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MADRAS RECORD OFFICE.

Government of Madras.

PUBLIC WORKS **DEPARTMENT.**

G.O. No. 3282 & 3283 Press / Mis.

4746474

Dated 23-10- 1867.

Not to be folded or roughly handled

No. 474. Read the following letter from the Acting Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 9th October 1867, No. 276:—

1. In forwarding, with its enclosures, a letter* which I have received from the Agent of the Madras Railway Company, regarding the system of weights which has hitherto been used upon Indian Railways, I have the honor to solicit the attention of Government to this very important question.

* No. 352, 2nd October 1867, to be returned.

2. From the enclosed correspondence it will be seen that in March 1866, Mr. Currey, the Agent of the Bombay, Baroda, and Central India Railway, addressed a Circular to the Agents of the other Indian Railways, in which, alluding to the confusion and inconvenience arising from the intricate and unintelligible state of the Indian weights and measures, he requested them to join him in moving Government for permission to adopt the English scale of avoirdupois weights.

3. From the replies which Mr. Currey received to his Circular, printed copies of which are enclosed, it will be seen that the majority of the Indian Railway Companies, as represented by their Agents, are strongly in favor of the proposed change.

4. At the last Meeting of the Railway Committee at Royapoorum, the subject was brought forward for discussion, chiefly with reference to the Committee which has been summoned by the Government of India to meet at Calcutta next month, to decide upon uniform system of weights and measures for all India, and all present at the Meeting were unanimous in urging the adoption of the English avoirdupois scale of weights.

5. In the enclosed papers the subject has been so thoroughly discussed from a Railway point of view that it is scarcely necessary for me to add any arguments of mine. I beg to call especial attention to Captain Sherard Osborn's letter of the 23rd July 1866, and to Mr. Currey's of the 8th September 1866. The inconvenience, the confusion, the opportunities for fraud, and the intricate and complicated calculations which the present system, or want of system, necessarily entails upon all connected with Railways, are very vividly depicted by these gentlemen.

6. I have reason to believe that the views advocated in the enclosed papers by the majority of the Indian Railway Agents will be brought forward and strongly supported by more than one member of the Committee which is about to meet in Calcutta; and considering the question to be one which closely concerns the interests of progress and civilization, I trust that this Government will see fit to address the Government of India upon the subject, and to express their concurrence in the recommendation to adopt, so far at least as the Railways in this Presidency are concerned, the English scale of avoirdupois weights.

From the Agent and Manager of the Madras Railway Company, to the Acting Consulting Engineer for Railways, dated Madras, 2nd October 1867, No. 352.

1 Adverting to the discussion which took place at the Stores Committee this morning, upon the question of the most appropriate scale of weights for adoption by the several Railways in India, I have the honor to enclose, for your perusal and obliging return, a copy of the corres-

pondence which took place last year between the Agents of the various Indian Railways, and Mr. Currey, the Agent of the Bombay, Baroda, and Central India Railway on this important subject.

2. I think the time has arrived when the English avoirdupois weights might, with advantage, be introduced as a standard for all our merchandise transactions, and shall be glad if you will use your influence in bringing about a change which has been long needed.

From the Acting Assistant Agent of the Bombay, Baroda, and Central India Railway, to the Agent of the Madras Railway Company, dated Bombay, 20th September 1867, No. 4,024.

1. As the Agent understands that a Committee is to meet at Calcutta next cold season to go into and report upon the question of the best scale of weights and measures to be adopted for India, he has directed me to trouble you with the enclosed copy of the correspondence which took place last year, having for its object the introduction on Indian Railways of English weights and measures.

2. Mr Currey's opinion remains unchanged as to the inconvenience which would continue to exist if any but the English rates were adopted, and he hopes you may be able to express yourself to Government in favor of a similar course.

From the Agent of the Bombay, Baroda, and Central India Railway, to the Deputy Consulting Engineer for Railways, dated 8th September 1866, No. 4,973.

1. I have the honor, through you, respectfully to draw the attention of Government to the intricate and unintelligible state of the weights in operation on this side of India, the main evil being that the same terms are used to express different weights in different localities.

2. Our rate lists and entries of goods have all to be made out so as to show the charges per English ton, and then per Bengal maund of 82 English lbs (about 27 of which go to a ton), descending further into seers; and the rates of the G. I. P. R Company, and, if I am rightly informed, of other Indian Railway Companies, are similarly arranged.

3. A ton is of course the same everywhere, but the Bengal maund differs more or less from all the other maunds in use on this side of India, and the seers also vary; the fact that the same terms are used to express different weights in different but not now distant localities, the latter as Railways progress being rapidly placed in a state of much closer and more frequent communication than formerly, is in itself a source of great confusion and inconvenience.

4. Our weighing machines, constructed in England, are all according to avoirdupois weight, and show "tons," "cwts.," "qrs.," and "lbs.;" so that any merchandize handed to us according to the local weights of a particular district has to be turned into English avoirdupois weight to be weighed, and into Bengal maunds to be entered. Much extra and quite unnecessary labor is thereby involved; the calculations caused by the fractions which the various maunds and seers are of one another and of a ton are exceedingly awkward, and numerous opportunities for errors, and collusion between the native merchants and our clerks, by which the Company is defrauded are afforded.

5. I have known several instances myself, in communicating with natives about goods rates or the purchase of stores, in which a mistake would have occurred if I had not taken the precaution to see that both parties were treating about a "maund" of the same weight.

