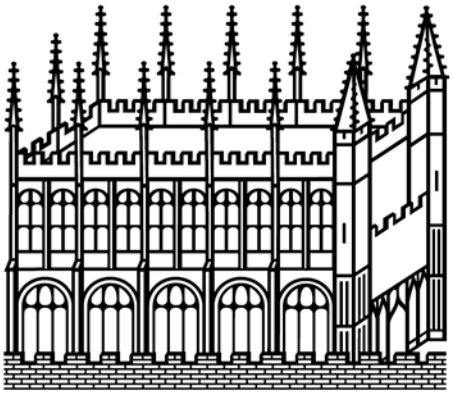

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REMARKS
ON A
GOLD CURRENCY FOR INDIA
AND
PROPOSAL OF MEASURES
FOR THE
INTRODUCTION
OF THE
BRITISH SOVEREIGN
&c &c

COLONEL J.T.SMITH F.R.S.

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REMARKS

ON A

GOLD CURRENCY FOR INDIA,

AND

PROPOSAL OF MEASURES

FOR THE

INTRODUCTION OF THE BRITISH SOVEREIGN;

ALSO, A

SUGGESTION REGARDING INTERNATIONAL COINAGE

WITH A LETTER

TO THE

RIGHT HON. THE SECRETARY OF STATE FOR INDIA.

BY

COLONEL J. T. SMITH, F.R.S.,

&c. &c. &c.

"The Commissioners cannot hesitate to express a hope that the Government of India will persevere in the policy which was recommended for the approval of the Secretary of State two years ago—viz., to cause a legal tender of gold to be a part of the currency arrangements of India."—*Report of the Currency Commission, October,* 1866.

LONDON:

CHARLES AND EDWIN LAYTON,

FLEET STREET.

1868.

232. h. 29.

LONDON:
PRINTED BY CHARLES AND EDWIN LAYTON,
FLEET STREET AND GOUGH SQUARE.

RIGHT HONOURABLE SIR,

I have the honour very respectfully to solicit your attention to the accompanying remarks, which have been written with the sole desire of usefulness to the Government of India, and have been put into type, not in the least with the expectation that they would generally attract public notice, but from the wish to afford every possible facility towards the investigation of a difficult subject, and because it was thought essential to the attainment of a right decision, that the arguments therein advanced should be criticised by as many minds as possible; an object which could only be attained by publication.

The main purport of the remarks is to bring to notice some facts which appear to be well deserving of consideration, before the conclusions arrived at by the Commissioners lately appointed by the Government of India to inquire into the operation of Act XIX. of 1861, and incidentally as to the desirableness of a gold currency, be accepted and acted upon—more especially their recommendation of a new 10 rupee gold coin, as a legal tender, in accordance with Act XVII. of 1835; a measure, which, if adopted and persevered in, could not fail in my opinion

to be attended with disastrous consequences to the empire.

With reference to this point, it has appeared to me very desirable to show that the introduction of the sovereign, as the basis of the Indian currency, which on general grounds is so highly desirable, is not by any means attended with the insurmountable difficulties thought to be inseparable from that proposal; on the contrary, that it may with ease be effected by a slight change in the rules of the Indian Mints, an alteration very necessary on other independent grounds, whereby these coins would be gradually infused into the Indian currency on a precise equality (in the ratio of 10 to 1), with the present rupees; so as in the course of years to take their place at the head of it, in substitution for the present system, without the slightest shock or disturbance of existing values.

The vast importance of this great question, and the wide spread inconvenience and distress which would be the consequence of any serious mistake in effecting the proposed change, seemed to me to forbid my shrinking from the labour or expense of fully representing my views; to which I have been further impelled by the reflection that a close investigation of the subject will show that an opportunity now offers for making this improvement, which, if not taken advantage of, may be for ever lost.

The advantages of introducing gold into the currency

of our vast dependency, need not be here insisted upon. They may be inferred from the unanimous wish of the inhabitants for a less cumbrous means of exchange—from the benefit to be derived by the whole civilised world from India's taking her share of the increased produce of the gold mines; and from the anomalous spectacle exhibited for many years past, of ships freighted with gold traversing half the globe in one direction, crossing ships conveying an equal value of silver in the opposite direction, for the adjustment of balances of trade capable of settlement without either voyage, and with a saving of expense of a quarter of a million sterling annually.

The above, however, are not the only, nor indeed the chief grounds for the proposed change, the importance of which depends, not upon the convenience or economy of the measure, but upon the paramount necessity of anticipating the possible march of natural events, and guarding against the consequences of leaving matters to themselves; having in view the incalculable misery and distress which would result from a spontaneous introduction of gold into India, and the disappearance of the silver coins, as in America and France.

If the gradual restoration of gold to the Indian currency be once decided upon, the particular coin most fitted to carry it into effect will be clearly indicated by the consideration that the Government cannot, on the grounds of justice, interfere by law to compel creditors to accept coins at all defective in value as substitutes for the present

currency; and that the only safe and proper course must be the enactment of a permissive measure making it legal to tender coins of at *least* the *full* (if anything rather more than less) value of those for which they are to be substituted, and leaving the present means of discharging debts quite undisturbed and undisturbable, except as to the option of a debtor to pay in new coins the *full* value in another form. These conditions are fulfilled by the sovereign, which, as compared with 10 rupees may, by adjustment of the Mint regulations, be made superior in cost and value in any ratio from the one thousandth to the one three hundred and fiftieth part; and which, therefore, while in its intrinsic value admirably adapted to our purpose, has in addition, on general grounds, innumerable recommendations which point it out for adoption.

I have already had the honour of drawing your attention to the fact that we now have an opportunity of making the desired change, and that if it be neglected, we may never again possess it. This opinion is founded on the fact that in making the substitution of new gold coins for our present silver currency, we have to compare the present and *past* value of the latter with the present and probable future value of the former; and while the average value of silver in India during a long course of years past is a fact which can only be hereafter varied by slow degrees, and by the successive additions of new data, the present and future value of gold in India is now based upon a comparatively short experience of new conditions, and is dependent upon circumstances which may considerably

affect the price; more especially the rates of exchange between England, Australia, and the East, and the tranquillity of our Indian possessions and the countries adjacent to them; any disturbance leading to an enhancement of value.* If, therefore, it should be thought desirable that the sovereign be introduced as the future basis of our Indian currency, it seems to be of the utmost importance not to neglect the favourable circumstances which invite the change, and unite in forming a guarantee of its popularity and success.

It is not without the most sincere diffidence that I have presumed to solicit your attentive perusal of the few pages herewith sent, and that I now ask you to excuse any error you may meet with in doing so; should any such be found, I can with truth say, I have taken great pains to avoid them; and I may also add in regard to the various conclusions which I have ventured to record, that I have advanced nothing but what, after much consideration, I have myself been satisfied with as reasonable and true.

As one means of avoiding error, I wish to mention that I have adopted the precaution of submitting proofs of the greater part of the work to various friends whose

* During last year the disturbances in Affghanistan created a demand for gold, which raised its price in Calcutta considerably above its natural import cost, in spite of the progressive decline of the last few years. But it would be a great misfortune if we should be thereby misled into a false impression of its permanent average value, and on the restoration of tranquillity find it had risen or fallen so much as to put it beyond our power to introduce the sovereign with all the advantages which might now be given to it.

opinions I felt could be depended upon, and to whom I am indebted for many valuable hints and suggestions; more especially to J. D. Bourdillon, Esq., late of the Madras Civil Service.

I refrain from trespassing upon your indulgence by any observations respecting the International Coinage, as the suggestions on that subject in pages 87 to 91 will speak for themselves. Should it be possible to make them of the least use in devising means to remove the difficulties which now oppose the establishment of this additional bond of union between ourselves and the other civilised nations of the world, I feel sure that the great benefits which would result from the accomplishment of that measure will be allowed to plead my excuse for having introduced it to your notice.

I have the honour to be,

RIGHT HONOURABLE SIR,

Your most obedient humble Servant,

J. T. SMITH,

Late Master of the Calcutta Mint.

LONDON, *Jan^{y}* 15*th*, 1868.

THE RIGHT HONOURABLE
SIR STAFFORD H. NORTHCOTE, Bart., C.B.,
Secretary of State for India, &c., &c.

P.S.—*Very particular attention is respectfully requested to the last Postscript in Appendix E, page* 118.

SECTION I.

STATEMENT OF CERTAIN FACTS AND PRINCIPLES OF CURRENCY RELATING TO THE SUBJECT.

Object of the paper stated.

1.—The object of the following remarks is to inquire into the proposed measures for the introduction of a gold currency into India, and also to examine some of the difficulties which may be supposed to interfere with the contemplated change.

General desire for a gold currency.

2.—I assume that there is a very general, indeed almost unanimous desire for the adoption of a gold currency in India, as shown by the concurrent testimony of many of the most wealthy and influential inhabitants in all parts of that country. I shall also assume that if any one of the following schemes for this purpose be carried into effect, the ultimate result aimed at, will be the establishment in India of a system of metallic currency on the same principle as that which now obtains in England; namely, a gold coin or coins as the legal representatives of value, with a subsidiary token currency of silver and copper.

Three proposals to effect the object.

3.—Various means have been proposed, amongst which the following may be mentioned, viz.:—First, to establish the British sovereign as the legal

equivalent of ten rupees—Secondly, to make the price of the gold mohur, of Act XVII. of 1835, of the Government of India, the basis of a gold legal tender coinage*—and Thirdly, to establish a gold token or an auxiliary currency. It will be convenient, in the first instance, to treat the whole question as if there were but one proposition to be examined, viz.:—the first of those just mentioned; not only because there seem to be sufficient reasons for giving it the preference, but also because the merits or demerits of any other proposal, will be afterwards more readily inquired into, separately. I propose, therefore, in the first instance, to state certain general principles of currency bearing on the subject. Next (in Section II.) to examine very carefully the best available sources of information, with the view of determining the average prices at Calcutta of gold and silver. Then (in Section III.) to consider the practical consequences of making the sovereign the standard gold coin of India, and the supposed objections thereto—and Lastly (in Section IV.) to examine the other proposals, and make a comparison of their several advantages and defects, with some concluding observations.

A difficulty in the way of introducing the sovereign.

4.—It will be perceived, by a perusal of the correspondence laid before Parliament,† that there are certain difficulties which seem to stand in the way of all useful legislation on this subject. One of these consists in the fact—that, while the present standard and measure of value in India is the rupee, and all money contracts at present existing represent certain amounts of silver, there appears to be no precise ratio in which the equivalent values of the sovereign and rupees could be easily and simply adjusted.

* Currency Commissioners' Report, Appendix A, Para. 27.

† Return to an Address of the Honourable the House of Commons, dated 24th February, 1865, for Copies of Resolutions and Correspondence on the subject of a Gold Currency for India.

More especially the ratio of 1 to 10 of the sovereign and the rupee, appears from the official papers to be so much against the sovereign, that it would be in vain to expect debtors to avail themselves of that means of adjusting payments, unless they were obliged by law to do so; while it would be unjust to compel it by law, as involving a sacrifice of the difference in all transactions, however large.

A second difficulty stated.

5.—Another and more serious difficulty appears to lie in the fact, that if it be considered important to imitate and adopt the only true and safe system of currency, viz.—that of England, as described above, it will be necessary, either to establish the dominant gold coins of considerably higher intrinsic value than the rupees for which they are to be exchanged, in order that the latter may be at a safe distance from them, as representative tokens—which plan would involve a sudden and considerable change in the present standard of all values throughout the Empire; or, if the gold coins be accommodated to the existing rupee, as the measure of value, we must encounter for a time the very serious inconvenience of a double standard; and in the end, sooner or later, undertake the task of recoining the whole of the existing rupee currency (in order to lower its intrinsic value to a safe distance below its denomination), that currency containing, at a moderate estimate of its value, not much less (including the fractional silver coins) than two thousand millions of pieces.

The difficulties above mentioned capable of removal.

6.—It is no little satisfaction to me to be able to state, that neither of these two apparent difficulties need be an impediment; for while the first may be simply and safely removed by the means explained in the following paragraph, the second will disappear by the operation of the undermentioned fortunate accidental circumstances, which seem not to have been duly appreciated, viz.:—First, that the present currency, the measure of value, includes a seignorage

of 2 per cent., so that the coins circulate *above* their intrinsic worth—Secondly, that gold for Indian use is cheaper (as compared with silver) for purchase than for sale, by more than 2 per cent. The combined effect of these two circumstances would be to create that difference in saleable value, between the standard and subsidiary coins, which is absolutely necessary to the stability of both; and so to make it practicable to place gold at the head of the currency without any disturbance of existing values. And the difference would be increased, Thirdly, by the effect of the measure itself on the prices of the two metals, in raising that of gold and depressing that of silver. Fourthly. That although the recoinage of the existing silver currency would be the work of years, yet, as it would be attended with profit rather than otherwise, its gradual accomplishment need not be considered an objection to either of the schemes above mentioned, if the safety of the currency were secured by the circumstances just referred to. There are other difficulties, however, such as that of meeting the wants of commerce pending a full supply of the new currency —of replenishing the silver currency when that metal is demonitised—and of securing the universal acceptance of the new coins—which will be duly considered in the course of the following remarks.

One difficulty met by raising Mint charges.

7.—With regard to the present supposed difference in value between the sovereign and 10 rupees, it does not appear to have been noticed that this may easily be corrected, by raising the Mint charges on coining silver, and admitting or coining the sovereign free of charge;* by which means the rupee, for local currency, may be gradually raised to an equal proportionate value with

* Since the above was written, I have observed in the evidence taken before the Currency Commissioners, Colonel Hyde's suggestion that the value of the rupee might be raised to the required extent by increasing the Mint charges on coining silver. Colonel Ballard also proposes some restriction of the silver coinage.

the sovereign, and merchants will find it to be to their advantage to send sovereigns or gold bullion to India, in adjustment of balances of trade, in preference to silver.

The proposal explained.

8.—As, perhaps, the effect of this proposal may not be readily understood, it may be proper to explain, that the value of the standard coins within the currency, and in relation to the commodities of the country where they circulate, is governed by, and depends upon the actual cost of procuring them—including all the unavoidable charges incident thereto. Amongst these charges is the "seignorage," or tax* levied by the Government on coinage, which, it must be understood, does not necessarily imply any debasement or diminution of value in the coin.† This tax is part of the expense of procuring coins, and as it is quite unavoidable by the public, it constitutes part of their necessary cost and therefore value within the currency; and it is evident, that if the tax on the admission of rupees were increased, without a corresponding increase of that on other coins in the same system of currency, their relative cost and value in circulation, compared with such other coins, would be increased in proportion.

Some advantages of the plan.

9.—Judging by the report of the Currency Commissioners, silver would appear, as above stated,

* I have applied the term "tax" here in order to include cases when the charge may possibly exceed the expenses of coinage. Properly, in respect to "Standard" coins, no charge beyond the actual expense of manufacture is at all justifiable, on account of the loss sustained thereby on exportation. But, with regard to coinages made subsidiary, this principle does not apply, and the only necessary limit is the risk of encouraging counterfeits.

† In the Indian Mints the coins delivered are of the precise value prescribed by the law, but the seignorage is deducted out of the number returned to the importer. Thus: as the seignorage is now 1 per cent. for gold, and 2 per cent. for silver (besides $\frac{1}{10}$th per cent. pre-melting charge), the importer has his gold or silver bullion returned to him in coins in the proportion of 99 out of every 100 gold, and 98 per 100 silver, the remaining 1 or 2 in the hundred being retained by the State.

to require some addition to its cost to make 10 rupees equivalent with the sovereign; and if this be the case, it proves that the opportunity now exists for adding that difference, whatever it may be, to the margin of protection of the silver currency, when made subsidiary; it being well known that for the two metals to remain together permanently in circulation, it is indispensable that one of them be made subordinate, and be protected from export by being rated *above* its intrinsic value. The like opportunity exists, so long as the sovereign remains clearly of *more* value than 10 rupees, to gain the ready acquiescence of the public creditors to the transfer of their debts to the new denomination.

It is indispensable to an effective measure.

10.—Without some such measure as this, it will be evident that the two coins, sovereigns and rupees, could not circulate together. If their combination were attempted while the sovereign is decidedly of greater value, the rupee would remain in the field, and the gold would not come into circulation. If it were attempted when the sovereign was decidedly inferior in value to the 10 rupees, the former would quickly be brought into the country, but the rupee, being underrated, would disappear.

Evils of postponing legislative action.

11.—It would be possible, indeed, if the sovereign be now superior, to wait till it sinks to the exact value of 10 rupees (including in the latter the existing seignorage of 2 per cent.), and the measure would then be practicable; but there are some serious objections to this course. The first is, that it would not meet the *present* difficulty, or provide for the want so widely manifested; as we know not how long it may be before the contemplated relation between the two metals will be arrived at—the present quotations of silver being much below those which are referred to in the correspondence. Consequently, to determine that nothing should be done till the cost of providing the sovereign and 10 rupees be precisely the same, would be virtually to postpone the measure indefinitely. In the second place, even if the time were close at hand,

it would be far better to raise the value of the present silver currency by an additional seignorage, than to wait for that time; inasmuch as the present seignorage of 2 per cent. is barely a sufficient margin to give stability to the subsidiary currency, or to guard effectually against the enormous and incalculable evils which would be the result of the silver coins disappearing from the circulation. In order to show that the fluctuations of the value of silver may exceed the margin of 2 per cent., it is only necessary to contrast the present price of bar silver ($60\frac{1}{2}d.$, November, 1867) with that quoted by Sir William Mansfield, of $62\frac{1}{4}d.$ per ounce, a difference of more than 2 per cent; and it must not be forgotten, that, as it is a difference in the relative value of the two metals which would cause the apprehended evils, there are two sources of variation which may concur to bring them about. Thirdly, there is the obvious objection, that, even if we were to wait until the values of the sovereign and of 10 rupees were precisely the same, the very first turn in the market would bring about one or other of the evils stated in the last paragraph.*

Seignorage does not prevent exportation directly.

12.—It ought here to be explained, that although the expression is used above of a protecting margin, as applied to the seignorage, it is not meant that the seignorage has any *direct* effect in preventing the export of the currency; but that it does so *indirectly*, when the two metals circulate together, by giving the silver a local above its intrinsic value, and thus making it less fit for exportation than the gold, if the latter be rated at its intrinsic worth only. Thus 10 rupees, which are only worth 18*s.* $11\frac{1}{2}d.$ in the London market, as containing 1,650 grains of pure silver, at $61\frac{1}{4}d.$ per English standard ounce, of 444 grains pure, would be rated and circulate at 20*s.*

* When the cost of procuring the currency is precisely the same by either of two methods, the first turn in the market brings in one to the exclusion of the other. But the rupee currency would not leave India till it was underrated 2 per cent., owing to the present seignorage.

in India if the British sovereign were made legal tender for 10 rupees; and consequently could not be exported to England for sale without loss, until such time as a rise in the market price of silver abroad increased their value by nearly $5\frac{1}{2}$ per cent.

With seignorage on silver, the export confined to gold.

13.—It is needless to remark that, so long as such a loss as is here shown would be encountered, the silver currency would be safe from exportation, which would be confined to the gold; as, under the circumstances supposed, the latter would be of the same value in England as India. But it may be objected that this would be the effect, not of the seignorage, but of the legal enactment making the rupee the equivalent of two shillings. This is true, and if the *direct* action of the seignorage alone be considered, we might infer that the currency would be as safe without it as with it; but this would be to forget the fact that we are assuming a condition of things which could not be brought about without the seignorage—namely, the concurrent circulation of the two metals at the given rates. For it is obvious that the same circumstance which would make it a loss to take rupees out of the circulation, viz., their greater value in it than out of it, would also act as a premium to bring them in; and, unless this were met by a tax on admission into the currency, it would be taken advantage of exclusively by all who desired to place funds in India, and thus the introduction of the sovereign would be prevented.

Indirect effect of seignorage explained.

Illustration of the effect of additional seignorage.

14.—For example, taking the facts as stated by the Currency Commissioners, and supposing that the sovereign were established as the legal tender for 10 rupees, a merchant wishing to make a remittance to Calcutta of £1,000 sterling, would have the option of sending, either 1,000 sovereigns, or silver sufficient to produce 10,000 rupees. But at the rate adopted by the Commissioners, of 2 to 3 (say $2\frac{1}{2}$) annas less value per 10 rupees, the silver coins including the seignorage would

only cost £984. 7*s.* 6*d.** being a difference of £15. 12*s.* 6*d.* or a trifle more than one and a half per cent. It is obvious therefore, that silver alone would be adopted as the means of remittance, and so gold would not be taken to the Mint for coinage; and this the more certainly, because this gain of $1\frac{1}{2}$ per cent. would be in the place of a positive loss of 2 per cent. under the existing system; according to which, owing to the deduction of the seignorage, the importer of silver at Calcutta must deliver 10,204 tolas of standard silver in order to procure 10,000 rupees.

Effect of additional seignorage on silver, on the import of gold.

15.—But if we now suppose an additional seignorage of 2 per cent. charged on the coinage of silver, and nothing on that of gold, we shall perceive that the importer would only receive 9,800 rupees for his remittance of silver assumed to have cost £984. 7*s.* 6*d.*; and thus it would be for his interest to import gold exclusively, and he would of course never think of doing anything else. We should therefore have the imports, and, for similar reasons, the exports, exclusively confined to gold; and thus, on the one hand, the subsidiary silver currency would remain undisturbed, and, on the other, as the imports of bullion into India greatly exceed the exports, the gold coinage would be continually increasing till it reached the full required amount.

Caution that the rates at present used are of no importance.

16.—I have here taken the price of sovereigns given by the Hon. Mr. C. Brown, and referred to by the Currency Commissioners, in preference to basing my calculations on the price of bar silver in the English market; because I presume the former includes all the advantages to be gained by the transmission of gold from Australia, and the minimum cost of conveyance for each metal, which cannot be better allowed for. As the calculations themselves are merely

* This rate does not agree with that stated in Para. 12, of the value of the rupees in the London Market, on account of the expenses of sending the silver to India, the seignorage, and other causes.

illustrative, the rates are, for the present, of no importance. For it will be indispensable, before considering any definite proposition, carefully to examine the data respecting the rates, and make use of such results as may be found most trustworthy.

Consequence of the want of a discriminating seignorage pointed out.

17.—In the meantime, it may be useful to remark, that of the results above shown, in Paras. 12 to 14, viz., the exclusive exportation of the gold, and importation of silver, which, as the Currency Commissioners point out, "would ensure the defeat of a gold currency," the latter is the natural and necessary consequence of raising the denominative value of the inferior coins without any increase of their actual cost. A seignorage, as already noticed (Para. 12), does not directly prevent the export of the coins subjected to it. But a difference in intrinsic value, compared with denominative value, renders the coins of one metal or the other more suitable for export; and the means of securing this preference for the gold, is to impose a seignorage on the silver currency, which, while it protects that currency from export, ensures also the importation of gold instead of silver, by adding to the cost of the silver coins.

Amount of seignorage necessary at the Currency Commissioners' rates.

18.—A little consideration of what has been stated will show that the amount of seignorage necessary to induce merchants to bring gold rather than silver to the Mint, supposing the former coined without charge, is a trifle more than the difference between the local intrinsic values of the two classes of coins which are to circulate together. Hence, according to the data of the Currency Commissioners, if the real comparative values, in India, of the sovereign and 10 rupees be as 10 rupees $2\frac{1}{2}$ annas to 10 rupees; that is, if the sovereign is dearer by 1·5625 per cent., an additional seignorage of 2 per cent. would be advisable to ensure the success of the attempt to cause them to circulate together. This would leave a margin of ·4375 per cent. in favour of the importation of

gold, an amount sufficient, probably, at the prices here supposed, and not more than enough, as I shall show presently, to meet all the fluctuations in the relative values of the two metals, which may be looked for in future.

Difference in value of subsidiary coins prevents exportation.

19.—Thus, therefore, although a seignorage does not directly prevent the exportation of the coins charged with it, the difference in intrinsic value between those coins and others which circulate with them, and which difference the seignorage covers, does so. And it will be obvious that its effect will be in proportion to that difference. The greater the difference between the intrinsic values of two classes of coins made to circulate together, the greater the certainty that the one which is over-rated will not disappear from circulation.

Too small seignorage leaves a premium on import.

20.—It may be noticed further, that when the seignorage on the inferior currency is less than the difference in their intrinsic values, the remainder still acts as a premium upon the importation of that metal; indeed, the difference between such a state of things and having no seignorage at all will be only in degree. If, on the other hand, the seignorage were fixed at *more* than the actual intrinsic difference, the excess would be of no consequence; a small excess would make the silver coins dearer than the gold, and keep them out of the country, and any addition beyond that would have no further effect.

Varying values would require varying seignorage.

21.—But it will not fail to be perceived that, as the difference between the intrinsic values of the two noble metals varies from time to time in all the markets of the world, it would be absolutely necessary, in order to obtain an effective measure, either—1st, to vary the seignorage on the inferior metal from time to time, according to the state of the markets; or, 2ndly, to fix at the first so high a seignorage as to be certain to cover all fluctuations; or, 3rdly, to prohibit altogether the importation of silver into the Mint by

the public and entrust the supply of that currency to another agency.

Total exclusion of silver not indispensable on introducing gold.

22.—With reference to this latter point it may be observed that, although a certain amount of seignorage is necessary to ensure a sufficient supply of gold under all circumstances, it is not indispensable that silver from the public should be altogether shut out from the Mint. If it were practicable, it might be best so to proportion the tax to the average price of the metal, that in times of its exceptional cheapness, just so much of it should find its way to coinage as would be sufficient to maintain that branch of the currency. But it is quite out of the question to attempt this nice adjustment in the present state of our knowledge; and, therefore, as the first of the above-mentioned three alternatives would be attended with many practical difficulties, and the second and third become in effect the same, there appears to be some indication in favour of the third, for the first few years at least, leaving to a future opportunity the attainment of the further object—viz., the spontaneous adjustment of the importation of silver to the actual demand of the currency; but there are reasons connected with the convenience of our Australian colonies which make it undesirable to allow the payment of the large balances of trade occasionally due to India to be entirely dependent on the supply from one source* only, and these must be taken into consideration in deciding the question.

Seignorage on subsidiary coins is no tax.

