SILVER

AND

THE INDIAN EXCHANGES;

A REMEDY FOR ITS DEPRECIATION,

IN

THREE ESSAYS,

BY

COLONEL J. T. SMITH, R.E., F.R.S., F.S.S., F.I.A.,

FORMERLY MASTER OF THE MINT, MADRAS AND CALCUTTA,

&c., &c., &c.,

SUBMITTED TO THE

SECRETARY OF STATE FOR INDIA IN COUNCIL.

LONDON:
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The accompanying essays were written with the sole object of assistance to the Indian authorities, in discussing the means of remedying the very serious embarrassment caused by the depreciation of silver and fall of the Indian exchanges.

The Author has for many years past endeavoured to advocate the adoption of the only measure which, in his opinion, would be permanently satisfactory; namely the substitution of a gold for the present silver standard of value in India; a change which, if carried out according to the methods he has proposed, is easy to be effected, not only without expense, but with the early and final extinction of the very heavy losses now experienced.

The proposals are published, in order that every objection to them may be brought forward and fully considered. It would be presumptuous to expect that they will not be found to contain many defects; but it must not be forgotten that a very serious and alarming difficulty has to be surmounted; and if any of the suggestions offered for that purpose should survive the test of searching criticism, it is humbly trusted they may have the honour of being made useful in devising the means for its solution.

The first essay contains a statement of the measures proposed, and an enquiry into the anticipated objections thereto; the second and third essays contain answers to some further objections which have been received up to the present time.

1st September, 1876.

ON THE MEANS OF RESTORING THE INDIAN CURRENCY TO THE VALUE IT POSSESSED PREVIOUS TO 1870, AND FIXING THE SAME BY INTRODUCING A GOLD COINAGE.

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1. The following remarks have been prepared in answer to the wish expressed by the Under-Secretary of State for India for any suggestions towards the removal of the serious evils consequent on the depreciation of the value of silver, and the fall of the Indian exchanges.

2. The proposal to introduce a gold currency for India was made so far back as 1864, and it is hardly necessary to state that if there appeared to be good reasons for that measure then, the arguments in favour of it are much more evident now: for it cannot be denied that if a gold standard had been substituted for silver in 1865 or 1866, the whole of the present very serious loss and embarrassment would have been prevented.

3. In a letter which I had the honour to address to the Secretary of State for India, dated the 15th January, 1868, I ventured to urge that the opportunity of introducing a gold standard which then existed should not be neglected; but I did not state all the arguments in favour of the change, because at that time I believed that the Government wished for and intended to make it. It may be right, however, now briefly to mention that, besides the other arguments so ably set forth in the former discussions of the subject; an important reason in favour of the introduction of a gold standard of valuation in India—one tending to the belief that sooner or later it must be inevitable—is not merely the confusion and detriment to

trade at present experienced, but the inherent mischief of an arrangement which subjects the enormous and daily increasing commerce of England and India to constant vicissitudes in the prices of the two metals constituting their respective standards of value, and the incessant liability to the embarrassment of all contracts connected therewith.

4. In a letter addressed by me to a leading member of Parliament, dated the 19th July, 1869, remarking upon the great misfortune it would be that we should *miss* the chance we then had of assimilating the currencies of India and England, I referred to the great advantage of putting an end to the oscillations of the exchange, which with a silver currency might range through about 16 per cent., and with a gold medium would be limited to about 2 per cent.

5. These remarks have been justified by late events, which have shown the possibility of fluctuations such as were anticipated; and the question now is, seeing that so great a fall has been experienced, and the silver contained in the rupee has already lost so much of its value, whether any measure can be proposed by which its purchasing power in India may be restored, and, consequently, the * exchanges brought back to their normal condition?

6. Although it cannot be denied that the difficulty of effecting this object is much greater now than it would have

* Following the "balance of trade," the exchanges rise and fall within the limits of the cost of procuring the moneys or currency of the respective countries. So long as the Indian money is readily procurable by means of silver bullion, its cost, reckoned in gold, cannot vary much from that of the silver; but if that facility were done away with, and Indian (rupee) money could be only procured by the delivery of gold, its cost might be increased, and the corresponding amount of English gold currency given for it (or the rate of exchange) would be increased also.

been some years ago, owing to the decline which has already taken place, yet there seems to be sufficient ground for the belief that, even now, if decided measures were adopted, it would not be too late to restore the currency to its former value for home (Indian) payments; and that, too, without any shock or disturbance; the principal step being that of putting a stop to the coinage of silver on private account, at the same time taking measures to discourage the importation, or at the least the circulation, of foreign made silver coins, and opening the mints for the receipt of gold bullion for coinage.