6. I would propose, as a step in the right direction, that, with the permission of Government, we take no cognizance in any way in our dealings with the public, or in our books, forms, or rate lists, of "maunds" and "seers," unsuited to existing circumstances, and as being greatly calculated to mislead, but that, in addition to weighing according to the English avoirdupois weight, as we do now, we be allowed to enter and charge every consignment according to that weight also, viz., "tons," "cwt," "qrs," and lbs."

Proceedings of the Madras Government, Public Works Department,
23rd October 1867.

7. I do not apprehend that there would be any real difficulty attendant upon the introduction of such a course, while the general convenience of it is I think obvious. A notice would be exhibited at the stations, explaining the numbers of "cwts.," "qrs.," and "lbs" as compared with the number of Bengal maunds and seers which go to a ton Most of the natives know what a Bengal maund is, though in none of the districts traversed by this Railway is that the maund in ordinary use.

8. The English avoirdupois weight is of course fully understood by those doing business with European merchants, and it is the scale which applies in the extensive trade between England and India; all the Railway materials are invoiced according to it: the natives well know what "tons" are, and are to a certain extent acquainted with "cwts.," "qrs.," and "lbs," with which they will speedily and readily become more familiar when they find those are the only weights recognized on the Railways.

9. I may mention that in England no bushels, strikes, pecks, hogsheads, or other weights of a semi-obsolete character, varying in different localities, and not easy to remember, are ever recognized on Railways, everything, even liquids, being carried by avoirdupois weight, "tons, cwts, qrs, lbs,"—to the satisfaction of everybody.

10. No doubt it would have been better if the English ton and cwt., instead of being 2,240 and 112 lbs, had been 2,000 and 100 lbs. respectively—or in other language a decimal system ruled; but I think that the change to a decimal system of weights in a home, colonial, and foreign trade so gigantic as that of Great Britain, though there may be many theoretical arguments in its favor, is now seen to be attended with so much practical difficulty at the outset, that the probability of its adoption is remote. And I submit, under any circumstances, for the sake of commercial convenience and uniformity, that the Indian ton should always be the same as the English ton, known all the world over, is whether the latter be ever turned into a decimal weight or not.

11. I have been in communication with the Agents of other Indian Railways, with the object of ascertaining their views, and endeavouring to arrive at a uniformity of opinion, but that appears difficult. I enclose, however, for the information of Government, the letters noted in the margin, the purport of which may be briefly summarised as under:—

G. I P R No 3,731 of 1866.
Madras Railway Co, No 394
Great Southern of India Railway, No. 1,796-1,464.
Eastern Bengal Railway Company, No. 871.
Scinde Railway Co, No A 840-829 of 1866.
Board of Agency E I. Railway, No. 29.

The Agents of the Great Indian Peninsula, Madras, and Great Southern of India Railways agree with me.

The Agent of the Eastern Bengal disagrees with me, but probably on that Railway the Bengal maund is the same as that in ordinary use in the country, and the inconvenience is therefore less felt.

The Agent of the Scinde Railway disagrees with me.

From the Board of Agency of the East Indian Railway the reply is not more than an acknowledgment.

From the Punjab Railway I have no reply.

12. I am aware that the question of uniform weights and measures is one on which no small differences of opinion exist, but I do not think it worth while to delay longer the recommendation herein contained; and I hope, after the reasons given, and seeing that, as clearly pointed out by Captain Osborn, nearly everything connected with Railways in this country is treated not on the Indian, but on the English plan, that His Excellency the Governor in Council will not withhold his sanction to my making, as an experiment if so preferred, the scale of weights in force on this Railway—now half English, half Bengal, and shown to be in practice extremely inconvenient—entirely English, or, in other words, substituting "tons," "cwts.," "qrs," and "lbs." for "tons," "maunds," and "seers."

From the Managing Agent of the Bombay, Baroda, and Central India Railway, to the Agents of the East Indian, Punjab, Scinde, Great Indian Peninsula, Madras, and Great Southern of India Railways, dated Bombay, 10th March 1866.

1. Your attention will no doubt frequently have been drawn to the intricate and unintelligible state of the Indian weights and measures, the main evil being that the same terms are used to express different weights in different districts.

2. Our rate lists are now made out so as to show the rate per ton, and then per *Bengal* maund (27 of which go to a ton), descending further into seers; and, if I am rightly informed, yours are similarly arranged.

3. The Bengal maund varies more or less from the maund in force in most other parts of India, and the fact that the same term is used in the ordinary transactions of commerce to express a different weight in different but not now distant localities, the latter as Railways progress being rapidly placed in a state of much closer and more frequent communication than formerly, is itself a source of great confusion and inconvenience.

4. The fractions also which the various maunds and seers are of one another and of a ton are exceedingly awkward for calculation.

5 I would propose, as a step in the right direction, that. with the permission of the Government, we take no cognizance in any way in our dealings with the public, or in our books, forms, or rate lists, of "candies," "maunds," "seers," or such weights and measures, as being greatly calculated to mislead, but that we weigh, enter, and charge every consignment according to the English avoirdupois weight, "tons," "cwts," "qrs," and "lbs."

6. This scale is, of course, well understood by all the European merchants, while the Native merchants are already acquainted with "tons," and will not be long in becoming familiar with "cwts," "qrs.," and "lbs," especially when they find no weights but those are recognized on the Railways.