23.—To prevent misunderstanding, it may be useful to point out, that such an amount of seignorage as only suffices to bring up the inferior metal to the value assigned to it in a superior currency, practically meets with a compensation which causes it to act as no seignorage at all; and therefore, if, according to the calculation in Para. 18, an

* *Vide* Para. 12, Section III., page 47.

additional tax of 1·5625 per cent. were put upon the coinage of silver in the Indian Mints, the rupee being at the same time declared equivalent to the tenth of a sovereign, the effect would be tantamount to the entire *remission* of the present seignorage of 2 per cent. As this statement may appear paradoxical, I will endeavour to make it clear by an illustration:—

Illustration of the above.

24.—If the Regulations of the Royal Mint were such that merchants were allowed to take bronze there, to be coined into pence and halfpence, paying the requisite seignorage, we may suppose that a merchant might take a pound weight of it, worth, in round numbers, 1 shilling, and have it coined into 48 penny pieces worth 4 shillings; and if 12 penny pieces were returned to him, the remaining 36 being kept as seignorage, it might, in one view, be said, that he was subjected to a tax of 75 per cent., that proportion of the produce being retained by the Government. Nevertheless, in fact, he would be subject to no tax at all, because he would receive back again the *full* value of the metal delivered to the Mint, and suffer no loss. The explanation is, that the metal is changed from a mass having a certain intrinsic value into tokens representing a much higher value guaranteed by the State.

The illustration applied to the sovereign and rupees.

25.—So in regard to silver rupees and the sovereign. If silver sufficient for the purpose were taken to an Indian Mint, and coined into 10,000 rupees, *without any charge*, they would, at the rate adopted by the Currency Commissioners, be of about $3\frac{1}{2}$ per cent. less value than 1,000 sovereigns, having cost only £964. 13*s.* 9*d.*, viz., £984. 7*s.* 6*d.*, less 2 per cent. seignorage, supposed to be remitted. But if a seignorage of $3\frac{1}{2}$ per cent., amounting to £35, were charged, the whole cost to the merchant would then be £999. 13*s.* 9*d.*; and on receiving 10,000 rupees, or their equivalent, 1,000 sovereigns, he would obtain rather more than the full value of his metal and expenses, notwithstanding the seignorage.

$3\frac{1}{2}$ per cent. seignorage would be no tax on rupees subsidiary to the sovereign.

26.—From this explanation I trust it will be manifest that, *according to the Commissioners' data*, if a sovereign were made legal tender for 10 rupees, and a total seignorage of $3\frac{1}{2}$ per cent. were charged on the coinage of silver, the merchants importing it would suffer no loss or tax at all; and as compared with the present practice, the change would be equivalent to a remission of the present 2 per cent. seignorage. And it follows, further, as a corollary, that if a deduction or seignorage, at the rate of $5\frac{1}{2}$ per cent. were made from the out-turn, the coinage of silver would be placed in the same position as at present, namely, it would be subject to a tax of 2 per cent.

An effect of an insufficient seignorage on the silver coins.

27.—It may be further observed that, so long as the cost of the silver coins is upheld by seignorage at *more* than that of providing the Standard gold coins, the former will not be demanded at the Mint in exchange for silver bullion; and of those that may be struck at any time, the value must be fully equal to their denomination because, owing to the tax, they cannot possibly be supplied for less. We might, indeed, assume that, with an insufficient seignorage, after the point of admission had been passed, the markets underwent a further change, and the silver coins could be manufactured at a larger profit—in other words, at a less cost—so that after paying the seignorage, they would be less in value than their denomination. This indeed might happen; but if the seignorage be properly adjusted, the quantities of coin so brought in would be very small, and they would not prevent the circulation of the whole at the full value, any more than the debasement of the silver currency by wear does. Practically, the consideration is of no importance, except as favouring a rather high seignorage.

Why any difference of value for the subsidiary currency is desirable.

28.—Before quitting the subject of the effect of a seignorage, it may be useful here to answer by anticipation a question which is sure to be

asked. Why should there be any difference in intrinsic value between the two branches of the currency; and why not so adapt the new gold to the existing silver coins, as to do away with any difference, making them of precisely equal intrinsic value, and thus obviating all necessity for artificial adjustment? This appears to be the object of the Currency Commissioners.

The currency cannot remain without it.

29.—It will be necessary to examine the Commissioners' proposal in detail hereafter, but at present, in answer to the question, I would beg to say, as before intimated,* that such an arrangement would be wholly inconsistent with the stability and permanence indispensable in any sound system. If the theory of the arrangement were correct, it ought to be true without any seignorage, being simply the establishment of a double standard; and it is remarkable that the eminent writers who have treated this subject have taken no notice of the fact that the existing Indian silver currency is protected by a seignorage of 2 per cent., as though that seignorage did not affect the question. But the fact is that, had a seignorage not already raised the silver currency above its intrinsic value, the proposal to circulate with rupees a gold coin of precisely equivalent proportional value, would be liable to all the evils of a double standard; while, under existing circumstances, it does in effect repudiate the object of increasing the margin of 2 per cent., and thus improving the safeguard against the disappearance of the subordinate currency, amid the countless fluctuations in the value of the precious metals.

Indian silver coins already current above their intrinsic value.

To make the main and subsidiary coins of equal intrinsic value would defeat the object.

30.—In so far, indeed, as we might succeed in adjusting the value of the gold to that of the silver, including the existing seignorage, without further protection, we should renounce the necessary safeguard against

* Paras. 9 to 11, page 5.

the failure of the measure, and make it at the calculated rates equally to the advantage of the merchant to import silver or gold. Hence, in case of any fall in the value of silver, or rise in that of gold, both of which might possibly result from the change of standard, it would inevitably become the interest of the merchants to bring in silver alone and export the gold, which would effectually defeat the whole plan.

Recapitulation.

31.—Let me by way of recapitulation call particular attention to the fact that, with reference to the "Standard" coins, those which measure the value of commodities in any country, the value they represent is equal to the exact cost of procuring the coins;* that is, the intrinsic value of the metal contained in them, plus the seignorage, or charge for manufacture, and all other unavoidable expenses. The value they represent abroad, that is, any where out of the currency, is only the intrinsic value or selling price, in the foreign market, of the precious metal contained in them. Also, that the substitution of a new currency and Standard of value, can only affect trade to the extent of the difference of cost to which a merchant may be put in providing the new, as compared with the old currency.

* Since the above was written I have met with an unexpected objection even to this fundamental proposition, and I am therefore induced to add that not only is the true *current* value of coins increased by seignorage or any other unavoidable expense, but that it might be so increased to any extent, even if the whole value were made up in that way. Thus, if the Government were to issue paper tokens or notes as the sole legal tender for large sums, which were only procurable in exchange for gold bullion at the rate of £3. 17*s.* 9*d.* per ounce, and either strictly limited the issues to the actual deposit of bullion, or so limited them as to maintain the market price of standard gold bullion invariably at that sum, these notes would be of the same current value within the kingdom as the present sovereign. In this case the value would be wholly independent of the worth of the material. The notes would be worth the minimum cost of procuring them; and if it were possible they could be at any time issued in excess, so that gold bullion were worth more than £3. 17*s.* 9*d.* per ounce, they would indeed be reduced in value; but the principle would still remain true, for the price of gold having risen, each note would be purchaseable for less gold, and they would be worth what they cost (*vide* Appendix E).

SECTION II.

ENQUIRY INTO THE FACTS RELATIVE TO THE PRICES OF GOLD AND SILVER.

Importance of exact information as to the relative values.

1.—It is of the utmost importance in forming a judgment respecting any proposed measure for the substitution of a gold in lieu of the present silver standard of India, that the exact relation between the two metals as to value should be correctly ascertained; because it will be seen hereafter that, following the principles above stated, the expediency and safety of such a scheme are almost wholly dependent upon their exact adaptation. I therefore proceed to investigate, with the aid of the best information at my command, the actual market values of both gold and silver at Calcutta; and, first, of gold.

Table referred to and described.

2.—The following table shows the produce of gold laid out in silver, at the various prices per standard ounce, in the London market. The first and ninth columns show the rate per ounce in pence and decimals; the second, the cost of the intrinsic equivalent of a rupee (of 165 grs. pure silver, 15 grs. alloy); the third, the actual cost per rupee in Calcutta, after adding $3\frac{1}{4}$ per cent.* for freight, insurance, and other

* *Vide* Mr. Dunlop's letter, para. 21 (Parliamentary Papers, page 124). The rate here calculated is probably somewhat higher than that which prevails at present, as the cost of insurance has lately been reduced. But in estimating the value of the existing rupee currency, based upon an average of prices, we ought to calculate not only the prices paid for the silver in each year, but also the charges of importation at the rates then prevailing; and in this view, as regards the supply of silver to India during the last 14 years, the rate here referred to is below, rather than above, the true average. Moreover, it is important to observe that, while on the one hand the cost of insurance of silver has been reduced, on the other, a similar, though not so great a diminution, has taken place in the charges on gold.

charges, without seignorage; the fourth, the same, with seignorage at 2·1 per cent.; the fifth, sixth, seventh, and eighth, the same, with various other rates of seignorage. These results have been obtained by a mere arithmetical calculation of the number of grains of pure silver purchaseable in London for the given price, and the number of tolas (or rupees) of Indian standard silver corresponding thereto; to which, in the third and other columns, the outlays for expenses and seignorage at various rates are respectively added, showing the out-turn in Calcutta.

TABLE I.—*Of the Cost of* 1 *Rupee, at the various prices of Silver per Standard Ounce in London, in addition to the Freight, Insurance, Brokerage, &c. at* $3\frac{1}{4}$ *per Cent., and at various Rates of Seignorage.*

1. Price of an oz. of silver, 444 grs. pure.	2. Intrinsic value of the rupee.	3. Intrinsic value, plus expenses at $3\frac{1}{4}$ per cent.	4. Plus expenses at $3\frac{1}{4}$ per cent., and seignorage at 2·1* per cent.	5. Plus expenses at $3\frac{1}{4}$ per cent., and seignorage at 3·1 per cent.	6. Plus expenses at $3\frac{1}{4}$ per cent., and seignorage at 4·1 per cent.	7. Plus expenses at $3\frac{1}{4}$ per cent., and seignorage at 5·1 per cent.	8. Plus expenses at $3\frac{1}{4}$ per cent., and seignorage at 6·1 per cent.	9. Price of an oz. of silver, 444 grs. pure.
d.	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*	*d.*
58·00	21·5540	22·2545	22·7319	22·9665	23·2060	23·4505	23·7003	58·00
58·25	21·6469	22·3505	22·8299	23·0655	23·3060	23·5516	23·8024	58·25
58·50	21·7398	22·4464	22·9279	23·1645	23·4060	23·6527	23·9046	58·50
58·75	21·8327	22·5423	23·0259	23·2635	23·5061	23·7538	24·0067	58·75
59·00	21·9257	22·6382	23·1238	23·3625	23·6061	23·8548	24·1089	59·00
59·25	22·0186	22·7342	23·2218	23·4615	23·7061	23·9559	24·2111	59·25
59·50	22·1115	22·8301	23·3198	23·5605	23·8062	24·0570	24·3132	59·50
59·75	22·2044	22·9260	23·4178	23·6595	23·9062	24·1581	24·4154	59·75
60·00	22·2973	23·0220	23·5158	23·7585	24·0062	24·2592	24·5175	60·00
60·25	22·3902	23·1179	23·6138	23·8574	24·1062	24·3602	24·6197	60·25
60·50	22·4831	23·2138	23·7117	23·9564	24·2062	24·4613	24·7218	60 50
60·75	22·5760	23·3097	23·8097	24·0554	24·3063	24·5624	24·8240	60·75
61·00	22·6689	23·4056	23·9077	24·1544	24·4063	24·6635	24·9261	61·00
61·25	22·7618	23·5016	24·0057	24·2534	24·5063	24·7646	25·0283	61·25
†·39285	22·8149	23·5564	24·0617	24·3100	24·5635	24·8223	25·0867	·39285†
61·50	22·8547	23·5975	24·1037	24·3524	24·6064	24·8656	25·1305	61·50
61·75	22·9476	23·6934	24·2017	24·4514	24·7064	24·9667	25·2326	61·75
62·00	23·0405	23·7893	24·2996	24·5504	24·8064	25·0678	25·3348	62·00
62·25	23·1334	23·8853	24·3976	24·6494	24·9064	25·1689	25·4369	62·25
62·50	23·2263	23·9812	24·4956	24·7484	25·0065	25·2700	25·5391	62·50
62·75	23·3192	24·0771	24·5936	24·8474	25·1065	25·3710	25·6412	62·75
63·00	23·4121	24·1730	24·6916	24·9464	25·2065	25·4721	25·7434	63·00
63·25	23·5051	24·2690	24·7895	25·0454	25·3065	25·5732	25·8455	63·25
63·50	23·5979	24·3649	24·8875	25·1444	25·4066	25·6743	25·9477	63·50
63·75	23·6909	24·4608	24·9855	25·2434	25·5066	25·7754	26·0499	63·75
64·00	23·7838	24·5567	25·0835	25·3424	25·6066	25·8764	26·1520	64·00
64·25	23·8767	24·6527	25·1815	25·4413	25·7066	25·9775	26·2542	64·25
64·50	23·9696	24·7486	25·2795	25·5403	25·8067	26·0786	26·3563	64·50
64·75	24·0625	24·8445	25·3774	25·6393	25·9067	26·1797	26·4585	64·75
65·00	24·1554	24·9404	25·4754	25·7383	26·0067	26·2808	26·5606	65·00

* This includes the premelting charge of 1 per mille.

† The average price for the last fourteen years.

Remarks on the comparative values shown by the Table.

3.—On examining this table, it will be perceived, in column 4, that money laid out in London will procure rupees at 2*s.* each, or at ten rupees to the sovereign, when the price of bar silver is very nearly 61¼*d.* (61·235449*d.*) per ounce; but we must not suppose that this is the rate at which the two metals would be of the correct proportional values for the Indian currency. The table merely shows that, at the price stated, ten pounds in England would produce 100 rupees in Calcutta, the silver having been subject to various charges and drawbacks in its transmission and conversion into coin. If we wish to compare the relative values of the two metals as delivered side by side in India, supposing them both supplied from the London market, we must add the corresponding charges of the transmission and coinage of gold to the 24 pence which represent the rupee (at £1 per 10 rupees), and which charges, as they are stated to amount to 3 per cent., would, without seignorage on the gold, increase the cost from 24*d.* to 24·72*d.* We then find in column 4 that the price in the London market at which silver, with the existing Indian Mint charges of 2·1 per cent., would produce an equivalent out-turn, would be a trifle more than 5*s.* 3*d.* (63·0725*d.*), at which quotation alone, as regards the London market, the sovereign and 10 rupees could be laid down together as equivalents in Calcutta.

Comparison of the prices of London gold and silver.

4.—If, therefore, there were no other market in the world whence either of the precious metals could be supplied to India, we should be constrained to argue and decide the question upon the foregoing data. And thus, at the present price of silver, for instance, (of 60½*d.* per ounce), the value of the sovereign and 10 rupees would be as 24·72 to 23·7117, such being the actual cost of the rupee in each case respectively, viz., of the rupee in silver and the rupee as the tenth part of the sovereign. Thus the sovereign would be, at the existing price of silver, equivalent to 10rs. 6a. 9p.

very nearly; and, at its average price for many years past (61·39285*d.*), the proportion would be as 24·72 to 24·0617, making the sovereign equivalent to 10rs. 4a. 4p.

Australian gold, the cost of.

5.—But in fact, as regards one of the metals, namely gold, there is a much readier and cheaper source of supply for India than the London market, owing to the proximity of the Australian mines; and, as Sir W. Mansfield has justly remarked, in his minute of 4th August, 1864, paragraph 10, the price of the latter (Australian gold) in India "rules the price of all other gold from wheresoever it may come."

Importance of that supply.

6.—This being the case, it becomes necessary to inquire what the precise value of the Australian gold is in India, as compared with the English, and hence as compared with silver; and before proceeding to the inquiry, it may be useful to premise that what we have to do with is not the *selling* price in Calcutta, but the minimum cost at which it can be laid down there—not the maximum price which is procurable for it, but the minimum price at which a merchant, for the purposes of sale, may provide himself with it.

The cost of the metal to be inquired into.

7.—It is indispensably necessary to note this distinction, because an exact comparison has to be made with the cost of silver, calculated on the supposition of its being brought to India at the minimum expense, and without any allowance for profit to the importer.

The cost, not selling price required.

8.—We wish to arrive at the truth respecting the precise relative values of the two metals, and to contrast the actual cost of the coins produced from them one with another; and although it would be quite easy to allow for a merchant's profit of any given amount upon either metal, yet it is obvious, that if allowed on one, it must be on both, or the comparison would be untrue; and to do it on both would only uselessly embarrass the discussion.

9.—This point is of such critical importance to the decision of the right measure for adoption, and it must be so difficult for any who have not closely considered the subject, to get rid of the idea that the true value must necessarily be represented by the average market price in Calcutta, that, at the risk of being tedious, I cannot refrain from repeating, that the point of importance is not the ordinary market price of gold as a commodity, fluctuating from time to time according to the supply and demand, but that commercial par between the two metals, which makes it of *precisely* the same advantage to the merchant, operating on a large scale, to use the one or the other for remittance; that is, the minimum unavoidable cost of bringing each into the market. And it is very important to observe, that the comparison we have to make has reference not to the facts as they now exist, when the contrast lies between the outlay necessary to produce a fixed value of silver, and that required to produce an uncertain return in gold; but, as they would be after gold was made a legal tender; viz., a comparison of the minimum outlay for the fixed return in the one case, with the minimum outlay to produce an equally fixed return in the other.

The same continued.

10.—In regard to silver, we start from the price of that metal in the London market; because, after the experience of years, no better or cheaper source than it can be found, representing as it does the value of bullion shipped at Marseilles; and after adding thereto the minimum cost and charge of transit, we arrive at the minimum cost, as delivered in India.

Silver, how estimated.

11.—The same will be done as regards gold sent from London. In regard to gold supplied from Melbourne, we must begin with the average price in the Melbourne market; and, adding freight, insurance, and other

Gold, how estimated.

charges, thus arrive at the minimum price of the metal laid down in Calcutta.

The Hon. Mr. Claud Brown's evidence.

12.—Referring to the distinction laid down above (Paras. 6 and 9), as to the object in view, it seems to be unfortunate that so large a prominence has been given to the evidence of the Honourable Mr. Claud Brown, to the exclusion of other information at the disposal of the Commission, on the subject of the selling price of gold in Calcutta. The probability is that this has happened in consequence of the apparent confirmation of that evidence by facts derived from other sources: but these facts, on close examination, will be found to agree with the general mass of testimony, in denoting a lower value for the intrinsic metallic contents of the sovereign than Mr. Brown assigned to it.

Seignorage included in the cost of rupees, not of gold.

13.—Let me here observe that, for the present, all the calculations which it is necessary to make have reference to the intrinsic metallic value of the sovereign (without allowing for any seignorage); as contrasted with the cost of the silver rupee, which (though it is the standard of value) has been, and is, subject to a Mint charge of 2·1 per cent. which is included in the calculations. I have already said, in an early part of this paper, that my first subject of inquiry will be the proposed introduction of the sovereign free of charge, as in England; and it will be easier to discuss the merit of that proposal in the first place, without allowing for any seignorage. The expediency of imposing such a charge, the proper amount of it, and its effect upon the currency may be more profitably considered afterwards.

Data of the Currency Commissioners.

14.—The seventh paragraph of the Minute by Sir W. Mansfield, dated 4th August, 1864, appended to the Commissioners' report, clearly specifies the data on which His Excellency based his conclusions—he writes as follows:—

" Thus the Honourable Mr. Claud Brown shows, by a calculation " of averages, that the sovereign has in Calcutta, of late years, " maintained about the same value as it has in Bombay, the cost " of the sovereign being now, as he states, with regard to the " gold it contains, worth Rs. 10:2:11, and with the additional " 1 per cent. for seignorage, Rs. 10:4:6; consequently, &c."

Particulars of the data referred to.

15.—What is the calculation of averages to which reference is here made? We find it in Mr. Brown's letter to Sir Charles Trevelyan of the 28th May, 1864, given at page 128 of the papers laid before Parliament; where it is stated that I have "taken the average of our own sales of " Australian gold in 1861 and 1863, and find it to be 14:14:3 " per sicca mohur of 22 carat fine." Further on he says—" To " check this result I have taken the average of the quotations for " the 3 years, from our monthly circular, and find it to be " 14:13:4, so that I think we may fairly conclude that the value " of gold of standard quality has, during the past three years, " been as nearly as may be Rs. 14:14 per sicca mohur. At this " price, the 5 dwts. $3\frac{1}{4}$ grs. which an English sovereign contains " will be worth 10:2:11, and when to this is added seignorage " at the rate of 1 per cent., the cost of the coin will be " Rs. 10:4:6."

Examination of the particulars of the data.

16.—This statement shows the prices at which sales were effected by Messrs. Jardine, Skinner and Co., during the three years in question; and we may fairly assume that, supposing that eminent house to have acted as all other mercantile houses would have done under the circumstances, those were the highest prices possible to be obtained at the times. We are not informed whether or not, owing to Messrs. Jardine and Skinner's extensive dealings with the natives, any of these sales, being in adjustment of accounts, were passed at higher rates than would have been obtained in the open market. If not, it

does not appear how it happened, that the average price in the open market being, as shown by their own circulars, only 14:13:4, the higher average price of 14:14:3 was obtained by themselves; but at all events this average price in either case is something very different from the minimum cost to the importer of which we are in search.

The Commissioners' data further examined.

17.—There can be no doubt that mercantile houses and banks, desirous of making the most profitable remittances, are in the habit of selecting for the purpose *picked* bars of the weights and finenesses suited to the market to which they are sent. But would the result of such sales be a fair criterion of the average minimum cost of gold of all qualities brought into a mint bound to receive it at a specified value per standard ounce?

The same continued.

18.—Again, what amount of profit is included in the price? Taking the average market price (14:13:4) according to the circulars, and allowing 1 per cent. for expenses and profit, the result is Rs. 14:11:0 per tola, as the cost to the importer; which is exactly the sum stated by Mr. Dunlop, the Manager of the Calcutta Branch of the Agra Bank, as the result of his experience.* If we take the average selling price for the 14 years from 1853 to 1866, as given in para. 21 of this Section, and allow only 3*d.* per ounce, or 0·318 per cent. for expenses and profit, the resulting import cost will agree with Mr. Dunlop's statement. Sir William Mansfield has objected to, and set aside Mr. Dunlop's statements, believing them to be of insufficient authority. He says (referring to them in para. 24 of his remarks, 4th August, 1864), "In short we "must take the value of gold at what it is shown to be by the "average prices of a term of years, and not from an arbitrary "assertion made at a particular juncture."

* Parliamentary Papers, page 123.

Further data inquired into.

19.—Mr. Dunlop states that his figures are based upon the average of prices; and it has just been shown that, making fair allowance for expenses and profit, it agrees with that derived from Messrs. Jardine and Skinner's circulars. But as there is a large mass of information contained in the official papers, it will be of importance to ascertain what results they afford; and this I now proceed to do, premising once more that the object is not to decide what gold may be sold for, but what it may be bought and imported into India for.

Table of the price of gold.

20.—The following table contains the prices of gold from 1853 to 1863, as given in Statement F. appended to Sir W. Mansfield's minute of the 8th March, 1864, and printed at p. 62 of the Parliamentary Papers,—reduced to "Standard;" those of the years 1864 and 1865 from Mr. Claud Hamilton's evidence, quoted in the note to para. 27 of this section; and also those of 1866, from a statement with which I have been kindly furnished by the manager of the Oriental Bank, giving the average of 14rs. 13a. 1p. for that year.

Results shown by the table.

21.—From the table it will be seen that the average *selling price* of gold during the whole 14 years from 1853 to 1866—the same which will be presently examined (para. 35) as to the price of silver, is 14rs. 11a. 10p. per standard tola, or £3. 18*s.* 7*d.* per ounce. If the last 10 years only be taken, the average price is 14rs. 12a. 8p.; if 7 years, 14rs. 12a. 0p.; if 5 years, 14rs. 11a. 5p.; if 3, only 14rs. 10a. 1p. If an average of all these five be taken, it amounts to 14rs. 11a. 7p., or £3. 18*s.* 6*d.* per standard ounce. These facts will suffice to show that the average selling price of gold is not capable of a fixed determination. It has declined of late, and was not long since (*vide* note to para. 27, p. 28) below the value of 10 rupees to the sovereign.

22.—TABLE II.—*Statement showing the Average Price per Tola of Standard Bar Gold in Calcutta, from* 1853 *to* 1866, *both inclusive.*

	23 Carats.		Standard.
	Rs. A. P.		Rs. A. P.
1853	15 7 2	From Appendix to Sir W. Mansfield's Minute of March 8th, 1864.	14 12 5
1854	15 7 9		14 12 11·74
1855	15 6 3		14 11 6·52
1856	14 11 9		14 1 6
1857	15 4 3		14 9 7·56
1858	15 7 8		14 12 10·78
1859	15 15 7		15 4 5·65
1860	15 9 3		14 14 4·95
1861	15 7 4		14 12 6·95
1862	15 8 1		14 13 3·56
1863	15 8 8		14 13 10·26
	Standard.		
1864	14 8 7	Mr. Hamilton's Evidence. Commissioners' Report, Appendix, p. vi. Oriental Bank.	14 8 7
1865	14 8 6		14 8 6
1866	14 13 1		14 13 1

Here the average is 14rs. 11a. 10·069p. per tola, or £3. 18*s.* 7*d.* per ounce. Giving the *selling* price of the bullion in a sovereign, as deduced from bars of *picked fineness*, at 10rs. 1a. 6p. The annual fluctuations appear to be from 14rs. 1a. 6p. in 1856, to 15rs. 4a. 5p. in 1859—that is, from 4·383 per cent. below to 3·637 per cent. above the average. The lowest quotations are from January to March, 1856, when the price per standard tola was 13rs. 14a. 10p., and the highest in December, 1854, when it was 15rs. 10a. 7p.—the former being at the rate of 5·5 per cent. below, and the latter 6·25 per cent. above the average price of 14rs. 11a. 10p. per tola.

Use of the table.

23.—It must be understood that these statistics are merely corroborative, as throughout these remarks, the comparison between the two metals is founded on Mr. Dunlop's quotation of £3. 18*s.* 4*d.* per ounce, as the price at which gold can be laid down in Calcutta. There are some considerations which tend to prove that that estimate is materially too high. They will be mentioned in this place, because it will be convenient to use Mr. Dunlop's quotation as the most authentic

procurable; and it is desirable in doing so to give the reason why it ought to be considered as clearly above rather than below the truth.

