was that the Patent Law itself was merely modified in completely negligible directions and there was no restriction on the terms of patents and no restriction on licence royalties. Whatever they were, his proposals were considered totally impracticable. I am sure that many of you will read what I have written here at the beginning of page 8.

I will, if I may, just read from the last paragraph. 'After extensive hearing the Kefauver Sub-committee Report was issued on June 27, 1961.' If you will read it carefully, you will also see that 'it bears every evidence of the most hurried preparation and very crude distortion of facts.' I would point out that Senator Kefauver, though I am sure his basic ideas were to protect the public interest, was a politician with presidential ambitions. He was a very, very skilful publicist and much of his sensational statements, many of them totally wrong, were, released early in the afternoon so that they would just catch the afternoon newspapers and make very large headlines. "Few people seem to know that there was a very vigorous minority report by Senators Dirksen and Hruska which begins with the words "The majority's views in the report on administered prices in drugs do little credit to the Subcommittee for there is no attempt whatsoever to be objective and constructive through judicious evaluation of all the testimony and exhibits'. It also states 'There has been a general confusion on the subject of patents, which pervades the majority's report on process patents versus product patents'. I can personally testify to this because the Kefauver Report has quoted a single paragraph from a very innocuous informational article I had written many years ago entitled 'Pharmaceutical Patents in Foreign Countries' to imply that certain countries do not grant patents for new pharmaceutical products. However, the Dirksen Minority Report points out:

> 'Any careful review of the comments made in the majority's report as contrasted with the text shown above indicated that there is a completely different concept of patent protection abroad than the report attempts to convey.'

Then they refer to subsequent statements I made that record exactly the opposite impression.

Shri R. P. Sinha: You were responsible for providing that motive.

Mr. L. J. Robbins: I was not responsible. Senator Dirksen picked it up himself. This was a very old paper I had written. They found it themselves.

There was a very great gathering criticism of the whole Kefauver Investigation, but in spite of this he introduced Bill S1552 in the United States Senate and I hope this Committee will study this Bill in connection with what you are proposing to do here.

Now, this Bill was actually in three parts. It affected three different United States Laws—the Sherman Antitrust Act, the Patent Act, and the Food, Drug and Cosmetic Act. You can ignore the proposed Sherman Act revision as it is in a specialised region that does not affect the Indian Patent law at all.

The proposed US Patent Act revision was drastic, and here if I may, I will read from my Statement in view of some of the parallel provisions proposed in the Indian Patents Bill. One provision would have prohibited grant of patents for molecular modification or new combinations of existing drugs unless it was determined that the therapeutic effect is significantly greater than that of the original drug so modified or combined. Another provision proposed to reduce the exclusive term of a drug patent to 3 years, after which it would be available for licensing to any qualified third party (for the next 14 years) for a royalty not exceeding 8 per cent per annum. Such compulsory licensing would also require the disclosure of the original applicant's know-how.

The Federal Drug and Cosmetic Act provisions were numerous and I do not think we really need to be concerned with these here in discussion of your Patents Bill, but they were the ones to which the Pharmaceutical Industry in America was quite sympathetic.

There was very little comment on the very specialised revision of the Sherman Act. However, the patent provisions were strongly objected to by all sectors of the industry, by economists and patent experts. I will refer in a minute to these exhibits I have here which I do hope will be read by many of you.

After all this, the Kefauver Bill went through the legislative machinery of the United States Congress. I would point out that the Kefauver Antitrust Sub-committee was merely one of several Sub-committees of the main Judiciary committee. In accordance with the usual procedure these provisions were referred back to the Patents Sub-committee. Now, this Committee held its own hearings, reviewed the matter thoroughly, talked to many experts and then it disapproved the drastic and controversial patent provisions. This disapproval was confirmed by the main Judiciary Committee in the final Bill which was actually submitted to the Congress.

The only legislation that was then finally enacted in the field of Patents, as a result of the whole Kefauver investigation extending over many years, and which was signed in due course by President Kennedy, are two minor and limited statutes. I will not read them in detail because you will have the text here in the Exhibits. One provided for recordal of patent interference settlements in the Patent Office. You do not have interference practice here, so it should be ignored. The other amendment was to enable the U.S. Patent Office to call on the Secretary of Health to furnish technical information concerning drugs if he wishes to do so. In actual practice there have been very few instances of requests as the Patent Office has its own qualified examiners.

About these Exhibits here, you have not yet got, I think, a copy of this list, but it will be available to you. I am referring you to the main Kefauver report to the U.S. Senate. I would refer most strongly to pages 105 to 154 which deal with patents and research relating to drugs. And I would point out as an illustration of the many misleading statements in

the whole Kefauver investigation, that on pages 106 and 112 there are totally incorrect statements relating to India itself. I would also refer you to point 3 of the minority report beginning on page 138.

Of these Exhibits, number 4, entitled "Prescription drugs and the public health" is a digest and summary of the complete presentation of the Pharmaceutical Manufacturers Association in America. And there is very interesting testimony from Prof. Rostow and Mr. George Frost, a well-known American Patent lawyer. I may point out that it was originally proposed at the end of last year that Mr. Frost, who was actually a witness before the Kefauver Committee in this field, should come over here because he had the most expert knowledge of the whole proceedings and would have been able to answer any of your questions. But Mr. Frost has just been appointed Patent Counsel of General Motors Corporation and his new duties made it impossible for him to come over here. But Mr. Frost made available all his files to me and I spent many hours with him talking over what we considered the key points. So even though I can't pretend to be an expert on the Kefauver investigation, I think I have a certain amount of general information and can refer you to the particular things of interest to you. I may for the record refer now to exhibit No. 5 which is called "Legislative Analysis." This is a fairly brief pamphlet which gives a complete summary of the legislative results of the Kefauver hearings. I would draw your attention particularly to these passages—the summary on page 1, the introduction on page 4, and the digest on page 6. All these are quite brief. I would refer you to part 1 entitled "Competitive Structure of the Pharmaceutical Industry" on pages 7 to 23. I would refer you to part 2, "The Nature of Ethical Competition" on pages 27 to 47. I would refer you to part 4, "The Patent Code Amendment", on pages 55 to 64, and part 5, "The Food and Drug Amendment" on page 68. All of those, I think, are well worth your consideration. I also refer you to item No. 6; this is unofficial but is a complete comparison of the Kefauver Bill—the Senate Bill S1552 introduced by Senator Kefauver with all its ramifications—and the Bills S1552 as finally enacted. It must be said that the mountain laboured and brought forth a mouse; the final patent revisions are of completely minor significance. These are the Kefauver Exhibits. I leave with you and which will, I hope, be of interest to you.

I now turn, Mr. Chairman and gentlemen, to Section 6 entitled "Recent World-wide Developments Affecting Patents." I believe that all the following specific foreign developments have a bearing, in their different ways, on the general Indian patent situation, and I submit that each of them and all of them are reasons why the Indian Parliament should not take precipitate action in this field in a direction which, I believe, is contrary to the world-wide trends in this field.

First, there is a new concept in patent law which has recently been introduced. Acually, I believe the origin was in France, very surprisingly. Now, as you know most major industrial countries long ago incorporated examination procedures as distinguished from simple registration. France and Italy and some other countries are exceptions, but all the others in Europe and the United States, and Japan and countries elsewhere in the world and, of course, including India, examine patent applications the reason being to try and get a reasonable presumption of the validity of the claims instead of having claims put in by the applicants which are far too broad so that it is very difficult to determine what the scope is. I would say, in general, the strictness of the examination in any given country is a measure of its industrial development. The purpose is to issue only patents of reasonably certain and well-defined scope. But the rising

tide of invention everywhere has begun to swamp patent offices, and in practice serious backlogs have developed and the quality of the examination has declined. And I think top officials in the Indian patent office are well aware of this problem.

Now as a solution to this, what is called "deferred examination" has been proposed. This means in essence that a patent application is filed and assuming it is in formal order, it is published quickly; when I say 'quickly', I mean, within 18 months or two years. Now it is considered that early publication is a great benefit to industry and to everybody concerned and that a great delay before a new invention is published is not a good thing. But the idea is that the actual technical examination in the patent office should be deferred at the option of the applicant or at the option of third parties. As you know, it often takes four or five years in any case before an invention is commercially developed. It is a great waste of time in patent offices to examine every application because ultimately so many of them fall by the wayside. So, it is much better to examine only those which are likely to be important inventions.

This proposal gives any applicant the option to request that his application's examination should be deferred by say some 5 to 7 years. On the other hand, since it has been published some parties may be interested in this very field and wish to be quite certain of the scope of this invention. So the idea is that the third party can come in and also request examination. But the general proposition is that the burden on the Patent Office is relieved, because it does not have to examine every case and if a given application has not been examined at the end of this 5 or 7 years term, then it is just considered as abandoned. If no request has been made, it is not considered of interest and it is assumed that the applicant is not interested and third parties are not interested, so that the Patent Office has not had to waste its time to give consideration to this case. This is a totally new idea in recent years. It has met with some criticism, as new ideas are generally met with criticism. But I would say, generally the merits of this idea are beginning to be appreciated. Holland is the only country that has as yet adopted this, actually in practice, and there were among members of the Dutch Patent profession grave doubts whether it would work. I have consulted them and also the President of the Dutch Patent Office. It can now be said that upto the moment, it is working satisfactorily and it has cut down the burden on the Dutch Patent Office by something like over 60 per cent. Now under such deferred examination procedure, many other benefits might arise which have not yet been explored. These statistics are not yet very accurate but the Dutch experiment is being closely watched elsewhere in the world. A Bill has actually been introduced into the German Parliament for deferred examination in Germany. That, of course, would be a major step which should have influence all over the world. It has been proposed in Australia also. Now I do not suggest, of course, that this Committee should study this proposal in detail, but I do submit that this is something which is being considered elsewhere in the world as a solution to a very grave problem in Patent Office operation.

The next section relates to Harmonization of Patent Laws. This is something which is going on very quietly particularly in Europe. As you know, in Europe, the Common Market authorities proposed the entirely new concept of a single European Patent. The actual text was prepared but for various political reasons and other reasons and partly due to the enormous complexity of this proposal, it has not gone through and personally I think I am correct in saying there are considerable doubts as to whether it ever will be enacted. The inter-

nal and external problems of this proposal have not been solved. There is the question whether outsiders not in the Common Market should be invited. That is not relevant to this particular session here. Many experts and industrialists consider that harmonisation of the national patent laws is a far more simple and practical approach and in any event would be an essential preliminary to any multi-national operations. This harmonisation movement is proceeding quietly in Europe, and among the exhibits I have here are the texts of two Treaties that have been enacted—one making formalities in the countries the same and the other relating to substantive law to unify legal concepts. I merely mention these things to indicate that there are worldwide trends in the Patent field at the present time and this Indian proposal is so specifically contrary to these worldwide trends that I feel I should draw these general considerations to your attention.

I would refer now to the International Convention. Chapter XXII of your Patents Bill indicates that India may in the future wish to join the International Convention. India is free to join International Convention at any moment. Any country can join merely on request, but the provision of your Bill are so contrary to the provisions of the International Convention that it would be a very anomalous situation. The International Convention now has some 80 or more countries and I would point out that Russia recently joined and a very interesting publication which is available here in the Exhibits discusses the Russian Patent Law in relation to the International Convention. Surprisingly it finds that the Russian Patent Law is not contrary in many respects to the provisions of the International Convention. The main provision in the patent field of the Convention is the one year priority provision. That of course from the practical point of view is most important. When Indian industry develops and you have many domestic inventions made, as I am certain it will happen, that provision of the International Convention would be of vital importance because otherwise your inventors would have to hurry and rush, as I pointed out, to file in other countries before publication. There are certain South American countries that are not yet members of the International Convention. In my own practice in America, it is often a great problem making a decision—should this case be filed, immediately or should the member take a chance and wait. The provisions of the International Convention constitute a minimum set of rules, apart from the priority provision, about compulsory licensing, national treatment, and so forth. The adhering countries bind themselves to adopt them. That does not necessarily mean they actually do carry out these provisions, because in most countries even when an international treaty has been signed and ratified, domestic legislation is necessary to effectuate the provisions of the treaty. I might point out that for many years, although France in a way was the home of the International Convention, going back to 1883 and known as the Paris Convention, France did not have any compulsory licensing provisions until about 10 years ago. All that time, France invalidated a Patent if it was not worked, after litigation by request of third parties. Italy, a long time member of the International Convention—almost from the beginning—still does not have compulsory licensing provisions. A patent in Italy will be revoked if it is not worked, if a third party objects and brings suit on that ground. There are anomalies. If an Indian law were to be enacted based on this Bill, this would not prevent India becoming a member of the International Convention, but it would cause a very much more anomalous situation because the provisions in India under a Patent Act based on this Bill would be so contrary to what would amount to your commitments under an international treaty.

The next point is about the BIRPI Model Law that has been drafted on which you have already heard evidence. An Indian representative was present at the discussions of the Model Law before it was adopted, I think, your Controller General of Patents. So, it is rather anomalous that the Bill as presented should contain provisions which are totally different from those of the Model Law.

I am convinced myself that in a country where the economy is developing rather than highly industrialised, the provision of Patents of Confirmation is extremely useful, and that, of course, is one of the optional sections proposed in the Model Law. It takes many years for an invention to be developed practically. Foreign patentees would come to India, and obtain a patent for something which was already a practical, useful invention. Of course, Patents of Confirmation would be subject to compulsory licensing if not in actual production in the country like any other patents. I would recommend a study of the benefits of Patents of Confirmation which are adopted in some countries at present, particularly in South America, and I believe that the comments of BIRPI on Patents of Confirmation are well worth consideration.

In the United States, I can assure you we do have our own patent problems. As you know, the U.S. law is very different from other countries as regards claim practice and patentability. The backlog in the U.S. Patent Office has increased, and industry is gravely concerned by the potential consequences. There have been many proposals for amendment. In April, 1965, President Johnson appointed a Commission to study all aspects of the patent system and recommend appropriate changes. The American Patent Law Association established a special committee to study this, of which I am a member, to advise and report to the Presidential Commission, and many proposals are under very intensive study. It is far too early yet to say whether these proposals will be favourably received, but many of these proposals are quite radical and drastic, and there is quite a possibility that ultimately the U.S. law will be amended and brought into much greater conformity with the laws of other countries. It is definitely true that a change in the American patents system would be of great interest all over the world. I would suggest that possibly India might wait and see what happens in the United States and other countries also before proceeding with this very different, specific, drastic legislation.

I now come to my general conclusions. There is a ferment in this whole patent field all over the world. It is not peculiar to India alone. On top of this there is the general idea of international co-operation. Duplication of effort of patent offices in examining and re-examining the same invention in different countries is admittedly waste of time. You probably know that there is already in exitence an international institution at the Hague which uses the remarkable facilities of the Dutch Patent Office Library, and there a very excellent examination can be made. There is a proposal that patent offices all over the world, including even the U.S. Patent Office, may begin to use these facilities, in other words have a centralised examination system to avoid duplication. This is one of the proposals.

Some time back at the World Peace and Law Conference held in Washington, they surprisingly introduced an industrial property section, indicating how important it is from the world point of view, and since this was a very general meeting, I spoke about what might be the patent situation in the world in the year 2,000A.D. It is all speculation and nobody can prove me right or wrong, and I indicated there might even be an international satellite for exchange of information by patent offices all over the world. It is quite possible.

I would emphasize that because of the very technical nature of the patent field, it is usually quite difficult to get the attention of Parliaments to patent legislation, and when comprehensive changes are made, they are likely to remain for a very long period. The present Indian Patent Law has been in force for over 50 years apart from certain specific amendments. It would be most unfortunate if a new patent law should be enacted, which is quite different from that of other countries, and which might remain in effect for a long period. I feel that this might even hinder India in its struggle to take its deserved place as one of the world's largest markets.

At the present time, India does not have sufficient capital resources of its own to finance all the industrial expansion and investment that is needed to maintain the necessary rate of growth in all sectors of the country. No one can predict how the restrictions on patent rights—they are very definite restrictions—in this Bill would hamper the future flow of investment capital. I am being followed by Prof. Kilbridge tomorrow. He is an expert economist and he will be able to deal with those aspects.

American capital has many competing regions of interest. As an analogy, I would refer to an article in *Chemical and Engineering News* of November 15, 1965, entitled "Low Capital Spending Mars Italy's Economy". A quotation reads:

> "U.S. chemical firms are slowing down their Capital outlays in Italy this year. U.S. dollars are skirting Italy in favour of West Germany and the Low Countries."

The general climate for foreign investment is complex and depends on many factors. I want to point out that Mr. Nehru himself, in his book "Nehru: the First Sixty Years", has said that "I do not think it is possible for India to be really independent unless she is a technically advanced country. I am not thinking for the moment in terms of just armies but rather of scientific growth."

I submit that if certain conditions now in any specific industry here in your country are of concern to the Government, it would seem that suitable specific legislation or regulations should be or are available, to control or ameliorate them without attacking or debasing the patent system, a system which is really the handmaiden of scientific growth.

May I very respectfully urge that the Patents Bill should be further studied in the light of what other countries have found to be a very satisfactory procedure. When important new legislation is contemplated, I would suggest that the Government might appoint a Special Commission, a Commission of prominent citizens from all sections of the community, to study the true interests of industry and the public under the patent system and then make appropriate recommendations after considering developments in other countries.

I can refer to England, Canada and the United States and their Commissions, for example. In conclusion, I would say that the best patent laws are indeed the simplest ones, and not the complex ones, as has been very well proved by what is going on now with the revisions that are being made and proposed in other countries.

In connection with this conclusion of my Statement, I would finally refer you to the Exhibits here. I hope you will read them. The first one is a copy of a memorandum which one of my partners submitted to Mr. Modawal of the Ministry of Commerce in connection with Registered User practice under the Indian Trade and Merchandise Marks Act. 1958. The comments on page 1 relate to an air of suspicion and to the severity of requirements and formalities which do not exist elsewhere in the world. I say that the unfortunate air of sus-

picion is relevant to the present situation and the provisions in this Bill.

I would also refer to the Canadian Royal Commission Report. It is true that the Canadian patent law has not yet been amended for various political and other reasons, but the Royal Commission conducted most comprehensive hearings; I was a witness before them and if you refer to page 23 of the Report, you will find that one of my proposals was very favourably considered by the Commission.

I have some documents here relating to one of your famous scientists, Dr. Yellapragada Subba Row and the recently established Subba Row Memorial Library in America. There have been many famous Indian scientists of world-wide fame, such as Dr. R. C. Bose, Prof. Raman, Dr. Chandrashankhar, and Dr. Bhabha who unfortunately was tragically killed recently. I wish to speak of one, whom I had the honour of meeting—Dr. Subba Row, who was the Director of Research of the Lederle Laboratories Division of American Cyanamid until his untimely death in 1948, and who was also a friend and associate of Mr. R. Norris, President of the National Foreign Trade Council. Among his many achievements, Dr. Subba Row first synthesized the B^{12} vitamin folic acid and he was largely responsible for the discovery by Dr. B. Duggar of the first broad spectrum antibiotic chlorotetracycline known as Aureomycin. I personally handled the filing of patents on both these developments throughout the world and I will know that Dr. Subba Row was an enthusiastic supporter of the patent system, without which the dramatic results achieved by Lederle and other pharmaceutical manufacturers would not have been possible.

I may also suggest that this Committee should most actively enlist the interests of the Indian scientific community in patents generally and in the proposed new patent legislation. I am certain that they will confirm that Indian research and foreign investment must go hand in hand and that both will depend on a fair and equitable patent law. Thank you.

Dr. C. B. Singh: We are very grateful for your views, Mr. Robbins. But I am sorry that you are not an expert as far as the prices of these commodities are concerned, an aspect with which we are most concerned. But I would like you to give a reply to one question. Is there any widespread complaint about the price structure, the claims of firms, about the quality and the methods of advertisement, in respect of the pharmaceutical products in America at the moment?

Mr. L. J. Robbins: I would not say there was any widespread complaint. But over the years, in any industry, there are always specific complaints going on by certain people, as to what certain people are doing and what certain manufacturers are doing. It is common all the time. As you know, the US Government has recently appointed a new director, Dr. Goddard of the FDA, and he is very much tightening up. But what he is doing in the field of quality and advertisement.

Dr. C. B. Singh: I was referring to the first speech of Dr. Goddard. He has complained very bitterly about these things, and he has given a warning to the pharmacists. Do you agree with that?

Mr. L. J. Robbins: As you know, he has only recently been appointed, and I think you know that new brooms can sweep clean. He is very vigorous at the moment, but whether what he asserts is justified is far too early to say.

Dr. C. B. Singh: He is the first Chairman who is a medical man with MD degree; the first one in forty years and that is why I put this question. He is supposed to know more about these advertisements and so on and their effect.

Mr. L. J. Robbins: You will find that possibly India might wait and see

years and in a rather remote part of the country. His experience has been in the administrative field rather than in actual practice of medicine. But, as I said, I am not an expert in this field. I am merely talking as a member of the public.

Dr. C. B. Singh: I am a doctor myself, and I am putting before you the public point of view. There is a great complaint in this country also. It is a very reasonable complaint as well. So, that question has been put.

My second question is this. You have mentioned at page five, about the examination of patent applications. You have mentioned certain difficulties of the Patent Office. What will you suggest in that regard? You have mentioned that the world literature has been growing very fast and that it becomes very difficult for the Patent Office to go through everything. What will you suggest to remedy this?

Mr. L. J. Robbins: For the time being, the provisions for novelty, of Indian patents should be restricted to publications within India, as it is under the present law. If you go to the world-wide novelty concept, the Indian patent office examiners would have to consider publications in German, Russian and other foreign languages. For that, you will have to build up first an enormous library and you will need skilled people to study all those things.

Dr. C. B. Singh: The trouble will be a good number of applicants will be foreigners themselves. So, we will have to refer to some foreign publications also.

Mr. L. J. Robbins: You will find that the applications from major countries like America are well prepared and are in good form. They know what they are entitled to and obviously they will not make their claims too broad. But applications from other countries, say France, may not be so well prepared. There is no examination in France and the claims may be rather too broad. That is why the Indian examination is important.

Dr. C. B. Singh: You have mentioned about right of appeal. Right of appeal has not been agreed to because of certain difficulties we have been experiencing in this country. If it goes to the High Court it takes 8 or 10 years or even more. That is why the Bill provides that the appeal will lie with the Indian Government. Can you suggest a method by which there would be no delay and yet the appeal will not be to the Government?

Mr. L. J. Robbins: I appreciate your point about delay. But it is not every controversy in the patent field that has to go all the way to the Supreme Court. In Germany validity is determined separately in a special novelty court which is now an extension of the patent office. In the United States and England, there are specialised courts which are constituted for this purpose. In England, there is what is known as the Appeal Tribunal and with a very few exceptions, most appeals stop there. This is a very efficient Tribunal and it disposes of appeals in a very short time. In America also, if there is a controversy about a patent application, while it is pending, it can go up to the CCPA—the Court of Customs and Patent Appeals. So, here also, except for some major concepts which involve basic rights, legal and other technical controversies can be decided on appeal by a special tribunal.

Dr. C. B. Singh: Would you fix a period for the judgment to be given by this tribunal, because time is a very important factor?

Mr. L. J. Robbins: Everywhere, if there is a controversy about a patent, a certain time is provided for appeal and if you do not exercise your right of appeal within that time, you lose the right.

Dr. C. B. Singh: The time for patents originally was 14 years. Now this Bill provides for 10 years. What is your opinion about it?

Mr. L. J. Robbins: I understand that this period of 10 years is only in certain fields like food, drugs, etc. It is contrary to experience everywhere in the world. In Switzerland, for instance, which is a small country, they had very restrictive provisions in the field of chemicals. Applications were allowed only for process claims and the term was 10 years. Finally it became ridiculous. The period of 10 years was found to be most restrictive and it actually hampered the Swiss industry. So, some 10 or 15 years ago, they enacted a very modern law comparable to that of other countries with a normal term. So, here also 10 years is not practicable and it would hamper the Indian industry. If you agree with the basic principle that the inventor should be given a limited monopoly during which he can obtain recompense and get a reasonable return, 10 years is not enough.

Dr. C. B. Singh: Do you agree that we can have 10 years and if we find that an inventor or firm has not been able to get adequate benefit and if he proves his case, the period should be extended?

Mr. L. J. Robbins: This will lead to adminstrative difficulties because the applicant will have to file petitions and you will have to hear evidence to determine the justice of his claim. All I can say is that a limited term of 10 years is contrary to the world trend.

Shri M. L. Jadhav: Do you agree that the prices of drugs in India are far higher than the international prices of the same drugs?

Mr. L. J. Robbins: As I said right in the beginning of my Statement, I am not an expert in this field. But, as a member of the public frankly I do not think that is true about prices of drugs in India. There may be certain exceptions but I do not think it is true as a general proposition. You should put this question to an economist. He can answer this question far better than I can, I do not think I can say anything of much value to this Committee on prices.

Shri M. L. Jadhav: Assuming there is some difference between Indian and international prices of drugs, how far is it due to foreign patents?

Mr. Chairman: Mr. Robbins has explained that he is not competent to answer this question.

Shri Warior: Beginning with compulsory licensing, in the absence of any agreed solution and in the context of our retaining this clause, will you agree to the percentage of royalty proposed in this clause? Do you think it equitable and reasonable?

Mr. L. J. Robbins: I thought I tried to make the point earlier. No two inventions are the same. They are different and they must be considered so. You have to consider how valuable they are, how they are developed and so on. You cannot put out an arbitrary ceiling of 4 per cent. It might be reasonable in one case and most unjust in another. No other country has any ceiling. In England among compulsory licensing proceedings in recent years, in one case the British Controller gave a royalty of 20 per cent. So, any arbitrary legislative ceiling is just not practicable and would be unjust. It should be left to the discretion of the Controller, as it is now. There should be no arbitrary ceiling.

Shri Warior: It is our experience that if patent rights are given for products and not for processes, then the processes are never coming to India. So, we are precluded from getting the know how. Therefore, for a country like India, at least for the transitional period, do you agree that only the process should be patented and not the product so that we can get the know how in the long run and, at the same time, need not pay exorbitant prices for import of such products?

Mr. L. J. Robbins: No, I completely disagree with you there. I think I made the point that this difference between process claim and product claim is an artificial one. From the point of view of administering the Patent Office, it is very much easier to grant a product claim than a process claim. You say that India would not have the benefit if there are product claims. If a European or American patent owner, even in your controversial pharmaceutical industry, only imports, surely the Indian industry has the right to apply for compulsory licence to manufacture in India. If that happens, there may then be a voluntary arrangement. After all, a voluntary arrangement is better than compulsion in any activity. So, I do not think your point is valid that the mere existence on paper of product claims will have anything to do with its economic aspects.

Mr. Chairman: Will it not be giving a virtual monopoly to the patentee?

Mr. L. J. Robbins: Yes. But why not? What is wrong with that?

Mr. Chairman: If another scientist by a different process could manufacture the same thing cheaper, why should that be prevented ? Is it in the interests of the country?

Mr. L. J. Robbins: If he invents a new process, he could then possibly apply for a licence under the main patent. Why should he not get a compulsory licence ? It is quite possible, if he could manufacture by a cheaper process.

Mr. Chairman: If a licence is given to him, even though it is a new process, the person who had the licence earlier will obstruct him by virtue of his patent.

Mr. L. J. Robbins: I suppose you are talking of the pharmaceutical industry. From my experience, particularly in highly skilled countries in Europe and the United States, I can say that it is really quite rare that when a good product has been found that the original patentee does not use the very best method. Also, just as a matter of business operations, when normally a company has spent years on research in a certain field, it is very rare that another competitor tries to break into that field.

Mr. Chairman: In any case, will it not amount to blocking another invention?

Mr. L. J. Robbins: No. I do not think this has hampered pharmaceutical research in the United States. On the contrary, it is a great reward, an incentive for research to be done. Please do not forget, when you say "a product", that it must be properly claimed and defined—its structure and so on. You are not allowed to get anything that is too broad because that is not justified by the original work that the inventor did or by his disclosure. Somebody else can come along, and find a modification; it is different and better he cannot get a patent on that new product.

Mr. Chairman: If, without reference to the old process, a scientist invents a new process and manufactures the same product in a cheaper way, why should he be prevented from making use of his process to manufacture the same product? Except, I think, America, almost all countries have only process patents.

Mr. L. J. Robbins: In this list in the Exhibits you will find that at least 50 per cent of the countries throughout the world give product protection. As I said, the difference is becoming artificial. Under your own present patent law, a scientist who invents an entirely new process for making a known product could get a patent for it. You know that. If you had product patents in this country, the inven-

tor of this new process would have to apply for a licence under the dominating patent. And why should he not get it? If he has applied for a compulsory licence and if his grounds are good enough, he can get it at a reasonable royalty and can manufacture under his improved process. After all, he was not the basic originator of the product: he came along latter. It is true, he has made a contribution and nobody can prevent him from using it. The only thing is that he will have to pay a reasonable royalty to the basic patentee. What is wrong with that?

Mr. Chairman: They have been prevented here in India.

Shri Warior: Some manufacturers may have different processes for a product and may not be giving out all the processes to the patent office in the first instance but may, at the time of the expiry of the right after 14 years or so, bring forward a very small amendment of the same product and take out another patent so that the protection to the product or the process is extended still further by 14 years precluding all others from having the advantage of utilising that. As Mr. Robbins suggests, technological development is taking place so fast and new processes are coming up and this monopoly right is coming in the way of those new processes being operated upon. So, should there not be anything about that in the provisions of this Act?

Mr. L. J. Robbins: I consider that that argument is in favour of product protection. If you grant only process patents, when the first one has expired, that is available for anybody to practice because the term has expired and there is no more monopoly. If somebody invents another process, he would have to compete with the original process. You say that this is better. Well it may be better; but talking in simple terms like "better" I assure you, is not very practical. It is very rare that some absolute third party comes in and finds a better process. It is true, it can happen; but I can tell you, that this is not generally the experience of countries elsewhere in the world.

Now, here are two major countries, the United States and England. Both have product patents. The new Scandinavian law, which probably will be enacted in the four Scandinavian countries,—permits product patents in this field and it is highly likely that in the near future Germany will adopt it because, as I say, the distinction has become so artificial.

I appreciate your position here. I have been to India several times and I know what your problems are. However you think that this emphasis on the distinction between product claims and process claims is a better solution, but I can assure you that it is not.

Shri Sham Lal Saraf: While I appreciate very much the lucid and detailed exposition that Mr. Robbins has given to this Committee, I would like to ask him a few questions. After hearing Mr. Robbins I find that there can be two approaches—one that of a scientist and the other that of a lawyer. All that Mr. Robbins has explained, to my mind, is the legal approach. As rightly pointed out by the hon. Chairman, the scientist feels the other way round. The scientist feels that there are other processes which could be found out to reach the same end-product. Speaking strictly from the legal point of view, I agree with the contention of Mr. Robbins of registering under the patent law the process-*cum*-product, but in our country there are two or three things which have to be kept in the background. Firstly, we have very poor know-how here; secondly, we have just started particularly in the pharmaceutical line and, thirdly, there is the question of capital about which there is no mention in the note of Mr. Robbins. Keeping that in view, our countrymen, particularly our scientists, are very much urged to go ahead about finding out the new know-how. Now if some Indian scientist is in a position to find out a particular product through

some process which is not included in the patent of the patentee who has taken out a process-*cum*-product patent, speaking strictly from the legal point of view will you agree that such a scientist should be accommodated either through compulsory licensing or through some other provision in the law?

Mr. L. J. Robbins: I appreciate your problem and view point, but I would point out that there has been a revolution in chemistry in recent years. What was called, chemistry a generation ago was a difficult and an empirical science. It is becoming much better organised now and we are finding out so much about the nature of chemical reactions. In the field of pharmaceuticals—you all seem to come back to this—the main problem is how to find a product to do some specific job. In India you have certain problems of tropical diseases. The accomplished scientist, the doctor-scientist, through his knowledge has a very good idea of what he wants and what its structure would be, but the point is that he has to make it first and try it out. It may work; it may not work. The actual process of making it has now become relatively simple, because most processes now claimed in patents are really only one step. You put this molecule together with that one and something happens; they join up. As I say, this is now becoming rather common knowledge to all scientists. So, there is not so much invention any more in working out the chemistry of the steps; it is more in knowing the sort of product you want and what it will do. For that, of course, the main research problem is to make a series of these related products and try them out medically to find out which one works. When you talk about a better process or say somebody comes along with a better process, the original work was really done by the basic inventor. The second man who comes along with a better process can do research in his own field, but the second man is not the original inventor.

Shri Sham Lal Saraf: Therefore, some accommodation is called for.

Mr. L. J. Robbins: The whole purpose of the patent system is to provide a reward and unless it is a reasonable reward, it will not work. I do not know whether you have considered this. In America, you know, we talk about somebody who gives something and takes it away as an "Indian giver". Of course, we are not talking about Indians here; we are talking about our own Indians. I feel your proposed Patent law in one way offers a reward and takes it back in another way.

Shri Sham Lal Saraf: My question is very specific as explained by the Chairman. There is a local scientist who just invents a new process and comes out with a product which is already patented. The process is different and the product is already patented. Will you give some reward to a person who has invented a new technique or a new process? Keeping that in view, what I was putting to you was whether such an inventor or such a person who is able to invent such a process be given some accommodation under the law.

Mr. L. J. Robbins: What do you mean by 'accommodation'?

Shri Sham Lal Saraf: For instance, compulsory licence or something like that. The Committee may think about that.

Mr. L. J. Robbins: We are assuming that there is a product patent and that another inventor comes along with a new process which is not described in the original. Well, he can obtain a patent because it is a new process. He can also obtain a compulsory licence and he will have to pay a royalty which should be reasonable. Surely, he is not hampered. The only thing is that he will have to pay a reasonable royalty which I consider is just because he is not the basic originator and he comes along as a

secondary man who has made an improvement. It seems to me that that is perfectly fair and that would not hamper the Indian industry at all.

Shri Sham Lal Saraf: The second question is this. You said about India joining the International Convention. May I know what may be the pre-requisites for a country like India joining the International Convention so that the policies and the programmes followed under the International Convention are kept at par in this country also?

Mr. L. J. Robbins: No pre-requisite whatsover except that it is assumed you have to have a patent law. If you look at the list of countries, you will find countries like Indonesia....

Shri Sham Lal Saraf: What I mean to say is whether there is anything specific under the patent law that may be enacted or enforced in a particular country for joining the International Convention?

Mr. L. J. Robbins: There are two aspects to that. If a country joins the International Convention, there will be the question: Is this a country where the whole of an International Treaty is self-enacting? In other words, if so, everything in the International Convention automatically applies to that country. The other question will be: Is this a country where special laws have to be made to conform with the Convention? I believe that the Convention would not be self enacting in this country. Am I right? I am sure there are some lawyers on this Committee. I believe that is correct. If you join the International Convention and you wish to comply with all the provisions, you would then have to make some special legislation to alter the provision of a law based on this Bill particularly in the field of compulsory licensing.

Shri Sham Lal Saraf: As a corollary to this, may I ask this question. You mentioned about the international cooperation with regard to the patent law and the relation that it will have among the different countries. May I know what can be the outstanding points which will ensure that international cooperation?

Mr. L. J. Robbins: International cooperation, obviously, depends on people doing certain things. There is already an association of the heads of Patent Offices, at any rate in Europe. They are cooperating with the United States Patent Office. They have continuous meetings; they are talking over all this and trying to adjust their procedures. There is no reason why they would not be delighted to cooperate with India.

Shri Sham Lal Saraf: In this international cooperation, there should be some area of agreement among the cooperating countries.

Mr. L. J. Robbins: I think, essentially, yes. There is already, at present, an informal arrangement—let us call it semi-official. It is because of this that the Indian Patent Office should cooperate, generally, with the European Patent Offices and the United States Patent Office and that would be a very fine result.

Shri Sham Lal Saraf: While giving out your mind on certain issues, you revealed the information to the Committee that till now there are 20 business or commercial relations established by American firms with their American know-how and that there are 30 service connection also established. May I know whether you are apprised about the experience that they have gained in India and whether that know-how is bearing some success? Secondly, may I know whether that know-how is getting cooperation and appreciation from Indian scientists as well as from Indian businessmen?

Mr. L. J. Robbins: These are members of the National Foreign Trade Council. As far as I know, basically they have had some problems. But

they would not be here unless they were satisfied with the prospects here in India. You would hardly invest your capital unless you know there are good prospects. Surely, they would not be here unless they thought that the future was good. That is all I can say.

Shri Sham Lal Saraf: You mentioned today about the American capital getting sceptical for investment so far as Italy is concerned. I suppose there is no such position as far as India is concerned?

Mr. L. J. Robbins: I did not say that American capital was completely removed from Italy. There are political considerations....

Mr. Chairman: He said the same-thing may happen in India.

Shri Sham Lal Saraf: Today, that is not there. Today, all the American know-how has been imported into this country. What I want to find out is this. Whatever items we have patented under the law, the American know-how has been imported into this country—the experience is not otherwise—and today it is not as it has been expressed in Italy.

Mr. L. J. Robbins: I know that an enormous amount of know-how has been brought here, many products of the most modern type are being made.

Shri Sham Lal Saraf: You said that, as far as industrially advanced countries like Germany and Japan were concerned, most of the patents were owned by foreigners. May I know whether it is necessary to create some climate here in favour of getting those patents registered and if so, what sort of climate is to be created?

Mr. L. J. Robbins: I said that there were three countries—the United States, Germany and Japan—where the majority, since they are highly industrialised, were taken by their own nationals, but even so, in those countries, there is a very substantial number of patents taken out by foreigners. In the United States, it is as large as 25 per cent and in Germany and Japan, it is probably more; so it is only a matter of degree. There are many many foreign activites in the United States; in Germany and Japan also, there are many foreign activities. This is coming back to the international co-operation theory in the technical field.

Shri Sham Lal Saraf: My point was about creating some climate before a foreign patent can be successful.

Mr. Chairman: Please do not go to general questions. Ask only a few questions.

Shri Sham Lal Saraf: In the background, a number of things come up. We have examind so many witnesses.

Mr. Chairman: Still there are so many members who have to put questions. Please put only a few question.

Shri Sham Lal Saraf: Mr. Robbins, I hope you catch my point. I was asking whether any particular type of climate was necessary for getting the imported know-how successfully or getting imported patents registered.

Mr. L. J. Robbins. I think I said at the end of my Statement that the very best solution would be to interest the whole scientific community. I would think of appointing a special Government Commission. This is a case of education. In America, some scientists and some businessmen are not even now fully acquainted with the whole patent systems. It is one of the fields where it is necessary to go back to first principles, i.e., education. Obviously the whole thing will not develop unless the scientists are fundamentally interested.

Shri Kashi Ram Gupta: You have explained at length about compulsory licensing, but nothing has been said

about "licences of right". Will you please give your opinion about "licences of right"?

Mr. L. J. Robbins: I consider "licences of right" as of negligible importance. If something is available to everybody, nobody wants it. The idea of "licences of right", I think, probably arose originally in the English-speaking countries—and basically this whole provision of so-called "licences of right" was meant for the poor inventor, the individual inventor, who may have a small invention. As you know, in those countries, you have to pay taxes on a patent, "licences of right" were tied up with taxes; if you endorsed voluntarily your patent with the words "licences of right", you pay half the taxes. But personally I do not know of any case where anybody has requested a licence under a patent endorsed "licences of right". It is against human nature because everybody can get it. If you obtain a licence and start investing on it and put the product on the market, everybody else would be able to come in. A very good example of that is this; after the last War, all enemy properties were seized in America, including industrial property rights and patents. All German and Japanese patents were made available by involuntary "licences of right" to anybody in the United States for one dollar. As far as I know,—there may have been a few minor exceptions—nobody took advantage of that. Why should anybody get a licence under an involuntary "licences of right" when his competitors could also come in and get the same benefit out of it? I consider "licences of right" whether voluntary or involuntary as ineffective and as a matter of negligible importance.

Shri Kashi Ram Gupta: Are you in favour of including these provisions or are you against these? Our Bill has got this clause and the Model Law has also got the same clause.

Mr. L. J. Robbins: They are not the same, but as I said I consider it as of negligible importance.

Shri Kashi Ram Gupta: The question is not whether it is of negligible importance or not. My question is whether you are against it or are in favour of it.

Mr. Chairman: It is for us to decide.

Shri Kashi Ram Gupta: In the Model Law, on page 49, about the time limit for a patent, it is said—it is given in the final commentary at the end of the first para—that in any case a patent will be valid for at least ten years after grant. What is your opinion about "after grant"—not from the date of application.

Mr. L. J. Robbins: I am sorry, I do not know what exactly is the question. What is this "ten years after grant"?

Shri Kashi Ram Gupta: There are two or three ways of loaning it: one is from the date of application; our present policy is the date of completing the specifications; the third is from the date of grant of the patent.

Mr. L. J. Robbins: A patent does not exist until it is granted. When it is filed, it does not acquire status because it is so uncertain; it may be changed during examination. Only when it is granted do you know what it is. It does not exist as industrial property until it is granted.

Shri Kashi Ram Gupta: At present the Bill contains the provision that the ten-year period will be from the date of completing the specifications, while the Model Law contains a provision that the ten years can be from the date of grant of the patent.

Mr. Chairman: It is for us to decide. Why do you want his opinion? The Model Law is for our consideration.

Shri Kashi Ram Gupta: He has quoted the Model Law in his speech. That is why I wanted to know his opinion.

Mr. Chairman: He has supported it.

Shri Kashi Ram Gupta: Yes; that is why I wanted to know his opinion on this specifically. This is the way the pharmaceutical industry is organised: they have got their research laboratories; they have got their yearly expenditure; they have also got income-tax assessments. Therefore, when this is the case, how do you say that 10 years will not be sufficient for any one who makes an invention because when the inventions are mostly applied for by firms who employ the scientists and those scientists may be getting regular salaries or any remuneration which may be agreed to between them and the firm, but the actual inventions are applied for by the firm. When such an arrangement is there, why is the 10 year period not sufficient?

Mr. L. J. Robbins: I can only refer to what the experience is in the rest of the world. I mentioned that Switzerland is a country which has got rid of this 10 year limitation. That is a country where probably there are more patents owned by foreigners than their own nationals. That is true of most of the countries of Europe. That is true of Holland. That is true of Belgium. They all have no limitation of 10 years but a normal term for all patents. They do not discriminate between patents in the pharmaceutical field and patents in the other technological fields. I say that from my own experience, which has been tied up in recent years with the pharmaceutical field and I am well-acquainted with research in the USA and Europe, it usually takes a minimum of 5 years from the initiation of the idea or the concept before it gets to the market. As you very well know, in this pharmaceutical field you cannot just make a product and sell it to the public and a minimum of 5 years is necessary before the product is refined and ready for the public. So, out of the 10 years, only 5 years would be left and that is too small a period to make a reasonable profit. The patentee has been spending a lot of money during the initial period to get the product. Also researchers may have to possibly make 100 attempts to make a new pharmaceutical product when probably one is successful.

Shri Kashi Ram Gupta: These expenses are regular expenses of the firm. They are not special expenses of one particular aspect. From the economic point of view these are all allowed yearly. This is my point. Dividends are declared after all these expenses are allowed in income-tax assessments.

Mr. L. J. Robbins: This question really, I feel, relates to economics and I cannot really pretend to be an expert there.

Shri Kashi Ram Gupta: You have said that the Patent Law is being examined in America and there are some controversial points in it. You also say that we must wait till the result of that comes out. How much time will it take?

Mr. L. J. Robbins: I did not say 'You must wait'. I just made a suggestion.

Shri Kashi Ram Gupta: I am inquiring about the time it will take for the American Govt. to arrive at a decision.

Mr. L. J. Robbins: They are in a great hurry. As I said my Sub-Committee has worked all last year. We have had meetings every month and the President's Commission which was appointed in April, 1965 hope to report to the President in October this year. It hopes to make definite recommendations. As I say whether there will be an actual change may take some more time, but there is going to be something definite in October, 1967. We are proceeding with great speed.

Shri Kashi Ram Gupta: Our Patents Bill so far as other items are concerned, leaving aside the drugs, has laid down a period of 14 years. Formerly, it was 16 years. Therefore, there is a deduction of only two years. What is your opinion about this?

Mr. L. J. Robbins: In the present-day conditions 14 years is not long enough. It is contrary to the main trend. The main trend seems to be 20 years. That seems to be reasonable and most patents take 3 to 4 years at least before they gain ground and so they are left with only 16 or 17 years real protection.

Shri Kashi Ram Gupta: In India in the present circumstances no representation has come from any quarter regarding other items excepting drugs.

Mr. Chairman: I think each hon'ble member should not ask more than 2 questions as there are other members also who would like to put question. So much of evidence has already come.

Shri Kashi Ram Gupta: When he comes to give evidence, questions also should be put to him that there are no representations in this regard from others.

Mr. Chairman: We have other witnesses also.

Shri Kashi Ram Gupta: So far as other items are concerned, there are no representations.

In the last paragraph of your memorandum you have said:

> "On the basis of these submissions, I respectfully urge that Patents Bill 1965 should be withdrawn for further study In the light of what other countries have found to be a very satisfactory procedure when important new legislation is contemplated, I suggest that the Government should appoint a Special Commission of prominent citizens from all sectors of the community to study the true interests of industry and the public under the patent system, and to make appropriate recommendations after also considering the developments in other countries."

You may please note that this is a sovereign body of the Parliament where all interests are represented and this Bill was drafted by Government on the basis of the Justice Ayyangar Commission's recommendations which has gone in detail into the Patent laws of other countries also. What more is required? Then how have you been prompted to say that this Bill should be withdrawn and a Special Commission of prominent citizens appointed to go into it?

Mr. Chairman: That is a suggestion he has made. It is for you to accept it or not.

Shri Kashi Ram Gupta: What does he mean by a Special Commission of prominent citizens? That I want to know.

Mr. Chairman: I don't think he has read Raja Gopala Ayyangar Commission's report.

Mr. L. J. Robbins: I merely respectfully submitted that as a suggestion. I am well aware of what is going on. I know the Ayyangar Commission's report and also the previous one. But I would point out that there have been no recent public hearings in connection with this problem and the present draft of the Bill seems to be, at least to my mind, just putting the cart before the horse. I would suggest that normally it is necessary to have hearings to get the benefit of the present views of industry, the patent profession and scientists before specific provisions can be prepared.

Mr. Chairman: Here too, Government draft the Bill and introduce it in Parliament which remits it to the Select Committee. We do not generally publish the Bill, Government publish it in the Gazette and anybody interested can send his views.

Shri Kashi Ram Gupta: Are you aware of the fact that a large number of Indian scientists are for a short period for patents?

Mr. L. J. Robbins: I am not aware of that. What is the reason?

Shri Kashi Ram Gupta: They want a shorter period than what has been contemplated in the present Bill.

Mr. L. J. Robbins: But they must have some reasons for their opinion. What is that?

Shri Kashi Ram Gupta: They have given the reasons also. Finally, I want to ask you one thing. As you are giving evidence on behalf of the other Association also, there is a point mentioned there. There is a company called Selas Corporation. They have not taken any patent in India. Why could not this company come to India for the last 15 or 16 years when the old Patent Law was in force?

Mr. L. J. Robbins: I am afraid I don't have enough information to answer that question.

Shri Kashi Ram Gupta: This is contained in another memorandum given by the National Association of Manufacturers. So, because I was told this morning that you are also giving evidence on their behalf, I put this question.

Mr. L. J. Robbins: No. I am not appearing here on behalf of the National Association of Manufacturers. Their representative has not been able to come. So, the Chairman gave me his time.

Shri Bibhuti Mishra: You have suggested that this Bill may be deferred or postponed or delayed and after that you want a high-powered commission to be appointed and that the commission should go all round the world. Then after that, taking the experience all over the world, this Bill should become an Act of this Parliament. What is your idea? Why do you want this to be delayed?

Mr. L. J. Robbins: I can only say that my viewpoint is entirely pro-India. I am merely trying to submit that on the basis of my experience, I consider this Bill is fundamentally restrictive and I am merely drawing your attention as a Committee to what is taking place elsewhere. I am not proposing that you should appoint a Commission tomorrow and send it round the world. That is not what I said at all.

Shri Bibhuti Mishra: You are in favour of patents. Keeping the conditions of India in view, how much do you want to give to the inventor as honorarium, how much should be the profit for the industry and what would be the price for a particular medicine in a country like India which is very poor? Do not compare with America or Western countries.

Mr. Chairman: He says he is not an expert on prices.

Shri Bibhuti Mishra: We are concerned with prices. He comes from America which is one of the most wealthy countries in the world and if the price of a particular medicine is one dollar, here the people of India would not be able to pay one dollar. So what would be the benefit for India? Suppose a patentee comes from America to India and if he manufactures a medicine here, what would be the price for that medicine?

Mr. Chairman: He says he is not an expert on prices and can't answer questions on price. He has said he is a patent attorney. Tomorrow another witness is coming. He is an economist and you may put this question to him.

Shri A. T. Sarma: Your Council has suggested the postponement of the Bill until the situation in other countries is clearer. You say that the American Government is also reviewing the Patent Law and you ask us to wait till that decision comes out. But we think we need not wait till then. We think we should pass this Bill at present to improve our research and development and industrial activities. If it becomes necessary later on, we can bring an amending Bill. So we find that the ground given for postponing this Bill is not sound. Do you agree with us?

Mr. L. J. Robbins: I am not trying to suggest what this Parliamentary

Committee should do. I am merely here to offer some suggestions based on my own experience and as I said it seemed to me—patent makers are in such a state of ferment all over the World—that possibly the things that might happen in other countries might be of some benefit to you, rather than thinking solely of specific Indian problems. This is my only sugestion.

Mr. Chairman: It is only his suggestion; we may or may not agree with it.

Shri Dalpat Singh: On page 12 of your statement, you have said that "the backlog in the United States Patent Office has increased." May I know the factors which lead to this backlog?

Mr. L. J. Robbins: Basically, it is partly due to the very complex American procedures. But it is also due to the fact that the number of patent applications filed each year has been steadily increasing. Also, there is such a demand for technically trained people in industry that they often stay in the patent office for a few years and then go into industry, and so the investigation work does not proceed rapidly. The examination of new applications just gets pushed further and further backwards which is very bad. It is bad for industry since it takes years before the new developments are published. Early publication is highly desirable for the improvement of technology and further developments.

Shri Bade: Do you agree that there should be some difference between the patent law of a developed country and the patent law of a developing country?

Mr. L. J. Robbins: Yes, I most strongly agree. That is why I think the BIRPI Model Law is a worthy proposal. I do not agree with everything here, but I think basically it is a very sound proposal and I think I said before that the best patent laws are the simple ones.

Shri Bade: That difference is made in the Model Law also?

Mr. L. J. Robbins: Yes.

Shri Bade: On page 4 of your memorandum, you have stated that "furthermore, the possibility of compulsory licences to import products would actually favour foreign over domestic Indian industry." How do you support this?

Mr. L. J. Robbins: The compulsory licensing proposals are similar to those in International Convention and those at present operative in many countries throughout the world. They are generally similar.

Shri Bade: In our Bill also, the provision regarding compulsory licensing is the same as given in the Model Law.

Mr. L. J. Robbins: No. They are far more drastic.

Shri Bade: Those provisions in the Bill are made according to the recommendations of the Model Law for the under-developed countries.

Mr. L. J. Robbins: No. The Model Law proposal is that after 3 years from grant, if the patent has not been worked, then it is only after two year of compulsory licensing that they may be a possibility of revocation.

Shri Bade: The same provision is there in West Germany, Netherlands, Italy etc.

Mr. L. J. Robbins: Which provision?

Shri Bade: About compulsory lincensing. In USA, there is no provision. In U.K. compulsory licensing of patents can be granted upto 3 years. The same provision is here in the Bill.

Mr. L. J. Robbins: The restrictive provisions on compulsory licensing involve arbitrary powers.

Shri Bade: Our provision in the Bill is identical to U.K. provision.

Mr. L. J. Robbins: Not at all. In your present patent law some years ago you adopted the same provisions as there are in England.

Shri Bade: The difference is in compensation, in the U.K. provision and our provision. Under our provision, the maximum compensation will be 4 per cent of the net product of the sale.

Mr. L. J. Robbins: There is no such provision in England.

Shri Bade: But now if we say that 4 per cent compensation is maximum that will be given on net product of the sale....

Mr. L. J. Robbins: Was not the same question asked a little while ago and I said you could not put arbitrary ceiling on things that are different.

Shri Bade: How is it arbitrary?

Mr. Chairman: Let us discuss it.

Shri Bade: Whether it should be on the net product of the sale or whether it should be on the working of the period of the patents. Just as in the Model Law, the compulsory licence shall only be granted subject to the payment of adequate royalty commensurate with the period for which patent is worked. That period should be taken into consideration. But that is not the provision in our bill. Whether that provision should be there or whether only royalty should be given.

Mr. L. J. Robbins: I am sorry, Sir, I do not quite see just exactly what you are asking.

Mr. Chairman: The Model bill provides adequate compensation but our bill provides 4 per cent compensation of the net sales.

Shri Bade: One more factor. The period for which the patent is working i.e., suppose for 10 or 20 years they have taken profit, that period should be taken into consideration while giving the compensation. We said that the highest compensation should be 4 per cent to be granted on the net sale of the product.

Mr. Chairman: What is your objection? Model Law says the amount of compensation is justiciable.

Mr. L. J. Robbins: I just do not think the arbitrary ceiling of 4 per cent is just. I do not think it is fair. I do not think it will encourage inventions in this difficult field. I do not think it will encourage Indian inventors. I have said this before.

Shri Bade: You have said, process-cum-product should be patented.

Mr. L. J. Robbins: I do not think any one in any country in the world, if there is a fair operation and the Controller or anybody else handling this compulsory licensing, deals with it justly in a legal manner and considers all the facts and comes to a fair decision about what the royalty should be, would have any objection; but it should be completely variable and may be much more than 4 per cent or may be less than 4 per cent.

Shri Bade: The question is whether patent should be only for processing or for product. You have said that process-cum-product should be patented.

Mr. L. J. Robbins: Well I think you would be largely defeating your own purpose if you limit it in this field just to processes to be carried out in India without giving any protection to the product at all. That will mean Italy can import the product and the patentee would have no recourse. Is'nt that right?

Shri Bade: In Japan, only processes are patented on the ground that if the product is not patented and only processes are patented, there would be other scientists who will be encouraged and they will find some other process to have the same product.

Mr. L. J. Robbins: That is not correct, as regards Japan. The product is most definitely protected as made by the process and foreigners can sue in the Japanese courts I can assure you. The two things are tied up.

Dr. M. M. S. Siddhu: You have said on page 3—while discussing process and product patent—"therefore there is no basic difference but only a matter of degree, between what are termed 'product' patents and 'process' patents by the uninitiated". If there is not so much of a difference and it is purely theoretical whether a person will be able to come to any other profitable method to get to that product, then why all this fuss at all.

Mr. L. J. Robbins: When I say there is no basic difference, I am naturally assuming that there has to be a competent patent attorney who fully cooperates with the inventor in preparing claims. In Germany, for example, there is a very good example. The whole emphasis is on the product itself. The process can be completely conventional, but you have to prove to the satisfaction of the German Patent Office that your product is new. I am mostly concerned in this field with the complications in the patent Bill itself. The moment you grant protection to the product, it will be quite easy to administer the law, because then it would be absolutely clear.

Dr. M. M. S. Siddhu: A person may produce a drug for limited use, but it is only after long clinical trial it becomes known, that it may have other uses which the inventor never thought of; even then he gets the benefits of patent rights, and the person (physician) who has made its use possible does not come into the field at all. Therefore, in medicine it is not only the inventor but also the physician who plays a vital role. So, don't you think that the medical world does need the benefit of it and therefore the number of years for which a drug should be patented should be different from the number of years for other articles?

Mr. L. J. Robbins: Frankly I do not quite see what this has to do with the patent law itself. I agree that there have been a number of examples where drugs were intended for one purpose and by chance they were found beneficial in other fields, but that is customary. But I consider that at the present time in India your Government's basic concern is not with highly specialised drugs, but with sulpha drugs, antibiotics etc. which are most needed, and for which there is now no patent protection or only patents that expire in a very short time.

Dr. M. M. S. Siddhu: That is not the only thing. Patents are connected with trade names. A doctor is accustomed to write a particular drug. Even after the period of patent is over, he continues to write the same drug, with the same trade name.

Mr. L. J. Robbins: I do not think that this question of trade name really has any relevance to this. Most of these are condensed terms of chemical names, used for general convenience, but Trade Marks are important because they imply a standard of quality. I mentioned previously the problem of Italy having 20 or 30 names for really the same product.

Dr. M. M. S. Siddhu: That problem will still remain if the drug is to be used even after the patent period has expired. What are you going to do to overcome that?

Mr. L. J. Robbins: Yes, but I do not know whether the patent law can solve all problems of human nature and business practices.

Dr. M. M. S. Siddhu: Don't you think that on humanitarian grounds drugs should be treated differently?

Mr. L. J. Robbins: I do not think so because they are products of very intensive research, and it is contrary to basic ideas in this field to differentiate between products of different technologies.

Shri Wasnik: You have said on page 5:

> "Clause 13(2) provides for a novelty search of publications in India or elsewhere. But the Indian Patent Office has no library facilities for such searching."

In this context, would you recommend that we grant patents on the trade registration system of France?

Mr. L. J. Robbins: I think that would be a backward step, because on foreign patents coming in here from countries of Europe and America they have to do very little work, but in other cases it would be different.

Shri Dahyabhai V. Patel: As you may know, medical science is quite ancient in this country; the system of medicine known here as Ayurveda is the oldest medical science in India, and it has given to the world some of the drugs which are considered very potent and as a specific for some diseases. For instance, I may name one of them which is used to relieve blood pressure; it is known as serpina.

Shri Warior: Serpentina.

Shri Dahyabhai V. Patel: There are so many other drugs like that. The people of India feel that this is something that can go to the world outside. But India has not been able to get the advantage out of it. These drugs are recognised abroad as very potent all over the world, and India has to purchase the material from abroad. Perhaps they are processed better, and the result is that we have to pay very exorbitant prices. What is the remedy for this? Does the Patent Law provide a remedy for this? Is the present patent law going to help research in this direction and do you think we are equipped for that?

Mr. L. J. Robbins: It was my understanding that these drugs here have been developed through thousands of years of research, and are derived from native plants of India, which grow here in India. Why do you say they are expensive, I do not quite understand.

Shri Dahyabhai V. Patel: Now we are importing some drugs for the relief of blood pressure. Most of them are imported.

Mr. Chairman: It is manufactured here.

Shri Dahyabhai V. Patel: Some of it is manufactured here. The point is, they cost tremendously.

Mr. L. J. Robbins: One of the best now has the trade Mark *Hydro Diuril;* it is a synthetic compound. It is not a natural compound. I did not know that these natural things are imported from abroad.

Shri Dahyabhai V. Patel: The drug is exported and processed and we get it back.

Shri Warior: The raw material is exported.

Mr. L. J. Robbins: In cases where the raw material is available in India, it should be developed as an Indian industry.

Shri Dahyabhai V. Patel: Do you think that the present patent law is going to help this country to conduct research and provide the people with cheap drugs indigenously, or, will we have to depend still on knowledge and research abroad?

Mr. L. J. Robbins: Obviously for the next generation, you will have to depend largely on others. It is not a unique thing for any country. I feel very strongly that Indian research will rapidly improve, but a law based upon this Patent Bill would hinder Indian research itself. Many industries may not know about it, but I can assure you that they can take advantage of it. Owing to the technical nature of the patent legislation, it might take many many years before you could modify it. One should not deliberately run into a bad situation.

Shri B. K. Das: You have mentioned in your memorandum that the legislature as a whole, irrespective of the economic and social pressures which may be responsible for some of the provisions of this Bill, is not yet aware of the purely practical problems of patents. Would you like to clarify this? What practical problems can be there if this Bill is passed into law?

Mr. L. J. Robbins: In the Patent Office itself, I think there are a number of things. We discussed one of them, and that is, if examiners have to examine this all over the world you will have to increase the staff and spend more money and get highly specialised people. You will have to take away from the industry itself, where they have knowledge of languages, German or Russian or some of the European languages. That is one problem. Also, on the whole, these special provisions and restrictions you are putting in impose a tremendous burden on the Controller-General. He will have to have an enlarged staff. Do not forget that you are making him practically equivalent to a judge. He will have enormous economic power in his hands to affect industry greatly which, I think, is giving rather too much power to an appointed official. I am sure that the Patent Office may be greatly expanded in 20 or 30 years. But I feel that there are so many other things immediately urgent in India, and expansion of the Patent Office at the present time seems to be not too practical.

Sardar Daljit Singh: You have referred to a few clauses of the Bill in your evidence. Should we take it for granted that you are in support of all the other clauses of the Bill?

Mr. L. J. Robbins: No, Sir. Quite definitely not. I thought I made it clear that other people and other organisations will discuss this Bill section by section. I have merely concentrated my study on a few sections just to save time. I know what has been said on some of the other sections. I am sure you are going to get very expert, legal, well-reasoned statements on all sections of the Bill that are controversial. I only picked out those features of the Bill which have special relation to my own competence and it would not be correct to say that I am in favour of all other clauses of the Bill.

Sardar Daljit Singh: There is a vast difference in the price of some of the foreign patented drugs and products. For example, vitamin B12 costs like this: its initial market price is Rs. 2 per gram while its subsequent market price is Rs. 40 per gram; streptomycin costs Rs. 19 per gram, while its initial market price would have been just Re. I per gram.

Mr. Chairman: He has said that he is not an expert on prices. Tomorrow we are going to get another witness who is an economist and who can speak on prices. You can reserve that question for him.

Shri Sham Lal Saraf: All is well that ends well!

Sardar Daljit Singh: I want to know whether these high prices are found to affect adversely the interests of the common man in India. I want to know his opinion about it.

Mr. L. J. Robbins: I decline to answer it, though I have a personal opinion on it. But I do not think it will be of any interest. So, I very respectfully decline to give it.

Mr. Chairman: Thank you, Mr. Robbins.

The witness then withdrew.

(The Committee then adjourned)

Minutes of Evidence Given Before the Joint Committee on the Patents Bill, 1965.

Saturday, the 2nd July, 1966 at 10.00 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*

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2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
5. Shri Panna Lal Barupal.
6. Shri Bibhuti Mishra.
7. Sardar Daljit Singh.
8. Shri Basanta Kumar Das.
9. Shri V. B. Gandhi.
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11. Shri Kashi Ram Gupta.
12. Shri Madhavrao Laxmanrao Jadhav.
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25. Shri B. T. Kulkarni.
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28. Shri Dahyabhai V. Patel.
29. Shri Mulka Govinda Reddy.

30. Shri M. R. Shervani.
31. Shri Dalpat Singh.
32. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESS EXAMINED

Chamber of Commerce of the United States of America, *Washington.*

Spokesman

Prof. Maurice D. Kilbridge.

Chamber of Commerce of the United States of America, Washington

Spokesman:

Prof. Maurice D. Kilbridge

(*The witness was called in and he took his seat*)

Mr. Chairman: We have received your earlier Memorandum which has been circulated to the Members. You have given another Memorandum this morning. Any evidence that you give before this Committee is public. Even if you want to say anything confidential, it is bound to be circulated to our Members. If you want to add anything or explain your Memorandum, you may do so. After your explanation, Members will ask you questions.

Prof. Kilbridge: Nothing I have to say this morning is confidential. The Memorandum you have before you is an elaboration of the earlier Memorandum which I sent two months ago. I would like to refer to it now and to go through it with you before we go to the questions.

Let me introduce myself. I represent the views of the Chamber of Commerce of the United States. I am a member of the faculty of the Graduate School of Business Administration of Harvard University. I have also served as a professor of the University of Chicago and as consultant on industrial development to the Development Advisory Service of Harvard University. Most recently I have served for two years as Assistant Director of the U.S. Agency for International Development Mission to India.

The Chamber of Commerce of the United States, I am sure you know, is the largest U.S. business federation. It represents more than 3,900 indivi-

dual organisations—these organisations being business firms, societies, technical groups of various kinds. The underlying membership in all these groups is about 4½ million professional and business people. I would like to explain that the National Chamber has always favoured the economic and social advancement of developing nations. In its policy declarations, the Chamber has specifically expressed its belief in the importance of the continued freedom and progress of India. The National Chamber has also supported the foreign aid programme of the United States and has in its policy resolutions commended to the State Department development of foreign commerce as part of its foreign aid programme. They have insisted that the private sector should be given every opportunity to flourish, both in the developing countries as well as in the United States.

I would like to start first with a very short summary of the economic arguments for patents before I go into a discussion of the specific problems of the Patent Bill pending and the economic development of India.

As you are aware, the patent system is an institution developed as an instrument of national policy and it is designed to serve the nation's economic interest and as such we believe it should be judged by economic criteria. In the famous Justice Ayyangar Report that we have all read, we have a very apt quotation in which he says that "Patent systems are not created in the interest of the inventor but in the interest of national economy." The rules and regulations of the patent systems are not "governed by civil or common law but by political economy".

Patent Law should be looked upon as something which is essentially, a tool of political economy, designed for the welfare of the nation, its economic and social welfare. So the essential economic argument for patents is that they are needed to provide sufficient stimulus for the working of new inventions by industry. The patent system is based on the assumption that industrial progress is desirable, that innovation is necessary for such progress, but that sufficient investment in new products and processes will not be made if industry cannot recoup the costs and realise a profits for its effort. The simplest, most economical and effective way yet found for society to achieve this is to grant exclusive patent rights in inventions. Through the years various other arguments have been used in support of the patent system. The essential argument in favour of patents is one of social welfare and economic welfare of the nation.

