

SHR S. M. BANERJEE: We are discussing Points of Orders only. I know this. My point is if they are going to insist that there should be a debate on this Finance Bill, then, that should be adjourned. That is all that I say.

MR. SPEAKER: So, I think this is withdrawn. Mr. Banerjee.

SHRI S. M. BANERJEE: If you are giving us opportunity, Sir, I am not pressing for it.

MR. SPEAKER: You know these were points of order. These were on matters of procedure and Constitution and no debate was going on.

So, we will take this up at the next sitting.

Originally I had only three names but now there are many others who insist on being heard.

Now we will take up the next item Shri Samar Guha.

15.33 hrs.

DISCUSSION ON THE RECENT ATOMIC EXPLOSION CONDUCTED BY THE ATOMIC ENERGY COMMISSION

SHRI SAMAR GUHA (Contd). 18th May, 1974 should be regarded as a red-letter day in the history of our scientific and technological development. This Pokaran test is the greatest scientific and technological achievement of this country since the achievement of our independence. I am sure that this House will join me in offering our heartiest congratulations, warm congratulations to our scientists and technologists, on the basis of whose cooperation and endeavour, this atomic test has been made possible.

15.34 hrs.

[MR. DEPUTY-SPEAKER in the Chair]

The Atomic Energy Commission has published a brochure. I wish that brochure is more simple, more popular prepared in such a way that it can be understood by the student community in our Science and Technological institutions. Not only that. I want to draw the attention of the Prime Minister who is in charge of Atomic Energy Department that a national day, a nuclear day should be observed particularly in educational institutions to create a sense of effluent confidence and pride in the community of science so that they can feel more inspired to devote themselves to make better contribution in the realm of science.

Our participation in Bangladesh struggle brought respectability for this country in the international world. Although this is of different dimension, I must say, this atomic test has also created some sense of respectability for us in the world community.

I shall be failing in my duty if I do not congratulate the Prime Minister who is in charge of the Atomic Energy Department because she had to take a courageous decision by giving a green signal for this atomic test

I have no doubt that the time chosen for this nuclear blast was in expectation of a loud political echo for home consumption. Even then I would say that the Prime Minister deserves congratulation. It was not unexpected that there would be barrage of criticism from different countries in the world. Many of the countries in the world firstly do not want us to get into the world of scientific and technological development after having affirmed self confidence and mastering nuclear engineering technology.

The first thing that is agitating my mind is that after this nuclear test we have created a kind of dissatisfaction in some countries around us. It will

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be the task of the Government to tighten vigilance and security measures in regard to the protection of our nuclear establishment, particularly, the Trombay Tarapore Atomic Power Stations and also the Heavy Water Plant in Punjab which are situated in vulnerable areas where some pre-emptive strike from any potential enemies cannot be ruled out. That is the reason, I think, we should have round the clock vigil and take adequate security measures for the protection of our country. Secondly, it is time that we should have thinking particularly, for stockpiling our plutonium and enriched uranium and thorium. At least we should take steps to see that these stations are shifted either to Hyderabad or to Bangalore from the vulnerable areas of the western coast of Bombay. At least in future, nuclear power plants should be concentrated more in the Southern and South-eastern coastal regions far away from the vulnerable areas. The question may be whether the nuclear power plant should be in the southern region or south-eastern region. In that case the problem may arise for transmission of power. But if you have the system of national grid all over the country as I said earlier also, wherever you put up our nuclear power stations be it in the Southern region or in the South-Eastern region there may not be any difficulty for transmission of power from that region.

I now come to another point. There was a question of perfecting of technology of the nuclear blast—either you call it nuclear blast or nuclear explosion—and so it is not enough to have explosion only but we should master the science in all aspects of technology and the blast. However, it is necessary that more nuclear tests should be made. Fortunately the Prime Minister said in public that there was no question of not having further nuclear tests but it appeared from the press conference and other reports that in our Atomic Energy Department particu-

larly Dr. Sethna and Dr. Ramanna were saying that they would at least require six months to study in depth the results of the experiment that was done at Pokaran. May be, thus is for the consumption of the unsophisticated people.

But, I have to say that what is important is the kind of problem that we have to study namely generation of heat, generation of pressure and the radioactive product of the fission of explosion. It is well known that—it is expected of us also—when the automatic recorders are set up, at the time of experiment it should not take much time to record what degree of heat is generated, what pressure is generated or what type of radioactive byproducts of the fission are produced. It should not take six months time. It may convince the unsophisticated mind but it will not convince the others. It should not take so much time to make a study of the results of the Pokaran.

What is our objective of atomic test? What do we want? We have said the whole object is peaceful utilisation of the nuclear engineering technology. What does it mean? Our atomic device is at least 20 000 TNT worth thrust but for our peaceful purposes what are the areas which we can identify for utilisation of this blast technology. It may be removal of a hill-lock diversion of a river, creation of a lake in a desert, diverting the channel of a river finding underground minerals for oil and mineral exploration even in the sea-bed etc. That means we want energy or higher power of energy as much as it is available. There is nothing ethically wrong in any way. Atomic blast or test is nothing compared to thermo-nuclear explosion. A hydrogen-mass explosion is million times more powerful than the most powerful atomic device. We should find a better technology and a better power by which we can achieve the above enumerated objectives. For that purpose atomic energy is a must and they should try to develop for-

thermo-nuclear test because we must get hold of the higher capacity of blast technology.

What are the ingredients needed for a thermo-nuclear test. They are mass-2 hydrogen and mass-3 hydrogen, that is, deuterium and tritium. You can have deuterium from natural resources and also from heavy water. Tritium is an artificial one. That can be made and prepared in our country easily. Now, we want a match-stick to ignite mass of hydrogen of higher atomic weight and this match stick is atomic blast. We have enough heavy hydrogen. We can prepare tritium also. Therefore there is no reason why we should not have thermo-nuclear experiments for development of high nuclear technology for higher blast power. The Chairman of the Atomic Energy Commission has made a peculiar observation; I think it is also for unsophisticated reader. He said that because of the possibility of tritium contamination thermo-nuclear explosion may not be desirable or possible in our country and also that thermo-nuclear explosion may not be quite adoptable for exploration of oil. Why? Because of the tritium contamination, radio-active contamination. What is the fusion process? After the hydrogen mass is fused, helium is produced and helium isotopes are much less radio-active than the radio-active fission products after atomic test. I think the reasons for not having thermo-nuclear test cannot stand scrutiny of scientific calculation. Thermo-nuclear explosion is many times more powerful than an ordinary atomic test. Maybe you can do it underground with greater precautions, with a cavity that has to be prepared to contain greater thrust and pressure and withstand greater heat that might be generated. We have enough sea; the Bay of Bengal and the Arabian sea; it could be done even in the bed of subterranean mountains as the case of second American thermo-nuclear test was. In the Bay of Bengal there are many subterranean mountains and, on the top of one such mountain thermo-nuclear test can be done.

Therefore I say there need not be any ethical inhibition in regard to mastering the technology of thermo-nuclear explosion. It is a question of the possibility and the feasibility and getting deuterium and tritium and making the necessary arrangements. Whether and when and where it will be done and what would be the project and what will be the programme—I do not want to go into that. Nobody should ask the Atomic Energy Commission to disclose in advance whether they will be doing it and where they will be doing it; no patriot should ask them.

THE PRIME MINISTER, MINISTER OF ATOMIC ENERGY, MINISTER OF ELECTRONICS AND MINISTER OF SPACE (SHRIMATI INDRA GANDHI): What else are you asking?

SHRI SAMAR GUHA: I am just arguing that there should not be any ethical inhibition which should stand in the way of mastering the technology of thermo-nuclear explosion.

There has been some criticism in the outside world that India was trying to develop nuclear weapons. There is no reason whatsoever to be apologetic before the world and say again and again that our objective is not to develop nuclear weapons. It is known to the world that our economy does not permit us to have a large arsenal of the nuclear or the thermo-nuclear type weapons. We are parading that what we have done is nothing but a peaceful explosion. All the scientists know done on 18th May is what what we have done. What we have done on 18th May is what America did over Hiroshima. It is exactly the same as the Hiroshima type of atomic device; call it a bomb or device or anything you like. It is known to the whole world, every scientist having A, B, C knowledge of nuclear science knows that what we have exploded is nothing but a prototype of Hiroshima device, call it Hiroshima bomb or Hiroshima device, call it anything as you like. We are already in possession of an atomic bomb and we have already exploded an ato-

[Saki Samar Guha]

mic bomb. The question is, for what purpose—to destroy a city or for constructive purposes. Let us not parade too much that we have not developed an atomic bomb. The international world understands what is the meaning of a nuclear device. The only question in our case is the delivery system whether it will be craft-based or missile-based.

I am not in favour of having strategic nuclear weapons, which are called hydrogen bomb or thermo-nuclear strategic weapons. But one thing must be clear. The portion for developing tactical nuclear weapons should not be blocked. We should not too much commit ourselves that we should not have the option for developing tactical nuclear weapons. It is known that atomic mortar, atomic guns and similar types of atomic weapons are being included in the conventional army of the NATO powers, Soviet Union and perhaps China also. It is not a nuclear army; it is a conventional army which is equipped with this type of atomic guns and atomic mortar, having a small range, not of the Hydrogen type, but of atomic type which is limited. If the other international powers including NATO, Soviet Union and China agree that they will not include the atomic weapons known as the tactical weapons in the conventional army certainly we should also forgo our option. But if not, our Defence Ministry and our Atomic Energy Department should think many times whether our army should have that new concept of conventional arms, having tactical weapons like atomic guns, atomic mortar etc. I know if there is a thermo-nuclear war, there will be a holocaust. But in the case of use of atomic weapon it may be a limited war in a limited area and a potential enemy may take advantage of it. I do not want to terrorise the country. But it is a fact that within a few minutes—within 4 or 5 minutes if it is missile-based and within 15 or 20 minutes if it is craft-based—the whole defence complex of Northern India

will be completely finished by using atomic mortar or atomic gun, technically called tactical weapons. So we have to think many times whether we should develop these tactical nuclear weapons or not.

Everybody in the world understands where we are today. We know a nuclear weapon is not a weapon of destruction nor is it a weapon of protection. It is a weapon of total annihilation. It is known to everybody that one megatonic hydrogen bombs are enough to finish France, U.K. or Germany. Two or three dozen even one megatonic hydrogen bombs are enough to finish the whole of Europe, including European Russia, because of the push-button system of use of ICBM and IBM. It will take only a few minutes to push the buttons and the whole of Europe may be converted into complete dust. Even after that holocaust there will be different kinds of radio-active rays and ashes that will be carried by the air currents, which will go all over the world and completely destroy wherever they will spread.

At the moment America has 5,000 nuclear arms in its arsenal. Russia has also an almost equal number. We do not know the number of China, what is in the possession of France or UK. Can you imagine that three dozen even one megatonic hydrogen bombs are enough to finish entire Europe, including European Russia? Now the missile-based submarines carrying nuclear war-heads can cause devastation anywhere in the world. America is not also free from that. Nuclear arms can act as deterrent. But it cannot protect any country, if there is any thermo-nuclear war. I do not know whether there is any potential Hitler in any part of the world now; I do not know. If any Hitler comes in the future in any country and if there is a push-button war all the advanced countries of the world may be completely annihilated. If there is a nuclear war, a full-fledged nuclear war, only Africa and South America will be the survivors of our civilisation.

I understand that, everybody understands that because we have a little knowledge of what are called nuclear weapons, I say so because we have got a chance now. So long we were talking about the dis-armament with certain postulates for peace, a philosophical approach. But now we have an opportunity for some kind of nuclear diplomacy. It is time for India to go into the world with a certain pride, with a certain confidence and also with a faith in humanity. It is time that India should go and develop a kind of nuclear diplomacy to effect real total nuclear disarmament and not mere banning of underground test or banning atmospheric tests. We want to save humanity and India can do it. Now India has the strength and India has the confidence. We can now talk because the international community has developed a certain respectability for India now. So, we have to develop nuclear diplomacy to effect total nuclear disarmament. That should be the objective of our nuclear diplomacy.

I conclude by saying that nuclear science has created a new perspective for humanity. After one century the sources of oil and coal will be exhausted. Either we go back to the bullock-cart age or we utilize the nuclear science and power as a motivation for new propulsion for building a new society, a new co-operative world society or the prospect of lurking total annihilation of society.

16 hrs.

SHRI VISHWANATH PRATAP SINGH (Phulpur) Mr Deputy-Speaker, Sir, if anything has been exploded by the Pokharan explosion then it has been the myth that vital technology can be the exclusive possession of a few countries. It has been unsettling to some who had envisaged a world order on these premises. They throw their hands in horror and accuse us of opening the Nuclear Pandora's Box, and turn pale at the thought of puny little countries,—the little elves with no sense of responsibility—will

follow the lead of the tramp called India and start the dirty job of producing the nuclear bomb—a job which was the sole monopoly of the nuclear weapon countries.

What a pious thought? Wish it had occurred before the push-button was released to drop the nuclear bombs on Hiroshima and Nagasaki. The high-priests who had installed the nuclear diety on the high pedestal of their global relations are now scared that some of their worshippers may build their own temples. Let it be known then if any country does build the nuclear bombs it will be following the example of Hiroshima and not that of Pokharan.

With all due respect to Mr Samar Guha, I would say, there is a vital difference between the explosions over Hiroshima and that at Pokharan and the difference is as wide as the amelioration and annihilation of mankind. We are not apologetic. We are categorical that the philosophy of Hiroshima must end and the philosophy of Pokharan must spread. And immediately comes a rejoinder that the applicability of nuclear explosive technology is not yet established. I would agree that the applicability of nuclear explosive technology may not be established but it is certainly a promising one. The frontiers of science lie far beyond the narrow bounds of established technology and it is to these thresholds that our political leadership and our scientists are taking us to. Or, alternatively, does it mean that the smaller countries should not venture into a technology though it may be vital for their development till some of the bigger powers have mastered it and then kneel and beg to have access to it. If Flowshare is valid, if Gasbuggy is valid, if blocking of gas wells is valid in USSR, then Pokharan too is valid. Why should India be asked to produce results earlier than U.S.A. and USSR can do?

In the third world, we have had the bitter experience of superior techno-

[Shri Vishwanath Pratap Singh]

logy being used to subjugate us politically, militarily and economically. It was for this very reason that Gandhi symbolised the fight for freedom as the fight of the *Charkha* against the Lancashire mills. It has been aptly said that we have missed the first revolution and we cannot afford to miss the second one. And, if we are to partake in the second scientific revolution, we should not be found gaping when the break-through comes. We have to start now. And that is what Pokharan has done.

As soon as we say this, comes a contemptuous remark, "You are too poor. It is too costly for you. It will ruin your economy." Sir, because we are poor, we need Pokharan. May I ask what was the condition of economy when U.S.S.R., China and Britain started their nuclear programmes? Their nuclear programmes were not for development but for mutual destruction. The economy of Russia and Britain was in shambles after the Second World War. China had not recovered from the great fall of its Great Leap.

So far as the cost is concerned, the fantastic cost that was quoted as Rs. 165 crores is just like computing the expenses on one's daughter's marriage by taking into account all the costs one had incurred on her education, feeding and so on.

The explosion is a by-product of our peaceful programme. It is now very well known that space technology and nuclear technology has a multiplier effect on economy. Far from being a burden, the nuclear technology is going to be a boon to our economy. To those who have raised their eyebrows when we had exploded our nuclear device in Pokharan, I would ask: why were they dumb when other nuclear weapon powers exploded their devices, weapon devices, after the Pokharan test? Their silence is eloquent of their hypocrisy. Sir, if 9,000 nuclear weapons of USA, USSR and China are the best guarantee for the

security of the present world order, our ten-kilo ton explosion can be no danger to it. Much more than that our Pokharan test has immediate peaceful applications in the global context. Having proved our nuclear capability, our call for disarmament has acquired special credence, force and meaning. The nuclear weapon powers will be quick to realise that, unless a less discriminatory world order is not evolved, their nuclear monopoly can be smashed any day; it will not be us. It will be some other power. It will not do to call a treaty a Non-Proliferation Treaty when it is just a cover for some countries to amass as much of nuclear weapons as they like while denying smaller countries nuclear technology even for their development. It will not do to call the programme for higher sophistication of nuclear weaponry a Strategic Arms Limitation Treaty. The game that the nuclear weapon powers has been playing behind the closed doors, is over. The latch has been opened. But we have no intention to enter that room. Sir, Indian political leadership by proving nuclear capability and yet refraining from nuclear weapons showed the vision and sagacity to pursue a new trail of peace. It is from this nuclear capable non-weapon threshold that possibilities of a new world order may emerge, which may be more reassuring than the premise of Mutually Assured Destruction—most aptly called MAD

Coming to a few aspects of our nuclear programme, I would like to point out—as has been already said and I would also emphasize—that the security aspects of our nuclear installations must be attended to. It may not be possible to shift all our nuclear installations, even then security aspect must be considered. Take for instance the new plutonium plant. It may be considered to build it underground where it may be safe from a conventional weapons. In our programme of nuclear energy, we must consider very thoughtfully what in future would be the shortages of plutonium and other fissile material. Definitely, by the

next decade, by 1984, our demand for fissile material will outstrip our supply and for this, we will have to make a concerted effort now. We need two grades of plutonium—one for our power reactors and one for our explosive devices. It is not very efficient to get plutonium from a power reactor. We will have to have apart from power reactors some smaller reactors for obtaining explosive grade of plutonium, because to get explosive grade of plutonium a reactor has to be run in a certain way. It has been assessed by our Tarapur unit that we will need annually 20 tonnes of enriched uranium and the first fast Breeder Test reactors will need half a tonne of enriched uranium and that will be then when we will be really short of fissile material. I am sure under the leadership of our Prime Minister all these aspects will be duly considered and the tempo of our progress maintained.