Reasons for thinking Mr. Dunlop's value of gold too high.

24.—The first of these considerations is, that almost all Indian statements of the price of gold, and especially that taken from Sir W. Mansfield's Minute of the 4th August, 1864, are founded on the price of picked bars of the finer qualities, which inasmuch as they may be delivered at the Mint for coinage with an equal weight of bars of the same degree of "worseness," which latter, by themselves would be subject to a charge for refinement of about $\frac{1}{2}$ per cent. (*vide* Prinsep's Useful Tables, page 10) may be presumed to be of more value than ordinary "Standard" bars. Of the four quotations given by Sir W. Mansfield, two are of bars of nearly 96 touch, and two of nearly 99 touch, instead of Standard, which is 91·6666 touch. This circumstance may in part account for the average taken from Sir W. Mansfield's table being higher than the others given in the Parliamentary papers, which generally agree with one another.

Another reason for the same opinion.

25.—Another consideration is, that the cost to the importer, stated by Mr. Dunlop, represents the price and expenses of gold purchased in the Melbourne market, which in many cases, and especially in regard to small transactions, may be considered the minimum cost for importation. But it is the fact that one or two of the chief Indian Banks maintain agents at the principal mines, and it is obvious that the intention and effect of this are to procure the gold at a price *below* the average of the Melbourne market; and, therefore, we cannot but infer from this circumstance, irrespectively of other considerations, that for transactions on the largest scale, there is a price below that stated by Mr. Dunlop. What percentage of reduction may be considered sufficient to justify the maintenance of an agent at the mines, each one must judge for himself.

Further reason, founded on actual sales.

26.—Lastly, we may infer that the natural minimum cost of delivery in Calcutta is less than Mr. Dunlop's statement of 14 rs. 11 a. per tola, from the fact that it has on many occasions been sold below that price. In one instance, viz., from January, 1859, to April, 1860, for fifteen months consecutively, the quotations of 22 carat bars (given at page 126 of the Parliamentary Papers) average only 14 rs. 8 a. 10 p. During two months from the 7th June to 7th August, 1861, the price averaged 14 rs. 7a. 11 p., and during other two months, from 8th December, 1863, to 8th February, 1864, the selling price averaged only 14 rs. 6 a. 7 p. per tola.

The Honourable Mr. Claud Brown also mentions, on the 28th June, 1864 (*vide* Parliamentary Papers, page 88), that 22 carat fine gold was "not saleable at better than 14 rs. 7 a. to "14 rs. 7 a. 6 p., a price which would admit of the sovereign "being turned out of the Mint at the required cost of Rs. 10."

Inquiry into the results of some of the sales.

27.—Amongst these quotations it is unnecessary to remark upon more than the first. Here is a case in which, for 15 months consecutively, gold was sold at the average rate of 14 rs. 8 a. 10 p. per tola, and we are compelled to believe, either that the gold was imported and sold for so long a period continuously at a loss, or that the *minimum* cost of delivery in Calcutta is considerably less than that stated by Mr. Dunlop. Without reckoning any profit, this rate gives the sovereign at 9 rs. 15 a. $5\frac{1}{2}$ p.*

Explanation with respect to exchanges.

28.—The question is indeed somewhat complicated by the state of the exchanges between

* Since writing the above, I have had the privilege of seeing the Minutes of Evidence taken by the Currency Commissioners, amongst which is a statement submitted by Mr. Claud Hamilton, showing the *selling* price of Australian gold bars, 22 carats fine, in the Calcutta Market, for each month of the years 1864 and 1865, of which the average is Rs. 14 : 8 : 7 per tola in 1864, and Rs. 14 : 8 : $5\frac{1}{2}$ in 1865. Taking the average of both years at Rs. 14 : 8 : 6 per tola, this price corresponds with Rs. 9 : 15 : $2\frac{3}{4}$ per sovereign, or £3. 17*s.* 6*d.* per ounce.

Calcutta and London, as it might, under certain circumstances, be profitable to submit to a loss in the sale of gold, in order to realise a profit by the exchange. But this was not the case in the instance now referred to; for the loss by the mere interest of money in the transaction being usually more than $\frac{3}{4}d.$ per rupee,* six months' bills ought to have been procurable at the least at 2*s.* 1*d.* in order to give a fair profit. But the fact is that, throughout the whole of the year 1859, the price of six months' bills on London was not better than 2*s.* $0\frac{3}{4}d.$—a rate only sufficient to pay ordinary interest at six per cent., with no profit; and it only rose to 2*s.* 1*d.* towards the very end of the period, viz., in April, 1860.†

Mr. Dunlop's rate not too low.

29.—The foregoing facts will be sufficient to show that, in forming a judgment as to the relative necessary cost of supplying India with the two metals, Mr. Dunlop's statement of £3. 18*s.* 4*d.*, as the cost of landing gold in Calcutta, may be relied on as being, at the least, sufficiently high; and that, while accounting for the lower rates which have been just exhibited by the supposition that they are perhaps due to an unusual failure of prices, owing to slackness in the demand, we may safely use his figures as representing, on the average of years, the fair minimum cost to the importer, under ordinary circumstances, to the extent that the produce of the mines of the Melbourne district, and probably also New Zealand, are able to meet the demand.

30.—The following Table, showing the cost in pence and decimals, of a rupee as one-tenth of a sovereign or of a ten rupee

* At 2*s.* 6*d.* per oz., *vide* page 123, Parliamentary Papers.

† During the period here referred to, the rate of discount in the London Market was unusually low, not more than 3 per cent. on an average, so that the loss of interest was probably not so much as that allowed by Mr. Dunlop. This circumstance in some measure accounts for the facts, but is not sufficient to yield an adequate profit to compensate for deficiency on the gold.

piece, according to the provisions of Act XVII. of 1835, section 7, will be useful hereafter in examining the effects of various rates of seignorage on gold, and in comparing the different proposals for a gold currency with one another.

TABLE III.—*Showing the Cost in Pence of "Sovereign" and "Mohur"* Rupees, at various prices of Standard Bar Gold in India, and various Rates of Seignorage.*

With the Price of Gold at	"Sovereign" Rupees.				"Mohur" Rupees.			
	With no seignorage.	With one-sixth per cent. seignorage.	With one-fourth per cent. seignorage.	With one per cent. seignorage.	With no seignorage.	With one-sixth per cent. seignorage.	With one-fourth per cent. seignorage.	With one per cent. seignorage.
£ s. d.								
3 17 6 per ounce	23·8844	23·9243	23·9442	24·1256	23·2500	23·2887	23·3082	23·4848
3 17 9 „	23·9615	24·0015	24·0215	24·2035	23·3250	23·3639	23·3834	23·5606
3 17 10½ „	24·0000	24·0400	24·0601	24·2424	23·3625	23·4015	23·4210	23·5984
3 18 4 „	24·14125	24·1815	24·2017	24·3851	23·5000	23·5392	23·5588	23·7373
3 19 2½ „	24·4109	24·4516	24·4720	24·6574	23·7625	23·8022	23·8220	24·0025
4 0 2½ „	24·7191	24·7603	24·7810	24·9687	24·0625	24·1026	24·1228	24·3055

Price of coined sovereigns examined.

31.—It is unnecessary to say more than a few words on the subject of *coined* sovereigns, from either England or Australia, because the arguments used throughout this discussion apply, necessarily, not to the value of the coined money, but to that of its metallic constituent; and the metal is necessarily of less cost at Calcutta as bullion than in the form of coins of either Great Britain or Australia. With regard to the former, because of the high freight and charges; and in regard to the latter, because, in addition to the same export duty, freight, and charges as on bullion, the coin is burthened with a seignorage of 1 per cent. or $\frac{3}{4}$ per cent., levied by the Australian Government.† It is, however, confirmatory of the results deduced above, with respect to the price of bullion, to observe that, by Mr. W. Cassell's statement, appended to

* *Vide* Paras. 1 and 20, Section IV., pp. 65 and 75.

† *Vide* Parliamentary Papers, page 88.

Sir W. Mansfield's minute, at page 58 of the Parliamentary papers, the average selling price of the sovereign in Bombay, for the seven years from 1857 to 1863, is 10rs. 4a. 2·8p., from which, if only $1\frac{3}{4}$ per cent. be taken, for the united charges of (Australian) seignorage, expenses and profit, the result is a net cost of the mere gold to the importer of 10rs. 1a. $4\frac{1}{4}$p., or a difference in excess of 10 rupees of 0·85, rather more than $\frac{3}{4}$ per cent.

Further averages examined.

32.—If a similar average be taken of the 127 entries at pages 126 and 127, showing the selling price of sovereigns in Calcutta from January, 1859, to June, 1864, it will be found to be 10rs. 3a. $9\frac{1}{4}$p., from which, if $1\frac{3}{4}$ per cent. be deducted, the net bullion cost to the importer becomes 10rs. 0a. 11p., or an excess of 0·573 per cent. The same calculations made respecting the selling price of sovereigns in Calcutta and Bombay during most of the year 1864 and part of 1863, printed at page 140 of the Parliamentary papers, give the *net* cost as 9rs. 14a. $5\frac{1}{2}$p. and 9rs. 15a. 10p. respectively; being, in the one case, 0·96, and in the other 0·104 per cent. below the value of 10 rupees.

Notice of a statement submitted to the currency commission.

33.—It may be remarked with reference to the above calculations, that in the Appendix to the Commissioners' Report, Australian sovereigns are not quoted till near the end of 1863. After that, for the years 1864–5 and 6, the average price is less than Rs. 10:1:0 each, from which, if a deduction be made to allow for the Australian seignorage, of only $\frac{3}{4}$ per cent.,* the bullion value will be brought below 10 rupees. It is true that the price of gold bullion during these three years was below the general average, by about $\frac{3}{4}$ per cent; but the price of silver was also lower than the same average by about half that amount; and if the price of the sovereign, as

* This is stated by Sir Charles Trevelyan (Parliamentary papers, p. 88) to be $\frac{3}{4}$ per cent. upon large parcels, and 1 per cent. on small ones.

stated above (Rs. 10:1:0), be increased by $\frac{3}{8}$ per cent. to make up for the greater depression of gold and bring its price up to the general average of both, it would be raised to Rs. 10:1:7, from which, deducting the Australian seignorage at $\frac{3}{4}$ per cent., there remains the bullion value of Rs. 10:0:4$\frac{1}{2}$, being at the rate of less than $\frac{1}{4}$ per cent. above 10 rupees, and this is the *selling* price of the sovereigns, from which an allowance for profit must be made to compare it with the import cost and Mint value. *Vide* Appendix D.

Circulation of sovereigns at the rate of 10 rupees.

34.—When we add to the above result the facts that on more than one occasion* vast numbers of sovereigns have been voluntarily paid into Government Treasuries, or put into circulation at the rate of 10 rupees each, and at other times have only failed because the public refused to take them at that price (*vide* para. 30, Section III., p. 61). We seem to have strong reason for the belief that sovereigns coined in India, which (if no seignorage were charged) would be $\frac{3}{4}$ per cent. besides the dealer's profit cheaper than those hitherto imported, would not be likely to fail on account of excess of value.

Average cost of silver inquired into.

35.—In proceeding to ascertain the average cost of silver at Calcutta, a comparison has been made of Mr. W. Cassell's list of prices in England, during eight years, given at page 59 of the Parliamentary papers, with another list also appended to Sir W. Mansfield's minute (at page 63), showing the same for eleven years, from 1853 to 1863, and, further, with the statement of prices for 2$\frac{1}{2}$ years, 1862-63 and part of 1864, appended to Sir Chas. Trevelyan's minute, and printed at page 125 of the papers. From these different lists, which in general agree very closely, taking an average when there were slight differences, and adding the experience of the last three years,

* *Vide* Parliamentary papers, page 107, para. 3. Page 111, paras. 9, 10 and 11. Page 116, letter No. 58. Evidence before the Currency Commissioners' Questions, 112, 113, 114, and 118, page 22. Questions 695 and 696, page 60.

from a table of the weekly prices of silver in the London market, with which I have been very kindly furnished by Messrs. Pixley, Abel, and Langley, the following table has been formed, showing the price of silver in the London market, per standard ounce, for the 14 years from 1853 to 1866 both inclusive.

TABLE IV.—*Showing the Average Price of Bar Silver per Standard Ounce in London, for* 14 *Years, taken from pp.* 59, 63, *and* 125 *of the Parliamentary Papers.*

	s. *d.*	*d.*
1853	5 $1\frac{1}{2}$	61·500
1854	5 $1\frac{1}{2}$	61·500
1855	5 $1\frac{1}{2}$	61·500
1856	5 $1\frac{3}{8}$	61·375
1857	5 $1\frac{3}{4}$	61·750
1858	5 $1\frac{5}{16}$	61·3125
1859	5 $1\frac{15}{16}$	61·9375
1860	5 $1\frac{5}{8}$	61·625
1861	5 $0\frac{13}{16}$	60·8125
1862	5 $1\frac{3}{8}$	61·375
1863	5 $1\frac{5}{16}$	61·3125
1864	5 $1\frac{3}{8}$	61·375
1865	5 1	61·000
1866	5 $1\frac{1}{8}$	61·125
Average	5 $1\frac{3}{8}$	61·39285

NOTE.—The price for 1858 is stated at 5 $1\frac{3}{8}$ on p. 59, and at 5 $1\frac{1}{4}$ on p. 63—the mean, 5 $1\frac{5}{16}$, is taken.
" 1859 " 5 2 " 5 $1\frac{7}{8}$ " " 5 $1\frac{15}{16}$ "
" 1861 " 5 $0\frac{3}{4}$ " 5 $0\frac{7}{8}$ " " 5 $0\frac{13}{16}$ "
" 1863 " 5 $1\frac{1}{4}$ " 5 $1\frac{3}{8}$ " " 5 $1\frac{5}{16}$ "
The prices for 1864, 1865, and 1866, are taken from Messrs. Abel, Pixley and Langley's statement.

Remarks on the table.

36.—Upon this table it may be observed, that, considering all things, the price of silver, as taken year by year, has been remarkably steady; the maximum being in 1859, when the standard ounce cost nearly 62*d.* (precisely 61·9375), and the minimum in 1861, when the price was slightly below 61*d.* (precisely 60·8125); neither of these extremes being so much as 1 per cent. above or below the average of the whole period, which was 61·39285*d.* It is worthy of notice, also, that the price of silver seems to have declined, rather than otherwise, during the 14 years—the average of the first five being about $61\frac{1}{2}d.$ (61·525),

and for the last five to December, 1866, about $61\frac{1}{4}d.$ (61·2375). This may be perhaps explained by the fact, that the metals rise and fall in value by long undulations; and at the present time there appears to be a gradual decline, the demand from India having ceased, which makes the average appear the lower, the later and shorter the period inquired into. It seems, therefore reasonable to believe, that if no great change—such, for instance, as that now contemplated—were to take place in commercial affairs for the next 14 years, the general average of prices for that term, would very nearly agree with that which we have just ascertained for the past 14 years.

Average price of silver, and variations noted.

37.—When, therefore, we come to reason upon the effect of any proposed measure, as tending to create a permanent change in the standard of value—bearing in mind Lord Liverpool's caution, not to be guided by any but the observation of long periods—it seems to be at all events safe to take the average of the full number of years of which the returns are here given, whence we may assume that the average price of silver during past years is that above stated, namely, 61·39285*d.* per ounce. It will be necessary, also, to note the extreme variations, not only annually but for shorter periods; and I will therefore now state, that the extreme prices were $62\frac{1}{4}d.$ in December, 1857, and $60\frac{1}{8}d.$ in July, 1861, showing an extreme range of nearly $3\frac{1}{2}$ per cent., viz.:—from 1·39617235 per cent. above the average, to 2·06514276 per cent. below the average.

Comparison of silver with gold.

38.—In order to compare the average price of silver with the price of gold, it must be observed that, according to the table, given in para. 2, p. 18, the cost of a rupee produced from silver at 61·39285*d.* per ounce in London, transmitted to Calcutta, and coined there, subject to freight, insurance and charges, at $3\frac{1}{4}$ per cent., and seignorage at 2·1 per cent., amounts to 24·0617*d.* (Table I., col. 4, p. 18). On the other hand the cost of a rupee as one-tenth of a sovereign, produced from standard

gold laid down in Calcutta at £3. 18*s.* 4*d.* per ounce, calculated in a similar manner (Table III., p. 30), but without seignorage, is 24·14125*d.*, which value differs from the former by 0·07955*d.*, being at the rate of 0·330608, or rather less than $\frac{1}{3}$ per cent.* above the silver.

Difference between sovereign and 10 rupees.

39.—Supposing, then, that the natural import cost at Calcutta of Melbourne gold, judging by the past, is not more than £3. 18*s.* 4*d.* per standard ounce; and that of silver, on the average of years, not less than 61·39285*d.* per ounce, we see that the real excess in bullion value of the sovereign, beyond 10 rupees, is rather less than $\frac{1}{3}$ per cent; and to this extent would the standard of value be raised, were the 113·001605 grains of pure gold in the sovereign, declared by law to be equivalent and legal tender for 10 rupees.

The above result shown, subject to modification.

40.—But I have above given reasons for the belief, that £3. 18*s.* 4*d.* is probably a little more than the actual minimum value of the gold, so that the truth appears to be, that the amount of change effected, would be from par to $\frac{1}{3}$ per cent., or less, above the present standard of value.

41.—In concluding this examination of the relative values of the two metals, I may observe that the market price of the gold bullion contained in a sovereign may be shown from Table II., p. 26, to be 161·516276 annas, or 242·2744*d.*, and the cost of 10 rupees from silver, at the average rate for the last 14 years of 61·39285*d.* per ounce, as shown by Table I., p. 18, to be 240·617*d.* a difference of 1·657*d.*, or 0·688 per cent. in favour of the gold. From this, if a deduction of only 0·358 per cent. be made on account of the difference between the market and Mint price, or in other words, the selling price and minimum cost of import, the result will

* As the silver coins are calculated, including a seignorage of 2 per cent. (besides 0·1 per cent. premelting charge) the difference in *intrinsic* value is $2\frac{1}{3}$ per cent.

agree with that just arrived at, in para. 38, showing a superiority of ·330 in favour of the gold. Amidst the innumerable fluctuations in the prices of the two metals, it is impossible to arrive at any very precise determination of their relative values; but considering that 161·516276 as the average *selling* price of the bullion contents of a sovereign is 0·947 per cent. above 10 rupees; that the mean between that and the result obtained in para. 38 (0·3306) is 0·6391 per cent.; that in the former no allowance is made for brokerage and profit; and adverting also to the facts stated in paras. 33 and 34 of this Section, p. 31, I think that I shall make as near an approximation to the truth as practicable, if I state that, during the past 14 years the import cost of the pure gold contained in a sovereign has been from $\frac{1}{3}$ to $\frac{2}{3}$, or as a mean $\frac{1}{2}$, per cent. above the current value of 10 rupees. Also, that during the three years 1864, 1865, and 1866, it has been rather below than above 10 rupees. Very recently, I am informed, that gold has risen somewhat in comparative value.

SECTION III.

PRACTICAL CONSIDERATIONS AS TO THE EFFECT OF A CHANGE OF STANDARD, AND THE INTRODUCTION OF THE SOVEREIGN INTO INDIA, AND OF SOME DIFFICULTIES CONNECTED THEREWITH.

The future changes of value ought to be provided for.

1.—In order to carry into successful practical effect, such a measure as that under consideration, viz.:—the establishment of the sovereign as the legal equivalent in India for 10 rupees, it is not enough to ascertain that the two values coincide within narrow limits, but also to consider what arrangements are required to counteract the fluctuations above and below the average, which are sure to occur. It is not sufficient to provide the new standard in near agreement with the old; it is necessary also to take steps to ensure that it shall be the interest of the mercantile community at all times to adopt it.

Additional seignorage on silver required.

2.—With this object, it would appear to be requisite, in this case, to put an additional seignorage on the coinage of silver, to prevent that metal from being brought to the Mint when it happens to be low in price; and as we have seen that the extreme depression during the last 14 years has never exceeded 2·065 per cent. (Section II., para. 37, p. 34) below the average, it is probable that an addition of 2 per cent. would be sufficient for the purpose; more especially if it be considered not undesirable to admit a little of this metal for coinage in times of its excessive cheapness, as suggested in para. 22, Section I., p. 12. But the question requires a further and much closer investigation

before the precise amount of the addition to be made can be safely determined; and that I shall now proceed to enter upon.

Additional seignorage does not affect the change in standard of value.

3.—Before doing so, I would observe that the amount of the additional seignorage charged for the coinage of silver in no way affects any question connected with the change of the standard of value from silver to gold; because, as before explained, no amount of seignorage will do more than bring the inferior metal up to the value at which it is rated as part of the superior currency. It would be a simple and effectual measure, in making the sovereign legal tender for 10 rupees, to *prohibit* the future coinage of silver on behalf of individuals, as is done in England. The chief difference from the proposal made in para. 7, Section I., p. 4, would be, that in exceptional times merchants would, according to the proposed arrangement, have the privilege of disposing of a remittance of silver, subject to a tax varying with the price of the metal. And this tax could *never exceed that hitherto paid*, unless (*vide* para. 23, Section I., p. 12) the value of gold was possibly *less* than 10 rupees for the sovereign, in which case, the tax would be increased by the amount of that deficiency. It would also be possible, in times of heavy demand for bullion and exceptional scarcity of gold, to make use of a supply of both metals, and thus mitigate any temporary alteration of the standard of value.* The above statement is founded on the supposition that the price of silver is such as to make it an equally good or better return than gold. It would not apply to a forced remittance of silver. But even in the case when owing to any peculiar circumstances, such as, possibly, the remittances from China of the produce of opium, the importation of silver at any price may seem to be a matter of necessity, it would be a mistake to suppose that the merchant would suffer an extra tax from the additional seignorage. Assuming, as we

* *Vide* Para. 12, Section III.

Application to the case when there is no other remittance than silver.

may safely do, that ample notice would be given to the mercantile community of every proposed change in the Mint regulations, prices would certainly adjust themselves accordingly—and in the instance above referred to, to such an extent, that the chest of opium would exchange for so much silver as would produce the same number of rupees in India as before. But the price of silver would neither fall so much as to increase the merchant's profits, nor so little as to diminish them. In the end his gains would be the same as before.

Effect of the proposed change on future prices of gold and silver.

4.—We may now consider how far the probable effect on prices of the precious metals resulting from the proposed substitution of sovereigns for rupees would influence the stability of the arrangement; and here I may refer to the observation of Sir W. Mansfield (Minute of the 4th August, 1864, paras. 28 to 30), that the tendency of the change must be, more or less, to diminish the value of silver, and increase that of gold. As to the former it is very difficult to anticipate what the depreciation may be; because we have no certain knowledge to what extent, on the one hand, the greater increase of gold compared with silver during the last fifteen or twenty years may have increased the price of the latter expressed in the former; nor, on the other hand, can we accurately judge what may be the effect of a nearly total cessation* of the Indian demand for silver in lowering its price. The only clue we have is the fact that the demand for India has now been in abeyance for very many months, and the price of standard bar silver has fallen to $60\frac{7}{16}$ on the 10th November, 1867, a reduction of 0·955*d.* or about $1\frac{1}{2}$ per cent. below the average above stated. In regard, 2ndly, to any enhancement of the price of gold, so long as

* It ought to be noticed that although the importation of silver bullion might not be required on account of commerce, there would eventually be a demand of from 20 to 30 lacs of tolas per annum for the replenishment of the currency.

the demand is limited to the produce of the Victoria and New Zealand mines, there is reason to expect that the price there, which is governed by the cost of transport to England, and the London Mint price, will not differ very materially from the present rate, which corresponds with £3. 18*s.* 4*d.* per ounce delivered in India. Should the demand exceed the produce of those districts, the average cost would probably rise, by the admixture of consignments from Sydney, at a price (£3. 19*s.* 2½*d.*) about 1 per cent. higher.* Should the whole of that produce also be exhausted, there would then be importation direct from London, at the highest price of £3. 17*s.* 10½*d.*, plus 3 per cent. freight, insurance, and charges, or £4. 0*s.* 2½*d.* per ounce; and the average cost during any period of pressure would, of course, depend upon the relative proportions of the supplies from these various sources.†

5.—It may be of importance, however, to point out here, that although Sir W. Mansfield's opinion above referred to is without doubt correct as a general principle, yet if we attentively study the causes influencing the rise and fall of the price of Australian gold, we may see reason to doubt whether the effects of the change would be so marked as might otherwise be anticipated. The market price of gold in Melbourne is regulated by the demand for remittance either to England or India, being obviously limited, when there is no special demand, to the Bank of England price, less freight, insurance and charges, export duty, and the interest of money during the 80 days' delay in realisation. Reckoning interest at the rate of 6 per cent. per annum, these expenses are as follows:—freight and insurance, 1¾ per cent. (1*s.* 3*d.* per ounce); interest, 1⅓ per cent. (1*s.* per ounce); export duty, 1*s.* 6*d.* per ounce; total, 3*s.* 9*d.* per ounce. This deducted from the Bank of England price of £3. 17*s.* 9*d.*, leaves £3. 14*s.* as the natural price at which gold would be sold in Melbourne.

* Mr. Dunlop's Letter, para. 6, Parliamentary Papers, page 122.

† *Vide* Para. 12 of this Section.

Adding to this, on the other hand, the corresponding charges of freight and insurance to Calcutta, $1\frac{3}{4}$ per cent. (1*s.* 3*d.* per ounce); export duty, as before, 1*s.* 6*d.* per ounce; and interest at 1 per cent. (for 60 days), or 9*d.* per ounce; total, 3*s.* 6*d.* per ounce;—we arrive at £3. 17*s.* 6*d.* as the price at which it could be laid down in Calcutta, and this agrees with the average of the last two years. On the occasion of a demand for remittance either to England or India, the price, no doubt, rises in proportion to the profit afforded by the exchanges, but will probably not exceed the cost of sovereigns, or of bullion, at the Sydney Mint price, which is stated by Mr. Dunlop, in para. 6 of his Letter, from which the above facts are taken, to be deliverable in India at £3. 19*s.* $2\frac{1}{2}$*d.* per ounce. We may here observe, that the increase or abolition of the export duty on gold by the Australian Government has no effect on its price in India, as has been supposed, as it acts equally in both directions, diminishing the price in the Melbourne market by an amount equal to that added to the price in Calcutta.