The fundamental point then is that the patent system is designed to serve the economic welfare of the community. It takes its significance from its over-all effect on the economy, which is generally to stimulate investment in new products and processes and it does this by providing a protected market with the opportunity for profit necessary to justify the heavy investment of bringing the improvement to the public. The granting of patent protection is intended to allow the innovating company time to recoup the cost of invention, development and commencing production and unless the period of protection is long enough to make investment attractive, manufacturers will be understandably reluctant to make this investment.

Clause 53(1) of the Patents Bill under consideration, as we all know, provides for a ten year patent term for food and medicine inventions and a fourteen year term for all other inventions, with no provision for extensions. This is a reduction from 16 years in both instances under the present law. There is considerable doubt in my mind that this period of protection is adequate in most cases and this judgment is consistent with the patent laws of other nations of the world which provide, on an average, 17—18 years of patent protection. Also, there is sound reason

to believe that a relatively longer, rather than shorter, period is appropriate in the developing countries. By the time, the owner of a patent considering investment in India has studied the market for his product and the possibility of working the patent successfully and has received all the necessary licenses and approvals, there may, considering these delays and delays in importing plant and equipment, hardly be sufficient time left to set up his manufacturing facilities and start production before the patent runs out and leaves his investment unprotected. It is altogether possible that the manufacturer may decide not to take the risk.

Since the patent system provides the right to exclude competitors from producing identical product or using the same process, it is, in theory, superficially inconsistent with India's economic public policy, which is equitable distribution of wealth and deconcentration of the means of production. I insist, however, this is only a superficial inconsistency. In fact, the degree of economic power conferred by patents is far less than that of monopoly in its usual sense. Owners of patents are not free to fix monopolistic prices or to ignore the actvities of competitors. There are always alternative products and processes and sooner, more likely than later, a superior non-infringing product will be brought to the market. So, a major value of the patent system is that it injects competition of a kind that otherwise would not exist. The threat of new firms with exclusive rights to new technologies compels existing companies to improve upon pain of sudden absolescence. The net effect that the patent system makes is a dynamic, progressive environment in which business must constantly seek technological improvements. Without patents, business is apt to fall into the routine of making the same old things in the same old way. The consuming public is deprived of new products and the rate of industrial development slows. Thus, paradoxically, while the patent system operates in one sphere by the grant of exclusive rights, and anti-monopoly laws operate in another sphere by keeping the channels of trade open, nevertheless in the ultimate objective—competition and avoidance of economic concentration—there is identity of purpose.

Now as we all know, no nation's patent system is perfect. India's patent law is undoubtedly in need of some revision to update it to suit todays conditions, to simplify and clarify its application, and to plug loopholes perhaps. We believe that revision can be achieved without basically weakening the patent system. Since the patent holder is always subject to anti-trust regulations, the public can be safeguarded without weakening patent protection itself.

Let me now turn to the subject of Patents and Economic Development which is the central theme of my presentation. We urge the Committee to support a sound patent law because we firmly believe that a patent law which will enable India to participate in international patent conventions is in India's best economic interest as a developing nation. The rate of industrial investment in India is not such that government can afford to risk slowing it down by inadequate patent protection. Industrial growth during the Third Plan, especially in the consumer goods industries, has fallen short of Plan targets. There are already special risks and burdens enough for the Indian industrial investor, and lucrative opportunities for investment in other and less productive sectors of the economy. Any further burden may lead to a weakening of industrial development.

There is also little doubt that the proposed Patents Bill will tend to retard the flow of foreign private investment into India. The foreign investor must already cope with a high tax structure, expensive and uncertain raw materials supplies—some of which has been alleviated now by devaluation—and burdensome con-

trols and approval procedures (although these are not peculiar to India). If to these is added weak and uncertain patent protection and, I must add, the attitude toward the private sector that the proposed Bill implies, then foreign investors may decide to put their factories elsewhere.

I would wish to underline this attitude toward the private sector implied in the proposed Bill, and this is what has made those in international trade circles feel slightly upset.

In particular, clauses 87 and 88 of the Patents Bill provide that all patents for goods, drugs, and chemicals will be endorsed as "Licenses of right," and that where an endorsement "Licenses of right" exists any person wishing to work the patent in India may require the patentee to grant him a licence on terms decided by the Controller of Patents—not to exceed a four per cent royalty, as we know, on the ex-factory price. These clauses, in effect, virtually deprive the affected industries—and especially the important pharmaceutical industry—of their patent rights, throwing open these patents to any number of applicants without regard to their financial or technical ability to work them properly, and setting a ceiling on royalties rather than allowing for free negotiations based on the merit of the product involved. Aside from the special burden, this places on the drug industry, this abrogation of industrial property rights without court appeal seems to be inconsistent with India's high international reputation for legal process, and cannot but put some doubt in the minds of prospective investors about the future security of industrial investment in general.

Now let us look for a moment at the changing nature of foreign investment in India. I made recently a study of the structure of foreign private investment in India, its sources and the industries into which it is flowing, and I can summarise the following information for you.

There has been a shift in the sectoral distribution of foreign investment in India since independence and because of this the relevance of patent protection to investiment is of increasing importance. There has been a sharp decline, relative to the total, of investment in the traditional sectors of services, plantations and mining; they are receiving very little investment; the collective share of these sectors in total investment has declined from 63 per cent in 1948 to 29 per cent in 1965. This is the position in the traditional sectors of the economy. At the same time there has been a rise in the share of petroleum and manufacturing which together accounted for 72 per cent of foreign investment in 1965, as against 36 per cent in 1948, that is to say, a doubling of the percentage of investment in manufacturing and petroleum. There has also been a re-distribution of investment within the industrial sector. Considerable diversification of investment has taken place in manufacturing where producer goods investment, especially in transportation equipment, metal products and chemicals, has increased strikingly; at the same time investment in the older consumer goods industries, such as textiles, has been virtually constant. Similarly, investment in the petroleum industry has been more in refining and less in marketing. The typical foreign investor of the future is therefore more likely than not to be a manufacturer in one of the newer branches of industry to whom patent protection is of paramount importance.

It is also interesting to note that repatriation of profits from these newer industries is at a much lower rate than from the older investment sectors. This is because they are growth industries with an eye to the future. They plow back their profits for long-range growth rather than remit them abroad. Reports published by the Reserve Bank of India indicate that foreign investors in petroleum and manufacturing industries are plowing back over 50 per cent of their earnings, while profit reinvestment in the

case of plantations and the service industries averages not more than 10 per cent of earnings. The net effect of the sectoral shift of investment is certainly beneficial to the balance of payments, and this shift can be assisted by strong patent protection. In fact, I would say that strong patent protection should be continued and is essential for the development of foreign private investment.

The net inflow of private investment capital into India has averaged only Rs. 25 crores a year since independence, and, as we all recognize, this a mere trickle as compared to India's needs. The Fourth Five Year Plan probably will set an ambitious target of about Rs. 150 crores a year of net new private foreign investment. To an increasing extent this capital is coming from the United States where it is official government policy to encourage and assist investment in India. In the year 1965 about 21 per cent of India's foreign private investment came from the United States. This compares with only 10 per cent ten years ago. United States private investment in India has grown from about Rs. 48 crores in 1955 to about Rs. 135 crores in 1965. The National Chamber of Commerce has consistently supported the United States Government's policy on private investment in India, and has consistently encouraged and supported its members in making their investments abroad. And we feel it will be easier for the Chamber to continue this support if patent protection in India is not markedly weaker than that in other developing countries competing for United States private capital.

I would like next to comment briefly on Patents and the Transfer of Technology. As important to India as the inflow of foreign capital, is the related transfer of industrial technology. There is probably no single factor, in my judgment, in India's industrial development more critical now than the availability of useful knowledge. I put this as perhaps the most important element of development. And, as is well known, this knowledge is not embodied in patents alone, but involves a great amount of associated information and experience, both technical and managerial. Patent protection, however, provides the incentive for foreign investors to divulge and apply this knowledge in India. Once this knowledge is in use, it spreads and grows through the industrial and technical community. Indian policy and law wisely require the rapid training and employment of Indian technicians and managers in companies employing foreign capital and imported technology, thus speeding the diffusion of useful knowledge. The key to sharing the technical and managerial knowledge, and the access to world markets, enjoyed by companies of the more advanced countries is to attract their manufacturing and research activities to India. And as a very practical matter, social and economic theory aside, I do not believe, this can be done successfully on a broad basis without patent protection at least as strong as that provided by other developing nations. You know I continue to emphasize the comparative patent protection of India as against other developing countries. This, I think, is one of the most important aspects of the present Bill.

Adequate patent protection is, I believe, essential for the development of India's indigenous scientific and technical base. Multi-national corporations have in recent years decentralized their manufacturing operations out of the home country to those countries where they have substantial national markets. This has become the thing to do. You leap-frog the national barriers and establish your manufacturing units in those countries where you have a market. But as you know, research and development activities are still concentrated at home There are very few industries which have made any effort to decentralise their research and development activities. The logical next step in the evolution of international corporations is the decentralisation of research and development. It is just now beginning and this could be of great advantage

to India in that it would provide opportunities for Indian scientists and technicians, and assist the development of indigenous technologies employing domestic materials and suited to Indian conditions. But one wonders if this step will be taken in the absence of adequate patent protection. Will a large chemical company, for example, choose to develop new products and processes in India if patent protection is inadequate to justify their commercial application here?

There is also to be considered the effect of weakened patent protection on India's developing scientific community. It is well known that literally thousands of Indian scientists trained abroad continue to reside there. In the last annual count it was found that as many as 6000 Indian scientists, highly skilled and qualified, reside in the United States; they are employed there. Many of them do not come back, or delay their return, for lack of equally good employment opportunities at home here.

Now, there has been in the past little privately financed industrial research carried on in India; most of it has been, as you know, Government-financed research. Most industrial knowledge that is in use has been imported full blown from more advanced countries. But, as the industrial establishment broadens to include science-based industries, and companies become better established and more mature, we should normally expect considerable growth of privately financed research and development activities. But will this natural evolution take place if the patent system is weakened, or will Indian industrialists consider it more to their advantage to continue to import second-hand technology? What might the effect of this latter course be on India's young scientific community?

Let me take up next the point of the effects of royalties on the balance of payments. This is a vague and difficult subject—one about which, you know, the argument is sometimes raised, contrary to the protection of foreign patentees, that royalties impose an excessive balance of payments burden. This is a difficult point to pin down because of conceptual difficulties and the inadequacy of available statistics. Two facts seem certain, however. One is that royalty payments, are only a minor element in India's unfavourable trade balance, and the other is that the costs and benefits of royalty payments cannot be reckoned in direct balance of payment terms alone.

According to the 1961 Survey Report of the Reserve Bank of India, published in 1964, royalty payments to foreign patentees for the year 1961, which was the last annual figure available, were Rs. 2.4 crores. This is to be compared with a payments deficit (imports *plus* debt service *less* exports) averaging about Rs. 680 crores annually over the Third Plan period. In other words, royalty payments for the year 1961 were only about 0·3% of the payments deficit. When a country's balance of payments situation is as desperate as India's is today, every little bit counts and Rs. 2·4 crores is not to be overlooked. But the question must be asked whether a small direct exchange saving on royalty payments might not result in a much larger indirect loss? This is a hard balance to strike.

Now, the substitution of domestic industrial products for foreign imports depends on India's industrial growth which in turn requires an inflow of technical information and skills. To save foreign exchange on royalty payments at the risk of cutting off the inflow of technology may be to eat the goose that is about to lay golden eggs. It may be penny wise and pound foolish. The same argument holds even more strongly in the case of exports of industrial products. Since exports of the traditional agricultural cannot be expected to increase much or very rapidly because of the severe competition from the other developing countries in the field. So, if India is to raise its export earnings substantially, this increase has to come very products such as tea, coffee, and jute

largely from manufactured goods. Here, India is in a more advantageous position because it has cheap and highly qualified labour. The wealth of technical and managerial knowledge, capital resources and marketing access enjoyed by manufacturing companies in the developed countries makes them formidable competitors in the field of manufactured goods. An alliance with foreign capital and imported technology, an alliance requiring patent protection, is frequently the only practical way to enter the world market in certain industrial goods.

Now, a step in the right direction has been taken in the devaluation of the rupee—a bold and, I think, economically sound step. Let us not now take a step backward by weakening patent protection.

Another argument frequently heard contrary to the protection of foreign patentees is that high prices result from this protection either because the foreign patentee has thus acquired a protected export market in the less developed country or he has acquired a monopoly position in the local market if he decides to manufacture there.

I am told that Mr. Leonard Robbins assured you yesterday that I, as an economist, would deal with this price question. Let me immediately disavow any special knowledge of comparative current prices. My field is industrial economics in general. I know you have questions about cost-price relationships in the drug industry particularly, and these, following the skilful lead of Mr. Robbins, I shall ask you to defer, for subsequent specialists from that industry. I do not wish to dodge the issue. I am saying that I do not have detailed information about cost data and price data to give you at this time and these people. I believe, will have. I can, however, make some general observations. As with the balance of payments question, it is difficult to resolve this question precisely, but I can talk about it in a general way based on my experience in India.

Let me first refer you back to the United Nation's report on "the Role of Patents in the Transfer of Technology to Developing Countries", which all of you I am sure have read. I shall quote a very short paragraph:

> "...the effect of higher prices specifically due to patent protection is almost impossible to disentangle from higher prices due to such factors as exclusive know-how, trade secrets, restrictive practices, or the dominant market position of the supplier, all of which are intrinsically unrelated to the patent system. Since patents are thus only one of the factors which may bring about higher prices, the question arises whether measures directly affecting price levels or general anti-trust legislation are not an economically more effective and administratively more feasible technique of coping with the problem than legislation devoted specifically to the patent system."

Now the existing Indian price control legislation is adequate for direct action if this is thought necessary, and, from what I have seen in the Press recently, I believe that it has been thought necessary. Getting at prices through the patent system would seem to be a round-about approach, and one for which the prospects of success appear remote. There is also good reason to believe that where prices of industrial goods in India are abnormally high, it is due more to government import and licensing restrictions and to the protected market that results from these as well as such things as the high cost of raw materials, the small scale of operations which, in many cases, have not reached the full economy of operation, the low productivity of some of the smaller factories etc; also the high cost of imported machinery and equipment, I believe, in some cases, has raised the cost of manufacture in India.

Although this statement is intended to be of a general nature rather than

the detailed analysis one might expect from a patent lawyer, specific reference has been made to several clauses of the Patents Bill. We ask the Committee not to infer from this that we consider—by "we" I mean the United States Chamber of Commerce—only the referenced clauses to be harmful to India's future economic interests. On the contrary, a large number of the provisions of this Bill are we feel, inconsistent with internationally recognized patent principles, and will be found offensive and discriminating by both Indian and foreign business communities.

In concluding, let me urge the Committee to consider this Bill from the point of view of its psychological effects in world trade circles. This concerns me as much as anything else in this Bill, and it has upset international trade circles; people feel that India becomes, with this patent law, a hard and uncertain p'ace to do business. The Patents Bill may cost India far more in retarded economic growth than it can possibly gain for her in any other way. The retention of a sound patent system that will enable Indian participation in international agreements is, we believe, in India's best economic interest as a developing nation.

Thank you.

Mr. Chairman: Now, members might ask questions.

Shri Kashi Ram Gupta: Does your country make any survey regarding statistics, particularly about pharmaceutical industry, as to how generally research expenses are met and in how many years they are met because the main argument against lowering the years of patent is that the industry may not recoup what it has invested? Is there any survey made in your country about this?

Prof. Kilbridge: The question, as I understand, is whether any survey is made in the United States which shows how long it takes to recoup the cost of research and development in the pharmaceutical industry for the purpose of comparing this with the patent protection time of ten years. My reply is: yes; such surveys do exist. I do not have the data at my finger tips. I am sure that this information will be introduced by witnesses from the pharmaceutical industry. I can give you some general readings on the subject. I do not represent the pharmaceutical industry particularly I represent here the United States Chamber of Commerce and I myself have not worked in the pharmaceutical industry. I am an industrial economist and my experience has been mostly in mechanical industries. But from general readings I have the impression that development costs vary immensely and only when a large number of cases are taken, does the average have any meaning. Some well established companies with physical facilities already available for exploiting the process, have managed to turn a profit in a matter of three to four years; in other cases where the facilities had been poor, it was necessary to build pilot plants and then new full scale industrial plant and they had to work for 12 or 13 or even 20 years to turn a profit.

Shri Kashi Ram Gupta: What is the relation of a scientist with the industry in the United States? Are the scientists regularly paid or do they also get something out of their inventions as commission from those industrial concerns?

Prof. Kilbridge: Typically an industrial scientist signs a contract of disclaimer with the company in which he is employed under which he gives up all patent rights. He receives no direct remuneration. However, the man's progress within the company and his basic salary frequently depend upon the research that he does. Indirectly he may receive something, but nothing directly tied to patents.

Shri Kashi Ram Gupta: In the latest memorandum, you have stated that 21 per cent of foreign investment is American. May I know how much of it is due to such industries which are dependent on patent and how much of it is due to know-how and other factors?

Prof. Kilbridge: I do not think I can answer that question directly. American investment is almost entirely in manufacturing industries.

Shri Kashi Ram Gupta: What percentage of such investment is in patented industries?

Prof. Kilbridge: I am unable to answer that question.

Shri Kashi Ram Gupta: Is, in your opinion, the present Patent Act of the Government of India quite suitable?

Prof. Kilbridge: I believe, the existing Patent Act is comparable to the Patent Acts of other developing countries and, generally speaking, quite acceptable to the American business community.

Shri Kashi Ram Gupta: In the Bill it is written that the period of protection will be counted from the date of completion of specifications which is an improvement and which means actually 16 years. What objection do you have to this particular clause?

Prof. Kilbridge: There is no provision for extensions.

Shri Kashi Ram Gupta: Is it a fact that most of the American investment is at present due to the supply of know-how and not because of patents?

Prof. Kilbridge: It is a very difficult question to answer. In all American financed factories and joint ventures I have visited in India, I think all of them require a considerable import of know-how. I cannot visualise any of them having been done by import of capital alone.

Shri Kashi Ram Gupta: In which of the developing countries the Patent Act at present is more attractive to American capital compared to the Indian Patent Act?

Prof. Kilbridge: The Latin American countries, of course, traditionally, get the lion's share of American foreign investment. This is more due to other factors and not due to the Patent law. On the sub-continent, Pakistan, to use a nasty word, has in the last ten years received a larger percentage of investment of private capital from the United States than India has. This is not, however, because of patent conditions or patent laws. I think this is because of the aggressiveness of the Government in seeking foreign private investments and the concessions they have made to private investments.

Shri Kashi Ram Gupta: Are you aware of the fact that in the last 15 years other European countries have invested more in drugs and medicines here in India than America?

Prof. Kilbridge: I am not aware of that fact.

Shri Kashi Ram Gupta: You have mentioned in your memorandum that research has been centralised up till now. How will you be able to decentralise research if the Patent Act is changed according to your suggestions? Now the research is done there at home. How will you be able to see that the research is done here in India?

Prof. Kilbridge: Some large international corporations I am familiar with are now planning a decentralisation of research and development activities. It is well known that one can run a research establishment in India considerably cheaper than one can in the United States. Also, one can use indigenous materials in the research effort. One can also consider manufacturing processes in the development effort which are appropriate to Indian conditions and one

can then develop a manufacturing complex to produce products suited to Indian conditions. American research is conducted on American needs and problems which are not necessarily the needs of India. American research is conducted on the basis of raw materials available in America which may not be available here. Therefore, when we import into India these technologies we necessarily import raw materials which means a continuous drain of foreign exchange for the import of raw materials to run a factory and produce a product which could possibly be made in other ways if the research and development had been started here in India.

Shri Kashi Ram Gupta: So far as research is concerned, it comprises of not only the patent side but also the know-how and technology side. Patent is only a part of it. Therefore, even if the Patent Law is not amended according to your wishes, research can be carried out in this country in a decentralised way.

Prof. Kilbridge: Yes. I think so. The Indian scientists are available. There is no reason why a pharmaceutical company cannot set up a research plant in Delhi and have it as a base for manufacturing new products in India. I think it is coming.

Shri Kashi Ram Gupta: In your country most of the industries are very largely based and they have got their own research establishments which have recurring expenses which are treated as revenue expenditure. These expenses are part and parcel of the whole business and dividends are worked out after deducting these expenses and also income-tax. Therefore, how can this old theory stand, that a scientist who invents should work it out individually and then give the know-how etc? What is the basis of such an argument?

Prof. Kilbridge: What you say is quite true. Most large companies budget a certain amount of money annual'y for research and development programmes. This is considered an annual recurring expense. I do not try to justify patents on the basis of the individual researcher being paid for disclosing his information to society. The argument rests more soundly on the opportunity for the company to recoup cost of research and development. There is an equation in the minds of management between how much they can afford to spend on research and development annually and how the patent protection is allowing them to recoup a certain amount through profits over time. We do not know how long it will take to develop a particular product or process. Research is a very uncertain kind of thing. Many research and development projects are launched and a certain amount of money is spent. Many products are sold; many processes are up-graded and improved and certain profits are made. A balance is struck between what you can afford on one hand and what you receive on the other. This balance is based largely on the country's patent protection. Certainly, if in the United States there is a shift in our patent protection and the period is reduced, we will have to put less money in research and development because less can be supported on the basis of profits. This is what would happen in any country.

Shri Kashi Ram Gupta: There is a model law given for developing countries. I think, you must have studied that model law. This model law contains a note that a patent can be for a minimum period of 10 years from the date of the grant of a patent. Do you agree with that?

Prof. Kilbridge: I have seen the model law but I am not a patent lawyer.

Shri Warior: I only want to ask one or two points. I wish to know your reaction about the protection to process and the protection to process-*cum*-product or product alone.

Prof. Kilbridge: Can you be more specific?

Shri Warior: Under this patent law which we are now considering, we think that the protection should only be given to processes and not to processes-*cum*-products or products alone. What is your reaction to it?

Prof. Kilbridge: I think I am being asked to make a distinction between process-*cum*-product and product alone. The distinction is difficult in some cases and easy in other cases. Sometimes, it is possible to circumvent a patent by achieving the same end by different means. If the product is patented but not the process, this would not be successful. In another case, it is possible to use the same process and turn out a different product. If the process is patented but not the product, this would not be successful It depends on what you try to achieve.

Shri Warior: The object is this. When the process-cum-product is patented and patent protection is given, naturally that comes in the way of inventing new processes and new discoveries. Then, that also gives an additional advantage to the original patentee in the form of extension of his same process by adding something or omitting something after the lease of protection for the prescribed number of years is over. That is what is happening thereby creating a monopoly for long periods and precluding others from coming into the field.

Prof. Kilbridge: I see your point. The process can be patented. In an attempt to make the same product by different processes, in many cases, an improved process has been found. It could give opportunity to people for searching for a better way of doing the same thing. In many cases, a search for a new way has been a search for a better way.

Shri Warior: About research, I wish to ask one very simple question. Why is it that under the existing Act, when it is better than the enactment contemplated now, even with all those facilities for research, the foreign investors have not developed research in India so far. Only the products are being imported here and sold in the Indian market. The manufacture of the products of which the know-how is with them has not taken place here. What is your reaction to this from the Indian point of view? You have been here in India for some years.

Prof. Kilbridge: There are many reasons why foreign private investment has not flowed into India more rapidly than it has. I am sure you know them.

Shri Warior: Not investment. I specially asked about research. No research has been done and no manufacturing has been done here. They have been keeping their patent rights with them and importing only the end-products and marketing them here. As you have suggested in your memorandum, you have found out that only in the petroleum industry, the refining and manufacturing is done. But in the pharmaceutical industry and other industries, even now the old system continues.

Prof. Kilbridge: Certainly, it is to India's advantage to have manufacturing done here rather than to have the product imported. It is to India's advantage to encourage foreign investors to bring their manufacturing plants here and to produce products for the Indian market. It is certainly advantageous for India to have research and development done here rather than to have products imported from abroad. But this is happening very slowly. There have been problems within India. There is the question of foreign private investment. You say, under what conditions, you are going to accept it. The Indian view on this has been ambiguous. Sometimes there is a shift in thinking. There is the problem of foreign exchange. Recently, the exchange rate

has been revised. There have been various other restrictions and controls. There have been disincentives to foreign investors for coming to India. I do not think the patent law has had much to do with it. Of course, patents may have had little to do with it in the past, but in future it may be that patents will have much to do with it. According to the trend today in public policy in India, there seems to be a renewed desire to attract foreign private investment. Just at this time we should not, it seems to me, take a retrograde step on the patents front.

Shri Warior: One general question about incentive to private capital Don't you think that such a large population as 49 crores of people is an enough incentive and a more assured market than a patent protection?

Prof. Kilbridge: The market in India, although it is very large, is also very poor. The total population is about 480 million. But the purchasing power is very low. It is still a fairly small market for many things. But I will say that I believe that the strongest inducement that has attracted foreign investment into India has been the potential of the Indian market, which is larger than all of Latin America and Africa combined, and as the purchasing power of the market grows, the manufacturers can see here a tremendous propensity to consume and they would like to serve that market.

Dr. C. B. Singh: On page 2 of your original statement, you have mentioned in para 1 that the Patents Bill 1965 as it now stands is a harsh and discriminating instrument, and that in the long run it may hit industrial development, retard inflow of foreign private investment and impede transfer of technology from industrially advanced countries. These are your words. Don't you think that these are very harsh words? May I put it to you that the comments by you are rather harsher from that point of view?

Prof. Kilbridge: I don't think in my new statement, written some two months after this, that I have reused the words "harsh and discriminating". However, I don't retract them.

Dr. C. B. Singh: I am glad you have modified them. You have got to remember that in our country, we are developing our own industrial policy and it is not a capitalistic country like the one which you represent. We have got our own democratic socialism. So our patent system has got to be on that main basis of socialistic democratic set-up. You have been here for more than two years and you know that this is a very poor country. Under these circumstances, do you think that the present patent system is more useful as compared to the new one and that the new Bill that we have brought forward is not desirable? That is what you think?

Prof. Kilbridge: Yes, I think that the proposed Patents Bill is less desirable than the present patent law. India is a very poor country. This is why economic development is very essential to the country. Industrial development will depend, not entirely, but to a large extent, upon foreign capital and foreign know-how. That may be seen from the history of all developing countries. Even America, for her industrial development, imported British capital and British knowhow.

Dr. C. B. Singh: My most important point is about pharmaceutical and chemical industry. I am concerned mostly with that. Most of my friends here are mostly concerned with high prices for these pharmaceutical drugs. You probably know that we have got a very important public sector here where we have invested more than Rs. 2,500 lakhs in three important projects at Madras, Rishikesh and Hyderabad. Do you still believe that the patent system should be more strict keeping in mind that we have such a big public sector project where we are, before long, likely to be self-sufficient in the pharmaceutical drugs?

Prof. Kilbridge: I fail to see the connection between the size of the public sector and the need for patent protection, unless it is envisioned that at some time in the near future, the entire food, drug and pharmaceutical industry and chemical intermediates will be in the public sector. . .

Dr. C. B. Singh: No, that is not the idea I am not suggesting that, as we are going to encourage the private sector as well. The point is, in view of this large public sector and a still larger private sector, will it serve our purpose if we have a separate section altogether dealing with pharmaceuticals and chemicals. The present Bill has sections where it deals with pharmaceuticals and chemicals along with food as well. Will it be all right from your point of view if we have separate sections altogether dealing with pharmaceuticals and chemials and food drugs?

Prof. Kilbridge: I am not a patent lawyer and I just do not know the complications involved in the administration of two patent laws, one covering pharmaceuticals and chemicals and one covering other drugs. This kind of question may be referred to patent lawyers who are specialists in the administration of patent laws.

Dr. C. B. Singh: One more point about the right of appeal. In our patent Bill, there is no right of appeal beyond the administrative machinery given by the Government or the Drug Control Act. You have not said much on that point. What is your view on that?

Prof. Kilbridge: I think I have pointed out in my testimony briefly that it seems to be inconsistent with the general Indian policy of judicial appeal and that it seems to be rather an arbitrary way of deciding an issue. More consistent with the Indian democratic processes, it seems to me, would be an appeal board and an appeal judge of some sort or to put these issues into a judicial channel.

Dr. C. B. Singh: Now it is common knowledge that hardly much money has been invested in research in this country either by the private sector or even by Government. Do you think that a strong patent system is likely to attract more capital for industrial development?

Prof. Kilbridge: I think that, in general, a strong patent system has the effect of encouraging research and development and that therefore, there would be greater investment in research and development.

Shri M. L. Jadhav: How many patents does your country hold in India and how many patentees are manufacturing their products in India?

Prof. Kilbridge: I do not have that information.

Shri M. L. Jadhav: Do you agree the price of patented medicines in India is much higher as compared to the international price of the same medicine?

Prof. Kilbridge: I do not think there is such a thing as an international price for a given drug. It must differ from country to country. My own experience after living here for two years is that the retail price of drugs in the chemists in Delhi is cheaper than they are in Chicago or Washington.

Shri P. K. Kumaran: On page 7 you say:

> "My experience in India during the past two years convinced me that, although the cost of basic drug manufacture was higher in India than in the United States, mostly because of the higher cost of raw materials and the uneconomical scale of production, still consumer prices were lower."

Have you got any factual data on the basis of which you arrived at this conclusion?

Prof. Kilbridge: This is purely a personal observation. In the presentation of my testimony for the record,

I did not give that statement. Not because I had changed my mind, but because I had made a personal observation and I had nothing to support it. I have no survey or extensive data to support it.

Shri P. K. Kumaran: During the years immediately following the first World War, The American pharmaceutical industry which was in a lower stage of development took full advantage of the patents registered by Germans in that country and developed the industry. If so, do you think the Indian industry should be denied such an opportunity of utilising the well-known formulae, etc. and developing?

Prof. Kilbridge: I am not familiar with your observation about the behaviour of the US drug industry after the first war. As I said, I do not represent the drug industry here specifically. I represent the United States Chamber of Commerce. I am not familiar with your observation and I have no comment to make on it.

Shri Peter Alvares: You had argued from the point of view of technological development as well as industrial finance. A reference has been made here to the particular political economy that our country wants to evolve and develop. In this context, various political economies are being responded to in different manner. Developing economies are now coming together under an Asian Development Bank in which developed nations are investing. Again, the UN has asked all developed nations to pay 1 per cent levy upon their national income. If the responses are so varied, why is it not possible for the foreign investor to consider developing the industry in India by even permitting the abrogation of the patent law as was done in Russia and Japan until they developed their own industry?

Prof. Kilbridge: Unfortunately the individual industrial investor looks upon his investment as an opportunity to make profit in the long run. His social instincts, although they may be highly developed, are I believe, secondary to his instincts as a businessman; whether he is a foreign investor or Indian, the basic motives are the same Accepting these motives, we have got to ask ourselves, is a mixed economy such as India going to be successful in developing industrial enterprise if they refuse to acknowledge the motives of free enterprise?

Shri Peter Alvares: You have talked about the incentive for foreign investment. The Reserve Bank of India Bulletin for May, 1965 reveals that the investment of both the UK and USA in India drew the largest profit in India than in other developing countries and even in the investing countries, i.e. U.K. and U.S.A: So far as UK's investment is concerned, the profit in India was 8.8 per cent, all other countries average 7.9 per cent and domestic, i.e. in UK itself 7.8 per cent. Similarly for USA's investment, in India the profit was 11.9 per cent, all other countries average 10.2 per cent and domestic, i.e. in USA itself, 9.1 per cent. Therefore, it is not proper to argue that there should be a proper climate created for investment by maintaining the old anachronistic patent law.

Prof. Kilbridge: Are these profits that is, profits after deducting all taxes?

Shri Peter Alvares: In one case, it is net profits. In the other case, it is profit on investment. Whatever it is, the ratios are similarly worked for the different countries.

Prof. Kilbridge: It is difficult to compare the profit margin from country to country, from industry to industry. I have one set of data from the Reserve Bank of India and another from the Commerce Department of the US. I have tried to work

it out and I did not get very far with it. Even if we accept the figures given by the Reserve Bank, to get a return of 8.8 per cent in USA is fairly easy, while on 11.9 per cent profit in India is realised with much greater risk than in the United States and with much greater trials and tribulations.

Shri A. T. Sarma: You have mentioned in your statement that foreigners may not invest money in India and open factories if more protection is not provided in this Bill. What is the kind of protection that you require?

Prof. Kilbridge: I say that if the present patent protection is greatly weakened, it may influence the rate of inflow of private foreign investment. I did not argue that the present patent law retards foreign private investment.

Shri A. T. Sarma: What is your specific suggestion in this matter?

Prof. Kilbridge: I plead for no more protection than the present protection. I think the present law needs some changes but not such drastic changes.

Shri Dalpat Singh: You have objected to the provision in the Bill which reduces the time during which a patentee can enjoy the benefits of his patent. In view of the fact that marketing facilities have increased in recent years what do you think should be the time limit for the patentee to get full benefits of his patent?

Prof. Kilbridge: It varies from patent to patent and country to country. I think it would be better if India adheres to international standards in this respect. After all, it is not only the condition of the market which determines the rate of return. The problem is as much the scale of manufacture and the rate at which one can produce the product as much as the sale of the product. If a unit works one shift instead of three shifts it will take three times the period to get full return. Similarly, if it works for half a shift, it will take six times the period to get full return on invesment.

Shri Bade: On page 4 of your memorandum you say:

> "Clauses 87 and 88 of the Patents Bill, 1965, provide that all patents for foods, drugs, and their chemical intermediates will be endorsed as 'licenses of right', and that where an endorsement 'Licenses of right' exists any person wishing to work the patent in India may require the patentee to grant him a license on mutually agreeable terms, or on terms decided by the Controller of Patents in the event of disagreement. These clauses, in effect, virtually deprive the affected industries—and especially the important pharmaceutical industry—of their patent rights, throwing open these patents to any number of applicants without regard to their financial or technical ability to work them properly, and setting a ceiling on royalties rather than allowing for free negotiations based on the merit of the product involved."

Why do you object to this clause? Is it only because the manufacturer or inventor is put to loss?

Prof. Kilbridge: My criticism of clauses 87 and 88 is based on the fact that they deprive these industries—food, drug and chemical industries—of their patent rights, which I think is somewhat discriminatory. They virtually throw out all patent rights in these industries.

Shri Bade: Do you not think that during the last fifteen years of our independence the foreign firms have created monopolistic conditions by obtaining patents and exploited our country?

Prof. Kilbridge: I have the feeling that monopolistic manufacture in India has its roots essentially in the licensing system. This avoids duplication of

effort and controls the amount of money invested in various industries and limits the foreign exchange drain.

Shri Bade: Suppose a patent is granted in India for an American firm for both the process and the product manufacturers from Italy or Japan cannot come to India and compete with that American firm and that creates monopolistic tendencies at the cost of consumers.

Prof. Kilbridge: I agree that it is one of the functions of patents to have a protected market.

Shri Bade: Therefore, it is better to abolish the patent law and allow the manufacturers to compete as in Italy.

Prof. Kilbridge: In a situation in which you abolish all patents you may find no one coming forward to manufacture things.

Shri Bade: In Italy there is no patent law.

Dr. C. B. Singh: Because of that there is any amount of spurious drugs in Italy.

Shri Bade: In your present note you seem to have taken a different line from your previous note. In your previous note you had come to the conclusion that our present Bill amounts to abrogation of all patent rights. In that note you had objected to the license of rights, compulsory licence, provision of appeal, amount of royalty etc. In fact, you had objected to every section of that Bill. It means that according to you there should be no amendment at all.

Prof. Kilbridge: Are you referring to another statement made by me.

Shri Bade: You have given previous note which was circulated to us. The note which was circulated to us previously by the Chamber.

Prof. Kilbridge: Is it my note?

Shri Bade: I am sorry that is not your note. That is from International Chamber of Commerce.

Shri R. P. Sinha: I would like to put one or two economic questions because the witness is an economist. As the witness has pleaded that India needs an inflow of foreign capital and inflow of foreign technology; now, we have our own plans in which there is rightly referred that we would like to encourage the inflow of foreign capital and technology in a planned manner. Now Patents Bill is only a part of the incentive that is provided for the inflow of foreign capital as he himself said and the effect of the Patents Bill that he said in the Memorandum itself is more or less psychological. Now the real criterion for inflow of foreign capital will be the return on the capital that is available in India. Now our Reserve Bank has made a survey to which also the witness has referred about the return on capital by the various sectors of the industry. I will refer him to the November 1965 Reserve Bank Bulletin—he has referred to November 1964 Bulletin—pages 1697 and 1698. Since he will not have the bulletin with himself I will just read out the figures given there. Now it is stated that the profit after tax as percentage of net worth from medicines and pharmaceuticals is given as below—I will also compare with the general profit from the industry as a whole. Now in 1960-61 profit from medicines and pharmaceuticals was 17.2 per cent as compared from all industries 10.9 per cent. In 1961-62 from medicine and pharmaceuticals it works out to 16 per cent as compared to all industries 9.9 per cent. Now in 1962-63 the return from the profit after tax amounted to 11.9 per cent as compared to 8.6 per cent from all idustries. In 1963-64 it is 12.7 per cent as compared to all industries 9.3 per cent. Now the witness will notice that the return from the medicine and pharmaceutical industries is higher than the average return from all industries. I would like to know this from the witness: Whether he is aware that of the 900

drugs in common use in India about 100 of them enjoy patent protection.

Dr. C. B. Singh: Even less than that.

Shri Bade: I am just giving an average and about 800 do not enjoy any patent protection. Now what I have been trying to find and I would like the witness to answer is: What percentage of this profit as included in the Reserve Bank Bulletin could be attributed to the patented medicines because after all out of 900 only one hundred have got patented protection. Now what is worrying our mind is that so far as the other medicines are concerned the average profit may be low but so far as the patented medicines are concerned the profit to us appears to be unreasonably high and as a result of the very high prices that the patent products are in a position to command the average profitability from the medicine and pharmaceutical is pushed up. This is what the feeling is, that is, because we have not been able to get any data separately of the profitability of the patent products from the non-patented products. Now that being at the back of our mind we feel that even if we weaken the patents system in this country it will not very much effect the returns on the capital investment in the medicine and pharmaceutical industry and, therefore, it will have no effect even if it has marginal effect, on the inflow of the foreign capital. If the witness could enlighten us on the point probably it will go a long way to remove our doubts.

Prof. Kilbridge: As far as specific knowledge of cost-price relationships in the medicine and pharmaceutical industry is concerned, you must please rely upon the witness from that industry who will be coming up next week. I would, however, argue we should not look at the return on investment as the sole criterion for attracting foreign capital, as the return on investment in under-developed countries is only one of several criteria. There are other factors like political climate, social and political stability, the difficulties of doing business, the idiologies of Government, etc. These are things which also greatly influence foreign private investment, and return on investment is only one among them.

I have some information about drug prices in U.S.A. which shows that, as a matter of fact, the patented drugs have shown a consistent drop in prices in U.S. in the past few years. Let me read this news release disclosed today. It shows prescribed drug manufacturers have been holding the line of price in arresting the nationwide inflationary trend. Figures during 1965 show a drop in wholesale prices for prescribed products on average of 1 per cent annually since 1961. Drug products covered by patents have shown an even more consistent drop of 8 per cent during the same period. It is a fact which belies the recent criticism in that under the modern patent system non-patented drug items have experienced an increase slightly more than 2 per cent. This again is a bewildering statistics to those who argue that the patent system is causing increasing prices. But again I would beg of you to ask this question of the drug industry people.

Shri M. R. Shervani: I am sure that the intention and the motive of the Inian Parliament while enacting this is not to retard industrial growth. Sometimes, we enact these to stimulate industrial growth and sometimes to restrict social evils.

In this Bill regarding patents, an effort has been made to plug the loopholes and to improve upon the present law. In your opinion, this new Bill weakens the existing law. As far as I can see, there are two points to which most vigorous objection is being raised. One of them is the shortening of the period.

I personally feel that it is in the interests of industrial growth because if you shorten the period of patents, then two or three years more are given

to others to be able to set up those industries, and that will stimulate industrial growth in our country.

The other point is about the compulsory licensing. Here, I want to understand from you what the fear of the foreign investors is. For, as an economist and as an industrialist myself, I know that merely owning the patent or the process is not enough for anybody to be able to put up the industry, because technical know-how is much more important than the patented process, and I, for one, would never attempt to invest my money or encourage others to invest their money on the starting of an industry, merely because I happen to have the patent or those others have the patent. Unless and until I have the technical know-how and the assistance etc. which would be required from the originator or the inventor of the patent, I would not attempt to start an industry. I must rather go out of my way to give him whatever he wants in the shape of royalty and so on so that I may ensure the smooth working of my factory.

This provision that has been made here is for the purpose of restricting the evil of exploitation by a greedy patentee who would not grant a patent just because a competitor has come into the field. In such a case, the Controller of Licence will certainly examine the technical ability, the financial capability etc. of the person concerned, before giving the licence. As regards the fears that you have mentioned at page 4 of your memorandum, namely that if this compulsory licence is given, then any number of applicants could have the licence, I would submit that certainly and surely, no Government would like to waste the internal capital by issuing licences to half a dozen people or a dozen people without ascertaining their technical and financial ability to set up the particular industry.

I want to know from you what specific fears the foreign investors have in this regard, for, to my mind, these things are not only in the interests of the country and in the interests of industrial growth, but they are also in the interests of the foreign patentee or inventor; they do not harm the foreign patentee or the foreign investor in any way, because in spite of the process being known, somehow most of the industrialists would like to have collaboration. And we do have already collaboration in our country in fields where there are no patents. For instance, take the petro-chemical industry, and several other industries where there are no patents. I have myself started a dry battery industry where there are no patents, but I have collaboration with a British firm and I am paying royalty to them, because I want to have a smooth working of my plant and also quicker production.

So, what is the fear that you have in your mind?

Prof. Kilbridge: I must say that I am sure the Indian Parliament has no desire to frustrate industrial development and that this patent law is introduced not for that purpose, and that this is the farthest thing from your minds. But I have a fear, however, that we may be doing the wrong thing for the right reason, and no matter how good the purpose of the Bill may be, it may serve just the opposite end.

To argue that since a patent can be worked easily without the needed know-how and management techniques and that, therefore, a patent itself has no meaning is really to argue against the patent system *in toto*. A patent, admittedly, is a necessary and not a sufficient condition for manufacture, but it is necessary.

Shri M. R. Shervani: What remedy would you suggest against a patentee who does not exploit the patent over a reasonable period of time? If you object to our clause, then what alternative remedy would you suggest against this evil of exploitation for

personal profits for a longer period than is reasonable?

Prof. Kilbridge: The licence of right to my mind creates the possibility of too many manufacturers starting production on less than an economic scale and competing for a limited market and for limited raw materials.

Shri M. R. Shervani: I am sorry I have not been able to follow your answer.

Prof. Kilbridge: The question asked previously was why there should be objection to the licences of right in view of the fact that Government would not be likely to license a person who is not capable of producing and who does not have the funds, the technical skills and so on.

Assuming that the provision is properly administered and that everybody who applies for a licence of right and is so granted one can indeed produce efficiently and does have the capital to do so, then there may be too many people producing the same item. To resolve this, I would like the economy of operations to be kept in view. Larger factories can generally produce things cheaper than smaller factories. So, we have both the cost-price relationship and also the economy of operation in economic development as criteria in trying to decide whether we should allow controlled monopoly for the purpose of economy of production or whether we should allow competition for purposes of economy of production.

Mr. M. R. Shervani: The basis of private sector is competition. So, the private sector is not afraid of competition. On the other hand, the private sector welcomes competition, because thereby the quality improves, and the costs are brought down and production increases. The U.S.A. certainly would not favour controls and monopolies. You have a free economy in your country where you compete, and you are progressing through that system. So, where is the fear if too many people start producing the same product?

Prof. Kilbridge: If the system were totally free and open then the fear would not exist, because then the market would handle things. But in India where there is a controlled economy and a planned economy, the private sector really does not function or operate as dependent upon the market but as dependent upon Government. A man who has a factory running on one shift, if he sees a competitive licence issued to somebody else to set up a similar factory and run one shift in competition with him, when his factory requires operation on two or three shifts, in unfairly treated.

Shri M. R. Shervani: But you have not answered my question. My point is this:

In the present law, we have given a certain limited period for exclusive exploitation of a patent, and now we are seeking to reduce that period by two years or four years in the case of drugs and medicines. My question was: What alternative remedy would you suggest to prevent the evil of exploitation for a longer period than what we have suggested? We say that if a patentee does not start manufacture but is exploiting it by import of the patented product, then compulsory licence will be given to anybody who is capable of producing that product. We do allow a patentee to exploit his invention or his product for a certain period, and it is only after that that the Government of India would give or grant any compulsory licence.

If you do not approve of that, then what alternative suggestion have you got to prevent this exploitation for a longer period than is allowed in the Bill?

Prof. Kilbridge: Talking to the narrow point of what should be done about a patentee who does not exploit

his patent and who prevents it from reaching the market, and to that point alone, I would say that there are several examples in international patent law that we could follow. I have no particular argument for any one of these, but I do sympathise with the position that the patentee who has no desire to work his patent may have his patent revoked or cancelled.

Shri Balkrishna Wasnik: In your statement at page 7 you have stated that the existing Indian price control lagislation is adequate for direct action, if that is thought necessary. Could you elaborate this statement?

Prof. Kilbridge: We have had price controls in India on pharmaceuticals, since, as far as I can recall, about the middle of 1963. Controls were introduced under the Defence of India Rules. I understand the Defence of India Rules in respect of control of drug prices is no longer applicable, but that a new way of achieving the same thing through an extension of the Industrial Resolution, or some such instrument, can be used for continuing control, and, in fact, has been, or is about to be used, for the purpose of continuing the control of drug and medicine prices. This is a direct way of controlling prices. Considering all the factors that go into drug prices, the patent is one of the smallest, and you cannot control drug prices directly through patents.

Shri B. K. Das: You say that 4 per cent royalty is not adequate, and that it should be settled by negotiation. Can you give me an idea as to what generally is the percentage allowed in such cases?

Prof. Kilbridge: It varies all over the place. Usually it depends upon such things as the value of the product, the size of the market, the number of those licensed etc. Preliminary royalty rate may decline with time very rapidly; it may be 8 per cent for the first year's production, declining to 2 per cent after ten years. So, it is impossible to generalise on it. The argument here is less aimed at the amount of percentage than at the principle of control.

Shri B. K. Das: But can you give the maximum percentage?

Prof. Kilbridge: There would be a limit beyond which the manufacturer would not get any benefit. That would be the maximum.

Shri B. K. Das: You have also said something about appeal to the court. Would you like if the appeal is to a special tribunal?

Prof. Kilbridge: I would think that it would be more consistent with the way you do things in India to have a tribunal.

Shrimati Sharda Mukerjee: About balance of payments you have said that if Indian private capital can have an alliance with foreign capital, we can thereby enter the world market, but we find that on the contrary some of the agreements are such that we are precluded from certain world markets either because of international trade agreements or because the companies with which agreements have been arrived at have put these restrictions. How then do you think that this will give India access to world markets? What world markets are you thinking of specifically, because international agreements, the European Common Market etc., would preclude us from those markets. There is also the Atlantic Agreement between America and Britain. So, which particular market have you in mind, and would the purchasing power of these markets which you are thinking of be really of any substance to India?

Prof. Kilbridge: The markets I have in mind are the markets of Southeast Asia and Africa more than the Continent or Western countries. This kind of agreement in which a collaborator is starting a factory with an Indian investor, giving him the patents, the

knowhow and so forth but precluding the possibility of his selling anything abroad, so that his own export programme from the United States and other countries is not affected, is a bad thing, and I decry it, and I hope that in future you would not go into such things, but enter only into such agreements which not only permit export of a certain percentage of the products but require a certain percentage of the products to be exported and thus put the burden for managing the export on the foreign collaborator.

Shrimati Sharda Mukerjee: Justice Ayyangar, at page 11 of his report, has made the following pertinent observation:

> "These patents are taken out by foreigners not in the interest of the economy of the country, but with the main object of protecting an export market from competition from rival manufacturers particularly those in other parts of the world."

Therefore, it is in the interests of India to have this sort of patent law which would ensure security for her own manufacturers. Because the previous Act was unsatisfactory, these modifications have been made. I do not quite agree with this point you have made regarding the effects on our balance of payment situation, because as things stand at present, I do not think if we enter the international market we have a better chance than with collaboration. As far as the Asian markets re concerned, there also there are limitations.

Prof. Kilbridge: As far as entering the world markets is concerned, one reason why in many cases we have to have foreign collaborators is to ensure efficiency of production, quality of the product and international standards of products. It is extremely difficult for an Indian manufacturer who has not had the experience of meeting these standards to meet them by himself, to rise above the environment, as it were, to turn out a product of good quality.

The point about the protected market abroad for the foreign manufacturer, into which no one else can export if he has a patent, is telling. It is for this reason that I would urge India to insist on bringing the manufacturing facilities to this country and get the full advantage of the patent in terms of having the factory here.. To do that, we have to set an environment which attracts the foreign investor. The patent law is only one small part of the whole thing.

Shrimati Sharda Mukerjee: May I put it to you this way? If your foreign capital were to come to India on fairly remunerative terms, you would probably have a much better chance in the Asian market also.

Prof. Kilbridge: Yes, I believe so.

Shri Shyamnandan Mishra: The economic basis of the learned witness for growth and development is quite clear His whole approach seems to be based mainly on considerations for attracting private foreign capital. That being so, one is naturally tempted to ask whether any study has been made in the United States, anywhere, to indicate the extent of correlation between the inflow of private foreign capital and the patent rights granted; if so, we would be very grateful for getting the results of such a study.

Prof. Kilbridge: There have been some studies made, both through our Department of Commerce and the Business Council for International Understanding. I see that one of the witnesses who is going to be here next week is professor Meagher, who was with the Business Council for International Understanding and who I believe, conducted such a study. He considered not only patent protection but other factors as well and I would urge you to bring this question to him. I think, he will be able to help you. I can myself search for it and I can also refer it to him as I know he will be more able to put his hands on it than I.

Shri Shyamnandan Mishra: You have been very kind to give us very valuable information about many aspects of the working of our economy, but you were not able to give the information sought by an hon. Member here as to how many American patents based on the 21 per cent of the total of the private foreign investment here were working, but, surely, you would be in a position to give us some information about the working of patents in your country. How many American patents and how many foreign patents are working in your country at the moment?

Prof. Kilbridge: I can guess, but I am sorry I just do not know the specific number. I am an economist not a patent lawyer.

Shri Shyamnandan Mishra: Would you be able to send it on to us?

Prof. Kilbridge: I can search out the information for you.

Shri Shyamnandan Mishra: According to you, the proposed Bill seems to be of a restrictive nature. As a natural inference from this one would seem to think that the present law is more liberal in character. That being so, one would be entitled to think that on the basis of the present law there should have been a more liberal inflow of American or foreign private capital here. If the present law is allowed to stand as it is, do you think that there would be a better picture; if so, why did the better picture that you portrayed before us not materialise in the past? You have indicated that the total foreign private investment projected for the Fourth Five Year Plan is of the order of Rs. 150 crores a year or something like that. We had also projected in the Third Five Year Plan total foreign private investment of the order of Rs. 300 crores, that is, about Rs. 60 crores a year; but that did not materialise with the present patent law. Therefore, would you kindly indicate how you think that there could be a more hopeful picture in the future if the present measure did not come about?

Prof. Kilbridge: As we all know, the patent law is one of many factors in the investment climate of a country. It is not the most important; there are other factors more important. These factors have in the past added up to a chancy, uninviting, climate for investment in India. It has changed from time to time this way and that, but *in toto* the investment climate in India has been barely acceptable; it has not been good. That is why foreign investment has not come in very fast. If we worsen the climate, we will get less foreign investment and if we improve the climate, we will get more foreign investment. There are many ways to improve the climate. Some things are being done right now to improve it. I can see them happening, even in the press. The Patent Bill is contrary to this trend. We can improve the climate for foreign investment in various ways and we can, at the same time, weaken patent protection. These could be offsetting elements.

I personally strongly believe that India should try to increase this inflow of foreign private investment. I think, it can do this with its present form of social democracy and planned economy. I do not think it is inconsistent with a socialistic pattern of development. I think, it is essential to bring in foreign capital. I just do not think that the balance of payments problem is going to be solved in the long run by foreign government loans. The interest burden on these loans alone is becoming formidable. India has got to find foreign exchange which comes in from the private sector. To do this we have got to make the finest investment climate we can make consistent with our principles.

I think, the patent system that India has now is consistent with these principles. It meets international standards. I think, the Patent Bill proposed is harsher than the patent laws of

other competing countries and cannot have anything but a detrimental effect upon the flow of foreign investment into India. I do not think that by any means the new patent law is going to hasten foreign private investment; it is going to slow it.

Shri Bibhuti Mishra: On page 3, line 5, of your statement today you have said:—

> "Owners of patents are not free to fix a monopolistic price or to ignore the activities of competitors."

Then, on page 6, last line, you say:—

> "As with the balance of payments question, this private question is difficult to resolve precisely."

What do you think to be proper to fix reasonable price in India?

Prof. Kilbridge: The meaning I had in mind in the statement on page 3 is that a patent does not grant monopoly in the sense that "monopoly" is normal'y used by an economist, in which you have one suppier and he has control over the market and the price the market will have to pay. There are competing products and competing processes for any patent and no patent is immune to new research and new development which can produce a newer and better product on better processes. So, a patent owner has a limited kind of protection and a limited kind of control during the period.

Shri Bibhuti Mishra: Monopoly means monopoly control. When one has got a monopoly control, we have a control for the prices, and when the price is controlled, the poor will be suppressed.

Prof. Kibridge: We have also, as I mentioned earlier, the alternative use of price controls; the Government of India has very successfully used price controls in the past and, if necessary, may utilise it in the future.

Shri Bibhuti Mishra: Somewhere you have mentioned that the USA charges a profit of 10 per cent. I think a ten per cent profit is too high.

Prof. Kilbridge: I think I have been fortunate enough to escape that indiscretion. I do not think I have put in profit figures.

Shri Mehrotra: The prices of some of the drugs and medicines in America are less than those charged in India. In India the prices are more than those available in America. What will you suggest in order that the drugs may be available at a moderate price in our country?

Prof. Kilbridge: I do not have specific information of comparative prices, especially of medicines and drugs, as charged in India and in other countries or any cost of production figures. We have to refer to the Industry people who I understand have made a scrutiny and several surveys of the cost structures in other countries. I do not know that we should start with the assumption that the prices of drugs and phamaceuticals to the patient in India are higher than they are in other countries. In my own experience, I found that the prices of certain drugs which I purchased while in India, for my children, were cheaper than the price in Chicago where I was previously. I think the industries people will be able to answer the question.

Shri Mehrotra: Some of the life-saving drugs are sold at a very high price in India and they are imported from foreign countries. Will this Bill be helpful to get those drugs at a cheaper price?

Prof. Kilbridge: I sympathise completely with the feelings of this body which has a strong desire to reduce the cost of medicines to the poor. I think it is essential for the Indian way of life and the Indian way of doing things, to make it possible for every man to afford the drugs that

he needs. I do not think that the patent bill is the best way of doing this. I think there must be more efficient ways of doing it.

Shri Sham Lal Saraf: The hon. witness represents the Chamber of Commerce in the USA. I want to combine three things in one question. Three things are discernible from the Patent Bill. Firstly, we have very poor knowhow, and certainly we cannot progress unless we can get the know-how and import it. The question is, on what terms can we do that. I would like to have your advice on that. How can we encourage the knowhow to come into this country at what is called a reasonable cost? Secondly, how can that contribute to our further knowledge and further research on the subject so that indigenous knowhow will also grow here? Thirdly, about the drugs and chemicals needed in the country, there is no scarcity for them, and we get them at a reasonable prices. Keeping that in view, as far as the provisions of this Bill are concerned, don't you think that these provisions, if they are kept as they are, will be conducive to fulfil all these objectives that we have before us?

Prof. Kilbridge: Let me reply to the first two points, and then ask for a restatement of the third one. The first question was, what is the best way to attract foreign knowhow for industry. I think the answer is obvious: capital. We have to throw money and knowledge and heart and skill all into it. Buy knowhow through collaboration; I do not think it can be done well without capital. Technical assistance and agreements that bring only foreign technicians to assist an industry are, I think, a flimsy way of attracting technical knowhow. The best way is the way that India is generally trying to do it: by bringing in foreign capital with collaboration agreements with Indian capital, and insisting on the training of Indian technicians and Indian managers by the foreign technicians; by insisting also that as much of the research and development work that can be done in India should be carried out, here, so that the company develops an integrated business complex, as autonomous a group as possible within India, rather than a branch of a company which sends its research results abroad. I would like to see the growth of industry in the way I suggested. It has to capture the knowhow so that the people are trained and are made available to other companies as they move around within the industrial community and develop skills in a variety of different stations and circumstances. I think it is essential to do this.

Shri Sham Lal Saraf: From your reply I find that you have combined both the knowhow and the importation of capital. Cannot this be separated?

Prof. Kilbridge: They can be separated. I think it is an expensive way of doing things. We could start a factory in India without foreign capital, by using public loan money, or with free foreign exchange. We can hire a group of foreign engineers to come here and set it up for us and show us how to operate it.

Shri Sham Lal Saraf: The first question is, importation of knowhow; then there is the question of capital. It is up to this country to get that. Or, if the collaborator gets the knowhow and is able to manufacture the medicines on his own, well and good. If not, one may enter into collobora-tion. Do you agree to separate the two? These are two separate issues. Secondly, we have to get the knowhow and make the results available at a reasonable rate to the vast population. For this purpose, there are provisions in the Bill fixing the duration of a patent and the rate of royalty to be paid to the patentee. Do you agree with those provisions?

Prof. Kilbridge: As I said before, the royalty rate should depend on the circumstances of each case and is not definable in advance.

Shri Sham Lal Saraf: The Bill provides the duration of a patent shall be 10 years. Do you agree to that?

Prof. Kilbridge: 10 years is, I think too short a period for two reasons. It is inconsistent with international standards which are about 17 years on the average. Secondly, 10 years is not long enough in many instances, to pay back the cost of research and development and setting up manufacturing facilities in India.

Shri Sham Lal Saraf: What about royalty?

Prof. Kilbridge: That should be negotiated in each case.

Mr. Chairman: In page 1 you have said:

> "The patent system is an institution developed as an instrument of natonal policy to serve the nation's economic interest."

That has been the guiding principle of USA also?

Prof. Kilbridge: I feel that the patent law. Why should you object the nation's economic interests in the long run.

Mr. Chairman: Earlier your country took some decisions regarding the patent law. Why should you object to those provisions being made in India now? Ours is an under-developed country. I hope you have read the Ayyanger Report. I shall read out one passage from there:

> "Mr. Langner giving evidence before the Temporary National Economic Committee of the USA which was set up in 1941, speaking of the American Patent system said:
>
> "Patents are taken out in foreign countries (by Americans) for two main reasons. One is that we are doing business abroad and we want to protect our article, so that the German manufacturer or the English manufacturer is not able to copy it immediately and go into competition with us. In other words, it is a great selling point for our goods to have a protected inventive feature and we have kept ahead of the whole world in the export markets through our patent system".

Again, Edith Penrose in his study entitled "The Economics of the International Patent System" has said:

> "No amount of talk about the economic unity of the world can hide the fact that some countries with little export trade in industrial goods and few, if any, inventions for sale have nothing to gain from granting patents on inventions worked and patented abroad except the avoidance of unpleasant foreign relationship in other directions. In this category are agricultural countries and countries striving to industrialise but exporting primarily raw materials—

Ours is such a country—

> "Most countries have little if anything to gain economically from granting patents to foreign firms; and they do so partly because the ideals of 'international cooperation', 'non-discrimination' and similar laudable statements have been influential in shaping the thoughts of lawyers and statesmen."

I have quoted from your own country. Do you agree with these views?

Prof. Kilbridge: I could hardly be expected to agree with the total picture.

Mr. Chairman: Is that because yours is a fully developed country and ours is an under-developed country?

Prof. Kilbridge: No. Indian interests should come first and no Bill should be passed on the basis of pleasing a foreign power. My interest in seeing that India has a good patent law is so that India attracts foreign investment which it needs for rapid economic development. I

worked for 2 years for our A.I.D. mission in which position I was largely responsible for the loan programme to India. I believe fully in Indian development. But I take a realistic view. I do not think public sector projects are enough for India's development. Foreign private investment is necessary and you do not get it merely by pleasing the Government of a country, but by pleasing the bussinessmen in that country. One way of looking at the American patent system is that the American patentee is trying to prevent competition in the Indian market from other freign producers. Another way of looking at it is India is benefited if we can attract his factory to India instead of merely importing, the product and putting up barriers against other products coming in.

Mr. Chairman: This committee is prepared to give reasonable protection, but for for extortion.

Prof. Kilbridge: No country should give protection for extortion.

Mr. Chairman: According to the report of the Reserve Bank, certain patented drugs are sold at 400 times the price. Is it not extortion? I can give certain examples. Gross profits after tax come to 14 per cent, 16 per cent, 17 per cent and so on.

Prof. Kilbridge: Then we have the super tax, tax on dividends, or remittances made, and so on.

Mr. Chairman: The main object of the patent law is to start manufacture in the country and to promote research. Suppose a patentee does not start a factory to manufacture it here nor does he have any research institute here. In such cases, if compulsory licences are given after three years, why should there be any objection?

During those three years he has got monopoly for importing the products and selling them at exhorbitant prices. What protection can the country have against that?

Prof. Kilbridge: I think the patent should be used or it should be revoked after a period of time. otherwise I can see no advantage to India. When the country is providing all conditions necessary for manufacturing the product within the country, one should expect the foreign manufacturer to set up a factory in that country. If under the conditions made available he can make a reasonable profit, he should set up the factory in India and manufacture the items here.

Mr. Chairman: We have no more questions to put. Thank you very much for coming and giving valuable information to the committee.

(The witness then withdrew.)

(The Committee then adjourned.)

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Monday, the 4th July, 1966 at 09.55 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

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2. Seth Achal Singh.
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Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Verhand der Chemischen Industrie E. V., Frankfurt am Main (Association of Chemical Industry in West Germany).

Spokesmen

1. Mr. Georg Albrechtskirchinger.
2. Dr. Ulrich Heubaum.

II. Centre Europeen Des Federations De L'—Industrie Chimique Bureau, *ZURICH.*

Spokesmen

1. Mr. R. A. Willens, *Head of the Patent Department of Shell Chemicals, London.*
2. Mr. J. Egli, *Director of the Swiss Society of Chemical Industries.*
3. Mr. Haslam, *Head of the Patent Department Wellcome Foundation Ltd., London.*
4. Mr. D. H. Nowotny, *Delegate of Swiss Society of Chemical Industries, Zurich.*

I. Verhand der Chemischen Industrie E. V., Frankfurt am Main (Association of Chemical Industry in West Germany).

Spokesmen

1. Mr. Georg Albrechtskirchinger.
2. Dr. Ulrich Heubaum.

(*The witnesses were called in and they took their seats*)

Mr. Chairman: The evidence that you give is public and will be printed and published and placed on the Table of the House. It will also be distributed to the members of the Committee. If you want any part of your evidence to be confidential, it will be printed and distributed to the members of the Committee. Your memorandum has been circulated to the members of the Committee. If you want to add or supplement anything, you may do so. Otherwise, members will ask questions.

Mr. Georg Albrechtskirchinger: Mr. Chairman and hon. Members of the Committee, may we, in introducing ourselves as the representatives of the Association of Chemical Industry in West Germany, say some words by way of introduction about our personal background? Dr. Ulrich Heubaum, sitting next to me, is a chemist and has a life-long experience in the planning and running of chemical productions. He is with the well-known Bayer Company in Germany and he has been asked to deal with chemical questions of importance which will come up during this oral evidence. I am a member of the Bar at Frankfurt and advise the Association of Chemical Industry on all questions of industrial property rights and related problems in the legal field.

We have pointed out to you in the memorandum which was submitted by our association, the Association of Chemical Industry in West Germany, in January of this year, that ours is an organisation which represents virtually all of the chemical industry in Germany with more than 2,000 individual member firms which represent all the companies engaged in the production of chemical goods of all types.

The President of our Association has asked me to convey to you, Mr. Chairman, and through you to all the members of this Committee, his most sincere and respectful greetings. We are indeed greatly honoured to be heard today by appearing before you and we consider it as an event without precedent that we, as representatives of a foreign country, representatives of a branch of industry of a foreign country, have been invited to come here and to be heard by your Committee, which is seized with a very difficult question indeed, i.e.: revision of your present patent legislation. We hope to be able to contribute some ideas and consider this invitation to be a remarkable example of open-mindedness and we feel that this sort of exchange of ideas across the borders is very useful. We are glad that today in this Committee room there will be some sort of dialogue between India and Germany, because as you know, the relationship between our two countries has always been cordial and is characterised by mutual respect and very good understanding of each other's problems.

The specific purpose of our being here today is not, in my opinion, to advise you but rather, I would say, to share with you our experience of the reconstruction of German industry, including chemical industry after two devastating wars, because the evolution of the last twenty years will shed some light on the issue which is before you. In view of this, we consider it to be our duty to be here and to communicate to you our suggestions and answer to the best of our knowledge any questions that you might want to put.

Since we have to do this in English, which is for us a foreign language, may we ask you beforehand to have patience and indulgence if during the course of questions some problems of communication may arise?

May I touch on our recent and contemporary experience in Germany. As you know, at the end of the second World War Germany was devastated. Our entire industry had suffered very severely. The persons who tried to get the industry back on its feet had to cope with every imaginable difficulty. In most cases they had to start from scratch. They were faced with a great many difficulty and restrictions which were imposed upon the

defeated country which were only gradually lifted as slowly the Federal Republic of Germany regained step by step its independence and its sovereignty. There is no need to tell you that today the Federal Republic of Germany ranks among the very top of industrialised nations in the world.

