

Friday, March 11, 1870

ABSTRACT OF THE PROCEEDINGS

COUNCIL OF THE GOVERNOR GENERAL OF INDIA

LAWS AND REGULATIONS.

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Abstract of the Proceedings of the Council of the Governor General of India, assembled for the purpose of making Laws and Regulations under the provisions of the Act of Parliament 24 & 25 Vic., cap. 67.

The Council met at Government House on Friday, the 11th March 1870.

P R E S E N T :

His Excellency the Viceroy and Governor General of India, K. P., G. C. S. I.,
presiding.

His Excellency the Commander-in-Chief, K. C. B., G. C. S. I.

Major General the Hon'ble Sir H. M. Durand, C. B., K. C. S. I.

The Hon'ble John Strachey.

The Hon'ble Sir Richard Temple, K. C. S. I.

The Hon'ble J. Fitzjames Stephen, Q. C.

The Hon'ble D. Cowie.

Colonel the Hon'ble R. Strachey, C. S. I.

The Hon'ble Francis Steuart Chapman.

The Hon'ble J. R. Bullen Smith.

The Hon'ble F. R. Cockerell.

FEMALE INFANTICIDE BILL.

The Hon'ble Mr. STRACHEY presented the Report of the Select Committee on the Bill for the prevention of female infanticide.

INDIAN WEIGHTS AND MEASURES BILL.

Colonel the Hon'ble R. STRACHEY applied to His Excellency the President to suspend the Rules for the Conduct of Business, to enable him to introduce the Bill to regulate the Weights and Measures of British India. He said that he made this request to render possible what he feared would otherwise hardly be the case, the passing of this measure before the Government of India left Calcutta, if it should be approved by the Council after the detailed consideration which they would be asked to give.

The Bill was very simple in its form, and its object was to give effect to the conclusions of the Government of India on the general question which had now been before the public for more than a year. The Council would, he thought, be fully as able to discuss the principles of the Bill today as they would have been had the longer period usually allowed elapsed since the Bill was in the hands of the members of the Council.

He might mention that it was the desire of the Agency of the East Indian Railway Company to adopt the new unit of weight on the opening of the Chord Line Railway, which might be expected to take place towards the end of the coming rainy season. The opening of this line would necessitate the re-arrangement of the whole of the charges for goods sent between Howrah and the stations above the end of the new line, and new tables would have to be prepared in consequence. The Agency wished to make the change as far as possible a final one, by adopting, in the new tariff, the ton of 1,000 kilograms as the unit on which their charges were to be made. It was evidently desirable that the new weights should, if possible, be authorised by the legislature before they were adopted by the Railway Company, and it was therefore desirable that the law should be passed before the Government of India returned to Calcutta.

It would, he thought, be generally considered that a Bill relating to the weights and measures of India should be fully discussed by the non-official members of this Council, as well as by those members who represented Madras and Bombay, and the Government would be reluctant to deal with such a measure at Simla.

If the Rules were not suspended in the present case, he feared that the time left for the consideration of the details of the Bill would be so short, and would come into a period when the attention of the Council would necessarily be given to other questions of great importance, that there was much danger that the Bill could not be passed at all before the Government left Calcutta.

The President declared the Rules suspended.

Colonel the Hon'ble R. STRACHEY then introduced the Bill and moved that it be referred to a Select Committee with instructions to report in a fortnight. He said that, after the explanations that he before had the honour to offer on the subject of the Bill, he need not detain the Council with many remarks on the present occasion. The first object of the Bill was to declare, in an authoritative manner, the determination of the Government of India that certain new weights and measures should eventually be received as the established weights and measures of the country. These weights and measures, it would be seen, were to be based on the units of the metrical system. But considering the difficulty of accomplishing any fundamental change in such matters otherwise than gradually, it had not been thought desirable to affirm that the precise system of weights and measures commonly known as the metrical system should be adopted in its entirety, and it was left to the discretion of the Government of India to declare, from time to time, what the