7. To explain how this would operate, I must observe that the internal commerce of India, which has only of late years begun to be developed, is still but in its infancy compared with what in the future it must attain to. The Indian Railways, of which only a first instalment is completed, have, together with the telegraph, had but a short time, comparatively, to act upon the dormant energies of the population; yet, nevertheless, if we may judge of the activity of internal commerce by the growth of the import and export trade, and compare the seven years' average ending in 1847 with those ending in 1874, we find that between the first and last mentioned periods—that is, in twenty-seven years—the growth of the export and import trade of India was from *£27,708,375 to †£99,608,798, that is, not very far from fourfold.

8. May we not argue from this that the internal trade of the Empire of India has increased and is increasing in somewhat a similar ratio; that, as the export trade is based upon the productions of the interior, and the import trade upon distribution of the returns in the interior, the two classes of commerce, more or less, rise and fall together?

* *Vide* Statistical Abstract relating to British India from 1840 to 1865, page 41.

† *Vide* Statistical Abstract, ninth number, pages 31 and 37.

9. Whatever may be the cause, the internal trade of India has, ever since the beginning of this century, required constant and steady additions to her currency, averaging during the last thirty-eight years upwards of five millions of pounds sterling* per annum in value. Besides this, the returns show that the balance of imports over exports of gold bullion, during the same period, exceeded an average of two and a-half millions sterling annually, having been during the last twenty years more than four millions per annum.†

10. Such being the case, it appears to be a necessary consequence that, if the supply of rupees were put a stop to, the remainder must increase in local value, as compared with commodities, till they resumed the position which they held on a par with gold, at the rate of 10 rupees to a sovereign, for the 15 years previous to 1870.‡

11. After that point had been attained, it would be the interest of merchants to take gold to the Indian Mints for coinage; and they would do so, indeed, before the attainment of this improvement of the exchanges, owing to the premium or "batta"§ which would at first be obtained for the gold coins.

12. By this means gold would gradually be brought into India; and, as it has been shown that an addition to the circulating medium of at least five millions sterling per annum is necessary, and no silver coins could be admitted, it would slowly accumulate there; although it is true that, on every occasion when remittances of specie abroad were necessary, gold alone would leave the country; for unless, by any chance, bar silver were to recover its former price of $61\frac{5}{8}d.$ per ounce, the rupee pieces would become "tokens," worth considerably less than

*Miscellaneous Statistics—Finance—Account, No. 96.

†Miscellaneous Statistics—Finance—Account, No. 93.

‡*Vide* Report of the Conferences of the India Committee of the Society of Arts, 1870, Appendix, paras. 32—34.

§ *Vide* Para. 14.

their denomination, and could not be sent abroad without loss. There would be a bar to the export of gold coins also, at first, from their not being readily procurable.

13. The proposal therefore is, that, after due notice, the coinage of silver on behalf of private individuals and advances upon silver bullion should be suspended; that part of Act 23 of 1870, which makes it incumbent on the Government to receive and coin it, being repealed: the Government retaining in their own hands the power of replenishing the silver currency whenever they may deem it expedient. That gold bullion should be received by the Government at the Mint rate of Rs. 38 : 14 As. per standard ounce, and coined into sovereigns and half-sovereigns (representing Rs. 38 As. 15), or ten and five-rupee-pieces of the same value *, which should be declared legal tender, but not demandable †, the present silver rupees continuing to be legal tender, as before.

* It would be an exceedingly great help towards the introduction of the gold coins if, at the first, the option were given to the parties bringing the bullion, to have it coined either into ten-rupee and five-rupee-pieces, corresponding in composition with our sovereigns and half-sovereigns, or into pieces of precisely the same value, but in fine gold, 99½ touch. The latter would be much more acceptable to native prejudices and tastes, and more useful in their trade. There is an enormous amount of gold in India at present, of which a considerable part would probably be brought for coinage if this were granted. Any objection to the use of fine gold which might be raised on the ground of the coins being softer than the standard metal, would in reality be of no importance. These coins would be eagerly sought, and generally used for hoarding and manufacture of ornaments, and they would generally escape the attrition of common circulation. If they did not, and in a shorter time than usual lost weight beyond the mint "remedy," they would cease to be legal tender.

† Gold coins were struck in the Indian Mints since 1834, and were more valuable than their denominations as represented by the silver coins. They were by law legal tender, but not demandable, and they commanded a premium in the market. But only a few were called for, because the silver legal tender currency was procurable in unlimited quantities at a cheaper rate : and these gold coins were charged with the very high seignorage of 1 per cent.—far beyond the outside cost of coinage. Vide Prinsep's useful tables, page 1.