In retrospect now of this evolution of the last twenty years of German industry during its reconstruction period I believe that I should touch only upon two of the phenomena which were casual and characteristic of this reconstruction, and they are the role of patent protection during this period and technological co-operation with foreign countries. As to patents the facts are the following. By the end of the war, in the spring of 1945, patent protection in Germany had ceased to exist. The Patent Office at Berlin had closed its doors and there was no longer any opportunity to file anything and to get any sort of protection.

At the end of the war it was quite evident that everything in the country had broken down. There was no longer even the possibility of travel to exchange things to produce. Everything had to be done on a very small scale. The German property rights—of course, patent right is a property right; the lawyers like to call it the intangible property right—and patent rights abroad were as a rule by the end of the war confiscated as a consequence of the war.

This was the situation that Germany had to face and the responsible men in Germany in politics, in the economy and in the industry who tried to get things rolling again knew very well that the material aid from abroad which began to flow into Germany, thanks mainly to the American influence, and all the inventiveness and the potential of creative thought that was certainly still there in our country and science and technology alone would not suffice. It was very quickly realised—this, of course, was based on experience—that the protection of inventive thought along the traditional lines of the patent system was a pre-requisite for an industrial and economic recovery. Accordingly, in Germany everything was done from the very beginning to re-institute the patent system and to make it work again.

At first provisional steps were taken to make sure that inventors could file their inventions. Then, by 1949 the Patent Office was re-opened and it began its traditional work of examination. The old Patent Act, which was originally put into force of law in the last decades of the last century and which had been changed several times according to the changes of the economy, was maintained in all its basic features; there was no substantial change.

Thus, from the very beginning of the industrial recovery in Germany the inventor could rely on the safeguards of the traditional, strong patent protection. This meant that under this protection new thoughts were readily disclosed and not suppressed, and research and development were encouraged. It also meant in our opinion and experience that thus a basis was given for an efficient industrial investment policy. In the face of almost total destruction and in a situation characterised by the lack of all material assets, the intangible assets which are dormant in any nation in the world at any time, that is, creative thought, could be brought to life in Germany, thanks to a very strong patent protection, which thus became a very decisive factor for the gradual growth and reconstruction and for the present strength of our industrial society in Germany.

It is equally significant—thereby I may touch upon the second point which I have mentioned—that from the very beginning in the patent field

this sort of protection was offered to all foreigners—anyone in the world—who wanted protection of their intangible property rights in Germany. No discriminatory measures were taken in regard to applications, for cated German property during the example, made by nationals of countries whose governments had confiswar or as a consequence of the war. The fact that Germany right after its defeat provided a strong patent protection at the time when the country was still in ruins encouraged the inflow of foreign technology, capital and know-how and relatively quickly Germany could again come to the basis of exchange of ideas and technology and re-tie the old links that had existed before the war because the foreign companies felt at ease to operate in Germany under those conditions of patent protection; they felt at ease to grant licences, to make known their know-how and very soon a very intense technological co-operation between Germany and a great many countries began.

As you very well know, now Germany has rather intense economic and industrial contacts with a great many countries, not only with industrialised nations but also with a great many countries which are in the course of industrial development and among those countries, fortunately, is also India.

In this connection, after this introduction, I might want to make one reference which relates also very directly to our experience. Our experience might shed some light on a specific problem which has been mentioned by your Government in the well-known report of the Secretary-General of the United Nations on the role of transfer of technology to under-developed countries. In this report your Government has stated in its official declaration that as a matter of fact 90 per cent of the patent applications which were filed in this country are filed by foreigners and that only 10 per cent are filed by Indian nationals. This fact is deplored by your Government.

As you might have seen in our memorandum, we touched a little bit on this issue. In this memorandum we tried to tell you that in our opinion this certainly is a situation that should be improved. We are of the opinion that as time goes on and there is more industrial development in India, no doubt, this ratio would change to the better, that is to say, there would be more Indian applications.

In this connection I wish to relate to you our experience. We have prepared for you a diagram on the basis of statistics of patent applications in Germany between the years 1905 and 1965. In this the patent applications are shown only in the form of a diagram but if you so wish I can give the exact figures for the last 10 or 12 years which I have with me. This diagram shows the total figures and then in two other lines, which are on this diagram, the applications are split up into "by German nationals" and "by foreigners". You will see that from 1905 onwards, at a time when Germany was already an important industrial nation in the world, the number of foreign applications was relatively high. This is shown through the line that you see at the very bottom.

I may draw your attention to the right side of the diagram, which deals with the period after the Second World War. As you can see, the broken line starts practically in 1949 —the time, as you know, when the Patent Office began to work again, and there you will see that this period of German reconstruction after the war from 1950 on, is characterised by very sharp rise in percentage of foreign applications. I can give you the exact ratio of last year in this respect—and I quote here from the official statistics of the German Patent Office—in 1965, the percentage of patent applications filed by foreigners in Germany was 42:61 per cent. I may state only briefly—I do not want to burden you with all these figures; if the Committee so desire, we are

ready at any time to supply this material—at any rate, I may point out that, for example, in 1950 this was 16 per cent and there was a steady rise every year and this is not surprising to us. We tend to believe that in a highly industrialised country, the high percentage of foreign applications is precisely an indication that this area enjoys a great economic interest, that it is to be considered an area where there is progress, where there is evolution and where there are chances for a better future. In this connection, may I relate to you from my experience, may be now, based on exact statistics, that since the starting of a Common Market authority and the attempts to coordinate and to merge the economies of he six sountries of Central Europe, the number of patent applications from abroad —and I mean from outside Europe including U.S.A.—in al' these countries, especially in Germany which is the only examining country for patent applications in the Common Market area has increased enormously. As a result of this increase, the German legislator is now faced with the problem to simplify the procedure, because the German Patent Office is no 'onger able to bear the load of examining every single application that is made. Now this sort of fact in the Common Market area today where the number of foreign—and in this case primarily the United States—patent applications has increased so enormously and our Patent Office has practically broken down is again an indication that the economic progress in this area attracts the outsiders to come in and to operate in this market. I realise that for a country which has not yet reached this industrial stage, things might be judged little differently, but believe me, in reality in my opinion, there is also for India an indication that this great country with a large population is considered by any one who is well versed in the evolution of economics and technology as having a future. There is a future here and it is the intense economic interest of the area which is responsible for this more than anything else. From my personal experience it seems to me that for an industrial country like Germany a percentage of almost 43 per cent of foreign applications in the last year is quite indicative and quite remarkable, and as you all know, may be other witnesses from other countries have told you already—this is not an exception at all. Netherlands for example, has almost 80 per cent foreign applications. There are great many countries in the world where you find a similar situation. It seems to me, this is one of the cases where a certain amount of patience is needed. The problem should not be seen exclusively from a pessimistic angle. There is much good in this.

Now, Mr. Chairman and Hon'ble Members of the Committee, may I again give you some material, which in this respect, is of interest. I have here from the official statistics of our Federal Reserve Bank figures which were published in the years 1964 and just recently in 1966, which show balances of royalties paid and received in the Federal Republic of Germany for inventions, processes, copyrights and so on and so forth. Now as you will have a look at this document —I would ask you to have a look at it—you will see that Germany today in the year 1965, arrives at a com pletely negative balance of royalty payments. As a matter of fact, if you look at last column you will very well see from 1950 on, when the negative balance was still very small—but this, of course, was due to other factors i.e. the receipts and expenditure were very small, because this was the very beginning of our industrial progress—it was very small in 1950. It has come upto 462. In order to explain to you this table in a correct and complete manner, I would attract your attention to the following. That upto 1962, in these statistics of our Federal Reserve Bank, also the payments for copyrights and similar rights were included. There seems to be, in fact there is no use when discussing technolo-

gical changes to include payments for things of that sort. I will ask you to consider the figures in 1963 and there you see in the second column, the payments for copyrights and similar rights are listed. So if you take the figures of 1965, you would have to subtract 19 and would arrive at the figure of 300, which would mean that Germany has received in 1965 a sum of 300 million DMs for royalites. And if you look at the expenditure side, you would have to subtract 121, which leads you to 660. Germany, in other words, in 1965, expended 660 million DMs for payments on royalties. The negative balance, if it is corrected taking into account copyrights etc. would be minus 360. Well we can draw this simple lesson from this, in 1965, Germany which in ranking is far above placed amongst the industrial nations of the world in industrial output, paid more than double in royalty payments to other countries than it received. In spite of all the expenditure we have and all the efforts we make for research, because we are convinced-this is our personal experience—that you can neither build up an industry nor maintain an industry unless you devote a great deal of money and time on ingenuity, research and development—in spite of all this, we cannot run our economy and our industry without the help of countries that have more experience i.e. are more advanced, and if you draw the balance of payments, you will realise there is clear indication that we in Germany are more at the receiving end than at the giving end. This again, I think is a very interesting fact. I am glad that we are in a position to give you the latest figures of 1964 and 1965 which have just been published three or four weeks back.

I may say one thing more. Just as we do not consider the number of foreign applications to be a liability, we are equally not likely to regard this in Germany as a completely negative thing. It seems to us that you have to arrive at a sort of balance in any economy and in the exchange of technology and science. Even where you do all the things that you can do yourself with the utmost efficiency, you have also to invite foreign cooperation. We, in Germany, would always be willing to depend in the chemical industry on the ingenuity and experience of Americans, of Swiss and of others and we would be only too glad to learn a great deal also from you. In chemistry, we would be at the receiving end in the sense that we would have a black-flow of your personal experience of some of the methods that we try to use here in India.

We wanted to show you the experience of Germany after the Second World War. Of course, it is an experience which you cannot just take and apply to any other situation in the world. I am completely aware of this. But there are certain parallels in the world. In spite of total destruction we had quite a few men who knew how to run industrial installations. I can assure you that if we had not taken these measures to protect these intangible assets, let me say like a small little flower that is just about to come out, it would not have grown into anything and the material aid which we had received later on under the Marshal Plan would not have been put into good effect. If we had not created this system which protected our own creative thought and—it is equall important—which encouraged the other countries and also our former enemy countries to come back and say, "Well, let us try again; let us arrive at technological cooperation" the Americans, the British, the French and all other countries would not have moved an inch. If they had not had the assurance that their know-how and their inventions have a very good and solid protection, they would not have come forward to cooperate.

We are dependent on cooperation. Today, in science and technology, there is the science which is worldwide. The science or the British science but it is the science which is worldwide. The knowledge must be communicated which is, after all, one of the ends of

the patent system. But the disclosure of the knowledge alone is not sufficient. Contracts must be made, experience must be communicated to others. This can only be achieved by a sound patent system.

Now, let me say a few words in regard to the Bill itself which, of course has been touched upon to some extent in the Memorandum which has been submitted to you in January. It is quite clear, as the representatives of the Association of the Chemical Industry in Germany, we are particularly interested in certain clauses of the proposed legislation which deals specifically with chemical inventions. However, one cannot look at all these things in such an isolated manner. We have to go into the provisions as such in their complexity and in their entirety. I have not the intention to repeat what I have already said. I would just briefly mention a few things which may have not come out clearly in our written Memorandum. Let me touch upon, very briefly, the provisions of compulsory licensing, working of patents and licences of right and revocation. That is all contained in pp. 4, 5 and 6 of our Memorandum. But let me make a few general remarks here. We have our experience in Germany. Of course, the system of compulsory licensing is self-evident in a way and the experience has shown that the temporary monopoly which is conferred by the patent—the legislator confers this monopoly for very good reasons—should be under some sort of control. Whenever there is an abuse or whenever there are overriding necessities, may be in public interest or for public welfare, legal measures must be taken in advance to guarantee that the invention which is patented will not be abused. This may be resorted to only in the case of abuse of the right conferred by the patent.

I may, however point out that there are other correctives in an economy which are, in our experience, more effective. One of them is competition, specially when you touched upon the problem of prices which we shall discuss here sometime later. There is only the competitive element which works in an automatic and efficient manner. Of course, we also have it and practically in all industrialised nations, there is some sort of legislation which deals with restrictive trade practices. It is quite clear that in this field of legislation of restrictive trade practices, you must also touch upon the issue of patents and industrial property rights. In Germany, we enacted the Restrictive Trade Practices Act in the year 1958. Without going into the details, the basic principle of the law is that any measure, any contract, which restricts competition or which falsifies the competitive normal market situation is, as such, not valid. Then, of course there are certain exceptions which have to be there. The authority which has been created for this purpose can make exceptions and grant permissions for certain agreements. This German law, in dealing with patent rights, industrial property rights, in Sections 20 and 21 says very clearly that all the licensing agreements as such are valid as long as they do not impose upon the licensee any obligations which go beyond the scope of the right conferred. Now, let me give you one very simple example. If I am a patentee. I can give my patent to Dr. Heubaum and allow him to run it until the year, let us say, the dates of expiration 1971. Under this licence contract, if I would obligate him to be bound to this agreement beyond the year 1971, this agreement would not be valid because it would go beyond the scope of my right. This is, of course, only a very simple example. Any licensing agreement which goes beyond the scope of the patent right is invalid. Now you see here again that the German legislation in a field that has nothing to do with compulsory licensing, which is of greatest importance in the Restrictive Trade Practices Act, has expressly permitted these agreements which after all are based on a monopoly

right. The legislation has clearly said that as long as these licensing agreements are within the scope of the right conferred to the patentee, they are all right. They need not be exempted; they need not be registered. They are all right. But I may tell you that there are certain restrictions of licensing agreements, restrictions which I would impose upon Dr Heubaum, referring to my example, that he would produce only in such and such a manner, manufacture the product in that and that quantity or only in that territory or only within a certain time. The restrictions of this sort by legal definition are within the scope of the patentee's rights. So you see that even in Germany where we have a rather strong law on restrictive trade practices, it had been found to be necessary and especially here the licensing agreements should be so to say exempt ments should be so to say exempt. There are a few examples outside of this sphere but they are not regarded as restrictive by legal definition. Furthermore, I may point out that the legislation has also provided for a number of cases where certain clauses in such licensing agreements may have to be registered with an authority who will issue the permission that they be practised. For example I am a patentee and I can give the licence to Dr. Heubaum. But I will not be allowed to oblige him that he should buy the raw materials and other intermediate products from me. But if I can prove, and if it is the case, that the flawless technical execution of this material which is protected, depends on this raw material which is under my control—in other words where there are technological reasons for it—then this sort of agreement is all right and the law does not scorn it. The legislation in Germany has been made with a great deal of care in these matters and the significant factors may be of great interest to you. I am giving you our own experience in Germany where the legislator in the Patent Act itself has reinstituted the traditional system of strong patent protection, where for developments after the war it was thought necessary to have a very strong restrictive trade practices Act, where the legislator found it necessary to protect especially the industrial property rights by special clauses, because it is very well known that unless you do that—give a rather strong temporary monopoly—you will have no technological advance.

I don't want to comment at the moment on the individual clauses of your compulsory licensing system. I may point out that in Germany also we have a clause which deals with compulsory licensing and this compulsory licence is to be granted only where public interest requires it. In 1965, we did not have one single case for arbitration and I must tell you that applications for compulsory licence for reasons of public interest are very rare indeed, the reasons for this being that the law puts up a very high barrier of conditions which have to be fulfilled. In theory you find this almost in any patent legislation in the world, for example in your Bill also. Due consideration must be given however to the fact that the applicant for a compulsory licence will really be able to produce on a commercial scale the patented product. But of course, the jurisprudence of a certain country on this matter is of high importance in our view. It is mainly the jurisprudence which decides doubtful cases and which will put the accent on how a certain clause should be interpreted. Our experience in Germany with a very restrictive sort of compulsory licensing system, is that it is very difficult to get a compulsory licence. There is only one ground, public interest and no other. I know you are concerned with the problem of non-working of patents. I will come to that a little later. Our general experience would show that compulsory licensing is a fleet in being which should be there and must be there but there is no use having an arsenal of all imaginable weapons which should be wielded by

the Government authorities, which could be used by competitors, which could be used by practically anyone and which go very far in detail. In other words, a very detailed and elaborate system of compulsory licence will have a detrimental effect.

May I, Mr. Chairman and Hon'ble Members of the Committee, draw your attention to one particular point which is very much on my mind and, I will say, rightly so, because it touches in particular the entire chemical industry? This is the regulation called the "licence of right" which is found in your proposed legislation—sections 86 to 89. May I, Mr. Chairman, make a few remarks first as to the terminology, because there seems to be some sort of a confusion regarding the terminology. You are quite familiar with the Model Law of the United International Bureau for the Protection of International Property, which also deals with something which is called "licence of right". However, the licence of right which is proposed is of a completely different nature. There a provision is made which depends on the voluntary action of the patentee. A patentee can, if he so chooses, make a sort of a declaration, which will be registered duly by the authorities, to say that any one who wants to use the patent can use it on terms agreed upon. In Germany, we have a similar regulation in our law. It is, I believe, in Section 14, which we call somewhat differently. If I translate it in English, it means 'willingness to grant licences". The Legislature, when it framed this clause, had the following reasons in mind: a small inventor, an individual scientist, may sometimes find the patent fees involved to be rather high; so it was felt that granting a reduction in the annual fees if he grants licences freely to the public, will be very helpful. Another reason is that smaller companies which do not operate so extensively in the market might have difficulties sometimes in finding adequate partners for licensing agreements; in most cases, if the size of the company is small, you will need certain agreements with others to help you in production, distribution and so on, therefore, it was felt that a smaller company might find it helpful to have a sort of public notice that any one could come and ask for the licence. This is the concept of licence of right as far as we have understood it. If you so wish, I could also give an indication as to how many of such applications and notifications have been made in Germany in the last year. There were several thousands of notifications of this sort last year in Germany.

The system which is being proposed in your Bill is something complicated and if you permit me, I would not call it "licence of right"; I would call it "automatic licensing" because I speak here for the chemical industry. According to Section 89, any invention in the field of chemical industry will automatically be endorsed with licence of right and this in turn means that any one can immediately apply that a licence be given to him.

Shri Bade: Read Clause 90 also; that is also applicable.

Mr. Albrechtskirchinger: Clause 90 deals with "when reasonable requirements of the public deemed not satisfied".

Mr. Chairman: You referred to Clause 89; Clause 89 says:

> "Where, in respect of a patent, a compulsory licence has been granted on the endorsement "Licences of right" has been made or is deemed to have been made, the Central Government or any person interested may, after the expiration of two years . . .".

Mr. G. Albrechtskirchinger: I am sorry I misquoted the Clause. Clause 89 deals with revocation of patents

after the grant of compulsory licence or the endorsement "licences of right". The Clause that I was thinking of is 87, which deals with certain patents to be deemed to be endorsed with the words "licences of right". That is what I should like to call "automatic licensing". There, of course, you have quite a few sectors of industries, for example, alloys, optical glass, etc., which are individual productions of certain industries. But in the field of chemical industry, no distinction is made. It is applied for the whole industry; the "licence of right" would always apply to it and Clause 88 regulates in detail as to how this will be done. Mr. Chairman and hon. members of this Committee, if this Clause is passed, the chemical industry will be completely under a different regime.

Mr. Chairman: Not to all chemicals; it is only in respect of substances used or capable of being used as food or as medicine or drug . . .

Mr. G. Albrechtskirchinger: May I give my interpretation of it? I refer to the Clause which I should like to call "automatic licensing". I would like to ask you to tell us whether it is correct or not. The clause which deals with "automatic licensing" has nothing to do with discrimination or a special measure with regard to the drug industry. It deals specifically with all inventions in the chemical industry totally. There is one additional measure which hits the pharmaceutical industry. In respect of a patent endorsed with "licence of right", royalty has to be paid; this royalty should normally be agreed upon between the patentee and the licencee and in case there is no agreement the President of the Patent Office, if I am correct, will have the right to arbitrate in the matter—to settle the terms. There, for the pharmaceutical industry, you have introduced in the proposed legislation a royalty ceiling of 4 per cent. This is the only difference. But we want to make it clear to you that this particular Clause, Clause 87, puts the entire chemical industry in your country—all inventions in this field—under a completely different and special regime. What we want to discuss with you in detail is whether this is a wise measure.

Shri Bade: How are the chemical indusries included?

Mr. G. Albrechtskirchinger: May I explain it to you? If I may say, your Sec. 87 reads:

> "Notwithstanding anything contained in this Act,—
>
> (a) every patent in force at the commencement of this Act in respect of inventions relating to—"

May I skip the first paragraph as also the second one and read (iii):

> "(iii) the methods or processes for the manufacture or production of chemical substances including alloys, etc."
>
> shall be deemed to be endorsed with the words "Licences of right", in the case of inventions referred to in clause (a), from the commencement of this Act . . .".

In my opinion, it is quite clear and in Europe it is always interpreted in this way,—if I may say, I would be surprised if there were a difference of opinion—that the entire chemical industry will be automatically brought in. This is a legal obligation that you devise here. There is no administrative act needed. It will be automatically subjected to a special regime of licensing—as I call it, automatic licensing. Am I correct?

Shri K. V. Venkatachalam: That is correct.

Shri R. P. Sinha: It is only in respect of patents in existence at the commencement of this Act.

Mr. G. Albrechtskirchinger: No. It is for both. It is a technical question of phrasing in such a way that it applies to both sorts of patents, but both are specifically mentioned. I think I am quite correct in this interpretation: from the moment that you would pass the Bill in the way it is proposed now, any invention—I want to stress this again—any invention in the chemical field, no matter whether it is for drugs or dyes, would be treated completely different. What I would like to discuss with you is: whether this is a right thing to do? We do not believe so. I was surprised to find in the notes which accompany this draft law a very short explanation as to why this clause is included, that it is included in order to guarantee or to make sure that there will be a proper development of the food, drug and chemical industries in India. This is to say the moliration which has become apparent by the very publication of this draft law. I think you need plenty of time to discuss the meaning of this 'Licences of right'—this automatic licensing and what it would amount to. In our memorandum we have said a few words about it. You find there a short summary. We do regard it as a discrimination. When I say 'discrimination', it is not in any evil sense of the word. What I want to stress is that it is a different sort of treatment. We do not believe there is any basis for a different sort of treatment. As a matter of fact, we believe that the development of the chemical industry which is one of the basic and most important industries for the industrial development of a country would be sincerely endangered and probably made almost impossible if this sort of special regime of automatic licensing is imposed. The reasons for this, it seems to us, are self-evident. If you want to have an industry, if you want an industry to prosper, to make progress, in our experience, what you should do is to provide a strong patent protection for it. In our Patent laws usually, with very few exceptions, we have no differential treatment. I will come to the question of processes and products protection in the chemical field which is a very special issue and has historical roots. It has to be explained in a calm manner. If you want any industry to prosper, you must provide for good and certainly equal treatment as compared to other industries. If you do not do this, the results would be: first of all, you would hamper the development of your own chemical industry. All the efforts now made to build up indigenous research, to build indigenous production units would be hampered by this sort of treatment. It would frustrate these efforts to a considerable extent.

Secondly, you would also restrict the inflow of the foreign element of technology, parting with inventions, probably also the setting up of chemical installations and production units in this country by foreign entrepreneurs. Also from my own experience, there is no use, in our opinion, for any country, less or more developed, to be sort of hesitant about foreign elements in their industry. One should not do this. One should regard this as a chance of further co-operation and further evolution and it seems to me that in India at the present stage, development depends to a large degree on foreign industrial companies' experience which after all, when they come here, incorporate themselves according to Indian laws and become Indian companies but they bring with them a lot of substantial knowledge and experience which will promote here industrialisation in a well-balanced manner and India will later on, in my opinion, quite clearly present a completely different picture and even when India attains considerable industrial development, she will always need and probably will welcome more and more collaboration with foreign industry. Germany has long since overcome this sort of apprehension that you might sometimes have and I am pleased to say that our

field of operation is no longer Germany but the European Common Market and many countries like France, Italy, etc. are no longer a foreign land for us. The Common Market has become an economic reality. In other words, automatic licensing, in our opinion, will have a disastrous effect on the building up of your indigenous chemical industry and on the very chance of making use of the foreign element for which there is a pressing necessity in India now.

I have taken a considerable time and I feel that I should restrict myself very much in elaborating further on the specific clauses of the Bill. If you so desire, may be later on during the question period, if any member desires to discuss any specific point, I will gladly do so.

I will only touch upon 3 or 4 general points. Let us take the term of patents. It should be pointed out and we have pointed out this to you several times, I believe, that the international trend is towards a period approaching 20 years and not for a period approaching half of it as it is proposed in your Bill. We have this trend in Europe. It is so in the draft European patent Law of the Common Market which has been discussed and not yet been realised. It will be of special importance to India. That the 29 years terms is also in the BIRPI draft model law. It is after all a law drafted for the countries in the process of development by representatives of industry of developed and underdeveloped countries to share their experience, and they also propose a term of 20 years. If you change it to 14, one might argue whether it is a decisive step or not, but to reduce it to 10 years for pharmaceuticals is especially bad, because it is quite well known that the period between the birth hour of an invention and the marketing of the product, for a number of reasons, is especially long in this industry. There are a number of steps which are identical in every chemical invention, but in addition, in the case of pharmaceuticals, toxological, clinical tests etc., have to be undertaken and this takes a long time. So, by reducing the term of patent for the pharmaceutical product further, in reality you reduce it by more than the number of years that are put down in the law.

The question of process protection and product protection has been discussed very often, but we should be very clear about the terminology. In Germany, for historical reasons, our patent law has always been process protection in chemistry. This is the English translation of section 6 of our law:

> "If a patent has been granted in respect of a process, its effect shall extend to the products directly obtained by that process."

This, of course, is in reality not process protection, because this process protection extends automatically by legal definition always to the product which is the direct result of this process. There is a further safeguard along these lines in our section 47, para 3, which has also been in effect for two or three generations now, which reads:

> "If the invention made use of relates to a process for the manufacture of any substance, then, until proof to the contrary has been established, every substance of the same nature shall be deemed to have been produced by the patented process."

In other words, if I have a chemical patent in Germany, which will be a process patent, and I find out that the product which is produced under this process by me is also produced by somebody else, an infringer, who does not have the right and I

sue him, it will be the infringer who has to prove that he produced this by another process, and unless he is able to prove this, he will lose the case. In other words we arrive at what is commonly called product by process protection. It is not process protection as such.

In the United States, for example, there has always been product protection for chemicals, as also in France since 1844 or so but in Germany process protection since our law was passed in 1876. This is due mainly to historical reasons, due to certain ideas that this would be better for the development of this industry, but if you draw any conclusion that because of process protection Germany has prospered more than, say, France, it would be very difficult to establish, because the factors which influenced its development are of a completely different nature.

I would like to express very strongly that if you do not include the sort of clauses which we now have in Germany, where the product produced immediately by the process is also protected and where the infringer will have to prove that he did not use the process in order to arrive at the product, you weaken the protection in such a substantial manner that the final result will be negative.

Shri K. V. Venkatachalam: Please look at Clause 47(1)(b) of the Bill where the protection extends to the product made by the patented process.

Mr. G. Albrechtskirchinger: I am not quite sure it does.

Shri K. V. Venkatachalam: Anyway, that is the intention. If I may say so, I would not like to go into it very closely now and we cannot at present give an opinion on it, because we have to study it very carefully. I would like to look upon this in a more detailed manner and then let you know.

Mr. Chairman: Clause 47(1)(b) says as follows:

> "Subject to the other provisions contained in this Act, a patent granted, whether before or after the commencement of this Act, shall confer upon the patentee—
>
> (b) where a patent is for a process of manufacturing an article or substance, the exclusive right by himself, his agents or licensees to use or exercise the process in India and of using or selling in India articles or substances made by such process and of authorising others so to do."

It is quite clear.

Mr. G. Albrechtskirchinger: May be, but, if I may say so, this would not be the moment to give a final opinion on it because it has to be carefully investigated.

Mr. Chairman: There is no ambiguity about it.

Shri K. V. Venkatachalam: Anyway, that is the intention.

Mr. G. Albrechtskirchinger: That is the intention, but it should be carefully studied to arrive at a wording which will be foolproof.

Shri K. V. Venkatachalam: Otherwise, a process patent has no meaning.

Mr. G. Albrechtskirchinger: I fully agree. I personally believe that it may be wiser at the moment to have a product protection for chemicals because science itself has changed.

On this, one can of course have different ideas.

Now, I would like to come to one of the most important points in my evidence, because we believe that the picture given so far would not be completed if we stop here. We have very much heard of the problem of prices, and in particular the prices of certain commodities in the chemical field; in order to deal with the problem in an adequate manner, our experience in Germany shows—and that is also our experience in India, since, after all, the German industry is here and it has started work in quite an effective manner—that the factors of general chemical economics must be considered in order to appreciate the problem of the cost of production and of prices. My friend Dr. Heubaum has prepared a brief study on this issue which we hope will help to illustrate the point. With your permission, Mr. Chairman, I may request Dr. Heubaum to present this material to you and the Committee.

Dr. Ulrich Heubaum: In previous discussions on the proposed patent legislation in India, the subject of prices of chemicals in India and elsewhere has been repeatedly raised. We feel that it would be helpful to offer some material which is based on the experience of the German chemical industry engaged in the production of identical chemicals in Germany and in India. We have prepared a cost analysis which we think is representative for quite a number of chemical products in both countries and which may be seen in the diagram which is being distributed at the moment. This diagram deals with firstly agricultural insecticides and secondly with a group of general organic chemicals and lastly with a pharmaceutical compound. The products selected for this comparison are not patented which shows that the predominant reasons for cost differences of any of the chemicals produced in the two countries lie outside the patent field. The results of such a cost analysis are shown in the diagram which we would like to submit to the Committee. In doing this, we beg you to understand that the actual production cost cannot be disclosed openly in a competitive market. For this reason, the cost situation is given in the form of a diagram wherein the German production cost figures are given as 100 per cent and the Indian production costs percentage-wise accordingly. The data and ratios given in the diagram are based on figures which serve to calculate the cost of identical productions in the different countries. May I ask you to look at the first example which is an insecticide? The production cost of this compound in Germany is shown by the column on the left-hand side. The comparative cost of the same product in India is shown by the two columns to the right which are based on the official exchange rates of the two currencies involved, before and after the devaluation of the rupee. You will note that before the devaluation of the rupee, the production cost of this insecticide in India was roughly 210 per cent of the German production cost. The devaluation would bring that down to approximately 135 per cent provided that no further cost-rising factors come into the picture such as rising prices for imported intermediates or manufacturing costs in India.

The second example deals with compounds needed in the rubber industry. The first column shows the production cost in Germany expressed as 100 per cent. The respective production costs in India amount to about 240 and 150 per cent respectively. In drawing a preliminary conclusion from these first two examples, where patent protection and therefore expenses for royalties do not come into the picture at all, it is not possible at present to produce in India at comparative costs. The reasons for this are manifold, one of them being higher cost for indigenous raw materials, not to mention the fact that production in smaller units is always more costly. The

effect of lowering cost by increasing the units may be seen in our third example which describes production cost ratios of a pharmaceutical compound where patents also have no bearing. Production costs in India are drawn in twin columns where by the columns designated with (b) represents a unit of a 50 per cent production increase, compared with (a). You will note that this production increase lowers substantially the production costs. In spite of this, it can be seen that the production in India is still at 400 or 250 per cent respectively before and after devaluation of the rupee. It may be noted also that customs and clearing charges for imported intermediates contribute considerably to the higher costs. Incidentally, these samples are representative for the complexity of organic synthesis in general with its multitude of production steps. It is characteristic for a great number of chemical processes, as for example, dye-stuffs.

May I refer in this connection to another diagram in which we will try to describe graphically the main steps involved in the production of a well-known pharmaceutical by the name of chloroquine which is used in the treatment of malaria and rheumatic diseases. The starting material for the synthesis of this pharmaceutical is Ethylene which can be found in the middle of the top of the diagram. From this raw material, two different series of production steps must be gone through which you will find in the left-hand and right-hand columns in order to arrive at the final synthesis after a total of 16 production steps. To render this picture complete, however, the introduction of other chemicals represented by arrows in our diagram into the production process must be considered. These chemicals in turn are the result of separate reactions which again require a number of production steps. To make the diagram simpler, the production steps are indicated by the number of arrows. The total of production steps involved is about twice the number mentioned before; that means, about 30. Furthermore, the by-products which result necessarily in the course of the synthesis are not indicated. Incidentally, most of the intermediates are not shown by their chemical names in the diagram for reasons of simplicity. If you wish, the names of these various compounds can be given.

In Germany, the complete synthesis of such complex compounds starting from Ethylene presents no problem at all for any chemical company, because either all the chemicals needed are produced by the company itself or are readily available in the domestic market. The manufacturer may choose whether he supplies or buys the various chemicals needed in the production. Let us now turn to the possibility of synthesising the compound in India. It would, of course, present no difficulty at all to an experienced chemist to perform this synthesis on a laboratory scale. To produce, however, this compound on a commercial scale, which means also at reasonable cost, sufficient quantities of all intermediates must be available. Experience shows in this and some similar cases that all the chemicals needed are not available here at a reasonable price. In order to produce such a commodity commercially in India, the manufacturer under the present conditions is compelled to restrict his synthesis to the last steps. In spite of this, as our previous diagram has shown, the production cost of chloroquine in India, which is actually the pharmaceutical we have been talking about, is many times higher than the corresponding cost in Germany. Should the manufacturer in India now attempt to make the total or a substantial part of this synthesis in India, the production costs would be even more unbearable. As has been mentioned before, the chemical industry in India seems to be handicapped at present by lack of sufficient raw materials and chemical intermediates at competitive prices.

To illustrate this may I mention some examples? Ammonia, the basic chemical for nitrogenous fertilisers and an important precursor for many chemicals is still about 6 times as expensive in India as in Germany. Likewise, nitric acid, the derivative of ammonia, is about 5½ times more costly in India. Caustic soda, an important product of brine electrolysis costs 2½ times in India as compared to Germany. Similar relations are true for intermediates such as carbondisulphide, an important reactant in the rayon and rubber industry, the price of which is 5½ times more than the world market level. Most of the compounds irreplaceable in the manufacture of chemicals and auxiliaries are 2½ to 3 times higher here in India. Some of the reasons for this have been mentioned before—smaller units and also relatively high investment costs. As far as this latter item is concerned, I should like to refer to the last part of the diagram which has been submitted and which shows the increase of investment costs of chemical production in India. The column on the left-hand side shows the actual expenses in India of a complex chemical manufacturing unit divided into imported machinery, machinery from India and customs and clearing charges. Within the one year period between 1964 and 1965 the total investment cost for a certain plant which is being constructed at present has risen by almost 50 per cent as the last column on the right-hand side will illustrate. You will note from the middle column that the factors which are responsible for this increase are almost exclusively indigenous factors, that is to say machinery produced in India, expenditure for building and increase in custom and clearing charges for imported machinery. At this time, it should also be mentioned that the cost of chemical equipment is on an average three times as high in India as in Germany. The items mentioned in the diagram can be supplemented by numerous examples. The production costs of certain dye-stuff compositions used for printing textiles now being produced in India as well as in Germany are 2 to 4 times higher. The same is true for intermediates used in making these dyestuffs. The world market in chemicals has for years shown a consistent tendency of declining prices due to strong competition. This tendency necessitates more and more rationalised production and to produce in ever larger units. In developing the chemical industry in India, this long-term trend must be taken into consideration and I am sure your government is well aware of these factors. India has, for instance, decided to get outside help for the construction of huge and modern amonia plants which can operate at a low cost and provide this important chemical at world market prices. We feel the considerable price difference in chemical commodities between India and the world market will become less and less the more basic an intermediate chemicals are being produced in India in modern and sufficiently large quantities and in a well-balanced structure. Then the question of backward integration will become a logical necessity and the manfacturer in India will have an incentive to supply his production from indigenous intermediates instead of imported chemicals. Finally, he will arrive at a more or less complete synthesis of complicated compounds at lower expense.

Mr. Chairman, hon. Members of the Committee, I have confined myself, in my presentation, to technological and economical aspects in chemical production. The material presented to you highlights the cost structure of certain representative productions in India and in Germany which are being carried out. It has also shown to you, in this connection, the complexity involved in chemical reactions. These factors are of an economic nature and are economic realities which lie outside any patent legislation.

One of the strongest motivations of the Bill under discussion was the price

level of certain chemical commodities. I hope to have shown some basic factors which are almost exclusively responsible for the price level of a chemical commodity. These factors can be influenced only by measures in the economical and technical field. Accordingly, any remedy lies in influencing or changing these factors, but no patent legislation will have any influence on this. As a matter of fact, we feel that the proposed legislation will not only be no remedy watsoever for the price problem but will rather endanger the future development of indigenous chemical industry by frustrating Indian research and development as well as the inflow of technology. Therefore, we would like to conclude our evidence by saying a few words on the attention paid to research by the German chemical industry.

Mr. Albrechtskirchinger: Mr. Chairman, hon. Members of the Committee, as Dr. Heubaum has pointed out on his concluding remarks—and, in my personal opinion, this material has been very carefully prepared by us based on actual figures of production costs of identical products which are made in Germany and India,—it is convincing to show where the cost factors are. We have shown with some purpose—it may be also accidental—certain productions where patent production does not really come into the picture. If you look at these statistics, which are true indications of what the situation really is like, and if you would imagine that any royalty may be added, you might hardly see it on the diagram because it would be a very very small item. In other words, as Dr. Heubaum has pointed out in his concluding remarks, in our sincere opinion and our own experience, any attempt to influence the price question of chemical products or any other commodity by making changes in the patent law, especially by making it in such a way to show differential treatment as to certain sectors of the industry, will have no result whatsoever along these lines. On the contrary, it will lead to other results on a different level, which we would consider very grave.

May I briefly say, when you are having no research you will have no progress. In your country as well as ours, the future depends on one's own efforts. Our personal experience has shown that the patent system is necessary for a number of reasons, to provide a climate for research and development. There is, of course, the question, as is always said, of the temporary monopoly on the product because the patentee has to risk the additional investment that has been made. I think it is very much more because, as pointed out in parts of our evidence, this patent protection is such a security that it confers and encourages technological cooperation with the rest of the world, which, after all, is of the highest importance. Further more, it is a very powerful incentive to work on a scientific level, on a laboratory level and, not only work, but to readily disclose whatever we have.

May I, Mr. Chairman, refer you to the last diagram which we have prepared, and may I point out to you the result of an enquiry which has been made by our association on the expenditure of the chemical industry for research and development during 1964-65? This table includes some other items which might be of interest to you. Item (2) gives the total number of employees in the chemical industry. If you look at the next number you will see the percentage of persons among these employees who are engaged in research and development with university training. There are of course, a great number of people engaged in research and development who have no university training and who do equally very very useful work in the laboratories especially when it is not a question of basic research but applied research to problems of production on a commercial scale where a great amount of additional research has to be done. But you have here the

number, which is very indicative, of people with university training who are engaged in chemical industry and work in research and development.

Mr. Albrechtskirchinger: Further-expenditure and we have also a statement of donation. Now these donations are also of some sort of importance, because the chemical industry in Germany tries to help social institutions, many scientific institutions to carry on the work or to do better work. There are also grants which are given for scientific purposes. May I, Mr. Chairman, conclude by giving you some information on a special institution that has been created within our Association in these past 15 years? It will throw some light on this matter. We look into the laboratory work being done today. We look into the future whether we will have enough chemists and scientists in 10 years or 20 years. So we go to schools. We give them books. We supply teaching material. We give scholarships to promising chemistry students. If I may tell you, Mr. Chairman, it is financed in the following way. In order to ensure that this will be handled in a fair and impartial manner, a fund has been created and every member of our Association, that is, the chemical industry of Germany, is now under an obligation to pay into this fund. At the rate of DM 1,25 per employee per month. It is based on this idea: the more employees there are, the more must be paid into this Fund. And then, of course, there is an administration which looks over the working of this Fund. In the year 1965, this fund has distributed 8 million Marks. This is a unique feature in Germany. We are the only industry where this functions on a completely voluntary basis. It has done enough research all over the world but it looks ahead to the future. A number of measures have been taken by giving money to University laboratories. We finance scientific publications which would never be bought for the price they would have in the market. We have subsidised this price. We send people to other countries to study. So, all this is being done for the training of people. This is more or less a sidelight; it is not really the story of research and development in Germany. I have given you the figures. I had wanted to tell you about the idea of this special fund, the importance that we pay to this problem and we would ask you to consider specially this. The chemical industry is one of the basic and the most progressive industries in the world. This industry depends on effective research. I may give you one little figure. If you look at one of the largest companies of chemical production in Germany that produces everything—from the drug to the synthetic fibre—, you will find that 50% of the products they sell today were not in the market ten years ago. This is the basic figure, which is applicable. In other words, it is a fast developing and dynamic industry. The measures which you propose to adopt will, in our opinion, lead to opposite results. I think you will do no good to your country. So please accept this as our opinion. We have not come here for selfish purposes. In your country, as you know, we have participations. We operate everywhere in the world. The operations in your country are not easy for us. On the contrary, it is sometimes very difficult under the given conditions. I do not want to overplay this. I also wish you to realise that the German chemical industry at the moment suffers from a lack of manpower and we do not really know how to cope with this problem. We want to do this and that. But we have not come here as representatives under selfish motives. I hope you will take the impression that we wanted to share our experience with you. In our sincere opinion by passing this Bill you may discourage also foreign companies. However, for the development of an organized chemical industry it is a necessity for your country to become sort of development, the present Bill would be no basis.

Thank you very much, Mr. Chairman, and Members of the Committee.

Shri K. V. Venkatachalam: In the last statement that you gave, the turnover has been shown as so many milliards. What exactly does this mean?

Mr. Alberechtskirchinger: The term 'milliards DM' is used as defined, in the Oxford Dictionary. It would be 100 crores. The first item is in milliards Marks; the others are in million DMs. I am sorry it is not quite clear.

Shri K. V. Venkatachalam: I was comparing the figure given against turnover with the figure given against 'research' against item 4. What percentage does it work out to? 3 percent?

Mr. Albrechtskirchinger: No, it is more. Because we do not have any official statistics which could give a complete picture, our Association made a representative enquiry which is as complete as possible during the last two years and we have come to a figure which is somewhat more than 3 per cent. In reality, there is a great deal of variation. For example when I make an analysis of the annual reports of two of our largest chemical concerns which operate in every field of chemical production I find that their research expenditure is roughly 5 per cent of the turnover. Sometimes it is very difficult to arrive at the items of expenditure which constitute research and development. I have given the break up specifically in order to show that we do not at all want to exaggerate. Here I want to explain quite clearly that in certain spheres of chemical production the research expenditure is much higher than in other fields, and this is so in the case of the pharmaceutical industry in Germany, where it is double. In the case of a firm like Bayer if you take the break up of expenditure for different departments you will notice that the expenditure on research and development is quite high. In the pharmaceutical industry it is at least double, and sometimes three times the expenditure on research in other branches. In the chemical industry as a whole it may vary from 4 to 5 per cent.

Shri K. V. Venkatachalam: Could you give any figures about research expenditure by German firms in India?

Dr. Ulrich Henbaum: No. I am sorry, I do not have those figures.

Dr. C. B. Singh: An impression is growing that the difference in nomenclature between process and product is more artificial than real. You have mentioned that the process is so modified now that to bring about a difference between a product produced by a particular process and another process has become increasingly difficult. Will it be a correct conclusion?

Mr. G. Albrechtskirchinger: I think the question revolves round the issue whether we should have pure product protection or pure process protection. It seems to me that the intention is to avoid the sort of thing which we were faced with in Germany in the early days. What is the right thing to do? Modern chemical science is concerned with the discovery of new active substances rather than anything else. In the beginning the role of chemical science was quite different. Therefore, it was thought that new processes have to be thought of in order to arrive at new results, that one should make sure that by granting process protection discoveries of new processes should not be blocked. But now there is practically no new process. Chemical science has become so systematic and complete that, to the best of my knowledge, new processes do not occur. In Germany our jurisprudence has developed what we call protection by analogous process which contrary to the wording of the law—and this is the product of the think-

ing of judges—has given protection to the process, although the process is known to any chemist. In all the advanced countries if we have process protection, it is product by process protection. We should also go along those lines. There is another additional argument which is of importance. The patentee of a chemical patent in a country where we have process protection is obliged to cover all the imaginable processes that he could think of. In other words, it is not only duplication but multiplication of effort.

Dr. C. B. Singh: I wanted a simple answer to a straight sulphanilamide question. You know that sulphanilamide is a simple product. From that you can have 20 more products by molicular substitution. They are all given different names and in some countries they are patented as different products. The same thing can be said of many other products. By a simple process of substituting one molicule or the other and altering their position in the chain you are able to produce so many products. But the process remains essentially the same. A clever barrister like you can probably prove before a court that it is the same product manufactured by the same process. In view of that, is this distinction between process and product more aritificial than real? Is it a fact that chemistry has advanced so much that the distinction between product and process has become unreal? In our Bill we are protecting the process. Will you feel satisfied if we include in it the product also?

Mr. G. Albrechtskirchinger: From our experience of evolution of chemical industry in Germany we would recommend product protection for chemical inventions. Should you, however, think that process protection is the right thing you should have product by process protection.

Dr. C. B. Singh: You have mentioned that the prices of everything in India are higher. Does this increased cost include the know-how paid by Indians to (i) foreign experts; or (ii) the cost of raw products imported from foreign countries; or (iii) the cost of machinery and spare parts imported from abroad? Are any of them responsible for the prices in India going up?

Dr. Ulrich Heubaum: I may elaborate on this and give some supplementary remarks to the figures which I have given. Firstly, no know-how fees are included in these figures. However, some provision has been made for the influence of customs and clearing charges in the case of intermediates. The cost of imported machinery also includes customs charges.

Dr. C. B. Singh: Coming to research, which is important, is the research of German industry done in universities or is it organised by the industries themselves? Where do you spend the money on research? Is it on universities or factories or your own laboratories?

Mr. G. Albrechtskirchinger: I can answer this question in general terms only because I do not have any exact statistical material on it. In Germany we have a free and liberal economy and it is up to the individual entrepreneur to do what he wants. But since we are in a very competitive world where the mere survival depends on efficiency and progress, in Germany the companies have been spending a large amount on research and development in their own company. So far as the chemical industry is concerned. I think one could blindly say that a greater part of the new research in modern chemicals, drugs and insecticides is carried out by the industry itself. Any great industry in Germany must have its own centralised research institutions. However, we co-operate very closely with purely scientific institutions.

Quite often the industry finances certain projects in certain institutions and laboratories of the universities. They request the universities to work on certain problems in their laboratories and finance such projects. But, as far as the expenditure in the university is concerned, it is considerably less. It must also be said that the aim of their research is also somewhat different.

Dr. C. B. Singh: Is their any method of coordination between these agencies so that there should be no duplication?

Mr. G. Albrechtskirchinger: The research being carried out in the chemical industry and in chemical research institutions can very well easily be coordinated and there is no difficulty. Most of the research work done by Universities is known to every one in the field—so this sort of coordination, to the best of my knowledge, is very smooth and does not present any great problems. However, it is evident that research carried out in the industry laboratories is, of course, done behind the scene until patent application is filed.

Shri Arjan Arora: From this diagram of yours, Patent applications in Germany during 1905—1965 national and foreign applicants, it appears that Common Market has led to an increase in application.

Mr. G. Albrechtskirchinger: Sir, this is correct. I think this increase, it would be worthwhile if I give you some of the exact figures over the last year, there has been a very steady increase and I am personally convinced and it is confirmed by all experts that the beginning of the increase was accompanied by a great deal of inflow of, I must now say, extra European influence of technology.

Shri Arjan Arora: Would you give us the record of the foreign applications according to their origin from the British or the Common Market?

Mr. G. Albrechtskirchinger: I can do this easily.

Mr. Chairman: You can send it to us.

Mr. G. Albrechtskirchinger: I can send you the complete statistics

Mr. Chairman: Have you got one common patent office?

Mr. G. Albrechtskirchinger: This is a project under consideration. We have a Draft Model Law of a European Patent which is drafted for these countries.

Shri Arjan Arora: You said you have Draft European Patent Law of the Common Market Area which talks of 20 years. Is 20 years period of patent the rule of any country today?

Mr. G. Albrechtskirchinger: The period is usually, the average might be, around 18 years.

Shri Arjan Arora: Am I correct to say that 20 years period is nowhere the law today?

Mr. G. Albrechtskirchinger: I would say the tendency goes for 20 years.

Mr. Chairman: He wants to know if 20 years period prevalent in any country today?

Mr. G. Albrechtskirchinger: I Will have to look into this. In my own country it is 18 years.

Mr. Chairman: You may include this also in the note which you will send.

Mr. G. Albrechtskirchinger: I would be glad to do that.

Shri Arjan Arora: May I know, from referring to this statement, about royalty paid and received, who are the countries to which you pay the royalties? Are these countries member of the European Common Market or the North Atlantic Treaty Organisation which you have on your soil?

Mr. G. Albrechtskirchinger: I would say, generally speaking, the main line is the following: We pay the most to those countries where the technology is comparatively more advanced. In the chemical field, for example, we pay a considerable amount to Switzerland where our balance is more negative as compared to other countries. Overall, I would say these are industry figures as such, i.e. they relate not only to the chemical industry but to the industry as a whole.

Mr. Chairman: Have you got country-wise break-up?

Mr. G. Albrechtskirchinger: I have got country-wise break-up. I feel, Mr. Chairman, it is much more explanatory if complete statistics are submitted.

Mr. Chairman: Please furnish the same.

Mr. G. Albrechtskirchinger: I will furnish the same.

Shri Arjan Arora: You have given two statements: one relates to the period 1905—1965; the other to the period 1950—1965. The figures on royalties paid relate to the period 1950—1965. Could you give us the other statement from 1905 onwards also?

Mr. G. Albrechtskirchinger: I will try to find and furnish this to you.

Shri Arjan Arora: If you find it will help us to compare.

Mr. G. Albrechtskirchinger: I will try to do it.

Shri A. T. Sarma: Do you consider that this Bill has been drafted to improve the existing Patent Law in India?

Mr. G. Albrechtskirchinger: I would say, Sir, I do not question the motives. This is quite clear the attempt is made to improve the legislation. I would say it is necessary to adapt the legislation to changes in technology. However, we do not believe that the measures taken, which are proposed in your Bill, will serve these cards. On the contrary we believe that since one of the main motivations is to get at the problem of prices the measures are completely inadequate. The results may be contrary and you have to think on different lines. It would be more farsighted to give a very sound protection to your own creative thoughts in your country. Overall, I may say, I would not at all regard it as an improvement. I am sorry to say, I would not regard it as an improvement.

Shri A. T. Sarma: My point is, whether it is an improvement or not.

Mr. G. Albrechtskirchinger: No. I may say....

Shri A. T. Sarma: You may differ on certain points....

Mr. G. Albrechtskirchinger: I said very clearly that this Bill, as it is drafted now, in my opinion, would

be no improvement on your existing patent law.

Shri A. T. Sarma: So, you reject this Bill totally?

Mr. G. Albrechtskirchinger: No, Sir. I did not say that. I started my statement with the following words that any patent legislation anywhere in the world needs, from time to time, an adaptation to changing technology, to changing world factors and so on and so forth. We also change our patent law from time to time. This is quite normal.

Shri A. T. Sarma: In your concluding remarks, you said that in passing this Bill, the Indian Parliament will take a step backward.

Mr. G. Albrechtskirchinger: Yes. This is precisely what I said and I repeat it.

Shri A. T. Sarma: Again, what you say is self-contradictory. Is it an improvement on the present law or not?

Mr. G. Albrechtskirchinger: I think I made my answer quite clear.

Mr. Chairman: It is all right.

Shri Dalpat Singh: You said that there are so many applications from abroad for the patents that the Patent Office cannot cope with the work and that there is the need for simplifying the procedure. May I know what are the main points for your law of patents to be simplified according to your opinion?

Mr. G. Albrechtskirchinger: I can very briefly outline them. The amendment of this law is under consideration by our Parliament. It does not touch the substantive patent law but only the procedure. What we want to bring in is a so-called deferred examination. In other words, you would first grant the protection for a limited number of years and there will be examination only on a special application filed either by the patentee or by a third party. By doing this, one would arrive at the fact that a great many of the applications filed will be, after five or seven years, dropped automatically. This is true because it is quite known that the inventor, for a number of reasons, as soon as he invents something, files the application. It is only later that he can find whether it can be worked or it is worthwhile or useful. If it is not found useful, he will drop it. So, if you start the examination later, you can eliminate a great deal of labour in your examination procedure. This is an important issue. We will have to do it in Germany because we have a back-log of more than a quarter million applications which have not been handled yet.

Shri Dalpat Singh: What is the usual time taken in granting the patent, that is, between the date on which the application is made and the date on which the patent is granted?

Mr. G. Albrechtskirchinger: Now, in Germany, the average time taken is between five to six years. The German Patent Office is completely overloaded and we have to resort to deferred examination.

Shri Bade: In your statement you have said that the total number of foreign patent applications in 1965 is 42.65 per cent. May I know, out of this number, how many applications are for pharmaceutical industry and how many are for other industries?

Mr. G. Albrechtskirchinger: This is impossible to arrive at because our classification as such is not separate. I am sorry I cannot answer this. The only thing I can tell you is the percentage of the turnover of the pharmaceutical industry in Germany is 10 per cent of the total chemical industry.

Shri Bade: On p. 5 of your Memorandum, it is stated:

"Non-working of patented inventions in India will often be due to factors completely outside the patent field and the grant of compulsory licences will be no remedy in such cases."

What are those factors according to you?

Mr. G. Albrechtskirchinger: First of all, the non-working of a patent as such, in our opinion, is not yet a criminal act because, as I have pointed out before, it must be a patent which is worthwhile and which can be useful. In other words, the mere statistical number will not give a clear indication. In India, you can find how many patents are granted and how many are worked but that is not a clear indication of the state of affairs because you would have to differentiate which of the patents are really held for the entire period and which can be used for commercial processes. Then, there may be a patent which may not be worked and its non-working may be detrimental to the country. Here comes the compulsory licensing regulation. If its non-working is detrimental to the country, I think, this should be the guide-line for any compulsory licensing regulation.

Mr. Chairman: That is what is provided in the Bill.

Shri Bade: Yes; that is the purpose of the Bill.

Mr. Chairman: You may not find it profitable to start its manufacture here. But if an Indian national or somebody else says that he wants to have a licence to manufacture it, why should it be denied to him.

Mr. G. Albrechtskirchinger: I realise this. Our objections are only to some specific parts of it, not against the general provision of compulsory licensing as such.

Mr. Chairman: If it is in public interest, it could be done.

Mr. G. Albrechtskirchinger: These things have to be carefully thought over. If it is only the non-working, that is not enough. It must be more than that. It has to be seen whether it could be done. There are other reasons outside the patent field which restrict this. Again, it is to be seen whether its non-working if detrimental to the public interest.

Mr. Chairman: It is only under such circumstances that licences are granted.

Shri Bade: You have attacked the biggest portion of Clause 87, i.e., chemical substances. You have stated that substances aid if there is compulsory licensing in regard to chemical substances, then there will be no invention in India. But you have not stated anything about drugs, i.e., 87 (a) (i) and (ii). But about (iii), which is the biggest portion of this Clause, you have said that the method of process or production of chemical substances should not be compulsory and that there should not be automatic licensing.

Mr. G. Albrechtskirchinger: I am very glad you have brought out this point. I have singled out this Clause in order to show that this 'automatic licensing', as I chose to call it, applies to all the chemical industries, and I think that it will not be a good thing for your country. It is needless to say that it is not advisable to apply it also for any other sector of the chemical industry, for example, drugs and so on. I think the normal procedure of compulsory licensing should suffice.

Shri Bade: In India, 90 per cent of the patents are given for food and drugs. If they are patented, then they have the monopoly for exploiting the poor people in India; if they are not patented, any manufacturer from Italy or Japan or any other country can come and compete with the patented medicines.

Mr. G. Albrechtskirchinger: To this question, of course, a great many

things can be said and should be said. The fact is that we consider things differently. As I have tried to point out before, the fact that 90 per cent are foreign applicants in India is a mere indication of the fact that the industrial development of this country has not yet sufficiently advanced to provide another ratio. As soon as more industrial developments takes place here, you will have more applications from your own nationals and the ratio will be different. But, in our personal opinion, this is not something to be afraid of.

As far as monopoly is concerned, I want to say the following. We have tried to point out to you under what conditions chemical productions are made in this country. You see the difference in prices. We are certainly not responsible for the prices. These are economic matters, in which patent law plays no role whatsoever. You might say that we have the example of drugs costing so much here. For this we have already supplied you the reasons. If you want to produce a complicated drug in a commercial scale, the pre-requisite for it is a well-balanced structure of chemical industry where intermediates and everything else that you need are available at reasonable prices. Patent monopoly, as a price factor, according to our experience is completely negligible in this country; it does not amount to anything. The only way in which you can lower the prices of these very important commodities in India is to develop your own industry to the utmost, to co-operate with the so-called foreign collaborators that are coming and to provide all the basic organic chemicals and intermediates which are necessary for complicated final products. This is, if I may say so, our advice on this issue.

Shri B. K. Das: In your Memorandum you have discussed about the use of inventions for purposes of government. On page 7 you have said that the use of invention for the purposes of Government must be strictly limited to use by government only. Do you mean both Central and State Governments?

Mr. G. Albrechtskirchinger: As far as this terminology is concerned, it was not thought to make an difference between State and Central Governments. The idea was that this sort of measure should be restricted to government authorities.

Shri B. K. Das: Should it also be in cases of national emergency; for example, widespread epidemic or something like that?

Mr. Chairman: The Central Government will decide. In national emergencies, the States have no power. It is for us to decide. Why should we ask him about that?

Shri B. K. Das: I wanted to have a clarification from him as to what is his idea about national emergency.

Mr. G. Albrechtskirchinger: I can give a general answer to that, but not a specific answer. We consider those measures, that is to say, uses by the Government for purposes of government, as very extra-ordinary measures which should be used only when there are over-riding necessities. For example, in my opinion, an epidemic disease, a revolution, war, famine or things of that sort would be the principle. Of course the question must be decided whether the use of patents in that particular case would remedy the situation. I may point out that we do have a similar clause in our German patent law which, if translated in English, means "public welfare". There must be reasons of public welfare and in that case, the Federal Government of Germany, that is to say, the entire Government and not an individual cabinet member, may issue an order that an invention, a patent, may be used for government purposes.

Mr. Chairman: Yes; you have that provision; it is possible by an order of the Government in the interest of public welfare....

Mr. G. Albrechtskirchinger: It is not a free use. First of all, the decision can be contested, secondly, there is remuneration provided in the law.

Shrimati Sharda Mukerjee: In one of the statements you have given to us, you have given Germany's balance of royalty payments over so many years.

I would like to know what amount of this was recovered in export trade. You have given us a statement showing the royalties paid and received in the Federal Republic of Germany for inventions, processes, copyrights etc. Could you give us as to what amount of this is realised from export trade? You say that the position has improved considerably and you do not have to give out any money and you are benefiting to the extent it is minus. Can you tell us what would be the export trade on this, on these commodities you manufacture under patent protection with foreign collaboration?

Mr. G. Albrechtskirchinger: I am sorry I will not be able to give this information readily as I do not have any additional statistics with me. Secondly, this table shows the balance of payments position for the entire German industry and your specific question, I think, refers to chemical products.

Shrimati Sharda Mukerjee: Actually what we find in India is that there is hardly any export from industries where they have patents with foreign collaboration. Export market is more or less shut out for us.

Mr. G. Albrechtskirchinger: I think they pay royalty to the foreign concerns.

Shrimati Sharda Mukerjee: But a great deal of it is recovered as they attract export markets whereas the things that are manufactured in our country are actually for domestic markets.

Mr. Chairman: You pay royalty for things manufactured in your own country under foreign patents and you export them. What is the export earnings of your country on that account?

Mr. G. Albrechtskirchinger: I have no information with me now. I am very sorry indeed. In order to answer your question we have to have exact statistics. At best I could only make a guess.

Shrimati Sharda Mukerjee: As has been brought out by Justice Ayyangar in his report on the revision of the Patents Law, while the working of Patent law in European countries may be effective and successful, it is a different matter with us because here it is fairly a domestic market and we have to safeguard the interests of this country. This Bill has not been modified in haste. We have an elaborate report on the Patents Law by an eminent Judge who has gone into it in detail and it is because the patents were not worked for the benefit of India that we have been forced to have this modification. Just for instance, one of the main reasons why this compulsory licensing had to be introduced is, as Justice Ayyangar has brought out, that the patents which were granted were not worked in India. Your first point was that compulsory licensing would be a regressive step.

Mr. G. Albrechtskirchinger: I should like to say the following regarding this. I do not mean in any way questioning the soundness of a compulsory licence. If you misunderstood me, I would like to clarify, I also believe and I would also like to repeat it that in a country like India where you have obviously an interest that inventions which are protected here are being worked and if you decide to have provisions in your Patents Law that guarantee the working of patents, I think, this is in principle something which is quite acceptable. The only thing that I mentioned is that there are many factors for the non-working of patents which are completely outside the patents sphere. In other words what I tried to say was that every case has to be decided on its

individual merits and nas to be carefully decided. This is what I wanted to convey. The licence of right regulation is, in my opinion, in a completely different sphere, because there you should have a procedure which considers every case upon application and so on and so forth. But you subject the entire chemical industry to a sort of automatic compulsory licensing and this will have completely different effects. In other words, this would mean this: that for any chemical invention—not only pharmaceutical—patent protection in India would practically no longer exist because any one who would have a patent here would immediately have to share it without any restrictions with any one who comes and wants to work it. It would be completely automatic. This is one of our main points here that we would strongly underline. It should be only in cases of misuse but by subjecting the entire chemical industry to this sort of treatment, you will not arrive, in our sincere opinion, at results which the framers of the Bill might have in mind.

Shrimati Sharda Mukerjee: I am afraid it does not convince me. Unfortunately we have to modify this.

Mr. Chairman: That is another matter.

Shrimati Sharda Mukerjee: If we have perfact market conditions like competition, then it would be a better thing to pay 4 per cent royalty on the licence of right. That may be all right for countries which are industrially developed but for a backward and undeveloped country, I think, the protection needed is higher.

Mr. Chairman: That we will discuss later.

Mr. G. Albrechtskirchinger: Internally even a country like India is very much in need of competition because it is a constant check on one's own efficiency.

Shri Shyamnandan Mishra: One point which has very much exercised the minds of Members is about the price and the cost of production. The learned witness has told us that much of the increase in cost of production is the national contribution; that is, it is India which has to account for much of the increase in the cost of production of certain of the materials, in construction and the price of indigenous machinery, etc. Would he be kind enough to tell us as to what extent the contribution is national. He has given us certain figures. Can he tell us, in terms of percentage, the increase in cost of production due to national factors and to what extent it is due to external factors?

Dr. Ulrich Heubaum: In the graph we have supplied you, there is a breakdown. Here one can see that in these cases of investment-costs the percentage of imported materials is about 20 per cent. This means that they have to pay 20 per cent on imported machinery customs and clearing charges. On this 20 per cent, they have to pay in this specific case about 5 per cent; that means 25 per cent clearing charges and customs.

Shri Shyamnandan Mishra: You have given us certain figures with regard to the expenditure incurred on research and development in the Federal Republic of Germany. How much of this expenditure is contributed by the patentee manufacturers and how much by non-patentee manufacturers?

Mr. G. Albrechtskirchinger: The figures which we have given in this table are the research expenditures of the chemical industry. The core of your question is who actually pays it. I can quite clearly tell you that they are the ones who are in research and the ones who have patents. And may I tell you one thing? Any company to-day in Germany of any importance which brings out products to the market which are really new, which are important, which mankind is in need of, does research. This is basically the question. They are the research-minded men, they are the progressive

ones. In Chemistry nowadays, without research there is not very much that you can do, except may be some very simple products where there is no technological advance possible and which is really not chemistry but just mixing two or three things together..

Shri Shyamnandan Mishra: My point is, what is the amount these patentee manufacturers spend inside Germany on research and development. They may be carrying on research and development outside Germany if they happen to be foreign patentees. They may not be spending all that amount in Germany.

Mr. G. Albrechtskirchinger: The figures that I have here, to the best of my knowledge, refer to expenditures in Germany. Of course, this is also a centre of research activity. We have certain co-operation also in research which is carried outside of the borders. But to the best of my knowledge, most of the research is in Germany.

Shri Shyamnandan Mishra: Regarding product and process, I would like to know to what extent in Germany you have got process patents. Or, are all of them product patents, because you seem to be telling us something which is not very much in keeping with the proposed Bill of ours?

Mr. G. Albrechtskirchinger: The German Patent law from the very beginning provided, generally speaking, product protection with the following exceptions: "inventions relating to foodstuffs, luxury products"—here the English translation, 'luxury goods' is not correct, for it actually refers to coffee, tea, cigarette and things of that sort—"and medicines as well as to substances produced by chemical processes in so far as they do not relate to a particular process for the production of these articles." So, in other words, food and chemical inventions, ever since the beginning of the German patent law, have had only process protection. In the modified form, the protection is extended to the product which is the result of this process.

Shri Shyamnandan Mishra: What is the proportion of the process patents in your country?

Mr. G. Albrechtskirchinger: Globally I can tell you that the German chemical industry gets roughly 15 per cent of all the patent applications filed and takes the second place right after the electrical industry and I would have to look up the statistics for food and medicine; if it can be done, I will be able to supply the information.

Mr. Chairman: I am reading from a quotation of German law. "Inventions, the utilisation of which would be contrary to law or public morals, inventions of articles of food, and taste, medicines and substances which are produced by chemical processes, in so far as the inventions do not concern a specific process for the preparation thereof, are not patentable. Processes for preparing articles of food drugs and medicines are, however, patentable." Is this correct?