precise denominations and magnitudes of the authorized weights and measures were to be, subject to the proviso that they should all be based on the metrical units. In like manner it would not be required that the sub-divisions of all the new weights and measures should necessarily be expressed in decimals, though a preference would be given to decimal divisions, if it was thought practicable to ensure their adoption. The formal declaration by the Government, under the provisions of a legislative enactment, that it had adopted the resolution to accept such a system of weights and measures to the exclusion of all others, would, he ventured to think, be one of the steps most likely to bring about a spontaneous adoption of the new system without any pressure under an obligatory law. Until the Government had pronounced in an unmistakable way its intentions, it was not to be expected that persons engaged in trade would run the risk of supplying themselves with new weights or measures, and adopting them in their business, when some fresh declaration of the Government might, at some future time, render them all useless. He (COLONEL STRACHEY) looked confidently therefore on the declaration on this point which the Bill contained as being likely of itself to do a great deal towards the ultimate general adoption of the new system, and in fact to make practicable, at no very distant period, the application of the other parts of the Bill, first in the larger towns, and subsequently and by degrees in the country generally. The Bill made a distinction between weights and measures. No power was taken to require the compulsory use of measures excepting in Government offices, and by municipal Bodies and Railway Companies. The compulsory powers affecting the general public only referred to weights. This distinction was made in accordance with the conclusions of the Government that it was not desirable at first to deal with anything but the weights of the country, the use of which, in the transactions of everyday life, stood on a totally different footing to the use of measures. As regards the Government departments, of course it would have been quite optional with the Government to determine at any time what weights or measures they should use, without legislation, supposing that legislation had not been thought desirable on general grounds. But, for the reasons he had already given, it was very expedient to show what the intentions of the Government were, and to pledge the Government to move, when it thought fit so to do, in a certain direction and no other. The Bill therefore declared that the Government might, when it thought fit, require the use of the new weights and measures by all Government departments. It had been thought proper to deal with municipal offices in the same way as those of the Government. In fact, in the majority of cases, the influence of the Government would no doubt have sufficed to ensure this without a legislative provision for it. But the same argument applied to such cases as in that

of Government departments, and these municipal bodies, when not directly under Government influence to such an extent as would have ensured their acceptance of the wishes of the Government, might reasonably be looked to as bound to give the Executive Government all practicable help in carrying out a great public improvement such as that which this Bill contemplated. The Railway Companies had been included with the Government and municipal Bodies for similar reasons to those he had just explained. But in their case there was, in addition, an obvious pressing necessity for establishing uniformity in the weights they used. He (COLONEL STRACHEY) was glad to say that the chief of these great and influential bodies had most cordially accepted the proposals of the Government of India, and, as he had already stated, the Company in which Calcutta was most interested—the East Indian—had even outrun the Government in its desire to co-operate in the difficult task of introducing uniformity into the weights of the country. He was glad to have this opportunity of expressing the special obligations that he felt were due in this matter to the Agency of the East Indian Railway Company, and in particular to their able Chief Engineer, Mr. Sibley, and to Mr. Cecil Stephenson.

Although the Government had not yet taken any resolution in respect to the adoption in any of its departments of any of the new measures, it was probable that the convenience of the department with which he was himself specially connected, that of Public Works, would before long lead to the adoption of the metre as the unit of length for the purposes of that department. If this was done, it would be an almost necessary consequence that the Railway Companies should follow the same course. He might mention that he had consulted the heads of all the Engineering Departments of all parts of India, including the Railways, and that, while three-fourths of the officers consulted expressed an opinion that the simultaneous adoption of the metre and kilogram as the units of length and weight was advisable, only one-fourth opposed that conclusion, and of these several opposed any change. He thought that, on such a subject, so large a preponderance of opinion might be received as conclusive, at all events of the certainty that any decision of the Government to adopt the metre as the unit of length for engineering purposes would be well received and cordially responded to. As he (COLONEL STRACHEY) before observed, it was only in the case of weights that the Government desired to obtain any compulsory powers. The Bill provided that, when the Government had satisfied itself by a local public enquiry that the adoption of the new weights in any locality was expedient, it might be ordered. A power was then given to inflict small fines on persons using weights other than those authorized. Also a power was given to search for unauthorized weights. This was the

whole of the compulsory portion of the Bill, and the power of inflicting such fines was limited by a proviso that it must be proved, before a conviction took place, that the authorized weights were procurable for sale at the time and place. The rest of the Bill might be described in general terms as making provision for a proper system of verification and inspection of weights and measures. Experience had everywhere proved that, to ensure proper correctness in the weights and measures of any country where weights and measures were regulated by law, a system of verification and inspection was essential. The verification under the Bill was proposed to be extended to balances as well as to weights. No doubt a considerable length of time must have elapsed before the provisions of this part of the Bill could be put into operation in a systematic manner over the country generally. But the adoption of properly verified weights of the new description in the chief towns must before long lead to the adoption of similar weights in the rural districts, from which the supplies of produce came which formed the articles of trade in the towns. It was only by a gradual change extending over a long period of time that ultimate success could be obtained in the substitution of a uniform system of weights in place of the infinite variety of existing local weights. They must begin on a moderate scale, and by degrees introduce the new system, first in the largest towns, and afterwards in those of less size, until, eventually, the chief centres of trade had become habituated to it. The process would necessarily be slow, like that of education, but the object in view was of great social importance, and they must be content to attain it by the only means through which it could be attained.