No seignorage should be charged for the manufacture of the gold coins beyond that implied in the terms of purchase, which are the same as those of the Bank of England, and yield a profit of one anna per ounce, or $\frac{1}{6}$th per cent. which is more than enough to pay all the actual outlay.*

14. As before observed, gold would leave India whenever specie remittances abroad were necessary; and on that account the gold coins, not being demandable, or parts of the regular currency at first, would command an "agio" or "batta" in the bazaar. This would be no objection, and it would tend to encourage the introduction of gold into India at other times. The "agio" might be considerable at first, but it would gradually diminish as the rupee currency became enhanced in value, and it would be finally put an end to whenever there came to be an abundant supply of gold coins, as compared with the inferior branches of the currency.

15. It may be here mentioned that the proposals contained in this memorandum involve nothing which is new and untried, or which has not the sanction of satisfactory experience. There is a precedent for the coinage of gold pieces separate from the ordinary currency, and making them legal tender, but not demandable, in the action of the Government of India in 1833 †; and there is a precedent for the stoppage of the coinage of silver, in the proceedings of the British Government when our present system was established, and in the late successful action of the Government of Holland. There is a precedent, also, for the establishment of gold legal

* This statement is founded on the fact that the cost of coining rupee pieces in the Calcutta Mint is from $\frac{1}{2}$ to $\frac{3}{4}$ per cent., or eight to twelve annas per hundred pieces. One-sixth per cent on gold ten-rupee coins would be one-sixth of ten rupees, or $26\frac{2}{3}$ annas.

† *Vide* Prinsep's useful tables, p. 1.

tender coins, without seignorage, and a subordinate token currency, in silver and copper, in our own admirable and universally approved system in England. The apparent difficulty in the present case is the existence of the chasm to be bridged over; but for that purpose there are special facilities.

16. Indeed, there can be no question that there is ample power to effect the change, if it be once determined upon. As is hereafter shown, the mere stop of the coinage would bring about any necessary adjustment of prices, by the operation of natural causes, without any further action of the Government; and if a loan be raised, and the suspension of the coinage be added to the limitation of the sale of Council bills, the exchanges could not fail to mount up quickly to the required rate. To raise a loan and limit the sale of bills, without stopping the coinage of silver, as it would cause the remittances to be made by silver bullion, would lead to further additions to the Indian currency, and add proportionably to the delay and difficulty of restoration. Besides which, any advantage so gained, or by any means other than the adoption of a gold standard, such as raising the rate of discount, &c., would only be temporary, and would disappear as soon as the measure producing it was discontinued. The only thing which can *fix* * the value of the Indian currency, in relation to that of England, is to base it on gold. It will be observed that the method of doing this,

* It is not intended here to assert that the exchanges would become permanently fixed as soon as the coinage of silver was stopped, or they had once reached the rate of 2s. per rupee. They might continue to oscillate, slightly; but, from the time of the mint being closed, the rise and fall would be on either side of an ascending rate until, after it had been settled at 2s., and gold was established in India, these oscillations would be limited to the cost of freight and insurance of gold either way between England and India. Indeed, owing to special and peculiar circumstances,* even this amount of fluctuation would rarely exist.

* *Vide* Report of conferences held by the India Committee of the Society of Arts, 1870, Appendix, para. 18.

which is here proposed, requires no purchase or accumulation of either gold or silver, and no re-coinage, but leaves the change to be entirely wrought out by the ordinary operations of commerce.

17. The following remarks are offered in answer to various objections which either have been made or may be anticipated.

18. 1*st Objection.*—That it would be wrong for the Government to interfere, or by any act of legislation to cause an increase or diminution of the value of the currency.

To this objection all I have to reply is that my proposal is based upon the supposition that it will be agreed and intended that the currency should be restored in local value to what it was for the 15 years previous to 1870. It is beyond the scope of this memorandum to argue the point, or to presume to offer an opinion as to the urgent importance of the measure. It must be left to others to consider whether or not it be the duty of the Government to restore matters, and put them on a secure basis; giving due consideration to the fact that the neglect to do so may involve the loss to the Indian revenues of millions sterling per annum; and if it be decided that it is *not* so, there will be no object to be gained by paying any further attention to this memorandum.

19. 2*nd Objection.*—That the rupee pieces would not be "appreciated" by the proposed measures.