SHRI S. P. BHATTACHARYYA (Uluberia) We congratulate our atomic technologists for making this atomic blast successful mainly because they have done it completely by themselves without any foreign country's help. Another thing they made this explosion in such a way that no fall out has fallen in the atmosphere. That is also a good achievement, a great achievement for our scientists. Therefore, this is something to be congratulated and something to be proud of.

Maybe the American imperialists are very angry over it because their monopoly of atomic power is getting eroded.

MR. DEPUTY SPEAKER. Do they have the monopoly?

SHRI S. P. BHATTACHARYYA Almost the atomic club powers have got their monopoly and they do not want the proliferation of the atomic power because that will be going beyond their clutches and they do not like it. They want to kill people with their atomic power but our purpose is to utilise this power, as declared by our country, for

peaceful purposes. I think that is the way we should try to proceed so that we can with this power in hand and in our control, utilise it for the benefit of our country. For example, the scientists are already discussing in their journals that we can create big reservoirs by this atomic blast so that surplus river waters can be stored and flood destruction may be avoided by that and the water reserves may be utilised in the dry season. That is that we can very scientifically utilise the water reserves of the country with the help of this power. Also if we can make atomic powered dredgers we can clear the siltation of the rivers as in Calcutta and Haldia? We can improve our ports and harbour facilities and we can show to the world that we are utilising this power not for the destruction of humanity but for the good of humanity. That possibility is there.

Our scientists will be generating power from hydrogen in the near future and by that power throughout our coastline we can get sweet water, sea-water can be turned into drinking water which will benefit our country in various ways. It will help our irrigation and cultivation activities and the country can be developed. The power development can make progress and this will in turn increase our economic prosperity.

But what has happened is, in spite of such developments we have been tied down to feudal economy and we have been accustomed to old system of oppression and so our country has been backward and this is almost anchoring our progress from behind. This feudal system must go and landlordism must end. The tillers of the soil must get their share. Even now we have got sufficient food but that cannot be distributed to the poor. That is the position. This situation must be overcome. We should end our poverty and unemployment and for this landlordism must go and monopolist exploitation, foreign imperialist exploitation and profiteering must end.

[Shri S P. Bhattacharyya]

This power should be used for the good of the people and the people should participate in that endeavour more than what those countries have achievement

But I doubt whether this Government will be able to go against the interest of the monopolists and land lords. But unless we do it the country cannot make progress. This is very important. If we utilise these experiments for the good of our people we can become a much more powerful country than Russia or China because we have got sufficient resources—more than what those countries have.

With these words I greet the scientists and the technologists who have made this experiment a great success.

श्री मूलचन्द डागा (पाली) : उपाध्यक्ष महोदय, मुझे इस बात की ज्यादा खुशी है कि राजस्थान की भूमि पर जो काम होते हैं, वे बड़ी बहादुरी के होते हैं। मैं 18 मई के दिन को बहुत अच्छा समझता हूँ, जब 8-05 बजे यह शानदार घटना हुई जिस के कारण केवल मेरे नहीं, बल्कि हिन्दुस्तान के सब लोगों के, दिलों में ख़शी की लहर दौड़ गई। लोगों ने अपना सिर ऊचा किया, उन की आँखों से चमक और चेहरों पर रौनक आई, और हिन्दुस्तान का स्वाभिमान जग गया। डा० सेठना, डा० रामन्ना और अन्य वैज्ञानिकों की प्रशंसा करने के लिए मेरे पास शब्द नहीं हैं। प्राइम मिनिस्टर ने कहा है कि हिन्दुस्तान के वैज्ञानिकों, तुम ने कमाल किया है। लोग कहते हैं धीरे-धीरे लोग, जो बड़े-बड़े लोग हैं समूहशाली लोग, वे यह समझते हैं कि यह केवल हमारा अधिकार है, गरीब मुल्कों का नहीं। लेकिन मैं यह मत समझते कि समूह से और दौलत से जो लोग धरे हुए हैं उन लोगों में ही केवल स्वाभिमान है। लोग यह भूल करते हैं जब इंसान में सारी शकल देखते हैं। सिंधीयों में जो संतोष है और उस के अन्दर

भी कुछ ताकत है जो कम नहीं है। हिन्दुस्तान की गरीबी का यह मतलब नहीं था और जवाहर लाल नेहरू ने भी पार्लियामेंट के डिस्कशन में यह बात कही थी। वे शांति के दूत थे, शांति का पैगाम लेकर हिन्दुस्तान क्या सारे विश्व में घूमते थे और कहते थे कि हिन्दुस्तान के लोग शांति में विश्वास करते हैं। उस शांति के दूत ने जो बात कही और 16 दिसम्बर 1972 को जब बंगला देश का मुद्दा चल रहा था, तो शाम के 7 बजे हम ने सुना कि सारी जमीन हमें नहीं चाहिए, हिन्दुस्तान कभी धागे बढना नहीं चाहता। अगर कोई हिन्दुस्तान पर यह नज़र लगाता है कि वह गांधी जी के सिद्धान्तों से अलग हो गया तो वह गुनाह करता है। हिन्दुस्तान की मच्चाई में और उसके विश्वासों में विश्वास करना हर एक का कर्तव्य है। हमारा परमाणु ऊर्जा का उपयोग करने का जो इरादा था वह यह था कि हमारा मुल्क जिस को गरीब मुल्क लोग कहते हैं लेकिन जिसके दिल में बड़ मजबूती है दौलत से दुनिया कहती है कि गरीब है, लेकिन स्वाभिमान हमारा जगा हुआ है। हम किसी की तरफ देखना नहीं चाहते। हम तो कहते हैं दूसरे मुल्कों को कि तुम भी हमारा साथ दो, हमारी जो टेक्नालाजी है हम उस में हाथ बढाना चाहते हैं, हम तुम को बेलकम करते हैं, तुम सीखो और एक दफा नहीं, कितनी दफा यह बात कही गई है।

मैं कहना चाहता हूँ कि पोखरण की धरती पर यह काम हुआ है, वह धरती कैसी है कि वहाँ रामदेव का मन्दिर है, कभी धाय जाय और उस को देख कर धाय। तीन महीने वहाँ साइटिस्ट्स ने क्या किया होगा? धाय को रिपोर्ट किया होगा।

सिन्हाई और विद्युत मंत्री (श्री कृष्ण चन्द्र पन्त) : राजस्थान का कमाल है।

श्री मूलचन्द डागा : क्या कहना है? धाय के इतना कहने के बाद मैं और

ऊंचा हो गया और मेरे दिल के अन्दर ऐसा एहसास है कि जो जवान तबका है हिन्दुस्तान का वह और दो इंच ऊंचा उठने लगा ।

तो जवाहरलाल नेहरू ने 1954 में पार्लियामेंट के डिस्कशन में यह कहा था—

“The use of atomic energy for peaceful purposes is far more important for a country like India, that is to say, in a country whose power resources are limited than a country like France, and industrially advanced country. It is important for a power hungry country like India as most of the countries in Asia and Africa.”

फिर 1954 में उन्होंने सबसे पहले रीऐक्टर का उद्घाटन करने हुए कहा था :

“I am glad to say on behalf of my Government and myself and I think that I can say that for any future Government of India, whatever might happen, whatever the circumstances, we shall never use this atomic energy for evil purposes.”

यह उस समय कहा था और आज भी वही चल रहा है । कुछ लोग हमारा ध्यान दूसरी तरफ ले जाते हैं । कहते हैं कि कितनी धनराशि खर्च हो गई ? मैं कहता हूँ भाभा ने तो उसी समय कहा था 15 अगस्त सन् 1947 के दस दिन बाद मीटिंग हो गई थी परमाणु ऊर्जा आयोग की । यहां पर पार्लियामेंट में हाफ ऐन अवर डिस्कशन हुआ । लेकिन हमारे यहां बहुत तरह के विचार वाले लोग हैं, जो चाहते हैं कहते हैं । और कोई हमारा उद्देश्य ही नहीं । हम तो शांति का पैमाने फैलाते हैं । बुद्ध की भूमि में, महावीर की भूमि में, गांधी की भूमि में और जवाहर लाल नेहरू की भूमि में

श्री जगन्नाथ राव जोशी (भाजापुर) :
अब तो इंदिरा गांधी की भूमि है

श्री मुकुन्दराव डागा : आप को भी तो जोर आया है । परमाणु बम के नाम पर

बेहरे पर हूँ भी भा गई । तो यह तो हर-एक भावनी जो हिन्दुस्तान का है, यहां का 56 करोड़ नागरिक जो हैं सब को इससे खुशी हुई है और आज समर गुहा भी कैसा अच्छा बोले ? तो इस वक्त तो देश की आम जनता को, प्रत्येक व्यक्ति को इस से खुशी हो रही है । मुझे तो बड़ी हार्दिक प्रसन्नता होती है । हमारे वैज्ञानिकों का जब इंटरव्यू लिया और उन से पूछा कि रमनासाहब क्या यह आपने किया है तो उन्होंने कहा कि नहीं-नहीं, यह सारी टीम का काम है । इल्लस्ट्रेटिड वीकली में उनका इंटरव्यू छपा है जिसे मैंने पढ़ा । साइंटिस्ट्स की बोली में और राजनीतिकों की बोली में कितना फर्क है । इंटरव्यू में उन्होंने यही कहा कि अवर एक्सपेरिमेंट इज फार पीसफुल परपजिज । राजस्थान के अन्दर पोखरण की धरती पर जहां भगवान रामदेव का मंदिर है वहा यह काम हुआ है । जब शक्तिशाली शक्तियां बढ़ती हैं जैसे 1961 या 1971 में हुआ और बार बार होता है तो भुक्त के अन्दर यह बोझ सा होना भी चाहिए ताकि लोग ध्यान रखें कि हम भी कुछ हैं । उनको यह मालूम हो जाना चाहिए कि कभी कभी जो विभीषिकार्यें खड़ी होती हैं और वे कहते हैं कि हमला कर देंगे तो हमारी धरती को भी बोलना चाहिए कि हम कायर नहीं हैं । गांधी जो कः अहिंसा कायरता की अहिंसा नहीं है । अगर कोई नहीं मानता है तो हिंसा भी करनी चाहिए । महावीर श्वामी की या गांधीजी की अहिंसा यह नहीं सिखाती कि कायर बन जाओ । जो काम हुआ है इसको आपको और आगे बढ़ाना चाहिए । जो भी हमारे लिए कुछ और कहते हैं उनको हमें जलैः करना चाहिए और कहना चाहिए कि भारत तो अपनी टैकनालाजी दूसरों को भी देने को तैयार है ।

SHRI INDRAJIT GUPTA (Alipore):
Sir, I share the sense of solemnity on this occasion because this month of August marks the 29th anniversary of

[Shri Indrajit Gupta]

the destruction of Hiroshima and Nagasaki. The explosion of two bombs resulted in over one lakh people being killed, 60,000 or more demonstrably injured and many thousands more infected by radio active poison—some of whom are dying or their children are dying even to this day

So, it is appropriate that on a occasion like this we are debating this new milestone which we have reached in our own development of nuclear technology making it clear before the world that our purposes are entirely peaceful and not militaristic or belligerent in any way

Sir, we should be quite clear on the essence of the achievements that our scientists have recorded. I am not a scientist but as far as I have understood the first aspect of this achievement is that we have mastered the technique of separating plutonium from the burnt up uranium fuel rods. This was only possible because we had one laboratory scale breeder reactor based on uranium 235 in this country. Thanks to the foresight of Dr Homi Bhabha this reactor enabled our scientists to separate the plutonium

The second achievement which has already been mentioned is the technique of being able to bring about an underground nuclear explosion without any hazards or radio active fall out. These are the two things that have been done on May 18 at Pokhran. These are things for which all of us as Indians should congratulate our team of atomic energy scientists who have really demonstrated that based entirely on their own skills and knowledge and resources they have been able to bring our country to this position.

I do not want to strike a discordant note but it seems to me that we still have got a long way to go before the underground explosion can be successfully used and practically applied for things like loosening up or trapping

of deposits of oil or gas or breaking up lowgrade non-ferrous metal ore deposits. The question arises in a layman's mind: why is it that countries which are technologically far ahead of us and which have carried out nuclear explosions running into hundreds have not been able till today to utilise—to my knowledge it is so, hon. Minister can give us information—this particular technology. We are not talking of nuclear technology in general, we are talking of the technology of blast or explosion for such purposes as diverting the course of a river or finding out underground mineral deposits and so on

Of course one argument can be given, perhaps they were not interested this possible use and they were interested only in making weapons and therefore they did not do that. I am not convinced by this argument because if that is something which could be effectively done, I do not understand why the countries which are today facing such acute energy crisis for example the United States, would not go in for this experiment. Once they were talking about building a second Panama canal with the use of nuclear explosions across their land. They have not been able to do it. I came across this argument may be they are not interested or they are interested only in making bombs. I think the answer is not as simple as that. I should prefer to infer from this that the transition from a mere experimental underground nuclear blast to the actual practical effective use of this for peaceful development purposes is perhaps a very big leap forward and if our scientists are able to show the way in this field—it is not something which can be done easily, overnight—I think that we can claim that we have become the real pace-setters of human history

MR DEPUTY-SPEAKER: Trail blazers. Shri Indrajit Gupta, trail blazers as you, Sir, correctly say. I think the Government of India should take up this challenge and should give all possible help and encouragement to

our scientists to make attempt in this field.

I share the views expressed by Mr. Samar Guha that the security arrangements in this country do not inspire confidence, generally speaking. We come across so many things which are raised in this House from time to time. There was a big furore over the alleged theft of uranium from Judugada plant in Bihar. Now that we have reached this stage, we should see to it that security arrangements in our atomic energy establishments are tightened up considerably so that there is no possibility of any theft or sabotage.

There is a political aspect, with which I want to deal briefly. The hullabaloo which has been created in all countries of the world following the May 18 explosion is obviously not because India has got some nuclear resources or has set up some power stations. That we have been doing for a long time. The commotion has been provoked by the fact that for the first time we have joined that group of nations who have got the capability of setting off an explosion or blast. That is the new point of departure. Everybody knows that essentially this technology is no different from the technology of making a bomb. It is quite obvious. The same technology which produces an underground blast can be used for making a bomb. Therefore, we find all sorts of reactions abroad, some of them hypocritical coming from quarters who have no business to say those things about India, when they themselves have been indulging all these years in all types of nuclear tests not only underground but in the atmosphere till the other day, as we have seen. I was studying some of the world press reactions and some of them were very peculiar and amusing. For example, in Japan one view was put forward whether a nuclear country can be considered any further as a developing country, meaning that the question of giving economic aid and assistance to India as a

developing country should be reconsidered because after all can a country which is nuclear be considered as a developing country any more? In Australia I came across this view: "The Indian explosion has changed the entire status quo in the Indian Ocean region", as though we have already decided to go in for some sort of nuclear weapons! One heading in an Australian newspaper was, "Indian blast has reactivated the Canberra atom bomb lobby". I do not think we bargained for all these things either. Curiously, in China one paper said, "Indian test was encouraged by the Soviet Union" as if the Soviet Union from behind was prodding the Government of India to carry out this test. This view was immediately contradicted by the Indonesians who have commented that India's nuclear capability will help it to reduce its dependence on the Soviet Union. Both of them cannot be true. A very influential newspaper, *The Observer* of London said, "India's stock of plutonium is adequate to make 40 medium-sized bombs" I do not know whether the estimate was made by the British intelligence service. How can they calculate this? However, this is what they have written. All of us know the reactions of Pakistan. Mr. Aziz Ahmed Khan said—he says this has been confirmed by Canada—India has enough plutonium to make 17 bombs. This is rather less than the British estimate. In any case, many countries seem to be sceptical because the technology of this underground explosion is basically the same as that required for making bombs.

I am only worried about one thing. Despite the repeated assurances given by the Government of India since the 18th May, which we consider to be welcome assurances, they are being assailed from either side. On the one side they are being assailed by some imperialistic powers who are angry and annoyed why a so-called developing country should at all attain this status. On the other side, they are being assailed by some

[Mr. Deputy Speaker]

critics in our country. They say, why are you apologetic, why are you so defensive all the time, why do you want to say all the time that we are going to use it only for peaceful purposes? Professor Guna said it just now and I am sure my hon friend, Shri Atal Bihari Vajpayee, will make out a much stronger case, saying that we should immediately use this capability to develop weapons and a nuclear arsenal.

MR DEPUTY-SPEAKER: He whispered to you?

SHRI INDRAJIT GUPTA: No, it is clear from his face. All I wish to say is that the Government of India, while considering the technological aspect of this achievement, should not lose sight of the political aspect. We have been told that we have the capability for a long time, we could have set off this blast much earlier, if we wanted to. Well, if we could have set it off much earlier, we could have set it off much later also. My question is about the timing of it. There must be some reason behind the timing of this, this particular timing of 18th May. I am not clear about it.

I would simply like to know whether the Government of India has taken all these considerations into account, that there are people in this world who do not view us in a kindly light, who are our enemies, who make no pretence of their hostility to us, no secret of it, people who are at all times trying to point out that India has got aggressive designs, expansionist designs and who would seize upon an occasion like this to project their own ideas in the world and to try to spoil, if I may say so, the atmosphere which we have been trying to create since the Simla Agreement of 1972, of trying to bring about step by step some kind of normalisation of relations between ourselves, Bangladesh and Pakistan and some sort of detente, if I may use that expression on this sub-continent so that we do not have to live in this

atmosphere of repeated outbreaks of war every four or five years. We have advanced quite a bit on that path and we were advancing despite all difficulties and obstacles. I hope we would also take into consideration this fact that people like Prime Minister Bhutto, or some other people in Pakistan who may be perhaps more anti-Indian than Bhutto himself, and their patrons—they have foreign patrons and they are members of foreign military pacts—they would seize upon an opportunity like this to say that India is now preparing to have some sort of aggressive or militaristic designs in this region and therefore, on that plea, Pakistan and their allies should be given some protection in the form of a nuclear umbrella. Already I find from the writings in the Pakistani press that they have approached China and the United States to protect them against the new threat from India. They are utilising this for this kind of motivated propaganda, the result being that some nuclear bases may appear on our sub-continent, just near our borders across our borders, where they did not exist at present.