6.—Having, then, as above shown, a scale of prices of which the lowest figure is £3. 17*s.* 6*d.* and the highest £3. 19*s.* $2\frac{1}{2}$*d*, we might infer that the future average value of gold in India would be at the medium between the two, or £3. 18*s.* 4*d.*, provided the exports to India were so timed as to be uniformly distributed over the whole scale. But by the arrangement proposed in para. 12 of this Section, it will be observed that, instead of the effect hitherto experienced of gold being inadmissible except when the exchanges are at their highest point, it would, for the future, be the first to supply the Indian demand; and although this circumstance would cause it quickly to increase in cost when the Indian exchanges called for a supply, yet it would not have risen far before the door would be opened for the admission of silver bullion into India, and the combined supply of the two metals would tend to check any further rise of the exchanges and consequent increase in the price of gold. Hence the future average

quotations in India, if a variable price could exist, would in the main be based upon importations at rates from £3. 17*s.* 6*d.* to £3. 19*s.* 2½*d.*, instead of, as formerly, from £3. 18*s.* 4*d.* upwards to a price occasionally above £3. 19*s.* 2½*d.* And we may therefore infer that future averages, taken under the new circumstances, might possibly be even lower than before. These remarks apply to the value of gold as compared with all other commodities, and not as expressed in silver, inasmuch as that metal might be reduced, independently, by its demonetisation. The figures, also, refer to the *value* of the metal in Calcutta as expressed in English money, not to any possible quotations of price, for that would be limited to the Mint rate of Rs. 38 : 15 : 0 per ounce, the equivalent of £3. 17*s.* 10½*d.* The results of the change could not, therefore, be ascertained by observations made in the Calcutta market, but might be inferred by calculations based on the quotations at Melbourne.

7.—It may be as well to notice, with reference to the future, though I would avoid laying much stress upon the speculation, that the resources of the vast continent of South Australia are as yet so little developed that hitherto the demand for European manufactures by its inhabitants appears to have exceeded the value of its exports of raw products, excluding gold, and the balance of trade, irrespective of gold, is against her. But the time may be not far distant when, like India, the value of her produce will fully equal the cost of her supplies; and when the balance turns the other way, gold will cease to command the market, and its price will sink to the minimum (£3. 14*s.*) determined in para. 5.

The expected change of prices would be beneficial.

8.—The changes anticipated by Sir W. Mansfield in the prices of gold and silver both act in the same direction, and would both be beneficial to the stability of the currency. They would tend to increase the difference between the intrinsic and denominational value of the silver coins. By way of illustration, if we assume, as a guess, that the

natural price of gold bullion were to rise about $\frac{1}{8}$ per cent., the average price of silver also falling $\frac{7}{8}$ per cent., the result would be a difference between the nominal and intrinsic value of the silver coins of 1 per cent. beyond that stated above in para. 38, Section II., p. 35, or in all $3\frac{1}{3}$ per cent. And it is now time to explain that it would in fact be over $2\frac{1}{2}$ per cent. more, as regards export to England from India; because the cost of Melbourne gold in India is diminished in relation to silver, owing to its being partially exempt from the charges of transmission, silver being sent from England loaded with heavy freight and insurance charges, and gold supplied by a single short voyage direct from the Australian mines. This diminution, constituting a differential cheapness of above $2\frac{1}{3}$ (2·337) per cent. in favour of Melbourne gold as compared with gold from London,* would disappear on its despatch to England for sale, where its price would be that of the London market; in addition to which, as compared with silver, there would be a further advantage to the exporter of gold of $\frac{1}{4}$ per cent., arising from the difference of the cost of transmission.* The total difference or protection to the silver with reference to the London market would, therefore, be as follows :— Present difference of intrinsic value as shown in the paragraph above quoted, $2\frac{1}{3}$ per cent.; rise in value of gold, $\frac{1}{8}$; fall in silver, $\frac{7}{8}$ per cent.; recovery of advantage to gold as compared with silver, $2\frac{1}{3}$; advantage in transmission, $\frac{1}{4}$; total, $5\frac{11}{12}$ per cent. This, as long as it lasted, would be an effectual preventive against exportation of silver to England.

Safety of the silver coins against exportation considered.

9.—It is requisite now to say a few words regarding the safety of the silver coins from export and local absorption, in the event of the adoption of the sovereign, irrespective of any future change in the relative values

* *Vide* Mr. Dunlop's Letter, paras. 7, 8, and 21, Parliamentary Papers, pages 123 and 124.

of the two metals. Seignorage has nothing to do with either of these, except indirectly, as before explained; the respective fitness of coins of the two metals for the liquidation of debts outside of the currency, whether inland or abroad, depends on their local intrinsic values. With reference to local absorption, the value of a rupee in gold in India and the countries connected with it, must be reckoned at £3. 18*s.* 4*d.* per ounce, without counting any seignorage; and thus calculated, its value as one-tenth of a sovereign becomes 24·14125*d.* Silver must be reckoned at its intrinsic value in England, plus the cost of bringing it to India; and we shall see, by consulting the third column of Table I., that rupees would not be worth as much as their gold representatives (*i.e.* 24·14125*d.*), till the price of bar silver had risen in the London market to nearly 63*d.* (62·9171*d.*) per ounce.* This comparison bears strictly on the question of local absorption. With reference to their export to England, the comparative value of the two metals is somewhat different, as the gold must be taken at the Bank of England price, £3. 17*s.* 9*d.* per ounce, or the rupee from it at 23·96*d.*, and silver at the market price only; strictly speaking, at something less, as the cost of transport is stated at $\frac{1}{4}$ per cent. more in regard to silver than gold.† Neglecting this, however, if we examine the second column of Table I., which shows the intrinsic values of rupees, we shall see that the price of the bar silver must rise to 64$\frac{1}{2}$*d.* before it can be profitable to send silver instead of gold to England. We may therefore be satisfied that, under the supposed arrangement, there would be ample security against the wholesale disappearance of the silver coins through the ordinary

* These calculations are made at the average rates of freight and insurance stated by Mr. Dunlop (3$\frac{1}{4}$ per cent.), and they need to be adjusted to the fluctuations which take place from time to time. If the aggregate charges amounted only to 3 per cent., the effect would be to add $\frac{1}{6}$*d.* (0·1527*d.*) to the price here stated.

† *Vide* Mr. Dunlop's Letter, paras. 7, 8, and 21, Parliamentary Papers, pages 123 and 124.

operations of commerce. For domestic and personal use, the absorption would doubtless be as great as ever; but for hoarding, as well as for export and import, gold would be exclusively employed ; and, although its appropriation to export may at first sight appear to threaten delay in the accomplishment of the scheme of establishing a gold currency, yet we must not lose sight of the infinitely greater evils which would attend the loss of the inferior coins. We should remember that, as it is the standard coins which are fittest for export and import, so it will be in them alone that the large and increasing balances of trade due to India will be liquidated; whereby, in time, a sufficient stock of the precious metal will be accumulated to form the basis of the national system.

The proper amount of seignorage on the silver coins considered.

10.—I come now to consider to what extent an alteration in the seignorage of the silver coins would be desirable, in order to the establishment of the sovereign as the legal equivalent of 10 rupees. As an assistance to the formation of a judgment on this point, I would refer to the table No. 1, p. 18, showing the cost of one rupee at the various prices of bar silver in London, allowing for the expenses of transmission to India, and for seignorage at various rates. If we compare these prices with the cost of a rupee as the one-tenth part of a sovereign struck from gold imported into India at £3. 18*s.* 4*d.* per ounce, without any charge for seignorage, which cost would be 24·141252*d.* (Table III., p. 30), we find that, with the law as it at present stands, the charges on silver being 2·1 per cent., it is cheaper to bring in silver so long as the price per standard ounce in London is only a little more than 61½*d.* (61·59) per ounce: when it is above that price, Melbourne gold is a cheaper remittance.*

* This accounts for the large importations of gold in late years, the price of silver having frequently been above 61½*d.* per ounce. The comparison is not affected by any

If the seignorage on the silver coins were raised to 3·1 per cent., Melbourne gold being coined free of charge, silver would be the cheaper remittance till its price rose to nearly 61*d.* per ounce in the London market.

If the seignorage were fixed at 4·1 per cent., silver would be a better remittance than Melbourne gold only so long as its price in London should not exceed 60⅓*d.* per ounce; and so on for other rates of seignorage, as shown in the following Table V.:—

Total Mint charge in addition to expenses.	Price at which silver begins to be the most favourable remittance, gold being £3. 18*s.* 4*d.* per oz.	Exactly.	The same when the price of gold is £3. 19*s.* 2½*d.* per oz.
	d.	*d.*	*d.*
2 per cent.	Above 61½	61·595853	62·283889
3·1 „	Below 61	60·966681	61·647689
4·1 „	Above 60¼	60·337509	61·011489
5·1 „	Below 59¾	59·708339	60·375291
6·1 „	Above 59	59·079168	59·739093

Whether seignorage should be increased to meet changes in the price of gold.

11.—These points being ascertained for the past, the next for inquiry is, to what degree it would be desirable to extend the seignorage, so as to meet any possible future reduction in the value of silver and increase in that of gold; and as our action in this way must from the nature of the case be somewhat conjectural, it would, perhaps, be safer to put the question in another form, viz., whether it would be most advisable to hasten the accomplishment of the desired change by such a seignorage as would be prohibitive, or so to adjust it for the present as, in general, to exclude the inferior metal, but in times of great pressure, to leave an opening for its admission, together with the gold. For the

consideration of the state of the exchanges between Calcutta and London; as it appears by Mr. Dunlop's letter, that returns in silver could be obtained from London quite as quickly as in gold from Melbourne. In which case, it must be a mere question of the comparative cost of procuring funds by the two different methods, which should be chosen.

former purpose, a total seignorage of 6 per cent. (four additional) would probably be sufficient. With regard to the latter, the following considerations may be offered. The price of silver has already fallen more than $1\frac{1}{2}$ per cent. below the average, in consequence of the cessation of the Indian demand for many months past; being now about $60\frac{1}{2}d.$ per ounce. If we were to assume that it would eventually reach and remain at $60d.$, the reduction below the average of past years would be about $2\frac{1}{4}$ per cent. But it might fall even below that, including any increase in the value of gold; so that we may conclude that, although 2 per cent. additional seignorage would under existing circumstances be probably in general effective in bringing gold exclusively to the Mint, yet that, with the view to the speedy accomplishment of the change, 3 or even 4 per cent. additional seignorage on the coinage of silver, making 5 or 6 per cent. in all (gold being received at £3. 17*s.* $10\frac{1}{2}d.$ per ounce), would not be excessive. The lower rate, or a total of 5 per cent., would keep silver from being brought for coinage as long as the price remained at and above 4*s.* $11\frac{3}{4}d.$ per ounce; the higher rate of 6 per cent. would keep it out until the price had fallen to about 4*s.* $11d.$, supposing the gold in both cases to cost £3. 18*s.* $4d.$ per ounce.

Question as to increase of the seignorage answered.

12.—If we bear in mind the facts which have been referred to in a former part of these remarks, showing reasons for the belief that the price at which gold has been calculated, is probably somewhat higher than the truth, we shall be satisfied that there is already some margin for alteration in the value of that metal. But we ought not to lose sight of the fact that the establishing gold as the legal tender in India, and putting a high seignorage on silver, might have the effect, in some degree, of giving a monopoly to the Australian mines, and creating a competition which would raise the value of their produce. The rise could not, however, extend beyond the Sydney Mint price and expenses, £3. 19*s.* $2\frac{1}{2}d.$ per ounce in India, except

under extraordinary circumstances ; because at anything beyond that sum the sovereigns themselves could be imported. This fact suggests an answer to the question respecting the seignorage on the Indian silver coins, as it seems to be very desirable to fix it at such a point that silver bullion should be admissible into the currency a little sooner than gold bullion at the full Sydney Mint price. With 2 per cent. additional seignorage, silver would be cheaper than Sydney gold bullion (supposing the latter coined free in India), at all prices below 61*d.* per ounce (exactly 61·011489*d.*). It would not be cheaper than Melbourne gold, as before stated (para. 10, p. 46), till its price in the London market had fallen to $60\frac{1}{3}d.$ per ounce (exactly 60·3375*d.*).

Respecting seignorage on *gold* coins.

13.—It may now be well to explain why no allowance has been made in the above calculations for seignorage on the gold coinage; and I would first observe that, in addition to its being on general principles undesirable to burthen the coins constituting the measure of value with a tax which would involve a loss on their export, and thus operate as an interference with commerce; it would be especially inexpedient to do so in India, as it would encourage the importation of Australian coins instead of bullion. Nor is this the only objection, for it is obvious that if the gold coins be adjusted to the current value of the present rupees, whatever amount of seignorage may be included in their cost, must be so much taken from their intrinsic value, which it is of importance should be as far above that of the silver coins as possible. Hence, every fraction of the tax imposed on the gold coins is taken out of the protection of the rupees, and adds to the risk of the latter disappearing from circulation.

Seignorage on *gold* coins.

14.—The Currency Commissioners seem to have calculated a seignorage on the gold coins, as a matter of course, and reckoned it at 1 per cent.; being guided probably by the example of the Australian and Indian Mints, in which it has been fixed at that amount.

But in the Indian Mints the charge has not affected the large coinages connected with the standard of value, but only the rare and irregular coinages of small parcels of metal, merely recognised as a commodity, and the coinage of which, at irregular times, is frequently expensive.* In regard to the Australian Mints, good reasons are shown by Sir Charles Trevelyan why the imposition of a sufficient seignorage on the coinage of sovereigns was made an express stipulation by the Imperial Legislature, when admitting the produce of the Australian Mints to circulate in England.† These reasons, however, do not at all apply to India, except in a contrary sense; by showing the importance of removing every obstacle to the importation of bullion, instead of coins; if it be desired that the rulers of that large Empire should, as far as possible, retain in their own hands the power of securing the accuracy of the standard of value.

I am aware that seignorage may be defended on the ground that it is to defray the expenses of coinage; but as it is quite easy to meet all the Mint expenses from other, altogether unexceptionable sources, viz., from the rupee, and fractional silver, and copper coinage; and as it is acknowledged on all hands that the profits of a Mint are not a legitimate means of revenue to the State, the example of England ought surely to be followed in this particular, unless good reasons can be shown for a contrary course.

One per cent. seignorage on the gold coins too high.

15.—Merely to defray the actual expenses of coinage, so high a charge as 1 per cent. would be unjustifiable. The actual cost of coining rupees on the large scale in the Indian Mints is only from 1*s.* to 1*s.* 6*d.* per hundred,‡ and the rupee piece is more difficult of execution

* In a Report of the Mint Master of Madras, dated 28th January, 1854, it is stated that the aggregate amount of all the gold tendered to the Mint during the previous nine years did not constitute a single day's work.

† *Vide* Parliamentary Papers, page 84.

‡ This does not include expenses of establishment, interest of capital, depreciation, &c., which are supposed to be defrayed by other coinages.

than the sovereign; and even allowing, on account of extraordinary care and additional expense in the assaying, melting, and adjustment of a gold coinage, that the cost might be as high as 2*s.* per hundred, this would only be $\frac{1}{10}$ per cent. on sovereigns. In the Paris Mint, I have been informed that the seignorage on gold is only $\frac{1}{5}$ per cent.; but I believe the coins are not delivered immediately, as they are in exchange for gold at the Bank of England.

Seignorage on *gold*, in what respect advantageous.

16.—The effect of a seignorage on the sovereign would be to raise the standard of value by the full amount of the tax; and its influence in that respect would be the same as that of an increase in the price of gold bullion, by cost of production, freight, or charges. In so far as a disturbance of the measure of value may be thought injurious, its being further raised, if the new coins would be already high, might be considered undesirable; but in one respect, at least, it would be beneficial; for, by raising the denomination of the silver coins, the latter would be more secure against exportation. If a seignorage of $\frac{1}{6}$ per cent. were charged on the gold coins, the standard would be raised, on the whole, to about $\frac{1}{2}$ per cent. above the present level; and the silver currency, which, in its calculated value already includes seignorage of 2 per cent., would be rated $2\frac{1}{2}$ per cent. above its intrinsic worth, on the average of past years; and probably more as respects the future.

An objection stated and answered.

17.—There may be a difficulty in some minds giving rise to the question, How is it to be expected, if the cost of gold bullion should be generally £3. 18*s.* 4*d.*, and at times £4. 0*s.* $2\frac{1}{2}$*d.* per ounce (para. 4, Section III., p. 40), that merchants would bring it for sale to the Mint at £3. 17*s.* $10\frac{1}{2}$*d.*? The explanation is that, so long as there is no cheaper means of procuring current money possible, the cost of the bullion has little or nothing to do with the matter. The expression "sale to the Mint at £3. 17*s.* $10\frac{1}{2}$*d.* per ounce," is a

mere equivalent for the statement that the bullion is coined and returned to the importer, in pieces containing 123·274 grains of standard gold each. But the value of each piece with respect to other commodities will depend upon the minimum cost of the bullion as brought into the market; and it is in that way—namely, by the superior value of the sovereign—that the cost of procuring it is compensated. We have seen above, that, in India, sovereigns are worth and sell in the market for somewhat more than 10 rupees, and that the rupees cost $3\frac{1}{4}$ per cent.,* besides 2·1 per cent. seignorage, more than the same quantity of silver in the London market. In the same way, sovereigns in Calcutta are worth more than similar sovereigns in London, and the bullion contained in them costs and is worth more than similar bullion in London. Perhaps the clearest explanation may be found in the fact that if gold bullion were purchased in the London market at £3. 17*s.* $10\frac{1}{2}d.$ per ounce and brought to India, it would have cost on its arrival £3. 17*s.* $10\frac{1}{2}d.$, plus 3 per cent., or £4. 0*s.* $2\frac{1}{2}d.$; but it could only be coined at the rate of £3. 17*s.* $10\frac{1}{2}d.$, and the sovereigns thus produced would be exactly and fully equal in value to similar sovereigns imported into India from London, the cost of which would also be £4. 0*s.* $2\frac{1}{2}d.$ per ounce. From the date at which the Mints in India may be privileged to coin sovereigns, the price of standard gold bullion, if there be no Mint charges or delay, will never vary much from £3. 17*s.* $10\frac{1}{2}d.$ per ounce; but the cost and value of it will vary from £3. 18*s.* 4*d.*, or less, to £4. 0*s.* $2\frac{1}{2}d.$; *the difference being made good by the rate of exchange*, at those times when its importation for the purpose of coinage becomes necessary.

Our own Mint in London seems to be a case in point in illustration of this; for by Mr. Dunlop's statement, Australian gold costs the same, if not more, on delivery in London as it does

* Mr. Dunlop's Letter, Parliamentary Papers, page 124.

landed in India, namely, £3. 18*s.* 4*d.* per standard ounce; nevertheless, the greater part of it is sent to England and sold to the Bank for £3. 17*s.* 9*d.* per ounce only.

Another objection stated and answered.

18.—Another difficulty which has been raised is, that the value of the gold at present in India, and likely to be brought to it for some years to come, is so very small in comparison with the whole of the vast currency of the empire, that it would be impracticable to find the means of paying debts in gold at first, and therefore that it could not be made the standard of value; that it is, hence, imperative that two standards should co-exist for many years to come, and that it would be improper to impose any further tax on the silver standard. In answer to this, it must be observed that there ought to be, and indeed can be only *one* standard of value; but that if the subsidiary currency be maintained at all times precisely of *equal* value with the standard; or rather, if in the present case the new subsidiary, late standard coins, be not in the least degree lowered in value (*vide* para. 23 of this Section), there will be no difficulty in continuing to make the largest payments by means of them, so long as it is more convenient to do so than to obtain the requisite supply of gold coins. Sovereigns may be made legal tender for any amounts, but they ought not to be made *demandable** till such time as they have been supplied by the operations of commerce in sufficient abundance.

The second objection further considered.

19.—As a difficulty may still be felt, with reference to the above explanation, in realising the fact that the silver coins may be kept by a sufficient seignorage fully equal in value to the gold; and in getting rid of the prejudice, which is very strong in some minds, that altering the seignorage must necessarily be tampering with the value of the currency, I would further remark that the value here referred to is the

* *Vide* Note to Para. 23, Section IV.

"*current*" not *intrinsic* value of the present rupees, and that the additional seignorage will in this instance make no alteration in the "current" values—Not of the present rupees, obviously, because they are already in circulation, and beyond the direct influence of any tax; nor of future rupees, because, becoming mere "tokens," their current value will be determined by that of the superior coins. When the new state of things is established, the value of the whole currency will be determined and limited by the value of the sovereigns, so that whatever tampering or interference may occur, will be the effect of shifting the measure of value from silver to gold, which it has been elsewhere shown (para. 23 of this Section) will either effect no change at all, or one quite inappreciable. The additional seignorage will keep up the silver to the full value of the gold coins, and will also act as a barrier to necessitate the importation of gold bullion, and prevent its being shut out by the introduction of silver coins at a lower rate of cost and value. But it will not further affect values; and if a fall in the price of silver should threaten to impede the progress of the change, it would be counteracted by the proposed measure, as the increased tax would add so much to the expense of the silver coins, as to prevent their admission into currency at a cost below that of their gold equivalents.

A third objection considered.

20.—The only apprehension for which there seems to be any room whatever in connection with the change of system is, lest at first, while gold coin is not yet readily procurable, it might be necessary to send silver coin abroad; and then, the slight enhancement of value by the proposed change, if there be any, might be lost. This apprehension would be of more importance if the proposed change were greater than it is, but as it could not be more than $\frac{1}{2}$ per cent., and will most probably be nothing,* it could not, under any circum-

* *Vide* Para. 23 of this Section, and Para. 27 of Section II., p. 28, and its Note.

stances, be serious; and, in fact, it would have no existence. The rupees sent abroad would be of precisely the same value there as they ever were, whatever changes might have been made in the law: and it is in the highest degree improbable that, before the time when gold coins were procurable for remittance, the enhancement of value, to the possible extent of $\frac{1}{200}$th part, would have so pervaded the Empire as to sensibly affect prices of commodities in the interior.

Inconvenience from the scarcity of gold coins at first.

21.—But there is another form in which this difficulty might occur, more especially if it should accidentally happen that, soon after the measure was carried into effect, the exchanges should be adverse to India. In that case, it is not unlikely that, as gold would be much more suitable than silver for export, and would not be demandable in payment, its scarcity might cause it to command a premium; and the same might occur for similar reasons at the bazaars in the interior, for a considerable time after the introduction of sovereigns; and indeed till the operations of trade had spread a sufficiency throughout the country to cause them to be as readily procurable as their equivalents in rupees. This premium might indeed be an expense to merchants, but could not be complained of as a loss, because they would have the same facilities as ever for exporting full weight rupees.

Answer to the remark on the evil of any rise in the standard of value.

22.—Before quitting the subject of the introduction of the sovereign, it would be proper that I should notice the opinion expressed by the Currency Commissioners, to the effect that "To raise the value of the rupee, however little, by artificially depreciating its gold representative, is simply an act of injustice to all debtors and a bonus to all creditors," &c., and the consequences of such an attempt are stated in a previous paragraph to be "simply to ensure the defeat of the gold currency," the latter opinion being based on the supposed existing superiority in value of the sovereign over 10 rupees, and its probable future appreciation.

Upon this it may be remarked, that although it is true that to raise the value of the rupee would be an act of injustice to debtors, yet, the amount of injustice would be proportioned to the amount of change—if that were insignificant, the injustice would be insignificant also. The Commissioners' remarks were penned under the idea that the contemplated change involved raising the value of the rupee by $2\frac{1}{2}$ per cent.; their views would, no doubt, have been modified had they been aware that the rise would in reality be quite inappreciable, and at the most would not exceed $\frac{1}{2}$ per cent. Let us suppose, however, that it were as great as even $\frac{1}{2}$ per cent.: is it at all likely that it would be in the least degree operative? It could only act by producing a general reduction of prices, and it is not to be expected that the natives in the interior, dealing only with the same rupee pieces as before (for gold could not be demandable at first), would be at all conscious of any change in their value, at the outside falling short of 1 pie, or the $\frac{1}{192}$ part. Perhaps in a settled state of things, such a change might in time become known; but in the state of transition in which prices and the value of money are in India, owing to the daily increasing intimacy with this country, where labour (even allowing for its superior efficiency) is of two or three times the cost, causing prices gradually and steadily to increase, it would be absurd to expect that a minute change of this kind, tending to lower prices by the two to three-hundredth part, could be discernible. India is not the country for long leases and contracts as Dr. Lees has pointed out (page 160), and it would scarcely be worth while in promulgating the change of system to make an exception in favour of previous contracts; but if that were done, all possible injustice would be prevented.

No change in the standard of value is necessary.

23.—But I have now to show that there really need not be any injustice, however small, because there is a means in the power of the Government entirely to prevent

it. When the late Mr. Wilson proposed Act XIX. of 1861, he probably overlooked the fact that one of its provisions would alter the value of the standard coins by $\frac{1}{3}$ per cent. (reckoning the interest of money at 6 per cent.), but there can be no doubt that such is the case, inasmuch as, in granting the privilege to merchants to exchange Mint silver bullion certificates for notes payable on demand, instead of after 20 days, he diminished the cost of rupees to that extent or even more, for the discount of a Mint certificate, having 20 days to run, is much nearer $\frac{1}{2}$ than $\frac{1}{3}d.$ per cent. on the average. In order to maintain the Standard unimpaired, $\frac{1}{3}$ per cent. ought at the same time to have been added to the seignorage, or some other charge imposed of that amount. The privilege was first enjoyed in March, 1862, and I believe still continues; but the Government reserve to themselves the right to revoke it at any time, having in view the serious risks involved in the liability. It would relieve the Government both from danger and embarrassment and the public from uncertainty, if, when gold was constituted the leading currency, and made the standard of value, the law and practice as at present in force were continued in its application to the two metals under their altered relations, the certificates of gold bullion being, as of silver now, payable on demand; and of silver, as at present is the case with gold, 20 days after assay. Gold has at all times an advantage, which will not be overrated at $\frac{1}{6}$ per cent., arising from the avoidance of loss* and delay in premelting and sampling. Hence the adoption of this measure, which on independent grounds is most desirable, would annihilate the difference of $\frac{1}{2}$ per cent. in the average cost of procuring the new and old currencies, and place the former on the precise footing, as to expense, of the silver currency prior to 1862.