In answer to this I would observe that, as regards the greater part of the fall in the value of silver, it has occurred so recently that it is very doubtful whether prices generally throughout the length and breadth of India have been, as yet, affected by it to the full extent, if at all;* but, even supposing

* Since 1873, when the price of silver began to fall, the imports of that metal into India have been less than the normal supply; hence the opinion that prices cannot as yet have risen generally, owing to increase of the currency, consequently, that the rupee cannot be materially diminished in value.—Vide *Economist*, 6th May, 1876.

that in all India the rupees have 5 per cent. less purchasing power than they had in 1870, can we doubt that the withdrawal of five millions sterling per annum from the currency would improve the value of the remainder? In the course of ten years there would be a comparative deficiency of not less than 50 millions sterling, or 500 millions of rupees—fully one-fourth part of the largest estimate of the whole currency. It seems to be hardly credible that, if prices have been affected since 1870 by the additions made to the currency since then, they should not fall back to their former rates long before so large an amount of the normal supply had been withheld.

20. If the whole metallic currency of India be taken at the large estimate of 200 millions sterling, and if it be even assumed, as above, that it has fallen in value one-twentieth part, it would follow that a deduction from it, or diminution of its mass by one-twentieth part would be sufficient to restore it to its normal value; and this, at the rate of five millions sterling per annum, would be effected in only two years.

The recovery will probably be admitted to be only a question of time; for it is unlikely that any one would assert that, if all future additions to the currency were stopped for the next fifty years, the remainder would not be locally more valuable than at present.

21. But the "appreciation" of the currency may still be denied, on the ground that, as the material of the coinage has fallen in value, the currency itself has also fallen irretrievably; and that natives as well as foreigners, knowing the exact value of the bullion contents of the coins, would not give a fraction beyond it; so that it is in fact impossible but that the value of the currency must rise and fall with the value of the metal it contains. As this phase of the bjection proceeds from a misapprehension of the mode in which

the prices of commodities are affected and regulated by the currency, it will perhaps be the readiest way of meeting it if it be first enquired, How it is that the currency of any State adjusts itself, by a self-acting process, to the true standard representing the ratio of bullion to commodities? This is not done in the way implied by those who speak of the natives in the bazaar as being intimately acquainted with the precise metallic contents of the coins, although it is true that to "shroffs," goldsmiths, and dealers in bullion it is well known; because, however well known to them, there is hardly one person in a thousand of the ordinary population who knows anything at all about the intrinsic worth of the pieces; just as the same is true even in England. Indeed, if they did, though they would be possessed of a precise knowledge of the value of the coins as contrasted with others, or with pure metal, this could not in any way affect the question of their comparative value with commodities, or influence the scale of prices. No man, for example, would be able to estimate the relative value of the 123.274 grains of standard gold contained in a sovereign, and a pair of boots. The process of adjustment is, indeed, quite a different one, and the same as that whereby all commodities, as well as coins, find their respective levels.

22. The instruments and means of exchange are subject to the law of supply and demand, as any commodities are, with this peculiarity, that there is an incessant and inexhaustible demand for them in every corner of the country. When the prices of commodities in general are too high, in other words, when the precious metal formed into coins is not sufficiently potent, then either more commodities are attracted to the market, or the coins are melted down and the bullion exported to other places, where it can do better. When, on the other hand, the prices of commodities are too low, that is, when precious metal in the shape of coins is too potent, it is quickly found to be profitable either to export commodities to better

markets or to bring in precious metal from abroad and form it into coins; and till one of these has been done the currency retains its extra potency. This process is constantly in operation; but it will be obvious that if the corrective be witheld on the side of repairing the deficiencies in the bulk of the currency, the inevitable result must be a gradual improvement in its power and local value.

23. As it has been suggested that the place and functions of the currency might perhaps be taken by silver bullion, it must be remarked that gold and silver bullion are themselves only valuable commodities, and it is not until they can be formed into legal coins, or sold to the Government at a "mint price" that they necessarily command any certain price in currency. If neither of these privileges were possessed, silver as well as gold bullion would be a mere commodity, fluctuating in value as gold now does in India, because no one can legally pay his rent or discharge a debt by means of it; and it must rise and fall in exchange for other commodities in proportion to the fluctuating demand, and the excess or deficiency of the supply. Bullion, therefore, could not be so used as to affect prices.

24. In order to illustrate the subject more clearly to those who may not be quite familiar with the effects of a contraction or enlargement of the currency, I would call attention to the effect which would follow the *opposite* measure to that recommended. Let us imagine that it were possible to completely shut off the egress of any coins out of the currency; and that, year by year, steadily, five millions sterling in value of coins, over and above the proper requirements of trade, were thrown into and retained in circulation. It is obvious that, after a time, the prices of commodities would be gradually increased in proportion to the "glut" of the currency. Such a measure would be difficult, practically, with a metallic circulation,

because the temptation to smuggle the coins abroad, where they would be more valuable, would be so great; but the same condition of enlarged issue is, in effect, realised practically, in the case of an inconvertible paper currency; and the result is well known.