Our Prime Minister has done very well as also other Ministers and Sardar Swaran Singh has repeatedly made detailed statements, assuring everybody, particularly the Government and the people of Pakistan, that we do not have any aggressive designs whatsoever and that we are not going to use this technology for anything except purposes of peaceful development. Nevertheless, I would just remind the Government that a nuclear arms race of any kind, even in the sphere of what Professor Samar Guha called tactical nuclear weapons, would in my view be a disaster for us. Already we are in a terrible condition, economically and financially, and I do not wish to go into that. We do not know where the resources are going to come from for this. Our people are starving and it would mean diversion of resources from much-pressing needs of our people. Nobody can suggest that if we adopt some nuclear tactical

weapons, we can reduce the expenditure on our conventional arms and armies. That can never be done. It will mean something over and above, in addition to, our conventional defence set up. The recent experience shows that in local wars—I am not talking of world wars; I hope that world wars will not break out again; that might lead to nuclear holocaust and devastation on a global scale—in local wars, of which we have had experience in the last few years twice or thrice, we have to depend on conventional weapons. A small country like Vietnam all these years was locked in a mortal combat with one of the biggest nuclear powers in the world. We have seen the wars in the Middle East, between Israel and Arab countries; we have seen the hostilities now in Cyprus. It is not possible to wage modern wars even on a local scale with the use of nuclear weapons. It is not so easy today. The conventional arms are used. We have also relied on conventional arms for our defence in the past. Therefore, I would say that self-reliant defence system, the well-trained army, is all we can afford. Even that is more than what we can afford at the moment. We are spending Rs. 2000 crores a year on it. We cannot visualise this huge amount being increased by the advocacy of going in our nuclear armaments. Ultimately, of course, it is only nuclear disarmament on a world scale, a ban on all nuclear weapons, which can guarantee the survival of this world and peace and security for everybody.

Some method can be found by which we can have a mutual security or collective security arrangement with our friends and neighbours in this region. I share the views of the hon. Members that we have now acquired this capability and we can speak from the position of relative strength in favour of peace, not in favour of war. We can use our new position and our voice will be respected much more in the councils of the world to advocate much more strongly that the world should

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go in for nuclear disarmament and a total ban on production and stockpiling and use of all nuclear arms by all nuclear powers. That should be the goal for which we should utilise our new strength and capability.

All I say in conclusion is that no matter what pressure is put on the Government, from outside or from within our own country, from certain quarters, to pressurise and push the Government on to the path of nuclear armaments, I would appeal to the Government to stand firm, to adhere to its principled position which it has taken up in the past and not to allow itself to be pressurised or stampeded in any way. If we go on that path, it will mean economic ruin for this country altogether. It will also mean, I fear, a loss of the traditional reputation and image which our country has built up in the world and which has stood us in good stead all these years.

SHRI P. V. G. RAJU (Visakhapatnam): Mr. Deputy-Speaker, Sir, I would like to start by mentioning something personal. In 1964, I met Prof. Bhabha at Vizag. He was a great friend of Swami Gyannanda who was the Professor of Nuclear Physics in the Andhra University. Swami Gyannanda and he had mentioned one thing to me which I feel I must mention now.

In 1962 or in 1963, we were at war with China. The Chinese had attacked India in the north-east frontier region, north of Assam. At that time, Swami Gyannanda said to me, "It is very important that we hold the area because it is very important for us to develop nuclear energy, electric energy, in the area. As to how it could be done, I feel, I should repeat it now. According to him, the Brahamaputra reaches India in that area which is known as from Tibet into India and then it flows into the valley. On the right hand side and the left hand side of the valley there are hills—about 5,000

[Shri P. V. G. Raju]

to 7,000 ft high—and the Brahmaputra flows in between. Swamiji told me that it is possible to produce electricity by blasting tunnels in those mountains and allowing water to flow into those tunnels. We can have the first class hydro-electric machinery there. He went to the extent of saying that we could produce electricity in that area as much as what the whole of Europe is producing today. I am quoting these things because I find in the report, given to all Members of Parliament, on page 10 it has been said that underground nuclear explosions can be used to break up rock formations and that this would help gas and oil supplies to flow more freely. I would not go into the question of gas and oil but I would go to the question of breaking up rock formations—for blasting tunnels in the mountains. As I said, after DIM AG GORGE Brahmaputra falls in the north-eastern area of India. I am not a hydro-electric engineer or a nuclear engineer. I am only mentioning this because Swamiji had spoken to me and Dr Bhabha was friend of mine. In 1942 when I was a student in Bangalore he was in the Tata Institute in Bangalore. We were friends for many years. Therefore I am mentioning it. I find that in the booklet supplied to all of us on page 10 it has been said that underground nuclear explosions can be used to break up rock formations. Therefore if we can produce as much electricity as the whole of Europe is producing by using the Brahmaputra water I think we should think about it.

There is another point that I would like to make. Prof Samar Guha has mentioned the question of not having nuclear energy units not only in Bombay—where he feels some insecurity—also in Ranapratap Sagar in Rajasthan and also in some other places where in the event of a war there would not be any danger to the installations. We are also talking of national integration and coordination

or all the States of India. I would therefore suggest that a joint nuclear power station be developed as between Andhra Pradesh, Orissa and Madhya Pradesh at a point between Belamela and Upper Sileru and Lower Sileru. Some time back I had mentioned this to the Prime Minister also. I am mentioning this because, as far as I know, atomic energy equipment is such that it would require a great deal of water to cool the equipment of the heating process for generation of electricity. Orissa has developed the Belamela project and Andhra Pradesh has two projects, Upper Sileru and Lower Sileru. And the water flows from this area into the canal at Balmela where it goes into the Godavari river. Therefore a joint project can be built between Madhya Pradesh, Andhra and Orissa Governments in that very small area. The distance between Balmela and the Upper Sileru is 15 miles, the distance between Lower Sileru and Madhya Pradesh is 22 miles and the distance between Lower Sileru and the Upper Sileru is 20 miles. So, in that belt of 50 sq miles where three states of India join an atomic station can be set up. I mentioned Madhya Pradesh because hon Members may know that Madhya Pradesh is the biggest State in India in geographical area. Andhra Pradesh claims to be a southern State and therefore if an atomic station could be established there linking up with Madhya Pradesh which is really a northern State in the sense that it is a Hindi-speaking State. Hindi and Telugu will meet together and we will have a joint nuclear project.

MR DEPUTY-SPEAKER: There should be a nuclear explosion in that area?

SHRI P. V. G. RAJU: I am sorry I am not a nuclear engineer. So I can not help in that matter. But I will certainly try to unify them for peaceful purposes.

SHRI VASANT SATHE (Akola): Nuclear integration.

MR. DEPUTY-SPEAKER: We are talking about the nuclear explosion. I hope you do not want an explosion there.

SHRI P. V. G. RAJU: I will close by suggesting one thing where I have some personal interest. About two years ago, the Members of the Atomic Energy Consultative Committee were taken to Tarapur at Bombay where we saw the Bombay duck which is like pomfret. In Tarapur what they do is that they take this Bombay duck and by the use of radio-isotopes preserve it. The scientists there sent me and other members of the committee some of that Bombay duck and we could very well eat that fish. There is no problem because the atomic energy isotopes have been used for preserving the fish. I said to them: 'Why do you not send a little of the fish to Members of Parliament so that we can buy it in Parliament and use it before it can be released for the public?' Of course, I do not say that vegetarians should eat fish. I do not mind taking this Bombay duck. So I will request our Prime Minister to see that the fish which has been preserved by radio-isotopes at Tarapur are sold to the Members of Parliament.

श्री अटल बिहारी वाजपेयी (ग्वान्टर):

18 मई का दिन हमारे इतिहास में सदैव स्मरण रखा जायगा। उस दिन भारत ने एक घमाके के साथ अणु युग में प्रवेश किया। हमारे अणु वैज्ञानिक इसके लिये धन्यवाद और प्रशंसा के अधिकारी हैं। जो देश यह समझते हैं कि अणु क्षमता से सम्पन्न बनने का भारत का सपना उस विमान दुर्घटना में जो एलप्स पर्वत की मालिका में हुई बर्फ में दब गया, जिस दुर्घटना में हमें डाक्टर भाभा से हाथ धोना पड़ा, आज उन्हें भारत का लोहा मानना पड़ा है। डाक्टर भाभा की पवित्र मस्तिष्क को अद्भुत शक्ति मिली है। उन के काम की वैज्ञानिकों ने आगे बढ़ाया और सरकार ने उन्हें उचित प्रोत्साहन दिया। इसलिये आज हम कुछ महाशक्तियों की अणु क्षमता पर एकाधिकार करने की प्रवृत्ति को

तोड़कर एक अणु क्षमता सम्पन्न देश के रूप में विश्व के मान चित्र पर प्रस्तुत होने में सफल हुए हैं।

17.00 hrs.

[SHRI VASANT SATHE in the Chair]

भारत की उपलब्धि केवल भारत की उपलब्धि नहीं है, एशिया, अफ्रीका और दक्षिण अमरीका के सभी विकासशील देशों को इस उपलब्धि में एक गौरव की अनुभूति हुई है। परमाणु विस्फोट के बाद मुझे दुनिया के अनेक देशों में जाने का मौका मिला है और जिन देशों में मैं गया हूँ वहाँ आम आदमी इस बात से प्रसन्न है कि भारत जैसे एक विकासशील देश में भी यह क्षमता प्राप्त करके दिखाई है।

कुछ देशों की प्रतिक्रिया अनुपेक्षित नहीं है। हमारे पड़ोसी देश पाकिस्तान ने तो इस परमाणु विस्फोट को बहाना लेकर बढ़ते हुये मैत्री संबंधों में फिर से रुकावट पैदा कर दी है। यह कोई आश्चर्य की बात नहीं है। अगर यह विस्फोट न भी हुआ हँ ना तो भी उन्हें अगर सामान्य सबंध कायम नहीं करने है तो कोई दूसरा—बहाना गढ कर सामने आ सकते थे। सच्चाई तो यह है कि पाकिस्तान शिमला में जिन उद्देश्यों को पूरा करना चाहता था वे उसमें पूरे कर लिये। खोई डूयी जमीन वापिस ले ली, अपने युद्धबन्दी छोड़ा लिए। अब वह अगर मनमुटाव का रास्ता अपनाए तो मुझे ताज्जुब नहीं होगा। लेकिन फिर भी प्रधान मंत्री ने पाकिस्तान को आश्वासन दिया जबकि सचमुच में पाकिस्तान को किसी आश्वासन की आवश्यकता नहीं थी।

लेकिन हम लोग एक बात नहीं भूल सकते हैं कि हमारे पड़ोस में चीन भी है जो अणु शक्तों से सज्ज है, जो आणविक हथियारों के अम्बार खड़े कर रहा है, जो युद्ध की अनिवार्यता में विश्वास करता है, जो युद्ध द्वारा विश्व के ढांचे की बदलने की घोषणा करता है, जिसने तिब्बत को निगल लिया, जिसने तिब्बत में

[श्री घटक बिहारि बाजपेयी]

अणु बस्तु से सज्ज प्रलेपधारक तैमात कर दिये हैं, जिसके प्रलेपधास्त्र हिन्द महासागर तक पहुच सकते हैं.....

श्री विभूति मिश्र (मोतीहारी) : आपने जय प्रकाश नारायण जी से गठबंधन कर रखा है जो उसी की तारीफ कर रहे हैं ।

श्री अटल बिहारी वाजपेयी : वह बयोबुद्ध सदस्य हैं । हमारे कांग्रेसी मित्रों को 24 बटे जयप्रकाश जी ही दिखाई देते हैं । मेरा निवेदन है कि इस चर्चा की गरिमा को आप कम मत करिये । हम ऐसे विषय पर चर्चा कर रहे जिस पर मतभेद नहीं है । जय प्रकाश जी को क्यो बसीटते हैं इससे । वह भ्रमण विषय है । उस पर फिर कभी चर्चा हो जायगी ।

श्री विभूति मिश्र : जिस की शिकायत कर रहे हैं वही उसकी तारीफ करते हैं और उनके साथ आपने गठबंधन कर रखा है ।

MR CHAIRMAN Don't distract from the seriousness of the debate

PROF MADHU DANDAVATE (Rajpur) We thought in a nuclear explosion only neutrons will emerge, even Jayaprakash is emerging out of it, that is the trouble

श्री अटल बिहारी वाजपेयी : प्रश्न यह है कि चीन के सकट का सामना करने के लिये क्या यह आवश्यक नहीं है कि भारत अपने को हमेशा के लिये इस बंधन से न बांधे कि हम कभी भी अणुक्षमता का रक्षा के लिए उपयोग नहीं करेंगे? हमारी धीषणा है कि हम शान्तिपूर्ण उद्देश्यों के लए इसका उपयोग करेंगे । मेरा निवेदन है कि आत्मरक्षा यह भी शान्ति को बनाए रखने का एक अंग है, युद्ध को टालना, आक्रमण न होने देना, आक्रमण होने से पहले आक्रमणकारी को आक्रमण करने से रोकना, यह भी शान्ति की साधना का एक भाग है । जो लोग भी चीन से लौट कर आ रहे हैं—मैं नाम नहीं बताना हूँ—लेकिन मुझे कई

विषय के राज नेताओं से बात करने का अवसर मिला है और वे बताते हैं कि चीन ने एक ज्वर फेला हुआ है कि मानी सोवियत रूस उस पर आक्रमण करना चाहता है, पेकिंग के नेता समझते हैं कि सोवियत रूस ने उसकी चारों ओर से घेर लिया है, और भारत इस बेराबन्दी में शामिल हो रहा है । वह सोवियत रूस से लड़ने की सामर्थ्य नहीं रखता लेकिन इस अंग में कि हम सोवियत रूस के पिछलग्गू बन गये हैं वह कभी भी हमें कठिनाई में डालने की कोशिश कर सकता है । इसलिये मेरा निवेदन है कि हम भविष्य के लिये भारत को न बांधे । हमने जो नान प्रोलिफरेशन ट्रीटी पर हस्ताक्षर करने से इंकार कर दिया यह हमने बड़ी दूरदर्शिता का परिचय दिया है । लेकिन अब मे हमने भूमिगत विस्फोट किया है यह भाग बढ रही है कि अब अडमपाउड टेस्ट्स को भी बंद कर देना चाहिए और इस भाग को करने वाले देशों में अमरीका भी है और सोवियत रूस भी है । भूमिगत विस्फोट पहली चीज है । कम्युनिस्ट चीन इस बंधन से बधा हुआ नहीं है । फ्रांस जल में, थल पर और अम्बर में, जहाँ कहीं भी हो, विस्फोट करने के लिये स्वतंत्र है । अब अंगर यह प्रत्यक्ष होता है कि हमें भूमिगत विस्फोट करने से भी रोक जाये तो हमें इस बंधन को स्वीकार नहीं करना चाहिए । हम अपनी आजादी कायम रखनी चाहिए । हमारे लिये आणाबिक टैकनालाजी का विकास एक स्वावलम्बन का मार्ग है । हमें अपने देश के आर्थिक तथा सामाजिक ढांचे में परिवर्तन करना है । हमें अणुशक्ति का उपयोग निर्माण के लिये करना है । लेकिन आवश्यकता पड़े तो हमें अणु क्षमता का उपयोग रक्षा के काम में करने में सकोच नहीं करना चाहिए ।

हमें इस बात का ध्यान रखना होगा कि जो हमारे अणु सम्पन्न हैं वे ठीक तरह से चलें । कुछ दिनों से जो खबरे आ रही हैं वे बिल्ना पैदा करने वाली हैं । उन्नाहरण के लिए एटामिक मिनरल बिपार्टमेंट को दिल्ली से

हैदराबाद ले जाने का फैसला किया गया है। यह अस्तित्व पैदा कर रहा है। कर्मचारियों से बैठकर इस मामले में कोई ऐसा हल निकाला जा सकता है जो देश के हित में भी हो और कर्मचारियों को भी परेशान न करे।

राजा प्रताप सागर के बारे में मुझे बताया गया है कि कुछ ठेकेदारों को लेकर गड़बड़ी हो रही है और अतिनी प्रगति और जिस तीव्रता से बर्हा होनी चाहिए भी उसमें एक व्यापार पैदा हो रहा है। कलपाकम का हमारा केन्द्र है लक्ष्य यह था कि हम उसे 1976 तक पूरा कर लेंगे लेकिन अब ऐसा लगता है कि 1980 से पहले वह पूरा नहीं हो पायेगा। 1969 में जो 15 देश अणु शक्ति के निर्माण में समर्थ थे जो उसका निर्माण कर रहे थे, उनमें भारत का पांचवा स्थान था। अब मुझे बताया गया है कि 1974 में हमारा तेरहवां स्थान हो गया है। हमें कई अणु संस्थान चाहिए, छोटे छोटे संस्थान चाहिए। वे दक्षता से कार्य करें इस बात की आवश्यकता है। उनमें काम करने वाले कर्मचारियों में किसी तरह का असंतोष न रहे, इसका हमें प्रबंध करना होगा।

में समझता हूँ कि हमने जो उपलब्धि प्राप्त की है वह उपलब्धि हमारे राष्ट्र में एक नये आत्मविश्वास का सृजन करने में सफल हुई है। लेकिन प्रश्न यह है कि अगर भारत के अणु वैज्ञानिक अणु का विस्फोट करके दिखा सकते हैं तो भारत के राज नेता बुनियादी समस्याओं को हल करके उन पर विजय प्राप्त क्यों नहीं कर सकते हैं। आम आदमी हमसे पूछता है—जिस का हमारे पास उत्तर नहीं है—कि अगर हम इतना बड़ा काम कर सकते हैं तो बुनियादी आवश्यकता की चीजें मुहैया करने में हम विफल क्यों हुए हैं ?