* Silver is premelted in iron crucibles which are more or less porous, so that a certain quantity is almost unavoidably abandoned in the refuse, and from its larger bulk is more exposed to pilfering. Gold is melted in Plumbago crucibles, from which a perfect recovery can be made.

Were it not for the probable future depreciation of silver, my fear would rather be lest the gold coins should eventually be found of *less* value than their equivalent in rupees; but, considering all the circumstances, and the fact that the silver coins are already protected by 2 per cent. seignorage, I think there is no reason to fear under-rating the present currency; but, on the other hand, fair ground for the expectation that it may continue to perform its present work in conjunction with, and in subordination to sovereigns of equal value *in* our system, and superior value out of it, until the time when its place shall have been taken by future issues adjusted to a somewhat lower value, so as to give them as large a margin of protection as the silver coins in England, or as may be considered desirable.

24.—I am now in a position to answer more fully than in para. 22, the objection to the proposal of adding to the seignorage, based on the injury done to debtors under existing contracts legally payable in silver only.

In reply to this, I may observe that, with respect to internal trade, the ability of a contractor to meet an engagement made before the new system came into operation, would depend upon his power of obtaining currency in exchange for his goods or labour; and upon this the proposed increase of seignorage can have no effect, unless it be assumed that an alteration in the value of the coins has previously affected prices. I have remarked upon this point in the para. above quoted, and have there observed that, even if the difference in value of the new and old currencies were as much as $\frac{1}{2}$ per cent., the cost of procuring rupees in exchange for commodities could not until after a long time be at all affected thereby. It may be true that if a change were suddenly made, causing immediate alteration in prices, all debtors on contracts entered into before the change, would, if the value of money were raised and the price of goods lowered, lose in proportion to the difference. But the present case is very different; as it has been

shown, there need be no appreciable change in prices, the proposal being, not to supersede the present currency, by bringing in a new one which might, possibly, cost more to procure, but the very different one of retaining the present currency at its full value, and very slowly supplementing it by coins of a new description, and of the *same* value, which it will be optional to use, or not, according to convenience; so that a debtor will at all times have the power of meeting his obligations in the old currency, so long as he finds it more convenient to do so.

25.—In regard to external trade, it will be seen that, by the measure suggested in the last para., the cost of the currency will be the same to the importer of gold hereafter as it formerly was to the importer of silver, *and it is the cost of procuring the currency, not the tax*, which affects the question.

26.—I have shown, in para. 3 of this Section, p. 38, that even under the special circumstance of silver being under any circumstances the only possible return, the merchant importing it will be no loser from any additional cost of obtaining the currency. But it may still be argued, that the old currency will not be procurable except at a loss, because of the increased tax.* This, however, has been shown to be a mistake; and, in addition to the argument just referred to, it may be observed that importation is only one of the methods, usually the last resorted to, to procure the currency of a country. The ordinary method is by the sale and purchase of bills, that is, in other words, indirectly, by the importation of goods. The price of bills, although ultimately controlled and limited by the cost of importing bullion, is in general, independent of it; and they form by far the largest part of the transactions by which the currency is obtained. The payment of debts could not, therefore, be affected by any change in the currency not disturbing prices; and as it has been shown that

* *Vide* Appendix E.

the gradual introduction of the sovereign as the equivalent of 10 rupees need not make any alteration in prices, and would be the work of many years, it will be obvious that there is no ground whatever for any objection on that score.

27.—It may be interesting to note, in connection with this point, that the transport of bullion is not a final limit to the fall of the exchanges. Were the supply of bullion to the debtor country unlimited at a fixed price, an effectual stop might at once be put to the rise in bills of exchange; but this has not been the case in procuring the supply of silver sent from England to India, the demand having at times been so great as to raise the cost of silver to $1\frac{1}{4}$ per cent. above the average, and $3\frac{1}{4}$ per cent. above its cheapest price. If a similar demand were to occur, when the supply must be of gold sent from Australia, which, by Major Ward's statement (Parliamentary Papers, p. 86), is capable of yielding 12 millions annually, it is not likely that the rise could exceed $1\frac{1}{4}$ per cent. on account of the reasons before mentioned (para. 12 of this Section, p. 47), but it would be prudent to watch the effect on gold of the additional seignorage on silver, by limiting the seignorage at first, and until after a commercial pressure has been experienced. It would then be found that a slight fall in the exchanges would bring both metals into India, and the abundant supply thus brought into the country would speedily prevent any further derangement.

Inquiry into the consequences of no action being taken.

28.—There remains only one more point of importance to be inquired into with reference to this subject, and that is as to the consequences of not taking the steps recommended. This inquiry has been in part anticipated by the remarks made in paragraphs 11 and 30, Section I., pp. 6 and 15, but a few words more may be of use. We have seen by an examination of Table V., p. 46, that, with the law as it stands at present, it is more profitable to import gold than silver into India whenever the price of the latter rises above $61\frac{1}{2}d.$ per ounce

(*vide* para. 10 of this Section, p. 45), and the fact is also recorded in the correspondence that during the period when a higher price prevailed—viz., in the years 1857 to 1862, very large quantities of gold, many millions of pounds sterling in value, were brought into the country and disposed of. It, therefore, may be argued that if the anticipations as to the impending difficulty of supplying the empire with silver, and its consequent great enhancement in price, should be realized, the natural course of events would bring in the gold and establish it by the ordinary operations of commerce in its proper place in the monetary system of the country. And the suggestion, that the Government should confine its action to opening their Mints for the coinage of sovereigns, and declaring them legal tender for 10 rupees, is not without attraction to some minds. Hence it becomes necessary to inquire in what respects the operation of such a measure would be defective; or, in other words, what benefit would be gained by the further step of adding to the seignorage on silver.

The necessity for making the sovereign legal tender inquired into.

29.—The question may also be asked why the Government should take even the first step of making the sovereign legal tender for 10 rupees; and, perhaps, it would be best to consider that before going further. The reply is, that if the present opportunity be not speedily taken to establish and fix the desired relation between the two coins, and if the mistake be made of ignoring the large bullion trade in fine gold bars for which the natives of India have a decided preference, it is not unlikely that a few years hence it may be impossible to do what is wished; as the sovereign which is now but little, if at all above the requisite value, may then have sunk very decidedly below it, owing to the increasing abundance of gold and scarcity of silver.

30.—In addition to this, the most important argument for the measure is, that sovereigns would not get into circulation unless made legal tender. Before the Act of 1835 was passed,

the 15 and 10 rupee pieces, which were then legal tender, though not demandable,* circulated freely, and were taken without hesitation. Lately, sovereigns held by the Government of India, although now declared by the Currency Commissioners to be superior in value to 10 rupees, could not be got rid of from the public Treasury at that rate, and were sent home to England. Had they been, like the 10 rupee pieces of 1833, legal tender, though not demandable, being, *as they are, of greater intrinsic value* than those pieces, by $2\frac{1}{2}$ per cent., they could not have failed to circulate as freely; while, not having that legal authority, we see they were a drug in the market.

Further reason for making the sovereign legal tender.

31.—There is a third reason for this measure, viz., that it would be unjust to impose an extra seignorage on silver without making gold a legal tender. If this latter is done, the merchant has the means of entirely escaping the charge of seignorage by making his returns in gold; and if he does employ silver, it is because its price has fallen so low, that, including the seignorage, the rupee costs him the same or less than it would otherwise. If, however, the gold coins were not made legal tender, the merchant might be obliged to employ silver at a high price, in consequence of the uncertainty and difficulty of disposing of gold; and, in that case, the additional seignorage tax would of necessity be borne by him.

Reasons for additional seignorage.

32.—In regard to the additional seignorage, the chief argument in favour of it is that which has been before urged, namely, that it is indispensable to an early introduction of gold into the country; inasmuch as, without such interference, gold will only be imported in times of pressure, at the top of the wave of supply. We must also not fail to appreciate the importance of preventing any rise in the comparative value of silver, and of fixing it, while there is the oppor-

* *Vide* Prinsep's useful Tables, p. 1., quoted in Note to para. 23 of Section IV., p. 76.

tunity, at such a price as will give security to the existing silver currency. If we refer to the table No. 1, and para. 10 of this Section, p. 46, we shall see that, with 4·1 per cent. seignorage, the London price at which silver could enter the currency profitably, compared with "sovereign" rupees costing 24·14125*d.* each, would be reduced to 60$\frac{1}{3}$ (60·3375*d.*) per ounce, gold being cheaper at any higher rate; and it may reasonably be expected, that if the sovereign be made legal tender for 10 rupees, and 4·1 per cent. charged on the coinage of silver, the latter metal will not in future be imported into India, subject to the same value of gold, at any much higher price than that just mentioned. Hence, as the intrinsic values of the rupee from gold and silver have been stated in para. 9 of this Section, p. 44, to be equal for internal trade in India when the latter is at 62$\frac{7}{8}$*d.* (62·9171*d.*) per ounce in London, a reduction of the price of silver to 60$\frac{1}{3}$*d.* would create a total difference of more than 2$\frac{1}{2}$*d.* (2·5796*d.*) per ounce, or 4·1 per cent., as a protection against the local disappearance of the silver. This is important, as it is in the internal trade, and that with the Eastern settlements and China, that the chief danger of the loss of the currency exists. Respecting these countries, no information was laid before Parliament; but it may be presumed that the relations of the two metals are about the same there as in India. If any difference exists, it would probably be towards a higher price of silver; and, although it is true that with the price at which silver is usually sold under the present seignorage, viz., 61$\frac{1}{4}$*d.* per ounce, there appears to be a margin of protection for our currency of about 2 per cent., yet it must be remembered that the relative prices of gold and silver which point to this result are only such as prevail at the principal seaports; and we are ignorant as to what variations from them may occur in the interior, and in foreign countries to which the commerce of India extends, other than Europe. There can be no

doubt, therefore, that an increase of the margin of protection for the silver currency beyond the 2 per cent. would be highly desirable; and if this is ever to be obtained, it must be now, and by an additional seignorage.

Summary of reasons for the proposed change.

33.—We may sum up our remarks under this head by saying that, if sovereigns were declared legal tender for 10 rupees, and an additional seignorage of not less than 2 per cent. were imposed on the coinage of silver, the tendency of the measure would be to bring gold immediately to the mints, thereby to keep down the price of silver, and thus to cause the future average price to fall below that of past years. And to whatever extent it operated in that way it would so far add permanently to the security of the present currency, and allow time for its being hereafter gradually converted into a token currency, by the issue of pieces of less intrinsic value.

34.—That without the additional seignorage, the measure would not be effective; for gold would only be brought to the Mint under special circumstances, while the coins struck from it would at all times be the first to leave the country for export. Thus little or no progress would be made; and the time might arrive when, by the depreciation of the gold, we drifted into the position already passed through by America and France, viz., the spontaneous establishment of that metal, as the medium of exchange, accompanied by the disappearance of the silver currency. This catastrophe would be best averted by introducing gold early, at as low a valuation as possible.

Notice of the alteration in the position of Government as purchasers of silver bullion by the proposed measures.

35.—Finally, it must be remarked that, should another standard of value be established, the Government will be placed in a new relation to the merchants in the purchase of silver bullion. In place of its total exclusion from the mints, they may offer to buy it at a certain fixed price equivalent to a 4 per cent. or any other

seignorage; but whenever gold shall have become the fixed measure of value, silver bullion, though saleable to the Government at the given rate, will be free to command its own price elsewhere, and will fluctuate in the market as it does in England, or as gold now does in India.

SECTION IV.

EXAMINATION OF ACT XVII. OF 1835—LEGAL TENDER ON THAT BASIS—AN AUXILIARY GOLD CURRENCY CONSIDERED—COMPARISON OF DIFFERENT SYSTEMS—CONCLUDING OBSERVATIONS—INTERNATIONAL COINAGE.

Act XVII. of 1835.

1.—I now come to the examination of the measure advocated by the Currency Commissioners, viz., the adoption of a new legal tender on the basis of the Act XVII. of 1835, which declared the Gold Mohur of 165 grs. pure metal, and 15 grs. alloy, to be the equivalent of 15 Company's rupees; and consequently the 10 rupee piece to consist of 110 grs. pure metal, and 10 grs. alloy.

Comparison of the present rupee and the sovereign.

2.—We have seen by the careful comparison which has been made of the minimum cost of gold and silver bullion in India, given in paragraphs 38 and 39, Section II., p. 35, that, supposing the expense of procuring the former to be not less than £3. 18*s.* 4*d.* per ounce, the cost of a rupee, as one-tenth of a sovereign, would be 24·14125 pence, and of the present silver rupee, at the average price of silver for the last fourteen years, 24·0617 pence, the result being, thus, an excess of value of 0·07955*d.* or 0·330608* per cent. in favour of the gold coin.

Comparison of the present rupee with a 10 rupee piece of Act XVII. of 1835.

3.—As the sovereign contains 113·001605 grains of pure gold, the proposed 10 rupee piece of 110 grains pure would be of inferior value to it in the proportion of 110· to 113·001605 or by 2·65625 per cent., and the

* *Vide* Appendix E.

rupee representing one-tenth of the latter would be worth 23·50*d.*, at £3. 18*s.* 4*d.* per ounce. If we now deduct the excess in value of the one-tenth of the sovereign over the silver rupee, viz., 0·330608, as just mentioned, from this difference or inferiority of the "mohur" below the "sovereign" rupee, omitting from notice the consideration that the superior facilities connected with the coinage of gold would reduce its comparative cost, as shown in paragraph 23, Section III., p. 55, we shall arrive at the fact, that the new gold coins would be at least 2·325642 per cent. *below the value of the existing currency;* and there can be but little doubt that, had the Commissioners been aware of this fact, they would have hesitated to recommend a measure involving so much risk to the safety of the latter.*

Deficiency of value in the 10 rupee piece cannot be remedied.

4.—It is true that, by adding a seignorage of 1 per cent., the value of the gold coins would be raised by that amount, and the deficiency reduced to $1\frac{1}{3}$ per cent.; and it might be suggested that the present seignorage on the silver coins, which is included in the above comparison, added to any favourable change in the relative value of the two metals, would not only cover the remaining deficiency, but even give a margin of protection besides. But although seignorage may be employed to give a local value to an intrinsically cheaper coin, and thereby raise it to an equality with its denomination, it cannot redress an intrinsic deficiency outside the pale of the circulation. Hence the gold coins, if intrinsically deficient, would be at once supplanted by the silver in all external trade, and the latter would be largely exported.

Example of the practical working of the 10 rupee piece.

5.—To give an example of the risk which would be met with under the proposed arrangement, we may refer to the experience of the last two years, when the *selling* price of gold in the Calcutta market

* *Vide* Appendix D.

was, on the average of the whole period, 14rs. 8as. 6p. per tola, or £3. 17*s.* 6*d.* per ounce. During the same time, the average price of silver in the London market was 61·0625*d.* per ounce, at which rate the intrinsic value of 10 rupees in India, allowing for the cost of transmission, but not calculating any seignorage, was 234·3*d.*; and that of a 10 rupee gold piece at £3. 17*s.* 6*d.* per ounce, 232·5 pence,* being less by 1·8*d.* or $\frac{3}{4}$ per cent.

Hence it is evident that the bullion value of ten rupees would have been, at those rates, greater than that of the gold 10 rupee pieces; and we may infer that, except for the influence of any change in the relative prices of the two metals, which might take place in consequence of the adoption of gold as a standard, their removal from the circulation in preference to the gold, for the payment of any foreign debt or balance of trade, would be a matter of certainty.

Impropriety of risking loss of the silver currency.

6.—The only hope of escaping this consequence is the probability of the change just referred to. But it could not be considered justifiable for the Government to launch a measure of so great importance without ample safe-guards against the known consequences of under-rating the currency, trusting only to the chance that, amid the innumerable uncertainties of future commerce, the necessary favourable change in the relative values of the metals would be certainly realised, and to the required extent.

Another remedy for the defective value of the 10 rupee pieces examined.

7.—It may be thought that by abolishing the seignorage on the silver coins, their value would be adjusted to the proposed new gold pieces; and there is no doubt that such an adjustment could easily be made, so as to bring the two classes of coins to a perfect local equality. But it will be observed that to abolish the seignorage on rupees would be to diminish their cost and value; and as this

* Table III., paragraph 30 of Section II., p. 30.

could not be applied to the whole mass already struck, the effect would be, in short, to under-rate the present currency and to lower the standard and measure of value throughout the empire. This, indeed, would not happen if the only step taken were to impose a seignorage of about 2⅓ per cent. on the gold, that on silver remaining unaltered; but this would be to establish gold as a token currency, which will be considered presently.

Example of the deficiency of the 10 rupee pieces.

8.—Viewing the subject in another light, we may remark, that if the result recorded in para. 29, Section II., p. 29, be correct, and the average price of an ounce of standard gold be reckoned at £3. 18*s.* 4*d.* or 39rs. 2a. 8p., the cost of a tola, taken to the Calcutta Mint, would be 14rs. 11as., or something less; so that, supposing a seignorage of 1 per cent. to be insisted on, the cost of the new 10 rupee piece would amount to 9rs. 14as. 1½p.; and the proposal is to pass a law compelling the public to accept the coin so obtained as an equivalent in exchange for 10 rupees. If the seignorage charged were limited to ¼ per cent., the actual cost of the proposed 10 rupee piece would be only 9rs. 13a. 1p., and the loss to the public by accepting it would be 2as. 11pie. each, or nearly 2* per cent. of the value. At the rates which prevailed during the years 1864 and 1865, the loss would be 4as. 7p., or 2·88 per cent. This arrangement would suit the importers; but, on the ground of justice alone, could not be consented to by the Government, irrespective of the risk to the silver currency which has above been referred to.

Auxiliary gold currency.

9.—In the petition of the Calcutta Chamber of Commerce (Parliamentary Papers, p. 4), para. 5, a strong opinion is expressed in favour of the introduction of gold as an auxiliary currency. The particular form of this proposal is not stated, but as the term auxiliary is used, it is probable that a token coinage which has been advocated by others was intended;

* 1·823.

and it would be very desirable to consider in what respects that method of introducing gold would differ from the plan of coining and legalising the sovereign as the equivalent of ten rupees.

120 gr. gold pieces as tokens.

10.—I will assume that the intention is that gold should be brought to the Mint and coined subject to so large a seignorage as to constitute the pieces in some degree tokens, this being the best method of carrying out the plan which has suggested itself. Let us suppose that the 120 gr. gold piece of Act XVII. of 1835 were so coined, subject to a seignorage of 2·65 per cent. If the Mint regulations were put upon the footing proposed in para. 23, Section III., such a coin would then be of very nearly the same cost as 10 rupees (as the sovereign would cost 10 rupees without seignorage), and being established as legal tender for that sum, might, though not without difficulty, be brought into circulation. The difficulty of introducing these coins would, indeed, be at least as great as that of introducing the sovereign, both being equally of the precise cost of 10 rupees, on which terms gold would only be brought to the Mint at irregular times, as it might be cheap in the market; and in order to procure a steady supply, some restriction of the silver coinage would be necessary.

Their usefulness in regard to export.

11.—The token coins, it is true, would be less likely to leave the country than sovereigns, because there would be so great a loss in taking them out of it. But it would be a very imperfect measure to supply coins which would be useless in the great marts frequented by the merchants of Central Asia, Thibet, China, Burmah, &c.; and the very circumstance which would render the token coins unfit for exportation would remove all the protection from the rupees, and expose the country to the well known evils of a double standard.

12.—These consequences do not apply in any special manner to the particular coin above mentioned, the effects would be similar whatever the intrinsic value of the pieces, provided the cost of procuring them were equal to the denominative value, the

seignorage making up the difference. So long as this is the case, if the coins really cost what they represent, it would be better that the whole expense should be in value of precious metal, because then they would be of the greatest possible use for trade, and merchants would be subject to no loss in exchange with foreign states.

A token currency of *less* cost than its denominative value.

13.—But it may be proposed to establish a token currency of *less* cost and value than its denomination. In this case, if the Government retained the supply to themselves, inasmuch as they would be obliged to fix a price for the purchase of gold equal to its market value (and if they fixed more it would soon become the market value), the conditions would be the same as those discussed in the 10th paragraph. If, however, the profit of coinage should be surrendered to the public, there would be a strong inducement to bring gold to the Mint, which, if not restrained, would lead to depreciation of the standard currency. Irrespectively of which, the coins could not be made legal tender except for small sums, and would thus be greatly diminished in usefulness, while the Government would incur the liability of being called upon at all times to exchange the pieces, and watch over their accumulation in different parts of the empire. Upon the whole, therefore, I do not think a token currency desirable. It would bring in a profit to the Government instead of burthening the State with the expenses of gold coinage; but it would be an imperfect measure, which would not facilitate the introduction of the sovereign, nor relieve, if it did not add to, the losses to which trade is exposed in all transactions with foreign states.

To place commerce in the most favourable position possible, the Government certificate as to the authenticity of its *standard* coins (this does not apply to others) ought to be given for *nothing*.

14.—There is another method of establishing an auxiliary currency, viz., by declaring the sovereign, or any other coin, a legal tender for such a sum as may be considered its precise value,

and varying the "agio" from time to time, after due notice, as may be found necessary.

The sovereign as a legal tender at an "agio."

In regard to this proposal, I have to observe that it is subject to the same difficulties which lie at the root of all plans for avoiding a gradual change of standard, viz., that the Government cannot, on the grounds of justice, enforce by law the acceptance of any coin as an equivalent for the established currency, without the most undoubted proof that its value is at least as great as that for which it is to be substituted. This would oblige them to fix a rate, if anything, below the real value, and as prices vary considerably in different parts of the empire, the rate fixed must necessarily be either above the true market rate in some places, in which case wrong would be done by the legal tender, or below it in others, which would necessitate its not being legally demandable. Moreover, as the Government can only hear of changes of value after the same have been established, and as a notice of some months is indispensable before any change can be made in the public law, it is obvious that much wrong might be legalized before any remedy could be applied. Independently of this, the measure would be an imperfect one, as no merchant would retain in his possession coins liable to be reduced in value by an announcement in the *Gazette*—no foreign trader would respect the "agio"—nor would any mercantile house import the coins except they were cheaper than the rate assigned by the Government, whose duty it would be to take care that should not be so.

Indian sovereigns would be cheaper than imported ones.

15.—The cheapest sovereign, the Australian, could not be imported for less than $\frac{3}{4}$ per cent. dearer than the same coin manufactured without charge in the Indian Mints, and as it has been shown that the *average selling* price of the bullion contained in each piece is 10 rs. 1 a. 6 p., it is obvious that the average selling price of the Australian sovereign would be $\frac{3}{4}$ per cent. more, or

10 : 2 : 8½. If the Government were to authorise the use of these foreign manufactured coins as legal tender for only 10 rs. 2 as. each, Indian commerce would be taxed to the extent of the 2 as., or 1¼ per cent., to obtain coins, which, as I have shown (para. 23, Sec. III.), could be produced in the Indian Mints for 10 rs. each, and in every foreign use of them trade would suffer a loss of that amount. On these grounds, I think that the plan of introducing foreign coins to circulate at an agio is not to be compared with the proposal of establishing them as our own currency at the cheaper rate, and free from any loss on exportation or the other drawbacks above mentioned.

Precise gold equivalent for 10 rupees.

16.—Before proceeding to make any comparison of the different methods proposed for introducing a gold currency, I think it may be of use first to inquire, what would be the exact quantity of pure gold contained in a coin of the precise value of 10 rupees of the existing currency? From the remark made in para. 23, Sec. III., p. 56, it will be seen that, since March, 1862, the currency value of the rupees has been undergoing slow depreciation, by the gradual introduction among them of coins procured at a less cost than formerly, by fully ⅓ to ½ per cent. Hence, that the true standard value of the existing currency (excepting so far as it may have deteriorated by the admission of cheaper coins) is at the least* ½ per cent. above the value of a rupee coined according to the present Mint regulations from silver at the average price.

Standard of existing currency ½ per cent. higher than Mint rules.

17.—It is, therefore, necessary, before calculating the metallic contents of a gold coin precisely conforming to the present rupee standard, to decide what that standard is. In other words, whether we are to consider the value of the mass of the currency as having been already lowered to the full extent which it would in time be

* In former years, 20 days was the minimum time at which bullion certificates were paid by the Government, but it was very frequently more, and, in some cases, months' instead of weeks' delay unavoidably occurred.

by the payment of Mint certificates for silver on demand, or whether we are to assume the cost and value of the rupees at what they were previous to 1862, viz., about ½ per cent. higher. As already decided, in para. 23 of Section III., I shall assume that the value of the general mass of the currency is still at least ½ per cent. beyond that of a gold coin of equal metallic value delivered without charge immediately after assay of the bullion, as I reckon that, for the present, the diminution of cost which has been effected in the coinages by the more favourable practice of the Mint since 1862 may be fairly balanced against the excess of cost so frequently caused by the extraordinary pressure of the demand previous to that date. The fluctuations in the cost of the coins, through alterations in the Mint rules and practice thus having the same effect on the average value as fluctuations in the price of the metal.

Weight of pure gold in the equivalent of 10 rupees.

18.—The question then is, What weight of pure gold, worth £3. 18*s*. 4*d*., or Rs. 39:2:8, per ounce of 440 grains pure, in a coin delivered on demand without charge, will be equal in cost to 10 rupees, or 160 annas, plus ½ per cent. interest? The answer, by mere proportion, is, 160 + ½ per cent (or 160·800000 as.) × 440 ÷ 39:2:8 (or 626·666 as.), =112·902128 grains; that is, 0·099477 grains, or rather less than one-tenth of a grain below a sovereign. This shows how very closely the value of a sovereign coined without charge would correspond with the true standard value of rupees previous to 1862.

Statement of the principle on which the adoption of the sovereign is based.

19.—In comparing two of the methods by which it has been proposed to introduce gold into India, viz., the establishment of the sovereign on the one hand, or of the 120 gr. gold piece of Act. XVII. of 1835 on the other, as the legal equivalent of 10 rupees, it may be observed that, in regard to one point, the proposals involve different principles, as the basis of the future system. For the introduction of the sovereign it is proposed that the present standard and measure of value shall be hardly at all

disturbed, but if anything slightly raised, no seignorage being charged on the gold coin; the intention being that the whole intrinsic difference between the two sets of coins, now represented by the 2 per cent seignorage on silver, plus the slight rise just referred to, with any further discrepancy in value between the two metals which may hereafter result from the measure, shall be preserved and shall constitute a margin of protection against the loss of the silver currency, whose *local* value shall further be kept by an additional mint charge at all times on a perfect equality with the standard.