Mr. G. Albrechtskirchinger: The wording may be different, but in substance it is correct.

Sardar Daljit Singh: Is there any control of the price of the patent drugs in Germany and if so, what measures are being adopted to check high prices?

Mr. G. Albrechtskirchinger: We don't have any price control of patented articles; this has never existed anywhere in Europe, to the best of my knowledge. Price control has applied to a certain group of commodities whether they be patented or not patented. In other words, price control which has its legal backing in some special statute has, of course, been in existence in a number of countries. To the very best of my knowledge, in pharmaceuticals, this does not exist in Germany. In the chemical field, there have been in the past certain regulations on prices for fertilizers and some other industrial products.

One thing I want to make clear, the German legislator has never adopted the way of saying because a product is patented, there should be price control. He only took from time to time certain commodities as a group. Does that answer your question?

Shri Kashi Ram Gupta: In view of the fast progress of technology in chemical industries, the expert opinion is that a patent these days goes out of use within a period of 10 years. Are you of this opinion, or if you have a separate opinion, please let me know?

Mr. G. Albrechtskirchinger: No, I am not of this opinion that due to the fast technological change, the life span of a patent in the chemical field or in general should be shortened. On the contrary, one of the main reasons for having a strong patent protection is to provide the very basis that we do advance technologically and that we do go ahead very fast by virtue of a patent system which is strong and which also provides adequate returns. You must always allow to the patentee a certain period in which he can try to perfect his methods, to go beyond the laboratory stage and use the product commercially and also prepare the market in order to have a certain return on the investments he has made for his research. These two issues are separate.

Shri Kashi Ram Gupta: You have talked very high about the Model Law. The Model Law on its page 49, gives a commentary that if a patent is given for 10 years after grant of the patent, it can also suffice. What is your opinion about this? It is on page 49, minimum period of 10 years can be there after the date of grant of the patent.

Mr. G. Albrechtskirchinger: Is that adequate time—is that the question?

Mr. Chairman: That is what the Model Patents Law says on page 49.

Mr. G. Albrechtskirchinger: Unfortunately I do not find it. My paging here is different. Anyway, as far as I understand the question, there is need for a period of 20 years roughly after filing.

Shri Kashi Ram Gupta: It is 10 years in the Model Law.

Mr. G. Albrechtskirchinger: This depends of course on the lapse of time which was needed. . .

Mr. Chairman: That is why they have fixed the date after the grant of the patent.

Mr. G. Albrechtskirchinger: Well if you fix the date after the grant of the patent, this has to be studied closely. I think in most cases it will arrive at a very satisfactory solution. It would have to be studied closely.

Mr. Chairman: It is quite satisfactory.

Mr. G. Albrechtskirchinger: I would tend to believe that this might be satisfactory after the grant.

Mr. Chairman: Whatever may be the time taken in preliminary procedures, it is satisfactory.

Mr. G. Albrechtskirchinger: The difficulty is following. I think you have to look at the situation in individual countries. For example I do not know—and I cannot judge—what the special conditions are in India to arrive, for example, at the additional steps which are necessary on clinical tests and that sort of thing and the administration of drugs as such.

Mr. Chairman: What may be the time taken in preliminary procedures, if 10 years period is taken for a patent, would that be sufficient? That is the Model Law which has not yet been adopted by many countries.

Mr. G. Albrechtskirchinger: Well, it depends on the length of the procedure.

Shri Kashi Ram Gupta: You have just mentioned in your statement that

in Germany, the Patent Law is for a period of 18 years and about 5/6 years are taken for granting the patent. It means the period after the granting of patent remains only 12 years. So 12 years or 10 years, there is a difference of only two years.

Mr. G. Albrechtskirchinger: This, of course, is one thing. If I may explain in detail, after the filing of a patent, we have a public notification after a certain time and from the beginning of this notification you have provisional protection although the patent is not yet granted. In spite of my statement, it is quite correct that the present state of affairs in Germany which needs an excessively long examination procedure is detrimental to the patentee, is detrimental to the patent system. Whether you have a patent granted or not is not decided early enough. This is also one of the reasons, apart from the fact that it would help our Patent Office, why we want to change the procedure.

Mr. Chairman: We are concerned with the present conditions, not with what happens in the future. It gives 12 years after the patent is granted. We have put 14 years. What is your objection? You cannot have any objection.

Mr. G. Albrechtskirchinger: There is one thing there, Sir. As far as pharmaceutical products are concerned, it is not 12 years. Our patent is 18 years from the time of filing the application.

Mr. Chairman: Even in this case, even for 10 years he gets all the rights. It dates back to the date of application.

Mr. G. Albrechtskirchinger: That is different. It makes a little difference. We have 18 years from the date of filing. In your present draft, it is proposed to shorten it to 14 years. This is an intermediate step.

Mr. Chairman: It takes 3/4 years. What can be your objection?

Shri Kashi Ram Gupta: Japan is said to have a very strong Patent Law at present. Are you agreeable to it? And if so, you should know that Japan has got 15 years period for a patent from the date of filing of the application.

Mr. G. Albrechtskirchinger: I am not familiar with the particulars of the Japanese patent system. There are good many variations in different countries. The period averages above 15 and between 15 and 20. International tendency is towards 20 years. I would prefer that the question about Japan be put to some one who is more able to answer it.

Shri Kashi Ram Gupta: Is the chemical industry and the pharmaceutical industry spread over the whole country or is it concentrated near Frankfurt and all these places?

Mr. G. Albrechtskirchinger: Sir, we have chemical and pharmaceutical industry, more than 2000, probably 2,500 different companies. Of course, among these, there are some which are quite large; they are the one which produce everything in chemicals from basic things to very refined products. They are located geographically mainly along the Rhine river, for technological reasons because they need a lot of water which is cheap for cooling purposes and production processes. They may be about 50. The climatic condition is roughly the same, as the country is small.

Shri Kashi Ram Gupta: It is not a tropical country, and air-conditioning etc., may not be needed there. Is that a reason for reduced cost of production?

Mr. Albrechtskirchinger: It is a small item; it is mostly a question of the size of the unit. Of course, tropical conditions can increase the cost of production.

Shri Kashi Ram Gupta: Is the pharmaceutical industry more profitable in Germany compared to other

industries. do they declare more dividends and are their exports the highest?

Mr. G. Albrechtskirchinger: For that we will have to make an analysis of company reports in Germany.

Mr. Chairman: You gave us figures to show that you are paying more royalty to foreigners than the roya ty coming to Germany, more than double. What is the percentage of royalty you are paying for the foreign patentees?

Mr. G. Albrechtskirchinger: It varies from 2 to 12 per cent, and depends on individual contracts. It depends on the merit of the product in question, and even pharmaceuticals cannot ask for a higher royalty because there are competitive materials, and only the difference between what is already available and whether the other product is superior counts. So, if there is an excellent new dye stuff, for instance, the royalty can be higher than for a pharmaceutical which does not have such comparable quality.

Mr. Chairman: In your patent law, you have got a provision for compulsory licensing and also licence of rights in the public interest?

Mr. G. Albrechtskirchinger: Yes, in section 15.

Mr. Chairman: Similarly you have a provision for revocation of patents?

Mr G. Albrechtskirchinger: Yes, in section 8.

Mr. Chairman: You have got a provision for endorsement of patents, analogous to the provision for licence of rights in our Bill.

Mr. G. Albrechtskirchinger: Yes, but we do not call it licence of rights in the terminology of your Bill. A patentee can voluntarily grant a licence to anyone.

Mr. Chairman: Thank you very much. We have taken a lot of your time.

Mr. G. Albrechtskirchinger: Mr. Chairman, it is our duty to thank you and the Members of the Committee for the patience and the interest that you have shown. Thank you very much.

(The witness then withdrew)

(The Committee then adjourned to meet again at 14.30 hours)

(The Committee reassembled at 14.30 hours)

II. Centre Europeen Des Federations De L' Industrie Chimique Bureau, ZURICH.

Spokesmen:

1. Mr. R. A. Willens, Head of the Patent Department of Shell Chemicals, London.
2. Mr. J. Egli, Director of the Swiss Society of Chemical Industries.
3. Mr. Haslam, Head of the Patent Department Welcome Foundation Ltd. London.
4. Mr. D. H. Nowotny, Delegate of Swiss Society of Chemical Industries, Zurich.

(The witnesses were called in and they took their seats)

Mr. Chairman: Gentlemen, whatever evidence you give is printed in the Parliament and laid on the Table of the House. It might be distributed to Members. Even if you want any portion of it to be confidential, it will be printed and distributed to Members and laid on the Table of the Houses of Parliament. The Members have received your Memorandum. It has been distributed to all the Members. If you want to add anything to it, you may kindly do so.

Mr. J. Egli: Mr. Chairman, Gentlemen: On behalf of CEFIC, I like to express my sincere thanks to you, Sir, and to the whole Commission of the Indian Parliament for giving me this opportunity of participating at these hearings. I am extremely impressed by the manner in which you organise these

hearings and let me say that it is very rare in the world that a Parliamentary Commission is receiving foreigners to testify. For this very great generosity of your Commission, I would like to express my admiration and my sincerest thanks.

The subject of the Indian Patents system is so wide and complicated that for the benefit of the hon. Members I have taken the liberty of being accompanied by some very competent colleagues who will assist me in answering questions which the Commission would like to ask. May I just briefly introduce my colleagues? That is Mr. Willens on my right side, Head of the Patent Department of Shell Chemicals, London; Mr. Haslam, Head of the Patent Department of Welcome Foundation in London; and Mr Nowotny on my left side, a delegate from our Society—the Swiss Society of Chemical Industries in Zurich.

Before I begin with some points, I would repeat once more that I can assure you that I do appreciate this gesture to have the opportunity to be here, as I consider that gesture of a great Democratic country as your country is.

In addition to what has been said in the CEFIC Memorandum of January 5, 1966, mention should be made of the following points.

The first point is: CEFIC means the Centre Europeen Des Federations De L'Industrie Chemique. That would mean in English, freely translated, European Centre of Federations of Chemical Industries. This Centre is composed of the National Associations of the chemical industry of the following countries: Austria, Belgium, Denmark, Finland, France, Germany, United Kingdom, Italy, the Netherlands, Norway, Sweden and Switzerland. It practically covers the entire chemical industry of Western Europe. The Chemical industry has numerous branches of manufacture and in what will follow I shall confine my remarks to only the most important of these, *viz.* the manufacture of inorganic and organic chemicals. They form the starting materials for many other branches of the chemical industry engrossed in manufacture of specialised products. In the case of inorganic chemicals, basic materials utilized are minerals, such as sulphur, pyrites, salt, and so on; while in the case of organic chemicals, basic materials are coal, on the one hand, and crude oil, on the other. These natural products are converted by what we shall call the basic chemical industry into a variety of further products, which, in turn, constitute the starting materials, utilized by the specialized chemical industries for the production of *e.g.*, dyestuffs, plastics, pharmaceuticals and many other classes of compounds.

From the above it is clear that the chemical industry represented by CEFIC is vitally important to the chemical industry as a whole. To use an analogy, were one to consider the entire chemical industry as a column, the portion we represent would constitute the base, the removal of which would cause the entire column to collapse; that means that the pharmaceutical industry and other highly specialised industries would be deprived of their sources. During the past 20 years, the chemical industry has progressed tremendously. In the 12 countries of CEFIC, the 1963 turnover was 24,400 million US dollars. This represents approximately 29 per cent of the entire world production of chemicals. By 1964, the turnover has jumped to 27,100 million dollars. As this 1964 figure still represented 29 per cent of the world production, the chemical industry made tremendous advances throughout the world and the effects hereof were also noticeable in India.

It is a well-known fact that the European chemical industry adheres to and defends a most liberal commercial and economic policy. That this is so, is borne out by the statistics of foreign commerce in the chemical sec-

tor. In 1964, for example, the 12 CEFIC countries exported chemicals to the value of 6,587 million United States dollars, while in the same period, the imports amounted to 4,938 million dollars. In 1963, the imports were 3,994 million dollars, and the exports were to the value of 5,583 million dollars.

Numerous factors are responsible for this extraordinary state of affairs; let us consider only the most important. In almost all the countries concerned, the Governments have granted the manufacturer appropriate protection for his inventions and except when serious problems arise with respect to location and the supply of raw materials, a rapid growth of the industry resulted. The protection of the inventions made by the manufacturer thus represents a most important factor in ensuring a favourable climate for unhindered growth of industry. This point of view is shared by leaders throughout the world, and the Secretary-General of the United Nations, Mr. U. Thant, commented as follows on this very point:—

> "Firstly, patent protection has encouraged research and invention, secondly, it has induced the inventor to disclose his discoveries instead of keeping them as a trade secret, thirdly, it has offered a reward for developing inventions to the stage at which they are commercially practical, and fourthly, it has acted as an inducement to invest capital in new lines of production which might not appear to be profitable if many competing producers embarked on them simultaneously."

In studying the economic situation of a country, it is necessary to investigate the import and export regulations, the customs duties levied on imports, possible import restrictions, the financial situation within the country, foreign debts and the attitude of the government towards foreign capital investment. A further most important aspect which is always considered is the extent to which the national legislation provides protection for industrial property: when such protection is either absent or meagre, the climate for foreign investments of any kind is seriously impaired. When industrial property is not adequately protected, not only is the national inventor handicapped, but foreign inventors are given no assurance that their efforts and financial risks will be adequately rewarded. Under these circumstances, they will prefer to turn elsewhere to extend their activities with the result that industry in the country concerned will stagnate or even receive a serious setback.

It is to be expected that in the event of some of the provisions currently contained in the Indian Patents Bill becoming law, foreign investors would be discouraged from continuing to invest capital in India. The contribution of foreign industry towards the steady development of the Indian economic standards may be assured if the Government of India creates the right climate for the protection of such capital. The provisions contained in the present Bill not only do not create such a climate but tend to destroy it.

Turning to my point No. 3, it must be borne in mind that one of the prime objects of strong patent protection is to make possible the recouping of research expenditure. In this respect, the amount spent on chemical research (including pharmaceutical) is tremendously high in Europe. Its exact total figure is unknown. In Germany, this expenditure is approximately 300 million dollars per year, and in Switzerland, it reaches an yearly amount of about 170 million dollars. It would be an error to think that the progress could continue if research were to be curtailed and it is equally as obvious that the products of today must necessarily bear the research costs of tomorrow.

Due to the flexibility and open-mindedness of the chemical industry, this industry has not shirked from the task of building its factories outside Europe. Your own country is an elo-

quent proof hereof, as a number of European-based chemical enterprises have opened factories in India. The European chemical industries in addition strive for the removal of barriers to trade and progress, and the industry is of the firm opinion that the greater the exchange of goods and know-how, the greater will be the chances for the raising of the population standard of living. It is my conviction as well as that of my colleagues that it would have been impossible for the chemical industry in Europe to have attained the heights which it has done in so short a time had not industrial property been sufficiently protected It is because of our firm belief herein that all steps undertaken with respect of patent matters in Europe are aimed towards the strengthening of the patent system. In this respect, you are undoubtedly aware of the European patent convention envisaged by the common market countries. In urging you to introduce strong patent protection in India, I merely suggest that you adopt that type of Bill under which so many countries of the world have prospered.

4. The main problem underlying the discussions on the Indian Patents Bill is whether India will really be better off by restricting the rights of patentees, in the chemical field by making patented inventions more freely available to the public and the Government as envisaged in clauses 48, 87, 88, 93(3), 95(3) and 99 to 102.

My Organisation believes that this liberalisation is not in the true interest of the Indian economy. While a transient advantage might be gained here and there on prices, in the main the weakening of patent rights will slow down the transfer of technology into India from the more developed countries, and react unfavourably on the investment climate.

The role played by patents in the economic and industrial growth of a country is a long-term one. India is on the brink of a great industrial development and to weaken her patent system now will have effects which may only become apparent some years hence, by which time the damage will have been done.

The question of the role played by patents has been carefully studied in the two reports "The Role of Patents in the Transfer of Technology to Developing Countries" and "The Model Law for Developing Countries on Inventions". I believe the Committee is already aware of these reports. They are the result of a deep international study of the whole problem, in which study India took part, and it is emphasised what value a strong patent system has in developing technology in a country.

For example, the Model Law, in Section 35 allows for the grant of compulsory licences in certain vital areas, at any time, without the waiting time provided in Section 34; food products or drugs are mentioned as areas where certain countries consider such provisions necessary; but the Report emphasises that:—

> "This faculty should be used with measure and caution, because in all cases in which it is used it is likely to stifle invention, research and investment".

The document "The Role of Patents in the Transfer of Technology" analyses the effect of patents in the transfer of technology in the basic philosophy of the U.N. that the economic progress of the developing countries is a matter of concern not only to themselves but also to the world community at large and that access to knowledge and experience in the field of applied science and technology is essential to accelerate the economic development of the developing countries and to enlarge the over-all productivity of their economies.

It is the experience of those countries which have had a well developed patent system that it has greatly stimulated the local introduction of foreign techniques to the country's overall economic advantage, though royalties

have had to be paid. My Organisation believes that it cannot be in the interests of India for patents in the chemical field to be so drastically weakened as is proposed in the present Bill.

5. Turning now to the actual text of the Bill, and in amplification of what has been briefly stated in the Memorandum, it may be observed firstly and in general that an important aspect of the advantages purporting to be conferred on the patentee is security which he ought to enjoy from the pirating by late-comers in the field of the development work that he will be persuaded to do in India.

As to the "rights" of the patentee these are the rights which the Bill legitimately purports to confer on an inventor and the mischief of the present Bill lies not only in the extensive limitations of those rights as compared with those considered appropriate in the experience of most countries of the world, but also the possibility that even these limited rights may be withdrawn at any time. The investor of capital and the importer of technical know-how in considering the protection afforded by any patent is obliged to take a pessimistic view that if his investment is successful the protection on which he is counting may prove to be a total illusion.

6. As to the detailed clauses of the Bill; regarded not from my own point of view but from that of a practitioner in patents, the following should be added to the substance of the Memorandum.

Clause 8

The duties laid upon an applicant under this clause are not only onerous in themselves but lay a very heavy burden on the Examining Staff of the Patent Office, to weigh up and assess the effects of the information that must be supplied under this clause. Indeed, we are far from wishing to be impertinent in saying, as a criticism of the Bill in general, that it will make much heavier demands upon the expertise of the Examining Staff than is the case with any or most of the Patent Offices of the world, who are themselves currently finding difficulties in securing adequate staff.

Clause 53

It is a fact that, with the increasing complexity of industrial operations, the existing terms of patents in many countries are proving to be unduly short, and the world tendency is rather to lengthen them than to shorten them, as in this Section. For very many important inventions the early years, and sometimes even the later ones after grant, are still unprofitably taken up with development work.

Clause 76 raises an apparently small point but one of some constitutional importance, that the secrecy of communications to the Patent Office can be breached, not only by the order of the court but also under the executive direction of the Central Government, or even of the Controller notwithstanding that he is himself, presumably, an officer of the Patent Office.

Clause 87(1) is the clause more than any other that will prove a disincentive to investment in that it withdraws any possibility of exclusivity from the investor who wishes to set up a plant for the manufacture of chemical substances He may be all too sure that when he has gone to the expense of setting up a plant and overcoming the inevitable teething troubles, anyone may come and take advantage of his successful development work under a licence granted as of right.

Clause 88—On the subject of any arbitrary ceiling for royalties, it should be observed that a reduction of manufacturing costs is an undoubtedly laudable object of research and invention, and the effect of this provision is to reward an inferior invention more highly than a superior one which reduces the manufacturing cast to a greater extent.

In licence negotiations and other operations for the determination of

payments appropriate to reward a patentee while not unduly handicapping the licensee, the question of what form of product is to carry the royalty percentage is a very important and a very variable one. The provision of a fixed ceiling will unavoidably distort this question and prejudice the optimum conduct of the execution of the invention.

Clause 95(3)—It seems unjust that the licensee should be authorized to import a patented article while the patentee himself is debarred from doing so.

The final word of the Memorandum on the subject of the sale of licensed know-how is extremely cogent. Indeed the implications of the sale of know-how call even more loudly for re-assessment than plans for the investment of capital. The numerous and extensive provisions of the Bill for compulsory licensing and for the withdrawal of rights makes the retention of know-how the only defence in the hands of the would-be licensor. These provisions would encourage, where a licence is compulsory and unavoidable, the execution of a 'bare licence' unaccompanied by the detailed know-how necessary to take advantage of the licence. A licence can be compelled, but the transmission of know-how cannot.

It is in the light hereof that I should like to express on behalf of CEFIC the hope that the new Indian Patents Bill will be drafted in such a manner that it will ensure a sound basis for the harmonious development and expansion of the Indian industry.

Mr. Chairman, hon. Members of the Committee, may I once again thank you for the great honour you have given me to appear before you. My colleagues and myself deeply appreciate this very great gesture of a great democratic country.

Shri Bade: You object to clause 95(3). You object to this because the Government fixes the price. When the Government finds that foreign patentees have exploited our country and they have the monopoly also, they fix the price. Why should there be any objection?

Mr. R. A. Willens: I think the particular objection to this clause is that it grants a right to a licensee of an invention which right is denied to the patentee himself, namely, that of importing the necessary product. This seems to us to be unfair. I think this particular point would be met if the patentee is also authorised to import the product along with or instead of the licensee.

Mr. Chairman: If a patentee does not supply the required quantity of medicine or drug at a reasonable price and charges extortionary prices and the Government in the public interest feels it necessary to import such articles and fixes the price, why should you object to that?

Mr. R. A. Willens: I understand from what you say that this clause is designed as a penalty to the patentee; but it is not expressed like that—it simply says that if the Central Government considers it necessary in the public interest.

Mr. Chairman: Government will interfere only when it is necessary in the public interest; not otherwise.

Mr. R. A. Willens: There is nothing in the clause to indicate that the patentee was in any way at fault and yet the licensee is authorised to import.

Mr. Chairman: Suppose the patentee misuses his patent or does not work in the interests of the country and the Government feels that it is in the interests of the country to get that particular medicine or drug. What is wrong in their authorising the licensee to import the required quantity of medicines at reasonable prices?

Mr. J. Egli: May I ask Mr. Nowotny, who is specialised in this line, to give an explanation which could satisfy the hon. Member who asked this question?

Mr. D. H. Nowotny: You have been mentioning something about reasonable prices and I think concerning the draft Bill it is the crucial question What is the reasonable price? How do we determine what is a reasonable price? If I may re-state the question of the hon. Member, I believe what pre-occupies the hon. Member who asked this question is the following. Suppose a company has developed a drug, say in Switzerland. There is the well-known case of the active substance of a tranquilizer being sold at Rs. 5,555 per kilogram and another firm delivering the same substance at Rs. 312. If I understood correctly, the hon. Member wonders if there is not some exploitation going on in this filed. In this special case, if the Government decides to fix the price of the substance at the low level of Rs. 312, we would not be able in Switzerland to cover our research cost and the return on the capital invested in this research. This is the only objection that we have and that is why we believe that patent protection is so necessary in this field. I may point out that the firm which is delivering this substance at Rs. 312 per kilogram has not done any research work at all. The originator of this drug, Roche has many years of research and development work to its credit. They have a large research staff in Switzerland, United States and the United Kingdom and this research staff cannot be diminished from one year to another. You know very well that if you have a qualified chemist or doctor on your staff, you will have to keep him on. Therefore, once we have built up a very competent team of research workers, our big problem is to obtain the necessary funds to finance the research that is going on, whether we make any profits or not. One of the problems that we always have to face is that people do not understand that there is a big difference between a company that does original work and one that does nothing at all and just waits for a drug to come out. I may also point out that an imitator, as we would like to call him, because he does not do any research work, is never interested in a medically successful but commercially unsuccessful drug. You probably know that 90 per cent of the products of a business usually make 10 per cent of the profits and the balance of 10 per cent of a company's products usually account for 90 per cent of the profits. I do not say that this rule is always valid but it gives you an indication. I think it is characteristic of the pharmaceutical industry. Out of 100 products that a pharmaceutical company may market there may be only 10 per cent or even less that are commercially successful products. We expect the successful products to pay more of their share than the other products do. This is a principle of justice which, by the way, has been accepted by the income-tax authorities in over hundred countries in the world. For every commercially successful drug there are many other drugs which are medically useful but which because of their limited use, do not attain a sufficiently high volume of sales. Therefore, the commercially successful drug has to pay for research and development.

Shri Bade: Clause 95(3) says that the Central Government will do it only if it is in the public interest so to do.

Mr. D. H. Nowotny: The point is what you mean by "public interest". If you say that this is only an emergency clause to cover cases like war or where the market has not been supplied sufficiently at reasonable prices then it is different. So, first of all, we have to consider whether there is an emergency situation and, secondly, whether the market has been supplied.

Shri Bade: There is no question of an emergency. The question is only of public interest.

Mr. D. H. Nowotny: Mr. Haslam would like to answer it.

Mr. Haslam: Clause 95 is concerned with the ground of compulsory licence under clauses 84 and 85. The object of these clauses is to prevent a patentee

from simply sitting on an invention and to encourage the working of the invention in India. The aim of this clause, which corresponds to the section which has been for a long time in the United Kingdom Act, is to encourage the actual production of the patentee's invention in India. It seems to us that clause 95(3) is illogical in the context of clauses 84 and 85 in that having granted a compulsory licence for the purpose of working the invention in India, clause 95(3) suddenly allows the Government to import the invention, which has the very opposite effect of encouraging the production of the invention in India.

Mr. Chairman: Suppose, there is an epidemic in India and we are in urgent need of a medicine. It takes years to establish a factory and produce the thing In that case, why not import it under certain conditions certified by Government? What is your objection?

Mr. Haslam: I think there would be no objection to any clause which expresses this clearly in terms of an emergency. Naturally, nobody would want to impose any restrictions in the case of a national emergency or an epidemic.

Mr. Chairman: Do you think Government will interfere unnecessarily? Unless there is an emergency or some special reason Government will not interfere. I can give you an instance; such a case happened in India. The Director, Haffkine Institute had forwarded an application dated the 27th May, 1941, to the Controller of Patents for onward transmission to the Governor General in Council praying for the grant of compulsory licences under Section 22 of the Indian Patents and Designs Act, 1911 in respect of patents Nos. 26513 and 26850 granted to Messrs. May & Baker, London. Briefly, the grounds under which the application was based were as follows.

The heterocyclic compounds, sulphathiazole and its derivatives which form the subject matter of the patents have curative powers in the treatment of plague and a large number of other bacterial infections gonorrhoea and the infections of urinary tract. This drug was superior to anything invented before that nothing can take its place. In spite of the importance of the drug, the patentees who get their patent in June, 1938, did not put it in the market till about December, 1940 and the quantity of the drug offered to the public was considerably small. They did not supply the required quantities at a reasonable price. They said that they were unable to supply. They frustrated the Government of India in the grant of compulsory licence and importing this drug. In such a case do you think it necessary to have the powers read out by my hon. friend to import the necessary medicine in the public interest; or, do you want the Government to allow thousands of people to die of such cursed diseases?

Mr. Haslam: Certainly not. Nobody would want to impose restrictions in circumstances of that kind. This section, however, I think, refers to "in the public interest".

Mr. Chairman: You can rest assured that only in such cases the Government will interfere and not in other cases.

Mr. Haslam: "Public interest" may be a short-term emergency or may be a long-term one. My understanding of the meaning of "public interest" as being behind this compulsory licence section is the long-term one, that is to say, the advantage of developing industry in India as opposed to importing patented goods from abroad. That is obviously something that is not done overnight; it has a long-term meaning.

Mr. Chairman: We are not concerned only with the development of industries but also with the health of the nation.

Mr. Haslam: I think, there would be no objection to a section which

said that the Government had the right in an emergency to import drugs notwithstanding any licence and so on.

Mr. Chairman: You have got similar provisions in the UK Act and also in the Patents Acts in Switzerland.

Mr. Haslam: Yes, Sir.

Shri R. P. Sinha: May I add that in England there was a case where the Health Ministry started importing large quantities of drugs for use in the National Health Service when the patentees in England refused to supply them at reasonable prices. The case went up to the House of Lords and the House of Lords decided that Government were perfectly justified in importing those drugs in order that the Health Service needs may be met. A thing similar to what you have mentioned occurred in England also.

Mr. Chairman: What is good for England must be good for India also.

Mr. Haslam: Yes, Sir; but you already have clauses in this Bill dealing with the right of Government to use an invention for the Services of the Government, what are called in the United Kingdom, the Services of the Crown, which was the matter which the hon. Member has just referred to. These clauses already exist elsewhere in the Bill. The objection to this particular sub-clause, 95(3), is merely that it puts into reverse, as it were, the object of the previous clauses, clauses 84 and 85, to encourage the development and production of drugs in India.

Mr. Chairman: How will it put it into reverse? This company, Messrs. May and Baker, refused to supply.

Shri R. P. Sinha: Even if there is an established industry in any country, just like in the UK, the Government thought it appropriate and proper in the public interest to import despite the fact that they were being manufactured in England. So, there may be some occasions here when, in order to bring pressure upon the patent holders here to supply goods not only in adequate quantities but also at reasonable prices, the Government may exercise that power as the Government in the UK very recently did.

Mr. Haslam: In clause 100 you already have the power of the Central Government to use inventions for the purposes of Government. This clause in the Bill corresponds to the section in the UK Act under which the UK Government imported tetracycline for, what we call in the U.K., Crown use, and here Government use.

Shri Bade: That is for invention; clause 95 is for importation of medicines from outside.

Mr. Haslam: You use here exactly the same words as are there in the UK Act, namely, that the Government "may make, use, exercise or vend the invention for the purposes of Government in accordance with the provisions of this Chapter". I see no reason why that does not allow the Government to import if they want to. I think, we are arguing about the point where such a clause giving the right of Government to import should go in the Bill. Our feeling is that it should not go in the clause which deals with compulsory licences for the purpose of promoting industry in India but should be considered in the whole context of the use by the Government which occurs in later clauses, that is, clauses 99 to 102.

Shri Bade: I would like to invite the attention of the witness to clause 87. A difference is made in the Bill between patents for chemical substances and patents for medicines, drugs and pharmaceuticals.

In clause 95, clause 84 is also referred to. Clause 84 is again referred to in clause 90, which sets

down when reasonable requirements of the public are deemed not to have been satisfied. Only then will clauses 87 and 84 apply regarding the grant of compulsory licences.

Suppose a foreign firm is not manufacturing the item in India, and is not also giving the know-how to India, and at the same time, they have a patent from India and they have also a monopoly; suppose Government come to the conclusion that this firm is not manufacturing to an adequate extent but by creating a monopoly is exploiting the poor people; in such a case, why should clause 87 not be made applicable?

Mr. Haslam: Clause 87 applies automatically. Under this Bill, all patents in the chemical field are endorsed with the words 'licences of right'.

Shri Bade: I am talking of clause 84.

Mr. Haslam: If this Bill is passed in its present form, there will never be any need to apply clause 84 in a chemical or pharmaceutical case, because all those patents would be endorsed with the words 'licences of right' anywhere, so that it does not really arise.

Shri Bade: You have only objected to clause 88, but you have not said anything on the question of royalty where a maximum of 4 per cent only has been prescribed. What have you to say on the question of royalty?

Mr. Haslam: We do think that the royalty limit of 4 per cent is unrealistic.

Shri Bade: What is the reason for it?

Mr. Haslam: This is an economic question. May I ask my colleague Mr. Nowotny to deal with this question?

Mr. D. H. Nowotny: The reason why we have to ask for a higher price for an active substance that we send from Switzerland, than an Italian imitator, is that we have to cover our research and development costs. As you know, our research and development costs are running around 8 to 10 per cent of the whole turnover, and if we put the research and development costs into relation to the turnover of the patented products only it may be much higher.

Shri Bade: Clause 88(5) reads thus:

> "....the royalty and other remuneration reserved to the patentee under a licence granted to any person after such commencement shall in no case exceed four per cent of the net ex-factory sale price in bulk of the patented article.....".

Mr. D. H. Nowotny: As I have said, our research and development costs run around 8 to 10 per cent of total sales; the question is whether these costs are applied to the selling price of the final pharmaceutical speciality or the bulk price of the active substance. The latter is only a small part of the final selling price. Let us say research and development costs are 10 per cent of the final selling price of a speciality. If they should be expressed as a percentage of the bulk selling price, the percentage would be much higher; it can be 30 or 40 per cent or even more. I can give you an example, if that is necessary.

Shri Bade: He may send that to us in writing.

Mr. Chairman: You may give us a note.

Mr. D. H. Nowotny: Yes, I shall do so.

Shri R. P. Sinha: Witness has stated himself that clause 100 of the present Bill is based on an equivalent section in the UK Act, namely section 46, and it is more or less worded on the same lines. Since this provision in the

UK Act was not very clear, a litigation arose in the House of Lords when Government started importing it. To safeguard against such litigation in India, we have tried to clarify the position in clause 95(3) by providing that Government could import also, because in the UK case the point at issue was that the Government could use the patent but not import. What I am stating is this. There, the law has been settled by a judicial pronouncement. We do not want another judicial pronouncement in this country to settle the law. Therefore the legislature here is taking a precautionary measure by having Clause 95(3). What objection have you got to that?

Mr. R. A. Willens: Section 100 can be omitted, but the real point, as I mentioned originally, is that section 95(3) does give a permission to the licencee which is denied to the patentee. If this clause is meant to deal with such emergencies as plague, infection, calamity and that sort of thing, it does seem to me to be inconsistent not to use any means available to import the materials required whether by the licencee or by the patentee. What I am suggesting is that it will remove an injustice if not only the licencee but also the patentee is given freedom by the Government to import.

I should add a further detail, that this will not only apply to compulsory licences under section 84 and 85 but also to licences of right under section 87, and under section 88(6), which is subject to the conditions of licences provided in section 87, licences of right are applicable not only to pharmaceutical material and foodstuffs but also to chemical products absolutely without exception. That is to say, it covers the entire chemical industry, which is of course our particular concern. Section 88(6) reads:

> "Save as otherwise provided in sub-section (5), the provisions of sub-sections (1), (2), (4), (5) and (6) of section 93 (regarding the powers of the Controller) and of sections 94 and 95 shall apply to licences granted under this section as they apply to licences granted under section 84."

So, you see section 95 refers to section 84, and section 88 makes it clear that it refers also to section 87. This is our legitimate comment on the meaning of the Bill, and this will answer the proposition that section 95(3) is a good alternative to section 100.

Mr. Chairman: Please see section 47(1), which is only subject to clause (2). He can import, he can sell, but suppose he does not import in sufficient quantities at reasonable prices, what is Government to do? Then comes section 100. It is only the Central Government which can exercise that right, not the Controller.

Shri R. P. Sinha: The witnesses represent the entire industrial and chemical community of the European countries. Countries like U.K. have got provision for licences of right. I would like to know how far this clause is used for giving licences to other than patent-holders for the manufacture of the patented articles.

Mr. R. A. Willens: As regards the U.K., I should first make the observation, to avoid misunderstanding, that the licence of right in the U.K. is something different from what is contemplated in this Bill. It is a voluntary concession on the part of the patentee. He requests the Controller to endorse the patent for licence of rights and thereby he gains himself advantages, namely reduction in the renewal fees payable.

Shri R. P. Sinha: In the U.K. Act, there is also a provision for compulsory endorsement of licence of rights. It is not only voluntary under section 87.

Mr. R. A. Willens: That is quite true.

Shri R. P. Sinha: What use has this section been put to?

Mr. R. A. Willens: These are the same grounds as those specified in section 37 of the Act, and merely extend to the government departments the right to initiate proceedings which are indeed available to anybody else under section 37. So, it is the same thing. But it is different from the provisions of the right in the case of clause 87 of the Bill which is automatically given irrespective of any request on the part of anybody, whether it is a government department or a licensee.

The answer to the other part of Mr. Sinha's question is this. From the report of the Controller-General for Patents, Designs and Trade Marks for the year 1965, it is very clear that very little use is made of this provision. It is not necessary that it should be very much used. The extent of the provision and the possibilities that anyone can go to the Controller and insist on having a licence persuades the people to grant licences more easily. So, in fact, as is stated in the Controller-General's report, the number of compulsory licences under section 37 is very low, taking the figures from 1956 onwards.

Mr. Chairman: It may be rarely used, but dont you think that the presence of this section is a corrective?

Mr. R. A. Willens: Yes.

Mr. Chairman: Similar, should not the provision for compulsory licence which can be granted in respect of any article of food, medicine, etc., be retained? It is in section 41 of the U.K. Act. Why should you object to such a provision in our Act. What is good for the United Kingdom is also good for India in this case. I am referring to the clause on compulsory licence.

Mr. R. A. Willens: One can have no objection to the provision for compulsory licence, in appropriate cases, and many of these cases are appropriate.

Mr. Chairman: The same is found in Switzerland also. A compulsory licence may be granted by the court within three years from the date of registration of patent. It may be revoked also in certain cases.

Mr. R. A. Willens: It is very normal.

Mr. Chairman: Then, why do you object to the provisions in India?

Mr. R. A. Willens: Section 87 goes far beyond anything in the provision of any United Kingdom Act, because it is quite automatic, and it does not require any application on anybody's part. It is purely automatic and comes within the subject of invention.

Shri R. P. Sinha: May I take it that you do not object to the licence of rights as such when this is being endorsed by the Controller or from the Government in the case of a patent. What you object to is the automatic endorsement of all the patent licences as described in section 37.

Mr. R. A. Willens: That is quite right.

Shri R. P. Sinha: What is the experience in Switzerland and other European countries? What is the amount of profitability in the patented drugs or goods or chemicals. By how much is the selling price of patented products higher than the cost of production? We are told that some of the patented products in India sell at 400 per cent more than the cost of production. What is the average? Could you give us some idea of the general profitability in respect of the patent products in the European markets?

Mr. J. Egli: May I ask Mr. Nowotny to answer this specific question? But before he answers. I would say that in regard to the compulsory licence system which was referred to by the

Chairman, while I am not a specialist in patents, I may point out that for years and years, maybe 10 to 15 years, there are no compulsory licences given by the Swiss authority because nobody asks for them. We have not problem in this field.

Mr. D. H. Nowotny: I would like to answer the question that the hon. Member has put. I do not think that we are in the position to give a general rule, at how many times a patented drug sells for based on its production cost. I do not think that any company in the whole industry can give such a figure; I do not think a figure like that exists. As I told you before in the pharmaceutical industry, we depend mainly on the medically and commercially successful products or drugs. Under the patented products, you will find a series of pharmaceuticals that are merely medically useful. Therefore, the selling price of such a pharmaceutical products could be fairly close to its main production costs. That means if you are adding the research and development costs and medical information expenses, and general management and administrative overheads, you may find yourself making a loss on this specific products. On the other hand, you will have a few commercially and medically successful drugs and these commercially successful drugs are the main contributors to the common pool out of which research and development is being financed. It is difficult for us to give an average, but all I think we can say is this: in the experience of the pharmaceutical industry of the world, and I must refer to American figures, we know that the very well-managed international companies usually make a profit of 10 to 20 per cent on sales. So, I think this might be an indication of what is left after you have not only provided for production costs but after you have covered the research and development costs as well and all the medical information and administrative costs and after you have paid the taxes.

Shri R. P. Sinha: What percentage of profit after paying taxes will attract a suitable market for exploitation?

Mr. D. H. Nowotny: This is a very pertinent question. In an industry like the pharmaceutical industry, which is under pressure to look for new products, party to replace the older ones, probably 10 to 20 per cent profit after taxes would be regarded as sufficient. There is an interesting study made by a French management consultant recently which has been published in a book in French—["Morale de l'entreprise et desfin de la nation"] the title can be roughly translated into English as "The Ethics of Business and the Fate of the Nation". Enterprises are divided in this book into three groups. The first group of companies makes a profit of 7 to 10 on their capital invested; they do not innovate very much. The second group makes 10 to 20 per cent profit on capital invested. Into this category fall most of the well-managed companies that account for a lot of innovation like the pharmaceutical industry, automobile and aircraft industry and electronic industry. The third group makes a profit of over 20 per cent. It comprises usually smaller companies who through hard work and maybe some luck also have achieved a scientific break hrough. This is a very temporary affairs and these companies need that high return for reinvestment and consolidation of their position. In the pharma eutical industry, the costs of research and development are going up every year. If you realise that research costs are going up in a steeper way than sales do, I think 10 to 20 per cent profitability after tax is not exaggerated.

Shri R. P. Sinha: Has this book been published in English?

Mr. D. H. Nowotny: No.

Shri R. P. Sinha: Will you send a copy of this book?

Mr. D. H. Nowotny: I will send the French copy. You can have it translated.

Shri R. P. Sinha: The leader of the delegation has been talking about the inhibiting nature of this Bill in regard to inflow of foreign capital and technology in this country in the field of chemical and pharmaceuti al industry. Now you have said that 10 to 20 per cent profitability will be able to attract foreign capital into India. According to the Reserve Bank of India Survey made in 1965, the chemical and pharmaceutical industries in India have been drawing a net profit, after taxes, of about 17 to 12 per cent. Is that not a sufficient incentive for foreign capital to come into India?

Mr. D. H. Nowotny: I have not seen these figures, but we must be very careful when we talk about return on investment as to what we mean by it. Some of the foreign companies which have come to India and invested not only in the pharmaceutical industry but in the basic chemical industries have very large research investments outside India. In England, a cal ulation was made by the Government about the profitability of American pharmaceutical companies and the astonishing figure of 40 to 50 per cent was mentioned as their profitability. These figures had to be adjusted later on, because it was found that the American subsidiaries in U.K. were largely profiting from the heavy investments of their parent companies in U.S.A.

Dr. C. B. Singh: You talked about the huge expenses on research, etc. Suppose you carry out 1000 experiments. What will be the percentage of the successful pharmaceutical produ ts produced out of those experiments?

Mr. D. H. Nowotny: If you are conducting chemical and medical research on 4,000 to 5,000 chemical substances, you will usually get a commercially viable product only in one case. So, we have to screen 4 000 to 5,000 chemical substances to produce one drug. I would even go further. This one drug that is marketed does not mean that it will be commercially successful. Probably you would have to look at it this way, that if we screen between 40,000 and 50.000 chemical substances, out of these 40,000 to 50.000 substan es only ten substances will be marke'ed and out of these ten substances that will be marketed only one will be a real commercial success. This is the reason why we always emphasise so much the importance that not one produ t, namely, the most useful or successful one is singled out out of the company's total product line but that all products are taken together as one unit.

Dr. C. B. Singh: Evidence has come before us that in the last 15 years out of the successful patents which have been put in the world market, U.S.A. is the leading country with 355 items to its credit, Switzerland 44, Germany 33, U.K. 28, France 21, Australia 1, Italy 1 and India 1. Could you explain the reason why U.S.A. has 355 and Italy only 1?

Mr. D. H. Nowotny: I do not think we have to go too far to find an explanation for this situation. In the United States, patent protection is very strong. You do not only have process patents but you also have product patents. The U.S.A. have one of the strongest patent protection in the world. In Italy you do not have any patent protection at all. I think there is now a Patent Bill being studied by the Parliament. There is no pharmaceutical company which can really run the risk of employing a large research staff and continue to make research for many years if there is no guarantee that if it achieves success it will have a temporary monopoly on that successful product. We know that one of the basic aims of patent protection is to stimulate the inventor. This is what has been said 500 years ago, if you remember, in the preamble of the Patent Law of the Republic of Venice in 1474, where it was stated quite clearly that patent laws are there to stimulate the inventor. I think patent protection explains why there are such wide differences in the creation of new products.

Dr. C. B. Singh: It has become evident that the distinction between 'process' and 'product' is getting thin and thin. Do you agree with this statement?

Mr. R. A. Willens: I think it is fair to say that in the general case there is no difficulty in having both claims, for process and product, if it is appropriate. The amount of cover afforded by such a patent is really no greater than that of a patent which covers either the product or the process. It has the advantage that the enforcement of protection is a little easier. In some countries it is thought better not to have patents for products. In such cases if the matter is to be protected at all it must be in terms of the process. In such countries, if there be a new product, the onus of proof, to prove that it is not produced by the patented process but by some other process, is placed on the man who has the product and not on the patentee.

Dr. C. B. Singh: Do you think it will be advantageous if in the new Bill that is before us provision is made to give patent protection for products, along with the process as well?

Mr. Haslam: I think that would be of great advantage. I think the weakness of process cover in many cases where new substances are discovered having valuable properties, is that with modern chemistry at the high level that it is today, it is possible to think of many ways, sometimes as much as a dozen ways in which a substance can be made. If patent cover is only to the process it wastes a lot of time for the inventor to have to patent all the feasible ways of making the substance. The real invention lies in the discovery of its properties rather than in the process by which it is made. Once you give the information that such and such substance is valuable for a certain purpose, a competent chemist could find many ways of making that substance. It is merely to cover these which are well-known to chemistry that patents are taken.

Shri Kashi Ram Gupta: In the last paragraph of your memorandum it is stated:

> "Should the Bill in its present form pass into law, European chemical companies will be forced to re-assess their plans for investment in India and may also have to consider seriously the implications for the sale of licensed know-how."

How does the Patent Bill affect the licensed know-how?

Mr. R. A. Willens: The common practice in licensing a patent is that not only should the licensee be given proper leave to carry out the process or produce the product, as the case may be, but he should have the benefit of patentee's detailed experience. This is the know-how that companies obtain. In the case of unenforced licensing agreement the patent is licensed and the know-how is transmitted freely and it is generally on extremely friendly terms. The patent has a great advantage that it thus serves as a bar to anybody else using that extremely valuable know-how that has been transmitted along with it. This is the way it normally goes in the licensing field. If the know-how is not required on the one hand, or if the licensor is not willing to transmit it on the other hand, you have a bare licence. It is mere permission to infringe the patent without any know-how being transmitted. This can arise in two ways. The way we are concerned with at present is where a licence is compelled, either by the action of the Controller, or the Government, or the operation of section 87 of the law providing for a licence of right. The licence can be compelled but no one can be compelled for transmission of know-how which is essential for manufacture. A bare licence is also commonly used where the company is well versed in that field and wants to simplify some of the operations. Generally, the subject matter is not of interest to the patentee and what the licensee wants is mere

permission to ignore the patent and, if the licensor has no objection, he allows him to do that for a small consideration. Then that licence is granted which is a simple matter.

Shri Kashi Ram Gupta: Know-how is not necessarily connected with the patent Bill.

Mr. R. A. Willens: It is perfectly true that know-how is not connected with the Bill. However, in practice it is generally the case that one is dealing with a variety of processes, not just one simple thing; more than one patent would be involved and a body of know-how would be involved and it would be quite impossible to disentangle one from the other. Some of the know-how would be intimately connected with one of the patents, perhaps more than one and some of them undoubtedly not; but some it will be impossible to say whether they are connected with the patent or not.

Shri Kashi Ram Gupta: You have mentioned many European countries in your memorandum. Are the patent laws of those countries identical with respect to period, licence of right and compulsory licence?

Mr. R. A. Willens: I think in general the laws of most of the countries are uniform. I am afraid I cannot really answer in detail on this question. They are uniform and I would be surprised to find otherwise. The laws of all countries provide for the imposition of compulsory licence in the event of non-use provided, of course, that under the terms of the international convention there is suitable lapse of time to give the patentee a chance to carry out his invention and provided also there is a reasonable return to the patentee for his invention, whether he has been able to use it or not.

Mr. Chairman: You have provided three years.

Mr. R. A. Willens: Yes. It is a standard period imposed by the Paris Convention.

Shri Kashi Ram Gupta: Are the European countries exporting countries or importing countries in this field?

Mr. R. A. Willens: I think we are both exporting and importing countries.

Mr. J. Egli: I think I can answer that question. Germany, Great Britain, Switzerland and even France are producing pharmaceuticals and I think all these countries have a rather high export market. But they have also a very s rong import because normally no trade barriers exist. But if you take the Scandinavian countries and other smaller countries where the pharmaceutical industry is not so highly developed and is not so large, I think the imports are higher than the exports.

Shri Kashi Ram Gupta: So far as the developing countries are concerned, I think their laws must be substantially different from the laws of the countries which are highly developed. If you compare our patent law with the laws prevailing in the developing countries, do you find any difference?

Mr. Haslam: As I understand it, what is in the questioner's mind is as to what extent patents p ay a part in developing a country.

Shri Kashi Ram Gupta: The point is that the difference in patent laws in regard to certain points might suit developing countries and, therefore, they may differ from those of the developed countries. Secondly, have you compared the laws of the various developed countries with our own laws?

Mr. Haslam: As far as I know, the laws of almost all countries in the world are more or less the same in this respect, that is, about the use of inventions and the penalties imposed upon not working an invention in the country concerned. I can say quite categorically that there is no country in the world that has provisions any-

where parallel to the provisions provided for in the Indian Patent Bill. They do vary slightly from the one to the other. As you know, in the UK drugs are treated differently from other substances But we make no difference between chemicals and any other type of invention. In some countries, which have not acceded to the Paris Union, failure to work a patent does result in the forfeiture of the patent right. This is the most extreme penalty. But no country imposes a licence of right system on any class of patents right from the moment the patent is obtained.

The thesis that my organisation is trying to put forward here is to explain how the patent laws of your country have provided only limited protection and how this acts as a disincentive to bringing know-how into the country.

If I might refer to the question that the hon. Member asked earlier on, I could put an imaginary situation. Suppose, I am a patentee in UK and I want to exploit my invention in India and in Switzerland. I want to do this by granting licences. Behind this invention there is a good deal of know-how which must be passed on before it can really be put into proper and efficient commercial production.

Now, let us assume that this Bill is passed in its present form. Then, may I compare the two situations that I would be faced with in the two countries? In Switzerland, I would know that anybody with whom I have made an arrangement would have the exclusive licence, that he would not be subject to competition, that he would be willing to pay me reasonable royalty, that any know-how that I pass on to him would be confined to him solely, that I would have rights against anybody else who took it from him and that he would have rights also and we would be able to enter into a friendly, carefully worked out arrangement which will be economically and technically satisfying to both parties. On the other hand, if I wish to do such an operation in India, I would have many difficulties.

Shri Kashi Ram Gupta: Under the present law? Not under the present Bill?

Mr. Haslam: Under the present law the situation is equally satisfactory because I can enforce the patent and I can make a good arrangement; but if the Bill were passed in its present form, I would know that anybody can come along for a licence and, therefore, I cannot give my intended partner any sort of exclusive rights. Therefore, I would have no knowledge that this know-how that I wish to pass on would be exclusive and would bring me a return. I would be simply throwing it into an almost open sea. I will not say that I will not do it. Also, I will not say that the flow of technology would stop; but, what it would mean would be that I would be in a much less secure and a much more doubtful position and if there was a situation of my wanting to develop this invention in the Far East and I had to choose between India and Japan, with India having the Bill as suggested here; I would probably say that I would prefer to exploit this invention in the Far East in Japan where there are more secure patent laws. It will be all the time a drag and representing a disincentive to enter into arrangements in India.

Shri Kashi Ram Gupta: Formerly, the practice was that the period of the patent was counted from the date of application but some countries preferred that it should be from the date of grant of the patent. Are you also in favour that the period should be counted from the date of grant of patent rather than from the date of application?

Mr. Chairman: What is the position in England?

Mr. Haslam: In England it is 16 years from the date of filing the complete specifications.

Mr. Chairman: We have put in 14 years from the date of application for things other than drugs.

Mr. Haslam: The two countries which go by the date of grant are the US and Canada; most of them go by the date of application.

Mr. Chairman: What time do you take to grant a patent in England normal y from the date of filing the application?

Mr. Haslam: The maximum time that is allowed to the Patent Office is now three years from the date of filing the complete specifications. From the date of filing the application it is about four years.

Mr. Chairman: What percentage of profits do you invest in research in England?

Mr. J. Egli: I have no figures of what is invested in research work in Great Britain.

Mr. Chairman: Can you get it for us?

Mr. Haslam: I think, we could find it for you.

Mr. Chairman: In your Act also you have got restrictions on the manufacture of foods and medicines and for the grant of compulsory licences. Have those provisions in any way affected your own industrial development?

Mr. Haslam: I do not think they have exactly affected the growth of industry. One could not say that they have stultified it. But as they are used more and more, they act as one of the disadvantages of putting money into research. They have not gone to the extent where one would say that it is not worthwhile investing in research because of these provisions. That would be going too far. But I think a good deal of feeling is aroused against the people who make use of these provisions, in that they are people who, we feel, are taking advantage of all the effort and research that is being done and are simply cashing in on the efforts that other people have made to develop the new products.

Mr. Chairman: Thank you very much, gentlemen.

Mr. J. Egli: Mr Chairman, may I just once more thank you very, very much for the kindness that you have shown us on this occasion.

(The witnesses then withdrew.)

(The Committee then adjourned.)

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965.

Tuesday, the 5th July, 1966 at 09.30 hours

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
5. Shri Panna Lal Barupal.
6. Shri Dinen Bhattacharya.
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11. Shri Kashi Ram Gupta.
12. Shri Madhavrao Laxmanrao Jadhav.
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17. Shri R. Ramanathan Chettiar.
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19. Dr. C. B. Singh.
20. Dr. L. M. Singhvi.
21. Shri P. Venkatasubbaiah.
22. Shri Balkrishna Wasnik.
23. Shri Ram Sewak Yadav.

Rajya Sabha

24. Shri Arjun Arora.
25. Shri Vimalkumar M. Chordia.
26. Shri B. T. Kulkarni.
27. Shri P. K. Kumaran.
28. Shri Shyamnandan Mishra.

29. Shri Dalpat Singh.
30. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. 1. Prof. Gino Bergami, *Director, Institute di Fisiologia Umana Universita (Naples).*

2. Dr. Giorgio Delgiudice, Leodoga SPA Lepetit, *Via* Andrea Vesalio 6, Rome. (Assisted by Mr. Gabriel Brohamasha as Interpreter).

II. Federation of Economic Organizations of Japan, Japan Pharmaceutical Manufacturers' Association and Japan Pharmaceutical, Medical and Dental Supply Exporters' Association, Japan Patent Association, Tokyo.

Spokesmen

1. Mr. Shoichi Inouye, *Senior Managing Director*, (Assisted by Sardar Hem Singh, as Interpreter).
2. Mr. Shoji Matsui, *Patent Attorney.*

I. Prof. Gino Bergami, Naples and Dr. Giorgio Delgiudice, Milan (assisted by Mr. Gaibriel Brohamasha as Interpreter.

The witnesses were called and they took their seats

Mr. Chairman: We have received your Memorandum. Your evidence shall be treated as public and is liable to be published unless you specifically desire that all or any part of the evidence tendered by you is to be treated as confidential. Even though you may desire your evidence or any part of it to be treated as confidential, it shall be made available to the Members of Parliament. If you want to stress any particular point or points mentioned in your Memorandum or you want to add something to that, you may do so. Afterwards, the Members of the Committee will ask questions or seek clarifications and you may answer them.

Prof. G. Bergami: Mr. Chairman and Hon. Members of the Joint Committee: My colleagues and I feel honoured to be with you today. We have come of the way from Rome and Naples in Italy to share our thoughts of a subject with which we are familiar and which is of vital importance to developed and developing countries.

Before I introduce my colleagues and myself, I wish to pay you the most hearty compliment for your readiness to hear the views of experts from other countries. As much as I know about the parliaments of many

other countries, your approach may be unique and for excellent reasons. It shows in a very impressive manner how liberal democratic and progressive your parliamentary institutions are. We have nothing but admiration for the manner in which Government and people of India have recently faced the tremendous problems that are before you.

Apart from our general qualifications of competence to speak on the subject under discussion today, I may be permitted to say that in my own person I have some special affection and regards for this great and ancient country. I always wish for your progress and prosperity. I represent no special interest nor any industrial enterprise and my only interest is the welfare of the people of India.

Let me now introduce myself. I am an university professor teaching Physiology in the University of Naples with a medical and biochemical background in the field of Applied Biology, Pharmacology and some personal experience in the field of public health problems and sanitary legislations. It has happened to me to be nominated, immediately after the War, High Commissioner for Public Health in order to reorganise the public health service in Italy destroyed by the War.

I have been for many years the member of the Italian High Council of Public Health, the technical body consulting the Government in sanitary matters and I have particularly studied the problems related to drug production, controls, etc. Last year, I was heard in the Italian Chamber of Deputy as an expert for the problem of drug patentability. In consideration of the fact that I am not an expert in economics and I cannot answer the questions of industrial character and in order to give you the greater possibility to have direct information relating to the Italian situation, I have asked the Italian Association of Pharmaceutical Producers to nominate a delegate to be at your disposal to answer clearly to any variety of questions that are likely to be put to us. Dr. Zerill-Marimo was nominated and he prepared the memorandum that has been sent to you yesterday. He was unable to come to New Delhi because of sudden ailment and his place is taken by Dr. Delgiudice, the economic expert of the Association. I have the great pleasure to introduce him to this hon. Committee and I have great pleasure to introduce also Mr. Galbrid Brohamasha who will be our interpreter and will facilitate our task.

Now, I come to my Memorandum. In the Memorandum that I sent to the hon. Committee, as you certainly remember, I tried to enlighten the Italian situation after a long experience of no-patents on drugs. Let me now explain more in detail the most important points. How was originated the law according to which no patent was granted for the production of drugs? How the Italian drug industry developed and how the Italian drug industry has been affected by this law? Why the Government is willing to change the no-patent policy? Which is the type of the Italian draft Bill and what are its salient features?

Coming to the story of this law, may I say that about one hundred years ago, to be precise, one hundred and sixteen years ago, the Italian Subalpine Parliament, after a long discussion, approved a law excluding the patent protection to pharmaceutical products.

It is interesting to analyse as to what motivated this decision to be taken when the pharmaceutical industry was practically non-existent. At that time any kind of medicine was prepared in the pharmacy by pharmacists following the recipe of the physician and the real pre-occupation of the Italian legislator was to avoid that the utilisation of a good recipe, should be inhibited by patents. The main aim of the law was, therefore, to protect the freedom of prescription of the physician, avoiding that a patent previously given to another physician or to a pharmacist should

prevent its use. The same law, for analogous reasons, was at the same time adopted in France and for many many years, in France and Italy, no patent was issued to any pharmaceutical product. But little by little, with increasing industrialisation in the production of drugs, the preparation of drugs shifted from the counter of the druggist to the laboratory of the industry, originating a new situation, characterised by the introduction of what we call "medical speciality", with fancy names, sold in finished form, ready to use.

New regulations were issued, both in France and Italy—because pharmacopoeia was no more sufficient to guarantee the quality of the medicine sold to the public in finished form—dealing with the need for control of efficiency and tolerance of the ingredients of the medical specialities. But to make control efficient, you must know the composition, and for that reason, compulsory declaration on the labels of all the constituents was prescribed. Secret formula was no longer allowed and this originated the problem of the protection of the rights of the inventor of the new drug in consideration of a very good incentive given to the research in other fields by the patent system. The French legislation was later modified; so they have now a special drug patent for medicines, whereas in Italy a very long legal controversy started, because of some unfortunate series of circumstances. After a long discussion on the interpretation of the law of 1859, prohibiting only the product patent but silent about the process patent, in 1934 a law was issued providing in Section 16 for the patentability of the process patent for drugs. The law provided that it should conform with special regulations to be issued later. Unfortunately, some technical difficulties arose in the drafting of the regulations mainly because of the difficulty to organize the evaluation of novelty; many years elapsed and the regulations were not issued until 1939 when a new decree was issued giving to the Government the power to regulate all the matters. Strangely enough, the patent decree issued in 1939, in Section 14, in contradiction with Section 16 of the previous law, ordered that no patent should be granted for process of drugs originating a legal controversy on the legal validity of the law. After many years of discussion, in 1957 the Supreme Constitutional Court confirmed that legally the patentability of drugs also as patentability of process, was still not allowed and invited the Government to draft a new law. Many drafts were prepared and finally now we have a draft bill, which is at present in the High Chamber of Senator for approval. As I wrote in my Memorandum, we have never had a patent law for drugs and this not as a result of a pre-arranged governmental policy, but as the result of concomitant legal controversies which have bereaved the efficacy of the 1934 law, never enforced.

So we have had, in Italy, the strange situation of having full patent protection for all the chemical industries with the exception only of the chemical drug industry. We will see later the different results obtained in these two different branches of the chemical industry.

Having spoken of the story of legislation, let me now examine the development of the Italian drug industry. This examination will be done by me in the light of the non-patent system. Generally speaking, the degree of development of the drug industry may be classified into four stages:

(i) when practically all drugs are imported and local industrial production does not exist;

(ii) when industrial production is limited to the packaging or formulating drugs imported in bulk and no production of basic drug is operating;

(iii) when a substantial production of basic drug is operating ; and

(iv) when the production capability is increased and there the technical possibility for producing all drugs when economically convenient.

Until the First World War, the Italian drug industry was near stage 3, mainly devoted to the packaging of drugs imported in bulk; the production of basic drug was limited to a few items. With the First War, the disappearance of the German medical specialities stimulated the local production of some important basic drugs. After the First War, the situation changed very little and although no one drug was patented, foreign producers continued to export in Italy their products, while the Italian industry took no major interest in the reproduction of imported drugs. The reason for this lack of interest can be found in the following facts:

(i) No one product was of such a therapeutic importance as to guarantee a large market.

(ii) The expected cost of local production was not competitive due to the sub-critical mass production foreseeable.

The situation was static till the discovery of sulpha drugs—discovery of the greatest therapeutic importance, *i.e.*, after about 1936. This was the first time the Italian industry took advantage of the lack of patent, reproducing the original product and the new derivatives that followed.

But the consumer had no economic profit of the local production because the prices were practically the same as that of the imported products, due to the fact that the originator was not compelled to charge substantial cost of research.

As a matter of fact, the inventor of sulpha drugs patented a complex molecule and was not aware as was demonstrated by other researches, that only a small part of the molecule was active. So it happened that the burden of the cost of research was practically supported only by the firm which originated the first product, while the new-comers obtained patents for new derivatives without too large expenses in research. So apparently the prices of sulpha drugs were not so high and the greater cost of small domestic production practically counterbalanced the cost of the royalty not paid.

The situation changed completely after the Second World War when in twenty years many new drugs of tremendous importance were introduced in the world market. A great number of the new drugs were the result of very heavy investment in research, representing in many cases millions of dollars, and consequently their prices reached a level never realised before.

For the first time in the history of drugs, the structure of the price of the new drugs changed drastically leaving a substantial research cost to be recovered by the originator during the life of the product. Obviously the large margin existing in these cases between the pure production cost and the selling price, induced many small Italian firms to start production in spite of the expected low yield, due to the lack of know-how and the small production, largely counterbalanced by the fact that they have not spent money in research. So it happened that the number of small drug enterprises in Italy increased enormously reaching more than 1000 units, more than in the United States.

This multiplication of drug producers created two different effects.

The first effect was the flooding of the Italian market by a very large number of specialities almost identical. For example, for each new product which appeared on the American, English, French or Swiss market, 10-20 or more products appeared in Italy, almost of the same composition, but all sold under different names.

The second effect has been the availability, in bulk, on the pharma-

ceutical market, of new products elsewhere patented, generally sold at a very low price because the producers have no research cost to charge, and because their profit was mainly based on the sales of the related specialty and the bulk sales being mainly directed to permit a substantial industrial production in order to reduce the general expenses.

In both cases there was no economic advantage at all to the Italian consumer, because, in order to meet the larger promotional expenses, due to the great number of competitors for the same product, prices have been maintained in an order of magnitude of the original product, comprising the research cost, and the low price of the product in bulk has been utilised only for some export business where and when no patent protection was enforced. I have given in my memorandum one specific example to substantiate this.

It is thus clear that as yet, lack of patent protection has not been of any advantage to the Italian consumer because the savings of possible licence payments are counteracted and even exceeded by the larger advertisement costs necessary to establish one's own product in a market among about twenty like products.

In fact as could not otherwise be expected, this excess of competing products, which practically have the same price as the original product and thus do not exert a price-fixing effect, has resulted in an enormous wastage of free samples and increase in advertisement costs. This has made expensive both to launch a new product and to keep the doctor aware of the products already established, in order to prevent replacing them by others almost identical in price and composition.

In conclusion the Italian experience demonstrates that, whereas the lack of patents in the drug field has not had the effect of lower prices for the consumer, in the meantime has been an hindrance for the few important Italian drug manufacturers.

As a matter of fact only small or medium-sized producers have entered the market with copies of patented drugs, starting the production only when from the clinical investigation results published by the original producer, or from the preliminary sales in the country of origin, potential market in Italy was foreseeable, capable of paying the cost of a small-sized production sold at the same price as of the original producer, taking in this way undue advantage of the absence of research cost.

Objectively we must recognize that the lack of patents has had a negative effect on the best part of the Italian pharmaceutical industry, burdened with the increasing cost of research, and obliged to fight with competitors copying freely the best products originated by others.

In conclusion our experience has clearly demonstrated that the lack of drugs patents has badly influenced the development of our best pharmaceutical industry, when compared with the very good results obtained in Italy in other branches of the chemical industry protected by product and process patents. If we look at the good achievements of the Italian chemists in other fields, we have very excellent results and a large number of patents. The only exception of the pharmaceutical industry.

It will be convenient to examine at this point the future trend in the pharmaceutical industry. As you certainly know, a tremendous amount of money is yearly invested in drug research in all the industrialised countries. This heavy investment, increasing every year, is required because the pharmaceutical research is completely different from all other types of industrial research. If for instance we consider an automobile factory, the management can easily make a

research programme for a new type of engine. The technicians will do their best; the result may be more or less successful, but in any case the research department will be able to give the management a new engine. In the case of the drug industry the picture is completely different. The management may ask the research department to find a new remedy for hypertension, but nobody can assure that a positive result will be achieved. We can give any quantity of money; we can enlarge the laboratory, asking for a remedy for cancer, but nobody can forecast the results. What we know is that on an average only one product out of 3000 or 4000 new products shows promising activity as a new drug and when we say promising activity we say that we have in hand not a product but only a probability of success.