श्री अंकर शेष (बीदर) : सफल हो सकते हैं, बसतः कि अणु सहयोग दें।

श्री कृष्ण० कृष्ण० बर्नोली (कासपुर) : अर्जेंट कि आप चले जायें।

श्री अटल बिहारी वाजपेयी : बुनियाद क्या कहती है, इसकी हमें चिन्ता नहीं है। स्वावलम्बन के प्रादेशों को सामने रख कर हम आगे बढ़ रहे हैं, और यह अणु-विस्फोट उसी स्वावलम्बन की दिशा में एक ठोस कदम है। लेकिन यह स्वावलम्बन जीवन के और क्षेत्रों में भी प्रकट होना चाहिए। अणु-क्षमता से सम्पन्न देश, जिस पर कोई उमली न उठा सके, ऐसा भारत बनाने का संकल्प इस परमाणु विस्फोट में से निकलना चाहिए। वैज्ञानिकों ने अपना कर्तव्य किया है। अब राज नेता कसौटी पर कसे जा रहे हैं। वे सफल होते हैं या नहीं, यह आने वाला कल बतायेगा।

SHRI HARI KISHORE SINGH (Pupri): Mr. Chairman, Sir, this is an occasion to express thanks to our great scientists and this debate was quite necessary to express the thanks of the grateful nation to our scientists. It is an occasion to congratulate the leadership for its bold decision to resist all pressures—national and international—for pursuing the nuclear research programme. We are quite happy to see a national consensus emerging on this issue and the entire nation is behind the Government on this policy. I am sure that if the Government pursued its declared policy with courage and vigour the nation would not lack in supporting the Government policy. An objection has been raised by some of the powers and individuals and the objection has been on three grounds—moral, economic and on the ground of nuclear proliferation. I understand the objection of those who sincerely believe that any kind of nuclear weapon or the possibility of any nation having nuclear weapon is a danger to world peace. Their objection is not only to nuclear weapons but to all weapons. It is genuine and sincere. But the objection of those who object to our having nuclear energy programme on the economic basis is not understandable to me and I fail to appreciate it. Why should there be any objection for India exploiting this

[Shri Hari Kishore Singh]

technology on a large scale. I fail to appreciate maxim what is good for some of the countries is not good for India. I can have but you cannot have it because your economy does not permit. If nuclear technology is a viable technology for the development of national resources of the country, for productive purposes, for the betterment of the conditions of the people then why a country like India should not be permitted to use that technology. The second argument is the proliferation part of it. There are countries which have acquired nuclear technology on a big scale and their arsenal is full to the brim. They fear that India may also go in for nuclear weapons. Now it is not possible for the Government in any country to bind the nation in perpetuity on any matter. They may feel that the assurance given by Prime Minister Indira Gandhi may not remain valid for all times to come. Some individuals or groups in the long run may come to power and decide that India should go nuclear in weapons. But because of this apprehension which is in their minds that in the distant future some such thing might happen, should there be objection to India acquiring nuclear energy on any appreciable scale, in spite of the clear policy enunciated by the Government that it is not going to be used for any warlike purposes.

This is not the first time that our country has been assailed by those who were not friend to us. Mr. Indrajit Gupta said that we should take the precaution and not encourage other powers towards establishing nuclear bases in neighbouring countries. (Interruptions) He has expressed his apprehension that Pakistan might try to secure nuclear protection. If he has not mentioned that, I have nothing to say. But how can you prevent any country giving facilities for a military base to any foreign power which is not friendly

to us? The American bases were there; U-2 operated from Pakistan even when we gave no opportunity to Pakistan. Similarly, by exploding a nuclear device we are not giving any excuse to Pakistan to invite powers who are not very friendly to place nuclear weapons on the soil of Pakistan. Pakistan nourishes hostility and grievance towards us; it was suffering under some fear complex. We cannot help Pakistan.

Finally, I agree with Mr. Gupta when he says that we are now in a position to promote the cause of nuclear and even general disarmament in a more effective way. Now we will not be told that India is lacking all these facilities and capabilities and therefore India is trying to preach to the world to behave. There is a possibility now that our voice may be heard with respect in the Comity of nations particularly by those who have acquired nuclear technology for warlike purposes. Nuclear disarmament like general disarmament is a wish; it a good thing to have but no nation has so far followed it and no nation is prepared to follow it in all sincerity. Therefore, while every effort should be made towards lessening tensions, particularly the race for acquiring nuclear armaments, efforts should also be made for developing our own programme. No amount of criticism, national or international, should deter us from pursuing this programme with vigour.

SHRI MOHANRAJ KALINGAVAYAR (Pollachi): Sir, this discussion on our country's nuclear explosion is not only useful but very timely. This gives a very good opportunity to this House, to place on record its appreciation of the great service rendered by the atomic scientists of our country and all those who helped in this underground explosion. This is not complete; it is the first step which our country has taken. There are many more steps still to reach the

stage of completion. Unlike the nuclear explosion of other big powers, our explosion was mainly created not for any aggressive purpose but for peaceful purposes. Though our country is faced with a difficult economic situation and other international problems, I really appreciate the hard work done by our scientists, which has shocked the other countries in the nuclear field. They are really surprised how we could do it all of a sudden with our own efforts. Many neighbouring and other countries like Canada, Japan, Italy, West Germany and others have expressed their concern over this explosion of 16th May.

In the case of Japan, I would not blame them because they had a very bitter experience, as mentioned by two or three hon. Members. So, whenever any new country enters the nuclear club, they are naturally agitated. The radio-activity of the first bombs have affected the normal growth of the population and they are suffering even now.

Our neighbour Pakistan has made much noise of our entering the nuclear club. They are afraid that we may use the nuclear energy to harass them. This shows clearly that their intention is not good. This also shows that they are preparing for some unwanted and undesirable plan against our country.

We should give all kinds of facilities and encouragement for our youngsters who are working in the various research institutions so that they will attend to their work with added vigour. Here I would be failing in my duty if I do not congratulate whole-heartedly our top scientists Dr. Sethna and Dr. Ramana for their magnificent achievement.

The hon. Prime Minister in her statements both inside and outside Parliament has assured the international communities that the Indian nuclear explosion was merely for

peaceful purposes. It is good that we have spelt our nuclear policy. All the same, if necessity arises, if we are forced to build up nuclear weapons, we should not feel shy in doing that.

Recently there was a news item that uranium is being smuggled out of this country. Crores of rupees are involved in this. There is also the security aspect. I hope the Prime Minister will look into this.

So far as our scientific research institutions are concerned, the bureaucracy should not be allowed to interfere with it. They should be given a free hand, free from interference by either politicians or bureaucrats.

I would conclude by saying that we have to use nuclear energy for power generation. We cannot depend on coal and oil for long which are in short supply. When they are exhausted there is no other alternative except nuclear power. To start with, we should see that at least, 25 per cent of our power needs are met by atomic energy.

श्री शंकर बयाल सिंह (चतरा) : सभा-पति जी, इतिहास सपनों का नहीं, सच्चाई का हुआ करता है और इतिहास उसका हुआ करता है जो इतिहास का माथे पर चन्दन और कुमकुम का लेप किया करते हैं। 18 मई को 8 बज कर 5 मिनट पर राजस्थान की उस भूमि पर जिस भूमि ने बीरता के कितने उतार-चढ़ाव देखे हैं, जिस की जमीन में अभी भी कितने डहते, गिरते खण्डहरों की कहानी छिपी पड़ी है, प्रातःकाल में जब एक और ऊषा मुस्कान बिखेर रही थी, चिड़ियां चह-चहा रही थी चरवाहे अपने पशुओं को लेकर बाहर निकल रहे थे, किसान खेती की ओर जा रहे थे, भारत ने इतिहास को एक नई थपकी दी और वह थपकी किस बात की थी ? गौरव की थपकी थी, अत्यन्त-सम्मान की थपकी थी।

[जो संकर-धारा लखे]

सभापति जी, कुछ बातें ऐसी होती हैं जो राजनीति से प्रलग्न होती हैं, विषय से परे होती हैं। मुझे इस बात की खुशी है कि सदन में जितनी भी प्रतिक्रिया व्यक्त की गई—परमाणु परीक्षण के संबंध में—उन का स्वर उनका आधार एक ठोस धरातल पर था। सबने यह महसूस किया कि भारत ने यह परीक्षण करके दुनिया के नकशे पर अपना एक स्थान बना लिया है।

सभापति जी, मैं राजस्थान की ज़िम्मेदारी की बात कर रहा हूँ उसकी तो सबसे बड़ी खूबी यह देखने में आई कि हमारे डागा माहब जैसे बूजुगं—दिखाई नहीं दे रहे हैं—भी जब बोलने लगे—परमाणु परीक्षण के बारे में—तो जवान हो गये। डागा साहब जैसा व्यक्ति जब परमाणु परीक्षण के संबंध में बोलने लगा तो ऐसा लगा जैसे युद्ध का कोई सिपाही बोल रहा है, कोई सेनापति हुंकार दे रहा है। इस लिये देश में और इतिहास में कभी कभी ऐसे क्षण आया करते हैं जो सदियों तक हृदयों पर अमिट छाप छोड़ जाया करते हैं और आज जब हम उन घड़ियों की चर्चा कर रहे हैं तो देश के गौरव और गरिमा को अपने आप में ग्रहण कर रहे हैं यह सही है कि देश के मामले अनेक समस्याएँ हैं। यह सही है कि देश में खाने की कमी है, यह सही है कि देश में कई आवश्यक वस्तुओं की कमी है, लेकिन यह भी सही है कि गेटी में बड़ी भ्रष्ट सम्मान की भूख हुआ करती है और जिस दिन भारत ने इतना बड़ा काम कर के दिखाया उस दिन भारत ने महसूस किया कि हम भ्रष्ट रह सकते हैं, लेकिन दुनिया के सामने हम अपने सम्मान को नीचे नहीं गिरने दे सकते हैं।

सभापति जी, अणु की कहानी दुनिया के मामले किस रूप में आती है, वह करीब करीब सभी विद्वान, जो यहां बैठे हैं, जानते हैं। वे एक सामान्यजन की बात कर रहा हूँ,

क्योंकि मैं तो वैज्ञानिक हूँ, और न वृद्धिजीवी हूँ, लेकिन अफ्रीका ने 1945 में, रूस ने उस के दो चार साल बाद, ब्रिटेन ने 1952 में, फ्रांस ने उस के बाद और चीन ने 1964 में इस परीक्षण किया था और जब से चीन ने परीक्षण किया था तब से देश में हर बर्ष इस बात की मांग कर रहा था, राजनीतिक, सामाजिक, गांव में रहने वाला किसान, स्कूल में पढ़ने वाला छोटा विद्यार्थी, कालिज में पढ़ाने वाला प्रोफेसर, रिक्स चलानेवाला, टंकी चलाने वाला, हर आदमी इस बात के के लिये चिन्तित था महसूस करता था, कि भारत को भी अपनी रक्षा के लिये, अपने आ-य सम्मान के लिये, अणु का विकास करना चाहिये और उस शक्ति को हासिल करना चाहिये। हम ने परमाणु का जो परीक्षण किया है—शान्ति के लिये किया है। लेकिन साथ ही साथ में यह कहना चाहता हूँ कि शान्ति के साथ साथ सुरक्षा का भी हम को ध्यान रखना चाहिये, क्योंकि जिसके हाथ में ताकत हो, जिसकी भूजाओं में बल हो, दुनिया आज उस की पूजा करती है। जो कमजोर होता है उस की कोई पूजा नहीं करना है चीन ने जब 1964 में परीक्षण किया था, एशिया और अफ्रीका के देशों ने उस की प्रालोचना या अर्तस्ता नहीं की थी, बल्कि उस के दबदबे के आगे झुक गये थे और आज जब भारत ने शान्ति के लिये अणु का परीक्षण किया है तो जो देश चीन से सहम हुए थे, भयभीत थे, वे आज इस बात के लिये खुशो जाहिर कर रहे हैं कि हिन्दुस्तान उन के साथ खड़ा है, उन की हमदर्दी के लिये खड़ा है, इस लिये वे आज चीन से सहम हुए नष्ट नहीं आते।

सभापति जी, मैं बहुत बक्त न लेकर, क्योंकि कई विद्वान बोलने वाले हैं, दो चार सुझाव रखना चाहता हूँ। विभिन्न देशों की प्रतिक्रिया की बात आई तो हमारे श्री इन्द्रजीत गुप्ता जी ने सभी देशों के पत्रों की प्रतिक्रियाएँ हमारे समाने रखीं। मेरी

समझ में वे प्रतिक्रियाएँ तीन कोटि की हैं— कुछ ऐसे देश हैं दुनिया के, जिन्होंने प्रसन्नता जाहिर की है। कुछ ऐसे देश हैं जिन्होंने जलन और ईष्या का इजहार किया। कुछ ऐसे देश हैं जिन्होंने सामान्य रूप से इस को ग्रहण किया। ईष्या और जलन का इजहार किन्होंने किया है? उन्होंने किया है जो इस का समर्थन करते हैं या जिन के पास इस की पूजा है। सब से बड़ी देखने की चीज यह है कि भारत की अणु शक्ति पर जिन देशों ने क्रोध व्यक्त किया है, जलन व्यक्त किया है, ईष्या व्यक्त की है, वे कौन देश हैं— वे देश हैं जिन के पास अणु भण्डार हैं, जिन्होंने संहार के लिये इस का इस्तेमाल किया था.....

श्री बी०पी० नायक (कनारा) : एशिया को छोड़कर।

श्री शंकर बयाल सिंह (कनारा) : एशिया तो वह देश है जिसने प्रसन्नता व्यक्त की है। वह हमारा दोस्त है। लेकिन बहुत सारे ऐसे देश हैं जिन्होंने ईर्ष्या और जलन व्यक्त की है, वे वे देश हैं जिन्होंने संहार के लिये इस का उपयोग किया है या ऐसे देश हैं जो उन देशों के पिछलब्यू बने हुए हैं। हमें उन की बातों में ज्यादा न जा कर, अपना विकास करना चाहिए। ऐसे बहुत से बड़े बड़े देश थे जो हम से कहा करते थे कि आप तेल की खोज मत कीजिए, अगर जरूरत पड़ेगी तो हम आप को तेल देंगे। लाह्वे के कारखाने मत लगाइये, हम आप को लोहा देंगे, लेकिन बहुत से हमारे ऐसे मित्र राष्ट्र भी हैं जिन्होंने कहा कि हम आप की मदद करते हैं, आप अपने घर में लोहे की पीकटरी बैठाइये, तेल की खोज कीजिये और आप शक्तिशाली बनिये।

सभापति जी, मैं आप का अधिक समय न लेकर कुछ सुझाव देना चाहता हूँ—

1. देश में परमाणु का विकास होना चाहिए। हमें दुनिया में इस सम्बन्ध में प्रथम स्थान ग्रहण करना चाहिये।

2. परेनियम की खान की कड़ी सुरक्षा होनी चाहिये। मैंने सदन में कई बार कहा है कि हमारे यहाँ परेनियम की तस्करी हो रही है, चोरी हो रही है, इस लिये उस पर कड़ी निगरानी रखनी चाहिये।

3. परमाणु शक्ति के विकास के लिये वैज्ञानिकों को सारी सुविधाएँ प्राप्त होनी चाहिये।

4. नई वैज्ञानिक प्रतिभाओं की खोज कर इस में लगाना चाहिये।

5. हम शान्ति के प्रतीक जरूर बने लेकिन सुरक्षा के लिये अपने आप को सुदृढ़ जरूर बनाना चाहिये।

6. अन्तिम बात—संयुक्त राष्ट्र सच के जिन देशों ने अणु के नाम पर एक शक्तिशाली स्थान प्राप्त कर लिया है, जैसे अमेरिका, फ्रांस, ब्रिटेन और चीन आदि देशों को जो स्थान संयुक्त राष्ट्र सच में मिला हुआ है भारत को भी वह स्थान मिलना चाहिये।

श्री मधु इच्छवते : इस में सोवियत सच भी है।

श्री शंकर बयाल सिंह : सोवियत सच भी इन में शामिल है, मैं उन सभी देशों के लिये कह रहा हूँ।

इन शब्दों के साथ देश में जो इतना बड़ा कार्य हुआ है, इस के लिये मैं अपने वैज्ञानिकों को और खास कर देश की प्रधान मंत्री श्रीमती इन्दिरा गांधी को बधाई देता हूँ— और इन शब्दों में बधाई देता हूँ, जो स्वर्गीय दिनकर जी ने बगना देश की विजय के समय कहा था

“मां, बहुत दिनों के बाद हमने विजय का मुकुट पहना है, बेटे तो तुमने बड़े पैदा किये, लेकिन यह बेटा का दिया गहना है”।

MR. CHAIRMAN: Mr. P. M. Mehta, before you speak, I would like to know from the House: How long they want to sit. When is the Minister going to reply?

THE MINISTER OF IRRIGATION AND POWER (SHRI K. C. PANT): I am in the hands of the House.

MR. CHAIRMAN: Three hours were allotted for this...

SHRI P. K. DEO (Kalahandi): It should be extended.

MR. CHAIRMAN: We began at 3.30 p.m. It is now quarter to Six O'Clock. Would you like to sit after 6.00 p.m.? Do you want the time to be extended by one hour?

SOME HON. MEMBERS: Yes.

MR. CHAIRMAN: Even then the list so long that if everybody has to get a chance, then we will have to limit the time to five minutes. Would you co-operate?

PROF. MADHU DANDAVATE: You may use your discretion.

MR. CHAIRMAN: In this I do not want to unnecessarily use my discretion and hurt somebody.

PROF. MADHU DANDAVATE: If the point is repeated, you may.

MR. CHAIRMAN: Now, kindly co-operate in five minutes.

PROF. MADHU DANDAVATE: In this entire session of the Lok Sabha this is the only one occasion when a scientific subject is being discussed. All along political subjects were discussed. Please give a little latitude.

MR. CHAIRMAN: I do not mind provided you are prepared to sit till 9 O'clock.