The Hon'ble MR. STRACHEY said that Colonel Strachey had explained so fully the objects of the Bill that he only wished to make a very few remarks on the subject. The reasons which led the Government of India to the determination to adopt the conclusions which the Bill was intended to carry out had been before the public for more than a year, and he believed that he might safely say that they had been generally accepted by all the more intelligent classes of the community as the best which, under the circumstances, were possible. There was, however, one point on which there had been a good deal of misconception, and although the matter had been referred to by Colonel Strachey, MR. STRACHEY would like to say a few words regarding it. There had been a not uncommon impression that, in determining to adopt the kilogramme of the metric system as the unit of our new system of weights for British India, the Government was to some extent influenced by considerations of a theoretical nature, and that it chose that unit because it believed it to be theoretically and scientifically the best. This he would venture to say was a complete error. The

Government did not choose the kilogram as the new standard of weight on any such grounds, and this had been distinctly and fully explained in the papers which had long been before the public and the Council. The Government believed, as Colonel Strachey had all along declared in the series of valuable papers which had led so greatly to the settlement of this question, that all standards of weight and measure were essentially arbitrary, and that no existing standards, whether of the metric or any other system, had really any intrinsic value of their own. The Government adopted the kilogram as a standard of weight for no theoretical reasons, but simply because it was convinced that this was the most convenient unit of weight that could be adopted in the interests of the people of India. It was this conviction alone which led His Excellency's illustrious predecessor, Lord Lawrence, to the conclusion that we ought to go to the metric system for our standard of weight, and he might safely say that no man could be found who was less likely than Lord Lawrence to be led away in such a matter as this by purely theoretical considerations. Lord Lawrence and his Government and the Secretary of State, MR. STRACHEY would repeat, chose the kilogram as the standard of weight, because they were convinced that it was the most convenient standard for the people of India that could possibly be chosen, and it was their conviction, not only that it would be the most convenient at some future time, but that it was the most convenient at the present moment and for the wants of the present generation. The reasons which led the Government to that conclusion had already been fully stated by Colonel Strachey and in the papers before the Council; but MR. STRACHEY would repeat some of those reasons which seemed to him to have a special importance. These papers shewed that it had been generally admitted in all parts of India, that in the interests of the people the most convenient unit of weight which could be adopted was the well known weight called the ser. The existing ser varied greatly, but it might be said generally that it varied from $1\frac{3}{4}$ to $2\frac{1}{2}$ lbs. English, and its average weight might be reckoned at $2\frac{1}{2}$ lbs. Consequently, the Government was led irresistibly to the conclusion that the most convenient unit would be a weight of about $2\frac{1}{2}$ lbs. English. The old British Indian or Government ser was equal to very little more than 2 lbs. That weight, as Colonel Strachey had already explained to the Council, had ceased to have any legal existence, the law on which it was based having been repealed, but it never came into common use. One of the main reasons of its unpopularity was the fact that it was considerably below the average weight of the local sers. MR. STRACHEY thought (as he had written in a paper now before the Council) that there could be no question that the general belief of purchasers that loss would be entailed on them by the diminution of the standard-weight was not merely a fanciful belief. In reality, that belief was an expression of

the well known fact that prices depended, not only on competition, but to a very great extent on custom. The Government was thus, as he had said, led to the conclusion that, in the interests of the people of India, the most convenient ser that could be adopted would be one considerably larger than the old so-called Government ser, and that it ought to be equal to about $2\frac{1}{2}$ lbs. English. Now it so happened that, by what he might call a fortunate accident, this was for all practical purposes the precise weight of the kilogram of the metric system, and that being so, when the Government adopted the kilogram as the new standard, it was adopting as close an equivalent as could be found to the average ser which had been generally admitted to be the most appropriate unit of weight.