And now we can forecast that in the next decade, very few new products will enter the market at a tremendous cost of chemical, biological and clinical investigation. This means that new products will certainly be charged of substantial amount of cost of research, that should be paid by the State or by the industry.

We must therefore make our choice State research or private research. I must recognise that I am not fully confident in the efficiency of State research in the pharmaceutical field. My opinion is absolutely not based on political reasons, but on the observation of the very important results obtained during the last 20 years by the Soviet Union in all fields with the only exception in the field of drugs. I have the best consideration for the high scientific standing of my Russian colleagues in all fields and I know also that the drug research is very active. Therefore, the explanation should be found in the peculiarity of the new drug research, requiring the largest possible freedom individual freedom, of research. Let me give you one example. It happened many years ago that an American company—I remember it is the Lilly Company—received from a tropical country a flower plant called Vinca Rosea, which was locally used for treatment of diabetes. They tried to extract the active principle of the plant, but they found that there was no effect at all on the blood glucose or on diabetes. In the meantime, one researcher found that after the injection of the drug into a rabbit, the leucocite (white blood cells) diminished. So it was discovered that the drug had the effect of reducing the number of leucocites (white blood cells) and was later utilised for treatment of Hodgkins disease or leukemia. This result of research was due to a very large amount of freedom. This is why State research is not good because this kind of freedom is not there. It may reduce the number of new inventions. So we should give a large amount of freedom in research.

Personally, I am in favour of the co-existence of a State research, mainly basic research, with a private research, mainly applied, stimulated by an efficient patent system. Our experience in Italy has demonstrated to us that the problem of prices of drug is practically independent from the problem of patent. Prices to the public in Italy are of the same order of prices in countries having the patent—like France, England and Switzerland—and, what is more impressive, the prices of the biggest Italian producers who pay voluntary royalties to the foreign inventors are the same as the smaller producers who pay nothing at all. We have also noticed that multiplication of producers in the drug market increases the price because of the higher cost of promotion and the low yield of the small production unit, inferior to the critical production mass peculiar to each product. For all these reasons, Italy is now changing its drug patent policy.

It may be of some interest to you to note the fact that the Italian Government is preparing a five-year economic development plan and recognising the importance of the re-

search in the sanitary field, has clearly indicated in section 6 of the official plan that the pharmaceutical research will be mainly stimulated adopting the patent protection for the production of drugs. A Bill, introducing the process patent, has already been approved by the Government and it is now in discussion at the High Italian Chamber, the Senate. Many members have suggested amendments in favour of a more effective protection of the invention, as is obtained with the product patent.

The salient features of the Bill are: patents are to be granted to protect processes for the production of pharmaceuticals; when a compulsory licence is granted, the compensation must be fair and in keeping with the importance of the invention and the profit it is expected to yield, with the duration of the licence and all other aspects connected with its utilisation; and section 10 provides that a patentee "who refuses to accept the compensation as laid down may start proceedings before the court in Rome".

Coming to the Indian situation, I must first of all, heartily congratulate you on the results already achieved. In less than 20 years, your drug industry, operated by the State or by private enterprises, has certainly reached stage 3 and now is in the fringe of stage 4, that means the highest stage. Having in mind the high standing of Indian researchers, chemists, biologists and physicians, there is no doubt that concentrating your efforts mainly in the applied research and specially in the research of new processes for making drugs, you will acquire an increasing purchasing power through crossed licences with all the world. Your researches must be protected as the researches of all the world are protected.

Coming to the practical aspect of the problem, my opinion as an expert is in favour of the possibility of a new type of, may I say, combined patent i.e. a product patent associated with one or more process patents, but with the provision that the inventor of a new process may have a licence from holder of the product patent In such a way the system is very simple to assess and stimulus is given to new processes.

Mr. Chairman and Hon'ble Members, I am at the end of my exposition, and I must apologise for my bad English and for the length of my speech. I hope that my efforts to give you some technical data will be useful for you. In my experience as a Chief of the Italian Public Health in a difficult period, I learnt that laws relating to public health have always two sides, a political side and a technical side. A law drafted mainly by politicians will be a bad law, but worse will be the law drafted only by technicians. I repeat my appreciation for your unique approach to such a vital problem, hearing the views of experts of all the countries. I wish the best future for India's progress and prosperity, and please accept my hearty thanks.

Dr. L. M. Singhvi: Professor, I would like you to dilate particularly on the situation in respect of the quality control of drugs manufactured in your country without patent protection. Is it a fact that the quality of drugs is not uniformly guaranteed? It has been mentioned in some of the Memoranda before us that because there is the freedom of imitation, there is also freedom to manufacture sub-standard drugs. Is it a fact?

Prof. G. Bergami: The standard regulations on the manufacture of drugs stipulate that before you make a drug, you must have an authorisation to be operative in the field of drugs. In other words, you are inspected by an Inspector, who looks at your machinery etc. Naturally, after this authorisation the burden of responsibility lies on the producer. When it is sold in bulk, there is practically no control, because the control is limited to the processed product.

Dr. L. M. Singhvi: Would you please tell us whether during the period when patent protection was not available in Italy, it is a fact that there was no effort by the State also to control the prices? Whether any such effort was made or whether there was no such effort?

Prof. G. Bergami: In Italy, from the very beginning until now there has never been a patent law for drugs. All has been free. But control on quality and control on price of specialities has been operating from many many years.

Dr. L. M. Singhvi: It has been pointed out in the Memorandum submitted to us that the consumer has not gained even though there was freedom to copy any patents abroad. Now why was it so? Was it because the State did not operate effectively to control the prices or it was because the promotional cost inherent in the situation of the high proportion of cost, prevented the manufacturers in Italy to sell these drugs at a reasonable price with only a reasonable margin of profit?

Prof. G. Bergami: If I have understood you well, you ask why in Italy when a copied product is put on the market, it has a price that is not low. Is that right? The price of the bulk is free price. There is no control of the State. There is the general law of economics, the law of the demand. But when you sell to the public a medical speciality, the price of final product of what is called registration, is based on analysed price. In other words, you must submit to the Health authorities, to the Economic Board, a memorandum where you say I have put so many Liras for the raw materials, so many for that and that, and the total cost is that. It happens for instance that one foreign firm has created a new product and is asking for registration in Italy; he will show the clinical investigation results etc. and finally the production cost of the product. He will document the price, say that he can sell at this price. A new comer is not obliged to that, he may just have the same price although is paying anything. He will write to the Ministry saying I am also producing the same product, and will ask for the same price. Govt. has not the possibility to say you may sell at a lower price. The producer will say, I have the same right, I ask for the same price, because it is the same product, and practically happens that the copier makes a large profit, but also this profit is not so large, because there are so many. One will do, the other will do the same. In a short time, there will be 20 others. The market is always the same, but the market in this case is divided by 20. Each one may promote it to the physicians. In Italy we have 70 thousands physicians. You can imagine how costly it is to give samples to these physicians. Multiply it by 20 and you can see how much money is spent, with no use, and the cost is naturally higher. In the drug field, it is always better to concentrate production, to concentrate sales and promotion, otherwise you will have higher cost. Concentrate it at one place, the yield will be better.

Mr. Chairman: Does the competition tend to lower the prices?

Prof. G. Bergami: You must realise that in the pharmaceutical field the market is different. There is no relationship between the consumer and the producer. There is the intermediary, the physician. So really it is not the consumer that selects the product. The consumer goes to the physician; then it is the physician that selects. So happens, that if you sell a product at a lower price, you can spend less on advertisement and promotion. The public do not know whether the prices are lower, because the producer has spent practically less on the mechanism of promotion.

Dr. L. M. Singhvi: What is the place occupied by the foreign industry in the pharmaceutical industry in Italy? Whether there has been a

substantial inflow of foreign capital in Italy in this particular field?

Prof. G. Bergami: Well I beg your pardon, I am not an economic expert. Mr. Delgiudice will answer for me.

Mr. Chairman: He can answer.

Dr. G. Delgiudice: The only data we can give now....

Dr. L. M. Singhvi: You may supply it at a later date if it is not readily available with you because that will be more precise.

Shri R. P. Sinha: Broadly they can say now.

Shri R. Ramanathan Chettiar: The question is whether there is foreign investment in pharmaceutical industry in your country?

Dr. G. Delgiudice: There is foreign investment in the pharmaceutical industry. But this data we do not have. The only data we have now is that 21 per cent of the foreign investment in Italy is in the pharmaceutical industry. The exact figures of foreign investment in the pharmaceutical field will be supplied later.

Dr. L. M. Singhvi: We will appreciate if you will do that at a later date.

There is one more question, that is, about the new legislation of the 1st of July 1965 which has been drafted by various parties which are participating in the coalition Government of Italy. Would you tell us about the salutary features of this new legislation which was submitted on the 1st of July 1965 to the Senate of Italy?

Mr. Chairman: Can you send a copy of that Bill to us?

Prof. G. Bergami: I can give you the copy.

Mr. Chairman: Is it summary?

Prof. G. Bergami: It is English translation of the Law as drafted.

Dr. L. M. Singhvi: Would you commit on any aspect of this new egislation. You have said this concept has come out of years of thinking. I want to know what are those special provisions which are sought to be incorporated in this new legislation which you think would be particularly conducive to a proper growth and development of pharmaceutical industry in Italy and which has been lacking in the past or in the absence of patent or weak patent laws in your country.

Mr. Chairman: We will get it cyclostyled and distribute.

Dr. L. M. Singhvi: He is giving only the piece of legislation and I want the comments on the legislation.

Mr. Chairman: You please hand it over to us. I hope you have got no objection.

I am told that this Bill is before your Parliament for the last 10 years or 7 years. When do you propose to finalise it?

Prof. G. Bergami: I will explain the situation. We have had during the last ten years many different bills prepared by different Governments. Each time we took it up there was the difficulty of availability of time and in the meantime the Government fell and new Government came, and this happened many times and this is the last one and we hope the life of the Government will be so long that it will be passed. May I also say, that when we draft a Bill we draft it up roughly and there are many amendments during the discussions and it is difficult for me to formulate some comments on a draft which is a starting point. It has just started last week and they started feeling that certain point may be more profitable or not. A committee of Senators has been set up that will discuss it point by point making modifications. After

that the Law must go to the other Chamber and if it is not fully approved it must go back. I believe if everything goes right we will have this law next year, but my comments at this moment, at the starting point as it is, will not serve any purpose.

Shri Kashi Ram Gupta: I think there is a Patent law in Italy for cars, machinery, boilers and other products. Is there any such law there?

Prof. G. Bergami: Yes.

Shri Kashi Ram Gupta: What is the period of a patent allowed in that law?

Dr. G. Delgiudice: The normal period of a patent as in Germany, is about 15 years.

Shri Kashi Ram Gupta: From the date of application?

Dr. G. Delgiudice: Yes, from the date of application.

Shri Kashi Ram Gupta: You have got an agreement with U.S.S.R. regarding FIAT cars. Is it on the basis of royalty or sale of the know how there?

Prof. G. Bergami: Really the automobile industry is beyond my competence. I cannot comment, I am sorry.

Shri Kashi Ram Gupta: Do Italian firms and companies possess patents for drugs also in foreign countries?

Prof. G. Bergami: Yes, there are many cases in which an Italian manufacturer has got some patents in other countries.

Shri Kashi Ram Gupta: Which are the main countries where these patents have been approved?

Prof. G. Bergami: England, France, Belgium, South Africa, South America, North America, Trinidad and Germany etc.

Dr. C. B. Singh: You have got the unique experience of being a physiologist and a pharmacologist, and Public Health man as well. All these things put together, may I know from your experience what time does a drug take after being investigated in the laboratories to be brought into the market? I mean the average time and an average drug.

Prof. G. Bergami: My experience is that it depends mainly on the type of drug that you are experimenting. If you are dealing with a completely new entity, you must at least spend two years.

Dr. C. B. Singh: You think two years will be a reasonable period.

Prof. G. Bergami: It is an average period.

Dr. C. B. Singh: May I know what amount of money is being spent on research by your various firms of drugs or research in proportion to the total investment in this industry?

Prof. G. Bergami: I have no knowledge of that, because I know only about Public Health problems. He, Dr. Delgiudice knows the pharmaceutical industry.

Dr. C. B. Singh: Well, then, let us know about the pharmaceutical industry.

Dr. G. Delgiudice: 3 per cent on the turnover.

Dr. C. B. Singh: A big amount. I want to know whether it has been able to export large amounts of raw materials cheaply to this country because they were not patented in Italy. The question is, because there is no patent for pharmaceutical drugs in Italy, was it possible for those firms to complete more favourably with the world market and export those raw materials cheaply to this country.

Dr. G. Delgiudice: No. We Assofarma, do not do so.

Dr. C. B. Singh: Are you sure about it?

Dr. G. Delgiudice: Yes.

Shri P. Venkatasubbaiah: In the absence of a patent law in Italy, and also because of the foreign capitalists taking advantage and flooding the Italian market in respect of the pharmaceutical products, and also owing to the lack of research possibilities of knowing the quality of each product that is being sent to your country, may I know whether the Government is contemplating any research or control so as to check any spurious drugs coming to your country and to have control over the quality?

Prof. G. Bergami: If, you speak of speciality, there is a strict control at the moment of approval, and also during the stage of sale, because some samples are taken from the market for a severe composition analysing, and the product which is not well made is put out of the market. When we are speaking of the raw material, I was saying that there was no control on that, because we do not need control on the raw material, since we control the finished product. From the point of view of the consumer, what is more important is the finished product. There is a very strict control of quality in respect of the finished product in Italy.

Shri P. K. Kumaran: In your memorandum you have quoted the example where a particular tranquilliser has been produced with 18 imitations, and you have drawn the conclusion that in spite of several imitations produced in Italy, it did not enable the Italian consumer to get the drug at a cheaper rate. When the British Government started the National Health Service, they found that the drugs which they wanted were so costly in the indigenous market, that they decided to import certain drugs from Italy and they got it at a cheaper rate with the result that they later were able to force their medical local manufacturers, to come to some sort of voluntary price regulation scheme. That is the Italian consumer did not get the benefit of the price reduction due to the absence of the patent law, but the British consumer benefited.

Prof. G. Bergami: This is the key problem of this problem of patents. We must recognise one simple fact: when I write a book, I will have the right to have a percentage of the fixed a price for such copy of that book. If somebody will reprint that book without paying me the copy right, he will have a lower cost and may sell it at a lower price. The same happens for the drugs. If some body reproduce a drug, he can sell it at a lower price. But in the case of Italy, if one enterprise has been able to copy, and sometimes they took the knowhow by not so clear channels, he gains selling the specialities at high prices, and then used the bulk sales at any price, for lowering the general expenses. So, they make the best profit on the finished product which they sell at a high price like the original inventor. In England, I do not know whether they have been successful or not with this method. But I believe that all cases like that will not be repeated easily in future, especially in regards to many important drugs such as chloroamphenicol and other antibiotics whose patent are expiring. We must be careful in planning for the future. We need the best new drugs at the lower cost, because it will be always useful if we facilitate that. In the new discoveries that are made, if we do not have the right price, or if we do not protect the price, of research it is not possible to make headway. We must see that the spirit of research is maintained and honoured.

Shri A. T. Sarma: I want to know whether you consider that this Bill, if enacted, will be an improvement and would improve the research and development of industrial activity in India.

Prof. G. Bergami: If I may be frank with you, I must say that especially on the provision of licence of rights, the patent will annihilated on this will be against the interests of discovery. When one patent is available to everybody, nobody starts because he is afraid of the others. Not because of lack of interest, I do not believe that. Frankly, I do not believe your Patent Bill relating to the pharmaceutical industry will enhance research. You have reached a very high standard in research and you have a very large capability; I do not see why you should not act like other countries that have already developed.

Mr. Chairman: Do you know that the patent law in almost every country has got this licence of rights. Out of 74 countries, 60 have got it.

Prof. G. Bergami: I am not an expert on this legal matter.

Shri Dalpat Singh: You have said in your statement that absence of patent does not make any difference, does not lower the price of the drug. Do you think by giving patents, the price will come down or will it remain unchanged?

Prof. G. Bergami: My feeling is that the cost of the utilisation of the patent normally realised through royalties is so low in comparison with the promotion costs of any medicine that it does not affect the price practically. The price of medicine today all over the world is mainly composed of promotion costs, and the cost of the royalty is very little. This is demonstrated by the fact that the price in France is sometimes lower than in Italy for the same drug although France has the patent and we do not have the patent. This is an economical result that everybody can check. The same is the case in England. In many cases the prices in England are lower than in Italy. This gives me the feeling that prices are a different problem from patent. There is only a small connection.

Shri Arjun Arora: How do prices of drugs in Italy compare with those in other European countries where patents exist?

Prof. G. Bergami: From memory I can say that the cheaper countries in Europe are France and England. Then come Switzerland, which is like Italy. Then comes Germany where prices are a little higher. So, we believe that the only country which has no patents is in the middle of this price line.

Shri R. P. Sinha: It has been represented to us by various witnesses that the inflow of foreign capital and technology to India will not be forthcoming if we weaken the patent law of this country. You have just stated that 21 per cent of the total foreign investment in Italy is in the pharmaceutical industry where there is no patent. Would you throw some light as to how the foreign capital is flowing into Italy in spite of the fact that there is no protection for these products?

Prof. G. Bergami: The lack of patent obliges the foreign producers to go direct to the market as they have to defend their product against competitors directly because they have to defend their product against competitors directly because they have no defence from the patent. Coming back to the problem of India, my opinion is this. If I am alone, I can calculate the real cost, as I will be able to sell so many tonnes or quintals. Otherwise, how can I make any presumption?

Mr. Chairman: By enacting a patent law, you want to prevent or increase the flow of foreign capital?

Prof. G. Bergami: The policy of the Italian Government until now has been to give freedom to the economy and the best results have been obtained.

Shri R. P. Sinha: Are the foreign investors in pharmaceutical industry

in Italy getting good returns in spite of there being no patent law there?

Prof. G. Bergami: The profit normally made by holders of patents is made by heavy promotion by foreign companies operating in Italy. Sales are related to promotion and through promotion profits are made.

Shri R. P. Sinha: We are told that the pharmaceutical industry will not be able to bear the cost of research without patent protection. You are spending in Italy 3 per cent of your turnover on research work in spite of the fact that there is no patent law there. How do you recover this expenditure on research?

Prof. G. Bergami: This small percentage spent in Italy in research is not spent by the thousand enterprises, but only by a few. A few enterprises spent at least 10 per cent or even more on research, because their progress depends on research. The researches do not pay immediately but they pay in the long run.

Shri Bade: How much foreign exchange is remitted every year by foreign firms in Italy in the shape of dividends, royalties and for technical know-how?

Dr. G. Delgiudice: Italy pays towards royalties and technical know-how to foreign companies about 45 billion liras. Italy does not get more than 2-3 billions of liras for their patents on drugs although receive many billions for other things like polymers, etc.

Shri Bade: You have got no patent bill till now. We have our patent law from 1911. Still, the Glaxo Company which is manufacturing about 153 pharmaceutical things under their own registered proprietory trade names and which is holding a number of patents in India, is manufacturing only 2 medicines here and all the other medicines are being imported from outside. because they have got patents in India. Thus they are exploiting the poor people. In the light of this experience of ours, how do you say that patent law will be conducive to the investment of foreign firms? Instead of manufacturing medicines here, they import them from outside. The patent law is misused.

Prof. G. Bergami: If there is a product that can be imported at a lower cost, it is no use for a country to produce that locally at a higher cost. It will be a big mistake. This was a mistake that Mussolini did and we paid very very badly for that mistake. In Italy we started the production of some vitamins, but we stopped when we saw that our production cost was many times the production cost of Roche who specialised in the production of vitamins. This happens often in the pharmaceutical field. The emphasis is on the minimum cost. That which is economical should be adopted. There are special cases, due to special needs or due to the existence of raw materials in a country, where it may be necessary to resort to local production. But I must say this is a mirage of local production. The local production should be economically convenient and then only it should be resorted. What is important is to have the lowest price and the lowest cost. This is very important for the economy of the country.

Shri Bade: Shall we come to the conclusion by this discussion, that our provision for compulsory licence is the only remedy for such foreign companies who are not investing money in India?

Prof. G. Bergami: I agree.

Shri V. M. Chordia: May I know whether it is not a fact that in the absence of any patent law in Italy, in the first stage the Italians could learn to imitate the products of others, in the second stage they could improve upon those products and in the third stage they could introduce new products, and by this they could save their money from being sent out of the country?

Prof. G. Bergami: The production of drugs change every year. The production of drugs today is not what it was 20 or 30 years ago. In Italy the industrialists are paying substantial sums for patent rights. The yearly cost paid in Italy for licences in the pharmaceutical field is about 45 billion liras.

Shri V. M. Chordia: Is it not a fact that even if you have a patent law for having foreign know-how you will have to pay the same amount as you are paying at present, but in addition to that you will have to pay for years more price than what you would have paid had there been producers in Italy and if there had been no patent law?

Prof. G. Bergami: If there is a patent law we will pay practically the same amount, there will be no difference at all. Only when it is economically convenient an Italian industrialist will start production; otherwise they will import. The burden to establish whether it is convenient or not should be on the private enterprise. If the State is to decide that, we will be exposed to a lot of complications. I have personal experience of that when I was High Commissioner for Public Health. This was the period when penicillin was very scarce and developed only in the USA. We obtained from U.N.N.R.A. one plant to make penicillin. It was set up as a State enterprise. The plant was very old, it was modified and finally we started production. But the price was about two times more than the price of free enterprise. Finally we stopped production. The State is not aware of the real condition of the market and it takes too long to take a decision. So local production should be done only when it is economically convenient. Economical convenience may have a different origin—it may be cost, it may be existing facilities, it may be the availability of raw materials in the country.

Shri Wasnik: You have stated that the provision in the Indian Patent Bill for compulsory licence has negatived the patent protection. I understand that in the Italian Patent Bill that is before the Italian Parliament there is a similar provision in clause 8. How do you justify that?

Prof. G. Bergami: First of all, I must say that I am not the man who has prepared the law. We may have a different opinion. I must clarify that compulsory licence is completely different from licensing of rights. They are two different things. Italian law provides compulsory licence. According to that, compulsory licence is going to be given to reduce the bad effects of patents.

Shri R. Ramanathan Chettiar: You stated earlier that 21 per cent of the foreign investment in Italy is in the pharmaceutical industry. I do not know whether you have the figures with you. Earlier you said that 45 billion liras or something is invested. Is it 21 per cent of that or 21 per cent of foreign investment in Italy?

Dr. G. Delgiudice: This figure we do not have.

Shri R. Ramanathan Chettiar: There are certain American combines or cartels operating in Europe, like the American Cynamide Company, which have bought over some of the Italian companies. Are there any instances where an American pharmaceutical combine has purchased any Italian pharmaceutical industry and established itself in Italy?

Dr. G. Delgiudice: There are cases where they have majority shareholding in Italian companies, but these are few.

Shri R. Ramanathan Chettiar: For example, the Minnesota Mining Manufacturing Company has recently purchased two companies—one in France, La Bauchet, and the other one is Ferrania.

Dr. G. Delgiudice: It is not a pharmaceutical company.

Shri R. Ramanathan Chettiar: La Bauchet is collaborating with an Indian company in putting up a photo film plant in the Nilgiris and Ferrania is also interested in photo film industry. Like that there are instances even in regard to the pharmaceutical industry where they have purchased a few companies, like the American Cynamide Company case.

Dr. G. Delgiudice: There is the Lederle company in Italy which is American Cynamide Company. There is Pfizer in Italy and also Squibb as they are in India. They have come and invested their money there.

Shri R. Ramanathan Chettiar: Am I right in thinking that you have no anti-Trust law, like the Sherman law, on the American model to prevent foreign investment in any industry?

Dr. G. Delgiudice: Till now there was no such law in Italy but an anti-trust law is under preparation, and is under the Cabinet consideration.

Mr. Chairman: Thank you very much, gentlemen.

(The witnesses then withdrew.)

(The Committee then adjourned to meet again at 15.00 hours.)

II. Federation of Economic Organizations of Japan, Japan Pharmaceutical Manufacturers' Association and Japan Pharmaceutical, Medical and Dental Supply Exporters' Association Japan Patent Association, Tokyo.

Spokesmen:

(1) Mr. Shoichi Inouye.

(2) Mr. Shoji Matsui, Patent Attorney.

(The witnesses were called and they took their seats).

Mr. Chairman: Gentlemen, the evidence that you give will be printed and distributed to all Members of Parliament and Members of the Committee and will be laid on the Table of the House. Even if you want any portion to be treated as confidential, it will be printed and distributed to all the Members of Parliament.

We have received your memorandum and it has been distributed to all the Members. If you want to stress any point or make out any new points, you may kindly do so after which Members will put questions to you.

Mr. Shoichi Inouye: Mr. Chairman and gentlemen, it is indeed an honour for me to have this occasion to speak before such a distinguished assembly. I extend my heartfelt appreciation to those who are giving me this opportunity.

The Japanese delegation consists of Mr. Matsui and myself. With your permission, we have brought an interpreter to assist us in answering your questions.

I was the Director-General of Patent Office of the Japanese Government for about 5 years from 1955 to 1960. After resigning the post, I entered Showa Denko, one of the leading chemical companies in Japan and I am now Senior Managing Director of Showa Neoprene Company, which is a joint venture between DuPont Company of the United States and Showa Denko of Japan.

Firstly, I would like to speak about the relations between patent system and national economy, particularly through our experiences in Japan, and later, Mr. Matsui will make a statement regarding our views on certain points of your Patent Bill from the standpoint of Japanese industry as well as the pharmaceutical producers in particular.

As I am speaking a foreign language I would like to ask your patience and indulgence. I want to read almost all my paper but it will take only 30

minutes or so. In the course of reading I will make some additional explanations.

The Federation of Economic Organizations, whom I represent here today, is the foremost organization of Japan's economic circle, with all the major enterprises participating in its activities. The Federation's voice has a leading influence in our country. The Economic Mission from Japan headed by Mr. T. Adachi, which visited this esteemed country this spring, was organized under the influence of this Federation.

In 1945, when the Second World War ended, our country stood in the midst of devastation. Our young brains were lost and production facilities were in ashes. Today, twenty years later, to many of us this seems merely to have been a bad dream. During this comparatively short period, our economic growth was very rapid, showing a yearly increase of about 20 per cent. In 1964, while the growth rate decreased, it was still as high as 11 per cent and our national income *per capita* reached 570 US dollars, tripling that of ten years ago. For your information, in 1965, it was 680 US dollars.

The major factor contributing to this extraordinary growth was the induction of superior technology from advanced countries abroad. It was decided that the most efficient and the safest way to fill the technological gap, created by the war, was to bring in technology which already had been proven successful on a commercial basis abroad. Japanese industries vied for such technological induction. As a result of this, today, a number of these industries have acquired worldwide standing which they would never have attained without the technology from abroad.

In 1955, Japan's payment for overseas royalties was 17 million US dollars. In 1965, this increased to 164 million US dollars. These figures, alone, may seem to indicate a large drain on our foreign exchange reserve. However—and this is a very important point, I think—if we were importing from abroad, today, the products which we are now producing domestically, we would be paying for their importation more than tenfold the royalties we are paying to produce them ourselves. Furthermore, the royalty payments can often be quickly offset by income from the exportation of the product concerned. Outstanding examples of this are our nylon and transistor radio industries which have brought in tremendous profit, far exceeding the amount of royalties paid out.

Japan's export of technology is not, as yet, large. Royalties received during 1965 amounted to 13 million US dollars, 8% of royalties paid out during that year. In recent years, original research and development in Japan have become even more active and a number of unique domestic technologies are being commercialized. All this is indicative of the beneficial effects of technological induction.

In looking into how and why a wide variety of technological induction took place and continues to take place in Japan, the outstanding reason is found in the existence of a long-standing, well-established patent system. Ever since she joined the Paris Convention for the Protection of Industrial Properties in 1899, Japan has respected and sufficiently protected, irrespective of nationality, patent rights which are regarded as products of the intellectual efforts of human beings. This attitude invited applications from abroad, and the assurance of sound protection of new inventions in the form of granting solid patent rights encouraged those abroad to transplant to Japan their know-how, when asked for.

The patent system of Japan is 81 years old this year. In 1899, while the patent system was still growing roots, Japan joined the Paris Convention, and clearly indicated her policy that Japan would benefit most by protecting inventions of other nationalities as well as her own.

Since then, modifications of the patent system have been made to accommodate various socio-economic changes. The patent law of Japan, as I said just now, was enacted in 1885. After minor changes were made three times, the amendment of patent law was put into effect in 1921. Then, 38 years later our current patent law was born in 1959, nearly seven years ago. But the basic principle of attempting continuous technological progress through the protection of inventors and the public disclosure of technology has never once been changed.

The number of patent applications in Japan are growing year by year. Especially in recent years, enterprises are becoming evermore active in research work to cope with technological innovations and the liberalization of foreign trade, and their attitude of wanting to protect such research results in the form of patent rights, manifests itself in the rapid increase of patent applications. Since 1962, the number of patent applications has increased at the rate of 10 to 20% each year, and during 1965, 82 thousand applications were made. When the number of applications for utility model is added to this figure, the total number of applications amounts to 180 thousand, ranking first in the world. Ten years ago the number of applications was less than half this figure.

It is noteworthy that the number of patent applications by foreign nationals are increasing remarkably in Japan. There were only about 7,000 such applications in 1955 but during 1965 this number increased to 21 thousand, which means that 26 per cent of the applications submitted during 1965 were by foreign nationals. This may seem not to be very large. However, for ultra-modern technology, such as the chemical field, the rate of applications tendered by foreign nationals exceeds 50 per cent of the total.

As for the granting of patents, less than 50 per cent of the applications made by Japanese nationals pass examination and become registered, while the rate of registration by foreign nationals is as high as 70 per cent. This fact proves that patent applications from abroad are more frequently of superior quality. In other words, 26% at the total applications by foreigners enjoy 36% at the total registration.

Such figures were achieved only because foreign nationals have had no doubt as to the sufficient protection of their patent rights under the Japanese patent system. In light of our experience regarding the smooth induction of foreign technology, while its role may not have been conspicuous, our patent system is the greatest single hidden contributor to the development of Japanese economy to the present level.

While Japan acquired much technology from abroad, she does not rely on this alone. Very serious efforts are exerted for the development of domestic technology.

I would like to emphasize this point which I am going to say now. When the number of patent applications from abroad was repidly increasing and when numerous technical tie-ups between Japanese and foreign companies were causing large sums of overseas royalty payments, there were those in Japan who seriously questioned the effect of patent rights protection as being against Japanese national interest. At that time, the majority believed, and it is still believed, that the original purpose of the patent system is not to allow an individual to hold in secret the intellectual products of his brain, but to lay it open to all so that industry and society as a whole will benefit from it. In compensation for this, the individual is given the right of exclusiveness during a limited period. New technology thus made open will then stimulate other reseachers toward further studies and as a result will become the basis for new and better inventions. In other words, level of technology is continuously upgraded by pooling the results of the

individual researcher for the benefit of all researchers. The patent system was born of human ingenuity, where it made possible for all to strive toward "better inventions through inventions". Therefore, it is necessary that inventions by foreign nationals be brought to Japan. What will happen if limitations were placed on our present patent system? It will mean that legal protection given to technology will be weakened, and this in turn, means less compensation given to inventors. That would certainly be of no help toward inducing better quality inventions. Where there is doubt and uneasiness as to the protection given by law, no new and useful technology from overseas will be forthcoming into Japan. Such a state will cause a wider technological gap between Japan and the other countries of the world. Whether it be a Japanese patent or a foreign patent, newer technology will help in developing our industry and this will stimulate the advancement of Japan's technology as a whole.

In any country, what can be more desirable than the existence of a high degree of inventiveness among the people? Inventions add to society something that did not exist before without depriving it of anything. The best way to encourage inventions is the patent system, and only under a reliable patent system will it be effective. This applies to foreign nationals as well.

We fear that if legislation was made whereby people, especially those abroad, would lose the desire to apply for patents and to supply technological information, it would be very much against the nation's interest since it will mean that the nation is attempting to sail against the international current.

I recall that the late Prime Minister Nehru said to the effect that one can easily let one's garden go wild, but it is no easy task to turn back the wilderness into a garden. The flowers of invention, indigenous and foreign, are blooming more and more in number and in variety in this garden of yours, and indeed it is my heartfelt wishes that this atmosphere in no way be clouded.

We have great respect for India's achievement in international society as a leading world nation and for the serious efforts you are making toward the realisation of various policies for the better development of your economy. The Economic Mission from Japan had an opportunity recently to discuss with your people the general economic problems our two countries face, and it was mutually confirmed that the strengthening of cooperation between the two countries will not only benefit us both but would contribute greatly toward the world as a whole. Business circles of Japan highly value the results of the Mission's visit, and the people of Japan earnestly desire an even closer friendship with the people of India.

We, in Japan, have a strong desire that whatever changes be made in your patent system are not of a nature that would possibly impede Indo-Japanese economic cooperation. Based on this thinking, I would like to express our concern over some of the articles in your Bill. (Please refer to my memorandum Page 9-10).

In concluding my testimony, may I point out that we, in Japan, are all sincerely desirous that the proposed patent bill will not hinder the growing inventiveness and research activities, and will not thereby become a debit instead of a credit to the development of your industries. It is also earnestly hoped that the bill will not mar India's good reputation in international society, and in particular, impede the growing economic relations between your country and Japan.

May I reiterate our experience and belief that a nation's development can be achieved if her patent system fully indicates the original purpose of such a system, namely the protection of inventors.

Finally I express my deep appreciation to you for your close attention.

and hope that what I have said here today might be of some benefit to you in future deliberations on this subject at your esteemed Parliament. Thank you.

Mr. Shoji Matsui: Your Excellency and Gentlemen.

It is a great honour and pleasure for me to deliver an opinion on the planned revision of the Indian Patent Law on behalf of Japan Patent Association, Japan Pharmaceutical Manufacturers' Association and Japan Pharmaceutical, Medical and Dental Supply Exporters' Association.

I would like to make my statement not from the general point of view but from our actual experience and after that, I would like to point out some points which are considered very important and controversial in Japan regarding your proposed Patent Bill.

Personally, I have long been engaged in various patent affairs, including licence work with firms abroad as the manager of the Patent & Licence Department of the biggest pharmaceutical manufacturer in Japan and as the Chairman of the Patent Committee of the Japan Patent Association. Also, recently, as the Chairman of the sub-committee of the Jananese group, I had a chance to study the subject of "The Model Patent Law for the Developing Countries and the Role of the Patent System" which was discussed as one of its agenda at the AIPPI Tokyo General Meeting held in this April.

For your reference, I tell you that the Japan Patent Association is not composed of specialists in law, but is a group of enterprises, the aim of which is to study the patent system from an industrial view point.

My opinion to be delivered hereafter has been derived from our experiences through 80 years history of the patent system of Japan which has played an important role in the development of the Japanese industry to the present prosperity. I would like to tell you that stronger the protection, the more advanced a country is technologically. I would like to give three examples.

In the first place, I wish to mention the fact that the processes for manufacturing chemical compounds are conspicuously developed in our country to the extent that the number of patent applications in the chemical field amounts to 30 per cent of all the patent applications, and that there are not a few examples to show that compounds invented and manufactured first in foregin countries are manufactured in our country according to some other new process developed indigenously.

However, in respect of research activity of creating useful and novel chemical compounds, it can be said that the achievement is not so remarkable as in the field of the manufacturing process.

It is well admitted in Japan that the afore-mentioned fact is attributable to the manner of a protection of invention under the Japanese patent system.

The Japanese Patent Law does not grant patent protection to the substance itself in the field of chemicals and drugs, but grants patent protection only to the process of manufacturing such compounds. Therefore, researchers and industrial concerns have been obliged to concentrate their creative efforts on discovering new processes which have possibility of being placed under the protection of the patent law rather than on finding new compounds or drugs. But an exception can be seen in the field of antibiotics.

In Japan, many novel antibiotics such as Kanamycin, Fradiomycin,

Trichomycin, Leucomycin, Sarkomycin, Mitomycin, and Brasticidin have been discovered. These are very important drugs in Japan, having been discovered by ourselves.

Although in the field of antibiotics also patent protection is given only to the manufacturing processes, the Japanese patent office has granted a wide scope of claims to such processes which cover new antibiotics manufactured for the first time.

As a consequence, such process inventions as above enjoy an ample protection which is almost tantamount to product patent, resulting in spurring incentive to have pharmaceutical manufacturers concentrate their efforts on discoveries of new antibiotics.

In anticipation of this powerful protection under process patents in the field of antibiotics, more strenuous efforts of research have been directed to finding original antibiotics rather than to finding new processes for manufacturing the same old antibiotics.

We believe that such endeavours were mainly responsible for the discoveries of many novel antibioties as mentioned above.

These facts delivered above tell us that the creation of the invention is spurred in such a situation where the patent protection is strong and sufficient.

As another example, I would like to tell you that Vitamin B1 is manufactured in Japan. Japan is the biggest Vitamin B1-manufacturing country. We are exporting Vitamin B1 not only to the United States but also to many European countries and Takeda is one of the manufacturing companies in Japan.

During the infancy of Vitamin B1 manufacturing technology in Japan, a foreign company obtained several Japanese patents covering a wide range of Vitamin B1 synthesis methods. As a result, Japanese pharmaceutical manufacturers had to work hard to find out a new process to manufacture Vitamin B1, a very important substance for the Japanese, which did not fall within the scope of the patents held by the foreign Company. If there had been an easy way to imitate or make use of the patented processes, Japanese companies would not have made such efforts for finding out new processes at the sacrifice of a large amount o money.

From this, it could be said that the fact that a Japanese company invented new and economical processes for manufacturing Vitamin B1 enabling Japan to export Vitamin B1 so manufactured was ascribable to the patent system and also to the patent protection thereby given to the foreign company.

Now Japan has come to enjoy an active export of Vitamin B1 to many foreign countries.

It should be borne in mind that the stronger the protection, the more the technique will advance. I would like to emphasize here three proints and I would like you to know our actual experience in this regard. I would add a few comments regarding the problem of know-how. Our experience shows that even an imitation following a prior art can hardly be done by simply referring to literature or patent specifications without know-how. It is noteworthy that most of the useful know-how will be introduced only accompanying foreign patents.

I myself went to Germany only to purchase the know-how on patents. Two years ago I went to Austria; though the company ia very small, they had an excellent know-how. I went to Italy to buy technical know-how. Why is know-how so important? Know-how mainly concerns the process which increases

the yield of the manufacture or improves the quality of the product. Then we can produce the same thing at a lower cost. More than that, the know-how can be used in the field of other drugs. For instance, we have been introducing technical know-how from American Cyanimide Co. in connection with the manufacture of tetra cycline. We are paying royalty and when we are paying royalty, we are obtaining the uptodate technical know-how free of charge. That charge is included in the royalty but by obtaining such technical know-how the cost of manufacture of tetracycline sharply went down. Why the inventor did not try to obtain a patent regarding know-how is a problem. The technical know-how concerns very small section of the manufacturing process. If the know-how is disclosed on the paper, many people can use that know-how but the inventor of the know-how cannot detect those who are using it free of charge. Then he does not try to disclose the know-how. He only discloses the main part of the invention by patent specification. That is why I consider that the know-how is important in connection with the patent protection.

That is my statement from the general point of view. I think I have finished my statement upto page 5. From page 5 I have given my opinion regarding the respective provisions of your proposed Patents Bill which I would like to briefly mention.

First I would refer to Sec. 48 of your proposed Patents Bill. This refers to patent rights not infringed when used for certain purposes. In Japanese Patent law this kind of provision is not included. We do not have it. I think this section will not only affect the foreigners adversely but also will affect adversely your future progress of technology and industry because if this kind of provision is included in your Patents Bill, I think there is a great fear that the importation or making can be readily carried out under this section. Many people would be discouraged to invest for new plant or to introduce foreign technology under patent rights. That is a reason why I would like to recommend deletion or amendment of this Section.

Section 53—term of patent—in this section the most problematical point is the duration of the patent which is stipulated as 10 years. In Japan there is no discrimination in the duration of the patents irrespective of the field of invention. All patents are under protection for 15 years. From the date of publication the patentee has the right to enforce his patented right to exclude others from using. From that date patent rights start and they continue for 15 years.

In Japan we do not have any provision for renewal of the life of the patent. 15 years is final. But in the pharmaceutical industry many leading companies now consider this 15 year protection as too short because it becomes very difficult to find new drugs which cost more and more and one new drug can be created only out of 3000—5000 products. The cost is very high now. This 15-year protection seems to be a little short in the pharmaceutical field. Even when one discovers a new drug effective for one disease, we have to carry out more and more research—safety test, clinical test, etc. Though in Japan it is not strict as in the United States, it takes a very long time and generally it takes more than five years before a new product is on the market. We have much experience in licensing agreements where a patentee wants to get royalty after the expiration of the patent. I have personal experience of a licensing agreement by which a company will pay royalty after the expiration of the patent in Japan. On the other hand, we have the case in foreign countries where after the expiration of the patent, we still get royalty from the licensee. If a patentee has spent a lot of money

for a new drug, of course, the patentee would like to cover such expenses by obtaining royalties. Than sometimes a patentee wants to get a royalty after the expiration of the product. Therefore. looking from these points of view, ten years, I think, is a short period and it would discourage the inventor from giving the licence to your country.

Sections 66 and 89 concern the revocation of patent in public interest. In Japan this kind of provision is not included. The old law had this type of provision but it was never used and it only gave fear to foreigners. In our opinion, it was a harmful provision from the point of view of introducing foreign technology from other countries. But in a recent revision of the patent law, this provision was not included and so our present law does not include this revocation provision and there has been no harm to Japan so far.

So from our experience, I would like to recommend that this clause be either amended or deleted.

I understand sections 84, 93, 95 and 97 concern compulsory licence. The idea of compulsory licence to work the patented invention is adopted by the Japanese Patent Law as well as in the Model Law drafted by BIRPI. But frankly speaking, the ground for granting a compulsory licence in this Bill is very severe and has the effect of placing undue and strong restrictions on the rights of a patentee. For example, sub-section (2) of section 84 provides that even a contractual licensee is entitled to apply to the Controller to amend or modify the existing right of contract. According to sub-section 2 of section 93, the Controller may cancel an existing licence when he thinks fit in granting a compulsory licence. I think this is a bit too strong, looking from the Japanese way of thinking.

The next point is sub-section 3 of section 93. This sub-section provides that in granting a compulsory licence, the Controller may by order deprive the patentee of any right which he may have as patentee and revoke all existing licences in respect of the invention. This way of thinking is not an acceptable way of thinking in Japan. I think this is too strong because the contractual licence was last agreed between these parties, and we, Japanese, would like to respect an already existing contract. My opinion comes from such a point of view.

Moreover, sub-section (3) of section 95 provides for Governmental authorisation of importation in case of compulsory licence. I think this clause concerns section 48. This is not good for your country in introducing foreign technology. I understand this sub-section 3 of Section 95 concerns the governmental authorisation for importation and one other point is sub-section 1 of section 97. Under this sub-section 1 of section 97, the Government may designate the patent at any time, with regard to which the compulsory licence shall be granted, in order to satisfy public interest only by making a declaration to that effect in the official Gazette. I think, this is too severe as compared with Japanese compulsory licence system. Fortunately, I have the English translation of current Japanese Patent Law. I would like to leave it here for your perusal. Of course, in Japan we have provisions regarding compulsory licence system. The three cases where compulsory licences are granted in Japan are—(i) in case a patented invention has not been adequately worked for more than 3 years; (ii) in case the working of a patented invention is particularly necessary in public interest; (iii) if the junior patentee's invention cannot be worked without using senior patentee invention. In that case the junior patentee can ask for compulsory licence through senior patentee. These are the three cases in Japan of compulsory licences. Of course in that case, there has to be mutual consultation. If the agreement could not be reached between the

patents then a special committee will consider the case and give award and sometimes compulsory licence will be granted and sometimes not be granted. And if the royalty rate decided at such special counsels for granting compulsory licences is not acceptable, a patentee can appeal to the law court for increasing, or sometimes decreasing the royalty rates. Of course, there are much more complicated due processes to protect the rights of patentee. This is only for your information.

I would like to mention regarding your Sections 87 and 88. Those sections concern "Licences of right" and fixed royalty rate. As regards licences of right, we do not have this kind of provision in our Japanese Patent Law. In Japan, if patentholder would like to show his intention to give licence to anybody, he can put his intention on the specification, voluntarily he can do that, but no such compulsory obligation is there. I think this is too strong, too severe. Specially, in pharmaceutical things, as I told you, it takes more than 5 years generally to exploit and to launch the product on the market. If licence of right was described on the specification at the time the patent was granted in your country, I am afraid, all patents concerning pharmaceuticals will be destined to be revoked, because within 2 years it will be very difficult to work. That is the reason why—I do not like this to be included in your Patent Bill.

The next point is regarding the royalty rate. I understand, 4 per cent of ex-factory works price is set in these provisions. But fundamentally, I think, it is very difficult to set a ceiling on royalty rate. Our fundamental thinking is royalty rates should be decided case by case and sometimes less than 4% and sometimes more than 4%—and it is the usual international practice also that the royalty rate will be counted on net sales price of manufacturers but not on the net ex-factory works price, as provided in this. I think, this way of thinking is not usual. Internationally, this is not the accepted way of thinking. As you know, Japan was one of the very poor countries which needed technology to be imported from foreign countries. Then in order to save the loss of foreign currency, it was true that the Japanese Government has made a great effort for selecting foreign technologies to be introduced, taking into due consideration their importance for developing and promoting the technological research and industries in Japan by sometimes ordering amendment or modification of contractual agreements, when such stipulations are disadvantageous to Japan, Government orders amendment, and if the patentee foreign industry do not agree to amend that, it was very difficult to introduce that technology. But in our experience, mutual agreement was finally reached.

One point I would like to emphasise is, it is hardly deniable that also in Japan, there is a minor opinion of desiring to put strong restrictive conditions upon the patent rights or to weaken the patent rights, but this minor opinion apparently aims at enjoying the benefit from easy imitation of techniques invented or devised at the cost of someone else. Therefore, it may safely be said that this minor opinion is supported confinedly only by small number of enterprises which are far behind in research activities.

Next point is concerning Sections 99, 100 and 102. I understand these provisions concern Governmental use and acquisition of the patent right. Frankly speaking, this kind of provision is not included in Japanese Patent Law. Old Patent Laws included this kind of provision, but there was no benefit under these provisions. It is only harmful to the sound growth of technology, because foreign investors feared that this clause might be forced in certain cases. Then at the time of revision of our Patent Law, this kind of

clause was abrogated. The present Patent Law does not have it.

Next point is concerning section 116. This provision concerns limitation on appeal to the law court regarding the administrative decision. In Japan, against all kinds of administrative decisions . . . In Japan, the public can appeal to courts for relief against all kinds of administrative decisions, not only in patent cases. I think in your country this restriction on appeal in this patent law is too restrictive. I think this must be broadened a little.

Lastly, I would like to mention that section 162, which shortens the period of the patent for pharmaceuticals to 10 years with retroactive effect will have an undesirable effect. In Japan the patent law was amended many times, but it never deprived the public of any right. I think this retroactive effect will create a feeling of distrust among the people.

As a conclusion, I would like to suggest, through our experience, that in developing countries the moderate compulsory licence system in combination with flexible operation of other legislation, such as our Foreign Investment Law which can control a payment of foreign currency from the viewpoint of financial situation without depriving the patentee of his fundamental right, will produce satisfactory outcome for the development of their industries.

Lastly, I express my sincere thanks for your kind attention. Thank you.

Dr. C. B. Singh: Table No. 1 of your Supplementary Material gives the production values of pharmaceutical industry in Japan for the years 1960 to 1965. Do you think this increase is the result of strong patent protection?

Mr. Shoji Matsui: Patent protection is one of the big reasons why our industrial production has gone up. There are many other reasons. For instance, the demand for medicines in Japan has increased because of the increasing standard of living in Japan and because of the introduction of the Health Insurance System. More than 99 per cent of the whole nation is now enlisted under this scheme, by which they can receive medical treatment very easily. Then, the total consumption of pharmaceuticals has increased very much, and the pharmaceutical industry expanded its capacity to meet the demand.

Dr. C. B. Singh: In Table 3—Amount of domestic supply of medicines (1961) the figure for Japan is given as 601. Why has it gone up so much? Will it be correct to assume that it is as a result of the rising standard of the Japanese economy?

Mr. Shoji Matsui: The import of pharmaceuticals from foreign countries is not so big as compared to domestic consumption. One of the biggest reasons for production increase is increase in domestic demand. The Japanese pharmaceutical industry can thrive on such demands and can expand its factories to meet such demands.

Dr. C. B. Singh: On page 3 of your statement, you have made a statement at one place that you are more or less protecting the process and you have given preference to the processing of products at some other place. In other words, it is rather confusing. Do you want patents for the process or for the products, or do you want a combination of the two?

Mr. Shoji Matsui: In Japan, we have now the process patents, but recently, some leading pharmaceutical industries wanted to introduce product patent system in Japan, because under the process patent system, when one company invents a new product, they have to defend some other people imitating the same product by using some other process. Then, a company who invented quite a new product, has to make effort so as to defend it and not to

progress upon it. That is one of the defects of the process patent system. Leading companies who would like to find new drugs would like to introduce product patent system, preventing others from doing so. By introducing the product patent system, one inventor who invented new compounds, can concentrate its effort for finding another new drug. Opinions are 50-50 in Japan. I may say it very frankly.

Dr. C. B. Singh: Evidence has come that process has become more or less standardised, and by the same process, with slight modifications, probably you can produce many products. The processes have become more simplified, and as a result of this, the modern tendency is to include both process and product. Now, will you tell us clearly whether it will be an improvement if in our Bill we bring the process along with the product in the matter of patents? Will that be an improvement, according to your opinion?

Mr. Shoji Matsui: Do you mean which is better, product patent, or process patent?

Dr. C. B. Singh: Process *cum* product.

Mr. Shoji Matsui: That is a very difficult question. I think in your country product by process patent will be better at the present stage, but in future, you must introduce product patent.

Mr. Chairman: In your statement, you have stated that process patent in Japan has contributed largely to the greater inventions for new processes, and it has developed your pharmaceutical industry very much. Do you stand by that statement?

Mr. Shoji Matsui: Yes, according to the system of process patent, our processes developed very much in Japan, but in the United States, they have product patent system.

Mr. Chairman: We are not concerned with the United States now. I want your opinion about your own industry. You have said that the process patent in Japan has really contributed to the industrial development of Japan. Is that correct?

Mr. Shoji Matsui: Yes.

Dr. C. B. Singh: On page 4, the witness has mentioned that as a result, Japanese pharmaceutical manufacturers had to work hard to find out a new process to manufacture Vitamin B_{12}, which is very important for the Japanese, which did not fall within the scope by the patent held by the foreign company. That is why I am raising this question. There is a doubtful exposition here, according to his own statement. I want him to clear that point.

One more thing. On page 6, it is mentioned that the clause empowers the manufacturer to import any patented medicine or drug not only for its own use but also for distribution to the hospitals or medical institutions maintained by or on behalf of the Government. What objection has he got? Ours is a sort of democratic socialism, and we need all these things for the general use of the poor people. If the Government want to take it, do you mean to say that the Government would pay compensation and compensate the companies?

Mr. Shoji Matsui: At least Government must pay some compensation.

Dr. C. B. Singh: Lower down, you have mentioned that each sub-section of section 48 has every possibility of being widely applied, depending on the interpretation of the wording "for the purpose merely of its own use", because nothing is specifically defined by "the purpose of governmental use." You have also said that the wording "by or on behalf of the government" adopted through sub-sections (a), (b) and (c) makes it possible to be interpreted that importation by any person shall not be deemed to infringe a patent right, as far as it concerns the governmental use.

Mr. Chairman: Suppose there is an epidemic and we want certain medicines. Government has to take action. To meet such emergencies, this provision is made. These powers are vested with the Government of Great Britain, Germany, etc. This provision is made to vest the Government of India also with that power. What will satisfy you, as a patentee?

Mr. Shoichi Inouye: In Japan we do not have any system like that. In case of emergency Government will take recourse to compulsory licensing. That is enough.

Mr. Chairman: Compulsory licensing means authorising somebody to set up a factory and manufacture the drug. That will take time. But when there is an epidemic, we want medicines immediately. We will give a licence of right and anybody can import or manufacture it. In such circumstances, what will satisfy you as a patentee to give the drugs to us? There was an outbreak of plague in Bombay and a particular drug was sold at a very high cost. One of our research institutions wanted to manufacture the drug in India, but the company came in the way and frustrated the attempt for 3 years or so, by which time the need was over. To meet such emergencies, this provision is made.

Mr. Shoji Matsui: In Japan we do not have such a system.

Mr. Chairman: Here our people are poor and we must supply the medicines to them. If the patentee refuses, what is to be done?

Mr. Shoji Matsui: I think the cases must be more specifically described.

Mr. Chairman: The section is quite clear. Only in such circumstances the licence of right will be granted. If you want some compensation, that can be looked into. But the power must be available to the Government to take action in such emergencies. I hope you agree to that.

Mr. Shoji Matsui: Yes.

Mr. Chairman: We will adjourn now for lunch and meet at 8 P.M.

(The Committee then adjourned to meet again at 15-00 hours)

(The Committee re-assembled at 15-00 hours)

Shri Kashi Ram Gupta: You have mentioned that a lot of foreign capital is employed in Japan. May I know whether this is in collaboration with the Japanese capitalists or that capital is independent of the Japanese capital?

Mr. Shoichi Inouye: That is in collaboration with Japanese capital. In joint investments between Japanese and foreign people, the ratio of the share capital is dependent upon each case, but generally speaking the maximum is on a 50 : 50 basis. In many cases the Japanese side has a majority.

Shri Kashi Ram Gupta: Do you mean to say that there is no foreign concern which has got the total capital investment without any Japanese capital?

Mr. Shoichi Inouye: Generally speaking, no. But, I am afraid my answer has led to some misunderstanding. There are two types of investments with foreign collaboration. One is the establishment of a joint company between Japanese people and foreign people. There is also the other type where the contracts are only to induce foreign technology into the operation of Japanese companies.

Shri Kashi Ram Gupta: Is it a fact that in the pharmaceutical industry in Japan American capital predominates?

Mr. Shoji Matsui: In the pharmaceutical industry, in most of the cases, only technical introduction is seen. Japanese companies introduce

foreign technology or know-how only by paying lower fees. But in some other cases Japanese companies establish joint investment companies and manufacture the product. If you take the ratio of joint investment companies and simple technical introduction, I think the number of cases where only simple technical introduction is done will be more.

Shri Kashi Ram Gupta: Is it a fact that the largest number of patents in the pharmaceutical industry in Japan are owned by Americans as foreign concerns?

Mr. Shoji Matsui: At present the position is that a large number of patents in pharmaceuticals are owned by Americans among foreigners.

Shri Kashi Ram Gupta: In your Patent Act is the date of publication different from the date of filing of the application?

Mr. Shoji Matsui: In Japan the life of the patent starts from the date of publication. At the same time, the life of the protection starts.

Shri Kashi Ram Gupta: Is the date of publication the same as the date of filing of application?

Mr. Shoji Matsui: No.

Shri Kashi Ram Gupta: What is the difference between the two?

Mr. Shoichi Inouye: After the receipt of the patent application by the Japanese Patent Office, the examiners will take some time to examine it. When the application passes that examination, the Patent Office will publish it in the Official Gazette. That is the date of publication.

Mr. Chairman: What is the time lag between the date of application and date of publication?

Mr. Shoichi Inouye: As I explained in the morning, the number of patent applications received by the Japanese Patent Office has increased by leaps and bounds. So, it will take a longer time now to examine them compared to the position a few years ago. It also depends upon the field of technology. For instance, in the field of petro-chemicals and electronics there are so many important applications compared to other fields. In a field where the applications are so numerous it will take 2½ years to 3 years.

Shri Kashi Ram Gupta: What is the time lag between the date of publication and the date of grant of patent?

Mr. Shoichi Inouye: After the publication of a patent application there is a time limit for opposition. During the two months any person could raise objection. If there are several objections, it will take a longer time to grant a patent. If there is no objection, it will be granted immediately after the period of two months is over.

Shri Kashi Ram Gupta: Suppose there is objection from many quarters. How much time will it take to get a patent?

Mr. Shoichi Inouye: It will depend upon the nature of the patent, the objections raised etc. Generally speaking, it will take six months to one year.

Shri Kashi Ram Gupta: Are you aware of the fact that there is a patent Bill in Italy which provides a period of ten years for drugs? Has your industry sent any memorandum to Italy in this respect?

Mr. Shoji Matsui: I understand that in Italy there is no patent protection for pharmaceuticals. They have a Bill under study.

Shri Kashi Ram Gupta: They have introduced a Bill in July 1965. It is on the anvil.

Mr. Shoji Matsui: Yes, they have a Bill under study. But I do not know when it will be passed.

Mr. Chairman: Have you opposed it?

Mr. Shoji Matsui: No. My understanding is that it will take a longer time before it becomes law. I do not know, I have some connection with the patent attorneys in Italy; I have not received any information from them.

Mr. Chairman: The model law also prescribes a period of ten years.

Shri Kashi Ram Gupta: On page 49 of the model law there is a commentary that in certain cases the period can be 10 years from the date of grant of the patent. Some countries have it from the date of publication and some from the date of specifications—that means the same thing—but they say that some countries want it from the date of grant of patent in which case the period can be ten years.

Mr. Shoichi Inouye: Mr. Matsui was in charge of the model law as the Chairman of the Patent Committee of the Patent Association of Japan; so, he would be giving you an answer.

Mr. Shoji Matsui: This sentence reads "at least ten years from the grant".

Shri Kashi Ram Gupta: Are you agreeable to this?

Mr. Shoji Matsui: I think, at least ten years from the grant is all right, but in the pharmaceutical industry many companies in Japan need 15 years for making investment to find new drugs. That is my opinion and also Japanese opinion.

Mr. Chairman: You are a party to this model law.

Mr. Shoji Matsui: I understand, this model law was drafted by some 10 or 20 developing countries, but Japan was not on the drafting committee.

Shri Kashi Ram Gupta: You have given certain suggestions for deleting or amending certain clauses of the Bill. Most of them relate to drugs. Are you aware of why these clauses have been brought in by Government? It is mostly because we have the experience of the working of patents by foreign concerns and their misuse. In the light of that we have put in these clauses. Have you considered that? When you gave your opinion, were these points before you? Did you know what was the background for bringing in these clauses?

Mr. Chairman: They would not know it.

Shri Kashi Ram Gupta: Why could not Japan make use of the Indian patent law as it exists today up till now?

Mr. Chairman: They are collaborating in India.

Shri Kashi Ram Gupta: To what extent?

Mr. Shoichi Inouye: To our knowledge there are about 150 cases of Japanese investments in your country. That is in two forms—one is joint venture or joint investment company and the other is as contract for the introduction of technology.

Shri Kashi Ram Gupta: Are they mostly in drugs industry or mostly in industries other than drugs?

Mr. Chairman: They are collaborating in the electrical industry also.

Shri Kashi Ram Gupta: All right.

How does your present law of 1959 differentiate from your law of 1921? What are the main features of difference?

Mr. Shoichi Inouye: The current patent law provides more protection for the patentee.

Mr. Chairman: What was the earlier protection?

Mr. Shoichi Inouye: I would like to explain it in detail. The procedures concerning infringement of patent rights were not provided for in the old law. The provisions of the civil code were applied. But in view of the special nature of the patent rights, the following provisions were newly established in the current law, namely, in regard to the right to demand discontinuance of act of infringement of the patent right, the presumption of the amount of damage caused by the act of infringement and the presumption of negligence. The provisions concerning revocation and confiscation of patent rights were abolished.

Mr. Chairman: They were there in the earlier Act.

Mr. Shoichi Inouye: Yes. We had the provisions concerning revocation and confiscation in the old law but they were never put into practice.

Mr. Chairman: When were they abolished?

Mr. Shoichi Inouye: In 1959.

Mr. Chairman: Were the provisions of licence of rights also there?

Mr. Shoichi Inouye: We have never had such a system.

Shri Kashi Ram Gupta: You have given your opinion that the period of 14 years for industries other than drugs industry is reasonable. Many clauses of this Bill do not relate to patents other than drugs. May I conclude that you are in greement with our Bill to that extent in so far as it applies to industries other than drugs?

Mr. Shoji Matsui: So far as period clause is concerned we agree. According to your provisions, the patent right cannot work from the date of application. Then, if the examination takes a long time, the duration should be more.

Shri Kashi Ram Gupta: It is from the date of the completion of the specifications.

Mr. Shoji Matsui: But not the sealing.

Shri Kashi Ram Gupta: Even according to your law, it is not the sealing. I want to know whether you are agreeable to this for industries excluding the drugs industry.

Mr. Shoji Matsui: Yes.

Shri Shyamnandan Mishra: I want to seek one clarification in respect of Table No. 16 of your Supplemental Material. There, a comparison has been made between the prices in Japan and in the United States. I am not able to understand which is the price in the United States and which is the price in Japan.

Shri Shoji Matsui: Price 'A' is the Japanese price.

Shri Shyamnandan Mishra: That is not mentioned there. If price 'A' is the Japanese price, it is quite favourable. That is all right.

The second point is whether in your country any correlation has been established between the grant of patents and the inflow of foreign capital. This document is a valuable document. I think this would serve us a great deal even with regard to the understanding of the Japanese economy and its growth. We are grateful to you for supplying this information. But we would also like to know whether you have any figures with regard to the inflow of private foreign capital from the United States or from any other country and, if so, whether you can establish some kind of relation bet-

ween the grant of patents and the inflow of the private foreign capital, that is, you can say, for example, over a period of 10 years or 5 years the number of patents granted is so much and the amount of private foreign capital is so much. I would like to know something about that. This point has been very much stressed in the evidence before us. It has been said that if you want a large amount of private foreign capital to come to your country, then you should be quite liberal with regard to the provisions in respect of patents. I would like to take some lessons from the experience you have gained in Japan. Have you got any figures in respect of this?

Mr. Chairman: That will be from 1959 to 1965.

Shri Shyamnandan Mishra: This information is not contained in this note.

Mr. Chairman: How far the flow of capital increased as a result of the amendment to the Patent Act, 1959?

Shri Shyamnandan Mishra: How much inflow of capital could be related to patent?

Mr. Shoichi Inouye: First I would like to speak about the cases of foreign technology induction in Japan from 1959 to 1965. These are cases of foreign technology induction approved by Government:

1959	153
1960	327
1961	320
1962	328
1963	564
1964	503
1965	472

I would now like to tell you about the total amount of introduction of freign capital, for the same period.

1959	..	154 million US dollars.
1960	..	201 do
1961	..	505 do
1962	..	523 do
1963	..	690 do
1964	..	738 do

I do not have the figure for 1965.

Mr. Chairman: I think the 1962 figure is wrong.

Mr. Shoichi Inouye: It is 523 million U.S. dollars.

Shri Shyamnandan Mishra: This seems to be the total amount of foreign capital. What portion of it could be related to the patentee investment?

Mr. Shoichi Inouye: The amount which I mentioned includes technical tie up, i.e., contract of technological introduction and investmeat on securities.

Mr. Chairman: How much of it is due to liberal patent?

Mr. Shoichi Inouye: I am afraid, I do not have the breakdown.

Shri Shyamnandan Mishra: Would it be possible for you to give that information later?

Mr. Shoichi Inouye: Yes.

Mr. Shoji Matsui: Technical introduction is an investment from a foreign country in the form of technical know-how. The price of the patent right is sometimes calculated by law courts. Such patents are invested as stocks in Japan though cases are few. But in many cases, in regard to technical introduction, there is no official investment of foreign money, but when joint ventures are established in Japan, at that time American/European countries bring money to Japan. We have to consider types of investment.

Mr. Chairman: Can you say how much of this is due to the liberalisation of the Patent Law.

Mr. Shoji Matsui: Do you mean the estimate of the price of foreign technology?

Mr. Chairman: Not the price. How much of this increased investment is due to the liberalisation of the Patent Law that you have passed

Mr. Shoji Matsui: We paid royalty for the foreign patents introduced in Japan.

Mr. Chairman: That is what you paid. They have invested money in your country and you said that foreign investments have increased on account of the liberalisation of the Patent Law. How much of that can you attribute to this liberalised Patent Law?

Mr. Shoichi Inouye: Of course, the contracts of technological introduction have been based on the existence and protection of patent rights. I can not tell how much of foreign investment into Japan was due to the current Patent Law. But we believe firmly that many cases of technical induction were achieved only because foreign nationals have had no doubt as to the sufficient protection of their patent rights under the Japanese Patent Law.

Shri Shyamnandan Mishra: So far as this Table No. 16 is concerned, other prices seem to be quite favourable in Japan, but, so far as this streptomycin is concerned, here the differenec is very large. Yours is 83 as against American 28. This seems to be rather large—nearly 3 times.

Mr. Shoji Matsui: The price of streptomycin in Japan is very expensive. The reason why it is high is that production scale is not big; scale of production is not as big as in the United States. Then the cost is expensive in Japan.

I would like to add to my answer to your previous question, Please refer to my Table 22 which concerns the annual savings of foreign exchange made by way of introduction of foreign technology. In 1964 the savings on pharmaceuticals made under foreign technology is shown here. This is almost 9 per cent of the total production of Japanese pharmaceuticals and for this production we paid royalty shown in item (c)—6,398,000 dollars. But if we imported these products instead of introducing technology, we have to pay the same amount with those shown in (d). This royalty payment means that the balance of (a) and (c) which is shown in (f), the final saving of foreign money by introducing foregin technology.