PROF. MADHU DANDAVATE: This is not a no-confidence motion for us to sit till 9 p.m.

MR. CHAIRMAN: Mr. P. M. Mehta.

SHRI P. M. MEHTA (Bhavnagar): The first underground peaceful nuclear experiment on May 18, 1974 has created doubts about India's intention. It should be made very clear that this underground nuclear test is not the sixth-hand knowledge but the Indian scientists have added something very valuable to the knowledge stock of nuclear technology. As you know, our scientists invented a device due to which the experiment on 18th May, has not resulted in any way in radioactive contamination of the atmosphere and this is the contribution of our scientists to the world. The Atomic Energy Commission, our scientists and the engineers deserve our compliments and we are proud of them.

This experiment also has given an occasion to this House and the nation to reaffirm the faith in the well-accepted nuclear policy of this country. What is this policy? On January 20, 1957, at the inauguration of India's first nuclear reactor, Apsara, at Trombay, Pandit Nehru declared in clear terms:

"I like to say on behalf of my Government and myself, and I think that I can say that of any future Government of India, that whatever might happen, whatever the circumstances, we shall never use this atomic energy for evil purposes."

This is the nuclear policy of India and it was reiterated by the late Prime Minister Shri Lal Bahadur Shastri in October, 1964 at the Second Conference of the Non-aligned Nations in Cairo where he declared:

"We in India stand committed to the use of atomic energy only for peaceful purposes and even though, in a purely technical and scientific sense, we have the capability of developing nuclear weapons, our

scientists and technicians are under firm orders not to make a single experiment, not to perfect a single device which is not needed for peaceful uses."

India is the first developing country with a very low income per capita which has carried out this underground experiment. India has made her intentions known to the world that India will develop nuclear energy only for the peaceful purpose.

It is in accordance with the rich heritage of Indian culture and the Gandhian concept. The present destination for the nuclear energy is destruction and India alone will change this direction of destination and India alone will give alternative to this destination by declaring that we will never use this energy for destructive purpose but India will use this only for peaceful purpose and for the development of humanity.

I come to the practical aspect of the nuclear energy. I do not know the technology. I will deal with the subject in general terms. Planning is more or less a failure and the people of India have practically lost faith in planning. Some countries have reacted to this experiment in a very strange way. They say that Indian Science and Technology have failed to solve the country's fundamental problems of food and population. The fundamental problems of the country like food and population have yet to be solved. But it is not the failure of science and technology; it is the failure of this Government to take the research work of our scientists and engineers from laboratories to the fields and factories. This is the position. So, this is the challenge to the Government. If you lose time in harnessing this energy for betterment of our people, the people will lose faith in Government and its policies.

The cost of the experiment is reported to be of the order of Rs. 32 lakhs. This is not a big sum. The

nation and the people will bear this burden willingly for their future development. Government should implement this nuclear programme in a speedy way to remove the hardships of the country and to regenerate and revitalise the economy of this country and this is certainly a big challenge to the Government. Therefore I appeal to the Government that without losing time the Government should implement all the programmes of nuclear energy in regard to irrigation, in regard to power projects and other essential things. We should reaffirm our faith, in the nuclear policy of India and I think India should act as a pioneer to change the destination of destruction of nuclear power into a destination of construction, as a constructive power, for the peace and prosperity and the happiness of humanity.

SHRI P. VENKATASUBBAIAH
(Nandyal): Mr. Chairman, Sir, the country has got the satisfaction and pride that our scientists, for the first time, exploded nuclear device for peaceful purposes.

The nation is grateful to those two scientists and also to those scientists who paved the way for the consummation of this historic process. For this the Prime Minister who heads the ministry and Shri Pant deserve our congratulations and gratitude in achieving this historic objective. It has become an eye-sore to many countries, especially, to the neo-colonial powers who do not countenance the fact that a developing country like India could have the audacity of having this nuclear experiment conducted successfully. Our scientists by their historic act have proved and demonstrated once that the underground explosion could be done successful when the so-called civilised countries could do the explosion in the atmosphere after having made rapid strides in scientific and technological developments. But, one fact has been demonstrated by our people that the nuclear explosion can be done underground and could

[Shri P. Venkatasubbiah]

be used peacefully and constructively for the development of this country.

We are faced with several difficulties with regard to supply of power or exploration of vital mineral resources in our country. This explosion will go a long way in harnessing the hidden resources of our country to the economic betterment. Almost all developing countries, except Pakistan and China who were traditionally and deliberately antagonistic against our country, are happy. Countries like Sri Lanka and other countries have acclaimed the experiment so successfully conducted by our country. One factor however should not be lost sight of. That is this that the developed countries are suffering from the phobia of nuclear supremacy; they do not want any other country, much less a country of the magnitude of India which is having the biggest Parliamentary democracy, to enter the nuclear club. That is the kind of phobia and obsession with which they suffer.

Time and again our Prime Minister and our External Affairs Minister have taken great pains to explain to the world that this explosion will not be one more weapon in our arsenal for aggression but it is only intended for the peaceful purposes. I want to make one point and that is that this experiment which has been so successfully conducted should be proceeded with and should be diverted for peaceful purposes.

Sir, one fact is that we have attained a status in the comity of nations. Our counsel will be heard with respect and not with contempt. We have acquired that status under the unique leadership of our Prime Minister. So, I feel that we have to stabilise the gains that we have achieved in the progress of nuclear technology and we must use it for peaceful purposes.

SHRI ERASMO DE SEQUEIRA
(Marmagna): Mr. Chairman, one of

the bright spots on a landscape that has lately become rather bleak is the implosion of the atomic device in Rajasthan. Besides making many sit up who had persuaded themselves to write India off, I think, the great benefit that this event has given us, is the fact that it has restored our self-confidence. Our scientists have shown us that we are still capable of setting a goal, a goal involving highest technology, of following it with dedication, and of seeing it to a successful conclusion. I think they deserve our congratulations and our thanks for having given us back this self-confidence. And for doing this without bragging about it before achieving it or even after this great achievement, they have our congratulations. I would like to express the hope that the example they have set for us will be followed in the rest of our national life, and perhaps I say this rather forlornly it will be followed in the governance of our country. We all know that the implosion and the energy we have unleashed, will only become worthwhile, when we learn to use it, and in this respect I would like to say a word of caution. I believe that many of the problems that we are facing today with reference to unemployment, are because of decision we made over the years which replaced man with machine indiscriminately. Many of the peaceful applications of atomic energy are such that decisions will be taken which will involve precisely this matter. I would request the Government to be extra careful to see, as they develop nuclear technology, that they ensure that it is applied to those areas where nuclear technology is required, and where we do not, as a result of its use replace manpower which we have with this split atom.

I know that there has been a lot of criticism in many quarters about what we have done with our nuclear implosion. I think we should understand it as chagrin at the fact that we have managed to make our

first explosion underground, and the only fall out from it was political.

I congratulate our scientists and wish them luck and God-speed in utilising this new energy which they have successfully created.

18 hrs.

SHRI P. K. DEO (Kalabandi): I take this opportunity to congratulate the team of scientists for their pioneering effort in exploding a nuclear device underground without any nuclear fall out and radiation hazard. I take my hat off to those scientists because in the United States, USSR and UK they never perfected this science in their first attempt. This is a technological breakthrough achieved by our young scientists and we are proud of them.

I deliberately did not congratulate the Government because the Prime Minister in her Press statement had stated that India had developed nuclear capability by 1964. Till now why had the Government been sleeping over this matter, even though Dr. Sarabhai indicated that India was even then capable of a nuclear blast. Taking into consideration all these facts I feel that these are diversionary tactics by the Government to divert the attention of the people from various internal maladies and economic crisis and show some spectacular achievement. If the Government thinks like that, I feel that it is in for a big disillusionment, because they cannot fool the people for all times to come.

My second point is that this achievement instead of getting appreciation from all quarters has brought criticism and doubts. It has clearly exposed the bankruptcy of our foreign policy. Even Commonwealth countries like Canada have started criticising us. Even though we talk of Afro-Asian solidarity and had been their spokesman, countries like Kenya, Ghana and Nigeria have

expressed their concern over this explosion. Canada has contributed right in the beginning towards nuclear technology. The Canadian reactor is functioning in Trombay. The fact that after the refusal of the Chairman of the Canadian Atomic Energy Commission to come to India at the invitation of Dr. Sethna the Government has been compelled to send a high power delegation to Canada is positive proof of the annoyance of the Canadian Government which was the largest aid giver in the nuclear field. Even the USSR has not praised the underground test. In this connection I should like to point out that there is a very thin dividing line between utilising this technology for peaceful purposes and for non-peaceful purposes. The same technology would be used for making atomic bombs or hydrogen bombs. We find that taking advantage of our failure to explain to the world our intentions that it will be exclusively used for peaceful purposes, Pakistan has already started its diplomatic offensive and has created doubts regarding India's bona fides. So far as nuclear blast for peaceful purposes is concerned I think it has not yet been perfected. Despite all attempts to convince them that this technology would be used for mining operations or exploring our oil resources or diverting rivers or making harbours, doubts have been expressed about India's credibility. I respectfully request the Government to make an all out effort to clear this misunderstanding.

I quite agree with Vajpayeeji that this knowhow will provide a sufficient deterrent against atomic attack on this country. But that does not mean that we will rush and try to manufacture bombs and give priority to it because there are so many other things to be done on the economic front. Priority should be given to provide a sound economic base and pull our country out of the morass of the economic mess. We should be careful not to spend much more on

[Shri P. K. Deo]

the manufacture of atom bombs at the cost of our economic reconstruction.

Sometime back there was a hulla-balee that India was the sixth member of the nuclear club. But it has been corrected by Col. Rama Rao of the Institute of Defence Studies and Analysis that Israel is actually the sixth nuclear power and has a stockpile of 20 to 30 bombs of 15 to 20 kilo tons. Taking into consideration all these facts, pledged as we are to peace, we should speak with firmness in the comity of nations and try to convince them through a diplomatic offensive in this regard and clear the misunderstanding prevailing among our friends and others pointing out that we are pledged to the use of this know for peaceful purposes.

MR. CHAIRMAN: Please conclude now. You have exhausted your time.

SHRI P. K. DEO: But this is an important subject.

MR. CHAIRMAN: There are many more members to speak and the minister has to reply.

SHRI B. V. NAIK (Kanara): Sir, though it has been said so often, it would be an omission in case we do not compliment our team of scientists headed by Dr. Sethna and Dr. Ramanna and hundreds of others who have contributed to make this peaceful explosion a success. Simultaneously, I take this opportunity to compliment them in our free society on something which is a rare phenomenon. Sir, you are aware that we had the interim report of a Commission on Wages which was laid on the Table of the House by our friend, Shri Jyotirmoy Bosu. Sometime back the Wanchoo Commission Report was laid on the Table by an hon. Member. In the context of that, I must really compliment the scientists for the secrecy they maintained in regard to the explosion of the bomb.

Even the hon. Members in the Consultative Committee did not know anything about it. Otherwise, I am sure, Shri Jyotirmoy Bosu would have laid a bomb on the table.

PROF. MADHU DANDAVATE:
Where is the bomb?

SHRI B. V. NAIK: I am using the term from the point of view of the common man. I do not know what to call it.

PROF. MADHU DANDAVATE:
Nuclear device.

SHRI B. V. NAIK: The next is the question of relevance and timing. There have been some complaints that the timing of the explosion was politically motivated. The railway strike was on the 8th May. The explosion took place on the 18th May. It does not require much of expertise to know that an explosion of the bomb will need preparation for about six months.

PROF. MADHU DANDAVATE:
He is again and again saying "bomb".

SHRI B. V. NAIK: The explosion of the device took place ten days after the commencement of the railway strike. So, from the point of view of the timing of the explosion, it cannot be said that it was connected with the railway strike or any of the local considerations.

One point which is very relevant for our present context is this. Suppose the subject of this explosion was discussed in this Parliament on the 17th of May, I am sure that all the Members sitting here, except certain members who are absolute pacifists, would have approved of the explosion. I think in this country, in this Parliament, as well as everywhere else, in all forums of democracy, the explosion of the atomic device would have been accepted, though it might not have been mentioned in those words.

Here I would like to reinforce what has already been stated by Shri Shankar Dayal Singh. There are now six or seven powers who are members of the Security Council. Except two or three the rest are not major powers. This Parliament should strongly urge the world body to the effect that on the basis of population as well as on the basis of accomplishments India should find a place in the Security Council as a permanent member.

I would conclude by saying that there is an equation which is being brought forward in the world today. There are countries like Japan and West Germany, which have the capability in order to explode a nuclear device, which are not doing it, while a developing country like India is doing it. In 1971 many of us expressed here this equation which is developing. So, the development of this capability cannot be carried too far because most of these countries have been active members of collective security pacts while this country has not signed any of these security pacts like the SEATO, CENTO or NATO. Under these circumstances, there is full justification for going in for this technological advance.

PROF. MADHU DANDAVATE (Rajapur): Mr. Chairman, Sir, as one who has been connected as a teacher with the subject of nuclear physics in the last 25 years, I consider it a proud privilege to join all my colleagues in this House in appreciating the work of the atomic scientists in India who have successfully led to a nuclear device test in our country.

In this great moment of nuclear glory of our country, my mind goes back to two towering scientists, one in our country and one abroad. I am reminded of the pioneering work of late Dr. Bhabha who really did the pioneering work in the field of atomic physics in theoretical as well as experimental work. I cannot for-

get the name of the great scientist Albert Einstein who, as early as in 1900, theoretically postulated for the first time the conversion of matter into energy. It is the fulfilment of the dream and the research work done by Albert Einstein followed by Lienn and Strassman of Germany and later on by Indian scientists which has ultimately culminated into a successful nuclear device in our country.

The greatest tribute to the atomic scientists in our country lies in the fact that the technology for the nuclear device that has been evolved is a sophisticated technology. It is not just an ordinary type of explosion. It is not just an ordinary bombardment of plutonium particles. But it is a sophisticated type of technology and in that all plutonium particles have been compressed and they have been bombarded. It is a sort of new sophisticated technique about which the politicians might be critical but the scientists, particularly atomic scientists, all over the world have really appreciated the splendid work that has been performed by the Indian scientists.

There have been various political reactions from different parts of the world. For some years, it is only a few countries at the top, the so-called great powers, who have monopolised the nuclear power, the nuclear weapons and the nuclear technology. We have some sort of a caste system in international community. There are a few Brahmin nations who treat others as Scheduled Caste nations. If they have the monopoly of nuclear power, then possessing nuclear power is not supposed to be a sin; it is not supposed to be a nuisance to the world; it is not supposed to be a threat to the world. But if the developing countries develop a nuclear technology and develop also deterrent, and think in terms of nuclear option, then they are supposed to be a threat to the world.

[Prof. Madhu Dandavate]

We are always told by the international community that we believe in the quality of nations. What type of equality we believe in? I am reminded about the splendid work, the famous work, "Animal Farm" where he has brought out a fine satire on equality. He has said that all are equals but some are more equals than others. This is the concept of equality that the great powers of the world are attributing to the world. We do not believe in this unequal equality. Therefore, we feel that if the Americans, the Russians, the Chinese and the Frenchmen can possess the nuclear technology, there is no harm if Asian countries, like India also possess nuclear technology. It is only in this context that we must look at world reactions.

Some people feel that we must not go in for nuclear technology. There are two types of reactions. Firstly, there are some people who feel that we must not convert the nuclear experiment ultimately into the generation of nuclear bomb or hydrogen bomb. They are opposed to that on two grounds. Some people feel that because of our economy, we cannot withstand the pressure and the burden and the strain of generating the weapons and, therefore, we must not go into generation of nuclear weapons. There is another set of people who say that we might not have nuclear weapons but we can borrow the nuclear umbrella from other countries. These people must realise that, firstly, nuclear umbrellas are not easily available and, even if they are available, there is no guarantee that the nuclear umbrella will open up at the right time. All that we must do is that we must develop nuclear technology but, at the same time, we must not be apologetic. We can keep the nuclear option open. I am happy that the Defence Minister of our country had declared during the Defence Demands that we believe in keeping the nu-

clear option open. I am satisfied with that much of statement because as far as expenditure is concerned, if our economy cannot withstand the expenditure on nuclear weapons, we need not take the stand of giving priority to nuclear weapons. But at the same time, the options must be kept open. In this respect I would request the Prime Minister of our country not to go on declaring in season and out of season that we are not going into the nuclear weapons at all. We need not go into the generation of nuclear weapons at all. But every time we need not declare that we are not going to generate nuclear weapons, we are not going to manufacture nuclear weapons. If repeatedly the Prime Minister says to the world that we are not going to manufacture nuclear weapons, probably the world may feel that the lady is protesting too much. You know, in our society the lady protesting too much is considered as half-consent. Therefore, I feel that this type of repeated protestations is not required. We can keep the nuclear options open.

There are two aspects to which I would like to draw the attention of this House within a minute. We can use the nuclear technology for peaceful purposes. But some of us feel that, if we go in for peaceful uses of nuclear technology, probably there is not much of expenditure and that if we go in for nuclear weapons, then only there is expenditure. My colleague, Mr. Madhu Limaye, in one of his brilliant articles has brought out this point very sharply and has pointed out that even the advanced countries like Russia and USA have found it difficult to develop technology for peaceful uses of atomic energy and, therefore, merely declaring every time that we are going to utilise the atomic energy for peaceful purposes is not going to be accepted by the world because they know it well—at least the experts know—that a large expenditure is involved in harnessing the atomic energy even for peaceful

purposes like dredging of docks or diverting the rivers or using in the field of medicines—even where oil and water are not available from certain places, if explosion is created we will be able to have sources of oil and water. Therefore, let it be realised by those in the House who feel that if the atomic energy is to be used for peaceful purposes it is a very cheap job, that for using it for peaceful purposes also the burden will be enormously large and therefore we have kept it at the experimental stage. Whenever it is possible economically, the technology can be developed for peaceful purposes, and if it is necessary for defence purposes, we might utilise it even for defence purposes.