7. I need hardly remind you that in England no bushels, strikes, pecks, hogsheads, or other varying weights not easy to remember, are ever recognized on Railways, everything, even liquids, being carried by tons, cwts, qrs, and lbs., which scale also rules in the trade between England and India.

8 It will be desirable, perhaps, to arrive at some uniformity of opinion among the Railway interests on this matter, and I shall therefore be glad to hear whether you concur in the foregoing suggestion, or if you will favor me with your views thereon.

From the Agent of the Great Indian Peninsula Railway, to the Managing Agent of the Bombay, Baroda, and Central India Railway, dated Bombay, 23rd July 1866, No. 3,731.

1. I have the honor to acknowledge receipt of your letter of the 10th March last, which my absence has alone prevented my replying to earlier.

2 With the tenor of your proposition I most cordially concur, and hope the authorities of this Railway will give you every support if you endeavour to bring about so important a revolution.

3. I cannot conceive why a uniform system of English weights was not introduced with the Railway innovations in general. It is a point at any rate now to be insisted upon, and not reasoned or diluted to death with official minuting from Simla to Cape Comorin The arguments on your side, if they insist on them, beyond the broad and patent fact of necessity for uniformity, are many. I should say: We are an English institution introduced into a foreign land; there is nothing about a Railway of which a Hindoo knew or liked; we have English punctuality and despatch, we have the English language everywhere introduced into our Traffic Department, our Tickets are in English, we count in English, our time is kept in English, our distances are measured in English, the nomenclature of our very offices, and all our posts from the Gateman to the Manager, are dealt with in English.

Proceedings of the Madras Government, Public Works Department,
23rd October 1867.

4. There is not, of all the million different stores and articles which go to make a Railway, one single thing but is known within our fences throughout the country except by its English name. When a Native traveller comes to us we only tell him that he has to pay so much for transit over so many hundred miles; he accepts our calculation and goes. We leave him to work out the calculation of the number of "coss," and the rate per "coss," &c., and whether it is cheaper or better than a Native cart or post-cart rate. Why should not the same system apply to the goods department? We would weigh and give the merchant a bill for tons, cwts., and qrs. He might work it out in his own country weights, and if he found that, after all, the cost was the same, I cannot see how he could object. As it is, all that work has been thrown upon the Railway, and a pretty complication it will be when our roads are open throughout India.

5. I should point out that our own stores, especially permanent way materials, are dealt with in *tons, cwts.*, and *quarters;* all our carting contracts for hundreds of thousands of tons of ironwork have been dealt with on an English basis; our Landing Contractor works by avoirdupois weight, and clears a hundred ships a year. We talk of the weight of our rolling stock and engines in tons and cwts.; and I only wonder that those who made us bother our accounts with the ever-varying *maund* did not insist on Native nomenclature and a knowledge of the vernacular throughout our Railway generally.

6. A strong point may be made too of the door it opens to collusion and fraud between the Native dealer and our Native clerks, in using Native weights of a varying character which have to be reduced into Bengal maunds, and then by the English supervisor thought of and checked again as avoirdupois weight.

7. As I am about to return to Europe, time only admits of my sending you a hurried reply; but I can do no more than heartily wish you success, and patience to fight the subject out, and if you succeed, you will deserve well of all the Railways in British India.

From the Agent and Manager of the Madras Railway Company, to the Managing Agent of the Bombay and Baroda Railway, dated Madras, 7th April 1866, No. 394.

In reply to your letter of the 10th ultimo, I beg to state that an earlier reply would have been sent you but for my absence upon a tour of inspection of our North-West Line.

2. The suggestion that the English avoirdupois weight should be introduced as the standard for all transactions on this Railway has more than once been made to the Madras Government, but hitherto without success.

3. The present system of weights is not only most inconvenient, and attended with great delay in the conduct of business, but it is little understood by the Native merchants, who, as you truly remark, are already acquainted with the "ton" weight, and would not be long in becoming familiar with the rest of the avoirdupois denominations of weight.

4. The whole of our weigh-bridges and weighing machines are set to the avoirdupois weights; you will therefore easily understand the labor which attends the conversion of consignments weighed by that scale into Bengal maunds and seers, and that with the greatest care our clerks are liable to error.

5. If Government would allow Indian Railways to adopt the avoirdupois scale of weights, traffic statements and other returns could, if necessary, easily be rendered in Bengal maunds, for the purpose of comparison with previous statements, &c, &c.

6. An application to Government from all the Indian Railways with reference to the introduction of the avoirdupois system of weights would probably be attended with success.

From the Agent of the Great Southern of India Railway, to the Agent of the Bombay, Baroda, and Central India Railway, dated Negapatam, 23rd March 1866, No. 1,796-1,464.

1. I have the honor to acknowledge receipt of your letter No. 1,487 of 10th instant.

2 In all our transactions with the public, and in our goods invoices and books, as also in our general stores accounts, the weights designated as "maunds" and "seers" are never dealt with.

3. Consign ment notes, invoices, and goods abstracts show the weight in English "lbs."

4. When rendering the weekly traffic statements to Government the gross weight carried is reduced to "maunds."

5. I fully concur with you in the views expressed in your letter under reply, and I should be glad to see the English system of weights established by law in all Railways, as well as other commercial transactions, in India.

From the Agent of the Eastern Bengal Railway Company, to the Managing Agent of the Bombay, Baroda, and Central India Railway, dated Calcutta, 27th March 1866, No. 871.