Shri Shyamnandan Mishra: This is very useful, but in that case as you have given information so far as the amount of foreign investment in your country is concerned, can you give us the remittance of profits abroad year-wise? What were the amounts of profits remitted abroad?

Mr. Shoji Matsui: I am sorry that data is not available with me now. We have not studied it. If that data is available we will send it later.

Shri B. K. Das: In the memorandum submitted by the Japan Patent Association of which he is the representative, C1.47 of our Bill has been discussed on page 4. It says that there is no provision for the burden of proof in any section of this Bill and there would be much difficulty in protecting the right extended to substances made by the patented processes. So it has been suggested that the following phrase might be added at the appropriate place in the Bill. The phrase is: "If a patent is in respect of a process for the manufacture of a new product, the same product manufactured by a third party, shall in the absence of proof to the contrary, be presumed to have been manufactured by that process." So the burden lies on the third party.

Mr. Shoji Matsui: That is a very important point. We have the same provision in the Japanese Patent Law. Art. 104 is the clause under which the burden of proof is shifted to the possible infringer.

Shri B. K. Das: You think such a provision should be there. We have suggested process patent only in our Bill and you think such a provision will be able to protect the right of the process patent adequately in your opinion. But such things have come to our notice that one patentee holds so many process patents—more than one on the possible processes patents —4,5, 6 or 7—and he is exploiting only one. What is your safeguard against such things?

Mr. Shoji Matsui: In Japan, this is how you interpret the provision regarding the burden of proof. If a patentee has three process patents and is using one patent only and if a possible infringer may manufacture the same product by some unknown process, then even if more than three processes are known, still in Japan the possible infringer has to prove that his process is not infringing upon the rights of the patentee in regard to the product.

Shri B. K. Das: Will such a case be covered by the provision you have suggested? You have spoken of the third party, but if the same patentee holds more than one process patent, say three, and is employing only one process to prevent a third party from doing another process, how do you safeguard against that?

Mr. Shoji Matsui: The provision regarding the burden of proof is always applicable irrespective of the fact that the patentee has one patent or many patents.

Dr. C. B. Singh: On page 3, para 4, he has said "as a consequence, such process inventions as above enjoy an ample protection which is almost tantamount to product patent, resulting in spurring incentive to have pharmaceutical manufacturers concentrate their efforts on discoveries of new antibiotics."

Mr. Shoji Matsui: In the case of antibiotics, if the main point of invention is in finding new micro organisms to produce a new antibiotic, then according to the practice of examination in Japan, if the first inventor finds one organism, patent is granted not only for one organism but also for many, many organisms. Then the first inventor need not to carry out process study to find out some other micro organisms. If a process patent is given only for one micro organism, then there is a possibility of other people carrying out studies on micro organisms which will produce the same product; and then the first inventor has to carry out research for the process for defence. But in this case, there is no necessity to make a defence research. But in the case of chemical inventions, if he finds one process, the patent is granted for only one process. Then he has to carry out research to find some other processes if he wants to find out other processes by himself for defence. Otherwise other people may find other processes which do not fall within the scope of the first inventor's process patent. Those who find out new processes can manufacture the same product.

Dr. C. B. Singh: On a point of clarification, you have been mentioning different types of micro organisms. Are you referring to different organisms or different salts of the thing? For example, you can have sodium salt or potassium salt or calcium salt of streptomycin. I think you are referring to different salts of the same organism.

Mr. Shoji Matsui: In the manufacturing process of antibiotics, the fermentation process is a very usual one—almost the same in every manufacturing process. In other words, in the manufacture of streptomycin, tetracyclin, etc., the actual fermen-

tation process is very similar. The only important difference is the micro organism to be used for manufacturing the finished product. It is almost impossible from one micro organism to produce streptomycin and tetracyclin at the same time.

Shri B. K. Das: Will not the patent office be able to take care of that, whether it is a new process or a variation of the same process?

Mr. Shoji Matsui: In the patent office, we examine only the specifications. We usually do not look at the actual living organisms. But if a case of infringement comes up and the patentee sues the possible infringer, then the actual strain will be submitted to the law court and actually examined. If the micro organism belongs to the same species which is under patent protection, then it would result in infringement.

Shri R. Ramanathan Chettiar. One question on the general aspect. When our patent Bill was published, people in your country who are actively associated with the pharmaceutical industry and also representatives of your benign Government had expressed lot of misgivings about the Indian Patent Law. Could you explain to us what were the reasons that had impelled you to have misgivings about our Bill? Further in the third week of March, *i.e.* on the 18th March, you agreed to come before this Hon'ble Committee of the Parliament to give evidence but your Excellency Ambassador here informed our Secretariat that it is not possible for the Japanese pharmaceutical industry to appear here because they want further time to study the Bill and then requested for further date. I would like you to tell us the reasons that had impelled you to have misgivings about our Bill.

Mr. Chairman: You can drop it.

Shri R. Ramanathan Chettiar: They are going to clarify, Sir.

Mr. Shoichi Inouye: We obtained the Indian Patent Bill last year and studied very carefully. I cannot understand the reason why you said about our having misgivings about the Bill. We have no groundless misgivings concerning your Bill.

Shri R. Ramanathan Chettiar: I am glad to have that clarification. Another thing I want to ask is: In the pharmaceutical industry in Japan, could you give us—even if you do not have the exact figure—the percentage of the actual foreign capital and particularly the capital invested by the United States?

Mr. Chairman: He has given it.

Shri R. Ramanathan Chettiar: No, Sir, not the U.S. capital.

Mr. Chairman: All the details are given there.

Mr. Shoji Matsui: I am sorry, I do not have now the actual data about the amount invested by the United States in pharmaceutical field, but I can say that the total amount of the foreign investment is negligible looking from all thhe Japanese pharmaceutical industry's investment.

Shri R. Ramanathan Chettiar: Negligible?

Mr. Shoji Matsui: Very small as compared with Japanese own investment.

Shri R. Ramanathan Chettiar: You have said in 1962-63, 523 million dollars . . . .

Mr. Shoji Matsui: In Japan, as you find, there are 10 or 20 pharmaceutical companies which are producing half of the total pramaceutical production. These companies are completely Japanese companies. No foreign investment was made. Technical introduction, of course, we are receiving.

Mr. Chairman: Am I correct if I say that the only foreign investment in Japan is that of U.S.A. and no other country has any considerable investment.

Mr. Shoichi Inouye: No, Sir, there are investments from U.S.A., Great Britain, West Germany etc. But, as Mr. Matsui has answered, so far as the pharmaceutical industry is concerned, there is almost no foreign investment. In other words, in other industries like petro-chemical industry, electric machine industry and so on, we can find foreign investment.

Shri C. B. Singh: There are so many American patents working in Japan, If Americans do not invest, it must be their Japanese counterparts that are working the American patents.

Shri Kashi Ram Gupta: In reply to my question, it was clearly mentioned that the largest investment of American capital is in the pharmaceutical industry. That they have said.

Mr. Shoichi Inouye: I would like to make it clear that so far as major pharmaceutical companies are concerned, there is almost no foreign investment, but they have many tie-ups of technological induction. In other words, Japanese Pharmaceutical companies pay for the patent; they are paying royalties to foreign companies but there is no direct investment from foreign companies.

Shri R. Ramanathan Chettiar: What is the difference?

Mr. Chairman: In reply to Shri Kashi Ram Gupta's question, you said that the investments are 50 : 50 and it is mostly in pharmaceutical industry.

Mr. Shoji Matsui: In pharmaceutical industry, there are some joint companies with United States or Germany or England and some of them are on 50 : 50 investment basis, but those are not big but rather small companies.

Mr. Chairman: May be, but you said there are about 21 per cent or so?

Shri Shyamnandan Mishra: That is based on the investment in the smaller ones.

Shri R. Ramanathan Chettiar: Mr. Chairman, that is Italian. You say that there is no foreign investment in the pharmaceutical industry in Japan. In the same breath you also say that it is only a technical tie-up. How do you reconcile these two statements? Earlier you have said that Du Ponds have an interest in Japan, the American Cyanamide Co. have an investment in Japan, a German pharmaceutical combine has got an interest in Japan and a British pharmaceutical concern also has got some interest in Japan. So, how do you say that there is no foreign investment worth speaking in the pharmaceutical industry? It would help us if you could tell us the royalty and the dividend etc. which you repatriate outside your country in regard to the pharmaceutical industry.

Mr. Shoichi Inouye: Under the technological induction contract, Japanese pharmaceutical companies have the so-called licence of patent rights owned by the foreign companies. In these cases the foreign companies do not have any share or stocks in Japanese companies, while the Japanese companies have to pay royalties according to the contract.

Shri R. Ramanathan Chettiar: How much?

Mr. Chairman: That has been given in detail in the memorandum.

Mr. Sohji Matsui: I would like to add one thing to avoid misunderstanding. In Japan, as you know, all those companies are composed of the public interest. At the stock market, everyone can buy the stocks. Even if a big American capitalist would like to buy the stocks of the Takedas, for instance, they can do so, and thereby the American com-

pany can occupy an even greater place in the pharmaceutical industry, but such a thing I have not seen.

Shri R. Ramanathan Chettiar: Are they forbidden?

Mr. Chairman: They are not forbidden. That is what he has said.

Mr. Shoji Matsui: Of course, now, there are Governmental restrictions on obtaining Japanese stocks. But, now, Japan is headed for liberalisation for foreign investment.

Shri V. M. Chordia: Kindly refer to Table No. 15 at page 10 of the Supplemental Materials. The fluctuation in the sale prices of the main pharmaceuticals is so much, and the prices have decreased so much that you yourself admit that in Japan, the price index of medicines for general consumers has shown a considerably decreasing trend of 15 to 30 per cent during 1959-64 as against the consumer price index of general commodities which showed an upward trent of 20 per cent. You have given some reasons also for this, but those reasons are not sufficient to explain how such a big decreese is possible. The high price, I believe, was due mainly to the monopolistic position held by the persons concerned due to patents or some other factors. It was only when they found some competitor entering the fild that they started reducing the prices. Due to competition and other factors, the price index which was 100 before had come down to 2.6. How will you safeguard the consumers' interest in such circumstances?

Mr. Shoji Matsui: A change of price take place due to many reasons. I would like to enumerate some of those reasons. One reason is over-production. If the production capacity exceeds the demand, then the produce-manufacturers would like to under-sell it even at a rate cheaper than their own cost. The second reason is that sometimes Government control the price, and due to the artifical control, the price goes down. The third reason is competition between competitors. I think that these three are not good causes for decrease in prices. I think that there are other sound reasons, some of which I would now like to enumerate. One of there is the downward price of raw material. We are importing many raw materials in Japan, and if the price of the raw materials goes down, then the price of the finished product also goes down. The second is the improvement of process due to the introduction of new technology, often resulting in the increase of the yield. That is also one of the reasons for the price going down. Another reason is the improvement of the quality. Improvement of quality means at the same time the going down of the price. Sometimes, a completely new process is invented; at that time also, the price goes down drastically. Another major reason is mass production. In the pharmaceutical industry, mass production is a very essential point for making the prices cheaper. Unfortunately in Japan there are so many manufacturers on the small scale, and that is one of the reasons why the price is sometimes high in Japan. Another factor is the interest on loans. In Japan, the interest on the borrowings from the bank is not so cheap as in the USA. In Japan, many companies have to borrow money from the bank. That is also one of the reasons which affect the prices of pharmaceuticals. Another factor is the income-tax rate in Japan. Corporate tax there is about 45 per cent altogether. Of course, many companies have been asking Government to reduce the rate of corporate tax. The tax rate is one of the reasons why our price is sometimes high.

These are the various reasons which affect the prices. So, it is very difficult to say exactly why the price is high or why the price is low.

Shri V. M. Chordia: You said Government also controls prices. Is there any law by which Government controls the prices, and on what basis do they decide the price?

Mr. Shoji Matsui: No, but reasonable price is usually set. Sometimes Government suggest us administratively.

Shri Bade: In your memorandum, at page 8 you have raised serious objection to sections 66 and 89 and you have said that revocation of a patent in the public interest should not be there. Section 66 is equivalent to section 25 of the old Patent law of 1911. From 1911 to 1966 can you quote a single instance where our democratic Government has acted arbitrarily?

Mr. Shoji Matsui: I realise that your present law includes this kind of provision, but I would like to suggest that this kind of provision will not be beneficial from the long range point of view. One reason is it is not clear when the patent will be revoked.

Shri Bade: I am coming to that. In section 89 there is a provision for revocation, but section 89 is controlled by section 90. Suppose a foreign firm fails to supply at a reasonable cost or fails to manufacture in India any patent medicine, should not Government revoke that patent?

Mr. Shoichi Inouye: In your new Patent Bill you have compulsory licence system. By making use of the system, you will be able to fulfil your emergent requirements. In our opinion, article 66 will not be necessary.

Shri Bade: In India, the condition is, May and Baker has taken 91 patents, and out of those 91 patents, they are only manufacturing two in India. We have to import the rest from foreign countries.

Mr. Shoichi Inouye: In case a patent or an invention is not adequately worked continuously for some period, you will be able to take action on compulsory licencing.

Shri Bade: Either compulsory licence or revocation is the only remedy.

Mr. Shoichi Inouye: If you take action on compulsory licencing, it will fulfil your requirements. According to my opinion, it will not be necessary to revoke the patent.

Shri Bade: In that case, you have to give four per cent royalty, according to that provision. Here, in the revocation, there is no question of royalty. You have to compensate it.

Mr. Shoichi Inouye: According to your opinion, it is necessary for you to revoke the patent, because, if you proceed towards compulsory licensing, you must pay royalty. But I think revocation without paying any compensation will damage the patentees too much.

Shri Bade: Please refer to page 12 of your memorandum; at line 10 you have said that "by way of this technological introduction, though Japanese pharmaceutical industries paid royalty, importation of foreign-made medicines was prevented to such an extent as saving foreign currency amounting to 99 million dollars in 1964". In what way have you prevented it? Is it by patent or by some other enactment?

Mr. Shoji Matsui: This statement has relevance to Table 22. In Japan it is not always necessary to import from foreign countries. Even in Takeda, we had the technological introduction from some other foreign countries, but still, it is a question of importing finished products from foreign countries. Sometimes, importation of the finished product will be cheaper than manufacturing it in Japan. But in many cases, manufacturing in Japan under technological introduction can save foreign money than in the case of importing. I have shown the figures here.

Shri Bade: Our difficulty is that 90 per cent of the pharmaceutical manufacturers are from foreign countries and they are exploiting our consumers and the poor people, by preventing patents and creating a monopoly. What should be the remedy except by passing this enactment?

Shri K. V. Venkatachalam: Can you give some examples of finished pharmaceuticals being imported?

Mr. Shoji Matsui: Librium.

Shri K. V. Venkatachalam: You are importing it from ROCHE, Switzerland. Not from Italy?

Shri Shoji Matsui: Not from Italy. Japan is not importing much pharmaceuticals from Italy, because in Italy, though some kinds of pharmaceuticals are cheap, in Italy itself the price is high. We import at a lower price. In Italy there is no patent protection for pharmaceuticals field. Japanese industry would like to refrain from importing some products from the country where no protection is given.

Shri Bade: What have you to say about the creating of monopolies tc the patentees?

Mr. Shoichi Inouye: If the patent is not worked continuously for some period, you can make use of compulsory licensing.

Shri R. P. Sinha: Your table 17 gives the number of foreign patents held by foreigners in Japan. What percentage of these foreign patents are worked in Japan?

Mr. Shoichi Inouye: In page 5 of my statement, I have said that the rate of registration of patents by foreign nationals is 70 per cent of the total patent applications by foreigners. Most of them are of a superior quality.

Mr. Chairman: How many of them are worked in your country?

Mr. Shoji Matsui: There is no trouble so far in Japan due to the non-working of the patents owned by foreign companies. Of course, we have to pay some royalties and the price becomes high. But that difficulty is offset by our import regulation system.

Shri P. R. Sinha: Have you got any idea of the percentage of royalty paid on the total cost or on the sales?

Mr. Shoji Matsui: Royalty rate is calculated on the manufacturer's selling price.

Shri A. T. Sarma: What was the foreign investment on the pharmaceutical products in Japan before the second World War and what is the investment at present?

Mr. Shoichi Inouye: I have figures concerning the number of applications for patents by foreign nationals before the war, but I regret I do not have any figures about foreign investment before the war.

Shri A. T. Sarma: In your memorandum you have stated that by revising the patent law you were able to restrict importation of industrial products by foreign firms. In a similar way we are going to restrict importation of pharmaceutical products into our country by having these sections in our Bill. Do you appreciate our action?

Mr. Shoji Matsui: We have some restriction on importation of some pharmaceutical goods. We can manufacture the same in Japan, but the price is high compared to the price of imported goods. But it is important to protect the domestic industry. That is why we restrict the imports. But the price is high. That is against the welfare of the nation. That is remedied by the Health insurance system.

Shri M. R. Masani: Will you kindly turn to page 10 of the supplementary materials. Table 15 is very impressive in view of the sharp fall in prices of various products that you have listed. I would like to draw your attention to the first three pro-

ducts: penicillin, streptomycin and aureomycin all of which show a fall in price. But penicillin shows a very much sharper fall than the other two where the fall is more moderate. Is there any reason which you can give for this contrast or difference?

Mr. Shoji Matsui: Penicillin business was started just after the World War II by the order of America. At that time regarding penicillin there was no patent existing. Only the know-how was necessary for us. The United States gave the technical know-how to many many pharmaceutical industry. I think more than 50 companies started the business of manufacturing penicillin. Therefore, competition is one of the reasons why there is a very acute fall in the price. From a long range point of view that was a very unhappy position because due to severe competition more than 30 companies went bankrupt. Now the pharmaceutical industry considers that patent protection is very important for sound development of industry. Price competition might result in the appearance of inferior quality product on the market. Then the Welfare Ministry would like to introduce product patent system. One Managing Director of a leading Japanese Company said that the pharmaceutical industry needs product patent system.

Mr. Chairman: Am I right if I say that your patent law is modelled on the American law?

Mr. Shoichi Inouye: No. We set up a Government Council for deliberation of revision of the Industrial property right system. They studied carefully for about four years and reached some conclusions. The Japanese Government prepared a draft Bill based on the report of that Council and presented it to the Japanese Parliament. It was passed in 1958. The new law was put into effect in 1959.

Mr. Chairman: Could you give us a copy of your current patent law if you have got one?

Mr. Shoichi Inouye: Yes. There are my own personal notes written in this book and if you do not mind it, I will be very glad to give you this.

Mr. Shoji Matsui: If you need some more additional copies, I think, they will be available and we can send them on to you.

Shri R. Ramanathan Chettiar: Also, if you can send us information about foreign capital investments, that will be helpful.

Mr. Shoichi Inouye: We will send you both the information about foreign investments and the copies of the current Japanese patent law.

Mr. Chairman: Thank you very much.

Mr. Shoichi Inouye: On behalf of Mr. Matsui and myself, I would like to express again our deep appreciation for your close attention, patience and indulgence. I hope that what we said today will be of some benefit to your future deliberations at your esteemed Parliament. Thank you very much.

(The witnesses then withdrew).

(The Committee then adjourned).

Wednesday, the 6th July, 1966 at 09.30 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Panna Lal Barupal.
5. Shri Dinen Bhattacharya.
6. Shri Bibhuti Mishra.
7. Sardar Daljit Singh.
8. Shri Basanta Kumar Das.
9. Shri V. B. Gandhi.
10. Shri H. K. V. Gowdh.
11. Shri Kashi Ram Gupta.
12. Shri Madhavrao Laxmanrao Jadhav.
13. Shri M. R. Masani.
14. Shri Braj Behari Mehrotra.
15. Shri Bibudhendra Mishra.
16. Shri Naval Prabhakar.
17. Shri R. Ramanathan Chettiar.
18. Shri A. T. Sarma.
19. Dr. C. B. Singh.
20. Dr. L. M. Singhvi.
21. Shri P. Venkatasubbaiah.
22. Shri Balkrishna Wasnik.
23. Shri Ram Sewak Yadav.

Rajya Sabha

24. Shri Babubhai M. Chinai.
25. Shri Vimalkumar M. Chordia.
26. Shri P. K. Kumaran.
27. Shri Shyamnandan Mishra.
28. Shri Dalpat Singh.
29. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. The Indian Merchants Chamber, Bombay.

Spokesmen:

1. Dr. R. C. Cooper—*Vice-President.*
2. Shri P. A. Narielwala, *Member.*
3. Shri C. L. Gheevala, *Secretary.*

II. Trade Marks Owners Association of India.

Spokesmen:

1. Shri S. H. Gursahani, *Chairman.*
2. Shri R. A. Shah, *Solicitor.*
3. Shri C. K. R. Rao, *Secretary.*

I. Indian Merchants Chamber, Bombay

Spokesmen:

1. Dr. R. C. Cooper—*Vice-President.*
2. Shri P. A Narielwala—*Member.*
3. Shri C. L. Gheevala—*Secretary.*

The witnesses were called in and they took their seats)

Mr. Chairman: Whatever evidence you give will be published, printed and laid down on the Table of the House and distributed to the Members. Even if you want some portion of it to be kept confidential that will also be circulated to the Members. We have your Memorandum and it has been distributed to all the Members. If you want to add anything you may kindly do so in as short a time as possible.

Dr. R. C. Cooper: Mr. Chairman. at the outset I must say the Committee of the Indian Merchants Chamber is very grantful to you and the members of this Committee for having afforded us this opportunity to appear before you and personally convey to you our views and also emphasise some of the points which we consider more important in our memorandum. As the written memorandum has been circulated I would not like to take the time of the Committee by going over all these matters once again and to pin point the few important issues.

Now the first clause with which we like to deal is clause 53 which deals with the term of the patent. As against the existing period of 16 years, with a provision for extending the period up to 10 years, it is now sought to be provided that in all normal

cases the period will be 14 years but in cases of food, drugs, medicines it will be only 10 years. Our first submission is that there are no very special reasons why this discrimination should be made and we would like to have a uniform period of 14 years for all these items. But if for any special reason the Committee feels that in respect of these items the period should be short; then having regard to special factors there should be provision for extending the period of 10 years by a period not exceeding 4 years so that in exceptional cases the period will be uniform 14 years. The second submission which we would like to make on this clause is that it should be provided in the Bill that the time limit should run uniformly from the time of filing and sealing the patent because our experience is in a large number of cases a period 18 months to 20 months lapses between the date of first application and by the time the details are submitted and the final sealing of the patent. We would like a uniform period running from the date of sealing of the patent in all cases.

The second point which I would like to emphasise is clauses 86 and 87 which deal with the endorsement of the words 'Licences of right'. Here it is provided that in respect of patents for articles of food, medicine or drug, these words would be deemed to be endorsed automatically from the date of commencement of the Act whereas in the case of other articles it can happen only after the expiry of three years and that too if it is proved that there is no non-satisfaction of reasonable requirement of the public. Here-again we feel there is not any special reason for making a distinction between this particular category of articles and the other inventions and there should be a uniform policy regarding the licences of right, namely, in every case it should be after 3 years and if the special requirement of non-satisfaction is made out any person can apply for licence. Now, he may not be financially in a position to exploit the patent or he may not have an efficient machinery. So we feel wherever licences are granted certain conditions should be laid down in the Act. A certain test should be laid down, certain qualifications should be laid down regarding the financial ability of the person, the technical skil of the person who applies for the licence.

Mr. Chairman: Do you think the Controller will automatically grant the licence without looking into all these various factors.

Dr. R. C. Cooper: Sir, we feel if this test is specially laid down in the Act the Controller will be bound to. We would like it to be spelt out.

The next thing which I would like to deal with is clause 64 of the Bill. Now, Sir, in this clause it is provided that importation into India of a product made abroad by a patented process would constitute knowledge or use in India of the invention on the date of importation and would be a ground on which a patent could be revoked by the High Court on the petition of any person or by the Central Government. Now, Sir, my submission is that before a product under a patented process could be manufactured in this country, it would be necessary to have market and clinical tests as to the usefulness of the product and for this purpose, a token importation will require to be made. Hence where the product is imported for the purpose of reasonable trial or experiment only, such importation should not constitute knowledge or use in India.

Sir, the next clause which I would like to deal with is clause 2(h) which defines 'Government Undertaking' as including the Council of Scientific and Industrial Research and or any University. Our submission is that this definition of the term 'Government Undertaking' is too wide and statutory bodies like Universities and other bodies like CSIR should be excluded.

This is the one suggestion we would like to make and the other suggestion is where even Government Undertaking exploits the patents or imports a patented article for the purpose of commercial exploitation there should be some provision for payment of compensation. It is not there in the Bill. Even under some circumstances the Government may permit an outsider, for certain reasons, to exploit this and the compensation has to be provided for.

The next clause with which I would like to deal is Clause 116. Since a patent constitutes an intangible property every decision of the executive affecting such property should be subject to revision or appeal by either a judicial or quasi-judicial body. We have, therefore, suggested that in respect of such orders or decisions for which no appeal has been provided to the High Court, an appeal should lie to a statutory body like the Copyright Board to be presided over by a High Court or a Supreme Court judge.

The last point with which I would like to deal with is Section 21 of the existing Act in which it is provided that while designs will continue to be binding on Government, patents will not be binding on Government. It can be provided that it will continue to be binding on the Government. But the reading of the new subsection, which is sought to be provided, would convey the impression that it will not be binding on the Government as far as patents are concerned. We would like to say that a uniform practice which prevailed in the past regarding patents and designs should continue to prevail even in the present Bill.

These are my broad submissions. I would be clarifying any points which the Committee may like to put.

Shri Kashi Ram Gupta: Does the Indian Merchants Chamber contain only merchants as members, or does it contain members of other industries also?

Dr. R. C. Cooper: It has very large membership of industries inclusive of drugs.

Shri Kashi Ram Gupta: But you have said nothing about the period of patents of other industries. And the clauses that govern the Drugs industry mainly have been explained.

Dr. R. C. Cooper: In our Memorandum, we have explained everything. Here I have made only some broad points. I thought I will be saving time.

Shri Kashi Ram Gupta: This is the Memorandum, that is, from the Indian Merchants Chamber, dated December 20th. Is it a detailed Memorandum? The clauses here mostly refer to Drugs industry. Therefore, I had raised this point

Dr. R. C. Cooper: I may clarify that the basic stand of the Indian Merchants Chamber is that a uniform practice should be followed in respect of all types of inventions. And since the Bill itself makes discrimination between the two, we have emphasized that we are against the necessity of making such discrimination.

Shri Kashi Ram Gupta: An important point is this. You have just mentioned that so far as drugs are concerned, four years should be given for certain items if it is thought desireable by the Government. It means you yourself are agreeable to some discrimination.

Dr. R. C. Cooper: No, Sir. In the Memorandum we have said that we are unable to understand the reasons why the Government want to make discrimination. Our basic stand is that there should be a uniform period for every type of industry. That is our alternative suggestion.

Mr. Chairman: That alternative suggestion means that you are agreeable to some sort of discrimination.

Dr. R. C. Cooper: If the Government has any valid reasons for doing so.

Mr. Chairman: Such a distinction is made in other countries. You know that. Then why do you object to this here?

Dr. R. C. Cooper: We find that conditions in India are fundamentally different. For instance, particularly in respect of medicines, we feel that the period of three years will be far too low and it will come in the way of people making scientific inventions; and there can be no proper exploitation of these, because the period is too low. And having regard to the infant stage of industrialization in this country we feel that at least for the time being this distinction is not called for.

Shri P. A. Narielwala: I would like to submit that the position is this. If you want to accept a foreign patent in India—in respect of a drug or anything else—it takes considerable time before, first of all, getting the approval of the Government for a particular industry to be set up with that patent. There are cases and cases, particularly during the last three years, where applications for evolving new processes or new patents have been before the Government for 33 months and 36 months, and no decision has been taken. Now, Sir, you just think of them first. A patent is registered in India, it should be examined and tested clinically before even the Drug Controller would approve of the drug being introduced in India. If a manufacturer wants to manufacture it in India, he makes an application to the Government, which sometimes takes, as I said, up to three years for the Government to decide. You see what is left out of that period. The period for which a particular patent could be accepted in India would be three years. If a manufacturer would wish to accept it, his property rights must be protected. Therefore, we have suggested that the period should be 14 years. If Government thinks that ten years is adequate, certainly there is a case for extension for another four years.

If a product made abroad is to be duplicated here, it may run into snags as a result of clinical conditions or as a result of our technical condition. A particular plant may be suitable in one country, but it may not be suitable in India.

Mr. Chairman: He has also got the right to import and sell it here before he establishes a factory.

Shri P. A. Narielwala: To keep importing is of no consequence.

May I make one more submission? Apart from the foreign patents, I would like the Committee to consider what damage this particular clause will inflict upon Indian patentees? Sir, our scientists are now beginning to produce results. We spend money in our national laboratories. Indian scientists are able to produce goods. Some of them are of patentable nature. Now, Sir, if you are going to impose a limitation on your patents, what is the just possibility of my being able to do this? I give you one more concrete example of a patent with which I am concerned, produced by our Mysore laboratory. I signed an agreement on 15th August, 1960. Today is nearly the 15th August 1966 and we have not yet seen that product because it has taken us years and years to design the plant in collaboration with that laboratory. It is really disastrous for our scientists because at this rate in 10 years time what benefit the Indian scientists could get out of it?

I would strongly urge that this Committee do consider that in this particular matter of food and pharmaceuticals, please do not discriminate. These are new products. And if we wish to see our own scientists develop themselves into really first-class producers of goods and patents, they must be protected against foreign patents.

Shri Kashi Ram Gupta: Are you aware of the fact that a large number

of scientists in this country are of the view that drug patents should be even for lesser period than ten years?

Shri P. A. Narielwala: I would say there are not a large number of scientists. I was present at a conference in Delhi only last January or February, known as Scientists and Industrialists Meeting. I was specially invited by CSIR to take part in the proceedings, and when I made this submission, I got enormous applause, and the scientists asked me to press this point because their position was going to be extremely difficult if they were going to be subjected to this kind of limitation which does not exist anywhere else in the world.

Shri Kashi Ram Gupta: In Bombay there is the Haffkine Institute and Mr. Abraham Patani on behalf of another institute who is going to give evidence. They hold a different view.

Shri P. A. Narielwala: I am quite aware that there are scientists who hold a different view.

Shri Kashi Ram Gupta: How are the two views to be reconciled?

Dr. R. C. Cooper: We are aware of only one isolated case, of a doctor from a Government hospital who has written an article on this subject and made out certain submissions, but against this one solitary case we are aware that there is a very large body of Indian scientists who feel that the Bill in its present form will do great harm to this country's young scientists.

Shri Kashi Ram Gupta: There are two views in the country, one that the period of patent should be from the date of application, and the other that it should be from the date of the sealing of the patent. The Model Law of BIRPI provides that if a country takes to the date of sealing of the patent, the period can be 10 years. They, of course, say 10 years minimum; it means they are agreeable to 10 years to a very large extent.

Shri P. A. Narielwala: The same body has also said at another place that the period of patent should be 20 years, though they have also conceded that if the Government of the developing country feels it necessary it may be 10 years minimum from the date of sealing. That is the submission which our Chamber has also made. If the Committee does not agree to a uniform period of 14 years, then at least 10 years from the date of sealing should be provided with the proviso that if a particular patent requires to be extended, it may be extended by a further four years.

Shri Kashi Ram Gupta: About clauses 86 and 87 you have referred to optical glass, semi-conductors etc. Are you in favour of including these as drugs or you want that these should not be included?

Shri P. A. Narielwala: We certainly do not want any discrimination, and I cannot see for myself how they come under the provision of food and pharmaceuticals. It is something which I just do not understand. May I submit that it should read clauses 87 and 88 at page 7 of our memorandum, and not 86 and 87? It is a mistake.

Shri Kashi Ram Gupta: You have said that in the interests of the scientists of the country, there should be a uniform period of 14 years, but scientists are mostly working in the research laboratories of companies who set aside a certain percentage of their profits for research. It is counted as revenue expenditure and is allowed by income-tax authorities. So, to say that scientists have to be protected does not relate to facts because they are paid by the companies regularly.

Dr. R. C. Cooper: In a developing country like ours where there is abundance of talent available, it will not be correct to say that all kinds of scientific investigation should be through companies only. If the Bill is changed according to our suggestions, it will give a chance to independent scientists to do their work and take

out patents which they can negotiate with others for sale.

Shri Kashi Ram Gupta: Organised research has to be in Government laboratories or undertakings with large resources. Scientists have also given evidence that individuals cannot do much.

Shri P. A. Narielwala: The amount of money Indian industry spends on research as compared to industrialised countries is merely a fleablte. Industries are being urged to form research laboratories or groups of their own, and CSIR has gone out of its way to say that they will meet 50 per cent of the cost of running of such groups, in order to develop research consciousness both in applied and fundamental research. Scientists in the national laboratories who obtain patents have to hand them over to the National Research Development Corporation, a 100 per cent Government owned institution, and the royalty from the patents is to be shared between the laboratory and the National Research Development Corporation, and the amount coming to the laboratory has to be shared between the scientist and the laboratory. So, the scientist does not get the major benefit.

Shri Kashi Ram Gupta: The present Act provides for 16 years, but the scientists in India have not been benefited much during all these years. What is the reason for that?

Shri P. A. Narielwala: Our national laboratories came into existence only after independence. The first was the National Physical Laboratory. In 1950-51, we got the National Chemical Laboratory. Research does not flow from the time you start. Sometimes it takes years: even five, seven or ten years before you hit upon an idea which is of any significant benefit for the development of science and industry. We must not judge the results. I am one of the members on the Board of the Council of Scientific and Industrial Research, and therefore I need to say particularly to the critics of our national laboratories, "Please give us time; we are working under a great handicap; we are hampered all along the way. Even if I get finance for the national laboratories, you cannot expect that because we spend so much money every year we should produce goods immediately through the process of patents."

Dr. C. B. Singh: I am glad to have your views. About money being spent on research, may I ask you what is the proportion, I mean percentage, on turnover of money spent by your Chamber on research?

Shri P. A. Narielwala: Practically nothing. We have only a research organisation for economic research on which we are spending something like Rs. 75,000 a year, in producing a study on economic problems confronting the country.

Dr. C. B. Singh: With this remark that you are spending practically nothing, what would you consider to be an adequate fund to be spent on research by your Chamber? I mean the laboratories and other concerns, whatever it may be What will be the percentage, that you would like them to spend for research, on their turnover?

Shri P. A. Narielwala: I can give my personal view. It is this: the industry should spend a minimum of one per cent of its turnover on research.

Dr. C. B. Singh: You know the amount of money that some other countries are spending on research: it is more than 10 per cent or at least five per cent of their turnover. Are you sure that one per cent will be enough here?

Shri P. A. Narielwala: I am talking of the average: I mean an industry, which is not necessarily pharmaceutical or the drug industry. I consider that in India, if we can spend even one per cent on the turnover for research, we will give it a tremendous boost.

Mr. Chairman: Could your Chamber do anything to discipline your members to spend 10 per cent?

Dr. R. C. Cooper: Of late, our Chamber has taken up this matter in right earnest, and one of the important things which we are emphasizing on our industrial members is that the industry has not taken sufficient advantage of the very liberal tax concessions which are provided for scientific research, and more and more use of these concessions which are now available to the industries should be made. This is the plea which we have repeatedly made to them during the last six months.

Dr. C. B. Singh: I am glad of it. You know that the average Indian scientist is not inferior to anyone else, in other countries. You agree?

Dr. R. C. Cooper: Yes.

Dr. C. B. Singh: Then, what is the reason for hardly any real good work, good research work, being done in the national laboratories or universities in India? Having agreed that our scientists are as good as any other scientists elsewhere what is the reason that so far only one thing has been patented? What is the reason that only very little has been done so far? Besides the lack of finance, is there any reason?

Shri P. A. Narielwala: I beg to differ from you. I consider that our national laboratories have produced very good work.

Dr. C. B. Singh: I do not agree.

Shri P. A. Narielwala: That is a matter of opinion. I would say that we have excellent scientists in our laboratories. If you look to each and every laboratory that is functioning, you will find that at the end of the year, they are unable to fill the vacancies by suitable scientists. The CSIR have asked me to sit on the Selection Board, and I have told the Selection Board and the Council that sometimes not one candidate is suitable for the particular job for which he has applied. So, the posts go on remaining vacant year after year.

Dr. C. B. Singh: You mean to say that suitable candidates are not available?

Shri P. A. Narielwala: Suitable candidates of the calibre for high-grade scientific work are not always available.

Dr. C. B. Singh: You know that more than 6,000 Indian scientists are working outside this country; they are doing better work outside.

Shri P. A. Narielwala: I do not know the number. I take your figure. There are various reasons for it. Maybe that there are not enough opportunities in India for good work.

Dr. C. B. Singh: What are the opportunities that are not available? It is not that our scientists are not there. They are there. If they are not getting the opportunity, why is it so?

Shri P. A. Narielwala: If there are certain Indian scientists who have specialised in missiles, and if we have no work done on missiles, how are they going to come and do the work here? Similarly, there are other physical sciences where we have not developed the work in our laboratories so as to proceed with research. Another reason is that the salaries and pay-scales that we offer to our scientists are totally inadequate.

Dr. C. B. Singh: The main reason to my mind is this: it appears to me and to a large number of Members of Parliament that the director or the man heading these big laboratories or the other people who happen to head these big laboratories—their appointment is open to doubt. We feel that as a result of that, the selection of suitable men and the consequent work suffers.

Shri Kashi Ram Gupta: This has nothing to do with patents.

Mr. Chairman: How can they give an opinion on that?

Dr. C. B. Singh: Now, if the period is extended due to circumstances which are put before the Government—say four years—will it serve your purpose? I mean the period from the time of acceptance.

Shri P. A. Narielwala: Yes.

Dr. C. B. Singh: In para 2, page 1 of your memorandum you have mentioned that the Bill has been brought forward with a view to ensure that patent rights are not worked to the detriment of the consumer or to the prejudice of the trade or industrial development of the country. Unfortunately, you have not mentioned anything about the scientists who have got patent rights.

Dr. R. C. Cooper: In the second paragraph we have said that in our opinion some of the provisions will come in the way of stimulating inventions by scientists and research workers of India and of encouraging the development and exploitation of new inventions for industrial progress. We feel that it will have a deleterious effect on both the sections: the inventors as well as the industry.

Shri M. L. Jadhav: In spite of the low cost of labour in India, the cost of production of pharmaceuticals is high, compared to some of the other nations. Can you suggest ways as to how we can reduce the cost?

Shri P. A. Narielwala: Let us first be clear about one thing. The conditions in India are very different from those abroad. In India if you want a material, you cannot get it readily; you will have certain material or ingredient which has to be imported. If you look at the import tariff schedules, you will be surprised that even the necessary basic ingrediants have rates of duties which go up from 47 to 75 per cent or more. Even in respect of capital goods, a highly developed country like Japan, which has built itself up in the last 20 years as one of the biggest industrial countries of the world, the Japanese delegation which visited India in the beginning of this year told us in categorical terms that in Japan no import duty is levied on capital goods or raw materials. Here on capital goods costing Rs. 1,000, the duty comes to 40 per cent and the cost becomes Rs. 1400. The cost of depreciation also is higher and these would be reflected in the cost of the product. Fantastic duties are levied on the raw materials. Moreover, it is not always correct that Indian labour is cheap. It is a fallacy.

Shri M. L. Jadhav: There is a section of people which thinks that there should be no patent law at all. What is your view?

Shri P. A. Narielwala: We do not support it. That would be disastrous. Even countries which had no patent law till now are now veering round to the view that they should have patent laws to protect their own scientists and their own products. The Soviet Union which has had no patent law has now realised that they should have patent law to exploit the patentable products they are producing and to sell them abroad, and it has decided to join the International Union of Patents.

Shri M. L. Jadhav: Do you agree that the patentees are selling their goods at a higher rate in India as compared to the international price?

Shri P. A. Narielwala: I am not aware of that particular thing. I know a number of patented products sold in India by the manufacturers and I have seen the collaboration agreements. There is a provision that the imported products shall be sold at the international price and that we would get the most favoured nation treatment, if I may say so. That has been the practice certainly in the industries with which I am concerned. May be it is not so somewhere else.

Shri Peter Alvares: I would like to refer you to the clause on licence of

right. Licences of right are given in circumstances where a particular patent is not worked in India. In view of the fact that Justice Ayyangar's report says that the patent law must be cast in a particular national economy, this prevents abuse whereby a patent is not worked here, but the entire product is imported from abroad, lock stock and barrel and it is only labelled here. So, Indian scientists have no opportunity of getting the know-how and technological developments do not take place. In such circumstances, a licence of right is granted so that an Indian applicant may be able to work out the entire patent in India. I thought this provision should have your sympathy.

Shri P. A. Narielwala: We have not opposed the grant of compulsory licensing. We have only said, give him three years' time and if he does not do it, you can go ahead. Even in the existing patent law there is a provision for compulsory licensing. Would the Controller of Patents tell us how many parties have come forward and said, we want compulsory licence to be given for exploiting those patents? Is it in the national economy to produce a product which is imported in very small quantities and to manufacture it at three or four times its imported cost simply for the pleasure of having the product manufactured in India? We as manufacturers realise that we should manufacture a product when there is sufficient need for that product. When a product is manufactured in bulk in one country, to produce it here in small quantities means we shall lose the benefit of the economy of scale, and our costs will be invariably higher. We, as manufacturers, would be reluctant to do so.

Shri Peter Alvares: The conclusion would then be that in most cases the cost of production in India is high and so we should continue importing the products.

Shri P. A. Narielwala: Our industrial development in the last 10 years is a refutation of that theory. There are demands building up in this country for all kinds of products and the Indian manufacturers are ready to risk their capital when there is a possibility of producing those goods on an economic basis.

Shri Dalpat Singh: At page 3 of your memorandum you have said in regard to clause 48 that universities and scientific research institutions should not be included under the definition "Government Undertaking". Why?

Dr. R. C. Cooper: We are going by the definition of Government Undertaking and we feel that universities and bodies like the CSIR being statutory bodies having a separate identity should not be included.

Shri P. A. Narielwala: Some of the CSIR laboratories produce goods for sale. You will understand that if they are allowed to take over a patent without paying any compensation, it would be an erosion into the property rights of a patentee.

Shri Dalpat Singh: What objection do you have for including bodies doing research?

Shri P. A. Narielwala: For research we do not object. We only say that a university should not be included as a Government Undertaking. A Government Undertaking would be a factory like the one at Pimpri. I am surprised that universities have not protested against their being called Government Undertakings.

Mr. Chairman: It is only for research that they want these things.

Shri P. A. Narielwala: For research, we do not object. We have said nothing against national laboratories for doing research.

Shri A. T. Sarma: Foreign witnesses say that if this Bill is passed, foreigners would not invest their money here and would not open factories in India. Is it correct?

Dr. R. C. Cooper: As far as I have been able to understand, the argument

of these people is that against the profits which are made here they are incurring exceedingly large expenditure on research by their parent organisation and since the benefit of this research is available to India a certain proportion of that research expenditure has to be allocated to India. This is the answer which they are giving again and again to the charge made against them of their making huge profits and the consequent necessity of amending the patent law.

Shri A. T. Sarma: May I know whether the non-investment of foreign capital will adversely affect our research and industrial development?

Dr. R. C. Cooper: To a certain extent, it may, till such time as the indigenous research has developed to that extent.

Shri A. T. Sarma: The foreign companies have stated that the Indian Parliament is taking a backward step by proceeding with this enactment. Do you agree with that view?

Dr. R. C. Cooper: We also agree that if the Bill is passed in its present form it may be a retrograde step in the sense that Indian Industry and Indian scientist will suffer.

श्री चौरड़िया : आपने कहा है कि एप्लीकेशंज के डिस्पोजल में काफी समय लग जाता है और यह जो सीलिंग पीरियड है, इसको कम किया जाए। इसको कम करने के क्या आप कोई सुझाव दे सकते हैं ?

Dr. R. C. Cooper: These are the usual procedural delays of Government departments. If the delays could be otherwise independently curtailed, then automatically the period of ceiling will be earlier and it will start from an earlier date. It is entirely a matter of administration and perhaps the Administrative Commission will have to look into it.

श्री चौरड़िया : एडमिनिस्ट्रेशन वाले तो नियमों के अनुसार काम करते हैं। ऐसी स्थिति में क्या आप कुछ नियमों में भी संशोधन करना चाहते हैं ताकि नियमों के अन्तर्गत काम करते रह कर भी काम जल्दी से हो सके ?

Dr. R. C. Cooper: I do not know to what extent it will be possible to provide that there should be a definite time limit beyond which an application cannot be kept pending, because I do agree that there will be practical difficulties from both ends. In certain circumstances, for valid reasons, there may be delay. But if it is from the date of ceiling I feel it will be fair to the industry.

श्री चौरड़िया : आप ने कहा है कि पेटेंट का जो पीरियड है वह पर्याप्त होना चाहिये चौदह साल या सोलह साल। परन्तु क्या आपको यह भी पता है कि विदेशी कम्पनियों ने जो पेटेंट एक्वायर कर रखे हैं उनकी इंटरनैशनल मार्किट प्राइस सामग्री कम है और हमारे यहां पर वह ज्यादा है ? मैं आप उदाहरण देता हूं। टोलबूटेमाइड हेक्स्ट की यूरोपियन कंट्रीज में ट्रेड प्राइस 1.85 डालर है जबकि हमारे यहां पर 3.57 है। इसी प्रकार से क्लोरप्रोफिनपेमाइड की इटली में प्राइस 1.41 डालर है जबकि हमारे यहां पर चार डालर है। पेटेंट की वजह से ही हो सकता है कि वे ज्यादा हम से लेते हों। इसको रोकने के लिए आपका क्या सुझाव है ?

Shri C. L. Gheevala: May I make a submission? The prices of products in international markets where there is piracy of patents cannot be controlled. Italy is one country where there has been no patent law where a large number of products have been produced and sold. It is on record in Italian Parliament itself that the products sold are sub-standard in some cases and the internal price of that product in Italy is as high as the price of an imported product but for purposes of exports they are selling at very low prices and that in many countries the products from Italy are

now banned. What is more significant is, in the absence of patent laws in Italy, their scientists have gone out of Italy to register their patents. Is it not a national loss that the patent benefits which should flow into Italy go to the Italian scientists who remain outside Italy, where they have accumulated foreign exchange by exploitation of the patents? Those patents are registered all over the country except Italy. I think we should avoid that kind of situation in India. Even Italy has now drafted a Patent Bill which is now before the Italian Parliament to come into line with the patent laws of other countries.

श्री चौरड़िया : आपने अपने मैमोरेंडम में सुझाव दिया है कि पेटेंट्स का जो बंधन है वह शासन पर भी लागू हो । हमारे यहां प्रजातंत्र है । प्रजातंत्रीय सरकार जनता के अहित में काम करे ऐसी कल्पना नहीं की जा सकती है । ऐसी स्थिति में कौन से विशेष कारण हैं जिनकी वजह से आप यह सुझाव देते हैं कि शासन पर भी पेटेंट के नियम लागू होने चाहियें ?

Dr. R. C. Cooper: Since today the Government is operating in the public sector, we feel that whenever Government operates in industry or business it shou'd be in the same terms as the private sector. For instance, there are at least three drugs we are aware of which are being produced by Government factories, which are all unpatented articles where the prevailing market price in different countries is less than Rs. 50. Those drugs are being sold by Government factories at more than Rs. 4,000.

Shri C. L. Gheevala: May I also point out another instance? In Pimpri they have invented a fungicide which they are now trying to exploit in foreign countries. You will be surprised to know that they have asked for a royalty of 7½ per cent for allowing this product to be exploited, whereas the present Bill provides only for 4 per cent. They have run into heavy weather because of this provision in the Bill. The foreigner who wanted to exploit this product turned round and said: when your own Government fixes 4 per cent, how could you ask for 7½ per cent. So, we must be prepared to face these repercussions. Then we have to consider how the Indian scientists and industrialists will suffer because of the provisions of the Bill. We are anxious to protect our own Indian interests. We are not interested in protecting foreign patents or foreigners. We want to protect our own scientists, scientific workers and industries so that they can produce patentable products.

श्री चौरड़िया : आपने अपने उत्तर के दौरान में रूस का उदाहरण दिया है और कहा है कि वहां पर भी कानून बना कर उनके अधिकारों की रक्षा करना चाहते हैं, उनके अधिकारों को सुरक्षित रखना चाहते हैं । आप जानते ही हैं कि पहले वहां के लोगों ने कोई पेटेंट का कानून नहीं रखा था । पहले पहल पेटेंटिड प्रोडक्ट्स का रूस ने निर्माण किया तो नकल उनकी उसने की । बाद में कुछ संशोधन किये । आज कई वर्षों के बाद वह इस स्थिति में आया है कि वह स्वयं नई खोज करके नए नए प्रोडक्ट्स पैदा कर सके । ऐसी स्थिति में भारत में साइंटिस्टों को भी इस बात का अवसर क्यों न मिले कि पहले तो वे दूसरों की नकल करके कुछ सीखें और फिर अपनी अकल लगा कर संशोधन करके नए उत्पादन करें । इसमें आपको क्या आपत्ति है ?

Dr. R. C. Cooper: The fundamental question which has to be realised is that the pattern of Soviet economy is completely different from the pattern of Indian economy. We are not operating in a closed economy. So, what may be good for Russia may not necessarily be good for India. It is my firm conviction that it will be very

harmful if no patent law existed in this country.

Shri C. L. Gheevala: May I supplement this observation by saying that in some of the industries, particularly the pharmaceutical industry, we must realise the fact that our scientists are of the view that they are as good as Russian scientists. For instance, in the case of the anti-biotic plant at Haridwar with Soviet collaboration the knowledge and know-how they have offered to give us is very inferior to what we ourselves have developed and, in fact, we have accepted this for political reasons. We are hoping, our scientists are looking forward for the day, when they can tell Soviet Union that their services are no longer required and that we will produce those products our own and improve upon them because we know how we can improve with our own knowledge of the subject.

Shri R Ramanathan Chettiar: On page 9 of your memorandum you have stated:

> "My Committee suggest that there should be no ceiling on the royalty payable and the amount of royalty be determined in each case with reference to the facts of the case and the Controller may be empowered to fix the royalty after taking into account the various circumstances of the case."

You suggest that there should be no ceiling. In the present Bill we have put a ceiling of 4 per cent. You have given the example of one collaborator asking for 7½ per cent and a lot of hullabaloo about it. Should we agree to exploitation by foreign interests in the field of drugs and pharmaceuticals in this country?

Let me quote an instance here. You would have seen the November, 1964 Bulletin of the Reserve Bank of India. In that it is mentioned that in 1962-63, the total investment of group of foreign firms in the pharmaceutical and drug industry was of the order of Rs. 14 crores and that they have taken by way of dividend, etc. about Rs. 2 crores and by way of royalty Rs. 5 crores. That means 50 per cent of the total investment has been repatriated to their countries in one year. So, if we accept this and have no ceiling, that means it will lead to further exploitation of our country. Already, our country is a very poor country and there is exploitation by drug manufacturers and distributors in respect of life-saving drugs to the detriment of our people. After all, as you would rightly accept, the life-saving drugs and other medicines should be within the reach of poorer classes of people. Today, some of the life-saving drugs are not able to find its way to the poorer homes. Don't you think this will act against that objective?

Dr. R. C. Cooper: Let me clear out some of the misunderstandings in this matter. The first thing which I would like to point out is that we are ourselves trying to collect data on these royalties and we have found that of late the actual royalty percentages have very considerably come down and today they are very much nearer the figure of 4 or 5 per cent which is sought to be provided in the Bill. We are, however, asking for a certain amount of flexibility only because there may be some exceptional items where this kind of rigidity may come in the way. Our enquiries reveal that mostly the pattern of royalties is very near the figure which the Government is contemplating. We are suggesting the removal of the ceiling only for the purpose of ensuring flexibility.

The other misunderstanding which I would like to clear is this. The Reserve Bank's figures are gross figures of royalties which accrue to the foreigners. We have got to appreciate that the tax rate which operates here varies from 55 to 70 per cent with the result that a considerable amount of this revenue comes to the Government of India. It is only the net amount, after the payment of tax which varies from 55 to 70 per cent, that the foreigner takes away. I am myself con-

cerned with many of the pharmaceutical concerns as an auditor and I know the net amount which they are able to take away from here after paying the tax.

Shri R. Ramanathan Chettiar: You are forgetting that we are having double tax relief in some of the countries to which this money is repatriated.

Dr. R. C. Cooper: The principle is that since a company is a non-resident company here, the double taxation benefit, in the absence of agreements in most countries is given at the other end. That is at the expense of the foreign Government and not at the expense of our Government. Even in countries like U.K. and U.S.A. we have not got the double tax relief. In the absence of agreement, the double tax relief has to be given to the company which is resident.

Shri R. Ramanathan Chettiar: The amount of Rs. 2 crores is the dividend. How can it be a gross amount? It will be after payment of the taxes here. No dividend is paid before taxes are paid to the Government.

Shri C. L. Gheevala: When a company declares a dividend, the dividend, first of all, is subjected, at the hands of the receiver, to the repayment of 20 or 22 per cent. If the dividend is Rs. 10, actually I will get only Rs. 8 or 7, whatever it may be. The foreigner, having got that, has then to pay the income-tax on the dividend that he has received which, as Dr. Cooper pointed out, varies from 55 to 70 per cent. Out of the amount of Rs. 8 which the foreigner has received as the dividend, actually he can only remit Rs. 2.50 p. or Rs. 3.

Shri R. Ramanathan Chettiar: Even then, for an investment of Rs. 14 crores the dividend is Rs. 2 crores.

Shri C. L. Gheevala: May I make one other submission? In a free economy, I can understand some kind of a ceiling being provided. But in our country, where we have a planned economy and particularly where there is foreign collaboration and foreign exchange is to be remitted, we have to go to the Government of India and the Reserve Bank for the approval of the terms. What purpose is served by putting a ceiling? I may tell you that the Government of India's Technical Development Department Wing which is competent to assess the merits of a particular produce have themselves in some cases suggested a lower royalty of 2 or 3 per cent and the foreigner has accepted it if he knows that the product is likely to be fully exploited.

Another thing which I would like to mention is that in many of the pharmaceutical companies with foreign collaboration, you will notice that the majority capital is with them, either 50 per cent or 60 per cent or even 70 per cent. In the latest issue of Pfizer which was made public the other day, you will notice that 70 per cent of the capital is still held by foreigners. What purpose does it serve by putting a ceiling? We are only creating an unnecessary apprehension in the mind of anybody who is going to use the patent. He is going to be governed by our own laws and by our own assessment of the value of a particular product and whether it requires any royalty or it does not require any royalty. What purpose does it serve by putting a ceiling?

Shri R. Ramanathan Chettiar: I can understand your taking exception to the low rate of 4 per cent.

Dr. R. C. Cooper: We are not taking exception to the low rate of 4 per cent. We concede and are aware of a large number of agreements in the pharmaceutical field itself where the percentage is less, that is, 3 or 2 per cent. We are against a rigid ceiling which may come in the way of genuine cases because of this statutory limitation. That is why we would like to have flexibility.

Then, the figure of Rs. 2 crores of the Reserve Bank does not take into account the large amount of expenditure on research, the overheads, etc., incurred at the other end which is rightly allocable against the royalty payment. Our income-tax laws have conceded that where a foreigner receives a royalty here, he is entitled to a proportionate relief for the expenditure on research, overheads, etc. incurred at the other end.

Shri C. L. Gheevala: Today, in our country, in certain fields, we are extremely ill-provided. I am not talking of the pharmaceutical industry. I am talking of the field of electronics. As you know, the Bhabha Committee has made a recommendation that in the next 10 years, there should be an investment of Rs. 150 crores if we wish to develop the electronics industry and put ourselves on the electronics map. This is a very highly specialised and highly technical field. It is quite conceivable that with the new developments of electronics, it may become necessary to pay even more than 4 per cent and go even upto 10 per cent.

Shri K. V. Venkatachalam: 4 per cent does not apply to any other area except the drugs industry.

Shri C. L. Gheevala: I am sorry. I did not realise this. Then, I will not pursue this.

Shri B. K. Das: You have discussed in your Memorandum the matter regarding payment of copensation for government use. For experimental research, including imparting of insctructions, you are agreeable that compensation may not be given and also in cases where there are emergincies involving the security of the country, you are aggreable that compensation may not be given. But do you not think that there are other grounds also on which compensation may not be paid, for instance, for government use in hospitals and other things, compensations may not be paid; government may make use of it for public welfare.

Shri P. A. Narielwala: The question is a very wide one. Are you thinking in terms of Central hospitals or State hospitals? We are continuously expanding our hospitals. Is it fair that government should have the right to manufacture a patented product without paying the owner the necessary compensation? What I am trying all along to explain and impress upon this Committee is that we are not trying to have two laws—one for foreign patentees and one for Indian patentees. Indian patentees would also suffer in this manner. I am trying to protect the Indian research worker, the Indian scientist. If he can manufacture this product and sell it to government departments or to hospitals, why should he be prevented from doing so? Government say, "we will exploit this patent and you have no right for any compensation." I think it is totally unfair that I should be asked to give the benefit of my knowledge to the State without any kind of compensation, to supply hundreds and thousands of hospitals in this country. We have ourselves stated that, in national emergencies and for Defence requirements——certain urgent requirements—we may make some exceptions, but to give a general blankets licence to government means that it will be utilised and fully exploited by government for all kinds of purposes even when it does not serve any national interest.

Shri B. K. Das: Government may also like to import, if necessity arises.

Shri P. A. Narielwala: The same principle arises. If it is a patented product, government imports it directly and not through the patent owner. If it is imported through the patent owner, he will naturally ask for some compensation. What you are trying to do is this: the Indian High Commission London,—Purchasing Mission—will buy the product in England and bring it here. I think it is unfair.

Shri B. K. Das: They were restricting it to particular cases.

Shri M. R. Masani: I have found the evidence most convincing and impressive and have, therefore, nothing to ask.

Shri V. B. Gandhi: In the first place I agree that there should be flexibility in the matter of rate of royalty payable. Perhaps the idea that Government had in mind in bringing in this measure with a fixed royalty was that, in private negotiations between foreign collaborators and Indian industrialists, sometimes a fixed royalty expressed in the Bill would help to keep them firm. Do you think that there is any truth in that?

Dr. H. C. Cooper: Wherever any foreigner is involved as a receipient of royalty, the agreement is subject to governmental sanction in any case and both the parties, according to government policy, are fairly clear in their minds as to what is permissible. So putting an additional ceiling in the Patent Act itself will not help because that is taken care of independently. On the contrary, it will create hardship in a few genuine cases.

Shri V. B. Gandhi: I have said that I agree with the principle of flexibility.

Dr. L. M. Singhvi: I cannot esist the temptation of asking questions notwithstanding the fact that the evidence is very clear, concise and comprehensive.

I would like to konw in particular whether it would be more in consonance with the evidence tendered by the witnesses that "licences of right" should be abolished altogether.

Shri P. A. Narielwala: If you wish to abolish it, the business community would welcome it; the industrialists would welcome it.

Dr. L. M. Singhvi: It seems that certain suggestions made in respect of provisions relating to "licences of right" have been made only as a second string to the bow because the whole argument—and the tenor of the evidence— has been that "licences of right" should be merged into the larger category of compulsory licences, if there is any need, but "licences of right" as such as a distinct category should not be allowed to exist in this enactment. Is that the position?

Shri P. A. Narielwala: Yes; that is the correct position.

Dr. L. M. Singhvi: May I know whether it would be correct and fair to say that your Association generally agree with the recommendations of the Ayyangar Commission, particularly in respect of the term of the patent?

Dr. H. C. Cooper: We are broadly in agreement with most of the recommendations.

Dr. L. M. Singhvi: I would like to know whether the uniform term for all inventions is a useful thing or whether certain distinction should be made in respect of food, medicines and other things, mainly on the ground of interest of the community. If the opinion of the witnesses is that there should be uniform provision and no differentiation should be made, would they amplify the reasons that they have given?

Shri P. A. Narielwala: We think that there should be uniformity, whether it is pharmaceutical or food or any other patent. We have said that, in our opinion, a patent should be given for a period of 14 years. We have merely made this suggestion to the Committee and if the Committee does not approve of this suggestion, then we will put up an alternative—I may say here that it is only an alternative: allow the patent right for ten years after the sealing of the patent and then leave it to Government; give the Government to flexibility, the option, the provision to extend it for a fur-

ther period of 4 years. We are not suggesting the present provision where the patent is for 16 years and then there is provision for extending it by five years and then by another five years, so that the patent may run for 26 years. 26 years seem to us to be a long period. But 14 years in the conditions in which we operate in this country under a planned economy, does not seem to us to be too long.

Dr. L. M. Singhvi: Then you give us the maximum and the minimum periods taken in the registering a patent.

Shri P. A. Narielwala: Our information is that the minimum period is 18 months and the maximum period is two years.

Dr. L. M. Singhvi: In respect of Clause 112, which says that no injunction shall be granted against him, you have suggested that the word "shall" should be substituted by the word "may" so that the Court can go into the question and come to an impartial judicial decision. I do not find his consistent. Could you explain whether, as a matter of fact, the substitution of the word "shall" by "may" would necessarily enable the Court to go into the question and to come to an impartial judicial decision, as you say in the Memorandum? Because whether the Act says that no injunction may be granted against him or it says that no injunction shall be granted against him, both should be read exactly in the same manner.

Dr. H. C. Cooper: What we would like to see is that the authority of the Courts should not be taken away and our amendment is only to see that the authority of the court is restored.

Mr. Chairman: It has come to our notice that courts take very long time to dispose of cases. In such a case will you be satisfied with a special Tribunal competent to dispose of these cases.

Dr. H. C. Cooper: We have suggested a Tribunal for executive acts. But I am aware of at least one case in which we ourselves pleaded for Companies Tribunal under the Companies Act for certain things, and it should be presided by a High Court Judge. Now we find that the rate at which the Tribunal is disposing of cases is much slower than the Court of law.

Mr. Chairman: We may also prescribe a period for the disposal of cases.

Dr. H. C. Cooper: If some such machinery can be evolved and the period is shortened, we would very much welcome, but our experience is the contrary.

Dr. L. M. Singhvi: Clause 116 adumbrates two categories. In one case there shall be no appeal at all; in the other case, under certain specific sections, an appeal shall lie to the High Court. You have suggested that in the first category there should be an appeal to a statutory body like the Copyright Board. Would you rather not have a uniform provision in both the cases for an appeal to the High Court rather than create a bifurcation of jurisdiction—one the High Court and the other a Tribunal a nalogous to the Copyright Board?

Dr. H. C. Cooper: We have made this suggestion looking at from two viewpoints—one from executive matters and the other is from technical matters. Even if the matter went up to the High Court, there may be a necessity of having assessors appointed and the matter might be quite complicated. So we thought in such procedural and executive matters perhaps the Tribunal will be more helpful. Secondly, as the Chairman himself has said, there occurs delay in disposal of cases by courts.

Mr. Chairman: Suppose we give the right of appeal only on points of law to the Supreme Court, would you be satisfied?

Dr. H. C. Cooper: That is the procedure under the Income-Tax Act.

To our knowledge it has been working very satisfactorily.

Shri P. A. Narielwala: Whether you have a Tribunal or High Court, the Judge who sits on it must be really a competent person and a specialist in patent cases because the patent law is a very complicated matter.

Mr. Chairman: We may make sure that the Judge appointed is a competent person.

Shri P. A. Narielwala: He should really be an expert in that.

Mr. Chairman: He should be a specialist Judge.

श्री अचल सिंह : आप जानते हैं कि हमारे देश की नब्बे प्रतिशत जनता ग़रीब है। इस स्थिति में क्या आप कोई ऐसा सुझाव देंगे, जिससे जनता को दवाइयां, ड्रग्स और इन्जैक्शन वग़ैरह सस्ते दामों पर मिल सकें ?

Dr. H. C. Cooper: We have already answered this question earlier that we do recognize that having regard to the conditions in our country, pharmaceutical drugs should be available at a reasonable rate. But we feel that the way in which the Bill is cast will do harm in certain other quarters and not try to achieve that objective.

Shri P. A. Narielwala: Let me also supplement this information by telling this Committee that in the last few months everyone, including the Drug Controller has asked the Industry to hold the price line. The example of Pimpri is not a satisfactory example for the industry. The price of streptomycin which is produced by Pimpri has in the last three months been increased instead of being reduced. As you know, even in penicillin produced at Pimpri because it is their monopoly, the price of penicillin in India is higher than what it is anywherelse in the world. Pimpri with very good profits which it makes can justifiably reduce its price of antibiotics if it is to serve the purpose which the hon'ble Member has in view.

Sardar Daljit Singh: Have you got any patent in foreign countries?

Dr. H. C. Cooper: Some of the industries do have patents of a few products in foreign countries and our information is that this tendency is now increasing day by day.

Shri P. A. Narielwala: The National Research Development Corporation will give all that information that you have asked for, the number of patents for products of Indian origin that they have patented in the market in foreign countries, etc.

Sardar Daljit Singh: You have mentioned that there should be a Board on the lines of the Copyright Board for appeal against the decision of the Controller.

Mr. Chairman: He asked this question and he has just now answered it.

श्री प० ला० बारूपाल : मैं यह जानना चाहता हूं कि विदेशों से मंगाई जाने वाली दवाइयों के मुकाबले में भारत में बनने वाली दवाइयों की क्या स्थिति है और इन दोनों प्रकार की दवाइयों की प्राइस में क्या अन्तर है।

Dr. H. C. Cooper: We will not be able to answer this question offhand in the absence of the immediate availability of statistical data here. But we could give this information.