I would conclude by making a request to the leader of the House. On behalf of all the members of this House let her communicate to the great atomic scientists of our country our sense of appreciation, and in that the entire House will remain united.

MR. CHAIRMAN: I would request the hon. members who are participating in this debate to take only five minutes each. The hon. Minister will reply at 6.45 p.m.

Mr. R. S. Pandey.

श्री राम साहाय पांडेय (राजनन्दगाव) : मुझे स्वर्गीय तीन व्यक्तियों का स्मरण पहले आता है एक पंडित जी का जिन्होंने अणु प्रतिष्ठान की स्थापना की थी, दूसरे स्वर्गीय भाभा जी का और तीसरे बिन्त्रम साराभाई का जिन्होंने हम को इम दिशा में चल कर बताया है। मुझे आज बड़े मोहार्द, शक्ति समर्थन, देश की गरिमा और स्वाभिमान में मंडित सगर्व स्वर सुनने को मिला, बड़ा अच्छा लगा। कभी कभी इस सदन में अनुभव होता है कि जैसे हमारे देश में कुछ भी नहीं है और आज-ऐसा अनुभव होता है कि इम एक घमाकं से हम ने सब कुछ पा लिया। कभी कभी हम निराशा के सागर में डूब जाते

हैं, कभी-कभी इतने उत्साह में आते हैं और हमको ऐसा लगता है कि उत्साह बड़ी अच्छी चीज है और उत्साह के साथ यदि हम तमाम परिस्थितियों का सिंहावलोकन करें तो हम उन से कुछ निपट सकते हैं। बंगाल जब स्वतंत्र हुआ तो प्रधान मंत्री को दुर्गा कहा गया। आज भी उनकी प्रशंसा के पुष्प बरसाए गये। यह ठीक बात है यदि अच्छा काम हो और हमारा स्वाभिमान बढ़ता हो अन्तर्राष्ट्रीय जगत में तो यह ठीक ही है। लेकिन अन्य परिस्थितियों में हमारे विरोधी दल के लोग जब सरकार को झाड़ें हाथों लेते हैं, यदि आज के ही स्वरों में आज की समर्थन की भावना से सहयोग दें तो स्थिति बदल सकती है। संसार आज हमें कहता है कि यह तो विकासशील देश है, यह अपनी रोटी का प्रबन्ध नहीं कर सकता और इमने एटम बम बनाया है तो वह तो परिभाषा बदल जाएगी। शान्ति की परिभाषा शक्ति के साथ जुड़ी हुई है। मानवता की नज़रता में, युद्ध की भय से, और मित्रता की परिभाषा क्षमा से जुड़ी हुई है। इस प्रकार के परिवेश में आज हमने शक्ति प्राप्त की है और हम शक्ति के साथ आगे बढ़ सकेंगे। पन्त जी का वह भाषण जो इर्गापुर कांग्रेस सेशन में 1964 में हुआ था उसी से हमें पता लगा था और अनुभव हो गया था कि यह क्षमता और दक्षता हमारे देश में है। उन्होंने जिस प्रकार से सारी बातें बताई थीं कि इन इन इनशेडियेंट्स से यह बनता है, उससे न सिर्फ पन्त जी के ज्ञान का प्रदर्शन हुआ बल्कि ऐसा लगा कि कोई एक समझदार व्यक्ति बोल रहा है और आह्वान कर रहा है। वह दिन भी आज इन के मंत्रित्व काल में आया जो इतिहास में जुड़ गया। प्रधान मंत्री की सूझ बूझ की भी प्रशंसा सब ने की है, मैं भी कर रहा हूँ क्योंकि यह एक राजनीतिक निर्णय था और राजनीतिक निर्णय पर जब संसार के राष्ट्रों ने प्रतिक्रिया व्यक्त की तो उन्होंने बड़े शौर्य और साहस के साथ कहा कि हमारा देश विकासशील है, हमने शान्ति के लिए यह प्रयत्न किया है लेकिन जैसा कि और मित्रों ने भी कहा कि

[श्री राम सहाय प डेय]

अगर शान्ति के साथ सुरक्षा की भी आवश्यकता होगी तो परिभाषायें बदलती हैं, स्थितियाँ बदलती हैं। अगर उस समय भी हम शान्ति की बातें करेंगे जिस समय हमारे ऊपर आक्रमण होगा तो यह शायद ठीक नहीं होगा। अगर हीरोशिमा और नागासाकी के पास एटम बम होता तो हमरीका को कभी साहस नहीं होता कि होती हुई जनता जो सुबह की प्रतीक्षा में तो रही थी उसके ऊपर वह एटम बम छोड़ कर भीषण नरसंहार करके लाखों व्यक्तियों को खत्म कर देता। ऐसा कभी सम्भव नहीं होता क्योंकि शक्ति से भय का जन्म होता है। आज इस बात से हम मुक्त हो गए कि अगर कभी युद्ध होगा, कभी दुदुभी बजेगी, कभी पाकिस्तान या चीन आदि दिखाएगा तो आप यह निश्चिन्त रूप से समझ लें एटम बम हम पर नहीं गिरेगा। यह है शान्ति का बोध, संकल्प का बोध, आप ने जो एक बड़ा काम करके दिखाया है, जो स्थिति उत्पन्न की है अन्तर्राष्ट्रीय जगत में उस का यह बाध है। मैं समझता हूँ कि आज हमारे वैज्ञानिक उस के लिए बधाई के पात्र हैं।

अन्त में मैं एक निवेदन करना चाहता हूँ कि श्री पंत जी को इस अच्छी सुखद घटना के उपलक्ष्य में फूल फूलजड़ मिनिस्टर बनाया जाय और इन दोनों वैज्ञानिकों सेठना और रामसा को पद्म-विभूषण से विभूषित किया जाय।

SHRI P. G. MAVALANKAR (Ahmedabad): I am participating in this important debate in all humility. I am not a scientist much less a technical expert. I am only an ordinary citizen. But perhaps on behalf of millions of such ordinary citizens of this country I would like to venture to speak and add my own voice to the many speeches already made so ably.

I want first to congratulate very warmly all the scientists who have

been responsible for this significant and substantial achievement. At this stage not only one should congratulate Dr. Sethna and his colleagues and the team of a number of scientists of the day but this is also a moment when one should pay one's tribute to India's first Prime Minister, Pandit Jawaharlal Nehru and also to the first two Chairmen of the Atomic Energy Commission, the late Dr. Homi Bhabha and the late Dr. Vikram Sarabhai. This House will pardon me if I inject a personal note for a moment or two and refer to Dr. Vikram Sarabhai. He is one of the great citizens of Ahmedabad and Gujarat who by his hard work and devotion and with his catholicity of outlook was truly an Indian and truly an internationalist. Only a few days hence, on August 12, his birthday is going to be celebrated in Ahmedabad at a public function and a few publications by him are being released formally on that day and I am sure the House would like me to convey the good wishes of all sections of the House to those present at the function to say that Dr. Sarabhai's work has been well appreciated. I have no hesitation whatsoever in congratulating Prime Minister Shrimati Indira Gandhi who is knowing for her courage and for her determination and she is known throughout the world for her shrewd sense of timing, in important decisions that she takes. I also want to congratulate the scientists as well as the Government for keeping this Atomic explosion as a well-guarded and close secret till the last moment.

It is not merely an underground experiment of nuclear power for peaceful purposes. With this underground experiment carried out so successfully the faith and confidence of the people has been regenerated. Now, this faith and confidence had been shaken for a variety of reasons in the recent past. But this shows that in the midst of all round frustrations, hope still persist in our country, and

that free Indians will be and are able and ready to explore the universe at large.

It is a fact that India has joined the nuclear club by this experiment. We are the sixth power in the world in this regards, besides the five major powers, permanent members of the UN. Now that we have got this power, it shows, although we are at present poor, we are potentially always a powerful nation. And we need not go on telling the world, "Look, we are only for peaceful purposes." Of course we are for peaceful purpose. But I want to tell Mrs. Indira Gandhi and Shri K C Pant that we must go logically all the way, the full way, in this direction. We need not be apologetic or hesitant and entertain any complexes, inferior or superior about it. The world at large understands the language of power. Of course moral power will always be superior but physical strength should also go together with moral force. Then things will go well. For moral force to become effective, material power and physical power are equally necessary.

I cannot, due to lack of time, go into the political, diplomatic, economic, social and psychological aspects of this phenomenon. Major powers are trying to tell us as to how and why you can or should get economic aid because of such devices. How can you afford this nuclear device, and all that. But I would like to tell the House that more than developed countries it is the developing countries that need most these nuclear devices and nuclear power. What must now happen is that this self confidence must lead to self reliance. Self reliance will be something which will help us sustain and strengthen the will of the people of India to march forward in building up a modern nation with a measure of moral force beyond any doubt. If we do that I am sure we will be marching towards

a scientific, socialist, secular, just and freer society than we have had so far in this country.

SHRI MALLIKARJUN (Medak): I desire to refresh the memory of the House to what happened in 1948. Pandit Nehru piloted the Atomic Energy Bill which was passed into law. He had the broad vision then that coal and other resources will not be there in future and that nuclear energy alone will meet the future need of the nation. The former Chairman the late Bhabha gave out three stages of advancement of nuclear power in this country. The first stage is the natural uranium reactor producing power and plutonium. The second stage of the reactor will be producing uranium 233, with help of thorium and with the help of plutonium produced in the first reactor. And the third stage consists of uranium 233 and thorium breeders. India has largest source of thorium in the world. In 1961 in Vienna Mr Bhabha signed an agreement on behalf of Indian Government with the USSR. The first article of the agreement says like this Sir, the first article of the agreement is that there should be cooperation between the two countries for the research and development of the atomic reactor containing the uranium and developing the plutonium breeders

In this connection, the late Pandit Nehru had told on 1st October, 1961 that India would never use the nuclear power for the destructive purposes. But, it will use it for peaceful purposes. That will be the future Government's policy also. Next, in 1963, an agreement was signed with U.S.A. At that time also, Pandit Nehru had told that we would use it not for evil purposes.

Let me come to the explosion stage of 18th May, 1974. Before that, I want to add one more thing. When nuclear test ban treaty was signed, Pandit Nehru told all the peace-loving countries in the world that though

[Shri Mallickarjun]

the test ban treaty was a partial treaty which did not take us towards disarmament, still, this was an extremely significant treaty in the cold war that had been created.

I shall now come to the explosion stage. The nuclear explosion has been welcomed by the people of this country which has created confidence in the minds of the people, our Prime Minister and the scientists in this country. They have exploded it successfully. What is meant by peaceful purposes? The whole purpose of the nuclear energy is to use it for peaceful purposes. Let us take for example the isotopes, that are being used in the agricultural fields in industries and in health. In agricultural field, if the isotope is used, the crop pests can be sterilised. And there cannot be any further pests which damage the crops. The crops will grow. Like that isotopes are used for health. I may tell you that in the industrial field the tempering of a particular piston or a bearing can be easily found through isotope. When we take health, this is used for detecting the cancer cells. Madam Curie discovered radioactive substance. It has further been sophisticated. As Prof. Dandavate said that late Einstein was the discoverer of the theory of relativity. I do not want to touch on that. Lastly, on behalf of an ordinary citizen of this country—not as a Member of Parliament from Congress—I heartily congratulate the Prime Minister and the scientists as also Dr. Sethna for the successful explosion of nuclear device which will go in a short period if not in a later period a long way to the economic development of this country. But, since the time at my disposal is short, I am not speaking on various comments made by other countries. The particular radioactive explosion that took place on 18th, there was no radioactivity at all. That is the greatest achievement. But I heard that the Prime Minister of Pakistan and others condemned that radioactivity

had been produced and that contaminated their region. Sir, on that particular day, wind was blowing in the south-eastern region. So, there cannot be any contamination.

श्री शंकर देव (बीबर) : सभापति जी, हम इस एटोमिक एक्सप्लोजन को करते हुए कई बार यह कह चुके हैं कि हम शांतिमय परंप्रजेज के लिए, पीसफुल परंप्रजेज के लिए इसको इस्तेमाल करेंगे लेकिन हमको देखना यह है कि इसका इन्टरनेशनल फील्ड में क्या रिएक्शन है। इसमें कोई शक नहीं है कि दूसरे राष्ट्र यह समझते हैं कि हम रिफेंस की तैयारी कर रहे हैं। हम चाहे कितना भी यह समझें कि हम पीसफुल परंप्रजेज के लिए इस्तेमाल कर रहे हैं लेकिन अब हम न्यूक्लियर क्लब में घुस गए हैं। आप जानते हैं क्लब में क्या परीमा जाता है और क्या मिया जाता है। हम चाहे कितना भी कहे कि दूध पी रहे हैं लेकिन लोग सही समझेंगे कि हम क्या पी रहे हैं। इसलिए मैं कहूंगा कि उन दृष्टियों को सामने रखते हुए इसका रिएक्शन जो दूसरे राष्ट्रों पर हो रहा है वह यही हो रहा है कि हम इस शक्ति को अपने डिफेंस परंप्रजेज के लिए इस्तेमाल कर रहे हैं और उसी की तैयारी कर रहे हैं। इस चीज को रिमूव करने के लिए प्रधान मंत्री जी ने जो कुछ कहा है मैं उस की तारीफ करता हूँ। उन्होंने सबसे पहले यह घोषणा की कि यह न्यूक्लियर टेक्नालाजी यदि कोई भी दूसरा राष्ट्र चाहता है तो हम उसको सिखाने के लिए तैयार हैं जोकि इस बात का प्रमाण है कि हम पीसफुल परंप्रजेज के लिए इसका इस्तेमाल करने वाले हैं, डिफेंस परंप्रजेज के लिए नहीं। मैं यह कहूंगा कि हमको यह देखना है कि जो हमने एटोमिक शक्ति का परीक्षण किया है और आज तक जो हमारी भारतीय संस्कृति का उद्देश्य रहा है कि हम अहिंसात्मक कार्यवाही करेंगे, विषय शांति के लिए हम कार्यवाही करेंगे उस के लिए लहेंगे उसका जो चित्र अभी दूसरे राष्ट्रों के दिनों में बना हुआ है उसको जरूर धक्का लग रहा है। अतः उस बात को दृष्टि में रखते हुए हमें

कार्य करना चाहिए। अडोस पडोस के जो राष्ट्र है जिनमें यह भय पैदा हो गया है कि हिन्दुस्तान किसी भी समय अणु का प्रयोग कर सकता है उसको यदि हम निकालेंगे नहीं तो दूसरे राष्ट्रों पर जो प्रभाव पड़ा है कि डिफेंस के लिए इसका हम प्रयोग कर रहे हैं उगके रहते हम अपने कर्त्तव्य से अलग हट जायेंगे। इस दृष्टि से हमारी प्रधान मंत्री जी ने जो कुछ भी घोषणा की है उसके लिए मैं उन्हें बधाई देता हूँ और उनसे यह उम्मीद करता हूँ कि वे यह भी डिक्लेयर करें कि हम अन्तःकरण से पीसफुल परंप्रजेज के लिए ही इन्तेमाल करेंगे। अगर डिफेंस के लिए घोषणा की जाती है तो मैं समझूंगा कि वह डिफेंस के लिए नहीं बल्कि आत्मघात के लिए घोषणा करेंगे। यदि आज एटम बम का निर्माण किया गया तो आप 4-5 साल में देखेंगे अन्य दस राष्ट्र और पैदा हो जायेंगे जिनके हाथ में एटम बम रहेगा और तब हमारी आँखें खुलेंगी कि इसका क्या परिणाम हुआ। इसके अलावा जैसा कि प्रधान मंत्री जी ने घोषणा की है कि एटामिक टेकनालजी किसी भी अन्य राष्ट्र को सिखा सकता है उसके साथ साथ हमें यह भी घोषणा कर देनी चाहिए कि आगे हम कोई फेदर टेस्ट नहीं करेंगे।

तोसरी चीज यह है कि अगर हम कहते हैं कि शान्तिमय परंप्रजेज के लिए इसका उपयोग कर रहे हैं तो अगर कोई यूनिवर्सल एजेन्सी यूनाइटेड नेशंस की शुद्ध अन्तःकरण से आकर इसपरिबक्षण करना चाहती है उस पर हमें कोई आइडेंटिफिकेशन नहीं होना चाहिए। इसके अलावा जब हमने अणुशक्ति प्राप्त कर ली है तो आगे आने वाले भविष्य को दृष्टि में रखते हुए हमें देखना चाहिए कि कुछ दिनों में यह बम हमारे पास ही नहीं रहने वाला है बल्कि सभी जगह पर होने वाला है। जब छोटे छोटे राष्ट्रों के हाथ में बह हो जाएगा तो एक छोटा सा राष्ट्र भी विश्व की भ्रम कर सकता है। इस लिए इसपर यूनिवर्सल कन्ट्रोल हो उसका हमें

प्रयत्न करना चाहिए और यू० एन० ओ० में हमें इस बात के लिए लड़ना चाहिए कि एटामिक शक्ति पर यूनिवर्सल कन्ट्रोल के लिए एक एजेन्सी बनाई जाए। तमाम राष्ट्रों के जो एटामिक एनर्जी कमीशन है वह उसकी तहत में अपने प्रयोग करें और केवल शान्तिमय प्रयोगों के लिए उमका इन्तेमाल करें। जब डिफेंस के लिए इन्तेमाल करने का मौका हो तो जो यूनिवर्सल कन्ट्रोलिंग एजेन्सी होगी यू०एन०ओ० की तरफ में उसी के डायरेक्शन में उसका इन्तेमाल हो।

अन्त म में प्रधान मंत्री जी को बधाई देने हुए कहना चाहता हूँ कि उनकी यह घोषणा कि एटामिक टेकनालजी, यदि कोई राष्ट्र चाहे तो उसको सिखा सकती है, बड़ी अद्भुत है क्योंकि आजतक यह बात जो बटो-बटो पावर्स है उन्होंने भी नहीं बही है। इन शब्दों के साथ मैं आशा करना हूँ प्रधान मंत्री जी मेरे गुहावों का ध्यान में रखते हुए कार्य करेंगे।