Statement of the principle on which the 10 rupee piece is based.

20.—In the other proposition, the object aimed at appears to be to adjust the gold coins to the rupees according to the selling price of gold, including in the former a seignorage of 1 per cent.; the idea being that, having thus been made equal in intrinsic value, they would continue to run together as legal tenders *pari passu* for some time to come. The theory or principle of the measure is thus expressed in Sir William Mansfield's letter of the 4th August, 1864 (para. 36):—"Should we not rather recognise the fact of equality of intrinsic*

* Throughout these remarks, it will be observed that I have applied the word "intrinsic" in a different sense from that in which it is used in this passage, as I have confined its meaning to the saleable value of the metallic contents of the coin only. This, added to the seignorage and all other expenses, I have considered to be the "currency" value. According to this phraseology, if a gold coin and ten silver rupee pieces were of equal currency value—the former having been charged 1 per cent. and the latter 2 per cent. for seignorage, other expenses being equal, their respective "intrinsic" values would be in the proportion of 99 to 98. At the rate of 10 rs. 4 as. for the sovereign, adopted by Sir William Mansfield, in his Minute of the 4th August, 1864, para. 12, the "intrinsic" value of a coin containing 120 grains of standard gold is $164 \times \frac{120}{123{\cdot}274}$, or 159·64 annas in currency, and the intrinsic value of 10 silver rupees is (160 × 98), or 156·8 annas in rupee currency. The current value of the 120-grain standard gold coin, with 1 per cent. seignorage, is $\left(\frac{159{\cdot}64}{99}\right) = 161{\cdot}25$ annas, at the rate of 10 rs. 4 as. to the sovereign, as compared with the current value of 10 rupees, or 160 annas. The currency value of a subsidiary coin is the actual cost of that proportion of the superior or "standard" coin represented by it.

" value between the respective coins of the two metals as the only " basis of theory and practice in our progress towards the eventual " position of a gold currency and a gold standard, that progress " being determined only by the other fact of superior convenience " of a golden medium over a silver one."

Comparison of the two principles.

It will be perceived that for the former proposal—that of the sovereign—the theory is precise *local* equality, maintained by the present seignorage on the silver coins coupled with the greatest practicable difference of intrinsic value consistent with the existing standard of value, for the preservation of the subsidiary coins. While for what we may call the "mohur" system, the *theory* is, precise intrinsic equality, including a seignorage on the gold coins, with *no* intentional difference between the local and intrinsic values of the two classes of coins, and no protection for either.

The 10 rupee piece would be liable to the objection stated by the Commissioners.

21.—On reference to the remarks made in para. 23, Section III., and para. 3, Section IV., it will be seen that if due facilities were given to merchants in the payment of their mint certificates for gold, those for silver being paid as formerly, the sovereigns procured in exchange for that metal would be by no means dearer than the rate of the sovereign for 10 rupees; and if similar facilities were accorded in the delivery of the 10 rupee pieces, struck in accordance with the Act XVII. of 1835, the cost of these would, consequently, be 2·65 per cent. below that of silver rupees; whereby the standard of value would be lowered to this extent, minus the seignorage charged on the gold coins, that is, at least 1·65 per cent. Hence, the measure would be liable to animadversion similar to that contained in the 44th paragraph of the Commissioners' report.

But as it is unlikely that the seignorage on gold can, at the outside, be charged higher than $\frac{1}{4}$ per cent., the disturbance of the existing standard of value would be 2·4 per cent. at present

prices. If the price of gold should rise, the depreciation of the currency might still vary from 2·4 to 1·4 per cent.

The sovereign preferred.

22.—The above facts and arguments appear sufficient to show that the British sovereign is a nearer equivalent to 10 rupees than that based upon Act XVII. of 1835, and that it may be introduced without any inconvenience or appreciable change, while the pieces contemplated by that Act would create a great disturbance of the present measure of value, besides involving great risk of the loss of the existing currency. It is further to be observed, that the adoption of the sovereign as the equivalent of 10 rupees would be a step in conformity with our past legislation on the subject (*vide* Notifications of the Government of India, under date 23rd November, 1864, Parliamentary Papers, p. 136), and with the state of the law in Ceylon, a province in the most intimate commercial and social union with Tinnevelly, Tanjore, and the other south-eastern provinces of India. It would also be in precise accordance with our English system of metallic currency, as well as that of Australia, with which latter country the adoption of *any* kind of gold currency would immediately open up a large and important trade, chiefly of bills in exchange for gold bullion. While, on the other hand, the establishment of a gold piece of 120 grains with a seignorage of 1 per cent., as the equivalent of 10 rupees, would, in addition to other evils, introduce the embarrassing anomaly of the sovereign being worth 10 rupees in Ceylon, and 10 rs. 2 as. 9 p. in the immediately adjoining districts.

Statement of the measures proposed.

23.—The proposal, therefore, to which all the conclusions contained in the earlier part of this paper seem to lead is as follows;—1st, That the sovereign should be declared a legal tender for 10 rupees, but not demandable in payment for the present*; 2ndly, That the Indian Mints

* The following quotation is from Prinsep's useful tables (published in Calcutta in 1834), of which it forms the opening sentences, page 1:—"Silver is the legally constituted medium of exchange in all money transactions throughout the British Indian

should be authorised to coin sovereigns and half-sovereigns under such regulations as the British Parliament may be pleased to enact, the price of gold for the prompt delivery of coins being fixed at Rs. 38 : 15 (the equivalent of £3. 17*s.* 10½*d.*) per standard ounce; 3rdly, That silver be received and coined as formerly into rupees, half and quarter rupees, and two anna pieces, the price to be paid for it being Rs. 2 : 9 : 4* per English standard ounce, or such other rate as the Government may fix from time to time after sufficient notice; the mint certificates being payable, as formerly, in 20 days after the assay of the bullion. This corresponds with a 4 per cent. seignorage, exclusive of the premelting charge, which amounts to about half a pie per ounce. It has been thought desirable that the mint regulations should be based on a price per ounce rather than a seignorage, on account of the greater convenience of that arrangement to merchants in calculating their returns, and also because it would be applicable at all times, and would be exempt from complication with any changes which may be hereafter determined upon as to the intrinsic value of the subordinate currency.

Mint regulations necessary on the adoption of the sovereign.

24.—The change here proposed may be introduced gradually; the first step taken being that of

Gradual introduction of the proposed change.

" possessions. Gold coin is a legal tender at a fixed value of Rs. 16 for the gold " Mohur of Calcutta, and 15 rupees for the gold rupee of Madras and Bombay; but it " is not demandable in payment, and is left to find its current value in the market."

* The rate above mentioned, at two shillings per rupee, after deducting 3¼ per cent. for the cost of transmission, gives about four shillings and eleven pence halfpenny (59·6154*d.*) per ounce as the London price of the silver, and hence appears to differ from the table in paragraph 86, which shows 60·3375*d.* as the price at which silver coined with 4·1 per cent. seignorage would give equal results with gold at £3. 18*s.* 4*d.* per oz. The discrepancy will, however, be removed, if attention be given to the fact that Rs. 2 : 9 : 4 are worth more than their equivalents at two shillings per rupee, when the price of gold, at the cheapest, is not less than £3. 18*s.* 4*d.* per oz.; because, then, each rupee costs 24·141252*d.*, and consequently Rs. 2 : 9 : 4 would cost rather more than 5*s.* 2¼*d.* Allowance ought to be made for this, as well as the premelting charge, which is included in the table, but not in the Government price, and the statements will then agree.

declaring the sovereign legal tender for 10 rupees, but not demandable, and fixing the prices of gold as above stated, and of silver, at first, at the rate now realised, namely, 2 rs. 10 as. 2 p. per ounce, to be diminished from time to time till the proper effect on the imports of bullion be produced. By this means the Government will have the advantage of watching the progress of events, and by keeping the seignorage low, if necessary, checking any tendency to increase in the price of gold bullion. The measure would, however, be uncertain and irregular in its action as long as a high price was paid for silver, and would not be steadily operative in accumulating a gold currency till at least the rate of 2 rs. 9 as. 4 p. per ounce was arrived at.

Further detail of proposed measures.

25.—Adverting to the remarks made in para. 27 of Section III., the following gradual method of making the change in the purchase of silver bullion, of which ample notice should be given at each step, may be worthy of consideration, viz., that, during the first year, the rate paid by the Government, 20 days after assay, be the present one, as above stated, of 2 rs. 10 as. 2 p. per English standard ounce; that, at the end of each successive year, this rate be reduced by 2 pie per ounce, till the price has fallen to 2 rs. 9 as. 8 p. per ounce, which corresponds with an additional seignorage of 1·185 per cent., and that this rate should be maintained (unless it should have been found quite ineffectual in bringing a sufficient supply of gold to the Mints, compared with silver) till after experience has been had of a considerable ~~fall~~ rise of the Indian exchanges, and a large importation of both metals. After which, the further reduction to 2 rs. 9 as. 4 p. per English standard ounce, or less, if required, and the best time for making it, will be more safely determined. By these measures India would be gradually and safely provided with a new means of exchange at a considerable reduction of the former charge, and the present currency would become subsidiary, without the least shock

or disturbance, and without any expense to the State or individuals.*

No further steps will be required.

26.—Suggestions have been made as to the measures to be adopted by the Government in order to facilitate the transfer of the legal tender from silver to gold, and to supply the currency with the two metals; but nothing is really necessary beyond the enactments mentioned in the last paragraph.† If it be the interest of merchants to import gold almost exclusively in lieu of silver, and if that metal be made legal tender for all payments, it cannot fail to spread throughout the empire safely and naturally by the operations of commerce. Nothing will in reality introduce the gold except its use for the payment of the large balances of trade falling due to India from time to time; but if from its superior cheapness it be so employed, time will inevitably bring about the desired change.

Final establishment of the currency—how effected.

27.—It would expedite the establishment of the currency, if, in carrying into effect the third of the measures indicated in para. 23, the new silver coins were made of an intrinsic value lower than the old, to such a degree as might be deemed expedient.‡

* *Vide* paragraphs 23 and 26, Section I., pp. 12 and 14.

† This remark is not meant to apply to any measures which the Government may think it expedient to adopt in order to obtain the voluntary legal transfer by the holders of the State obligations from their present liability in silver to the new currency, which would probably be effected at once without any difficulty. Even should such not be the case, the most serious inconvenience which could happen would be, that parties who refused the option would have to be paid off by full weight rupees of the existing value, the same being hereafter coined for the purpose, if necessary.

‡ Perhaps there might be some convenience in causing the new rupees to correspond with the British florin, which would be a reduction of 2·14878 per cent. This would make a total difference of about 4·4 per cent. between their intrinsic and denominational values in India, and nearly 7 (6·98) per cent. in the London market, when silver is at the average price of 61·39285 per ounce. Hence they would not be saleable with profit in India till the London price of silver rose to 64¼ (64·298735*d.*) per ounce, nor in England till it had reached 66*d.* per ounce.

Measures for reducing the standard of the token coins.

These new coins should be obviously distinguishable from the old, and should be limited in legal tender to a small amount—for example, to 10 or 20 rupees for whole rupees, and to smaller sums for the fractional parts—the old rupees still remaining legal tender for all amounts, jointly with the new gold coinage. As the old rupees became by degrees scarce, owing to local absorption or manufacture of ornaments (for which they would be exclusively selected), their place would be necessarily taken by the gold and token coins, the former of which would, without further legal enactment, become the standard coins of the empire. But to avoid the inconvenience which might at first be met with in in the issue of rupee pieces of a reduced standard, before the public had become familiar with the new monetary arrangements, it might be expedient to confine the reduction to the half, quarter, and one-eighth rupee pieces, till such time as the sovereign should have been thoroughly established and recognised as the measure of value; after which, whole token rupees could be manufactured when the former issues were beginning to be scarce and new supplies were felt to be required for the convenience of exchange.

No injury caused by the change of standard.

28.—I have been at some pains in the preceding part of these remarks (Section III., para. 23) to show that if the sovereign were recognised as the legal equivalent of ten rupees, the alteration of value caused thereby might, by an adjustment of the mint regulations—most desirable on other grounds—be made quite inappreciable; that, if it were otherwise, it could do no injury to trade nor individuals (Section III., paras. 3, and 24 to 26), and that if, as I propose, it be coined without charge, the merchants would experience a real and substantial advantage by escaping from the tax now incident to the exportation of the currency. I have also shown (Section III., para. 19, p. 52) that the imposition of additional seignorage upon the subsidiary coins has no effect

whatever upon future values, except in so far as they may be influenced by the transfer of the measure of value from silver to gold, and any change involved therein; and therefore that the amount of the seignorage, so long as it is effectual in bringing about that transfer, is immaterial to the interests of commerce; as, in reality, it only influences the time, or rather the season (of cheapness) at which silver becomes admissible into the currency.

The sovereign should be coined and made a legal tender.

29.—If, therefore, the slow transfer of the measure of value from silver to gold, or rather the restoration of gold to the place it held in the Indian currency previous to 1835, by the very gradual infusion into the currency of coins of that metal of precisely the same cost as the present silver rupees, be admitted to be free from danger, the adoption of an increase of the seignorage on silver, at all events by successive steps, as the only effectual means of bringing it about, cannot be held to be objectionable. Nevertheless, as the arguments which I have endeavoured to set forth may not be at once admitted; and as the Government may, notwithstanding all that has been urged, consider it inexpedient to make the suggested alterations in that respect, it is of the greatest importance to point out that it would be much better to pass the other measures above proposed, viz., to open the Mints for the coinage of sovereigns and half sovereigns, and establish them as legal tender for 10 and 5 rupees respectively (which as long as they continued of any higher value would be merely a *permissive* enactment), continuing to receive silver, and paying for it at the rate of 2 rs. 10 as. 2 p. per English standard ounce—that is, on the present terms—than to leave matters to adjust themselves. By the adoption of the course here referred to no mischief could be done, and the measures would simply be inoperative, except at certain times (such for instance as the years 1865 and 1866), while the way would then be freely open for the spontaneous relief of the currency, in times of pressure, by the use

of both metals. And if it be true, as I believe, that by restoring the Mint rule, as to the payment for silver, to what it was before March, 1862, and paying the certificates for gold on demand, gold would be exactly as cheap as silver, in the proportion of a sovereign and 10 rupees on the average of past years: or, if it should hereafter become so, it will gradually fall into its place, and establish itself as the co-ordinate and equal measure of value with rupees, the present silver currency being all the while protected by the 2·1 per cent. seignorage, and premelting charge already included in its current value; and the time will eventually arrive when the rupees may be superseded by a token coinage. But if, on the other hand, no steps are at present taken, the following results may happen. If the relative value of gold should decline, that metal will in time be established as the currency of the country, coupled with the loss of the silver, as in America and France. If, instead of this, it should rise in comparative value, so good an opportunity as the present may never occur again, and we may hereafter see cause to regret having omitted to take advantage of the very favourable cicrumstances, for the introduction of the sovereign as the basis of our system, which now present themselves.

Fine gold coins may be struck at a high seignorage.

30.—The gradual establishment of a new measure of value, by the adoption of the sovereign or other coin, would not preclude the idea of meeting the wishes of the natives by supplying them with other gold pieces for which they have a preference, but merely as a matter of accommodation, for use or sale as commodities, without any legal tender value. It would be necessary, if the indulgence were allowed, to couple it with such restrictions as should prevent interference with the standard coins, in order to which a very high seignorage should be demanded. The eager preference of the natives for pure gold pieces is well known, and there is great probability that even with a seignorage as high as

2 per cent. the old Ashurufee or Moorshedabad gold mohur would be considered as a great boon, and highly prized for hoarding and the manufacture of ornaments. And it seems worthy of consideration, whether it might not be desirable to sanction a concession to the popular prejudices and tastes, which, if taken advantage of to any large extent, would yield considerable profit towards the Mint expenses, while at the same time it would secure the standard currency, on which no seignorage would be taken, from being carried off to the native mints, or to the crucible and refining pit.

The surplus power of the Mints may be employed to expedite the change.

31.—Under the proposed arrangements the quantity of silver brought to the Indian mints would be very small. In fact, it would only be tendered at exceptional times; and the consequence would be that there would generally be a large amount of minting power without employment. If this were made use of to expedite the change, by the re-coinage of the old rupees at an inferior value, the operation would be profitable to the State, owing to the additional seignorage taken out of the pieces. It would be equally profitable if new pieces were coined from silver purchased by Government at the rate of Rs. 2 : 11* (2 rs. 11 as. 0·65 p.) per ounce, corresponding in value with 63*d.* (62·917) per ounce in the London market; and more profitable in proportion at all prices below that rate.

Large amount of work in the fractional silver currency.

32.—Should it be thought inexpedient to adopt either of these measures, there would still be ample employment for all the powers of the

* The reason of this is that, when gold is at £3. 18*s.* 4*d.* per ounce, and the rupee worth 24·141252*d.*, the ounce of English standard silver is worth $\frac{444}{165}$ths, or 64·961914*d.*, in India; and deducting the charges of transmission (at $3\frac{1}{4}$ per cent. on the reduced amount), it is worth 62·9171084*d.* in London. At two shillings per rupee, the London price would be $62\frac{1}{2}$*d.* (62·5489764*d.*), no seignorage being reckoned in these comparisons.

Indian mints for very many years to come, in meeting the necessities of the country in respect to the fractional silver coins; of which, owing to the incessant demands upon the mints of late years, but a very inadequate supply has ever been fabricated. These would, as a matter of course, be made to correspond with the diminished values of the new token currency, unless it were thought desirable, for their special security, to lower them still further—a highly desirable measure, which has been formerly urged on the attention of the Government of India.* But whatever may be determined on this point, there can be no doubt as to the expediency of taking advantage of the comparative leisure to supply the empire with these fractional coins, so indispensably necessary to the comfort and convenience of the poorer classes, who form the great majority of the many millions of H.M.'s subjects in India.

A system of check upon the future coinage of sovereigns desirable.

33.—Any measure for the introduction of the British sovereign into our Eastern possessions, and legalising their manufacture in the Indian mints, would need to be brought under the notice of the British Parliament, and this might probably suggest the expediency of an efficient system for the separate and independent examination and verification of all coins of that description hereafter issued from the many sources even now in contemplation. If the privilege be only granted to those of our possessions where it seems to be at present required, there will probably be not less than seven or eight mints† whence the British sovereign, the representative unit of our vast commerce in all parts of the world, will issue by authority; and it appears to be of the greatest importance that the uniform and strict integrity of all these issues should be constantly subjected to the most watchful scrutiny.

* *Vide* a letter from the Mint Master of Madras, dated the 17th March, 1843, Appendix C.

† The following are referred to—London, Calcutta, Madras, Bombay, Sydney, Melbourne, Hong Kong, and Fraser's River.

34.—If any measure with this object should come under consideration, it would be desirable that the opportunity should be taken to make a slight improvement of our own system, in order to prevent our sovereigns being reported on assay inferior to "standard" after melting. This result might be easily rectified by a slight alteration in the practice under the mint indentures, and our coins would then become of the same value in all parts of the world as they are at home.

An improvement in our own system suggested.

35.—It has been suggested to me that before concluding these remarks upon the introduction of gold into India, it would be advisable to say a few words respecting the bearing thereon, of the proposals now under discussion by the Monetary Convention of various nations, having for their object the introduction of a uniform system of coinage throughout Europe, and, as far as possible, the rest of the world. The States which have already joined this convention have adopted the franc as the basis of their currency, and in connection therewith, the gold Napoleon of 20 francs, weighing 6·451612* grammes, and containing 5·8064508 grammes or 89·607173455† grains of pure gold.

Regarding the Monetary Convention between certain European States.

Hence, the 25 franc piece would contain 112·008966819 grains of pure gold, which would be 0·992638317 grains, or 0·8784285116‡ per cent. below the value of our present sovereign.

36.—Should the Government of this country join the Convention upon the basis just mentioned, and agree to the alteration of our standard coins, the change would necessarily extend to India; and, at first sight,

It is not desirable to wait for the result of the Monetary Convention.

* These figures are taken from the text of the treaty, as published in a valuable pamphlet on "Decimal and International Coinage," by F. Hendriks, Esq.

† The gramme is reckoned as equivalent to 15·4323487 grains, as stated in the schedule to Act 27 and 28 Victoria, cap. 117.

‡ Mr. Hendriks makes this 0·825, basing his calculation on the intrinsic par of 25·2079.

the only way in which it could be met, appears to be by putting a seignorage on the gold coins, thus reduced in value, to make up the difference. But it is not quite certain that this would be unavoidable in practice. This will appear in the next paragraph. But in the first place it must be observed that it would be most unadvisable to postpone dealing with the currency of India, with the view of waiting for the settlement of this question in England. The delay would be a far greater evil than any inconvenience which could result from the subsequent changes necessary to bring about the assimilation. The chief difficulty in the adoption of the sovereign for India, apart from this new suggestion for the reduction of its intrinsic value, consists, in my opinion, in reconciling the accommodation in the delivery of the standard coins, which it is desirable to concede, as far as possible, with the diminished and diminishing value of gold in India; and every day's delay tends to render this difficulty greater. To obviate this, early action is desirable; and if the relative value of gold and silver were once *fixed*, the substitution of cheaper coins might be effected hereafter without much inconvenience, and by no other means than such as would be equally necessary, if they were adopted in the first instance; while the experience gained during the interval between the adoption of the present sovereign and the substitution of the reduced value, should that ever be required, would be of the greatest assistance in arriving at a correct determination of the precise measure requisite to bring about a faithful conformity with the existing standard.

Measures necessary on the adoption of the Monetary Convention.

37.—With regard now to the means of meeting the assumed depreciation of the standard, it has been shown in paragraphs 38 and 39, Section II., p. 34, that, supposing the cost of gold bullion as laid down in India to be £3. 18*s.* 4*d.* per ounce, the cost of the sovereign, irrespective of any advantages in promptness of delivery, would be about 0·330608 per cent. more than that of 10 rupees, at the average

cost of silver; whence it follows, that if the reduction of 0·87843 per cent. aimed at by the Monetary Convention should hereafter be made, the new coins would be ·5478 per cent., or rather more than ½ per cent. below the present rupee standard. In the mean time, however, some part of this difference might be made up by an increase in the average price of gold in the Australian market, consequent on the establishment of that metal as legal tender in India; and if this should be proved by a sufficiently long experience, the change would tend to neutralise the effects of the rise, and any remaining difference might be made good by seignorage. This, on the first substitution of the new or Convention coins, ought to be made equal to the ascertained difference between them and the original (the now existing) rupee standard; and might afterwards be gradually reduced, as the import cost of bullion rose, so as to keep the coins close to the old standard of value.

Effect of Mint regulations on the value of coins.

38.—While on the subject of the Monetary Convention of the 23rd December, 1865, I cannot refrain from adding that it is almost indispensable in fixing the precise *value* of any new coin, to take into consideration the regulations and practice of the Mints of the different countries which have the privilege of manufacturing it, and to define those conditions on which the value, more or less, depends, as well as the mere particulars of weight and fineness.

The chief points here referred to, are, the seignorage charged by different Mints, and the delay in delivering coins for bullion; respecting which the practice differs considerably in various countries. There are other minor points which it might be well to attend to, but which are not important except in the largest transactions.

It is obvious that the practice ought to be uniform in regard to all matters which really affect the cost of the coins, or there would be a tendency to prefer the Mints where the facilities were greatest and the cost the least.

Mint regulations in certain countries.

39.—I am unable to state precisely what the practice of the various Mints is on these points, but I have been informed that in France the seignorage is about $\frac{1}{5}$th per cent. on the coinage of gold, and that the coins are delivered after a considerable time, viz., as much as six weeks or two months, in some cases. This is probably equal to a charge of $\frac{1}{2}$ per cent. In the United States, Philadelphia Mint, the seignorage on gold is $\frac{1}{2}$ per cent., and there also, I am told, the delay is considerable. In the Indian Mints, the seignorage is 1 per cent., and the delay is 20 days after assay. In England alone coins are returned on demand, at a charge to cover interest of about $\frac{1}{6}$th per cent. In all these cases the actual cost of the coins varies according to the practice of the Mints delivering them, and it seems to be only reasonable that an uniform practice with regard to these *standard* coins should be agreed to.

Suggestion to enable England to join the Convention.

40.—If all the contracting States were to unite in the decision that gold bullion delivered at the Mint or Government Office should be assayed within a fixed period and paid for immediately after assay, a deduction being made to cover loss of interest and all other charges, at the rate of 1 per cent., England would be able to join the Convention without any disturbance of present values. This will be clear from what follows.

Calculation of the results.

41.—I have above shown that the 25-franc piece, corresponding with the international scale, contains 112·008966819 grains of pure gold, so that the British standard ounce of 440 grains pure would be coined into 3·92825692 of these pieces, or £3. 18*s.* $6\frac{3}{4}$*d.* (6·7816608*d.*) of the reduced standard. If 1 per cent. be taken from this, there remains £3·888974351, or £3. 17*s.* 9·35384*d.*, and if the merchant were paid £3. 17*s.* 9*d.* per ounce ($\frac{11}{12}$ths fine) for his bullion, which would be a deduction of (1·03753193) $1\frac{1}{26}$th per cent., he would

receive precisely the same *value* as before, although in coins of diminished weight; because the new pieces would be worth what they *cost*, so long as they remained within the kingdom. This statement does not show the actual transaction in future, for as the proportion of alloy would be changed from $\frac{1}{12}$th to $\frac{1}{10}$th, the new standard ounce would contain 432 instead of 440 grains of pure metal, and would be coined into £3. 17*s.* 1½*d.* (1·640178*d.*), of which, after deducting $1\frac{1}{24}$th per cent., the merchant would receive £3. 16*s.* 4*d.*, but the result would be almost exactly the same as if he were paid as above stated.* As the *cost* of the new coins would be equal to the old, their value within the currency would be the same also. The difference would be felt whenever it might be desired to melt them into bars or export them, for which the old coins would be the first selected. The new coins could not be melted or sent abroad, except at a loss of $1\frac{1}{24}$th per cent. It would be necessary, in joining the Convention, that the agreement of all the other States should be obtained to the British Government charging an exceptionally higher seignorage of $1\frac{1}{24}$th instead of 1 per cent. But this ought to be readily conceded, as it would act rather against than in favour of the Royal Mint.