1. I have the pleasure to acknowledge receipt of your No. 1,484, dated the 10th instant, relative to weights and measures in use in India.

2. On this Railway considerably less trouble arises with weights than, as is evident from your letter, is experienced on the other side of India, owing to the adoption of a uniform system of recognizing only one maund of 40 seers, or 80 lbs. English, of which 28 equal one ton, on which all our rates are calculated.

3. At first some difficulty was experienced with Native shippers in enforcing the adoption of this system, but it now seems to be thoroughly understood and to work well. I, therefore, do not think it would be advisable to make any alterations.

4. I beg to enclose you a copy of this Company's general classification and rates, bearing out my previous remarks.

From the Acting Agent of the Scinde Railway Company, to the Managing Agent of the Bombay, Baroda, and Central India Railway, dated Kurrachee, 28th March 1866, No. A 840-829.

I have received your letter of the 10th instant, as to the present state of the Indian weights and measures, and suggesting that the English standard of weights should be adopted on Indian Railways

2. In my opinion the system we have now is a good one for the country, and I would hesitate in recommending as a substitute our English weight system, which is not by any means a clear standard.

3. Should it be advisable to make a change in Indian weights and measures, then I should argue that a decimal system be adopted.

4. The Railway weight system now in use is founded on what should, I think, be termed the *Imperial*, not *Bengal*, standard.

5. Mr. Bayley of the Madras Civil Service, in his interesting pamphlet "Suggestions for a uniform system of weights and measures, 1858," says—

"The 'Table' of weights adopted by the Government of India for the use of their own offices, is in accordance with Native usage in Bengal, and was approved of by the Chambers of Commerce in Calcutta and Bombay. It is as follows :—

"1 Tola = 180 Grains.
5 Tolas = 1 Chittak.
16 Chittaks = 1 Seer = 80 Tolas = 2 057143 lbs. avoir.
40 Seers = 1 Mun (or Maund) = $82\frac{2}{7}$ lbs. exactly.

"If any system of weights is to be selected from those now current in any part of India, the above seems to be the best, not only because it is founded on a defined standard, originating in the weights of the coin of the realm, but because it includes the "seer" of 80 tolas, which is a weight known and acknowledged in some degree all over India. It is in short a ponderary system which, as far as facility of introduction in concerned, has a preference over any other."

6. I shall be glad at any time to give this subject further consideration, but at present I do not think there would be any benefit whatever in introducing the English avoirdupois weights.

From Mr. R. NEIL, Clerk to Board of Agency, East Indian Railway, to the Managing Agent of the Bombay, Baroda, and Central India Railway, dated Calcutta, 25th April 1866, No. 29.

I am directed to acknowledge receipt of your letter No. 1,488 of 10th March 1866, and to say that the question of introducing the English standard of weight upon Indian Railways will receive due attention, and the Board of Agency will take the earliest possible opportunity of acquainting you with their views on the subject.

No. 475. ORDER THEREON, 23rd October 1867, No. 3,282.

RAILWAY, No. 27.

The Government of India will be addressed upon the subject of this letter :—

(Here enter No. 3,283, dated 23rd October 1867.)

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for Railways.

Exd. T. O'Connor.

PUBLIC WORKS DEPARTMENT,
FORT ST. GEORGE,
23rd October 1867.

No. 476.

No. 3,283.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

SIR,

RAILWAY, No. 28.

From Consulting Engineer, No. 276, 9th October 1867.
From Agent of Madras Railway, to Consulting Engineer, No. 352, 2nd October 1867.
From Acting Assistant Agent of Bombay, Baroda, and Central India Railway, to Agent, Madras Railway, No. 4,044, 20th September 1867, with enclosures.

In forwarding for the consideration of the Government of India a copy of the correspondence marginally noted, I am directed to state that His Excellency in Council fully concurs in all that is urged as to the unsuitableness of the system of weights which has hitherto been in use upon Indian Railways, and I am to express the hope of this Government that the adoption of the English avoirdupois scale of weights so generally preferred by the Railway authorities in India, and the use of which will prevent the confusion and inconvenience now complained of, may receive the sanction of the Right Honorable the Governor General in Council.

I have the honor to be,
Sir,
Your most obedient servant.

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

Exd. T. O'Connor.

No. 4973.

THE DEPUTY CONSULTING ENGINEER FOR RAILWAYS.

Dated 8th September 1866.

SIR,

I have the honour, through you, respectfully to draw the attention of Government to the intricate and unintelligible state of the weights in operation on this side of India, the main evil being that the same terms are used to express different weights in different localities.

2. Our rate lists and entries of goods have all to be made out so as to show the charges per English ton, and then per Bengal maund of 82 English lbs. (about 27 of which go to a ton), descending further into seers; and the rates of the G. I. P. R. Company, and, if I am rightly informed, of other Indian railway companies, are similarly arranged.

Indian

3. A ton is of course the same everywhere, but the Bengal maund differs more or less from all the other maunds in use on this side of India, and the seers also vary; the fact that the same terms are used to express different weights in different but not now distant localities, the latter as railways progress being rapidly placed in a state of much closer and more frequent communication than formerly, is in itself a source of great confusion and inconvenience.

4. Our weighing, machines, constructed in England, are all according to avoirdupois weight, and show "tons," "cwts," "qrs.," and "lbs;" so that any merchandise handed to us according to the local weights of a particular district has to be turned into English avoirdupois weight to be weighed, and into Bengal maunds to be entered. Much extra and quite unnecessary labour is thereby involved; the calculations caused by the fractions which the various maunds and seers are of one another and of a ton are exceedingly awkward, and numerous opportunities for errors, and collusion between the native merchants and our clerks, by which the company is defrauded are afforded.