25. And so, also, is the result well known of the withdrawal of the surplus of an overstocked currency: that is, the gradual reduction of all prices, including those of gold and silver bullion. In a paper read by Mr. E. Seyd before the Society of Arts, India Committee, on the 3rd March, 1876 (Journal, Vol. 24, No. 1216, page 308), it is shown that in the year 1865 the American Greenback inconvertible paper currency was so much in excess of the requirements of trade that 100 dollars of it were only exchangeable for 50 dollars in gold; yet, by no other means than the gradual withdrawal of the excessive issues, the premium on gold, which was 100 per cent. in 1865, had been reduced to 13 per cent. in 1875.

26. The same improvement in value attends the contraction of every kind of currency; and this would be easily recognised in regard to the measure proposed in this memorandum if we could get rid of the prejudice that coins, being composed of metal, must necessarily follow the fortunes of the metal. They would do so, if they could be brought into and taken out of the currency freely. But we must not lose sight of the important condition in the proposed plan, that no addition to the silver coins of India would be possible by the public, at any time; and as the exhaustion of the currency could only be made good, or the currency obtained by means of bills and gold, at a cost beyond the mint price of the cheapened silver, the rupees, though continuing to perform all their duties, as formerly, would become "tokens" whenever the legal standard gold coins were brought into general use; and the cost at which current rupees would in future be procurable, by the aid of bills or gold, would be greater than the market value of the silver contained in them.

27. In England our silver coins circulate, without question, at values 22 per cent., at the present moment, above that of their bullion contents. In France the five-franc pieces circulate, together with gold, at a rate of about $11\frac{1}{2}$ per cent. above their bullion worth. In this latter case, the silver five-franc pieces are legal tender to any amount; but in both cases their value is maintained because the number admitted into circulation is limited. If it were not so in France, the five franc pieces would soon deluge the country, and every gold piece would be driven out of it.*

28. *3rd Objection.* That the circulation of coins at so high a nominal value above their intrinsic worth would be a most powerful temptation to counterfeits, or unlawful coining of rupees from true standard metal.

This objection is true, as far as it goes, but the evil would not be greater in India than it has been in England, more or less, for the last half century, without serious inconvenience; and only half what it is at present, with our silver tokens. Nor would it be greater than it now is in France, where the silver five franc pieces are overrated $11\frac{1}{2}$ per cent., and are legal tender to any amount.

29. It is not at all probable that, within our own territories in India, any very large amount of unlawful coinage could exist without detection; and it must be remembered that, in order to impede the progress of the desired change, fifty millions of rupee pieces must be put into circulation annually.

* The position in India, if my proposal were carried out, would, at the first, be exceedingly similar to that of France at present. There would be a very large mass of rupees, legal tender for any amount, and circulating together with gold; but incapable of driving the latter out of the currency, because no more addition can be made to their quantity. They would also themselves be incapable of leaving the currency, because they would be of inferior intrinsic value to their denomination.

30. The objection, however, discloses a difficulty which may be found to exist with respect to the privileges we have conceded to one or two Native Mints—allowing them to coin rupees at their discretion; and it would be absolutely necessary, on the announcement of the change of system, either to insist upon their conforming to it by stopping the coinage of silver, or to take such measures as might be necessary to limit the admission of silver to their mints, or confine their coins strictly within the limits of their own domains: or to withdraw all their own currency, and supply them with a sufficiency of coins stamped with the effigies of the Native States.

31. *4th Objection.*—It has been urged by some that a change of the Indian standard, from silver to gold, is not desirable because, owing to the poverty of the people, silver is so much more appropriate as a measure of value, in their ordinary transactions; that gold cannot be reduced and subdivided so as to suit the petty dealings of the million, and bring the pieces formed from it into familiar and constant use amongst the people.

32. This objection is one which might have been entertained before the publication of Lord Liverpool's treatise (in 1805), and the establishment of the plan by which any number of different metals could be associated together in currency under a proper system of "tokens." It is needless now to explain that the use of gold does not in the least degree preclude, or interfere with, the use of silver for *smaller* payments, nor of copper, nor even of "cowries," all of which, to any required extent, find their places in a properly ordered currency.