डा० कौलास (बम्बई दक्षिण) माननीय सभापति ज, आज जिस प्रस्ताव को लेकर हमें प्रपने वैज्ञानिकों का बधाई देने जा रहे हैं, अच्छा होता जिस दिन हमारी लोकसभा का अधिवेशन शुरू हुआ था 22 जुलाई को उमी दिन यह प्रस्ताव आया होता क्योंकि इससे हमारे देश का मस्तक बहुत ऊंचा उठ गया था और इस कार्य के लिए हमें सबसे पहला अवसर देना चाहिए था। मैं धन्यवाद दे संतना जी को उनके साथियों को उमसे पहले मैं याद करूंगा प० जवाहर लाल नेहरू को, श्री लाल बहादुर शास्त्री को और राजक प्रधान मंत्री श्रीमती इन्दिरा गांधी जी को जिन्होंने साइंटिफिक पर्सोनेल को, एटामिक एनर्जी को जो शाखा चली है, अपना आशीर्वाद और निर्देशन दिया जिसके कारण वे हमेशा यही सोचते रहे कि इस देश में पीसफुल परंप्रजेज के लिए एटामिक शक्ति को कैसे काम में ला सकते हैं। इन्हीं लिए सत्तर यह सबसे पहला देश है जिसने अन्डरग्राउन्ड एक्सप्लोजन को बसैस फुल

[डा० कैलास]

करके दिखा दिया। यदि जवाहर लाल जी का यह दृष्टिकोण न होता कि केवल पिसफुल परपोजेज के लिए ही हमें इस शक्ति का प्रयोग करना है तो शायद हमारे आज के जो साइंटिस्ट हैं वे किसी दूसरे रास्ते पर चले गए होते जवाहरलाल जी के डायरेक्शन में, भाभा जी के निर्देशन में और विक्रम साराभाई जी के निर्देशन में जो काम हो रहा था उसको सेतनाजी ने और रामन्ना जी ने पूरा किया है इसके लिए देश उनका सदा आभारी रहेगा।

इसमें कोई शक नहीं कि 18 मई को जो कुछ भी यहाँ पर हुआ उसके लिए कई देशों ने हमारी प्रशंसा की और कई देश हमसे नाराज हुए। कम से कम मुझे सबसे ज्यादा दुख कनाडा की नाराजी पर हुआ क्योंकि हमेशा से ही कनाडा हमारी विचारधारा से सहमत रहा है, हमेशा हमारी सदा मदद करना रहा है इसलिए उसको समझाने का प्रयत्न हमें करना चाहिए। इस सम्बन्ध में हमारी प्रधान मंत्री जी ने यहाँ में श्री केंवल मिह को कनाडा भेजा इस बात को दर्शाने के लिए कि पिसफुल परपोजेज के लिए हमने यह एक्सप्लोजन किया है उसके लिए वे भी बधाई का पात्र हैं। हम कनाडा जैसे मित्र राष्ट्र को खाना नहीं चाहते।

तीसरी बात यह है कि हमने जो एक्सप्लोजन किया है उसको मटेनजर रखने हुए पिसफुल परपोजेज के लिए किस प्रकार इस्तेमाल कर सकेंगे। हमारे यहाँ खासकर बहामुज जो हमेशा इतना विनाश करती चली जा रही है क्या उसके लिए भी हम कुछ कर सकेंगे या नहीं जिससे आसाम में पावर जनरेशन भी हो सके और बहामुज को दूसरी तरफ भोड़ भी दिया जा सके? इसी प्रकार टाटा मैमोरियल हास्पिटल में मुझे कई बार जाने का काम पड़ा वहाँ पर एटमिक एनर्जी से जो आइसोटोप्स बनकर आते हैं उनका कैसर के इलाज में इस्तेमाल हो रहा है। इसी प्रकार

से एमीकल्बर या दूसरी जगहों पर जो पिसफुल परपोजेज के लिए इसका इस्तेमाल किया जायेगा उसके लिए, मैं चाहता हूँ, जितने भी धन की आवश्यकता हो वह धन प्रधान मंत्री जी देकर उस काम को और आगे बढ़ायेंगी ताकि सारा संसार यह जान सके कि एटमिक एनर्जी केवल पिसफुल परपोजेज के लिए ही इस संसार में प्राप्त रहने वाली है, विध्वंस के लिए नहीं। मैं ऐसा नहीं मानता कि आजा के राजपुरुष या राजनेता एटम बम बनाकर किसी भी राष्ट्र को डरा या दबा सकेंगे। यदि हम एटम बम बनाये तो चाइना हम पर आक्रमण नहीं करेगा— ऐमा मैं नहीं मानता। आज रूस और अमरीका के पास इतने एटम बम हैं लेकिन वे उनका उपयोग नहीं कर रहे हैं और न करेंगे। वह दिन आने वाला है जब इस शक्ति का उपयोग केवल पिसफुल परपोजेज के लिए ही होगा।

आपने मुझे जो समय दिया उसके लिए आपको धन्यवाद। मैं पुनः अपने सान्टिस्ट्स को इसके लिए बधाई देता हूँ।

श्री जनेश्वर मिश्र (इलाहाबाद) - सभापति जी, सबसे पहले तो यह जो परमाणु ऊर्जा आयोग के वैज्ञानिकों ने विस्फोट किया उसके लिए मैं उनको मुबारकबाद देना चाहता हूँ। इसके साथ ही मैं जानना चाहता हूँ क्या अभी जो आणविक विस्फोट हुआ है वह आज में कई साल पहले बनकर तैयार नहीं हो गया था?

और क्या जरूरत आ पड़ी कि आज ही इसका विस्फोट किया जाय? क्या इस के पीछे कोई राजनीतिक चाल नहीं है? आज आम जनता को जो तकलीफ हो रही है, जो दर्द हो रहा है उस दर्द को नया मोड़ देने के लिये चाहे सरकार के खिलाफ हो या किसी और के खिलाफ हो, यह कदम नहीं उठाया गया? और अगर सही है कि यह कदम उठाया गया तो मैं भारत सरकार से कहना चाहता हूँ कि मचलते हुये बच्चे को खिलाना देकर फुसलाया जाता है, लेकिन भूखे बच्चे को

खिलौना दे कर नहीं फूसला सकते हैं, उसे तो रोटी चाहिए। इसलिए अगर आज आप का मकसद हिन्दुस्तान की ग्राम जनता में जो तकलीफ के कारण दर्द है, एक तरफ देश में बच्चे बेचे जा रहे हों, एक तरफ साबुन की टिकिया के बगैर लोग तरस रहे हों और दूसरी तरफ प्राणविक विस्फोट की बात अश्रुगत और निरर्थक लगने लगती है। और यह इसलिए कि आज दुनिया की होड़ में प्राणविक विस्फोट बहुत पीछे है। आज का युग प्रक्षेपास्त्र का युग हो गया है और ऐसा लगता है कि जो गर्व करते हैं वह बेमतलब है क्योंकि हथियार आज की दुनिया के सामने निरर्थक हैं क्योंकि यह—हथियार अब इस्तेमाल नहीं होंगे। और हम को तो ऐसा लगता है कि या तो यह हथियार कूड़े के भाव बिकेंगे या इन्सानियत मिट जायेगी। आज आइन्सटीन और महात्मा गांधी में होड़ चल रही है—एक इन्सानियत को मिटाने वाला आइन्सटीन रहा और दूसरी तरफ दुनिया को बनाने वाला गांधी रहा। मुझे अफसोस है कि इस होड़ में हम लोग भी भाग्ये। भारत के कोने कोने से मांग चल रही है कि हम को ऐसे हथियार बनाने चाहिए। लेकिन मान लीजिये जिस समय हमारा झगड़ा होगा, पाकिस्तान के पास यह बम नहीं है, लेकिन चीन के पास है, आप ने अगर 10 बम बनाये और आप को पता है कि चीन के पास 200 बम हैं तो आप का हाथ बम चलाते वक्त कांपता रहेगा।

मुझे तो डर लगता है कि अपने देश में जो लोग 27 साल से सरकार चला रहे हैं इन्होंने अपने से मजबूत के ऊपर कभी हाथ नहीं उठाया है। अगर पीटा हूँ तो अपने से कमजोर को ही पीटा है ताकत में और तादाद में तो अपने कमजोर पर जो हाथ चलाया करता है उस हाथ में अगर कोई मजबूत हथियार आ जाता है तो वह राक्षस ही जाता है। महात्मा गांधी आजादी के बाद कहा करते थे कि पलटन की क्या जरूरत है। उस समय यह कहा जाता था कि पलटन की जरूरत इसलिए है कि अगर दूसरा मुल्क कोई हमला करेगा तो अपनी तरह की हिफाजत करेंगे। आज बड़ी पलटन

सत्याग्रहियों को पीटने के लिए इस्तेमाल में लायी जाती है। जिन लोगों के हाथ में पलटन आज है वह देश के लोगों को पीटवा रहे हैं। अगर देश की ग्राम जनता या एक सूबा का सूबा इनके खिलाफ हो गया तो उस पर भी यह बम गिरा देंगे, यह मेरे मन में डर है और इम बात को मैं आज जाहिर करना चाहता हूँ।

प्र० मधु दंडवते : अगर बम हिन्दुस्तान में डाला जायगा तो अपोजीशन और कांग्रेस दोनों मांगे जायेंगे।

श्री जनेश्वर मिश्र : माननीय दंडवते जी ने एक बात कही है कि दुनिया के देश आज दो हिस्सों में बटे हैं, एक द्विज हिस्सा है और एक अछूतों का हिस्सा है। द्विज हिस्से को यह गर्व है कि हथियार हमारे हाथ में आ गया है और हम को अछूत इसलिए समझने थे कि हम कमजोर थे। इस समय भारत में द्विज और अछूत की लड़ाई है। तो मैंने देखा है कि अछूत भी जनेऊ पहन लेते हैं और समझते हैं कि वह ब्राह्मण हो गये। क्या हिन्दुस्तान उसी तरह से बनना चाहता है कि जनेऊ पहन कर द्विज बनना चाहता है ?

आखिर मेरे हिन्दुस्तान की सरकार को बघाई देना चाहता था, लेकिन एक दिन अखबार में पढ़ा कि कोई मीटिंग हो रही थी कांग्रेस की और उस में प्रस्ताव आया कि वैज्ञानिकों को मुबारकबाद दिया जाय। तो संशोधन आया कि वैज्ञानिकों के साथ साथ शायद प्रधान मंत्री को भी मुबारकबाद दिया जाय और उस पर वोट होने लगा तो सबसे पहले प्रधान मंत्री ने अपना हाथ उठा दिया। तो मैं समझता हूँ कि जब खुद ही अपने को प्रधान मंत्री मुबारकबाद दे रही हैं तो मेरे जैसे आदमी के लिये कोई जरूरत नहीं है मुबारकबाद देने की। क्योंकि जो उपलब्धि है वह वैज्ञानिकों की है, सरकार की कुछ नहीं है। इसलिए अगर मुबारकबाद देना है तो वैज्ञानिकों को दिया जाना चाहिए।

इन्हीं शब्दों के साथ मैं अपनी बात समाप्त करता ।

PROF. NARAIN CHAND PARASHAR (Hamirpur): Sir, I rise to hail the first peaceful nuclear underground test by India. I strongly disagree with what Shri Mishra has said. On the one hand, he attributes that the timing of the nuclear explosion is politically motivated. On the other hand he says that he congratulates the scientists for doing it at this moment.

SHRI SHYAMNANDAN MISHRA: How is it contradictory?

PROF. NARAIN CHAND PARASHAR: It is contradictory in the sense that if it is an

achievement of the scientists, then it is not politically motivated. Therefore one should not blow hot and cold in the same breath. The type of arguments that he advanced I could not find even in Japan.

While India exploded the nuclear device, by a sheer coincidence I went to Tokyo and I went to Hiroshima. I should say that the people of that area remember with gratitude and affection both Shri Jawaharlal Nehru and his daughter, Shrimati Indira Gandhi because they were the first statesmen of the world, of international stature who visited Hiroshima. As was stated by one of the Japanese, their Emperor had no time to visit Hiroshima but Nehru visited them. They appreciated that Jawaharlal Nehru was the first world leader of a sovereign nation that visited Hiroshima to express his anxiety for the people of Japan.

Coming to peaceful use of nuclear energy, there is nothing good or bad. It is the use that would make it. I congratulate the scientists of India that they have brought to fruition one of the greatest and eternal dreams of mankind to harness all the natural resources for the prosperity and progress of mankind. It is now believed that nuclear fission releases a tremendous amount of energy, and that energy can be used for peaceful purposes. I met the Members of Parliament and even

leaders of Government in Japan and found that they were sincerely appreciative of the peaceful role that India had played.

The only thing that needed to be explained to them was that it was not a sudden step, that it was not a hasty decision on the part of the Government, we were able to explain to them step by step that it was long back in April 1948 that the Atomic Energy Act was passed, it was long back on 10th August 1948 that the Atomic Energy Commission was set up, these things were done about 25 years back, it was a graded scheme and that it came to a successful fruition on the 18th May 1974.

Then, another question that was put to me there as well as here was this. When the Indian people are facing drought and famine and there are not enough resources to give them relief how is it that the Indian Government is trying to have a nuclear explosion which will cost quite a good sum of money. I answered it by saying that India wants to remove drought, India wants to wipe away the difficulties created by drought by nature, by exploiting the energies of nature for the progress and a bright future of mankind. That argument convinced them. Then I asked them another question. I ask them why they did not criticise the United States' imperialism which destroyed the innocent millions of Hiroshima, which destroyed the mothers, daughters and sons of Hiroshima and why they are protesting only against India, which is the first country in the world to declare unreservedly its opinion that it will use this energy for peaceful purposes.

When we have invited international nuclear scientists to come and examine our atomic reactors to convince themselves, it is a strange sight that our own persons are becoming bitter critics of the Government just for the sake of criticism. The atomic scientists from far off lands say that India is using nuclear energy for peaceful pur-

poses. But it is unfortunate that some of our friends at home should find some sinister move in it.

19 hrs.

The Atomic Energy Act, when it was revised and passed by Indian Parliament clearly outlined and stipulated that the control, development and use of nuclear energy will be only for peaceful purposes. It was this undercurrent that was able to remove all misgivings of foreigners.

Even in Japan, the people there understood it. It was a time when the Japanese people were going to have elections. The Japanese Parliament had not ratified the non-proliferation Treaty which had been signed by them. So, the Opposition parties had launched a campaign that they would move a motion in Parliament that it should not be ratified. It was in order to counteract that propaganda that slogans were given. The ordinary people in Japan were clear in their mind that India is a peace-loving country. When I asked "Why did the Parliament of Japan pass a resolution against India?" the answer was, "That was not against India. That was against every atomic explosion." When China did it, they passed a resolution; when Canada did it, they passed a resolution; when America did it they passed a resolution. It was a matter of ritual and routine. It was not a matter of great concern for India. I found sincere admiration for India's policy.

I happened to visit Hiroshima on the sacred day of Nehru's death anniversary on the 27th May. I saw that a doctor brought a beautiful photograph of our late Prime Minister Nehru and distributed some sweets and some other things to the patients. They sincerely felt that India will always be the country that will stand for peace, that India will be the country in the world to give a clarion call for atomic energy for peace and that India will bring an era of hope and peace

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for mankind, and not destruction. Everybody is chary of destruction., everybody is afraid of destruction. Therefore, we hail the first successful underground nuclear test of India as a symbol of man's determination to harness all the energies for peace progress and prosperity of mankind.

With these words, I congratulate the hon. Prime Minister, Shrimati Indira Gandhi and Shri Krishna Chandra Pant. It is the guidance of Shakti of Indra that symbolises it and the wisdom of Lord Krishna that symbolises it and the great work of scientists of India who are the great sons of India deserve this congratulation. We hope, India will March forward. I can visualise the moment when I saw the Indians in Japan dancing and saying that India has brought hope and peace of mankind.

THE MINISTER OF IRRIGATION AND POWER (SHRI K. C. PANT): Mr. Chairman Sir, it is a privilege for me to reply to this debate on a subject which has been very close to my heart for many years.

There are certain national achievements which bring the parties in this House together and the debate in this House reflects the joy and pride of the people throughout the length and breadth of this land in that national achievement. I regard this debate as one such debate. The way in which it has been conducted has transcended the normal divisions between parties and the polemics that go with those divisions. There was one incorrigible exception in the course of the debate. But I do not think I need take notice of that. Even he congratulated the scientists.

Every single Member who spoke expressed his appreciation for the whole team of scientists and for the wonderful achievement in exploding this peaceful underground nuclear device. I would like to join them if I may in conveying the congratulations and thanks of the House to the scientists of our country.

[Shri Shyam andan Mishra]

Sir, behind this achievement lies many years of dedicated effort. Above all, this has been made possible because of the foundational work in the policy-making sphere done by Shri. Pandit Jawaharlal Nehru. He had a very wide perception and the historian's sweep and he was conscious of the dangers posed by science and technology in general and nuclear energy in particular, but at the same time he was a man who had basic faith in the future of man, the basic faith in the possibility of using science and technology as a tool to remove want and fear from the face of this earth. It was his vision and foresight which shaped our policy both in the field of science and technology generally and in the field of atomic energy in particular. Shri Lal Bahadur Shastri who followed him continued with the same policy, and more recently it has been the guidance inspiration and the decisive impetus which our Prime Minister has given to science and technology in general and to nuclear energy in particular which has led to this achievement.