5. I have known several instances myself, in communicating with natives about goods rates or the purchase of stores, in which a mistake would have occurred if I had not taken the precaution to see that both parties were treating about a "maund" of the same weight.

6. I would propose, as a step in the right direction, that, with the permission of Government, we take no cognisance in any way in our dealings with the public, or in our books, forms, or rate lists, of "maunds" and "seers," unsuited to existing circumstances, and as being greatly calculated to mislead, but that, in addition to weighing according to the English avoirdupois weight, as we do now, we be allowed to enter and charge every consignment according to that weight also, viz., "tons," "cwts.," "qrs.," and "lbs."

7. I do not apprehend that there would be any real difficulty attendant upon the introduction of such a course, while the general convenience of it is

I think obvious. A notice would be exhibited at the stations, explaining the numbers of "cwts.," "qrs.," and "lbs." as compared with the number of Bengal maunds and seers which go to a ton. Most of the natives know what a Bengal maund is, though in none of the districts traversed by this railway is that the maund in ordinary use.

8. The English avoirdupois weight is of course fully understood by those doing business with European merchants, and it is the scale which applies in the extensive trade between England and India; all the railway materials are invoiced according to it: the natives well know what "tons" are, and are to a certain extent acquainted with "cwts.," "qrs.," and "lbs.," with which they will speedily and readily become more familiar when they find those are the only weights recognised on the railways.

9. I may mention that in England no bushels, strikes, pecks, hogsheads, or other weights of a semi-obsolete character, varying in different localities, and not easy to remember, are ever recognised on railways, everything, even liquids, being carried by avoirdupois weight, "tons, cwts., qrs., lbs."—to the satisfaction of everybody.

10. No doubt it would have been better if the English ton and cwt., instead of being 2,240 and 112 lbs., had been 2,000 and 100 lbs. respectively—or in other language a decimal system ruled; but I think that the change to a decimal system of weights in a home, colonial, and foreign trade so gigantic as that of Great Britain, though there may be many theoretical arguments in its favour, is now seen to be attended with so much practical difficulty at the outset, that the probability of its adoption is remote. And I submit, under any circumstances, for the sake of commercial convenience and uniformity, that the Indian ton should always be the same as the English ton, known all the world over, is whether the latter be ever turned into a decimal weight or not.

11. I have been in communication with the Agents of other Indian railways, with the object of ascertaining their views, and endeavouring to arrive at a uniformity of opinion, but that appears difficult. I enclose, however, for the information of Government, the letters noted in the margin, the purport of which may be briefly summarised as under:—

G. I P R No 3731 of 1866
Madras Railway Co. No. 394.
Gr Southern of India Railway No 1796-1464
Eastern Bengal Railway Company No 871
Scinde Railway Co No. A 840-829 of 1866.
Board of Agency E I. Railway No. 29

The Agents of the Great Indian Peninsula, Madras, and Great Southern of India Railways agree with me.

The Agent of the Eastern Bengal disagrees with me, but probably on that railway the Bengal maund is the same as that in ordinary use in the country, and the inconvenience is therefore less felt.

The Agent of the Scinde Railway disagrees with me.

From the Board of Agency of the East Indian Railway the reply is not more than an acknowledgment.

From the Punjab Railway I have no reply.

12. I am aware that the question of uniform weights and measures is one on which no small differences of opinion exist, but I do not think it worth while to delay longer the recommendation herein contained; and I hope, after the reasons given, and seeing that, as clearly pointed out by Captain Osborn, nearly everything connected with railways in this country is treated not on the Indian, but on the English, plan, that His Excellency the Governor in Council will not withhold his sanction to my making, as an experiment if so preferred, the scale of weights in force on this railway—now half English, half Bengal, and shown to be in practice extremely inconvenient—entirely English, or, in other words, substituting "tons," "cwts.," "qrs.," and "lbs." for "tons," "maunds," and "seers."

I have, &c.,
G. CURREY,
Agent, B. B. & C. I. Railway.

BOMBAY, BARODA, AND CENTRAL INDIA RAILWAY:
MANAGING AGENT'S OFFICE,

Bombay, 10th March 1866.

SIR,—Your attention will no doubt frequently have been drawn to the intricate and unintelligible state of the Indian weights and measures, the main evil being that the same terms are used to express different weights in different districts.

2. Our rate lists are now made out so as to show the rate per ton, and then per *Bengal* maund (27 of which go to a ton), descending further into seers; and, if I am rightly informed, yours are similarly arranged.

3. The Bengal maund varies more or less from the maund in force in most other parts of India, and the fact that the same term is used in the ordinary transactions of commerce to express a different weight in different but not now distant localities, the latter as railways progress being rapidly placed in a state of much closer and more frequent communication than formerly, is itself a source of great confusion and inconvenience.

4. The fractions also which the various maunds and seers are of one another and of a ton are exceedingly awkward for calculation.

5. I would propose, as a step in the right direction, that, with the permission of the Government, we take no cognisance in any way in our dealings with the public, or in our books, forms, or rate lists, of "candies," "maunds," "seers," or such weights and measures, as being greatly calculated to mislead, but that we weigh, enter, and charge every consignment according to the English avoirdupois weight, "tons," "cwts.," "qrs.," and "lbs."