He would not speak now of the many other conveniences and advantages which the Government believed would follow from the adoption of the proposed unit for our new system, but he thought the papers before the public would convince every one who took the trouble to study them, that the proposals of the Government had been really based on no theoretical conclusions, but simply in consideration of the real convenience of the people of India. At the same time, of course, the Government felt that it was an immense advantage that, owing to what he had called the fortunate accident that the kilogram was equal to the ser most commonly adopted throughout India, we should obtain a standard which would give us the means of placing our system of weights in harmony with the system which already prevailed in the greater part of the civilized world, and which there could be very little doubt would ultimately be adopted by England herself.

The results of the proposed measure would of course be very slow. The Government was not so foolish as to suppose that it could force on the people of India, suddenly, any new system of weights, nor had the Government the remotest idea of attempting anything of the kind. The steps must be extremely gradual, and he thought it very probable that the present generation would not see completed the reform which they were now commencing. But it might be confidently said that every step wisely taken to bring about certainty and uniformity of weights and measures would be in the highest degree beneficial. The inconvenience, and, worse than that, the endless and abominable frauds to which the poorer classes were now exposed by the confusion and diversity of weights, were most lamentable, and he thought, as Colonel Strachey had observed, that it was really wonderful that we should have arrived at the year 1870 before any measures had been taken to reform the present state of things.

The Hon'ble SIR RICHARD TEMPLE said that he approved of the substance of the Bill, and concurred generally in the observations that had been made by the Hon'ble mover of the Bill, and by the Hon'ble Mr. Strachey; but there

was one remark which he wished to make. In section 2 of the Bill he found the words "which was equal to the kilogram known in France as the Kilogramme des Archives," and, in section 3, there were the words "which is equal to the metre known in France as the Mètre des Archives." SIE RICHARD TEMPLE would like to omit those expressions in both those sections as surplusage and not necessary for the real purposes of the Bill, and also as being somewhat strange and not quite consistent with the practice of British legislation in India. Why there should be a reference to foreign weights and measures he did not understand. Reference to standard British weights and measures would be quite intelligible, because India formed a part of the British Empire. If the new ser and the new metre were equal to the standard weights and measures of France, that was an advantage no doubt, but still, that in no way, primarily or secondarily, directly or indirectly, affected the object of the Bill. As the Hon'ble Mr. Strachey had correctly observed, the object in forming the new ser was not to produce uniformity with the standard on the Continent of Europe, but to form a standard which would be convenient solely for India, which would embody the average standard prevailing here: that being the case, what was the use of inserting any reference to a foreign standard and denomination? They were a British legislature, and why should they go beyond the British nomenclature. He (SIE RICHARD TEMPLE) presumed that other countries did not allude to the British weights and measures. The words to which he had referred were foreign to the purposes of the Bill, and were especially unnecessary, inasmuch as the British equivalent of the new ser was stated in the Bill with great minuteness and precision. It would be rather confusing than otherwise to add a second and foreign equivalent: the Bill would be quite as good, if not better, without these French equivalents, and he would therefore suggest the omission of those words.

The Hon'ble MR. BULLEN SMITH said that he desired in one single sentence to say with what great satisfaction he saw the introduction of the present measure. He felt, as a business-man, that the inconveniences of which mention had been made were not merely ideal ones. Even here, in the Presidency town, we had different sorts of maunds and sers, and as our transactions extended to the Mofussil, the difficulties and inconveniences increased. It was not surprising that there were some objectors to the measure, but he felt convinced that, when the measure was matured, even those who now objected would accept it as a substantial reform and substantial convenience to all engaged in trade.

Colonel the Hon'ble R. STRACHEY said that he desired to make a short explanation in reply to what had fallen from the Hon'ble Sir Richard Temple.

Objection had been taken to the reference, in sections 2 and 3 of the Bill, to the standards of weight and measure in France known as the Kilogramme des Archives and the Mètre des Archives. COLONEL STRACHEY thought that Sir Richard Temple had overlooked what was an essential part of any system of weights and measures, that the only standards that could be used were what in scientific language were termed *material* standards. What was proposed to be the basis of the new system of weights for India was the precise weight of that particular piece of metal which was preserved at Paris, and went by the name of "Kilogramme des Archives." It must be nothing more and nothing less, and in no other way could a precise definition of the new ser or "kilogram" be obtained. It had been ascertained, it was true, some years ago, that two pounds and rather more than two-tenths of a pound avoirdupois were equal in weight to that piece of metal, and a reference had been made to that circumstance in the Bill. But the fundamental fact was that it was the weight of that particular piece of metal which was a kilogram, and the reference to the English weights was only explanatory. Subsequent weighings of the particular kilogram referred to might give results slightly differing from those first arrived at, and, owing to this, the stated equivalent in English weights might be found not to be quite exact. It was an exceedingly difficult task to ascertain with complete accuracy the weight of anything, no two operations producing precisely identical results. Therefore the only safe and exact plan was to refer to some one specific standard piece of metal on which to base any system of weights.