33. The objector who urges the better adaptation of silver to the small transactions of a native Indian trader, not only forgets the conclusive answer to his objection supplied by the

modern system of token coinage, above referred to, but also the very great defect of the rupee currency in regard to large payments. This is not a question of the transport of coins, as it has been occasionally stated, in order to be partially met by the facilities afforded by railways, but it is the question of "taking delivery" of large sums, which is found to be an intolerable inconvenience; so much so that we may say that it is, in practice, next to impossible for an officer personally to verify the contents of a treasury he is called upon to take charge of. But it will be observed that this is not the ground upon which a change of standard for India has been suggested, but, rather, the enormous disadvantage of maintaining two different standards for countries of such intimate connection and vast transactions as England and India; and the incalculable importance of a unity of coinage.

34. *5th Objection.*—Another objection which has been suggested is—1st, that the exclusion of silver from the mints would deprive merchants of the means of placing funds in India; and, 2ndly, if the rupees be raised in exchangeable value above their intrinsic worth, they would be unfit for payments out of India.

35. In regard to the first part of this objection, it may be observed that, when the only means of placing funds in India, besides the purchase of commercial bills, is confined to the bills drawn by the Council of India, and gold, the Secretary of State will have it in his power to meet every demand of that kind, at rates which he will be possessed of great power to control. Hitherto, what has been called the balance of trade has always been in favour of India, arising from the fact that it has always been found easier to push the sale of Indian raw products in Europe, than of European manufactures in India; and the difference has been made good by Council bills and bullion.

36. Taking into view the transactions of the whole present century, we may say that the exports of products from India have been sufficient to pay for imports and the demands of the Home Indian Treasury; and, from the unfailing experience of the past, we may be assured that they will for many years to come continue to do so. There has been a falling off for the last year or two, owing to special circumstances affecting some of the chief staple products—for instance, cotton, jute, silk, rice, &c.; and, at the same time, a somewhat sudden increase of the home demand; but we cannot doubt that the above-mentioned characteristic of the trade, depending as it does upon unalterable facts, will remain for the future what it always has been. Moreover, it is unnecessary to forego any important measure on account of a supposed inconvenience to commerce, which, if provided with due notice, can always take care of itself.

37. There will, therefore, be no difficulty in placing funds in India which it will not be in the power of the Secretary of State for India at once to remove, by granting bills; and the fact of these bills being the only means of remittance left, after the exhaustion of the ordinary commercial "documents," must lead to an enhancement of the rate of exchange, which would be limited only by the transmission of English or Australian gold; by means of which any amount of money could be at all times transmitted.

38. Upon the second part of the objection, it must be observed, that it is not proposed to make the least alteration in the present currency of rupees, which would continue legal tender for the largest amounts, as they are now. It might, therefore, be argued that, as regards external commerce, they would be in the same position, and as suitable for export as they have always been, and it is true that their value outside of the currency would not be in the least altered

by the measures proposed; but it must be admitted that they would not be useful for export after the exchanges rose, if the price of bar silver continued low, or went lower. In that case, the rupees would be like the French five-franc pieces, at present; they would assume the position of "tokens," representing more value in local exchange than their metallic contents. In the meantime, gold coins would enter the currency by slow degrees, first at a "batta" or premium, and eventually on a par with the silver rupee tokens. While the gold coins are scarce, foreign payments will be made, as they are in many cases at present, by means of fine stamped gold bars; of which the quantity at hand may be judged by the fact that the value of upwards of 86 millions of pounds sterling was absorbed by India in the last twenty years.

39. In addition to the above, if the suggestion made hereafter, in para. 48, of substituting gold for silver in the reserves for note circulation, be adopted, this objection would cease to exist. The Indian system would then correspond exactly with that of this country, and all necessary exports would be provided for.

It must be remembered that, as shown above, the tendency of natural causes for the whole of this century has been to require bullion remittances *into*, and not out of India. When the opposite state of things may occur, owing to fluctuations in commerce, balances will be, more or less, adjusted by Chinese, Australian, or other bills, by the Indian Banks.

I must, also, here repeat the caution just given, that, with due notice, commerce will take care of itself, and exports and imports adjust one another.

40. *6th Objection.*—It has been suggested as an objection that the exclusion of silver from the Indian Mints on the part of individuals would further aggravate the fall in its price, and tend to retard its recovery. To this it must be replied that, looking to the very considerable increase in the supply of silver

bullion, and the already decreased and diminishing demand for it, any *permanent* recovery of its price, for many years to come, is out of the question.* It is true that putting a check upon the deluge of India by silver will close one of the existing markets for its disposal, and tend to lower its price; but from the moment that the coinage of silver for private individuals is stopped, the Indian Mints being left open for the coinage of gold, the Indian currency will become independent of the price of silver bullion, and, to whatever further depth it might fall, would be unaffected thereby.