श्री विभूति मिश्र : मैं यह जानना चाहता हूं कि आप पेटेन्ट के पक्ष में क्यों हैं।

Dr. H. C. Cooper: We are on the side of national interest; we are not on the side of patents as such.

श्री विभूति मिश्र : आप जानते होंगे कि हिन्दुस्तान में योगराज गुग्गुल को शार्गधर

या भावप्रकाश के फ़ारमूला से बनाया जाता है। यह दवाई गठिया आदि रोगों में प्रयुक्त की जाती है। हिन्दुस्तान में हर जगह वैद्य फैले हुए हैं और वही वैद्य सफल होता है, उसी की प्रैक्टिस चलती है, जो ठीक विधि से और रोगी के लिए लाभकारी दवाई तैयार करता है। अगर पेटेंट की व्यवस्था हो जायेगी, तो एक ही आदमी को एकाधिकार हो जायेगा—चाहे वह अच्छी दवाई दे और चाहे खराब दवाई दे। इसलिए पेटेन्ट की व्यवस्था देश की 45 करोड़ जनता के लिए हितकर नहीं होगी। जैसा कि मैंने कहा है, आज योगराज गुग्गुल को शार्गधर या भाव-प्रकाश की फ़ारमूला से बनाया जाता है। आज उसका कोई पेटेन्ट नहीं है। इस प्रकार की दवाइयों का पेटेन्ट करने से जनता को बहुत परेशानी और हानि होगी। आप इस बारे में अपने विचार बताइये।

Dr. H. C. Cooper: In respect of some of these indigenous medicines the situation is that they make an application for patent. They disclose the particulars but the basic formula is never disclosed at all.

Shri P. A. Narielwala: You know in Ayurvedic medicines each Vaid has his own particular formula. He should take the responsibility of obtaining the formula and perpetuate the protection of the Ayurvedic drugs in the country. There is no formula. You have to sit down and persuade the Vaid to disclose his formula where he is given the patent protection.

Mr. Chairman: Some of them are publishing the ingredients.

Shri P. A. Narielwala: Very few. After all in the Ayurvedic and Unani systems, the Vaid gives the patient something saying, 'You take this and you will get cured.' What it is you do not know. In fact in the Central Medicinal Plant Organization of which I have been the Chairman, we have more than once asked them, 'Please identify this product because it is used in Ayurvedic medicine' and we have invariably found that when I talk of medicinal plant product, that plant does not exist any longer or does exist but there are some variations of that plant and that it is difficult to identify which of that particular plant is the one which is used in the Ayurvedic medicine. I can give you instances of that.

श्री विभूति मिश्र : चेयरमैन साहब, यह योगिराज गुगुल का फारमूला उस पुस्तक में लिखा हुआ है कि फलां दवा इतनी, फलां दवा इतनी। वैद्य इसको लिख देता है। जो रोगी होता है वह उन दवाओं को खरीद कर लाता है। वैद्य उसका इंसपेक्शन करता है। कहता है कि अमुक दवा खराब है, इसको बदल कर लाओ। फिर उसके सामने दवा बनायी जाती है और योगिराज गुगुल बड़ी मशहूर दवा है और उसी वैद्य की चलती है कि जो अच्छी तरह से बनावे। लेकिन इनका फारमूला तो सीक्रेट रहता है। हिन्दुस्तान में किसी दवा को पेटेंट कराया तो 45 करोड़ आदमियों के लिए उसके पास ऐसा संगठन होना चाहिए और फिर मसानी साहब तो वह दवा खरीद कर खा सकते हैं क्योंकि धनी आदमी हैं लेकिन आम जनता जिसकी 20 रुपये 25 रुपये मासिक आय है वह नहीं खरीद सकती है। पेटेंट करने से आप उसे एकाधिकार देते हैं तो आप पेटेंट के पक्ष में क्यों हैं। इसलिए हैं कि आप पूंजीपतियों को बढ़ावा देना चाहते हैं।

सभापति महोदय : पेटेंट एलोपैथिक मेडिसिन्स के लिए है, आयुर्वेदिक के लिए नहीं है।

श्री विभूति मिश्र : आयुर्वेद का वैद्य जब कोई दवा बनाता है तो जनरल सिद्धान्त उसका है, जिसके अनुसार वह उसका एक सर्टेन पोर्शन फी डिस्ट्रीब्यूशन के लिए रखता है। अगर एक सेर बनाये तो उसका 10

प्रतिशत या 15 प्रतिशत खैरात के लिए रखता है । तो क्या पेटेंट वाले दवा बनायेंगे तो उसमें कुछ ऐसा है कि इतनी दवा बनाकर इतना उसका पोशंन खैरात करेंगे । दूसरी बात, हिन्दुस्तान का फारेन एक्सचेंज जूट ग्रोअर, टी ग्रोअर और टेक्सटाइल ग्रोअर यह तीन पैदा करते हैं जिसमें गरीब आदमी ज्यादातर जूट पैदा करते हैं । तो मैं यह जानना चाहता हूं कि कोई ऐसी दवा हिन्दुस्तान में पेटेंट हुई है कि जिसमें बाहर से उसका कोई सामान न मंगाना पड़े ।

Dr. H. C. Cooper: There are plenty of such things . . .

Mr. Chairman: We will discuss it among ourselves.

Shri P. A. Narielwala: We are not representatives of the pharmaceutical industry to answer these questions. But the Hon'ble Member should know that in the jute industry, in the textile industry, tea industry, in every industry, medical facility is provided freely by the companies concerned to the workers.

श्री विभूति मिश्र : मैंने पूछा कि कोई ऐसी दवा है कि जो हिन्दुस्तान में पेटेंट करायी गयी हो और जिसमें बाहर से कोई दवा या सामान न मंगाना पड़ा हो ।

Dr. H. C. Cooper: The answer is in the affirmative.

Shri Kashi Ram Gupta: Give examples.

Shri P. A. Narielwala: As we are not representatives of the pharmaceutical industry, we do not have this information. If you want we can find out from the pharmaceutical industry.

Dr. H. C. Cooper: Penicillin itself is an example which the Hon'ble Member wanted.

श्री विभूति मिश्र : आप विटनेस देने यहां आये हैं और आप कहते हैं कि इसका जवाब आपको मालूम नहीं है । मैं जानना चाहता हूं कि कौन कौन सी दवा ऐसी हैं जो कि हिन्दुस्तान में पेटेंट हुई हो और हिन्दुस्तान में ही उसका सारा सामान मिला हो, बाहर से न मंगाना पड़ा हो ।

Shri P. A. Narielwala: Only on Sunday last, Dr. Venkataraman, former Director of the National Chemical Laboratory gave an example of Vitamin C, a process for the production of which was evolved by our own Scientists at the National Chemical Laboratory from Indian raw materials. He gave a pathetic story of how the process, which is patented, which was offered first to the Hindustan Antibiotics for exploitation, has not yet been utilised, owing to constant changes in the post of Managing Director. It comes up and then it is withdrawn because the next Managing Director does not like it. I say this with his knowledge; I don't think what he said was confidential. But this is a fact. A product evolved by our own scientists from our own raw materials is not being utilised or exploited. Substances like penicillin; Vitamin B12, Vitamin A, etc., which are now made in this country are basically from Indian raw materials. I think now they are going to start again on Vitamin C.

श्री विभूति मिश्र : क्या आप चाहते हैं कि कोई दवा का आविष्कारक अपना आविष्कार किसी इंडस्ट्रिअलिस्ट के हाथ बेच दे तो बेचने के बाद जो दवा तैयार होती है उसमें कितना खर्च होता है, कितना उसका मुनाफा हो, इन सारी चीजों के जांच के लिए कानून में कोई धारा होनी चाहिए ताकि उसके अनुसार उसकी कीमत ठीक ठीक निश्चित की जाय जिससे देश के इंडस्ट्रिअलिस्ट्स को भी कुछ फायदा हो जाय और गरीब जनता को भी सस्ती दवा मिले ।

Dr. H. C. Cooper: We have no information in our possession to answer these questions.

श्री राम सेवक यादव : अभी चौरड़िया साहब के प्रश्न का उत्तर देते हुए श्री नारीवाला ने कहा था कि जितनी बिक्री होती है उसका एक प्रतिशत खोज पर खर्च होना चाहिए और अभी यह भी उन्होंने कहा कि हिन्दुस्तानी साइंटिस्ट को खोज से प्रोत्साहन मिले इसलिए पेटेंट कानून की आवश्यकता है । मैं जानना चाहूंगा कि जो एक प्रतिशत खर्च की वह बात करते हैं उससे उनके वेतन के अतिरिक्त और क्या मिलने वाला है ।

Shri P. A. Narielwala: Sir, this is a matter which must be determined by the industry itself or by the industrial company where the scientist works. There is an agreement between the scientist and his board that if he evolves a patent and that patent is exploited by the company, the scientist shares either in the form of a recurring royalty or in the form of a lump sum.

श्री राम सेवक यादव : क्या अब तक हिन्दुस्तानी साइंटिस्ट ने किसी नयी चीज का आविष्कार किया और उस आविष्कार से जो फायदा हुआ उसमें से उनको कुछ मिला ?

Shri P. A. Narielwala: Very many scientists are benefiting. The Council of Scientific and Industrial Research or the National Research Development Corporation will tell you how much of the money has been given to scientists.

श्री राम सेवक यादव : उनको वेतन के अलावा क्या मिला यह मैं जानना चाहता हूं ।

Shri P. A. Narielwala: I can't give this information. The Chamber has not got this statistical information.

श्री राम सेवक यादव : दूसरा सवाल है मेरा कि आपने एक प्रश्न के उत्तर में कहा कि इटली में पेटेंट कानून के अभाव में दवायें रद्दी बिकती थीं तो क्या यह समझा जाय कि पेटेंट कानून अगर हो तो वहां काफी है दवाओं को ठीक रखने के लिए; और दूसरे कानून की आवश्यकता नहीं है ।

Shri P. A. Narielwala: Sir, if there is a control on the medicine as a result of patent specifications, then the manufacturer will be governed by the particular rules and regulations. He can't steal the patent and try to produce. He tries to produce according to his method, but it may turn out that he does not have the technical know-how. The patent indicates broadly temperature, pressure, etc. But it does not indicate exactly what is the exact temperature and pressure in which to operate. Therefore, invariably it would result in sub-standard drugs. We have this experience in our own Indian industries.

श्री राम सेवक यादव : आपके कथनानुसार पेटेंट से आविष्कार और टेकनिकल नो हाउ को प्रोत्साहन मिलेगा तो मैं जानना चाहता हूं कि इससे उन्हीं देशों को फायदा होता है कि जहां खोज ज्यादा तेजी से चल रही हो और जिन देशों में खोज पर ज्यादा पैसा खर्च नहीं होता उनको नुकसान होता है ।

Shri P. A. Narielwala: I do not see how we are competent to answer that question whether there is loss or gain. We are trying merely to protect, our own scientific workers against the rigor of a Bill as drafted. We want to see that the Indian research develops quickly so that our own men produce a range of patented products. It will be seen that over the period of years, the number of Indian patents is gradually increasing as compared with what it was 10 years ago. That is an information which I think the Controller of Patents will give you.

श्री राम सेवक यादव : इस देश में आविष्कार और टेकनिकल नो हाउ की जानकारी बढ़े और नये आविष्कार हों इसके लिए क्या आप जरूरी समझते हैं कि आविष्कार करने वाले वैज्ञानिकों को वेतन के अतिरिक्त

अगर किसी नयी चीज का आविष्कार वह करते हैं तो उससे जो मुनाफा होता है उसका भी परसेंटेज दिया जाय और उसके लिए कानून में प्राविजन की जरूरत है ।

Dr. H. C. Cooper: In actual practice, they get it. In a large number of cases they get a percentage.

Shri P. A. Narielwala: For the last one or two years, Indian manufacturers are now going abroad with their technical know-how. You may have heard recently of the case of Hard Board Factory which has put up a factory in Canada. Indian know-how, Indian technology is now being exported to Canada where it has been given special patent protection. This is merely a single instance. As we develop, we shall do so.

श्री राम सेवक यादव : मेरा सवाल तो यह था कि जब इंडियन साइंटिस्ट किसी नयी चीज का आविष्कार करते हैं और उससे कोई कारखानेदार मुनाफा कमाता है तो उस मुनाफे से उसको एक हिस्सा मिले ताकि वैज्ञानिकों को प्रोत्साहन मिले इस तरह की कोई व्यवस्था कानून में होना जरूरी है ।

Dr. H. C. Cooper: We are not in favour of any statutory regulation for this purpose but the matter must be entirely left to be negotiated between the scientists and the industrialists concerned.

श्री राम सेवक यादव : इसकी आवश्यकता समझते हैं आप कानून में न सही वैसे जरूरी है ।

Mr. Chairman: He says, by agreement of parties.

Official from Ministry: Apart from the expenditure by Government on research, can you give us any information of the amount of money spent by private industry on research?

Dr. H. C. Cooper: We do not have the data except the broad general fact that many of the research institutions, for instance, the sponsors of the art silk and other associations, the textile industry etc. have been spending very considerable amount.

Official: Can you give us some information.

Dr. H. C. Cooper: We will try to collect more precise information and give you.

Shri P. A. Narielwala: There is the Tea Research Association. The cotton textiles have 3 laboratories—one in Bombay, one in Ahmedabad and another in South India. We will try to get the Information.

Shri R. Ramanathan Chettiar: Only one question. We are providing in this Bill process-cum-product patent. Do you agree with this?

Shri P. A. Narielwala: Normally, it is the process which is patented, but, particularly in the pharmaceutical industry or some other chemical industry sometimes a product patent may become necessary and desirable. Therefore, provision for a product patent should also be there.

Shri R. Ramanathan Chettiar: You agree with this?

Shri P. A. Narielwala: Yes, Sir.

Mr. Chairman: Thank you very much.

Dr. H. C. Cooper: We are most grateful to you Sir, and to the Committee for a very patient hearing.

(Witnesses then withdrew).

The Committee then adjourned to meet again at 15.00 hours).

(The Committee reassembled at 15.00 hours)..

II. Trade Marks Owners Association of India, Bombay—1.

Spokesmen:

1. Shri S. H. Gursahani, Chairman
2. Shri R. A. Shah
3. Shri C. K. R. Rao, Secy.

(The witnesses were called in and they took their seats)

Mr. Chairman: Any evidence that you give is public. It is published and distributed to our Members, and also laid on the Table of the House. Even if you want any portion to be confidential, it has to be published and circulated to the Members. We have received your Memorandum and it has been circulated to all the Members. If you want to add anything, you may do so. After that our Members will put questions. Please begin.

Shri S. H. Gursahani: Mr. Chairman, with your permission, may I have a minute or two to say something about the Association which I represent. I will also introduce very briefly the colleagues accompanying me here to assist the Committee. The Trade Marks Owners Association of India, of which I am the honorary Chairman (my other occupation is that I am an officer of Hindustan Levers) was formed in 1953 at the suggestion of the then Minister for Commerce Shri John Mathai in order to encourage the study of problems relating to all forms of intellectual properties including patents, trade marks, designs, etc. which have importance in national or international trade and commerce. The Association has since then been doing its best to assist the Government and represents in its membership a cross-section of Indian industry ranging from light and heavy engineering to cigarettes and matches, soaps and toiletries food products, pharmaceutical and chemical industry and various other consumer and non-consumer industries. The purpose of the Association is to study objectively and from the industrial point of view the implications of Industrial Property Law. Mr. Rao, on my right, is the permanent Secretary of the Association and before he joined the Association he was a prominent lawyer in Bangalore. Mr. Shah, on my left, is a practising solicitor and a senior partner of a well-known firm of solicitors in Bombay and he has been closely associated with the professional activities of the Association.

Sir, we have submitted our memorandum and we are fully alive to the fact that the time of the Committee is extremely valuable and we should not use this opportunity merely to reiterate what we have said before but only to supplement and elaborate.

Shri R. Ramanathan Chettiar: To which firm do you belong?

Shri S. H. Gursahani: I belong to Hindustan Levers in my day-to-day life and am the Honorary Chairman of this Association as one of my boundary functions.

Sir, the first point on which I would like to supplement our memorandum relates to clause 2(g) of the Bill which defines an article of food. The additional point which I would like to urge before the Committee is the power sought to be given to Government to extend the scope of this definition by notifying certain articles to be regarded as articles of food for purposes of this Bill. This may have the effect of introducing a degree of uncertainty in the minds of patentees as regards the scope of their rights and the duration of the protection. An article which may not have been capable of being an article of food when the patent was granted could by Government notification be converted into an article of food with the result that any patent granted, for the product itself as might have been permissible at the time of the grant of the patent, may then get in danger of being revoked on the round that it is now to be regarded as an article of food. The other effect is the duration of the patent which initially may have been granted for the full period of 14 years, under the general clause of the Bill, may nevertheless be curtailed to

10 years on the ground that it has now become an article of food. These are the problems to which I have not been able to see a satisfactory solution in the Bill. I would like to say that if the definition is capable of being changed by the Government notification it is possible that this may give rise to argument and possibly litigation, to determine whether an *ipso facto* curtailment of the rights of patentee has taken place as a result of such a notification.

The next clause in our representation which I would like to elaborate further is clause 2(1) which defines a drug. I would specially direct my comments to the aspect of the definition which includes within its ambit intermediates used in the manufacture of drugs. I feel, and I am so advised, that a very large number of chemicals which are in one way or another, capable of being used as intermediates in the drugs industry will get involved within the scope of this definition with the result that by and large every known chemical will be subject to the special treatment accorded in the Bill to drugs.

Phenol, salicylic acid and acetic acid are all intermediates in the manufacture of one of the best known drugs namely aspirin. Yet all these three different primary uses, Phenol is an important intermediate in the plastics industry and salicylic acid in the dye stuffs industry. Acetic acid is table vinegar in certain dilutions.

The next point which we have not taken up in our memorandum, I hope you will forgive me because as one studies the Bill even after submission of the memorandum certain points do emerge for consideration which may be worth mentioning to the Committee in the hope that it may be of some assistance to the Committee, is clause 3 (d) which removes from the area of patentability new uses of known substances or new uses of known processes. I submit that in certain contexts and quite frequently, it might be useful and important that our inventors may be directed towards finding a new use of a known substance and these new uses themselves acquire very great importance in our industry and, therefore, deserve to be treated with the same respect, if I may use that term, as an invention as if the substance is itself discovered for the first time and this is particularly true, if I may say so, in the drug and pharmaceutical industry.

Where substances discovered for the first time to have curative properties as life-saving drugs either by themselves or in combination, by the inventive genius of people engaged in drugs industry, it may be worthwhile to afford to them the same protection as one would afford to the drugs in general. Similarly, processes may be known, but a new application of a process, I submit, is equally an invention and it may be very important, and, therefore, deserves to be protected in the same way as any other invention. In fact, we believe that the legislations of most countries permit inventions of these kinds to be patented.

We have not commmented in our Memorandum on Clause 5, which restricts patent protection in the case of drugs, medicines and food to the process of manufacture, and not the substance itself unless it is manufactured by the process which is patented; and we support that this should be so. Protection to the product substance *per se* need not be given. But this is subject to our contention that where a substance has been introduced in the market by an infringer, the burden of proving that the product has been manufactured by a process different from the patented process should be upon the infringer, and not upon the plaintiff who takes him to the court. This will then be in line with the procedure and the law followed by all those countries which do not protect products *per se*. This, we believe, is desirable whether or not that particular product is imported or locally manufactured. It is difficult for a plaintiff to be able to discharge the

onus of proof before the court that the product manufactured by his rival is in fact manufactured by his patented process. It is very difficult when the product is imported. It is, to my mind, not an easy matter for any plaintiff to establish even by appointing referees to find out whether the product has been manufactured by the patented process. So far as the imported products are concerned, I am advised that our Indian law, through court decisions, already recognises the fact that the burden of proof in such cases is upon the infringer. We ask you to consider the extension of this principle to cover cases even when the product is locally manufactured.

In respect of Clause 53, I would only like to add one very minor point. In the various sub-clauses of this clause, the same words are used as in the definition of "food" and "drugs", namely, "intended to be used" and "capable of being used". My suggestion is that there is no need to redescribe these particular products, following the definitions given earlier in the Act. I am suggesting that if for reasons of submissions made, the definitions are changed as a result of further consideration by the Committee there should be no need to make consequential changes in the various clauses of the Bill if the defined terms as such are used in the other sections of the Bill. We may sometimes overlook to make consequential changes.

In clause 53(1)(a) we say: "Where the substance is intended for use or is capable of being used as 'food' ". This is, in fact, a mere repetition of the definition of "food" contained in an earlier clause of the Bill.

Mr. Chairman: It is a question of draft.

Shri S. H. Gursahani: I suggest that these words may be deleted. I think the word "food" will convey the same meaning as already given to it in the definition clause.

As regards the other points that we have taken up on clause 53, despite my promise that I will not elaborate what has already been said, all that we suggest is that while fixing the period of protection at 10 years in the first instance the door should not be entirely shut against instances where genuinely it may be reasonable to consider a request for a short extension on the ground that there has been no fault on the part of the patentee. I would request the Committee to give a sympathetic consideration to this suggestion. It has been said that ten years is not a short period and that the industry has been known to reimburse itself with research expenditure in a lesser period. That is a question of fact. But in the case of certain patents, it is likely that a lot of preparatory work has to be done before full production on a commercial scale can be resorted to and adequate return can be taken by a person responsible for the invention and research. We have suggested that there should be two extensions permissible under the Act, in stringent conditions if you like, where the Controller should be able to decide on the merits of each case to give two extensions of two years each. It will in exceptional cases bring the patent back to the 14 years period. Clause 88 puts a ceiling on the royalty payable on patents of a certain nature. On this we have three comments.

Firstly, our quarrel is not that it is not 8 per cent or 10 per cent. There is no magic in fixing any ceiling because as human experience shows, anything which is prescribed as maximum quickly degenerates into the normal. Surely there will be patents which deserve far less, and others which deserve much more, but the result may well be that this 4 per cent may tend to be accepted without a careful investigation.

Secondly, the exploitation of a patent or invention carries with it two other aspects which are equally important and which are usually delivered to the licensee in the form of a package. Apart from the patent specifications, which by themselves are not

of such tremendous value unless they are accompanied by technical know-how, they are also usually accompanied by the right to use a brand name or a trade name. The three together constitute the transfer of the right of manufacture from one person to another. There is no ceiling fixed so far as the transfer of technical know-how is concerned nor the trade mark. They are still in the area of discretion with the appropriate Government machinery. To fix a ceiling with regard to only one aspect will in the first place, according to us, result in difficulties of co-ordination, and where the parties find that as a result of the ceiling inadequate royalty is being sanctioned for the patent attempts will naturally be made to try and make that up to the extent possible by securing a larger amount for the transfer of technical know-how and for the use of trade marks. It is preferable to leave the entire field to the discretion to senior Government officials, because these economic matters are ultimately agreed upon and co-ordinated at very high levels, where Economic Secretaries through various committees consider the full implications of any particular proposal. It would be desirable to do it in that manner than to consider it piecemeal.

Thirdly, fixing the ceiling with reference to the bulk price or ex-factory price of the patented article may have the unfortunate effect of rewarding an inferior invention rather more than a superior one, because, to the extent to which an invention results in a certain ex-factory bulk price and to the extent to which that price is higher, the royalty will be more as long as it is related to a percentage of that particular price, and any process which cuts down the cost of manufacture will suffer by earning for the patentee a lesser amount by way of royalty. Today royalties are fixed with reference to several factors, one important factor being the amount of saving which it means to the licensee, and in such a case the licensee will evaluate the importance of the licence to him not in terms of the price of the product but the saving that he is able to effect as a result of using an alternative manufacturing process which he is getting from the patentholder. Therefore, the rigidity that it should be 4 per cent on the one hand, and that it should always be related to the price of the product ex-factory shuts out consideration of other factors to which it can be more reasonably related.

The Bill provides for appeal to the Central Government in certain cases and no right of appeal at all in other cases. We find that in many important respects there is no right of appeal. I suggest that in order to cut down delay and expense, you might consider setting up an administrative tribunal on the lines of the Income-tax Appellate Tribunal with jurisdiction over all industrial property laws—not only patents, but also copyrights, designs, trade marks, works of art and literary works etc.—so that in course of time you have a tribunal which is well versed in this rather intricate branch and is able to dispose of disputes between parties and between Government and citizens expeditiously and expertly. To begin with, a centrally located tribunal may fulfil the need, but depending upon the number of matters that come to it, it may probably have Benches in industrial towns like Bombay and Calcutta, consisting of retired or sitting Judges of the High Court or others qualified to be appointed such judges. The number of persons who will constitute it is a matter of detail which can be worked out in the light of experience.

Mr. Chairman: Would you give the right of appeal to the Supreme Court on points of law?

Shri S. H. Gursahani: The writ jurisdiction of the Supreme Court cannot in any case be ousted. The suggestion I made would only replace going to the High Court.

Clause 64(h) which has retrospective effect, we believe, is likely to cause, in actual practice, complications and problems for the patentee, and the Com-

mittee might be good enough to examine whether the hardship of retrospective effect can be mitigated.

Shri M. R. Masani: I was interested in your suggestion that royalty might be linked with something else than the ex-factory price. I thought you made quite a good point when you said that this will act as a disincentive to cutting costs. Can you suggest an alternative formula to which you can hitch the royalty where it would solve itself? It is true that the idea of saving is good, but I am not able to see how you link the royalty to the saving. Would you be good enough to give an alternative formula later on, if you do not have it ready now?

Shri S. H. Gursahani: I have not got any formula at the moment. But I should imagine that when two persons sit down and negotiate how much royalty is to be given, the buyer must be fully aware what this means to him in terms of saving. He would not try to buy it otherwise. It is a question of reaching a reasonable formula between themselves, which would give one a reasonable return and the other a reasonable value for it. I am sorry I have not got any particular formula as such.

Shri M. R. Masani: So, the amendment you suggest would be one to remove the four per cent ceiling altogether and in any event to remove the ex-factory price as a way of computing the four per cent.

Shri S. H. Gursahani: That question might be re-examined along the lines of our suggestion.

Mr. Chairman: Will you be satisfied with an agreed royalty, subject to the approval of the Controller-General?

Shri S. H. Gursahani: This would be certainly an improvement in the sense that no rigid ceiling is enforced. But there is the other point which I made a little while ago, namely, that it is in fact a three pronged consideration, so that it might be the Controller if you like, or anyone who is competent to look into all the three aspects.

Shri Kashi Ram Gupta: Please refer to page 2 of the memorandum regarding clause 8. You have mentioned at the end that "it is therefore submitted that sub-clause (2) of this clause should be amended to read as 'If the Controller entertains a reasonable doubt as to the novelty or the patentability of the invention, he may, for reasons to be recorded in writing, require the applicant to furnish details relating to the objections'.". How can you distinguish this point, "reasonable doubt as to the novelty"? What is meant by reasonable doubt? How can one interpret in law whether a doubt is reasonable or not?

Shri S. H. Gursahani: We do deal with points of reasonableness throughout our commercial and ordinary life, and I respectfully submit that it should not be difficult for an experienced controller to say that in a particular instance, he is not quite certain whether an invention for which protection is being sought is novel or not. In such a case he may wish to be assisted by people outside the country who may have greater knowledge and greater experience in dealing with these matters, and therefore ask the applicant to assist him in respect of any objections that might have been raised else where and what has been the outcome of the application.

Mr. Chairman: Normally he is guided by the opinion of experts here.

Shri S. H. Gursahani: If he is advised by his advisers that this is a matter which is not free from doubt, he may then be assisted by the experience of people outside.

Mr. Chairman: Why go outside? We have our own experts and assessors here.

Shri S. H. Gursahani: I was meeting this point half-way, in the sense that one cannot say that we are self-sufficient in technical knowledge and ability to assess claims. Much has been

said about a large number of patents on the register today which need not have been on the register had we had more experience in evaluating those claims.

Mr. Chairman: I can understand a situation where there is no expert, but when we have our own assessors and advisers, you should be guided by their opinion. Don't you agree?

Shri S. H. Gursahani: Primarily yes.

Shri Kashi Ram Gupta: Why do you want the law to include these wordings? These wordings need not be included in a legal way. "For reasons to be recorded in writing"—that is the process they have got.

Shri S. H. Gursahani: As the Bill stands at the moment, it is an automatic requirement if an application has been made elsewhere; the applicant is obliged to keep the controller fully informed of the progress of the application elsewhere, the objections raised and the answers given and the outcome of the application. All that we are suggesting is that this should not be automatic. This should be necessary only when the controller considers it necessary and calls upon the applicant to furnish information, and as a further safeguard, we suggest that this should be done by the controller after recording his reasons in writing. This goes to the fundamental issue that when an order is passed, the applicant should be given full opportunity to know the basis on which a particular order is being passed because a certain obligation is being imposed on him. I would take the point of the hon. Member that as long as it is not automatic, most of our point is met. This requirement should not be automatic.

Shri Kashi Ram Gupta: At page 3, clause 15(2) (a), you say that the controller may refuse an application if it has made any contravention of the chapter on conventions has been made and if the contravention is wilful or inadvertent. You say that when it is an inadvertent contravention of the provisions of this section, the controller should have the power to treat the application as a non-convention application. Again, the distinction between wilful and inadvertent contravention in a legal way does not seem to be a practical proposition.

Shri S. H. Gursahani: My humble submission is that this is a legal enactment to be enforced by the authorities, who will apply it according to law and will have to interpret the various provisions of the law, and, we trust, competently, and therefore, I see no particular difficulty in deciding whether a thing is wilful or otherwise. This particular issue is decided by quasi-judicial officers, judging people's conduct and seeing whether it is wilful or inadvertent. All that we are saying is that not in every case should an applicant be deprived of the right altogether of getting his patent protected, merely because he has erroneously claimed a priority to which he is not entitled. The worst that should happen is that the priority could be taken away if criminality or culpability can be attributed to him.

Shri Kashi Ram Gupta: Was there not a similar case covered by a clause in the previous Act?

Shri S. H. Gursahani: No. Even the BIRPI model law to which India's representative was a party has suggested that the only consequence of such a contravention should be that the priority should be taken away.

Shri Kashi Ram Gupta: In clause 53, you say that in no country is the protection as little as 10 years. In Italy it is 10 years.

Shri M. R. Masani: In Italy it is still at the stage of a Bill so Mr. Gursahani is right that there is no law.

Shri Kashi Ram Gupta: I am only giving him this information.

Now, take page 9, clause 96. You have put in a clause which I do not

and in the model law. You have said:

> "(2) For the purpose of sub-section (1) above the Controller shall not grant a licence unless he is satisfied that such other patented invention serves industrial purpose different from those of the invention forming the subject of the earlier patent, or constitutes noteworthy technical progress in relation to it."

Before this, you say that "In this connection, we would recommend to the consideration of the Committee the model clause prepared by BIRPI". The BIRPI model law does not contain this clause. Will you please clarify it?

Shri S. H. Gursahani: A similar provision does exist in the model law, although naturally it does not refer to sub-section (1) because that has been worded to suit the drafting requirements of this particular Bill. If you turn to page 62, section 36(1) of the model law, it says:

> "If an invention protected by a patent within the country cannot be worked without infringing rights deriving from a patent granted on a prior application or benefiting from an earlier priority, a compulsory licence may, upon application, be granted under the conditions specified in section 44 to the registered owner of the later patent, to the extent necessary for the working of his invention, in so far as such an invention serves industrial purposes different from those of the invention forming the subject of the earlier patent or constitutes noteworthy technical progress in relation to it."

Shri Kashi Ram Gupta: The wordings given here do not have the same context. So, if these wordings are adopted, will it not defeat the very purpose of compulsory licence?

Shri S. H. Gursahani: We respectfully believe it will not.

Dr. C. B. Singh: In page 1 clause 2(1) you say, "this definition of drug will have the effect of covering almost every known chemical". If you go a little further, you agree you begin from carbon, hydrogen, oxygen, calcium, sodium, etc. and the whole thing is covered like that. In that manner, you say chlorine forms a part, benzene forms a part, sodium forms a part and so on. The whole thing is covered like that. When we say 'drug' we are quite clear in our mind about it. Why should there be any doubt in your mind?

Shri S. H. Gursahani: There is no doubt in our mind. We only submit that the definition as it stands is so wide that it probably goes a little beyond the original intention of giving special treatment to a particular kind of patent.

Dr. C. B. Singh: You gave the example of benzene. With that, you can have so many things. Chlorine, benzene and everything comes in. That does not fit in with our definition.

Shri S. H. Gursahani: With due respect, I gave the example of benzene because I thought I might begin with benzene and go to two intermediates which are formed in the course of manufacture of a drug-phenol and salicylic acid. It is reasonable that the manufacture of asprin or any patents connected with that should be properly regarded as a drug subject to any special treatment. But there is no justification for including phenol which has got other primary uses and salicylic acid or acetic acid which is vinegar.

Dr. C. B. Singh: Benzene alone forms so many things like chloroquine, etc.

Mr. Chairman: If we say, any chemical which is used as an intermediate product, will that satisfy you?

Shri R. A. Shah: The real intention is to confine the definition to primary drugs, but as it stands, it covers not only drugs but also chemicals. Phenol is used in various other industries, but

unwittingly it becomes a drug for the purposes of this Act and suffers the same limitations applicable to drugs.

Dr. C. B. Singh: Phenol is used as a drug in itself for certain purposes. Benzene also is used as a drug.

Shri R. A. Shah: We are talking about the basic raw benzene, not tincture benzene; raw benzene is a petrochemical product.

Dr. C. B. Singh: About the period, are you quite clear in your mind that you do not want 14 years but 10 years with two extensions of 2 years each?

Shri S. H. Gursahani: If it is considered vital to make a distinction between drugs and other products, we would hold on to 10 years with two extensions of two years each.

Dr. C. B. Singh: About appeal, you have said that the appeal should be to a tribunal and highest appeal will be to the Supreme Court. Is that correct?

Shri S. H. Gursahani: We have suggested. rather than providing for appeals from Caeser to Caeser, it might instil more confidence in industrial property owners if there is a provision for appeal from the decisions of the Central Government or the Controller to a tribunal which might be independent of the department and which will look at the problem objectively and judiciously and not be hidebound by considerations of policy or executive action.

Mr. Chairman: You want that instead of appeals to the Central Government all appeals against the decisions of the Controller should go only to the tribunal and in the final stage to the Supreme Court?

Shri S. H. Gursahani: That is correct. We agree to that.

Dr. C. B. Singh: Evidence has come before us to show that the distinction between process and product is artificial, that a process can produce many products and so many processes can produce so many products. Do you subscribe to this view? Do you want that there should be product patent or process patent?

Shri R. A. Shah: I think there is a lot of rationality and justification in not granting or not protecting products by themselves, and in the circumstances in which we operate in this country I think it would be adequate and reasonable if products which are made by particular processes are protected.

Dr. C. B. Singh: You are in favour of patent for product by a certain process and not in favour of process alo nor products alone.

Shri R. A. Shah: Yes.

Dr. C. B. Singh: What are your reasons for that?

Shri R. A. Shah: Otherwise there may be a tendency to import from abroad articles which are manufactured about and such imported articles would not constitute a breach of the patent law here. That would be an incentive to imports and a disincentive to import substitution.

श्री चौरडिया : आपने देखा होगा कि कई लोग पेटेंट लेने के लिए जितने भी सम्भावित प्रोसेस होते हैं उनको पेटेंट करवा लेते हैं । क्या कुछ प्रोसेस पेटेंट करवाने की व्यवस्था ठीक रहेगी या सभी सम्भावित प्रोसेस पेटेंट वे करवा सकते हैं, यह व्यवस्था ठीक रहेगी ?

Shri S. H. Gursahani: If the protection is afforded to a product manufatured by the patented process, then I appreciate the hon. Member's question, that this can probably be got over to some extent by the patent holders trying to patent as many processes as they can think of and in this way not only achieve the limited protection of product by a particular process, but products by themselves. But, at the

same time, it is cumbersome. It would involve expense on research which will be unjustifiable, and we believe that the protection of product manufactured by a particular patented process is adequate.

Mr. Chairman: Supposing the protection is provided only for the process by which a product is manufactured, what is your reaction?

Shri S. H. Gursahani: The processes may be of a kind which may give rise to an end product.

Mr. Chairman: There may be half-a-dozen processes. He may use only one and not use the other five. We can give protection to that process by which he manufactures the product.

Shri S. H. Gursahani: I think he can, if he chooses, obtain protection for all the processes which may lead to a particular product. If, in addition to that, a further process, at any future time, be developed by somebody else, it will not preclude him from getting that process patented merely on the ground that it leads to the same product.

Shri R. A. Shah: If the other processes are not utilised he faces the consequences of compulsory licensing, revocation etc.

श्री चौरड़िया : आप चाहते हैं कि पेटेंट की जो अवधि है वह ज्यादा होनी चाहिये। आपको पता होगा कि हमारे यहां पर जब तक प्रोडक्ट्स पेटेंटिड नहीं रही हैं उनकी कीमतें बहुत अधिक रही हैं और उपभोक्ता को बहुत नुक्सान उठाना पड़ा है। मैं उदाहरण आपको बताता हूं। विटामिन बी 12 की इनिशियल मार्किट प्राइस 2000 रुपये पर ग्राम थी और इसकी सबसिक्वेंट मार्किट प्राइस 40 रुपये पर ग्राम हुई। इसी तरह से स्टेप्टोमाइसीन की 19 रुपये ग्राम और अब 1 रुपये ग्राम है। प्रेडनीसोलीन की 15000 रु० एक किलोग्राम की प्राइस थी और अब चार हजार रुपये है। इसी तरह से टेट्रासिलीन की एक हजार रुपये और अब 240 रुपये है। क्लोरामफिनीकाल की 1600 रुपये थी और अब 240 रुपये की किलोग्राम है। इससे साफ जाहिर होता है कि इनवेंशन वगैरह के पैसे निकालने के बाद भी उपभोक्ता को बहुत ज्यादा दाम देने पड़ते हैं। दस वर्ष के बजाय अगर चौदह या सोलह वर्ष की अवधि रख दी जाए तो उपभोक्ता को बहुत ज्यादा दाम देने पड़ेंगे। उसकी इस तकलीफ को दूर करने के लिये आप क्या सुझाव देते हैं?

Shri S. H. Gursahani: Actually, this is a question of finding a balance between an adequate return as a reward for invention and thereby encouraging inventions or inventiveness in the country and the national interest of the people here. Ultimately, ten years, I believe, will afford in normal circumstances, a reasonable length of protection. But all that we pleaded for was that in proper cases the door should still be left open. One reason why we are not advocating an initial period of 14 or 16 years is that a shorter period of ten years will, to our mind, activate the manufacturers to try and intensify production and try to recover the research expenditure or preliminary expenditure that they might have incurred during that period by higher production. This will be an incentive to speedy translation of the invention into commercial exploitation.

श्री चौरड़िया : इसके लिये अगर कोई सीमा निर्धारित कर दी जाए कि इतने वर्ष की अवधि में इतने प्रतिशत से अधिक मुनाफा उनको नहीं दिया जाना चाहिये जिस में उनकी खोज का खर्च भी वसूल हो सके तो उसके बारे में आप का क्या सुझाव है?

Shri S. H. Gursahani: I am afraid, I did not understand the importance of this question.

Shri V. M. Chordia: If the prices are fixed in such a way that a margin is kept so that they may recover the cost of research and invention, at the same time ensuring that they may not charge an excess price, as was done in one case where they charged Rs. 2,000 per gram previously and Rs. 40 now, will you agree to that?

Shri S. H. Gursahani: I think the Government have adequate powers under the Industries (Development and Regulation) Act and the Essential Commodities Act to fix the prices of essential commodities. I have never been averse to judicious use of governmental power to fix prices at reasonable levels. But price fixation is not all that easy, in the sense that it must be preceded by a fairly complicated inquiry into the cost structure, into various other factors which go into the composition of the cost of manufacture of a particular product.

श्री बोरड़िया : ज्यूडिशल ट्रिब्यूनल के आप पक्ष में हैं । जब इसकी कांस्टीट्यूशन वगैरह के बारे में पूछा गया तो आप कोई स्पेसेफिक सुझाव नहीं दे सके हैं । क्या आप लिख कर भेज सकेंगे कि इसमें कितने सदस्य हों और इसका हैड कौन हो ?

Shri S. H. Gursahani: I assure that the hon. Member is referring to the judicial tribunal which I have suggested. It is difficult to foresee at the present time how many matters of industrial property law will result in appeals and what will be the speed with which they will be disposed of.

Mr. Chairman: We will consider that point.

Shri R. Ramanathan Chettiar: In the course of your observation earlier you referred to an apprehension about this Bill not protecting the industrial property.

Shri S. H. Gursahani: I do not recollect having made any such drastic observation about the Bill.

Shri R. Ramanathan Chettiar: You referred to adequate protection not being given to industrial properties.

Mr. Chairman: He did not say that.

Shri S. H. Gursahani: All that I said was that in a Bill of this kind you must necessarily try to find a balance between adequate protection on the one hand to those who spend time and money in inventions and national interest on the other. So, proper balance has to be reached. Then I went on to make a few general observations on the memorandum we had already submitted and I drew attention to certain points in the Bill which might perhaps be re-examined in the light of those observations and emphasized and supplemented some other observations.

Shri B. K. Das: Referring to page 4 of your memorandum, do I understand that you want a definite clause to be put down in the Bill that the onus of proof that a new process has been applied should lie on the defendant and not on the plantiff, that is, the patentee?

Shri S. H. Gursahani: That is my suggestion. It should be clarified by means of an appropriate provision in the Bill that in cases of this kind where protection is only given to a product manufactured by a particular process the defendant should have the burden of proof that the product put by him in the market is the outcome of a different process.

Shri B. K. Das: Under the existing law it is otherwise. But have you come across any case where the patentee has found it difficult to prove his own case?

Shri S. H. Gursahani: I have come across a number of cases in which imported articles are involved in in-

fringement. The manufacture takes place, let us say, in Europe. The local importer is charged with infringement. He is unaware of the process by which the manufacturer in Europe has manufactured the product. It is very difficult for the court here to judge whether the product imported is covered by the patent granted here especially when the manufacturer is not amenable to the jurisdiction of the Indian court.

Mr. Chairman: On page 8 of your memorandum you say:

> "The Government has powers under clause 48 to import for its own use or for the use of dispensaries and hospitals. This being so, it is only fair that any import on broader considerations of public interest (such as shortage of a particular article) should be undertaken only against payment of suitable compensation to the patentee."

If it is in the public interest, why should the Government pay compensation? Suppose there is an epidemic, should they not do that?

Shri S. H. Gursahani: We have suggested that the power should be exercised only in such grave circumstances; not otherwise. Public interest is a term which is so wide that it may *prima facie* refer to any governmental action. All that we are saying is, rather than throwing the door open for the Government to take action in any circumstances, let it be circumscribed in areas where it is really and vitally necessary like an emergency, epidemics or things of that kind.

Mr. Chairman: If it is done in a national emergency, or for defence purposes or when there is an epidemic, you have no objection?

Shri S. H. Gursahani: I have no objection. But still I do not see why even then compensation should not be paid. It is not only a question of quantum of money. The objection is to the principal infringing somebody else's rights.

Shri R. Ramanathan Chettiar: Article 31 of the Constitution says that no compensation is payable when public interest is involved.

Shri S. H. Gursahani: I think Article 31 does not provide for compensation.

(The witnesses then withdrew)

(The Committee then adjourned).

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Thursday, the 7th July, 1966 at 09.50 hours

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*.

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Panna Lal Barupal.
5. Sardar Daljit Singh.
6. Shri Basanta Kumar Das.
7. Shri V. B. Gandhi.
8. Shri H. K. V. Gowdh.
9. Shri Kashi Ram Gupta.
10. Shri Madhavrao Laxmanrao Jadhav.
11. Shri Braj Behari Mehrotra.
12. Shri Naval Prabhakar.
13. Shri A. T. Sarma.
14. Dr. C. B. Singh.
15. Dr. L. M. Singhvi.
16. Shri Ram Sewak Yadav.

Rajya Sabha

17. Shri Babubhai M. Chinai.
18. Shri Vimalkumar M. Chordia.
19. Shri P. K. Kumaran.
20. Shri Shyamnandan Mishra.
21. Shri Dalpat Singh.
22. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Indian Pharmaceutical Association, Bombay.

Spokesmen:

1. Mr. K. C. Chatterjee, *Vice-President.*
2. Dr. J. N. Banerjee, *General Secretary.*

II. Bundesverband Der Pharmazeutischen & Industrie E. V., Frankfurt Am Main, West Germany. (Association of the German Pharmaceutical Industry, Frankfurt AM MAIN).

Spokesmen:

1. Mr. Curt Engelhorn, *President.*
2. Dr. Scholl, *Adviser.*

I. Indian Pharmaceutical Association, Bombay.

Spokesmen:

1. Shri K. C. Chatterjee.
2. Dr. J. N. Banerjee.

(*The witnesses were called in and they took their seats*).

Mr. Chairman: The evidence that you give is public; it will be printed and published; it will be circulated to all the members and will also be laid on the Table of the House. Even if you want any portion to be treated as confidential, it will be printed and published; it will be distributed to our members and will also be laid on the Table of the House.

You have given your Memorandum; it has been circulated to all the members. If you want to add anything or stress any point, you may do so. Thereafter members will ask questions.

Shri K. C. Chatterjee: First of all, I would like to thank you, Mr. Chairman, and the Select Committee for giving us this opportunity to be here today. As we have mentioned in our letter, Dr. U. P. Basu, who is the President of the Association, was taken ill suddenly and has, therefore, not been able to come. I, as the past President and the present *ex-officio* Vice-President, am, therefore, leading this team today and I would do my best to put some of the matters forward to you.

The Indian Pharmaceutical Association, which we represent, was started in 1941. We have branches everywhere—in all the States. There are 22 branches altogether. There are about 4,000 members. We publish a journal. The Association holds annual conferences where the various sections of pharmaceutical interests assemble and discuss their mutual problems. We do not have any trade union activities. Our headquarters are in our own premises in Bombay where we also run a college of pharmacy. Our interest is mainly academic, although we do help our members in professional

matters as well. But, as I have said before, our Association has no trade union activities.

I would like to introduce my colleague, Dr. J. N. Banerjee, who is the Secretary of the Association. He did his Bachelor of Pharmacy course in India and went to the University of Nottingham where he did his Ph.D. in pharmacology. He was a lecturer in the Glasco University for some time. He is also the President of the Maharashtra State Branch of the Indian Pharmaceutical Association. He was a member of the delegation in 1963 which went to U.S.A., U.K. Germany, Switzerland and Japan. He is an examiner in pharmacology for various universities, including Bombay, Rajasthan and Saurashtra. He is also a Joint Managing Director of Sandoz.

About myself, I am K. C. Chatterjee, My basic pharmaceutical training has been in the U.K. I returned during 1938—44 War; I returned in 1942 and joined the Government as an Industrial Planning officer in drugs and medicines. I then joined M/s. Boots Pure Drugs Co., in India where I was the works Manager as well as a Director. I have left this company some time ago to take up independent pharmaceutical consultant business. I am now consultant to a number of pharmaceutical factories, but I am not in anybody's pay roll. I was the President of the Association. I was also the President of the Indian Pharmaceutical Congress. I am a member of the Pharmacy Council of India, a member of its Executive Committee and also the Chairman of the Education section. I am also a member and the Vice-President of the Maharashtra State Pharmacy Council. I am also a member of the Development Council in pharmaceuticals. I am also an examiner in various pharmaceutical subjects. I am a Fellow of the Pharmaceutical Society of Great Britain. I am also the hony. Principal of the Bombay College of Pharmacy. In fact the main reason why I have given up a fixed job is to be able to serve the Association in the capacity of hony. Principalship.

Shri R. P. Sinha: Is it not an Industries' Association?

Shri K. C. Chatterjee: It is mainly an academic body. We have some industrial problems pertaining to some of our members but we are not interested all that in the financial side. What we have is: a large number of our members are pharmaceutically trained and qualified. They are working in the industry and research and in manufacture and it is their problems, the technical side of their problem, the association deals with.

Shri R. P. Sinha: Only individuals can become members of the Association. Am I correct?

Shri K. C. Chatterjee: Yes. They need to have a certain amount of pharmaceutical background, pharmaceutical academic training.

The interest that our Association members have in this Patent Bill is that a fair number of our members have gone abroad; they have come back and in addition a large number are trained now in the Indian Universities and at least half of our members are capable of pharmaceutical research and contribute in some way to the advancement in the industry. It is our object to see that the facilities that our members now seek both in the Institutes and in the industry receive some inpetus. It is also in the interest of our Association members to emphasize that we would like to see that the country reaches a high level of technical know-how if possible by our own efforts, if not by any other method that our country can get. Our members would also like to see that actual manufacture in India is done of synthetic chemicals, not merely of pharmaceutical formulations. In that way also we like to feel that our members would be greatly benefited and will also be able to help by bringing about advancement of the industry.

So our interest is not as much in the financial part of the industry as we would like to see that pharmaceutically qualified personnel have scope either in the Universities or in the industry to develop the research and other technical expertise. From this point of view our Association has looked at the Patent Bill and we have felt that although there has been at one time some talk of abrogation of patents altogether, the Government has instead decided at the moment to amend it which we think will be conducive to the objects that we have in mind.

The Association agrees with a very large number of provisions in the Bill and I would not waste the time of the Committee by saying which way we agree. But there are just a few points where we feel that certain amendments will be liked by our Association members. We have chosen in our memorandum only a few points where we have complete unanimity amongst our members. In fact these were submitted in the form of memorandum. It is probably unnecessary for me to go pointwise at this stage. But there is one point that I would like to mention about clause 53 regarding term of patent.

In our memorandum you would notice from paragraph 8 that our Association has recommended that the period should be 16 years. We had further discussions on the subject and we do not feel that 16 years should be all that necessary. We would like to say that 10 years would be adequate provided that in some cases where perhaps a lot of time is wasted in launching a product, there be some facility of extension of time. If after the chemical research in the laboratory and registration of the patent, some 8 years were spent until it was possible to put this product in the market, in such special cases some consideration should be given for extension of the period.

Shri R. P. Sinha: I would like you to give us some examples. What do you mean by 'special cases'?

Shri K. C. Chatterjee: Take the case of thalidomide when sometime after the product was introduced, it was found to be toxic. The net result of that is that the pharmaceutical industry is now a little too fearful; it may now conduct clinical trials to make quite certain that there is no toxic effect on the present or even the next generation. It might take in certain specific cases much more time to assess its potentialities not only potentialities but toxicity and it may not be possible to introduce a product for 5 or 6 or 7 years after registration. In a case like this special consideration should be given. Otherwise, 10 years is adequate.

Shri V. B. Gandhi: Would you specify what you mean by special consideration? Do you mean extension of period by 2 years?

Shri K. C. Chatterjee: Extension of not more than 4 years. The only difficulty that comes to our mind is a legal matter and here we are not really competent to say very much. It may be picked up by persons who are legally more qualified than we are. If the same substance is used both pharmaceutically and chemically and if one has 14 year life and the other 10 year life, there may be some legal complications. But as far as our association is concerned, we shall be quite happy to see a 10-year period with provision for extension in very special cases. The rest of the matter we have already mentioned in our memorandum and I don't see much point in my going through it point by point, except that we would like to say that our association feels that Justice Iyengar's Report was a very comprehensive one and no doubt the Committee will take full note of this. That is all that I have to say at the moment unless there are questions from Hon'ble Members.

Shri R. P. Sinha: I would like to seek one or two clarifications from

the witnesses. I understand that the pharmacists who are members of this association are actually carrying on research in the pharmaceutical field.

Shri K. C. Chatterjee: Yes, Sir.

Shri R. P. Sinha: So you are the real people who make the real inventions. Am I correct?

Shri K. C. Chatterjee: There are two main types of pharmaceutical research that are going on in India just now. One is known as 'fundamental research' where attempts to discover completely new drugs are made. In this particular field, we have made very little progress, although some of our boys having worked under expert guidance particularly abroad have made a name. The other type of research is known as the 'product development research' which is going on in our country in various factories and I am an adviser to this particular side of research. And I would say that we have made a good deal of progress in this particular field. May I just clarify what I mean by 'product development? It is the conversion of a chemical into a product suitable for human consumption. Let me give you an example. There is an antibiotic called "Griseofulvin". This is useful in fungus infection. When the first ointment was made, it was found to be comparatively useless because it was not properly absorbed. Then the formulation had to be changed and now "Griseofulvin is used with very good results. So it is the conversion of the basic substance into a pharmaceutical product suitable for various types of use that we have in mind. This is called "product development research" and this has advanced extremely well in India. Regarding "fundamental research"—trying to discover completely new substances—we have a large number of people who with proper training or with proper guidance will be excellent scientists, but at the moment, we do not have very many on this side.

There is another kind of research which is known as "molecular rearrangement"; that is, if somebody has discoverd already an organic chemical which is useful in medicine, then it is possible to alter this particular molecule to some extent and either to increase the activity or decrease the toxicity. Some advance has been made by our members in this field also. But I don't think we have made much progress in the field of original research which leads to discovery of completely new chemotherapeutic substances.

Shri R. P. Sinha: I would like to know how a patent law helps the pharmacists. What I mean is this, that we provide the patent so that the actual research worker should draw benefit from that. We understand that research workers are engaged by organisations, by companies and industries but the patent is not given to the man who actually does research and invents but is given to the company where he is employed. Now I would like to know how it benefits people like you who actually make the inventions. I understand that West Germany is the only country where the royalty is shared, that is a certain portion of the royalty is given by the employer to the research worker. How do you benefit in India? How are you paid? Unless a remuneration or reward or compensation is given to you, how will it work as an incentive to you to do more and more research?

Shri K. C. Chatterjee: Well, it was our hope that perhaps the Select Committee could help us in this. This has been a grouse of some of the workers in this industry....

Shri R. P. Sinha: You have not said anything about that to us. Will you explain as to how the Select Committee can help you in this matter? Will you explain as to how we can help so that more and more

of Banerjees could come out in this country?

Dr. J. N. Banerjee: Sir, incentives are given in various ways. There are companies where there are provisions that if a patent is brought out by an individual, the benefit should be shared between the company and the individual concerned. There are other companies where the incentive is shown in other ways. If there is a scientist who is able to develop a number of products and has got a number of patents to his credit, he comes up more and more in the company in various positions. So it varies from company to company. But perhaps what you would like to know is how the patent law directly helps the pharmacist or the research worker. Indirectly he is benefited for the patent that he invents directly depending upon the nature of the commitments he has got to the industry for which he works. The company also derives benefit from his invention. After all the company pays money for the research. He is not the only man working there. He is only one of the many people engaged in research in the company and his work may become successful. The company is paying a lot of money for the research. The company can encourage research by saying that their inventions or the inventions made by the compnay are protected and the successful worker will be rewarded.

Shri R. P. Sinha: Now, for example, take the Copyright Act. The author gets benefit under the copyright law for 50 years. If he dies, then his children will get the benefit. Now suppose a brilliant scientist as a direct result of this research gets In Germany, I am told they share the patent. I would like to know what you have in your mind when you say that the Joint Committee should help you. What do you mean by saying that the Joint Committee can help. Can you give us any proposals?

Shri K. C. Chatterjee: One proposal that could be made is that the patent could be taken jointly by the research worker and the company. That would be of help. There is that system in some places—I think in the U.K.—where although the person has been working in the research laboratory of a company, it is in his name as well as the company's name that the patent is taken.

Dr. J. N. Banerjee: I think, Mr. Chatterjee tried to make this point clear in the beginning that our interest in the Patent Bill is that we have a number of workers—our members—who are in the pharmaceutical companies, and it is in our own interest to see that the atmosphere is conducive to further research in various fields. This is possible by having, as you are doing here, Sir,—a Patent Bill which will produce more research work and the companies will be prepared to invest in research. Also technology today is more international. There should be give and take. There should be flow of technology from country to country, so that we too develop ourselves. We should buy wherever we want to. In order to do so, the atmosphere should be conducive. That is where the Patent Law could give security to the people who are going to invest money in research, and indirectly, the profession is benefited.

Shri R. P. Sinha: What amount of money is being spent on research work on this basic, or product, or the three types of research works you have said, in this country? We have been told that the research expenditure is so heavy that unless we provide adequate patent protection, the people who spend the money on research work cannot get compensation. Could you please tell us what should be the relationship that should exist between the research investment and the patent protection?

Mr. Chairman: We have got the answer yesterday. Yesterday people were here who gave that answer.

Shri R. P. Sinha: I would like to know from them.

Mr. Chairman: Have you got the figures as to what amount is being spent on research?

Shri K. C. Chatterjee: We cannot give the figures.

श्री चौरड़िया : आप ने अपने मैमोरेंडम के पेज 2 पर कहा है कि जब गवर्नमेंट किसीका पेटेन्ट राइट ले ले तो उस को कम्पेन्सेशन देना चाहिए। क्या आप इसमें वे परिस्थितियां भी शामिल करते हैं, जब डिफ़ैंस का मामला हो या राष्ट्र के हित का प्रश्न हो, आदि ? क्या आप चाहते हैं कि जब गवर्नमेंट जनता के हित में पेटेन्ट राइट ले ले, तब भी उसको कम्पेन्सेशन देना चाहिए ?

Shri K. C. Chatterjee: What we had in mind was that when there is an emergency, the question of compensation does not really come in, but under normal circumstances, we feel that for the development of the research and industry in the country, since there is already a provision of compulsory licensing, it does not seem necessary that this particular clause need be there.

श्री चौरड़िया : किसी को पेटेन्ट राइट दिये जाने पर शुरू शुरू में वह बहुत अधिक कीमत लते हैं। उदाहरण के लिए विटामिन बी–12 की कीमत शुरू शुरू में दो हजार रुपये प्रति ग्राम रही, जबकि बाद में वह मार्केट में 40 रुपये प्रति ग्राम के हिसाब से मिला। इसी प्रकार और भी कई आइटम्ज हैं। मैं उनका जिक्र नहीं करना चाहता हूं, क्योंकि आप उनको जानते हैं। क्या आप कोई सुझाव देंगे, जिससे कन्जयूमर को भी राहत मिले और इन्वेन्शन करने वाले का भी नुक्सान न हो ? क्या आप कोई उचित प्राइस निर्धारित करने के सम्बन्ध में कोई सुझाव देना चाहेंगे ?

Shri K. C. Chatterjee: Actually you notice that in our Memorandum we had selected only a few points where we have a complete agreement amongst our members. On matters touching the price and trade, if we do express any opinion here that will have to be regarded completely as our personal opinion because we have not got any brief from the Association on the points other than those that have been agreed upon. We have discussed this for many days and this is the greatest agreement that we have got amongst our members and our members felt it should be only these few points on which we should give any evidence. I am just wondering whether we could be excused in not answering many points.

श्री चौरड़िया : आप ने अपने मेमोरेंडम के पेज 3 पर अपील्ज़ के बारे में कहा है : ". . . बाई फ़िक्सिंग टाइम लिमिट्स फ़ार इट्स डिसिज़न्ज़ आन स्पैसिफ़िक मैटर्ज़" । जब अलग अलग प्रकार के कैसिज़ रहते हैं — किसी में टाइम ज्यादा लगता है और किसी में कम—, तो इस अवस्था में टाइम लिमिट फ़िक्स करना कैसे सम्भव है ?

Shri K. C. Chatterjee: Here we can only hope that it would be done expeditiously.

Mr. Chairman: You can give your personal views. Your Association may not have authorised you to give opinion on this. You are an expert.

Shri K. C. Chatterjee: On what point?

Mr. Chairman: On the previous point raised *i.e.* on the price question.

Shri K. C. Chatterjee: Will you repeat the question please?

श्री चौरड़िया : किसी को पेटेन्ट राइट दिये जाने पर शुरू शुरू में वह बहुत अधिक कीमत लेते हैं। उदाहरण के लिए विटामिन बी–12 की कीमत शुरू शुरू में दो हजार रुपये प्रति ग्राम रही, जब कि बाद में वह

मार्केट में 40 रुपये प्रति याम के हिसाब से बिका । इसी प्रकार और भी कई आइटम्ज हैं । मैं उनका जिक्र नहीं करना चाहता हूं, क्योंकि आप उनको जानते हैं । क्या आप कोई सुझाव देंगे, जिससे कन्ज्यूमर को भी राहत मिले और इन्वेन्शन करने वाले का भी नुक्सान न हो ? क्या आप कोई उचित कीमत निर्धारित करने के सम्बन्ध में कोई सुझाव देना चाहेंगे ?

Shri K. C. Chatterjee: As I have said, this will be my personal view. I do not think that there need be very great difficulty in Government taking some sort of power to look into the cost and productin problems.

Shri Peter Alvares: My suggestion is personal view may not be insisted upon. After all he is a representative of the Association.

Mr. Chairman: Why not? He is an expert.

Shri R. P. Sinha: I would like to make a statement. These two witnesses represent certain Association but they are, in their own right, great experts in this field. Sir, Mr. Banerjee represents one of the biggest foreign concerns where (we are told he is working in the capacity of probably Joint Managing Director) no patent products are manufactured. This is what he told us when we visited the factory. My knowledge is this, he is one of the most respected men in the profession. I would request you after everybody has put questions to give me one more oppportunity to put questions, and I would request Mr. Banerjee to answer my questions to enable us to find solutions of the various problems that we are facing in this committee. He can do so in his personal capacity.

Shri V. M. Chordia: You have mentioned in your Memorandum that some clauses should be amended in accordance with the recommendations made by Justice Ayyangar. Do you have some differences with that report also?

Shri K. C. Chatterjee: This is again a personal question.

Shri V. M. Chordia: You have come here as a witness.

Mr. Chairman: You may say it is my personal opinion.

Shri K. C. Chatterjee: Well, we do not agree with everything that has been said in the report. But, on the other hand, if you ask me about the points on which we do not agree, I am afraid I personally am not prepared. I must excuse myself by saying that I was not supposed to be leading this deputation.

Shri V. M. Chordia: You must have seen the Indian Pharmaceutical Association's report, addressed by Shri Rohit. You have given there a schedule, Annexure V, in which you have given gross profit and other figures also. Can you give us some figures as to what percentage is spent on advertisement and what percentage is spent on research?

Shri K. C. Chatterjee: I personally cannot. I will request Mr. Banerjee to answer that question.

Dr. J. N. Banerjee: I am afraid the industrial point of view, as Mr. Chatterjee has said is not represented by the Association, and I am unable to answer this question.

Shri B. K. Das: I find from your Memorandum that in some cases you want that there should be a provision for compensation. I want to know what should be the basis of that compensation, if it is at all conceived.

Shri K. C. Chatterjee: Our idea was that normally when there is compulsory licence there should be no distinction made between the Government and the rest of the community.

Shri B. K. Das: There should be a provision of compensation and there

should be some basis. That was my point.

Shri K. C. Chatterjee: The basis should be exactly the same as compulsory licensing to any other party outside.

Shri B. K. Das: But here there is a provision for royalty of 4 per cent. Do you agree to that amount? That is the ceiling we have put there.

Shri K. C. Chatterjee: Well, this was a matter which was discussed by our Association and we felt that as scientists are wanting to fall in line with the Government it should be our endeavour to agree to this. We had a number of our members who pointed out that it may not always be possible to get a patent at this particular price. This, I am afraid, is one of the most debatable points and we had amongst ourselves difference of opinion on this. In general, we felt that if a businessman really wanted a good patent and if he had to pay to be able to procure this, as is done in Japan, I am told, he will only pay a higher amount if it is worthwhile for him. Perhaps this particular ceiling may act against the country. But, then, again the opinion in our Association is divided on this. That was the reason why we have not put it forecfully in our memorandum.

Shri Shyamnandan Mishra: There is no need to embarrass them any further.

Sardar Daljit Singh: I want to know whether you agree with the opinion given by Justice Ayyangar.

Mr. Chairman: He said so. They agree with the recommendations of the Ayyangar Report.

Sardar Daljit Singh: One thing more. The Development Council, after taking into consideration all the facts affecting Indian production suggested that the local manufacturers should not pay more than 60 per cent above the c.i.f. price. I want to know your opinion. Do you agree to this suggestion?

Shri K. C. Chatterjee: This is again a matter of personal opinion, because we have not discussed this issue in our Association. At the moment, whenever a manufacturer starts making any basic manufacture, he has been procuring the raw-materials, as far as possible, from the country, and in most cases he has been paying very much more than 60 per cent for his raw-materials. Quite often, it becomes almost impossible to meet this particular ceiling the Development Council thought of at one time. This is my personal experience with some of the companies I am associated with as adviser.

श्री ब्रज बिहारी मेहरोत्रा : नये नये आविष्कार होते रहते हैं । मैं यह जानना चाहता हूं कि आविष्कारक को उचित लाभ भी प्राप्त होता रहे और साथ ही जन-साधारण को लाइफ़-सेविंग ड्रग्स और दूसरी मेडिसिंज मॉडरेट प्राइस पर मिलती रहें, इन दोनों उद्देश्यों की पूर्ति के लिए आप पेटेन्ट की क्या अवधि रखना चाहते हैं ।

Shri K. C. Chatterjee: I think, in a way, we have answered this question. Again, that is my personal opinion. The Association will be quite happy to accept ten years unless there are legal difficulties, in which case we would like no distinction made between a pure chemical and a pharmaceutical, because a pure chemical is quite often a pharmaceutical also.

श्री ब्रज बिहारी मेहरोत्रा : क्या ऐसा प्रतिबन्ध लगा देने से विदेशों में होने वाले आविष्कारों से हमारे देश को लाभ पहुंचने में अड़चन नहीं आयेगी ? क्या आप कोई ऐसा सुझाव देंगे, जिस से हम दूसरे देशों में होने वाले आविष्कारों से लाभ उठा सकें और साथ ही आविष्कार करने वालों को भी इन्सेन्टिव मिले ?