6. This scale is, of course, well understood by all the European merchants, while the Native merchants are already acquainted with "tons," and will not be long in becoming familiar with "cwts.," "qrs.," and "lbs.," especially when they find no weights but those are recognised on the railways.

7. I need hardly remind you that in England no bushels, strikes, pecks, hogsheads, or other varying weights not easy to remember, are ever recognised on railways, everything, even liquids, being carried by tons, cwts., qrs., and lbs., which scale also rules in the trade between England and India.

8. It will be desirable, perhaps, to arrive at some uniformity of opinion among the railway interests on this matter, and I shall therefore be glad to hear whether you concur in the foregoing suggestion, or if you will favour me with your views thereon.

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) C. CURREY,
Managing Agent.

The AGENT EAST INDIAN RAILWAY,
" PUNJAB RAILWAY.
" SCINDE RAILWAY.
" G. I. P. RAILWAY.
" MADRAS RAILWAY.
" GREAT SOUTHERN OF INDIA RAILWAY.

No. 3731 OF 1866.

GREAT INDIAN PENINSULA RAILWAY:
COMPANY'S OFFICES,

Bombay, 23*rd July* 1866.

To C. CURREY, Esq.,
Managing Agent B. B. & C. I. Railway.

SIR,—I have the honour to acknowledge receipt of your letter of the 10th March last, which my absence has alone prevented my replying to earlier.

2. With the tenor of your proposition I most cordially concur, and hope the authorities of this railway will give you every support if you endeavour to bring about so important a revolution.

3. I cannot conceive why a uniform system of English weights was not introduced with the railway innovations in general. It is a point at any rate

now to be insisted upon, and not reasoned or diluted to death with official minuting from Simla to Cape Comorin. The arguments on your side, if they insist on them, beyond the broad and patent fact of a necessity for uniformity, are many. I should say: We are an English institution introduced into a foreign land; there is nothing about a railway of which a Hindoo knew or liked; we have English punctuality and despatch, we have the English language everywhere introduced into our Traffic Department, our tickets are in English, we count in English, our time is kept in English, our distances are measured in English, the nomenclature of our very offices, and all our posts from the Gateman to the Manager, are dealt with in English.

4. There is not, of all the million different stores and articles which go to make a railway, one single thing but is known within our fences throughout the country except by its English name. When a Native traveller comes to us we only tell him that he has to pay so much for transit over so many hundred miles; he accepts our calculation and goes. We leave him to work out the calculation of the number of "coss," and the rate per "coss," &c., and whether it is cheaper or better than a Native cart or post-cart rate. Why should not the same system apply to the goods department? We would weigh and give the merchant a bill for tons, cwts., and qrs. He might work it out in his own country weights, and if he found that, after all, the cost was the same, I cannot see how he could object. As it is, all that work has been thrown upon the railway, and a pretty complication it will be when our roads are open throughout India.

5. I should point out that our own stores, especially permanent way materials, are dealt with in *tons*, *cwts.*, and *quarters*; all our carting contracts for hundreds of thousands of tons of ironwork have been dealt with on an English basis; our Landing Contractor works by avoirdupois weight, and clears a hundred ships a year. We talk of the weight of our rolling stock and engines in tons and cwts.; and I only wonder that those who made us bother our accounts with the ever-varying *maund* did not insist on Native nomenclature and a knowledge of the vernacular throughout our railway generally.

6. A strong point may be made too of the door it opens to collusion and fraud between the Native dealer and our Native clerks, in using Native weights of a varying character which have to be reduced into Bengal maunds, and then by the English supervisor thought of and checked again as avoirdupois weight.

7. As I am about to return to Europe, time only admits of my sending you a hurried reply; but I can do no more than heartily wish you success, and patience to fight the subject out, and if you succeed, you will deserve well of all the railways in British India.

I have the honour to be,

Sir,

Your most obedient Servant,

SHERARD OSBORN,
Captain Royal Navy, and Agent.

No. 394.

MADRAS RAILWAY COMPANY:
AGENT AND MANAGER'S OFFICE,
Madras, April 7th, 1866.

MY DEAR SIR,

In reply to your letter of the 10th ultimo, I beg to state that an earlier reply would have been sent you but for my absence upon a tour of inspection of our North-West Line.

The suggestion that the English avoirdupois weight should be introduced as the standard for all transactions on this railway has more than once been made to the Madras Government, but hitherto without success.

The present system of weights is not only most inconvenient, and attended with great delay in the conduct of business, but it is little understood by the Native merchants, who, as you truly remark, are already acquainted with the "ton" weight, and would not be long in becoming familiar with the rest of the avoirdupois denominations of weight.

The whole of our weigh-bridges and weighing machines are set to the avoirdupois weights; you will therefore easily understand the labour which attends the conversion of consignments weighed by that scale into Bengal maunds and seers, and that with the greatest care our clerks are liable to error.

If Government would allow Indian railways to adopt the avoirdupois scale of weights, traffic statements and other returns could, if necessary, easily be rendered in Bengal maunds, for the purpose of comparison with previous statements, &c. &c.

An application to Government from all the Indian railways with reference to the introduction of the avoirdupois system of weights would probably be attended with success.

I am, &c.,

Your obedient Servant,

R. B. ELWIN, Agent and Manager.

C. CURREY, Esq.,
Bombay and Baroda Railway, Bombay.

No. 1796-1161.