The new coins would cost the same as the old.

42.—Should the Government desire to join the Convention and make the proposed reduction in weight of the pure contents of the sovereign, this suggestion appears to offer an easy and safe solution of the difficulties

Explanation of apparent inconsistency.

* To compare this with the rate at which gold coins are now by law deliverable to parties who take gold to the Mint and submit to the delay of coinage, the value in the new currency corresponding with £3. 17*s.* 10½*d.*, in the old, would be £3. 16*s.* 5½*d* (5·5090909*d.*, &c.), so that the merchant on being paid £3. 16*s.* 5½d., would receive within the one hundred thousandth part of the present value. The alternative might be given him of receiving the larger sum and waiting for the Mint out-turn; or the gold might be bought according to the old standard ($\frac{11}{12}$ths) for £3. 17*s.* 9*d.* prompt payment, or £3. 17*s.* 10½*d.* after coinage, of the *new* coins, in which case he would receive the *exact* value.

attending the measure. At the same time, as the proposal may seem to be inconsistent with the remarks made in the earlier part of this paper, I feel it necessary to add that it is only as an alternative to the greater evil of disturbing the values in all the innumerable transactions of our vast empire that such a scheme could be considered worthy of attention; and although there can be no question that perfect freedom in the export and renewal of the currency must be at all times an advantage to trade, yet the force and value of that principle are much more felt in countries surrounded by neighbouring conterminous States, with whom a vast amount of comparatively small transactions take place, than in Great Britain, which has no such transactions, all dealings beyond the limits of the kingdom being through maritime export, and generally and chiefly effected by means of bullion. It must be noticed that the 1 per cent., which I have called seignorage, would include the charge of $1\frac{1}{2}d.$ per ounce, or about $\frac{1}{6}$th per cent. to cover interest, to which the coinage is at present subject; and the losses on export and melting the coins, now caused by the diminution of weight through wear and "worseness" of the report on assay abroad, would also be got rid of.

Advantage of the proposal.

43.—It must be remembered, too, that the main object of the Convention is to establish an uniformity of coinage, so as to admit of the money struck in one of the contracting States being unhesitatingly received by all others, without being melted and assayed; and as our coins would be intrinsically on a par with those of other States, and would conform to the conditions of the treaty, the objection to seignorage, as causing a loss on export of the pieces, would be deprived of much of its force and application.

Mr. Hendrik's objection removed.

44.—The objection which Mr. Hendriks makes (p. 23) to the imposition of a seignorage will, I trust, also be removed by the fact that, while the gold bullion

trade would be left undisturbed, the Mint price, or "exchange ratio," would be unchanged also, so far as it affects the merchant or importer; as he would be paid precisely* the same sum per standard (present standard) ounce as he ever was, in pieces of the same local value as before, and these pieces would even preserve their value abroad, in the countries united by the Convention. I need hardly add that, as the Government would gain more than 1 per cent. upon all coinage, the claims of the Bank of England would be adjusted out of that surplus, and leave a considerable profit.

* This is not absolutely correct, for the precise cost of the new standard ounce, corresponding with £3. 17*s.* 9*d.* for the present standard ounce, is 0·03636*d.*, or about the 27th part of a penny more than £3. 16*s.* 4*d.*, so that the merchant would, by the new arrangement receive about the twenty-five thousandth part ($\frac{1}{25190}$th) less than before.

SUMMARY

OF THE ARGUMENTS RESPECTING THE INTRODUCTION OF THE SOVEREIGN AS THE EQUIVALENT OF 10 RUPEES, CONTAINED IN THE FOREGOING SECTIONS.

It is shown in Section I. that the value of coins *within the currency* may be increased without altering the weight of pure metal contained in them, by alterations of the rules and practice of Mints. That, accordingly, the current value of rupees could be raised so as to make them equal to that of the sovereign, if such an increase were necessary, by increasing the Mint charges for their manufacture. It is also shown that if sovereigns were introduced, even although it might not be necessary to raise the value of the rupee, yet an additional seignorage on silver coins would be desirable to prevent the latter being manufactured when silver was cheaper than the average.

In Section II. it is shown that rupees are on the average of 14 years, one-half per cent. less costly than sovereigns would be if coined of Australian gold without charge, supposing both silver and gold bullion certificates to be paid on equally advantageous terms.

In Section III. it is pointed out that the standard value of the present rupee currency was, previous to 1862, based on the rule of payment for silver bullion not less than 20 days after assay—in practice frequently much more; that, owing to a recent alteration of the law, allowing the payment of silver bullion certificates on demand, the standard is being gradually lowered by about one-half per cent.; that the standard value of the general mass of the currency is still about one-half

per cent. higher than that of new coins paid on demand for bullion; and hence, that a sovereign delivered on demand for gold bullion would be of equal value with the mass of the present currency (in the ratio of one to ten), or with ten new rupees delivered 20 days after assay. It is therefore proposed that the former rule should be re-established with regard to silver bullion, that is, that it should be paid 20 days after assay; and that on the introduction of gold as the standard currency, that metal alone should be paid for on demand; by which means the cost of procuring the sovereign and ten rupees would, on the average of years, be precisely the same. Certain difficulties and objections are stated and answered.

In Section IV. the 120 grain gold piece prescribed by Act XVII. of 1835, is shown to be more than two per cent. less in value than rupees in the ratio of one to ten, and it is therefore considered unsuitable. The necessary regulations for the gradual introduction of sovereigns on an equality with rupees in the ratio of one to ten are stated. Some further methods of introducing a gold currency are adverted to, and a few remarks made on the international Monetary Convention, respecting which, a plan, whereby Great Britain might join the Convention without any disturbance of present values, is suggested.

APPENDICES.

APPENDIX A.

Extract from the Supplement to the *Gazette of India*, dated October 27th, 1866, of that part of the Report of the "Commission to inquire into the operation of Act XIX. of 1861," relating to the introduction of gold.

24. "With respect to the introduction of gold, the following points seem to be generally and firmly established:—

1stly. That gold coins of various descriptions of mohurs and sovereigns—English and Australian—although not used as money by the State, are generally at par, or above par, in price, whether in the Presidency towns or in the cities of the Mofussil;

2ndly. That they are sought for in the Provinces for trading purposes by merchants and bankers, and as a medium of a reserve of wealth by the people at large;

3rdly. That where gold is below par in price, it happens either because gold is almost practically unknown in the Districts concerned, or because the people are too poor to create a demand for it;

4thly. That the demand for gold currency is unanimous throughout the country;

5thly. That gold coins of 15, 10, and 5 rupees respectively would find more favour in the eyes of the people than notes of like value;

6thly. That the introduction of gold would facilitate the establishment of the currency notes, outlying treasuries being assisted by such a measure towards the convertibility of the notes; and

7thly. That the opinion is general, almost unanimous, that the currency should consist of gold, silver, and paper.

25. With such evidence of the general wish of the country before them, the Commission cannot hesitate to express a hope that the Government of India will persevere in the policy which was recommended for the approval of the Secretary of State two years ago*—viz., to cause a legal tender of gold to be a part of the currency arrangements of India; that which is believed to have been erroneous in the original proposal being modified, however, as hereinafter recommended.

26. The Commission would draw attention to the fact that the price of the gold mohur or Government piece of Rs. 15, as fixed by Act XVII. of 1835, is as nearly as possible the average market rate of the price of coined gold of the present day.

27. That price, as sanctioned by law in 1835, seems to be the legitimate basis on which to found a gold legal-tender coinage for India, consisting of pieces of 10 and 5 rupees respectively—the 10-rupee piece having the weight of 120 grains, and the 5-rupee piece 60 grains troy.—*Vide* section 7, Act XVII. of 1835.†

28. The Commission are aware that it is a favourite notion in some quarters to cause the English sovereign to be issued as the representative of 10 rupees in a legal tender, and this view received the sanction of the Government of India in 1864, at the instance of Sir C. Trevelyan.

29. But according to the evidence submitted generally to the Commission, the conclusion can hardly now be resisted that the tendency in India is rather to raise a gold coin above par.

30. If the Tables of Prices‡ be consulted for past years, the fact is clearly shown that the real par of the sovereign is somewhat above Rs. 10.

31. If this be admitted—and the evidence is such, that no doubt can be entertained with regard to the fact—the Commission may perhaps be excused for believing that the Government of India had not the advantage

* *Vide* Financial Dispatch from Government of India to Secretary of State, July 14th, 1864.

† Section 7, Act XVII. of 1835:—"And be it enacted that the under-mentioned gold coins only shall henceforth be coined at the Mints within the territories of the East India Company—

"*First.*—A gold mohur, or 15-rupee piece, of the weight of 180 grains troy, and of the following standard, viz.—

"$\frac{11}{12}$, or 165 grains, of pure gold;
"$\frac{1}{12}$, or 15 grains, of alloy.

"*Second.*—A 5-rupee piece, equal to a third of a gold mohur.

"*Third.*—A 10-rupee piece, equal to two-thirds of a gold mohur.

"*Fourth.*—A 30-rupee piece, or double gold mohur; and the three last-mentioned coins shall be of the same standard with the gold mohur, and of proportionate weight."

‡ *Vide* Tables attached to Sir William Mansfield's Minute of August, 1864, which was received by Government of India subsequently to its despatch to the Secretary of State in support of Sir Charles Trevelyan's proposals.

of exact information, when it adopted the views imparted to the Secretary of State in 1864.

32. The Commission would therefore venture to suggest that, assuming what is stated with regard to the average value of the sovereign to be correct, that it is apparent that if such a tender—viz., of an English sovereign at Rs. 10—were affirmed by law, it would be to offer the sovereign for sale at a price of from 2 to 3 annas less than it can be in general bought for at the ports of importation, or at the average rates in the country at large; that is to say, that with respect to the commodity of gold, with a view to a gold currency, a departure is proposed from the principles on which the supply of a commodity to a country is invariably found to rest.

33. It is, then, clear to all men of business who look to the principles on which alone trade can be carried on, that a trade in gold, with an effectual gold currency, could not exist on such terms.

34. Thus it would be impossible for any Mint to buy gold at a less rate than importers can afford to take. And in like manner, having bought gold at given rates, the Mint—in other words, the Government—could not afford to issue the new coins at a rate less than their intrinsic value, in which must be included a moderate seignorage.

35. As a matter of course, the same argument applies to the purchase of sovereigns coined in the British or Australian Mints, the intrinsic value of which is more than 10 rupees, or so nearly equal to that sum as to leave no margin for fluctuation, or to pay the expense of mintage.

36. The force of this argument is the more apparent when attention is given to the point, that the public debt and all other obligations in India have been contracted in rupees.

37. The practical inferences to be drawn from this statement of facts and reasoning become infinitely stronger, when it is recollected that the legal tender of gold will create a new large demand for the commodity; that is to say, by restoring to gold a very considerable part of the functions of money of the State, of which gold is now deprived.

38. It is indeed possible that, under such circumstances—viz., of the restoration to gold of the legal function of money of the realm—the price of it may eventually rise as compared with that of the present day, which received the sanction of the Act of 1835.

39. But it is obvious that the increase of demand cannot occasion a fall in the price of gold until the country shall have been absolutely flooded with it, the same being accompanied by the partial exclusion of silver from the currency.

40. But when that shall have taken place, it will be for the Legislature of the day to step in and fix the gold coinage on a single standard, by reducing silver to tokens for the payment of small sums, according to the example set by the United States in 1853.*

41. We have, therefore, in the new demand for gold, another powerful reason, as above displayed, for shunning the attempt to give an artificial depreciation to the metal, by forcing the sovereign to run for less than it is actually worth.

42. The attempt is simply to ensure the defeat of a gold currency.

43. The Commission would again once more glance at the practical impossibility of increasing the public debt, and the obligations of all debtors which have been contracted in the rupee.

44. To raise the value of the rupee, however little, by artificially depreciating its gold representative, is simply an act of injustice to all debtors and a bonus to all creditors, whether of the State or of private parties.

45. As the two tenders, silver and gold, must run *pari passu* for some time to come, such an injustice would rectify itself by the defeat of the gold and its ejection from the currency—the same resting on the clearest application of commercial principles, as above indicated."

APPENDIX B.

Minute by His Excellency Lieut.-General Sir William Mansfield, K.C.B., dated 4th August, 1864, on Sir Charles Trevelyan's proposal to value the Sovereign at Rs. 10 in the Indian Currency.—*Vide* Resolution of Government of India, dated July 12th, 1864.

"I am under great obligation to Sir Charles Trevelyan for the very kind manner in which he has been pleased to allude to my Currency Minute, dated 8th March, 1864.

* *Vide* Chapters 5 and 6 of Sir W. Mansfield's Minute on the introduction of a Gold Currency into India, dated 8th March, 1864; also his Minute of August, 1864, in answer to Sir Charles Trevelyan's Minute of June 20th, 1864.

2. It is a matter of no ordinary satisfaction that my argument and theoretical conclusions should have been able to arrest his attention.

3. This being so, it is with unfeigned regret that I am obliged to say that I am not convinced by Sir Charles Trevelyan's reasoning of the soundness of the measure by which he proposes to commence the conversion of the silver currency of India to a golden one.

4. The measure to which I allude is the legalizing of the value of the sovereign in ten rupees for tender of payment, while the sovereign is really worth more than that sum.

5. The question of respective values of gold and silver in India, as determined by experience, during the last few years of expansion of trade and increase of gold production, has the most important practical bearing. On the successful appreciation of it may be said to depend the ultimate success of the great reform, the entertainment of which has been sanctioned by the Right Honourable the Secretary of State for India, and by the Viceroy and Governor-General in Council.

6. I have ventured to remark once before at some length on the details of this matter,† and it is satisfactory to observe, that the calculations and statements of value thus offered at Bombay receive support from those independently prepared at Calcutta.‡

7. Thus the Honourable Mr. Claud Brown shows by a calculation of averages that the sovereign has in Calcutta of late years maintained about the same value as it has in Bombay, the cost of the sovereign being now, as he states, with regard to the gold it contains, worth Rs. 10:2:11, and with the additional 1 per cent. for seignorage, Rs. 10:4:6; consequently, Mr. Brown observes that, under the arrangement proposed by Sir Charles Trevelyan, sovereigns would be readily and rapidly received into circulation; but the first and most essential condition is, that some one must provide the sovereigns, and that his difficulty is, that he does not think it can be done at the price.

8. It may here be said that in the price of gold as shown by the sovereign, it is well to banish from our minds the distinction between Australian and British sovereigns, except such very trifling difference of value as is, I believe, supposed to exist between the two coins.

9. The price of gold in India, where the metal is viewed as a commodity of import, is, of course, regulated by the price it bears in the country where it is most cheaply produced, to which must be added all other charges.

† *Vide* Chapter 11 and Appendices of Minute of March.
‡ *Vide* Appendix No. 9 to Sir Charles Trevelyan's Minute.

10. The freight and loss by interest being less on gold imported direct from Australia than if the same gold had made the circuit of the world, it follows that gold imported by way of Europe must accommodate itself to the superior cheapness of Australian gold; in other words, that the price of the latter in India rules the price of all other gold, from wheresoever it may come.

11. This is actually seen to be the case when sovereigns, whether British or Australian, are considered as a matter of commerce. The exceptional taking up of the former for the use of travellers on their road to England has no practical effect as regards the real price of gold. On the sailing of a steamer, English bank-notes are sought and paid for exceptionally on account of such personal convenience.

12. The price of the sovereign in India, as an article of commerce, having thus depended on the marketable value of gold, it has been seen in the two great marts of Calcutta and Bombay that that price has on an average of years been slightly more than Rs. 10:4:0, although the sovereigns are treated in their character of gold without respect to mint or seignorage charge.

13. Consequently, Sir Charles Trevelyan's price, to which he desires to give a legal sanction for tender of payment, is, at the least, sixpence less than this average value of the sovereign, or about $2\frac{1}{2}$ per cent. as hitherto maintained.

14. The question therefore arises, to put Mr. Claud Brown's doubt in another form, who is to bear the loss of the $2\frac{1}{2}$ per cent.?

15. It will be understood that if the Mint can find the gold, the people will be only too happy to exchange their rupees at a rate which will give them sixpence or four annas on the changing of every packet of ten rupees. But is the Government prepared to lose the sixpence, or in other words, the $2\frac{1}{2}$ per cent.?

16. Surely we cannot expect, except in the case of extraordinary dearth of silver, that the people will pay in gold when to do so causes them a loss of $2\frac{1}{2}$ per cent. on their transactions. On the contrary, they will continue to pay in silver so long as gold remains at a premium in the market, as compared with the rate fixed for the optional legal tender.

17. Gold would then be issued at that low rate only at Government Treasuries, and the Government, receiving silver in payment of Revenue, would then be the sole loser. Government would, therefore, be driven to make all its payments in silver, to prefer silver as the means of redeeming the currency notes, and therefore to defeat the measures it is now bent on introducing.

18. Another question also surges up. It may be asked, why is $2\frac{1}{2}$ per cent. to be added to the value of the National Debt as a condition of the conversion of the silver currency?

19. Yet, if it be in the power of the Government of India to redeem part of the capital of the debt, and to discharge the interest of it in gold, according to the price sought to be legalized, and if it do so it is clear all such payments would involve a *pro tanto* addition to the debt, as shown by the artificial depreciation of the gold coins. For it is admitted by Sir Charles Trevelyan, that, under any circumstances, his gold would be offered in currency at a less price than it habitually fetches in the market.

20. But it may be further doubted whether the Mints would, on the terms of Sir Charles Trevelyan's Minute, obtain any gold with which to carry out the conversion of the currency except in the remittances of gold made on account of Government. In consequence of their being worth more than the rate fixed for the optional tender by law, sovereigns imported on private account would be sold at the premium they might be able to demand in the market. Bar gold being sent to the Mints for coinage would be recovered by the owners in the form of sovereigns, to be sold in like manner at a premium. Sovereigns would not be exchanged for currency notes in the Issue Department.

21. The further consequence would be, then, that the currency would become complicated instead of being relieved, as we wish it to be. Although dignified as currency legal tender, if anybody chose to tender them at a loss to himself, sovereigns would practically remain an article of trade, while Government, whenever it paid gold as part of the normal currency, would be the sole loser.

22. The result, therefore, would be, that silver would remain as it now is, and importation of it for purposes of currency would be continued, one of the things we desire to prevent, while gold, in effect, would not be promoted to perform currency functions as we desire.

23. It is stated that the Australian sovereign can be laid down at Calcutta for Rs. 10:2:9. The data on which this assertion is based are not, I believe, furnished. It is not shown whether the profits of the importer are included in the figure, or if the mere cost of the gold in Australia, freight and other charges, are comprehended only.

24. Unless the latter is the case, it is difficult to understand how the price of gold remains on an average at a higher rate than that at which it can be profitably imported. In short, we must take the value of gold at what it is shown to be by the average prices of a term of years, and not from an arbitrary assertion made at a particular juncture.

25. I annex a valuable return of the price of sovereigns, British and Australian, during the last five years. This average price is shown to be about Rs. 10: 4: 0, or considerably in excess of that for which it is alleged Australian sovereigns may be laid down at present.

26. Sir Charles Trevelyan, however, taking the smaller figure, viz., Rs. 10: 2: 9 as his basis, trusts that the Colonial Legislature of Australia may be induced to reduce the price of gold exported from Australia to India by abolishing the export duties.

27. It may be asked if it is not too sanguine to expect such accommodation from popular and distant Governments over which we have no control? Should we ourselves be justified in legislating with a view to a contingency which must in any case be remote, and which many politicians who consider how Colonial revenues are raised with regard to Colonial impatience of taxation, will declare to be so unlikely as to be almost impossible?

28. But it is to be remarked that the new and great demand for gold caused by the organization of an effective gold currency in India, will not improbably raise the price of gold throughout all the markets in the world, of course including Australia. On the other hand, we must not forget that the yield of gold in the latter country is largely diminishing, as noted by Sir Charles Trevelyan. It is not impossible that the two things taken together might neutralize the effect of abolishing the Australian export duty, if such a measure were ever to take place.

29. Sir Charles Trevelyan is apparently of opinion that eventually the price of gold in India would be somewhat diminished by the regularity of trade consequent on the introduction of a gold currency.

30. But is this likely? Has he not overlooked the effect of the new demand on the regions of supply, when gold shall be substituted in the imports to India in the place of the many millions of silver now annually brought to her shores from all parts of the world?

31. We have already seen in India how the superior convenience of gold as a vehicle of reserve value has kept up its price in India, as reckoned in silver, notwithstanding that it was shut out of the currency. May we not expect a still greater result in the same direction when it is admitted?

32. I am evidently not singular in such views. Thus Mr. Claud Brown, while he does not guarantee that gold may not ultimately be reduced in value so as to enable the sovereign to be supplied at Rs. 10, "sees "no valid ground for expecting such a change, especially when due "allowance is made for the effect which the adoption of gold as a circu- "lating medium in India, must have in checking any tendency that might "otherwise have existed to a decline in the value of the metal."

33. Let us now consider the subject in another manner. Sir Charles Trevelyan, when advocating the introduction of the sovereign as a uniform standard of exchange, says that it would come into more extensive use than the Spanish dollar ever did if fair play were given it. Yet he shows that he has misgivings that his proposed measure will retard the conversion of the silver medium to a golden one, the real and immediate object of the proposed reform of the Indian currency.

34. Can it be said that fair play is given to the sovereign as a current coin when, making a law that gold and silver shall be optional legal tenders, we declare that the former shall be issued in a coin, the sovereign, charged at a rate which depreciates its value?

35. The object of the change which is now proposed is the eventual conversion without shock or expense of the silver currency to a golden one.

36. It is difficult to understand why, bearing this object in view, we should commence with a measure which, as Sir Charles Trevelyan admits, may retard its attainment. Should we not rather recognize the fact of equality of intrinsic value between the respective coins of the two metals as the only basis of theory and practice in our progress towards the eventual position of a gold currency and a gold standard, that progress being determined only by the other fact of superior convenience of a golden medium over a silver one?

37. In this case we shall have simplicity, an intelligible principle, and, it may be said, finality; whereas, in the other, we shall commence with a measure open to the charge of retarding the reform we propose, which, by some critics, will be held to be synonymous with inoperativeness—in other words, failure.

38. By taking the basis of equality as now shown by the averages, we stop speculation with regard to artificial and local differences of value as much as we can. The relative values having been so determined by experience till the present date, will become fixed henceforth in currency at present rates. We have seen examples of a like result in the instances of France and America. As in those countries, the moment will in such case at length arrive for stereotyping the rate by means of the token coinage.

39. If, on the other hand, when we inaugurate our reform, we depart from the basis of equality in favour of silver, we, in fact, delay not only the conversion of the currency, as shown above, but we do something more: we forego the advantage of determining the value of gold in currency by the current silver coin, for the future as well as the present.*

* *Vide* Chapter 3 of Minute of March, more particularly the closing pages of that Chapter.

40. Without such determination of the value of gold in silver, according to reason as well as an arbitrary regulation, which will be set aside by the *premia* of the markets, the currency reform cannot become substantive, and we shall land ourselves amidst the uncertainties of the double standard.

41. For in such case the attempt will be really made to have two measures of value in different metals, whereas we know that trade and exchange will only admit of one measure. By insisting on the nicest equalization of value between silver and gold in the issue of coins under a joint or optional legal tender, we still adhere to the old rupee measure or silver standard, but we offer the golden equivalent in its place. If we wittingly afford more of gold than is equal to the silver, we do the reverse, and we compel the community in every transaction, public or private, to consider whether it is to be performed in silver or in gold.

42. It may be further observed that, by means of the nice equalization of the legal tenders in point of value, we are perfectly just to the present holders of silver and the holders of securities, whether on public or private contracts; for they will be allowed at their own convenience to pay in silver or gold. This fact would prevent the depreciation of silver from its present value with regard to gold. For if it were to fall, as suggested by Sir Charles Trevelyan, below the par of present value—which, on a real present equalization would be fixed in currency—it would be quickly bought up for the discharge of debts, according to the option afforded by law. Its currency value, and therefore its price in the country, would be as rapidly restored.

43. It would appear, after considering all the features of the matter presented to us, that we are encumbering what would be otherwise simple by the attempt to graft on it something else. Thus we desire to have a gold currency for India. The measures to effect such a change are direct and simple. But this is no longer the case, if we take the opportunity to provide what is called an imperial standard of exchange for the dependencies of Great Britain, and then to fix in India a gold coin at an artificial price, that coin having been struck for a system of coinage unknown to India and her coined values.

44. It seems strange to try to force down a strange coin at a price which is not its true equivalent; in short, to bend certain physical facts of value in favour of a notion of decimal convenience, and of relation to other portions of the British Empire.

45. The equitable proceeding would appear to be on the contrary, if we choose to impose on India a gold coin which is foreign to her system, that, rather than commit ourselves to an arbitrary measure, we should give the strange coin for its exact value, just as in exchanging gold for silver we

should take care, as far as lies in our power, that in general the equivalent of the former is accurately afforded in substitution of the latter; in other words, that our currency transactions should exactly follow the law of barter until the absorption or disappearance of the silver may enable us to revert to a single legal tender for large sums by the introduction of the token coinage.

46. With regard to all existing debts and contracts we are unable to part with the existing silver rupee. It is to us what the franc is to the French, what the dollar is to the American.

47. We should only think of rendering that silver rupee in its golden representative, and we should not for the present trouble ourselves with more. According to the proposal which has received the sanction of the Government of India, we do not confine ourselves to this, but for *ex parte* considerations we made the effort to confer a greater value on the rupee than it physically possesses.

48. I cannot help thinking that a confusion has arisen, and that the advantage of clinging to the sovereign for India has been overrated, while the differeuce between its value and that of ten rupees has been underrated.

49. Had a sovereign been worth 12 rupees, there would have been no thought of legalising it in a value of 10 rupees. But in truth, when the large operations of trade are involved, it makes but little difference, so far as the object we are considering is concerned, whether the difference be 2 rupees or 2 annas. In either case, the difference is sufficient to ensure an immense profit or loss to a merchant who operates with millions. This being so, the market *premia*, owing to want of original Mint equalization of value, entailing the official depreciation of gold, would, I believe, infallibly drive gold out of the currency. I think, therefore, that if we would succeed in fairly resolving the problem we have before us, we must have a gold coinage for India herself, and let sovereigns run according to their value, which may be determined by law with regard to the regular Indian gold coin.