Dr. J. N. Banerjee: We have said this in a very general manner in our memorandum that this is affected by a number of clauses in the Patents Bill proposed—period of patent, question of royalty etc. In general, what we said is that the atmosphere should be conducive so that the Indian entrepreneur should be in a position to buy the know-how or the patent for exploitation in the country. He should be in a position to pay whatever royalty he has to. There are a number of things which really affect this.

श्री ब्रज बिहारी मेहरोत्रा : अब तक जितने भी पेटेन्ट्स हुए हैं, उनमें नब्बे परसेंट विदेशियों द्वारा लिये गये हैं और उनमें अधिकतर ऐसे हैं, जिन का प्राडक्शन यहां नहीं होता है और जो बाहर से इम्पोर्ट किये जाते हैं। क्या आप इस स्थिति में सुधार लाने के लिए कोई सुझाव देना चाहेंगे ?

Dr. J. N. Banerjee: This is a question of general development of the pharmaceutical industry in the country. There are not only patents which are not exploited in the country. There are a large number of drugs on which there are no patents, which are not manufactured in the country. That is more because of lack of technical know-how? It is really the industrial base of the country which has to be improved.

श्री ब्रज बिहारी मेहरोत्रा जिन चीजों का पेटेन्ट लिया जाता है, उनकी तरफ लोगों का आकर्षण एक दम से बढ़ जाता है, जब कि जिन चीजों का पेटेन्ट नहीं लिया जाता है, उनको लोग इग्नोर करते हैं। क्या यह बात सही है ?

Dr. J. N. Banerjee: I could not answer the question.

Shri Kashi Ram Gupta: Are inventions these days the result of individual scientist's effort or collective effort of more than one scientist?

Shri K. C. Chatterjee: I shall have to go back to some of the points that I have touched before.

If you are talking about fundamental research leading to the development of a chemotherapeutic drug, then it is a complete team work, and this teamwork so far has been tried in Government institutions in various countries without conspicuous success. So far, it is the development of industrial research which has produced anything in the way of fundamental chemotherapy which is worthwhile. This organisation is normally a very huge one, so much so it may have to produce something like seven to eight thousand drugs of which one may be of some use. Then there is the other part, where the basis substance which somebody has discovered is altered slightly to make a different drug which gives some benefit perhaps in activity or lessening of toxicity. This work can be done by individual chemists. The third type, product development, can be done by a very small team. It does need a team, but a small team.

Shri Kashi Ram Gupta: May I conclude then that so far as fundamental research is concerned, as the expenses are heavy, the individual scientist is not in a position to do much there?

Shri K. C. Chatterjee: You are correct.

Shri Kashi Ram Gupta: Since basic research has to be done in an organised way either by Government or big industries, and applied research can be done on a smaller scale, may I conclude that when somebody applies for a patent it is for product research and that basic research has been done somewhere else?

Shri K. C. Chatterjee: That will depend on how the patent has been covered. Some patents are covered by the basic substance as well as all products thereof. There are some where patent is taken merely on the fundamental chemicals.

Shri Kashi Ram Gupta: In this Bill, the process leading to a product is to be patented, not the product itself.

Shri K. C. Chatterjee: I think we are slightly confusing the matter. Let us take the concrete case of sulphathiazol. If I am taking a product patent, whichever way you make it, it is covered by the patent, so that, starting from sulphathiazol, other researches that come up would not be covered by this patent at all. Our scientists would be free to take sulphathiazol and convert it into other products, and those will not be covered.

Shri Kashi Ram Gupta: Is it a fact that most of our scientists employed by organised industries are remunerated in bulk and not on a percentage basis, in addition to their pay, for their inventions?

Dr. J. N. Banerjee: It differs from company to company. I have no experience of this.

Shri Kashi Ram Gupta: You have said that a ten year period will be generally sufficient. May I know whether it is from the date of completion of the specification as provided in the Bill or from the date of the grant of the patent? I want to know whether you have considered it.

Shri K. C. Chatterjee: It is from the date of completion of the specification.

Shri Kashi Ram Gupta: My last question is this. Has your Association been able to consider the clause on revocation or was there any difference of opinion on it?

Shri K. C. Chatterjee: Anything that we have not mentioned here are such controversial matters that we would rather not refer to them.

Dr. C. B. Singh: I suppose Mr. Banerjee is a scientist.

Dr. J. N. Banerjee: I started my life as a scientist and I am now in the capacity of a Joint Managing Director. The research department is under me. But I cannot say that I am purely a scientist now.

Dr. C. B. Singh: All right. Now, during the last 15 years, when we see the list of new single chemical entities discovered during the last 15 years in various countries, we find that the number is 355 in USA, 38 in Switzerland, 28 in UK, one in Italy and one in India. Now, could you please tell us why, in spite of such a large number of talents in India—you have mentioned that there are 4000 pharmacists in India who are doing good work—the number of single product patented or discovered is only one, as compared to round about 355 in the USA?

Shri K. C. Chatterjee: India has come out with one drug that has come out from Hindustan Antibiotics, where we have a sizeable research department. That department does compare reasonably favourably with the research departments I have seen elsewhere in the world.

Dr. C. B. Singh: You are more or less at the top of this firm as well. So, may I know from you what is the amount of money that you are spending on research at the moment, taking your turnover into account?

Shri K. C. Chatterjee: I personally can only hazard a guess. In the research laboratories that I am associated with as adviser to various companies, I would say that in the middle-sized companies where I am adviser, it is no more than about one and a half per cent. I am only expressing my personal opinion.

Dr. C. B. Singh: Yesterday we were told by a very eminent gentleman that it is almost a drop; not even 0.1 per cent.

Shri K. C. Chatterjee: My own experience has been with the companies that were in difficulties.

Dr. C. B. Singh: A very important question today is this: out of a large number of products which are being processed by the pharmaceutical firms, what is the proportion of patented drugs to unpatented drugs, and what is the percentage?

Shri K. C. Chatterjee: If you are talking about the number, then, I think it is not very significant, but if it comes to the amount involved..

Dr. C. B. Singh: I am talking about the number of patented drugs being sold out and the number of unpatented drugs. I want you to tell us, as a pharmacist, what is the proportion of the patented drugs that you are selling in the market as compared to the unpatented drugs.

Shri K. C. Chatterjee: About 80 per cent will be unpatented.

Dr. C. B. Singh: I am talking about the number, not the money. Is it not greater in number?

Shri K. C. Chatterjee: It may be more.

Dr. C. B. Singh: The greater part of the processes that you are putting in the market is unpatented. Is that correct?

Shri K. C. Chatterjee: Yes.

Dr. C. B. Singh: You have said that the pharmacists wanted help. What will you suggest? Will you suggest that we could put down a compulsory expenditure on research on the sale outturn of the company so that they will be bound down by a schedule that they will spend so much money on research?

Dr. J. N. Banerjee: The companies have to exist more or less upon the product of their original research, and so, the companies must bring out more and more new drugs and they would have to spend a large amount of money on research. But by compulsion, I do not know how far we will be able to force the pharmaceutical industry to spend. It depends upon various companies.

Dr. C. B. Singh: You know that they are not doing it and you are aware of it. I am asking the question whether something can be done so that they will be compulsorily bound down to spend money on research. I know it depends upon the directors of the firm.

Shri K. C. Chatterjee: Here again, the Association would like to see it done, but I do not think we can suggest how it can be done or what should be the specific method.

Dr. C. B. Singh: In some countries they are spending about 5 to 10 per cent of their outturn on research, and some countries are spending more than that. Would you like to suggest something?

Dr. J. N. Banerjee: The first thing today in India to do is to establish a pharmaceutical industry where our needs are met. We may not be able to start running them just now. We might be able to accept things which have been discovered in other parts of the country. We are miles and miles and years and years behind other countries. Let us buy those which are already available and then start making our own research.

Dr. C. B. Singh: You have been doing nothing but copying others all these years. You still want to perpetuate that copying?

Dr. J. N. Banerjee: Only a few years ago our pharmaceutical industry started. Let us make those drugs which our country needs today and then from that basis let us proceed, because the industry can spend on research only when they have sufficient profit which they can plough back into their research organisation. Unless the outturn is high, you cannot force anyone to do research by compulsion.

Dr. C. B. Singh: You are speaking as Director of the company; not as a scientist. Thank you.

Shri Babubhai M. Chinai: The witness has said that they would be satisfied with a period of 10 years for a patent. They have themselves said that they represent only the research employers in their individual capacity on this association. May I know whether their view as individuals is shared by the pharmaceutical industries as such? Even 16 years, according to some of them is not sufficient, because the initial 6 or 7 years are taken away in primary research and by the time they come with a definite proposal, the period left is very short. So, is your view shared by the industry as such.

Shri K. C. Chatterjee: No; industry would like a longer period.

Shri Babubhai M. Chinai: If that is so and if it is the industry which will be paying the research scholars, how is it that you express a view which is contrary to theirs?

Shri K. C. Chatterjee: A large number among us are holding high positions in various industries and we hope to persuade them.

Shri Babubhai M. Chinai: Persuasion comes afterwards. The question is whether it is really practicable.

Shri K. C. Chatterjee: The industry says in certain cases it takes a very long time before a patent can be exploited. If the Government agrees to that proviso, then we have no objection.

Shri Babubhai M. Chinai: Regarding clauses 99, 100 and 102, you say it is unfair that the public sector companies or Government departments should have the patent free. Is this observation of yours based on the Constitution of India which says that Government has no right to take away anybody's property free and compensation should be paid?

Shri K. C. Chatterjee: We were not thinking about the Constitution. We were thinking that if you are going to have a patent system, the protection should be there.

Shri Babubhai M. Chinai: You have said that only 1 per cent of the turnover will be spent on research. We are very badly in need of research to bring down the cost of production so that apart from local consumption, we can export our products. So, don't you think there should be more spending on research and if necessary Government should give some incentive for more research so that ultimately the Government and the people will be benefited?

Shri K. C. Chatterjee: There is no doubt about the need for more money and efforts going into research. How to ensure it, I am afraid we have not been able to come to any decision about that.

Shri P. K. Kumaran: In your memorandum you say that in developing countries, a judicious compromise should be made between effective patent protection and measures to safeguard against possible abuse of such protection, etc. Will you elaborate what you mean by judicious compromise?

Shri K. C. Chatterjee: I mean the sort of thing the Bill wants to do. Compulsory licensing is one such compromise. The provision regarding royalties is another.

Shri P. K. Kumaran: So, on the important points, you consider the Bill is a judicious compromise?

Mr. Chairman: They agree that it is so.

Shri P. K. Kumaran: They object to clause 95(3).

Mr. Chairman: They say when there is an emergency they agree to it.

Shri P. K. Kumaran: If the drugs which we require are available in the

country only at a very high cost and if Government decides to import it, will they object?

Shri K. C. Chatterjee: If there is no emergency and merely because a product is available outside at a cheaper price than in the country the Government wants to import it, our association would object to it. We would rather wish that the Government forces the industry to make it in India at a cheaper cost by giving it all incentives and help. Otherwise, the Indian industry will be hampered.

Shri P. K. Kumaran: Then why do you object to clauses 99, 100 and 102 which give the Government undertakings the right to exploit the patent?

Shri K. C. Chatterjee: Compulsory licensing is there and we have no objection to it. We are in favour of manufacturing any product in India.

Shri P. K. Kumaran: You are in favour of Government being vested with extra powers to force the industry to manufacture it here?

Shri K. C. Chatterjee: Yes.

Shri Dalpat Singh: In your view, should the time for a patent be the same or different in the developing countries and in the developed countries? What are your reasons?

Shri K. C. Chatterjee: I think one of the problems of all developing countries is that technologically it takes them considerably more time to put a product in the market. After the chemist has finished his job, the clinical assessment has to be made. Simultaneously with it, the technological aspect of large-scale manufacture will have to be considered. In both these two fields, at the moment, our country has not made very great advance. Comprehensive clinical trials, in a sense, that is necessary for drug research is not there in our country. It does take at least three years before we can make any assessment. Similarly, it is not enough to design a plant. We need first to develop not only the laboratory method but a method for manufacture. Having done that we need chemical engineers to design the equipment. When they have designed that, it takes a very long time to get delivery of the plant. To give you an example, for reaction tanks, orders placed on even very well equipped firms will not take anything less than two years. Therefore, in a developing country it is not easy to exploit a patent quickly. In the United Kingdom, about which I have some experience, there are certain plants which are called multi-purpose plants. Drugs are coming in one by one and becoming obsolete. Therefore, it is necessary that the research work done, is exploited very quickly. They have certain plants which with certain adjustments can within a period of a month take up an entirely new chemical substance. On that basis, it will be my submission that a developed country need not have a very large number of years. Supposing we want to say that it is reasonable to expect a research to be exploited in a period of 7 to 8 years, by giving just a year or two extra perhaps a developed country may be able to do that, but our country will take an additional three or four years in the beginning to be able to put anything in the market.

Shri A. T. Sarma: You have stated in the concluding paragraph of your memorandum that certain clauses are to be amended according to the recommendations of Justice Ayyangar. Will you enlighten us by giving three or four concrete instances?

Dr. J. N. Banerjee: We do see that there are a number of things in the present Bill which are contrary to the recommendations of Justice Ayyangar. The general feeling in our Council was that Justice Ayyangar's report was based on a very thorough study of the subject and therefore it should receive full consideration of the Committee. There is, for example, clause 2(h) about the definition of "public undertaking". Jus-

tice Ayyangar has said that the definition should be restricted and it should not include organisations like the CSIR. We see that the definition as given in the present Bill is rather wide and is contrary to what Justice Ayyangar has said in his report. There is also the clause relating to royalty. Although the considered view of a majority of members of the Council was that 4 per cent is all right, there is another view that if you place a ceiling on royalty it might hit the interests of a genuine Indian entrepreneur. Supposing there is a certain process which a certain foreign company has, a truly Indian company in order to make this process more economic would not be able to have it because, after all, you cannot force anybody to part with his property unless he is given the price he wants for it. The amount of royalty compared to the total cost of production is not much and, therefore, my feeling is that we should not put a ceiling which will truly put an Indian entrepreneur at a disadvantage. There are other means by which the Government can put a ceiling. There are other clauses like appeals etc., where we have said that it should be judicial appeal. We have also said that there should be screening of pharmaceutical manufactures in a more vigorous way to see that a man is really competent to do the job and make standerd drugs etc.

Shri K. V. Venkatachalam: Is your organisation the only organisation representing pharmaceutical dealers in India or is there any other organisation?

Shri K. C. Chatterjee: There are chemists and druggists associations, there are hospital associations, pharmacists association etc. But the slant in almost every case is towards trade union activities. A large number of these associations are members of our organisation as well. So we have tried to keep the trade union activities as far out as possible. We cannot claim that we are the only organisation, but I think we can claim that we are the only academic sort of organisation.

Shri K. V. Venkatachalam: Could you say that your membership includes quite the large majority of the people who are in this field?

Shri K. C. Chatterjee: I think we can say so.

Shri K. V. Venkatachalam: From that point of view, I think the Joint Committee will attach the greatest importance to any evidence that you might give to the Committee. I would like to ask one or two general questions. Even if you are not able to answer them from the point of view of the Association as such, if you could answer them in your personal capacity, it would be valuable to the Committee. First, what is your own impression about the amount of money spent on research? You were saying that it is not adequate. But is any money spent on research at all now?

Shri K. C. Chatterjee: CIBA Research Centre is the only one which has done something in an organised way. Bengal Immunity Research Centre is also reasonably well organised. Apart from them, I personally think that we do not have any research organisation of the type we require.

Shri K. V. Venkatachalam: You were mentioning three types of research—basic fundamental research, molecular changes and product development.

Shri K. C. Chatterjee: Product development is done in all medium-sized factories. I am not suggesting that is not important, but that part of the research which is money-consuming is done, as far as I know—I may be wrong—only in two centres, namely, CIBA and Bengal Immunity.

Shri K. V. Venkatachalam: What about public sector factories?

Shri K. C. Chatterjee: I am very much impressed with the research that is being carried out at Pimpri. I

think they have got a very good research centre. That is the type of research that should be done. So far as the national laboratories are concerned, if we compare them with what is being done outside India, they are not doing anything at all.

Shri K. V. Venkatachalam: What is your own impression about the development of pharmaceutical industry in India during the last ten years? Are they making merely formulations or does it go down to more basic levels?

Shri K. C. Chatterjee: We have made tremendous strides; there is no doubt about that. My own impression is that we are doing extremely well. I would like to see the production costs going down. But when I raise this point I am told that the prices of raw materials have gone up.

Shri K. V. Venkatachalam: Quite an amount of evidence has been given before the Joint Committee that the total effect of this Bill, when it becomes law, would be to retard the development of pharmaceutical industry. The intention of patents in the final reckoning is to produce more good quality products. So, what is your own view about the effect of this Bill?

Shri K. C. Chatterjee: Except for the ceiling on royalty that you have put down, which might cause some difficulties, I personally do not think that it will retard progress.

Shri R. P. Sinha: The prices charged by the industry for patent drugs are very high and the reason given is that they have got to meet the cost of research. It is true that the community has got to meet the cost of research. At the same time, the prices of life-saving or health-giving drugs should not be unreasonably high. Since Sandoz would be making a reasonable profit on their investments, I would like to know from Dr. Banerjee as he is running a model laboratory whether the profitability in patent drugs today is unreasonably high and, if so, whether some steps should be taken through the medium of the Patent Bill to bring down the profitability without affecting the research on drugs.

Dr. J. N. Banerjee: We are now discussing the Patent Bill and I think cost does not come within the purview of the Patent Bill which you are considering. You would agree that research costs a lot of money in the laboratories and that the few products which come out of the laboratories should bear the cost of research. I could not say what is reasonable profit. I am sure the Government have got adequate powers already to control the prices, outside the purview of the Patent Bill. Above all, there is competition. So, the best way to control the price is to have free trade. Let a number of companies make the same drug. I am sure competition will ensure that prices of drugs come down. Even today in the pharmaceutical industry there is a lot of competition. If some company comes out with a new drug, it does not mean that it has a monopoly. Another company could make a drug of that class. Then, the cost of the drug has something to do with the cost of raw materials, cost of energy etc. Because of these, the cost of even unpatented drugs is higher in India.

Dr. C. B. Singh: The Government of India is spending Rs. 30 lakhs to Rs. 35 lakhs on the Central Drug Research Institute, Lucknow, which has a good laboratory and other facilities. Has CDRI been able to make any new drugs?

Shri K. C. Chatterjee: As far as I am aware, no original drug has come out of CDRI.

Dr. C. B. Singh: You are representing a very important organisation and probably you are keeping in touch with what the CDRI is doing. Have you any idea of the problems on which they are working in the CDRI?

Shri K. C. Chatterjee: Not recently.

Mr. Chairman: We will try to visit that.

Shri Borkar: As you have represented, drug inventions have got a special significance to us. Unlike other inventions, where the invention is the property of an individual and the experiments are confined to the precincts of a room, in the case of drug research you have to go out into the field to the hospitals, and carry out clinical trials, maybe, on thousands of patients, before you market a drug. In that sense a large number of patients on which the drug is tried out participate in your research. Unless you give something back to these people, you will not have done your duty by those people. In this context do you not think that the patents of drugs should be a special consideration on the part of researchers and firms who do research? Although you say that the question of prices is separate but it does have a bearing on prices, to the extent that medical people and patients participate in research. So, should you not give anything back to them in the shape of reduced cost of drugs?

Shri K. C. Chaterjee: I must say that this is a new angle that has not occurred to me before. I have a feeling that Dr. Banerjee has answered your question by saying that at the moment we are concerned with how to make things in India and how best we can make them. As regards price fixation, really, the Government has the power to guide the industry and to force us also. There should not be any reason why this costing should not be available to Government for inspection for fixing a reasonable margin of profit to the people who are manufacturing them. But I cannot see how people who have been unknowingly co-operating with us in the clinical trials could get a fairly direct benefit —in a general way, yes; but, there again, I think, the best possible remedy would be for the Government not to let the industry make too much profits.

Mr. Chairman: Thank you very much, gentlemen.

The witnesses then withdrew.

II. Bundesverband Der Pharmazeutischen & Industry E.V., Frankfurt Am Main, West Germany.

Spokesmen:

(1) Mr. Curt Engelhorn. President.

(2) Dr. Scholl, Adviser.

(The witnesses were called in and they took their seats)

Mr. Chairman: Gentlemen, the evidence that you give is public. It will be printed and distributed to all our Members and will also be laid on the Table of Parliament. Even if you want anything to be treated as confidential, it will be printed and distributed to our Members.

We have received your memorandum and it has been circulated to all the Members. If you want to stress any particular point or wish to make any new point, you may kindly do so. After that our Members will ask you some questions.

Mr. Curt Engelhorn: Mr. Chairman and hon. Members, it is a privilege for us to be able to present our views to this Committee. We have come all the way from Germany since we consider your task a very important one. Please accept our observations as sign of co-operation and interest in the welfare and development of your nation.

I would first like to introduce myself. My name is Curt Engelhorn. I am President of the German Phamaceutical Manufacturers' Association. I am also President of the C. F. Boehringer & Sons, Mannheim, Germany. I have brought with me Dr. Scholl,

who is Secretary of the Association and a specialist in German patent law. He will be able to answer or help me answer detailed questions in regard to the German patent law.

As far as our Association is concerned, it has 657 member-companies. These 657 companies account for 95 per cent of the production of pharmaceuticals in Germany. I can say that our Association is highly respected and that it is heard by our Government as well as the governments of the Common Market countries for the preparation of important legislation.

Next I would like to point out that we are very much impressed by the parliamentary procedure that is followed in this country. We have the feeling that a fair hearing is given to many different parties and we have the feeling that this does justice to the complications and the complicated side of this subject you have under consideration. Knowledge, of course, of all these many sides leads to responsibility and we admire that this responsibility is not being evaded. We consider this type of hearing an important and possibly unique precedent.

Now, I would like to point out to the hon. Committee the three Roots from which my interest, in this case, stems. The first is an interest in your country which goes back to a very close friendship which I formed with one of your countrymen when we went to the University together. The second is a joint venture which my company formed with Indian partners in Bombay. In this joint venture, we are producing drugs and we are producing one very important drug chlorophenicol, Prospectrus Anti-Biotics, a board spectrum Anti-Biotics in considerable volume. The third root is an old interest and friendship that exists between Germany and India. I do not have to go into details. I believe, you are aware of some of these aspects that go back many many decades or even centuries.

The steady progress which your country is making is being watched with sympathy and admiration in my country. We realise that the problems you are faced with are mountainous or, to use an Indian express which is even more appropriate, Himalayan. Your determination to solve these problems democratically finds our admiration. The co-operation between India and Germany has grown tremendously over the years and we believe that it should grow further. Gradually, an inter-dependence between our countries in certain aspects is developing and we believe in view of such relations, important policy decisions are observed closely since the effect of such decisions go beyond the material plane. They form the basis of future co-operation and Germany wishes India to progress and prosper.

We feel that in this particular issue of patent legislation there are similarities in the situation we have faced in the past and the situation that you are facing today. A similar or identical approach to the solution of these problems would, of course, help mutual understanding. We also hope that our observations may contribute something in helping you to solve your problems. This, of course, has an influence on the general attitude in regard to the readiness to invest money in a country or to start any sort of enterprise.

The Patents Bill you adopt will have much to do with economic advancement of India. Many studies show that the fundamental approach cannot be different between developed and developing nations. I believe the root for that is that research is international, more so than almost any other human activity. Specially, the research in natural sciences, in engineering and in medicine is of that type. Therefore, the research utilisation and the protection of certain fruits of research is an international problem. This is demonstrated by the fact that the United Nations have given considerable attention to this problem. There is a so-called BIRPI

model law for under-developed nations in order to provide guide-lines for such laws in such countries. The Paris Union exists as a BASIS for countries which have patent laws which differ in details but which all adhere to certain principles. It was interesting for us to see that even countries like Russia joined the Paris Union. Then, there is the draft of the European Patent Convention, an attempt to coordinate European Patent law as closely as possible so as to make the flow of ideas back and forth even more easy.

We would like to report on the German experience. This, after all, is what we know most about. As you well know, the last War was a tremendous stain on Germany's economy. When the War was over, most of our production facilities were destroyed. I remember very distinctly, at the time I was still very young, I could hardly imagine that this could ever be rebuilt. The patents were confiscated by the Allied Nations that had been fighting against Germany and these patents were the German intellectual property. One aspect to that I find quite interesting is that even though the patents became free and anybody could use German patents outside Germany, the Allied Nations did not get much out of that. It so happened that using other people's ideas and other people's inventions without any contact with the original inventor did not seem to turn out to be a good proposition.

Then, we came into the reconstruction phase after we went through the devaluation of our money at 10:1, that is, for 10 Reichs Marks which we had at the time, we got 1 D.M. After this devaluation, the reconstruction we ahead at a much more rapid pace. I would like to give you a few figures here. In 1953, the gross national product was 147 billion D.M. and in 1965 it had grown to 448 billion D.M. But, I think, the figure in regard to exports is even more interesting. In 1950, the exports were to the tune of 8.3 billion D.M. and they grew in 1965 to 71.6 billion D.M., that is, about 9 times as much.

Germany has maintained its patent system in spite of the fact that German patents were not recognised in almost any other country. We see now that this was a wise decision. At the time, it was controversial and the idea of retaliation by not recognising foreign patents in Germany, of course, played an important part. It was realised, however, that, by not recognising foreign patents, we would not get any support, any positive attitude, of foreigners who could help us. Our state was very difficult inasmuch as we had had a very high level of research before the War. But so much went into the Defence effort and so much was completely interrupted by the War that the 10 years between 1939 and 1949 or 1950 threw us back very considerably. We had to find connection again with international research. In order to accomplish that, it was decided to keep the patent law and continue to give full protection to foreigners, and free use of taking of licences was made. The result was a considerable outflow of royalties. I can tell you that we are spending more in royalties than what we are taking in. We have the exact figures with us and we can give them to you.

The German patent law, I would like to highlight quickly, has a number of provisions that, I think, are of interest to you. The protection that we give in the German patent law to the inventor lasts for 18 years.

Mr. Chairman: From which date?

Mr. Curt Engelhorn: From the date of application.

Now the question arose in connection with the Kefauver hearings in the United States whether there should be a change, whether the term of patents pertaining to drugs should be shortened. There were two reasons why no such step was taken seriously. One of them was one of principle. It was felt that one cannot

discriminate between different categories of research or invention. The second was that it was considered of little consequence whether the duration of patent protection was 18 or 20 or 16 or 14 years and in order to really make a difference, one would have to cut down the duration of any particular group of patents very much and this, it was felt, was not warranted. I believe, however, that giving adequate protection to the inventor played a very important part. In Germany we have the institution of product by process protection. This means that, in the case of chemical inventions, the processes are protected by patents and with it also the product produced by such processes. It is important to point out, however, that with this type of protection, it is very difficult for the inventor to prove that anybody else is infringing his patent rights. For this reason, a reversal of burden of proof is provided for in the German patent law. In fact, the protection in Germany is very strong; it can be compared almost to the amount of protection that is given in the United States. Thirdly, as far as importation is concerned, the importation of drugs or products that are patented is considered an infringement of the patent.

An infringement of the patent is not a matter that is taken lightly in Germany. Infringement is a criminal offence.

In regard to compulsory licences, there are provisions in the German patent law. They pertain to public interest. If the Government thinks it necessary in public interest, it can issue a compulsory licence. However, there are two aspects that have to be mentioned. Compulsory licence includes the duty to compensate the inventor and secondly, full recourse is given to courts. An inventor can appeal to courts through all the three stages; he can go upto the Supreme Court. The courts ask "public interest" to be defined very exactly; no loose definition is accepted by courts. In fact, no compulsory licence has been issued since the War. It is also provided that a compulsory licence can pertain only to the manufacture and not to the importation of any such product.

An institution like "licences of right" does not exist in the German patent law. As I understand it, "licences of right" mean that any one can apply for a licence; that he does not have to prove whether he is able to work it or does not have to stand up to certain other criteria. In Germany this is not so. First of all, the public interest has to be proven and secondly there are also such things as the ability of the applicant to work the patent, the ability of the applicant to pay a commensurate royalty, etc. In the German patent law, no ceiling for royalties is provided for. Royalties are generally agreed upon freely between the parties. In the case of compulsory licences, the court will fix the royalty, but again the patent holder has the opportunity to appeal.

Patents generally, according to German law, cannot be revoked. There is, however, a provision for temporary suspension of the patent in the interest of public welfare. But this clause has never been used. The idea behind it is that, if there should be an epidemic, for instance, and the German drug production would be insufficient to cover the needs, then the Government would suspend the patent temporarily for the period of emergency and be free to import the patented drug by payment of reasonable compensation.

I would now like to come to a close and short summary. It is our feeling that research is international and that protection of intellectual property is, therefore, of great importance for international economic relations. The more we handle such questions internationally, the more there will be the flow of information and co-operation. We also hope, of course, that the continued development of this country will go on. We foresee a time and a day when inventions of importance,

of great importance possibly, will be made in this country and we believe that the inventors of this country will then be grateful for clear and strictly applied patent laws in other countries. Clear laws and regulations do provide a basis of confidence. I think this is important for international relations in general.

Thank you very much Mr. Chairman and hon'ble Members for listening to me. I am now open for questions.

Dr. L. M. Singhvi: In particular I would like to know what provision is there in your country in regard to licensing by right available to the patentee?

Mr. Chairman: It is not there—he said.

Dr. L. M. Singhvi: It is in the statement submitted to us and circulated by the Secretariat that in Germany there is a provision under which a patentee can apply to be marked as a licences of right. What is this provision?

Mr. Curt Engelhorn: I have a written answer to this. I am not a patent expert. So I have to look it up. So, please excuse me.

I will read out the question:

Can you say that according to German Patent Law any patentee by a declaration to be published and registered may permit another person to use his patented invention subject to adequate compensation?

Now this question is somewhat different from yours. But this is the closest provision there exists akin to something like a licence of right.

The answer to this is Art. 14 of the German Patent Law which refers to the so-called declaration and the willingness of the patentee to grant licence to anybody against adequate compensation. This declaration is published and registered. Afterwards only one-half of the annuities is to be paid by the patentee. This possibility according to Clause 14 is practically never used by bigger industrial firms, but single inventors and small companies who have no possibility to produce or utilise the invention in any other way and who at the same time want to save money, sometimes make use of this clause. They wish to invite as many licensees as possible. Declarations according to Art. 14 during the period 1950—64 were 10,830 patents and in 1965 there were 8,000 patents. We have no particular experience ourselves as to what the results of these declarations are. It must be kept in mind, however, that such a declaration is completely voluntary. Nobody can force the patentee to make this declaration.

Furthermore, the royalty to be agreed upon is not fixed beforehand but must be negotiated between the parties. In our opinion, Art. 14 of the German Patent Law cannot be compared to anything like a licence of right.

Dr. L. M. Singhvi: In your memorandum you have said that there is only process protection in Germany but that there is a provision under consideration for patent protection of the product also. What is this provision and why is this thing being considered now? At what stage of consideration is this provision of the patent protection of the product?

Mr. Curt Engelhorn: As far as I know—Dr. Scholl has more details about that—the situation is that the process protection presents considerable problems. One of the problems is that in order to get adequate protection the inventor has to study very many different processes. After all in chemistry, once you synthesise a valuable product, it is the value of the product that is of importance. It is particularly so in the pharmaceutical field. Now any educated chemist can devise a process around a single patented one. So all the investigations the inventor has made in the development of this product and

testing it pharmacologically, texicologically and clinically and so on, would have come to nothing if you were going to patent only one process.

Mr. Chairman: That amendment has not yet been passed?

Mr. Curt Engelhorn: Has not been passed.

Mr. Chairman: The current law is only for process patent?

Mr. Curt Engelhorn: Another difficulty in respect of process patent is its interpretation by the courts. It is very difficult to administer in the court. For that reason it is considered that the product patent should be introduced. But it has to be mentioned here that this draft of the European Patent Convention which has been agreed to by the German Government and it has been also agreed to by many other Governments and has been reviewed also by a number of nations does provide product patents even for chemical and pharmaceutical inventions so that if Germany wants to enter this European Patents Convention, it will have to change its law in that direction.

Dr. L. M. Singhvi: You have mentioned that process protection is without meaning unless there is a shifting of the burden of proof. In that connection you say that in practice, this would mean that it would be impossible to effectively prevent infringements since the infringement cannot be proved. Could you say why it is impossible to prove an infringement? And why the burden of proof should be shifted?

Mr. Curt Engelhorn: You cannot tell from the final product by what process it is made. In rare cases it may be possible if you have an impure substance to analyse it down to a certain point where you can trace more or less what intermediates or solvents have been used. But in a highly purified final product it is practically impossible. Therefore the inventor cannot prove that his particular process has been used. Therefore, it is necessary for the man who is charged with infringement to prove that he has not used this process.

Dr. L. M. Singhvi: Under Sec. 66 you have made an observation that it should be modified to limit the generality of these statements and to clearly define the Government's powers to revoke any patent if it considers that it is mischievous or generally prejudicial to the public. Could you indicate in what way it could be made more specific or whether it could not be left to the court or the constituted authorities to determine as to what is mischievous or prejudicial to the public interest?

Mr. Curt Engelhorn: It is one question, I think, on which the observation is very well taken. I think it is a matter of how things are administered in specific countries. As I have pointed out, in the case of public interest, in Germany the public interest has been interpreted by the courts and the courts have very clear definition. Now in this particular case we feel that it would of course increase the security if these terms 'mischievous to be state' or 'prejudicial to the public' were defined a little more closely. We generally know what "mischievous" means; we know what "generally prejudicial" means; but we don't know what the Parliament, which is supposed to pass the law, means specifically when it says that.

Dr. L. M. Singhvi: What was the state of the patent law in Germany before the second world war began as compared to the post-war patent law in Germany, particularly in respect of compulsory licence, licence of right, etc.? Would it be correct to say that the post-war patent law in West Germany seeks to extend a stronger patent protection than that which was available before the war?

Mr. Curt Engelhorn: Dr. Scholl tells me that there is no essential

change in the patent law before and after the war.

Dr. L. M. Singhvi: You have said that a strong patent protection tended to bring in a greater inflow of foreign capital and foreign technical know-how. In what way has it been very beneficial to West Germany as you have sought to make out in your memorandum?

Mr. Curt Engelhorn: I would definitely think that it increased the preparedness of foreigners to put inventions at the disposal of Germany by way of licensing agreements or by exploiting their inventions themselves in Germany. I think there is no question about that.

Dr. C. B. Singh: I will carry forward the process and product part. You said that you were collaborating with a big firm in Bombay in producing chloramphenicol. Is that correct?

Mr. Curt Engelhorn: Yes.

Dr. C. B. Singh: Have you found any trouble regarding the process for production of chloramphenicol and chloromycetin which are produced in the market by Parke Davis also, because chemically, they are both tetracyclene with certain changes. So when it comes to process and product, has this process patenting been of some difficulty to you?

Mr. Curt Engelhorn: Well, as a matter of fact, here is a case—one of the rare cases I must underline—where it was possible to develop a completely different method of production of chloramphenicol which varies very much from that of Parke Davis. Since our process was independent of the Parke Davis process, that was taken care of. We also came to an agreement with Parke Davis, because certain aspects of our process were advantageous and were of interest to Parke Davis themselves.

Dr. C. B. Singh: Has there been any difficulty to your firm in Italy because there was no patent law in Italy? Was it because of the absence of a patent law that you failed in Italy on this product?

Mr. Curt Engelhorn The situation that developed in Italy was like this. First of all, two or three large Italian companies started the manufacture of chloramphenicol. They soon found out that they could not sell in countries where Parke Davis or ourselves had patent protection. They then came to an agreement with Parke Davis and even through Parke Davis have no patent protection in Italy, these companies were willing to pay royalties to Parke Davis. This was not all of that story, though. Other smaller companies entered the field. After a long period of time, I would say about ten years, production was started. The technology for its production was sufficiently well-known in the United States, Germany and Italy and one could hire a chemist from one of these companies that were producing legally and one could put up manufacture of one's own. The result was that prices dropped because too much chloramphenical was offered. This resulted in the necessity for many of these small producers to sell at as low prices as possible in the so-called world market, that is, in all those countries where they could sell without infringing any patent. Many of these companies, and I would say almost all of these small companies, have since closed down completely or have closed down chloramphenicol production.

Dr. C. B. Singh: In view of this experience of yours, will you agree to our modification of the patent as process-*cum*-product patent? Will that solve some of these problems that you face?

Mr. Curt Engelhorn: With a shift of the burden of proof, I think that would be satisfactory, even though I tried to point out that there is a general tendency to use the more simple and clear product protection.

Dr. C. B. Singh: On page 3, para 2 of your memorandum, on Section 48,

you have mentioned "such regulation, which amounts to a nullification of the patent, appears to be in disagreement with the fundamental concept of industrial property and is unknown elsewhere in foreign patent law. The German pharmaceutical industry, therefore, recommends that this section be deleted." The main purpose in having this provision has been public interest and any emergency. Sometimes Government has to face some difficulties about epidemics and other things. Then it becomes incumbent on the Government to do something about it. Now, would you like to stick to your statement that it amounts to a "nullification of the patent" or would you like to qualify this statement, under the circumstances I have mentioned?

Mr. Curt Engelhorn: I would say this: As I have pointed out, in the interest of public welfare, that is for certain well-defined situations even the German Patent Law provides for temporary suspension of the patent. That is Government is free to import such materials in order to cope with an epidemic or a similar emergency. As we understand Section 48, it generally gives the Government the power to import or have other people import on its behalf medicines and drugs. There is no recourse provided to the courts. There is no mention made of compensation. We said that this was not in the best interests of India, because import as we understand it, was not the goal that you were striving for. I understand you are striving for a strong domestic industry and nothing can deal a deadlier blow to your slowly growing and very tender industry than cheap imports.

Dr. C. B. Singh: Will you please qualify this para, so that it may become more acceptable to you?

Mr. Curt Engelhorn: I would recommend that the conditions under which the Government can import be as clearly defined as possible. Secondly, I would provide recourse to some judicial tribunal; and thirdly compensation should not be ruled out in this field.

Dr. C. B. Singh: On page 5, Section 93(3), you have mentioned here that "in our opinion, such regulation goes far beyond any measure reasonably necessary for the safeguard of the public interest".

Mr. Curt Engelhorn: As far as we read this provision and as we interpret it and as we have pointed out in our Memorandum, Section 95(3) enables the Government to direct the Controller to authorise licencees to import the patented article or an article made by the patented process if in its opinion it is necessary to do so in the public interest. Neither the payment of any royalty nor an appeal has been provided for, and that is, as I have already said, what we have in mind. We believe that any such provision should contain the possibility to appeal and also the possibility to be reimbursed by royalty or a similar compensation. In principle, we think, imports are potentially dangerous to your existing industry. When a man has gone through the trouble of building up a manufacturing unit in this country and if the Government has sweeping powers to decree the import of the same material, then you will hurt the manufacturing unit in your country.

Dr. Scholl: In our feeling, there might be cases to give compulsory licences but even if it is necessary to give licences, we do not think that it is necessary to deprive the patentee of the right to work his own patent. That is our idea. That is why we say that this Section should be deleted.

Shri M. L. Jadhav: The price of patented products is higher in India as compared to Germany. If so, what is your suggestion to bring it on par?

Mr. Curt Engelhorn: As far as I am informed—we have some statistics on that subject, Dr. Scholl—this is not the case. We can give you some comparable figures in regard to

prices in Germany and prices in India. I believe, however, generally that patent system is only one factor for high prices. This may be due to a large number of different factors. We believe that there should be other methods of tackling the price problem than putting anything in that respect into the Patent Law, or—if I may say so—pattern the Patent Law in such a way that you have prices in mind hoping that you will in this way solve (get away from) that problem. It is our opinion that prices and patents have nothing basically to do with each other

Shri M. L. Jadhav: Your country is holding certain patents in India. Can you tell us out of the patents that are held by your country how many products are manufactured in India? I want the percentage roughly I do not want the exact figures.

Mr. Curt Engelhorn: I am told that of the patent applications in India, about 10 per cent of the patents issued are being actually worked, according to our statistics. It must be added, however, that of all the patent applications in Germany, only 15 per cent of the patents issued are worked. There is only a small difference between the two. The reason being that the patents have to be applied for—considering the nature of the whole patents law—as early as possible and frequently it turns out that the invention for some reason or the other is not sufficiently advanced and does not give sufficient advantages to justify expensive capital investment.

Shri M. L. Jadhav: Can you give us some examples of difference in prices in Germany and India of one or two products?

Mr. Chairman: There is not much difference.

Shri M. L. Jadhav: There is a difference.

Mr. Chairman: You want the whole list.

Shri M. L. Jadhav: Let him give for 2 or 3 products. I am satisfied.

Mr. Chairman: Can you give us the price of Chloromphenical in Germany?

Mr. Curt Engelhorn: Yes, I have this.

Dr. Scholl: We have some figures of Hoechst. The prices of most of the Hoechst products are almost the same. But the prices of Hoechst products in Italy, of the same products which are sold here, are higher than in India. They are higher in the United States. We have made a comparison of prices of products sold in India and in Germany, United States, Italy and France.

Shri R. P. Sinha: Can you give us a copy of that?

Mr. Curt Engelhorn: Yes, we will give you.

Shri R. P. Sinha: Why the prices in India are cheaper?

Shri Yadav: Can you roughly say what is the time from the date of application to the date of sealing?

Mr. Curt Engelhorn: Average 6 years.

Shri Yadav: You mean that 10 to 12 years from the date of sealing is sufficient. The period for patents in Germany, you say, is 18 years. Will you be satisfied?

Mr. Curt Engelhorn: That may be satisfactory particularly when one has to count the time of five years that is used for processing the application. But if it is the goal of Patent Offices to speed up the examination of patents as quickly as possible and when you get for instance the processing period down to two years, the protection of ten to twelve years would, in our opinion, be rather short.

Mr. Chairman: You said that in Germany you have got 18 years from

the date of application and you say that it takes 6 years from the date of sealing. So it is 12 years.

Mr. Curt Engelhorn: No. The invention is protected from the date of application.

Mr. Chairman: In India also the protection goes back to the date of application. What is your objection for 10 years for pharmaceuticals?

Mr. Curt Engelhorn: We consider 10 years too short.

Mr. Chairman: How?

Mr. Curt Engelhorn: Any regulation that gives protection for any period of time between 14 to 20 years from the date of application would be considered satisfactory.

Mr. Chairman: Here also it is from the date of application. It will be the same period. The time of examination does not count in the life of the patent; 10 years are counted from the date of sealing, and an average period of 4 years, 5 years or 6 years has to be counted for the process. Thus a total protection of 14 to 16 years would be provided and this would be satisfactory.

Mr. Curt Engelhorn: That's good.

Mr. Chairman: That is what the law is now. Whatever time is taken in the examination, specification till the date of grant of patent, that is also taken into account. The protection goes back to the date of application.

Mr. Curt Engelhorn: In our understanding, we had interpreted the law differently.

Mr. Chairman: Our present law according to the Bill before us is from the date of specification. So there is not much difference.

Mr. Curt Engelhorn: Quite generally, as far as the term of a patent is concerned, I think a few things should be said. We mentioned in our memorandum that the absolute minimum of development time for a drug is 3 years from the time when you have information collected for a patent application. But this really is the absolute minimum. It usually takes about 5 years and there are cases on record which took much longer. So, therefore, it can happen very easily that a drug is very often marketed, let us say, 6, 7 or 8 years after filing a patent. This goes for the country where the drug is being developed. Now we have priorities and things like that. The priority period is generally one year. But within this one year a patent in India has to be filed. It may be, however, that introducing the drug or manufacturing the drug in India will take much longer than 1 year after introduction in the home country for various reasons. I am just trying to point out to you that there are very important reasons why the life of patents should not be made too short and we frankly consider 10 years too short. And ultimately, if I may add, we feel that there is a discrimination in these 10 years in the case of drug patents as against 14 years in other cases. This we do not understand.

Mr. Chairman: Do you know that an international Association also recommended that it should be minimum ten years from the date of grant of a licence? Do you agree with that?

Mr. Curt Engelhorn: I think that is something we could agree to from the date of sealing.

Shri P. K. Kumaran: Our primary concern is to make the drugs available very cheap for our people. What, in your opinion, are the factors which keep prices of medicines in India very high, and what do you think we should do to bring down the prices of medicines in India, because even the international price will be very high in the context of the living standard which obtains in India?

Mr. Curt Engelhorn: This is a very difficult question to answer. As far as patents are concerned, I believe they are only one factor. Another very important factor that tends to increase the price of any product is the volume of its production. If you protect an invention or a process by a patent, what you get is a concentration of the product in one hand which would mean an increase in volume in this particular hand. This would tend to bring down prices because volume is a very important consideration.

Another problem in your country, as far as I know, is the fact that the chemical industry is in the beginning of its development. Intermediates and raw materials are being produced necessarily on a comparatively small scale. For instance, in the case of our own production, it was several months ago that a department of the Government investigated our pricing policy without criticising it, seeing that the production cost of Chloramphenicol was may be three times of that in Germany. I think due to devaluation it has now dropped to about twice the price in Germany.

Shri A. T. Sarma: In your statement you recommend 15 to 20 years, but in section 53 there is a distinction in our Bill—14 years for general products and 10 years for drugs. Do you agree that this distinction is required?

Mr. Curt Engelhorn: No, we do not think there is any reason why this discrimination should be made.

Shri A. T. Sarma: Will you kindly cite the names of developing countries that have prescribed 20 years in their legislation?

Mr. Curt Engelhorn: Dr. Scholl tells me that among them France and certain South American countries have provided protection for 20 years. Columbia, for instance, has 10 years with an option to increase by another 10 years.

Shri A. T. Sarma: Apart from your valuable suggestions for which we thank you, do you consider that the Bill will improve research and industrial development in India?

Mr. Curt Engelhorn: The old Indian law, from our point of view, is quite satisfactory.

Shri R. P. Sinha: The witness has said that Indian prices are cheaper than international prices for certain drugs he has mentioned. On the other hand, we have been told that Indian prices are higher than international prices. The witness has also said that the cost of production of a commodity is higher when the scale of production is low. I take it that the scale of production in the United States must be very high. Then, a patent is nothing but the grant of a monopoly, and whenever there is a monopoly, there is a tendency to keep the price high. How do you reconcile all this, that the price in India is cheaper although the cost of production of the basic drug is higher?

Shri V. M. Chordia: I want to supplement his question by quoting what the Kefauver Committee has said:

> "India which does grant patents on drug products, provides an interesting case example. Prices in India for the broad spectrum antibiotics, Aureomycin and Anchromycin, are among the highest in the world. As a matter of fact, in drugs generally, India ranks among the highest priced nations of the world—a case of inverse relationship between *per-capita* income and the level of drug prices."

Mr. Curt Engelhorn: I can add very little to that because I cannot improve upon those figures. I understand you have your organisation of producers in India who should be able to answer this question and give you very detailed figures on the

prices of drugs in India as compared to foreign countries. I shall try to answer about the inconsistency.

Shri R. P. Sinha: Is it because of philanthropy on the part of manufacturers that the prices in India are kept low here?

Mr. Curt Engelhorn: It is a matter how you look at it.

The purchasing power of the public in India is comparatively low. Therefore, in order to increase the volume you may have to drop your prices. In our case, we are collecting no royalty. This again was not philanthropy but for some reason or other we did not get the permission to collect royalty. In spite of that we decided to put our entire process, with its knowhow and everything, at the disposal of the joint venture in India, the reason being that it is a joint venture and we wanted to make it as profitable as possible. I think the answer why prices in India can be lower sometimes than in other countries is to be seen in the fact that the manufacturer has the alternative whether he wants to increase the volume and drop the prices or whether he wants to have a small volume and keep the prices high. We all know that small items in a company's drug line sell at very low volume and produce only losses because they cost more than they can ever bring in the way of profits (earnings).

In Germany, we have invested quite a bit of research and development work into developing this process for the manufacture of chloramphenicol. In Germany the price level of antibiotics in general and of chloramphenicol in particular is competitive because we are not the only producers of chloramphenicol. There is one competitor. Quite frankly speaking, it must be the object of any merchant to try to get the highest possible price. To get the least possible price is very simple. A man in commercial operation is paid for it; that he sells the goods in large quantity, and at as high as possible. Otherwise he is not a good salesman. In this particular case, chloramphenicol, in Germany and in certain other markets, is quite a profitable item, and as far as our German company is concerned, it is one of the products that provides a backflow of money for the money spent on research and development. Research and development in pharmaceuticals is a discouraging story in so far as so many attempts are being made; the promising things when followed up do not lead anywhere; they lead to failure. So, a large effort has to be made. I do not hesitate to tell you that our company spends approximately 10 million DMs on research. It is a substantial figure. If I may add, it must be quite clear that all the failures have to be paid for by the success. The money has to come from some where.

Shri R. P. Sinha: We are anxious to develop our economy and our industries, particularly and pharmaceutical industry. The witness has some experience of our market and our population. He has gone through the provisions of this Bill that is before us. Could he tell us the specific provisions in the Bill that will stand in the way of inflow of foreign capital and foreign technology from West Germany?

Mr. Curt Engelhorn: I will just summarise what we have said in our memorandum. Section 47: product by process protection should be clearly established. Shift of the burden of proof should be provided for. Without the shift of burden of proof the infringement cannot be proved and the patent will be without meaning. This has to be made quite clear.

Section 48: according to our interpretation, it has given broad, sweeping powers to the Government to authorise imports without compensation and appeal. Section 53: we believe that 10 years from application is too short.

Shri Kashi Ram Gupta: It is from the date of completion of the specification; they must understand it; they cannot understand the difference between the date of application and the date of completion.

Mr. Chairman: 10 years from the date of specification.

Mr. Curt Engelhorn: I understand that there is no great difference. It is about 10 months.

Mr. Chairman: Protection dates back to the date of application.

Shri R. P. Sinha: 7 years of protection. Three years are lost from the time of filing the specification and the date of sealing the patent. In actual practice, you get seven years of protection.

Mr. Chairman: The difference is not much.

Mr. Curt Engelhorn: We would like to see at least 10 years of full protection after sealing. We do not see any reason for discrimination between different classes of inventions. Then revocation of the patent is provided for in section 66. It is some thing that I think should be looked at with great care.

Mr. Chairman: Your law has also got that provision.

Mr. Curt Engelhorn: It is a temporary suspension. After two years, when the patent is not worked, in Germany, the patent can be revoked.

Mr. Chairman: Your provision says that revocation of the patent is possble if its working is not in the public interest or where two years after the grant of a compulsory licence the invention is being exclusively exploited outside Germany and the compulsory licence does not sufficiently meet the public interest, and so on.

Mr. Curt Engelhorn: This is an exact translation of the German wording: It is section 15(2). It says that in so far as international conventions do not provide otherwise, the patent shall be revoked if the invention is being worked exclusively or mainly outside Germany; the revocation may be demanded only after the expiration of a period of two years following a valid grant of a compulsory licence and even then only if the public interest is no longer served by the grant of a compulsory licence. Compulsory licences are very very limited.

Mr. Chairman: Here also it will not be so easily granted. It will be done only when the needs of the nation require it.

Mr. Curt Engelhorn: That is very assuring to hear. Compulsory licence has to be granted in public interest. Again when a patent is revoked, it should be proved that the revocation also is in public interest. It should be purely in public interest. Then it is all right. Government could have the power to revoke a patent. I think the solution of temporary suspension in case of emergency is rather an elegant one, however.

Shri R. P. Sinha: You said that the inflow of royalty into Germany is less than the outflow. Can you give the figures?

Mr. Curt Engelhorn: For 1965, the total royalty income for Germany was 299.8 million DM. The total outflow was 660.3 million DM. The negative result was an outflow of 360.5 million DM.

Shri V. M. Chordia: The initial marketing price of chloramphenicol in India was Rs. 1500 per kg. Later on it came down to Rs. 240 per kg. So, Rs. 1360 per kg. were charged more from the consumers in India. Is it justified?

Mr. Curt Engelhorn: I do not think you can get it for Rs. 250 per kg. You can import it from Italy at Rs. 240 per kg. But actually for the Indian

manufacturer it would come close to Rs. 1600 due to the factors I have mentioned before like high price of intermediates. We have been getting nitric acid for our plant in Bombay from an Indian ammunition plant. This cannot be supplied any more. We cannot get concentrated nitric acide which we want. So, we have to build a nitric acid concentration plant because we have to buy 70 per cent nitric acid and concentrate it. This will mean increased cost of production.

If you bear with me, I will give an example. Suppose there is a production of 1000 units of some drug at a cost of Rs. 1000. It comes to Re. 1 per unit. This manufacturer decides to increase the production and he increases it to 1500 units. He calculates and finds that the extra 500 units had cost him only Rs. 200 to produce because he could use the same building, same machinery,. etc. It comes to Re. 0.4 per unit. He can drop his price and sell the 1500 units at an average price of Re. 0.8. Or he can sell all the 1500 units at Re. 1 per unit and make excess profit. Or, he can sell the extra 500 units at Re. 0.4 per unit somewhere in the world market. That will depend on the particular situation. Italians have been doing like that; they have been selling it somewhere far away from Italy at the price of Re 0.4 per unit in my example. Then the demand for the product goes up and he has to sell 2000 units. This time he calculates and he finds that the extra 500 units had cost him Rs. 7 per unit It is quite realistic, because he had to build a new building, acquire new machines, etc. Now if he has to sell it at the average price of Re. 0.8 he may have to close his shop. The new average for his production will be more than Re. 1 per unit. I am just trying to explain the risk that anyone has to face.

Shri V. M. Chordia: Anyway, the difference was high. How far your example will apply to this, I cannot say. My second question is, you talked about expenditure on research and gave some figures. May I know what percentage of your total turnover is spent on research?

Mr. Curt Engelhorn: My company spend on research 9.5 per cent.

Shri V. M. Chordia: What are the provisions regarding appeals in ase of disputes?

Mr. Curt Engelhorn: Appeal can be made, in the cases that have been mentioned here, to the lower courts and from there to, what he Americans call, the district courts.

Shri V. M. Chordia: You have no separate judicial tribunal?

Dr. Scholl: For all questions relating to patent applications, patent revocation, compulsory licence and so on there is a High Court consisting of three or four members and from this court appeal can be made to the Supreme Court, which is the Supreme Court for all our country.

Shri K. V. Venkatachalam: This High Court deals only with patent cases?

Dr. Scholl: Yes. It's official name is federal "Patent Court" and it deals with only patent questions for all our country.

Shri V. M. Chordia: If a person gets many processes for a product patented and uses only a few of them, what is the provision in your law to stop this abuse?

Mr. Curt Engelhorn: Firstly, I must say that this is not an abuse. An inventor has to see that he gets his process or invention protected at an early date, because as things stand the only criterion to find out who is the original inventor is that of time. So he must more or less rush to the patent office and apply for a patent. Later on he finds that it has not suffi-

cient economical value to justify a capital investment. So it is never worked. That is the reason why 85 per cent of the patents registered in Germany, are not being worked. I do not think any provision is necessary to worry about that, because if any of these 85 per cent of un-worked patents would find interest of someone he will go to the holder of the patent and that man will, in most of the cases, be very happy that finally some use has been found for a patent which he thought was of no value.

Shri B. K. Das: In that case he can get a compulsory licence.

Mr. Curt Engelhorn: It has to be in the public interest. If the man who seeks a licence cannot get a licence from the patent holder, if he can prove that it is the public interest he can apply for a compulsory licence.

Shri Shyamnandan Mishra: It is not quite clear to me what kind of regulatory mechanism operates in respect of prices in Germany. May I know whether the Government exercises certain powers to regulate the prices or the question of prices is left completely to the operation of the market forces?

Mr. Curt Engelhorn: Generally speaking, I would say, it is left completely to the market forces. The reason behind it is that we feel in, by far, most of the cases there is competition. This competition is either due to the fact that there are a number of manufacturers or the supply is more than sufficient. But even in the case of patents, I think one must realise that there are very few patents of such basic importance and such basic nature that the products produced with the help of such patent are practically without competition. But there is no price regulation mechanism in Germany. We do not believe in that. We feel that the free forces regulate the prices sufficiently.

Dr. Scholl: There is only one provision in our criminal law against usury prices. This provision is not only against patent prices but covering all trade.

Shri Shyamnandan Mishra: What is the ratio of foreign patents to German patents? How many foreign patents are based on researches carried out inside Germany? I am asking this question particularly because the problem of finding employment for our scientists on research activities is an extremely acute one in our country. If research activities are carried out elsewhere and we simply take those results, we do not have this employment problem solved.

Mr. Curt Engelhorn: In 1965, 57.4 per cent of the patent applications were made by Germans and 42.6 per cent by foreigners.

Mr. Chairman: Out of the foreign patents granted, how many of them were on the basis of research work done in Germany?

Mr. Curt Engelhorn: You mean research work done by other people in Germany or paid German scientists for doing that work?

Shri Shyamnandan Mishra: If research activities are carried out inside Germany then German scientists will have an opportunity for getting employment in those research activities. If those research activities are carried out in the United States, then your research workers will not have any opportunity for employment. That is a very acute problem in our country and that is why I am asking this question.

Mr. Curt Engelhorn: As far as Germany is concerned, I think the percentage of these patents is extremely low. Most of the foreign companies that do research in Germany do it through German subsidiaries and the patents belong to the German subsidiaries. So, they are in the category of patents belonging to the Germans.

Shri Shyamnandan Mishra: I am not asking about the exploitation of the

patent but the birth of the patent as a result of the research activity. How do these patents come into being? Are these as a result of research activities in Germany or outside Germany?

Mr. Curt Engelhorn: 42.6 per cent of the patents are the result of research work done in foreign countries and the rest in Germany itself.

Shri Shyamnandan Mishra: What are the factors in Germany which are acting as a deterrent to the inventions coming to Germany? Are there any difficulties or obstacles?

Mr. Curt Engelhorn: In fact, too many are coming to Germany. Foreign investment in Germany is rather heavy. You may have heard that France has taken a number of steps in order to discourage substantial American investment in France. That is a problem faced by many expanding economies of Europe. The climate for investment in these countries is good. As far as the exchange of patentable or even unpatented know-how is concerned, very good base has been established. There is rather free flow of information. We are working together with a number of American companies and have free exchange of data and experience.

Shri Shyamnandan Mishra: Similarly there could be problems of a different character altogether for under-developed countries. So, they might take certain precautions with regard to patents. Just as France and your country are confronted with one problem, we might be confronted with another problem to face which we might justifiably take some precautions by providing certain safeguarding provisions in our Patent Bill.

Sardar Daljit Singh: Is there any provision for acquisition of inventions in your country? If so, is any compensation paid?

Mr. Chairman: He has already answered that question.

Sardar Daljit Singh: Is there any provision in your country to control the prices of patented drugs in the interest of the common man?

Mr. Chairman: He has answered it just now.

Shri Kashi Ram Gupta: So far as fundamental and basic research is concerned, is it mostly done by the pharmaceutical industry or Government institutions are also doing it?

Mr. Curt Engelhorn: Undoubtedly, Government institutions, universities and so on are also doing a substantial volume of research.

Shri Kashi Ram Gupta: What about basic and fundamental research?

Mr. Curt Engelhorn: That is a matter of definition. I think one can say that more fundamental and basic research of a nature which would tend to increase man's knowledge about basic things and what occur in nature, that type of research is done mostly in State universities. A certain amount of basic research is done by the industry also. Basic research is a question of definition. After all, industrial research has to be in a very broad way but, nevertheless, it has to be aimed at the goal of developing something that will prove of value to the consumer. Our research people always tell the university professors: you have a very nice and easy life, because who is ever going to determine the pace of your work; who is going to have a yardstick for the success of your work; if you take up a project that does not yield any results, there is nobody who can really criticise you. If you happen to produce results, it is much better; you can publish lengthy papers about the experiments that have led to no results as well as experiments that have yielded results. But we in the industry are in an entirely different position. Our work has to be measured by the yardstick of success constantly.

Shri Kashi Ram Gupta: How is the scientist rewarded, so far as his share of the invention is concerned?

Mr. Curt Engelhorn: In Germany we have a law that makes it mandatory for the employer or company to give the inventor a share of the profits; not exactly profits but a proportion of the turnover as royalty.

Shri Kashi Ram Gupta: On page 2 of your memorandum you have stated:

> "The patent protection granted by India heretofore has been satisfactory in principle...."

What is meant by "in principle"?

Mr. Curt Engelhorn: We wanted to say that from our point of view it seemed alright. There may be problems peculiar to India that may not be adequately solved and adequately taken care of by your present law.

Shri Kashi Ram Gupta: Then you go on to say:

> "We believe, on the other hand, that we, to a large part, have a grasp of the reasons that have led to criticism and to the attempt to cope with this criticism by changing the Indian Patent Law."

Please explain this.

Mr. Curt Engelhorn: The way we understood it was that the price of patented products played an important part and that the patent was considered a monopoly that would give the inventor the opportunity to make excess profits and similar things. That was, as we understood it, the most important driving force.

Shri Kashi Ram Gupta: But, at the same time, you say that the existing law is quite all right and that the changes that are proposed in this Bill are not suitable from the point of view of India. How do you reconcile the two?

Mr. Curt Engelhorn: We believe that the problem that was to be solved, that is, of prices and excess profits and so on, should not be solved by changing the patent law. We do seek protection to the public, but by other means, for instance by antitrust legislation. The patent law should not be used as an instrument to this end.

Shri Kashi Ram Gupta: In your opinion, is there need for any amendment at all?

Mr. Curt Engelhorn: From our point of view, I would say "No."

Shri Kashi Ram Gupta: What generally is the royalty paid in Germany for pharmaceuticals?

Mr. Curt Engelhorn: That varies greatly. As far as exclusive licences are concerned, royalties of about 7½ to 10 per cent on the turnover are paid. In the case of non-exclusive licences the royalty figure would be between 5 and 7½ per cent; but, if there are other factors that decrease the value of the invention, it goes below 5 per cent.

Mr. Chairman: In Germany, I understand, inventions of articles of food and taste, medicines and substances which are produced by chemical process in so far as inventions do not concern a specific process for the preparation thereof are not patentable. Is that correct?

Mr. Curt Engelhorn: That rules out completely the possibility of growing a new grain and making flour from that and patent that. There is no patent of that. If it is not a specific process, it cannot be patented.

Mr. Chairman: You object to Government use of patents without compensation but in Germany you have got a provision for the free use of patented inventions made possible by the order of Government in the interest of public welfare.

Dr. Scholl: That is section 8, sub-section (1); but in section 8, sub-section (3), it says that there must be paid adequate compensation if a patent is done away with. There is no use

of patents by Government without compensation—not at all—in the German patent law.

Mr. Chairman: Some compensation has to be paid.

Dr. Scholl: Yes, in every case; and, if I may add, there is full appeal to courts.

Shri K. V. Venkatachalam: Can you tell us whether your Indian company is doing any research in India?

Mr. Curt Engelhorn: No; we are not doing research, but our plan is this. We trained a very clever Indian chemist who, I think, got some basic training here in India, came to Germany, studied at the University of Bonn and was trained in our company for, I think, 2½ years. He has done an excellent job in building up the production facilities in Bombay. The next thing that we plan to do is to equip a quality control laboratory. Of course, production control is already being done, but as a next step to finishing and packaging, we will erect a quality control laboratory. In addition to this, as an annexe, so to say, we will add a research unit which will be concerned with pharmaceutical research, that is, formulations research and so on, because for the broader pharmaceutical, medicinal research you need a large organisation and a well-balanced combination of pharmacology, toxicology clinical medicine and chemistry. Of course, to build that up, we do not have the resources as yet.

Shri K. V. Venkatachalam: You do not contemplate it in the next five years.

Mr. Curt Engelhorn: No.

Shri K. V. Venkatachalam: As regards process versus product patent, you developed chloromphenicol when Parke Davis must have had their own patent of it. If the German provision for process-*cum*-product patent was not there, you would not have been able to claim a patent for your own process. Is that right?

Mr. Curt Engelhrn: Yes.

Shri K. V. Venkatachalam: So, our line of approach to this problem is basically correct?

Mr. Curt Engelhorn: You are quite right, but I think you have to offset that against the difficulties that lie in process protection. Process protection puts a considerable burden on the inventor.

Shri K. V. Venkatachalam: Quite true. But if the German law had allowed only product patent, your company would not have been able to get the patent for cholorompheniçol at all. Is that not a sufficiently important argument?

Mr. Curt Engelhorn: I do not know. Even though we ourselves benefited, I would quite frankly discuss the situation with you. It came about like this. We had two chemists in our company. Parke Davis had made a disclaimer in one of their publications which said that one could not use cinamic alcohol as a starting product and they said: "We do not understand why this should not work". They started working with it and they saw that actually it did not work, but they found out very quickly—it may be by luck—a way round that. Then they did some very clever additional work and they were able to build up the molecule starting from cinamic alcohol.

Then, the question of economy of the synthesis came in and it was possible to work out this synthesis to the point where it was quite economical. But Parke Davis did also additional work on their synthesis. I think it was in the year 1958 or 1959 that we came to terms. They were sufficiently interested in our process to take a licence on that and we on the other way round. At that time, we were of the opinion that our process was superior. Looking back now, I am

very glad that we made the deal because it was not significantly superior.

Dr. Scholl: Mr. Chairman, with your permission, I would like the following to be added at the appropriate place to my evidence: "The revocation of patents under Section 15, sub-section 2 of the German Patents law is only possible if a compulsory licence had been granted before and if the said compulsory licence had proved insufficient."

Mr. Chairman: Thank you very much.

Mr. Curt Engelhorn: Thank you very much.

(The witnesses then withdrew)

The Committee then adjourned.

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