GREAT SOUTHERN OF INDIA RAILWAY
AGENT'S OFFICE,
Negapatam, 23rd March 1866.

From the AGENT GREAT SOUTHERN OF INDIA RAILWAY,

To the AGENT BOMBAY, BARODA, AND CENTRAL INDIA RAILWAY.

SIR,—I have the honour to acknowledge receipt of your letter No. 1487 of 10th instant.

2. In all our transactions with the public, and in our goods invoices and books, as also in our general stores accounts, the weights designated as "maunds" and "seers" are never dealt with.

3. Consignment notes, invoices, and goods abstracts show the weight in English "lbs."

4. When rendering the weekly traffic statements to Government the gross weight carried is reduced to "maunds."

5. I fully concur with you in the views expressed in your letter under reply, and I should be glad to see the English system of weights established by law in all railways, as well as other commercial transactions, in India.

I have the honour to be,

Sir,

Your most obedient Servant,

WILLIAM S. BETTS,
Agent and Traffic Manager.

No. 871.

EASTERN BENGAL RAILWAY COMPANY:
AGENT'S OFFICE,
Sealdah Terminus,
Calcutta, 27th March 1866.

C. CURREY, Esq.,
Managing Agent Bombay, Baroda, and Central India Railway.

DEAR SIR,

I have the pleasure to acknowledge receipt of your No. 1484, dated the 10th instant, relative to weights and measures in use in India.

2. On this railway considerably less trouble arises with weights than, as is evident from your letter, is experienced on the other side of India, owing to the adoption of a uniform system of recognising only one maund of 40 seers, or 80 lbs. English, of which 28 equal one ton, on which all our rates are calculated.

3. At first some difficulty was experienced with Native shippers in enforcing the adoption of this system, but it now seems to be thoroughly understood and to work well. I therefore do not think it would be advisable to make any alterations.

4. I beg to enclose you a copy of this Company's general classification and rates, bearing out my previous remarks, and remain,

Dear Sir,

Yours faithfully,

FRANKLIN PRESTAGE,
Agent.

+ but this is
more and against
orders which prevail
in 2R* & in Indian =
Maund of 3200 Tolas
82 2/7 lbs nearly

No. A 840-829 OF 1866.

SCINDE RAILWAY COMPANY:
Agent's Office,
Kurrachee, 28th March 1866.

From the AGENT,

To the MANAGING AGENT Bombay, Baroda, and Central India Railway,
Bombay.

SIR,—I have received your letter of the 10th instant, as to the present state of the Indian weights and measures, and suggesting that the English standard of weights should be adopted on Indian railways.

In my opinion the system we have now is a good one for the country, and I would hesitate in recommending as a substitute our English weight system, which is not by any means a clear standard.

Should it be advisable to make a change in Indian weights and measures, then I should argue that a decimal system be adopted.

The railway weight system now in use is founded on what should, I think, be termed the *Imperial*, not *Bengal*, standard.

Mr. Bayley of the Madras Civil Service, in his interesting pamphlet "Suggestions for a uniform system of Weights and Measures, 1858," says—

"The 'Table' of weights adopted by the Government of India for the use of their own offices, is in accordance with Native usage in Bengal, and was approved of by the Chambers of Commerce in Calcutta and Bombay. It is as follows:—

"1 Tola = 180 Grains.
5 Tolas = 1 Chittak.
16 Chittaks = 1 Seer = 80 Tolas = 2·057143 lbs. avoir.
40 Seers = 1 Mun (or Maund) = 82$\frac{2}{7}$ lbs. exactly.

"If any system of weights is to be selected from those now current in any part of India, the above seems to be the best, not only because it is founded on a defined standard, originating in the weights of the coin of the realm, but because it includes the "seer" of 80 tolas, which is a weight known and acknowledged in some degree all over India. It is in short a ponderary system which, as far as facility of introduction is concerned, has a preference over any other."

I shall be glad at any time to give this subject further consideration, but at present I do not think there would be any benefit whatever in introducing the English avoirdupois weights.

I have the honour to be,
Sir,
Your most obedient Servant,
D. McNEILL,
Acting Agent.

But Mr Bayley went on to recommend a system corresponding nearly with the English avoirdupois weights.

No. 29.

BOARD OF AGENCY, EAST INDIAN RAILWAY:
Calcutta, 25th April 1866.

C. CURREY, Esq.,
Managing Agent, Bombay, Baroda, and Central India Railway.

SIR,

I am directed to acknowledge receipt of your letter No. 1488 of 10th March 1866, and to say that the question of introducing the English standard of weight upon Indian railways will receive due attention, and the Board of Agency will take the earliest possible opportunity of acquainting you with their views on the subject.

I am, Sir,
Your most obedient Servant,
ROBERT NEIL,
Clerk to Board of Agency.

Bombay Education Society's Press, Byculla.

No. 352.

MADRAS RAILWAY.

AGENT AND MANAGER'S OFFICE

Madras, October 2nd 1867.

From

R. B. Elwin Esqr.
Agent and Manager. of the M Rly

To

Majr J. H. M. Shaw Stewart, R.E.
Acting Consulting Engineer for Railways.

Sir,

Adverting to the discussion which took place at the Board Committee this morning, upon the question of the most appropriate scale of weights for adoption by the Federal Railways in India, I have the honor to enclose for your perusal and obliging return, a copy of the correspondence which took place last year between the Agents of the various Indian Railways, and Mr Cursetjee, the Agent of the Bombay, Baroda and Central India Railway on this important subject.