50. In short, the sovereign should be the ally, to assist India in participating in the convenience of the imperial standard. But it will not be permitted to usurp the rule in the realm hitherto occupied by the rupee, and to change the value of the latter.

51. We can then hardly resist the conclusion that the golden multiple of the rupee should be calculated and minted with regard to the value of the rupee only, and apart from all other considerations, sovereigns being allowed to run for their relative value."

W. R. MANSFIELD.

The 4th August, 1864.

Average Quotations for each Year in Bombay of English and Australian Sovereigns and English and Australian Bar Gold.

Year.	English Sovereigns.	Australian Sovereigns.	English Bar Gold, 98 Touch.	Australian Bars.	Remarks.
1857	Rs. 10 2 7 each	No quotation	No quotation	No quotation	
1858	10 2 2 „	„	Rs. 15 14 4 per tolah		
1859	10 5 9 „	„	16 6 5 „		
1860	10 5 4 „	Rs. 10 7 2 each	16 4 2 „	Rs. 15 12 0 per tolah (23 carats)	Australian sovereigns and Bars, from July.
1861	10 4 9 „	10 3 8 „	16 1 7 „	15 5 7 (23 carats)	
1862	10 5 0 „	10 3 5 „	16 3 1 „	15 14 2 (23¾ carats)	
1863	10 4 1 „	10 6 9 „	16 3 1 „	16 1 2 (23¾ carats)	

APPENDIX C.

From Captain J. T. Smith, Engineers, Mint Master, to J. Orr, J. F. Thomas, and A. J. Cherry, Esquires, Mint Committee.

GENTLEMEN,—

1st. I have the honour to lay before you the accompanying facts and circumstances in connection with the coinage of the fractional parts of the rupee, to which my attention has been drawn by the very great scarcity of small silver coins which is now felt, and the efforts which are found necessary to replenish this branch of the currency, at present nearly destitute of this auxiliary of exchange, although a few years since amply supplied; a fact unaccountable by reference to the comparatively short interval which has elapsed between the cessation of the operations of this Mint in 1836, and the present recommencement of the fabrication of small coins.

2nd. From its great importance to the prosperity of the country, I have felt it to be a duty to bring the subject under your consideration, and I trust that this circumstance will also plead as my apology for trespassing upon your attention by the observations which I have ventured to make upon it.

3rd. The Government of India have fixed the rupee as the standard of value, and have accordingly assigned the limits of deviation within which

coins used for payments shall be considered as legal tender. The necessity of a regulation on this point is very obvious, to prevent the injury and wrong which might otherwise be done by the transfer of large sums by means of coins materially short of their proper value; but the same necessity does not apply to all silver pieces, and particularly not to the very small fractional coins, which are not intended for, and rarely are used for effecting large payments, and seldom indeed perform any other office than their legitimate one, of filling up the minor parts of such payments which are too small to be liquidated by the principal standard coins themselves.

4th. For this reason, in most countries, the coins of the smallest worth are considered subsidiary to those which constitute the standard or measure of value; and while they are on the one hand excluded from the privilege of being offered as legal tender for indefinitely large sums, they are frequently, to a greater or less extent, made to take the character of "tokens," of which the essential property is that the intrinsic value is not necessarily equal to the nominal rate at which they are put into circulation.

5th. In England, the standard of value and legal tender for indefinitely large sums is the gold money, and the subordinate silver coins are essentially constituted of the nature of "tokens," their intrinsic value being less than the nominal rate at which they are issued for circulation. The same applies also to the copper currency, the pieces of which are also "tokens."

6th. In America, the standard of value is the dollar, and this coin, together with the half and quarter dollar, is established by law as legal tender for any sums whatever, being at the same time restricted within narrow limits of deviation from the exact standard of accuracy; but the smaller silver coins, the *dime* and $\frac{1}{2}$ *dime*, are only legal tender for sums less than a dollar, and they are purposely made to take the character of tokens, being of less value than their denominations as compared with the dollar.

7th. In India, the principle above referred to has been acted upon in regard to the copper coins, which are altogether of the nature of tokens, but no principle has yet been laid down in regard to the fractional silver coins, which are now issued for the first time as parts of the uniform monetary system of India; and it appears necessary that the subject should be taken into consideration, on account of the reasons which will be hereafter given.

8th. The expenses of the coinage of silver are defrayed by a seignorage of 2 per cent. upon all bullion made over to the Mint, and were no other coins than rupees fabricated, it is possible that the sum realised by that

charge might be sufficient. Taking everything into consideration, however, it is not more than sufficient, and it cannot be said that even in these coins the Honourable Company realise any profit. Under the most favourable circumstances any one of their Mints may be capable of executing rupee pieces at an expense very considerably less than the rate of charge above specified, but on the average of all circumstances the cost is certainly more,* and if the same rigour in estimation were used which it would be necessary for private speculators to apply to secure themselves from loss, it would, perhaps, be found to be considerably so.

9th. But whatever may be the case with regard to the integral coins, there cannot be the least doubt but that the fractional pieces are issued at a very considerable sacrifice to the State. It is difficult to fix precisely what the fair average cost of each ought to be stated at. It will be however evident, when it is considered that the cost of fabrication is in great degree proportioned to the number, or tale of pieces, that the rate upon the centage of *value* must be very materially higher in regard to the small coins. If the fabrication of 100 rupee pieces cost 2 rupees, that of a hundred double anna pieces may indeed be less, and perhaps short of 1 rupee; but their value being only one-eighth that of the former, the expense of fabrication upon the centage of value would, even at that calculation, amount to four times that of the former, or 8 per cent.

10th. This estimate may probably be in excess of the actual charges of any one of the Honourable Company's Mints, under the most favourable circumstances of manufacture, but by no means so in regard to the average of all the conditions and circumstances under which the small coins may be required by the financial exigencies of the State. At one period, the cost of executing the small coins, including single anna pieces, was stated to be at Madras as much as 21 per cent. upon their value, and although it is to be hoped that the circumstances may never again occur which gave rise to so high a charge, still, occasions may frequently arise at all the mints, when the rates of manufacture may be caused to exceed the usual average, as in the instance referred to.

11th. A similar calculation applied to the *single* anna pieces, would exhibit a rate of charge very much higher, but enough has been already stated to show that in the issue of all such coins, for the manufacture of which the Government receive 2 per cent., and pay 5 or 6, a very considerable loss must be encountered. This circumstance, together with

* From later information, I am induced to think that this statement requires correction, and that the larger coins may perhaps be executed at a less rate than the seignorage at all the Mints.

the very great difficulty and impediment to the dispatch of business created by the minute adjustment in weight of such multitudes of small coins, cannot but operate more or less to dispose the officers of the different mints to be averse to executing them; whilst, the merchants on the other hand, whose individual views are not governed by any consideration as to the public convenience, rarely (I believe never) call for them, on account of the difficulty of counting on transfer so many separate pieces.

12th. While these obstacles oppose the introduction of the subsidary coins, the interests and convenience of the mercantile community, and particularly the poorer classes, loudly demand their issue, and in some parts of the country it is the opinion of those persons most acquainted with financial subjects, that an extensive circulation of them is highly desirable. It is therefore of great importance to consider, whether the difficuties and loss which now oppose the introduction of this branch of the currency could not be diminished; and still more so, whether some means ought not to be adopted to prevent them from being encountered, as it will be shortly seen they partly are, *in vain*.

13th. When a currency is established which in any degree partakes of the nature of tokens, the difference between the intrinsic value and the nominal rate, operates as a bar to its exportation; for it is evident that no foreign merchant will receive his balance in coins of that description at the rates at which they are current in exchange, the value in all other countries being estimated by the intrinsic worth of the metal, and by that only. Thus the *silver* currency of England being circulated at a nominal rate of 6 per cent. over and above its intrinsic value, is secured both from being exported and from being melted down, either operation being attended by a loss to that extent. But when no such difference exists, and the coins of both large and small denominations are equally true to the standard, it is evident that an equal benefit is derived by the exportation or melting of either, and it may with certainty be concluded, that if it be not substantially the interest of the merchant or broker to export or melt one species of coin in preference to the other, none will be found to take the trouble to discriminate between them, however great may be the loss to the State or the inconvenience to the public, from their not doing so.

14th. Hence it may be inferred, that the pains which are taken in adjusting the small coins with so much accuracy to their equivalent values, as compared with the standard rupee, have no other effect than that of defeating the very purpose of their execution, and entailing a fruitless and never-ending loss upon the Government, in continually replacing coins subject to constant exportation or destruction; whilst it ought not to escape

notice also, that even if these elaborate endeavours had not this fatal tendency in the manner above explained, the whole trouble thus bestowed in the attempt to regulate the small coins upon an equality with standard must upon another account be necessarily thrown away; since, even if issued of the utmost exactness, it is impossible to maintain them so, it being well known that the wear and loss by weight of small coins is incomparably greater than that of the larger ones, a fact which discloses another cause for their speedy removal from circulation, owing to their liability to early condemnation on account of deviation from standard.

15th. Upon every account it is desirable that the subsidiary coins should be maintained in circulation, because their express office and duty is the facilitating of payments and the convenience of commerce; were it for no other reason it would be desirable that they should be guarded from exportation, but when in addition to this we take into consideration the very great difficulty with which they can be replaced, and the loss which is unavoidably met with in doing so, the imposition of some check upon their removal or destruction seems to be imperatively called for.

16th. It is further to be observed, that were the smaller coins—from the quarter rupee downwards, made professedly subsidiary or representative of the standard rupee, and at the same time of a somewhat inferior comparative value, instead of being as at present proportional equivalents, there would cease to be the necessity which now exists for that elaborate pains which is required to adjust them within the proportional degree of proximity to the standard. Were they confessedly in part but "tokens," the use and benefit of such an exact conformity to precision would obviously cease, and a very considerable expense and great impediment to the dispatch of business would be done away with; the only effect of which appears to be, realising a purpose not intended by them nor desirable, and which it is impossible for them permanently to fulfil, viz.:—that of being fit for the transfer of large payments without loss, and at the same time equally suitable for export or the crucible.

17th. From the above facts it appears, that whilst the Government incur a great loss and difficulty in supplying the subsidiary branch of the currency, there is no check whatever to prevent this sacrifice being wholly thrown away, in consequence of the exportation or melting down of the pieces which it is so difficult to replace, in common with others.* I would therefore beg to suggest, that with the view to prevent this evil, the inferior denominations, from the quarter rupee inclusive downwards, be like the

* It is perhaps not generally known that a profitable trade is kept up by the export of the very small coins from this Presidency to the eastern and other islands.

silver coins in reference to the gold in England, and like the silver dime and half-dime in reference to the dollars in America, separated into a distinct class, as a subsidiary or representative currency, and that their intrinsic values be made less than the rate or denomination at which they circulate, by taking off from their weights whatever quantity may be deemed most advisable. The result of this step would be, that whereas there is now no obstacle to prevent the exportation or melting down of the large and small coins indiscriminately, it would hereafter be done at a loss in respect to those coins in particular which it is most difficult to replace, and which it is most important to retain in circulation; while, at the same time, by the difference between the intrinsic and nominal value, the Government would realise an additional profit, which would go towards meeting the great comparative outlay with which they are charged in the fabrication of these pieces.*

18th. This additional profit, however, it must be observed, would not constitute any extra tax upon the gains of the merchant or seignorage upon the price of the bullion, which would be received at the usual deduction of 2 per cent., the surplus being realised only in event of its being issued in that species of coin which requires the protection of a discriminating duty, and taken out of the pieces.

19th. It next becomes a question to what extent this proposition, if acceded to, ought to be carried, the decision of which must be left to the higher authorities; but it may be useful to mention, that in respect to their fabrication, great facility in the dispatch of business and saving of expense would be attained by dispensing with the examination of and remedy for *individual* pieces, and by ordering them to be tested in mass, as the silver coins in England are by the pound; and that it would be proper that the limit of deviation for wear should be much greater than at present. By way of suggestion, I would propose the weights to be adjusted as follows:— $\frac{1}{4}$ rupee, 42 grains; $\frac{1}{8}$ rupee, 21 grains; $\frac{1}{16}$ rupee, $10\frac{1}{2}$ grains; by which arrangement the difference would be fixed at about 7 per cent.; and that the limit of deviation from exactness be extended to 10 per cent. in regard to small coins, provided they be not clipped or in any other way defaced.

20th. As I am aware that various objections to the proposition which is above advanced may occur to those who have not very attentively considered the subject, I feel it to be necessary to anticipate and reply

* It was not considered necessary to enlarge upon this point in support of a measure, the recommendations in favour of which were quite of a distinct character; but it might have been added, that by applying this principle to the inferior currency of the whole of this vast empire a profit would be gained of not less than two or three lacs of rupees per annum.

to such as have occurred to me, in order to obviate the risk of their being urged in the absence of a statement of the reasons by which they may be controverted:—

1st. That as the small coins are chiefly used by the poorer classes, the deduction from the value of the fractional pieces will inflict an injury upon them, by raising the price of commodities, owing to their being rated in a currency of inferior value.

2ndly. That it would cause a loss to retail dealers, by the accumulation in their hands of pieces of less intrinsic value than they profess to be.

3rdly. That the defect in the intrinsic value of the small coins will give rise to a shroffage, and thus inflict a burden on the poor.

21st. The first of these objections—namely, the injury which would be inflicted upon the poor by the rise in the price of privisions, &c., is founded upon the misconception that intrinsic value is essential to a subsidiary currency; but the error of this supposition has long been demonstrated, and it is now fully admitted by all who are well informed upon the subject, that subsidiary coins may circulate at any arbitrary rates, within the limits of the state wherein they are issued, and without any effect upon the standard of value or the prices of commodities. It is only when about to be withdrawn from internal circulation that the loss of the intrinsic value is felt, and this very loss is desirable as a bar to their removal. Were the above explanation otherwise than correct, a much greater evil than what is apprehended in the above objection would have been already inflicted by the subsidiary copper currency, the intrinsic worth of metal in which is 50 per cent. less than the denominative value, yet this currency is already very largely circulated without any such evil having been experienced.

22nd. The second objection regarding the loss which retail dealers would suffer, is the statement of an evil which cannot ensue. The evil, in fact, is not the consequence of a deficiency of intrinsic value alone, but of a combination of that cause with the fact of an excessive issue; and even when these two circumstances do concur, no loss is sustained except on the supposed occurrence of a third, viz., the sudden repudiation of the currency. Losses of this kind may have been sustained when a representative currency of greatly inferior value has been left to be provided at the discretion of private individuals, who had an interest in its excessive issue, but can never occur when the regulation of the currency is put under the management of the officers of Government. Nor is it to be supposed that, even if an excess of the subsidiary coins did exist, and any particular part

of the currency which had been issued by the State were recalled, the Government would insist upon the loss being sustained by the accidental holders, the gain upon issue having been realised by themselves.

23rd. The third objection, that the proposed measure would give rise to a batta, or a premium upon the exchange of coins, is equally without foundation with the other two. Shroffage, which is unavoidable (apart from imposition), arises from the necessity of a charge being made for the exchange of pieces, one for another, to reimburse the party who undertakes the task of managing the business for his time and trouble in doing so; and is therefore merely a consequence of the necessity for money-changers, which necessity will exist as long as the inferior traders are so poor as to possess but little cash, and the supply of coins of all kinds is not abundant.

24th. The charge may, indeed, become excessive, and the premium upon exchange be a serious grievance to the poorer classes, whenever the comparative supplies of large and small coins are very disproportionate, and there is a great deficiency of either, especially the latter; but this is an inconvenience obviously occasioned by causes totally irrespective of the intrinsic worth of the pieces, and to be remedied solely by care in their distribution.

25th. The abuse of shroffage, or that which is fraudulent, arises from the shroffs taking advantage of the ignorance of the community, when many various coins from different native and other Mints are in circulation; and this abuse can in no way be remedied more speedily than by a perseverance in the enlightened measures now in progress for the general introduction of an uniform system of coins throughout the whole country. When there are no coins but those whose appearance and worth are familiar to the public, imposition will be impossible.

26th. In regard to the removal of the evil which ensues from the necessary employment of shroffs at all, and the injurious effects of a deficiency of small coins, it may be observed that in this respect the proposition now brought forward will be of the greatest service; for by ensuring the certainty that all the smaller coins once thrown into circulation shall remain within it, some reasonable hope may be entertained that, in the course of time, the continual issues may at last bring about a sufficient abundance; but such an expectation cannot be held at present, when we are certain that no obstacle impedes their removal or destruction, and we find it to be the fact that vast quantities do disappear from the circulation, so that it is next to impossible to maintain an abundant supply.

27th. No impediment to the introduction of the proposed measure can arise from the previous issue of small coins of full intrinsic worth. The

latter are certain to be selected on all occasions when small coins are required to be melted or sent abroad, and will assuredly disappear from circulation; if they did not do so they would be no obstacle to the reception of the new coins of a trifle less intrinsic value, the same being made equally legal tender in exchange for a rupee.

28th. It is also to be observed, that hereafter, whenever the circumstances of the country may be such as to require gold to be the standard of value, the introduction of the present measure will not be felt to have created any obstacle. The rate of the gold coins must necessarily be then so fixed as that the rupee should be over-rated and that all the silver coins should become subsidiary; but it will be no inconvenience that the smaller coins will be by the same arrangement rather the most over-rated, and the only consequence which will ensue therefrom will be that the same advantages will continue to be realised from the change which are now expected from its immediate adoption.

29th. I cannot refrain from adding, that if any alteration in the system of the inferior coins be determined upon, it is highly desirable their forms should be also changed. Unless there be some good reason to support the present patterns of small coins, they are certainly most objectionable. The reason for making rupee pieces very thin and of large surface, was, I presume, that of preventing their being drilled and plugged with lead, &c. The thinness of rupees adds to the difficulty and cost of fabrication, but if they be secured by it from fraudulent debasement, that advantage is a sufficient compensation. Now, if a rupee at its present thickness be safe from such attempts, a coin of smaller diameter at the *same* thickness would be more so; a half-rupee of the form now executed, being thinner, much more so, and the present quarter-rupee, *a fortiori*, still less liable. By the application of the proportions of the larger coins to the minute pieces, however, evils have been introduced which are of great consequence. As above stated, had the half, one-fourth, and one-eighth rupees been fabricated of the same thickness as the rupee, they would have been more difficult to drill, and much less likely to be attempted, but they would, on the other hand, be more easily and cheaply fabricated; and not only from possessing a smaller surface but also from receiving a bolder impression, would wear less and last very much longer than those now executed will do.

30th. The thickness of the present 2-anna blank before stamping is about the $\frac{1}{36}$th part of an inch; that of the 1-anna, if a similar solid, will be $\frac{1}{45}$th. Out of these thin films has the metal for the relief of the head on the obverse and the letters on the back to be raised. As it may be imagined, anything like a bold and durable impression is impossible, and in con-

sequence, the coins, though pretty looking on first issue, will very soon be deprived of their marks and become unserviceable.

31st. In respect to them, the extreme degree to which the sheet of metal is reduced before they are cut out greatly adds to the labour of preparation and the difficulty of attaining exactness; and it also tends, by increasing their surface and diminishing the depth of impression, on the one hand, to augment the rapidity of wear, and, on the other, to diminish their fitness to endure it.

32nd. With reference to these considerations, I would not propose any change in the form or dimensions of the principal or standard coins, nor even in the quarter-rupee pieces, excepting the reduction of weight; but I would strongly recommend that, in addition to the alteration of weight on all the inferior coins, the sizes of the double and single annas be changed from the prescribed similarity to the rupee piece to one of greater solidity and smaller surface; and I would suggest that the diameters should be—of the 2-anna coins, $4\frac{3}{4}$-tenths; and of the 1-anna coins $3\frac{3}{4}$-tenths; which particular dimensions are selected because they would be such as to enable the pieces to be cut from the refuse straps of the half and quarter rupees, a circumstance which would considerably promote the facility and economy of their fabrication.

33rd. Should your Committee be of opinion that the subject brought forward in this paper is of sufficient importance to make a reference thereupon desirable, I have the honour to request that you will be so good as to forward copies of it to Government, with the view to their being transmitted to the Honourable Court of Directors, or to the Supreme Government, or both, as you may think most expedient.

I have the honour to be,
Gentlemen,
Your most obedient servant,
J. T. SMITH,
Mint Master.

Fort St. George Mint,
17*th March*, 1843.

APPENDIX D.

As a calculation has been given in the evidence taken by the Commissioners, apparently for the purpose of proving the suitableness of the 120 grain ten-rupee piece, it is necessary to show the reason why the results exhibited by it do not agree with these statements. It is as follows (Colonel Ballard's evidence):—

" 658. The English sovereign contains 123·274 grains; 3·274 added " to the cost of freight and insurance at 2½ per cent. is equal to 4 annas " and 5 pie? Yes.

" 659. If then an Indian sovereign, equivalent to 10 rupees, should be " coined of 120·000 grains, and the Mint charge of 1 per cent. were added, " its current value would be brought up to 121·200 grains? Yes.

" 660. The real difference between the two coins would stand thus:—

" 123·274 English sovereign
" 121·200 Gold sovereign

" 2·074 Difference?

" Yes, that is the difference between the cost of the coin.

" 661. 2·074 of difference is equal to 2 annas and 9 pie, or about 4⅛*d*? " Yes.

" 662. *The President.*—This shows that the English sovereign is 4⅛*d*. " better than 10 rupees? Just so."

Here the excess of 3·274 grains in the English sovereign beyond 120 grains, after being increased by 2½ per cent., making it 3·35585 grains, is stated to be worth 4 as. 5 pie; and the conclusions appear to be drawn that the 120 gr. gold piece coined without seignorage would be 4 as. 5 p. less valuable than the English sovereign; and with a charge of 1 per cent. added, would be 2 as. 9 p. less valuable. It is probably by a mistake said that the *English* sovereign is shown to be 4⅛*d*. (or 2 as. 9 p.) better than 10 rupees, because it has been elsewhere stated to be worth more (*vide* Sir W. Mansfield's Minute, 4th August, 1864, par. 12); but as 10:2:9 is stated to be the price at which Australian sovereigns can be imported into Calcutta, the inference seems to follow that a 120 gr. gold piece coined with 1 per cent. seignorage, must be worth 10 rupees. This, indeed, might be the case if 10:2:9 were the minimum value of the gold contained in the Australian sovereign. But the price of Australian coined gold is (owing to the seignorage and other causes) higher than gold

bullion in the proportion of £3. 19*s.* 2½*d.* to £3. 18*s.* 4*d.* (*vide* Mr. Dunlop's letter, par. 6, Parliamentary papers, page 122.) Consequently, when the Australian sovereign is worth 10 rs. 2 as. 9 p., its bullion contents are only worth 10 rs. 0 as. 11·4 p., and the 120 grain piece at the same rate, without seignorage, 156·67744 as., or 9 rs. 12 as. 8 p.; the same with 1 per cent. added, 158·2442 as., or Rs. 9 : 14 : 3. In other words 1¾ annas less than the rupees for which they are to be exchanged.

APPENDIX E.

Postscript to the Note on Page 16.

The illustration used in this note may, I fear, give rise to irrelevant discussion, to avoid which I may explain that its object is merely to show that value in currency may exist independently of intrinsic value; not by any means to recommend a measure which would be attended with many difficulties in practice. Bank notes are now maintained at par with sovereigns because the law compels the Bank to pay them in gold on demand; but even during the many years when that law was in abeyance, although issued in excess, they maintained a proportion of that equivalency, and never sank to their intrinsic worthlessness. If it had been possible to procure at all times undisturbed and fair quotations of the market price of the precious metals, and the Bank had been compelled to contract its issues of notes whenever gold was more than £3. 17*s.* 9*d.* per standard ounce, prices would have been adjusted to the same scale as with the metallic currency; the exchanges might have been in a healthy state, and might have been in our favour as much as our foreign subsidies and war expenditure would permit. Had it not been for these and similar causes, the purchase of bills must have adjusted itself to the sale of gold bullion at £3. 17*s.* 9*d.* per ounce. The object of the note, however, was merely to state that, whatever may be established within a kingdom as the sole standard and measure of value, the actual minimum cost of procuring that article or coin there, as compared with actual cost of procuring other commodities (or bills representing them), will adjust their relative values within that kingdom, without any further reference to what are called the intrinsic values of either.

Postscript to Para. 26, *Section III., Page* 58.

It has occurred to me that the chief reason of the difficulty in realising the truth that an additional seignorage may be charged on the coinage of silver without adding to the cost of the coins, is most probably caused by the fact that it *would* add to their cost as the law stands at present. The difficulty, in short, is that of realising the effect of introducing another means of procuring the currency. But every merchant will be aware that if there are two modes of procuring a given article, that which is the cheaper will invariably be chosen; and that it matters not what additional expense or hindrance may be put in the way of any one method of obtaining the required commodity, provided any other equally cheap method or methods of effecting the same object continue unchanged.

Postscript to Para. 2, *Section IV., Page* 65.

There is an apparent inconsistency between the decision arrived at in para. 41, Section II., page 36, and the per centage used on this occasion; the reason of which is that the former refers to the comparative values of the precious metals during fourteen years, while the latter is founded on Mr. Dunlop's statement of the import cost of gold during an average of more recent years. I have adhered to the latter, because although in general the longer average would be more correct, and is so in the present case in regard to silver, yet in respect to gold it would lead to error to calculate from the longer period; for it will be evident, on referring to para. 21, Section II., page 25, that the value of that metal in India has been declining for some years past, the effects of the supply from Australia having been only lately manifested.

Postscript respecting Additional Seignorage on the Silver Coins.

The following principle, which ought to have been stated in the latter part of Section III., page 63, as it lies at the root of the question of additional seignorage, is of so great importance that it ought to be carefully kept in remembrance throughout the whole discussion of any new system. It is this—*That it is impossible to have a sound and stable system of currency, if coins of the two precious metals of the same "currency" value are simultaneously and freely admissible into circulation on equal terms.* That is, if coins of the two metals, of equal denominational values, be so adjusted to one another as to admit of their being placed in circulation at all times at the same average cost. It is indispensably necessary that one of them be *restricted,*

otherwise we invoke all the evils of a double standard; admitting either metal alternately, as fluctuations in their market values occur.

Our present Indian system is, that silver coins are the standard and gold is altogether excluded. The English system is, that gold is the standard and silver is excluded. The system proposed in these "Remarks" is, that gold be gradually introduced as the standard, and silver for the future excluded—not wholly but, by the operation of a seignorage, at all but exceptional times.

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