The same remarks would apply with respect to the metre as a standard of length; the metre would be (according to the particular standard adopted) the distance between the centres of two studs at the end of a piece of platinum or other metal of a certain definite length, or between two lines engraved on it. That was a metre, nothing more and nothing less. In this way the English yard was defined, and it was the only way in which any measure could be defined. The law simply said that a mass of metal was deposited as the standard of weight and called the pound, and that a certain bar of metal was deposited as the standard of length, the distance between specified marks on which was the yard. For these reasons he had thought it necessary to introduce the specific reference to the material standards of weight and length kept at Paris.

Major General the Hon'ble SIR HENRY DURAND said that he did not understand the objection raised by Sir Richard Temple to be precisely that to which Colonel Strachey had replied. Sir Richard Temple, as SIR HENRY DURAND understood him, objected to having a foreign standard instead of an English one; it did not matter whether the English standard was precisely the

same as the foreign standard advocated by Colonel Strachey or not, though certainly it was preferable to have it precisely the same. SIR HENRY DURAND quite agreed that it would be of immense commercial advantage, as well as a great simplification in trade transactions, that the weights should be precisely the same as those in use on the Continent of Europe; but the objection taken was that the standard should be an English standard, and, if he understood his hon'ble friend, he would put it in this way. Suppose a contention arose before the Courts with reference to the standard, and it came to a question of reference, how were you to carry out a reference of that sort to a foreign standard in a foreign capital over which we had no sort of control, and in the case of a war occurring between the two countries, how were you to carry out the reference? In the objection raised, there was a practical conclusion that it would be as well to eliminate the words which had been referred to, and to make the standard a practical English standard, although precisely the same as the French standard.

The Hon'ble MR. STEPHEN said that discussions of this kind were better suited to the Select Committee to which the Bill would be referred. He would, however, just make one remark to remove a slight misconception that appeared to exist. He presumed that the Government of India would have no objection to having a standard of the exact weight and keeping it in Calcutta. A standard was a material thing, and the keeping of such a standard would tend to the convenience and advantage of the mercantile community.

His Excellency the COMMANDER-IN-CHIEF said that he thought that the distinction taken was one of words rather than of substance. As he understood the Bill, they were about to introduce into India a system of weights and measures exactly similar to the system existing in France for many years. It appeared to His Excellency that, if they went to give an exact definition of the system they were about to introduce, they could hardly make the law plainer than by making a reference to the system which they were about to copy. He could not understand that there was anything degrading to the English law because it had reference to the system of weights and measures of another country, when we were about to copy that system. We could not describe that system merely by reference to a certain weight or measure; what we wanted was a practical reference to that which had been accepted scientifically as a standard. He could not see that the distinction was anything more than one of words and not of substance.

Colonel the Hon'ble R. STRACHEY said that the remark which had fallen from the Hon'ble Mr. Stephen entirely concurred with his own views, and that,

in fact, the provisions of section 6 of the Bill entirely met the point that had been raised. There were to be provided, for each district in India for which the Government considered it necessary to provide standards, material standards which would be the only standards recognized in that district. The Bill declared how the magnitude of the new standards was to be ascertained, but it was left entirely to the Governor General in Council to take the needful steps for providing the standards, and for securing their proper conformity with the description that was given of them in sections 2 and 3 of the Bill. Such standards having been provided, no question could arise regarding their accuracy under the law.

The Motion was put and agreed to.

The following Select Committee was named :—

On the Bill to regulate the Weights and Measures of British India—The Hon'ble Messrs. Strachey, Stephen, Gordon Forbes, Cowie, Chapman, Bullen Smith, and Cockerell and the Mover.

The Council adjourned to Friday, the 18th March 1870.

WHITLEY STOKES,

*Secy. to the Council of the Govr. Genl.
for making Laws and Regulations.*

CALCUTTA,
The 11th March 1870. }