2. I think the time has arrived when the English Avoirdupois weights might with advantage be introduced as a standard for all our Merchandize transactions. And I shall be glad if you will use your influence

influenced in bringing about a change which has been long needed.

I have the honor to be
Sir
Your most obedient Servant,
Agent and Manager

MADRAS RAILWAY.

From
The Agent and Manager.

To,
The Consulting Engineer
for Railways.

Dated 2nd October 1867.
Rcd. 3.10.67. No. 3052.

Forwarding Copy of Correspondence noticed in Agent's of the 20th Ultimo Relative to the Question of the Introduction of the English Weights and Measures.

Copy of the Correspondence noticed in the Margin.

For Information.

Bombay Baroda & Central I Railway
Agents Department

No 4024 of 1867. Bombay 20th September 1867.

To
The Agent
Madras Railway Company.

Sir,

As the Agent understands that a Committee is to meet at Calcutta next Cold Season to go into and report upon the question of the best scale of weights and measures, to be adopted for India he has directed me to trouble you with the enclosed Copy of the Correspondence which took place last year, having for its object the introduction on Indian Railways of English weights and Measures.

Mr Currey's opinion remains unchanged as to the inconvenience which would continue to exist if any but the English rates were adopted; and he hopes you may be able to express yourself to Government in favor of a similar Course.

I am &c.
(Signed) J. R. Light
Acting assistant agent

(True Copy)
Agent & Manager.

CONSULTING ENGINEER'S OFFICE,

Railway Department.

No. 276-

From Major J. H. Rt. Hearn Stewart R. E.
Acting Consulting Engineer for Railways,

To

Colonel C. A. Orr R. E.

Secretary to Government,
Public Works Department,
Fort Saint eorge.

SIR,

In forwarding with its enclosures a letter[x] which I have received from the Agent of the Madras Railway Company regarding the system of signals which has hitherto been used upon Indian Railways, I have the honor to solicit the attention of Government to this very important question -

From the enclosed correspondence it will be seen that in March 1866, Mr. Currey the Agent of the Bombay, Baroda, and Central India Railway, addressed a circular to the Agents of the other Indian Railways, in which, alluding to the confusion and inconvenience arising from the intricate

[x] No. 352 - 2nd Oct. 67 to be returned

intricate and unintelligible state of the Indian Weights and measures, he requested them to join him in moving Government for permission to adopt the English Scale of Avoirdupois Weights.

3. From the replies which Mr Currey received to his circular, printed copies of which are enclosed, it will be seen that the majority of the Indian Railway Companies, as represented by their Agents, are strongly in favor of the proposed change.

4. At the last meeting of the Railway Committee at Rayapooram, the subject was brought forward for discussion, chiefly with reference to the Committee which has been summoned by the Government of India to meet at Calcutta next month, to decide upon uniform systems of weights and measures for all India, and all present at the meeting were unanimous in urging the adoption of the English Avoirdupois Scale of Weights.

5. As the enclosed papers the subject has been so thoroughly discussed from a Railway point of view that it is scarcely necessary for me to add any arguments of mine. I beg to call especial attention to Captain Sherard Osborn's letter of the 25th July /66, and to Mr Currey's of the 5th September /66. He commences, the confusion, the opportunities for fraud, and the intricate and complicated calculations which the present system, or want of system, necessarily entails upon all connected with Railways, are very vividly depicted by these gentlemen.

6. I have reason to believe that the views advocated in the enclosed papers by the majority of the Indian Railway Agents will be brought forward and strongly supported by more than one Member of the Committee which is about to meet in Calcutta; and considering the question to be one which closely concerns the interests of progress and civilization, I trust that this Government will see fit to address the Government of India upon the subject, and to express their concurrence in the recommendation to adopt, so far at least as the Railways in this Presidency are concerned, the English Scale of Avoirdupois Weights.

I have the honor to be,
Sir,
Your most Obedt Servant

Madras
4th October /67

Major RE
Acting Consulting Engineer
for Railways.

Railway Department.

From

The Consulting Engineer

for Railways,

To

The Secretary to Government,

Public Works Department,

Fort Saint George.

Dated 4th. October 1867.

Received 8th

No. 276.

Recd. 8th

Forwarding a letter from the Agent & Manager of the S.I. Railway Co. regarding the system of Weights used upon Indian Railways.

Nos. 3282 & 3283 - 23rd Sept. 1867.

system of weights
which has hitherto been
in use upon Indian
Railways, and I am
to express the hope of
this Government that
the adoption of the En-
glish avoirdupois scale
of weights so generally
now prevailing by
the Railway Authori-
ties in India, and
the use of which will
prevent the confusion
and inconveniences
now complained of,
may receive the
sanction of the Right
Honorable the Governor
General in Council

Fort St George
23rd Octr 1867

Desp to Govt 24/10/67 with Copy of Govt 3282 of 1867.

Pub: Works 1867 Depart.

Rec: 24th Oct.

Rec: of Govt. for October

No. 3282 & 3283

Rec: of the Madras Govt.

Dd 23rd. October 1867

Relating orders on a letter from the Conducting Engr. forwarding correspondence relative to the weights in use upon Indian Railways.

Furnishing the Govt. of India with the above correspondence and recommending the adoption of the English and duplex scale of weights.

No. 474-475 & 476

c. 145 Oct/67 · OR. 165