41. With the risk of so terrible a calamity before us as that with which we are now threatened from a continuous indefinite fall in the cost of our medium of valuation, it seems to be a paramount duty to seize the means of escape while they may be had, irrespective of all other considerations. If suspending the coinage of silver should fail to restore the exchanges to 2/-, it would certainly afford the means at any moment to *fix* the existing rate, whatever it might be, for ever, by lowering the terms for the admission of gold and submitting to the loss; * which, however large it might be, would be preferable to allowing the present system to continue, and running the risk of the rate sinking lower indefinitely. But there can be no doubt that, by persevering in a decided course, the entire restoration of the exchange may be achieved, and the whole loss avoided.

* *Vide* Mr. Hollingberry's Treatise on the Production of gold and silver, &c., &c. Page 111, paragraph 270, and page 116, paragraph 274.

* The loss here referred to arises from the defect of purchasing power of the Indian revenues in the markets of the world. Gold has a world-wide value, and if the ratio of the rupee to the sovereign be for ever fixed at ten to one, or 2s. per rupee, the annual income of the Indian Empire, which may be roughly stated at fifty crores of rupees, will be equivalent in purchasing power to fifty millions of pounds sterling. If, however the ratio be fixed at a lower point, say for instance at 10.909 to 1, or 1s. 10d., the same income will be equivalent only to 45.83 millions sterling, or an annual loss of $4\frac{1}{6}$ millions, the capitalised value of which at 5 per cent. is $83\frac{1}{3}$ millions—at 1s. 8d. the annual loss would be $8\frac{1}{3}$ millions, at 1s. 6d. the annual loss would be $12\frac{1}{2}$ millions.

42. *7th Objection.*—There is one more objection which may be conveniently stated in the following question: How is it to be expected that merchants will take gold to the mints to be coined into pieces representing Rs.38 15As. per standard ounce, when the market price of the same gold may be upwards of Rs.42 to 43? To this it may be replied, that the price of gold in India is regulated by the rate of exchange. When a "demand" bill on London is worth 2/- per rupee, a British sovereign is worth Rs.10, and the standard ounce of gold Rs.38 14As. When the exchange falls to 1/9 per rupee or less, the sovereign rises to 11 or 12 rupees, and the standard ounce of gold to nearly 44 rupees. It is capable of demonstration that there is an inseparable connection between the Indian rate of exchange and the price of gold in Calcutta, so that when the London rate for a demand bill is 2/- per rupee, it is profitable to merchants to take Australian gold to the mint at Rs.38 14As. per ounce; and even sooner, to whatever extent gold coins can be sold at a premium. It is anticipated that the suspension of the silver coinage would soon raise the rate of exchange, and if so, the price of gold in India must fall, eventually, to Rs.38 14As. net, per standard ounce.

43. *8th Objection.*—That merchants and others will send out dollars and various foreign coins, and put them into circulation in spite of all the efforts of the Government to prevent it.

In reply to this, it must be observed, that no doubt the importation of foreign coins into India may be, and probably will be, tried, but the large balances of trade cannot be paid by these "uncurrent coins." A few might be sent out and sold for bullion purposes; but when it was found that there was no Mint to take them to, and that they were not receivable in payment of revenue, there would be great difficulty in getting rid of any *quantity*; and to pay balances of millions of pounds sterling, a resort to gold would be inevitable.

It may be remarked that, if the rupees be "appreciated," that fact implies a lowering of the price of silver bullion; so that there would be no special profit in sending out dollars more than any other bullion. They would sell for bullion purposes, just as bar silver would, but they would not usurp a place in, or interfere with, the currency.

44. *9th Objection.*—That if gold coins be struck of the same value as the British sovereign, and are authorised as legal tender for only ten rupees—in the first place, no one would take gold to the Mint to be made into such coins; and 2dly., that if struck and put into circulation, they would immediately be collected and sent out of the country.

The first part of this objection implies—

1st. That the current value of the rupee in India has already fallen "pari passu" with the price of silver; but this cannot be the case. It can only do so in time, and by the spontaneous action of Commerce enlarging the currency by sending out supplies of silver to be coined and added to it. This has hitherto been prevented by the increase of the drafts of the home Treasury.

2dly. It is implied that, because the gold coins become legal tender for only 10 rupees, they will only bring 10 rupees in exchange. This is by no means the case. If the current rupee is worth much less than two shillings, the gold coin will command a corresponding agio, or "batta," so as to realise its full value. The action of the State in coining gold for the merchants will be, at least, to give them a ready means of pouring into the markets, in a popular, authentic, and easily disposable form, an article of commerce for which there is a large demand in every part of the empire, which is highly useful in trade, and will therefore command its own price and value. Should gold not be taken to the Mint for coinage at first, this would not interfere with the ultimate success of the measure. It would soon be found necessary for intermediate payments, and well worth the trifling cost of coinage.