Many hon. friends, Shri Pandey, Shri Samar Guha and others referred to the fact that the decision to go ahead with this explosion did require a certain amount of courage. Sir, we have seen that, in decisive moments like this the Prime Minister has always shown the courage and boldness to lead the nation in the right direction. Therefore, I have no hesitation in saying that it is to the Prime Minister above all that we owe this momentous achievement. I cannot fail to record the pioneering work that was done by Dr. Bhabha. In him India was fortunate to find not only a great scientist but a great administrator and a man of great vision, and it was a combination on the political and scientific sides of Panditji and Dr. Bhabha which laid the foundation for the development of nuclear science in this country. The work of Dr. Sarabhai has been mentioned by my friend

Shri Mavalankar. And today we have Dr. Sethna, Dr. Ramanna and his colleagues; it is only who have actually directed this experiment and the great success with which this has been made is attributable directly to their guidance and their efforts. So, Sir, I am sure that the House would like me to convey to them in particular the congratulations of the House.

I am sure you will be very glad to know that this was an entirely Indian effort; our scientists and engineers worked very hard and perfected the experiment which to all of us is a source of very great satisfaction and joy as has been seen in the course of the debate today.

This experiment is an important land-mark in the development of nuclear technology for peaceful and economic uses and here I would not like to repeat what my hon. friend, Prof Parashar very ably said in the course of his speech in setting this particular nuclear explosion in the wider context of harnessing the forces of nature for the service of mankind. But this is an important land-mark and it is an event which has undoubtedly had an electrifying effect on the morale of the people of this country. It has been said rather prosaically by me and it has been said very poetically by some hon. Members like hon. Shri Shankar Dayal Singh, hon. Shri Daga and others but behind it all has been a realisation that this explosion has added to the self-confidence and self-reliance of this country. Behind it all one can discern a sense of pride and achievement. The great significance of his experiment is that it represents a further major step in our resolve to develop our indigenous resources of energy for the benefit of our people.

Some hon. Members made a particular reference to a very important scientific aspect of this explosion and that is that it was totally contained. In fact, our scientists who have been working there ever since 19th May that is one day after the explosion in

the actual crater created by the experiment have not seen so far any traces of fission product radioactivity. The drilling has commenced and at the moment, we have just completed a bore-hole to a depth of 100 metres approximately 200 metres from the point of experiment. We have not been able to pick up any radio-activity of fission products. I must congratulate the scientists, the engineers and technicians again who participated in this experiment for the remarkable degree of containment they have achieved. There was no venting of any radio-activity. Our scientists went as near as 300 metres immediately after the explosion and a helicopter flew 30 metres above the site. This was a remarkable achievement considering the fact that some underground nuclear weapon tests conducted by the great powers have vented. It is against this background that I have drawn particular attention of the House to this aspect of the experiment.

I would also like to underline the fact that we have been the first country which has carried out its first nuclear explosion underground. There have been other explosions the world has seen, many explosions in the atmosphere in utter disregard of the outcry that has been raised about the hazard of radio-activity and the fall-out and explosions which have been meant to develop weapons and here our explosion was underground and the radio-activity was fully contained and its object and purpose was entirely peaceful.

Many hon. friends have referred to our policy of using nuclear energy for peaceful purposes and I would like to emphasize that our policy has been a consistent one over the years. It was a well-thought out policy and we adhere to it. As Prime Minister stated in Parliament in 1968:

“India has repeatedly announced that she is not making an atom bomb and that she is developing her atomic energy programme exclusively for peaceful purposes. Our pro-

gramme of atomic energy development for peaceful purposes is related to the real needs of our economy and would be effectively geared to the same.”

The experiment of 15th May was part of the research and development work carried out by the Department of Atomic Energy for the peaceful uses of nuclear energy. As I have said earlier drilling of the site of this experiment has commenced. According to present estimates the compilation and analysis of data may take up to six months or so. For the sophisticated intelligence of Prof. Guha this seems to be a very long time. What has to be found out is the extent of rock-cracking and the extent of radio-active contamination underground and there is no way to measure these unless we drill and drilling in a radio-active area is hazardous operation. Therefore one cannot lightly go about sending people and sending equipment into an area knowing that there is radio activity underneath. It has to be done carefully and I doubt if he would like any unnecessary haste to push our scientists into this faster than they would like to go in this matter. Our scientists will carefully study and assess these results. And subsequent programme of further utilisation of this technology for developmental applications will be determined by us when the findings of the recommendations of the scientists are in hand. We have already said that the result of this experiment, when ready will be published and will be freely made available to the international community including particularly the developing countries.

I would like to tell Shri Shanker Deo that it is to this aspect that Prime Minister referred to in her statement earlier. The experiment conducted by India cannot by any means be regarded as an example or a source of encouragement to others to go in for nuclear weapons. There is no change in our consistent policy of striving always and together with other peace loving countries for nuclear disarmament and non-proliferation of nuclear

[Shri K. C. Pant]

weapons in the real sense namely, both vertical and horizontal so that the growth in nuclear arsenals can be arrested and reversed. I am sure the House appreciates the full significance of the success of this experiment. It is not merely an isolated feat of excellence in a particular field. It signifies an important technological breakthrough and will undoubtedly serve as an important stimulus to our rapid technological progress in various related fields. The problems of development facing us are indeed immense. After all India is not a small country; there are more than 500 million of us. As time goes on we should need a far larger and ever increasingly supply of food and fuel, of clothing and of energy. And all these things in the years to come will tax our resources and so we have to grasp all the tools that modern science and technology can provide to grapple with these problems. It is our determination to demonstrate that this new technology of explosion is not used for destruction but is made to subserve the cause of peace as an instrument of development.

And, as some friends pointed out, we perhaps need this technology even more than developed countries who have already a large infrastructure on which to build.

Sir, the interest that the experiment has evoked abroad is also indicative of the importance of the event. The reaction among the developing countries, by and large, has been one of satisfaction and even pride that a developing country like India has achieved such a significant breakthrough in a sophisticated technology. The affirmation of our determination to use this technology for peaceful purposes has also been welcomed. Some of the advanced countries of the West have not, however shown equal understanding. There has been criticism that our experiment will lead to further proliferation of nuclear weapons. I have partially dealt with all the points. But,

here, I would just like to make a reference to a statement that one hears often nowadays, namely that there is no difference between nuclear weapon test explosion and peaceful nuclear explosion. This sort of an argument has been advanced and I would like to refer here to Article I, sub-paragraph 2 of the Partial Test Ban Treaty, that is the Treaty banning nuclear weapons tests in the atmosphere, outer space and under water. It reads and I quote:

"Each of the parties to this Treaty undertakes furthermore to refrain from causing, encouraging or in any way participating in the carrying out of any nuclear weapon test explosion, or any other nuclear explosions anywhere which would take place.."

The point that I am making is that even the Partial Test Ban Treaty does not merely say 'nuclear explosions' but it says 'nuclear weapon' test explosions or any other 'nuclear explosions'. What is the meaning of 'any other nuclear explosions'? It can only mean 'peaceful explosions' either it is a weapon test explosion or a peaceful explosion. There cannot be any other third type of explosion. Since only outer space atmosphere and water—these are the media are excluded, this can only be underground explosion and, therefore, even in the Partial Test Ban Treaty a distinction has been made between these two types of explosions. And I think this distinction is worth noting.

My hon friends said that we should remove the misunderstanding. (*Interruptions*).

PROF. MADHU DANDAVATE:
Even in the weapon test, if it is to be undertaken, preceding that, at some stage ordinary device test has already been operated. So, one is related to the other. Either one might be followed by the other or one might not be followed by the other. Those who have undertaken the tests at some earlier stage much have also undertaken an ordinary test like ours. So, the link is there.

SHRI K. C. PANT: I am afraid all those who have undertaken explosions in atmosphere, this Partial Test Ban Treaty excludes. And whoever is a signatory to this test is excluded.

PROF. MADHU DANAVATE: These are ordinary tests.

SHRI K. C. PANT: I think on further thought you would come round to my point.

It has been suggested that we should remove the misunderstanding. I think that there is little scope for misunderstanding after all explanations and clarifications that have been given. We would certainly like our significant achievement to be understood in the proper perspective.

The Chairman of our Atomic Energy Commission has explained in unequivocal terms the purposes and objectives of our experiment. Only a few days ago, the Prime Minister reiterated in her statement in the House on this subject that there was no change in our consistent policy of utilising nuclear energy for peaceful purposes. She has also addressed letters to several Heads of Governments including Prime Minister Bhutto of Pakistan. The Government has done extensive briefings both in Delhi and other capitals abroad at the diplomatic level. I am sure, the House is aware of the statement of the External Affairs Minister on the subject.

Our representatives in various international forums where this subject has been raised by Pakistan or other such as the Disarmament Committee at Geneva—have clarified the policy of the Government and put on record our official declarations. Sir, I must say with confidence that there is now a growing understanding abroad of our principled position in regard to this matter. In conducting this experiment India has not violated any international agreement. We have not violated any obligation assumed

under our bilateral agreement with Canada or with IAEA. The materials and technical know-how used for conducting the experiment were entirely indigenous. These are important facts to be noted.

Before I go on to the peaceful uses of nuclear energy to which many Members made a reference I would like to say briefly I have taken note of the anxiety of the several members about security arrangements in our plant and some suggestions which they have put forward relating to the location of the plants. I can assure them that the Government will consider this aspect in particular and, in fact, if I am not revealing a secret this aspect has been engaging the attention of the Government.

Before this explosion we were often told by countries which are continuing with these underground explosions that they have lot of potentiality for practical application in the field of technology and if this is so then one fails to understand why if others can take advantage of this technology India should be denied of the same under its own conditions.

The International Atomic Agency organised panel discussions in 1970, 1971 and 1972 on peaceful nuclear explosions. In the panel discussions in 1970 in which many countries including Japan, Sweden, U.K. and the USA participated the first conclusions in the summary of the discussions reads as follows:

"There is general agreement that the results obtained in experimental projects on the application of nuclear explosions to industrial projects justify continuation, even an intensification of the programme".

Even more pointed is a reference in the foreword PNE. 1970. I quote:

"In addition, the use of cavities created by such explosions (nuclear explosions) appeared to have an

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economically attractive future for projects such as underground gas and oil storage, and the storage of radio-active wastes from nuclear power stations and chemical plant, for *in situ* leaching of low-grade ores broken up by the explosion. The latter application is of particular interest to one Member State, India, who could by this means use her very low-grade non-ferrous metal ore deposits, thus making her more independent of imports of these metals and furthering the national economy."

The Third Non-aligned Summit at Lusaka, in its Declaration on Disarmament, underlined its awareness of the tremendous contribution which the technology of the peaceful uses of nuclear energy, including peaceful nuclear explosions can make to the economy of the developing world.

Prof. Guha, Shri Bhattacharyya and later in a far more pointed way Shri Indrajit Gupta and Prof. Dandavate wanted to know what practical use could be made of the peaceful nuclear explosion technology. In fact, Shri Indrajit Gupta raised the question why have advanced countries not used this technology so far? I should like to assure him that many advances have been made since we last had a debate on the subject in the House; I think the debate was an half an hour discussion raised by Prof. Samar Guha.

I should like to give some concrete examples of the peaceful uses of nuclear explosion. Two countries which have done a lot of work on peaceful uses of nuclear explosion are the United States and the USSR. The experience of the USA is more limited in the types of applications and the geological materials which they have investigated. The Soviet programme, however, is very broad based and is used to assist in the development of their national resources with a number of technical areas being develop-

ed simultaneously. The technical results that the USSR has reported are very encouraging and in general more favourable than the United States' experience. One of the highlights of the USSR experience which I should like to bring to the attention of the House is the control of a runaway gas well at Urtaubak.

When a well was being drilled in Southern Uzbekistan, control of the well was lost at a depth of 2450 metres, resulting in uncontrolled release of over 12 million cubic metres of gas per day. The problem was further complicated by the presence of hydrogen sulphide, almost 8 per cent weight in the gas. Conventional methods using high explosives proved to be ineffective and therefore a thirty kiloton nuclear device was set off in an appropriate manner near this well whereby the gas flow was completely stopped. Now this is a direct application which the USSR has proved and which it again carried out in a nearby gas field when another well had a similar problem. This time the original leakage was around a million cub. met. of gas per day.

The USSR has also carried out experiments on oil stimulation. In one experiment where they used two 2.3 kiloton and one eight kiloton device in an oil field, they were able to increase the oil yields considerably. Many hon. friends know about it; it was discussed earlier.

The experience of the United States however has been in the field of gas stimulation. Project 'Gas Buggy' was one of the projects where the yield of gas by the use of a nuclear explosion increased supply of gas considerably. The USSR has also created underground storage for oil or gas and tested it with oil and gas with a pressure of 60 atmospheres. They are in the process of looking at methods of developing water resources by creating shocks, i.e., explosions which produce large sized

craters and they produced an artificial lake with a storage of approximately 13,000 acre feet. They are now proposing to form a 24,000 acre feet reservoir by using two 150 kiloton devices. Another interesting experiment which the USSR is working on is the proposed Pechora-Kama canal. Here the proposal is to use approximately 200 or so explosions to divert the Pechora river into the Kama river and then into the Caspian sea where the entry of this water will help to stabilise the level of the water in the inland Caspian sea. In the field of mining they are working on a project which would remove something like 900 million cubic metre of overburden to reach the ore which they wish to exploit. This shows that there are definite uses for peaceful nuclear explosion and both the USA and the USSR are deeply interested just as we are in developing this new technology.

PROF. MADHU DANDAVATE: Have you got the estimate of expenditure for these techniques?

SHRI K. C. PANT: I thought I had given you enough for today.

PROF. MADHU DANDAVATE: You can give us at a later stage; they are interesting; the figures are quite high.

SHRI K. C. PANT: The point I was making was that the use of this technology has gone beyond theoretical stage and the stage of conjecture into practical field, practical work has been done. These were some of the examples that were cited in that context.

I do not want to take more time. Reference was made by Dr. Karlash to the reaction of Canada. We have always valued our cooperation and collaboration with Canada in the nuclear and other fields. Therefore our Foreign Secretary went to Canada and held high level talks. I should

like to inform the House that the talks have resulted in clearing some of the misunderstanding and a better appreciation of each other's point of view. We expect to hold further consultations with them when their representatives come to Delhi in the near future. The Canadians have agreed that we have not violated any agreement that we have entered into with them. This also is a point to be noted. There are certain points to be sorted out with them, but notwithstanding these differences, we respect each other's point of view. Because we have had good relations with Canada for a number of years now ever since independence, we do not take our friendship with them lightly and we hope to arrive at some understanding of our mutual position which will prove satisfactory to both of our countries.

Reference was made to some exaggerated reactions which have taken place in the world. We have never concealed our intention to explore the possibility of underground nuclear explosion. There have been questions in Parliament and answers given by the Prime Minister, which have been published in newspapers and which have been taken note of. It has been said quite clearly and plainly that we are exploring the possibilities of an underground explosion. There was no secrecy about it. It was not a cloak and dagger affair. It was a scientific and technological experiment which has potentialities for peaceful application and which we thought would be helpful to our country. We never made a secret of it. I have here a list of questions and answers given on various dates and I do not want to take the time of the House by reading them. I would only say that as far back as 15th November 1972 in answer to a question, Government had stated:

"The Atomic Energy Commission is constantly reviewing the progress in the technology of underground nuclear explosion both

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from the theoretical and experimental angle”—

I would like to emphasise the word “experimental”—

“and also taking into account their potential economic benefits and possible environmental hazards.”

Therefore, quite clearly in 1972 we had talked of an experimental angle of the underground explosion. Against this background, it is difficult to appreciate Pakistan's somewhat hysterical reaction to this explosion. We know that Pakistan has its own internal difficulties, but if it wants to divert the attention of its people, we would be grateful if Mr. Bhutto would find something more credible. The way he has ever-reacted to our explosion almost suggest that Mr. Bhutto feels that India made all the efforts of exploding a nuclear device underground with the sole object of impressing him! He seems to be looking round for assurances against threat. But the basic question is, threat from whom? We have already declared categorically that our experiment was for peaceful purposes and our Prime Minister has conveyed this assurance to Mr. Bhutto. Therefore, there is in fact no danger or threat from India to Pakistan. The need to seek assurance or support against a non-existing threat is not there.

SHRI MALLIKARJUN: Prime Minister Bhutto has said that due to the radioactive fall-out contamination has occurred on his land, though actually there was no radioactive fall-out. Will you kindly say on 18th May what was the direction of the wind?

SHRI K. C. PANT: This point has been clarified. The direction of the wind was away from Pakistan. But apart from that, I have mentioned today how the scientists themselves were near the crater, how the heli-

copter flew near the crater and how they went next day to the crater and so on. So, I need not explain it further.

Like other developing countries which were under colonial rule, we could not help the fact that the first industrial revolution passed us by in an earlier era. But, I think, this country has resolved that we have no intention of letting the same thing happen in the technological revolution in this century. We shall not be deterred by criticism or pressure from any quarter from our purpose. In the past, we could not prevent a time gap developing in many fields of science and technology and industry. But there is no reason why we should today allow a time gap to develop in such fields of science and technology where we can keep abreast of the latest developments. This applies as much to electronics and space science as to nuclear energy. We have some of the best scientists in the world. We have the organisation and we have the motivation. It is, therefore, only natural that we do not allow ourselves to be bypassed by the new industrial revolution and take up new technologies where we have the necessary capabilities.

This explosion is a symbol of our determination that in spite of all our difficulties, we shall forge ahead in the task of national construction. The nuclear explosion is necessarily an event which attracts a great deal of public notice. But behind it lie countless hours of effort of a very large number of scientists, technologists and others. There are so many other fields of national endeavour which do not get the same notice but in which likewise countless number of people are working day in and day out in the task of national construction. Therefore, in spite of our current economic and other difficulties, this explosion, if I have understood the mood of the House correctly, has been a symbol of faith and hope for the country. It is also a

symbol of our determination to use all our natural resources for the development of our country, for raising the standard of living of our people and for developing our science and technology. On this question, the independence of our judgment is final. This is a basic point of principle, an attribute of our sovereignty

on which there can be no yielding to pressure and on which there can be no compromise.

19.45 hrs.

The Lok Sabha then adjourned till Eleven of the Clock on Friday, August 9, 1974|Sravana 18, 1896 (Saka).