The second part of the objection is based upon a forgetfulness of the fact that gold will only be used to pay balances of the transactions of commerce. Bullion shipments are only resorted to when all other shipments have been exhausted. If, then, for example, it has come to pass that debts to the amount of one million sterling are due to India, and payment is made by sending out gold, the difficulty suggested is, that the same gold will be collected and sent abroad again. But it must be remembered that, if this be done, there will still remain a debt of one million sterling to be paid; and as all other means of remittance had previously been exhausted, this debt would have again to be paid by gold, and so on indefinitely. In the end, if the balances of trade should hereafter be what they have been for the last 38 years, at least five millions sterling annually (besides four millions of gold), gold will accumulate in India at that rate, by the ordinary operations of trade.

This is on the assumption that the accumulation is not artificially assisted by raising a loan and stopping the issue of Council bills, or otherwise.

45. 10*th Objection.*—That it would be a breach of faith for the Indian Government, having contracted a large debt in silver money, to force the acceptance of payment of the same in coins of another metal, and to pass a law enabling others similarly situated to do so likewise.

This argument has been fully answered by Sir William Mansfield (now Lord Sandhurst) in his Minute of the 8th March, 1864 (Chapters 3 & 4), published in the Parliamentary papers on the East India Gold Currency, ordered to be printed 28th February, 1865, to which reference is made, as it is too long for quotation. Moreover, it is obvious that no one could complain of the injustice of a law by which he was only compelled to *take* more than the true value of his debt, not to give it.

46. As many persons are apt to be perplexed by the idea that the rate of exchange is governed exclusively by the "balance of trade," it is necessary to point out how this operates, and to what extent it is limited in its action. The balance of trade can only affect the rate of exchange to the extent of the cost of transferring money from the currency of one country to that of another. When the two countries have their currencies based upon the same precious metal, gold, or silver, and there is no restriction, the cost of transfer will not exceed the freight and charges of transmitting and coining the precious metal, which charges are generally constant, and may be safely calculated; but when the currencies of the two countries are based upon different metals, there is introduced another element into the calculation, viz., the relative value of the two metals, which may give rise to great uncertainty; as is the case at present between India and England, owing to the sudden and considerable changes which have taken place in it. Fifteen years ago the charges of transmitting silver bullion to India were reckoned at $3\frac{1}{4}$ per cent., and for coinage 2 per cent., making a total of $5\frac{1}{4}$ per cent.; and if the rate of exchange tended to vary by more than $5\frac{1}{4}$ per cent., or $1\frac{1}{4}d.$ per rupee, it could be prevented by sending silver. Now-a-days, the charges of transmission do not exceed $1\frac{1}{4}$ per cent., which, added to the cost of coinage, makes a total of $3\frac{1}{4}$ per cent., but the rate of exchange in Calcutta for demand bills has fallen from $2/0\frac{1}{4}$d. per rupee, to $1/8\frac{1}{4}$d., or $16\frac{1}{2}$ per cent., of which 2 per cent. is difference in the charges, and $14\frac{1}{2}$ per cent. difference in the gold price of silver.

At present the balance of trade cannot affect the exchanges by more than $3\frac{1}{2}$ per cent. either way, but the influence of a change in the gold price of silver is uncertain and indefinite.

47. In the early discussion of the proposal to establish a gold standard and coinage for India, it was suggested that the principle of Act XVII of 1835, making 110 grains of pure gold equivalent to 10 rupees, should be carried into effect. This recommendation was founded upon the understanding that it would correspond with the relative values of the two metals at that time. Since then, and at a later date (1869), a careful examination of the data for the preceding fifteen years, showed that 113 grains of pure gold (contained in the sovereign) were very nearly equal to the true value of 10 silver rupees in India,* and as this corresponds with the value of the British pound sterling, it is a fortunate circumstance that it can be carried out by the simple ratio of 10 to 1 for the rupee and sovereign. This is all the more important from the fact that, to establish the 110 grains of pure gold, in lieu of the sovereign containing 113 grains, as equivalent to 10 rupees would, besides preventing the unity and simplicity of the relation between the Indian and English currencies, diminish the purchasing power of the Indian revenues by nearly one and one-third (1,328,122) millions of pounds sterling per annum.

48. It may be as well now to mention that the action of the proposed measure for the restoration of the value of the currency might be in some measure facilitated if any considerable part of the currency notes now in circulation were temporarily withdrawn. To do this would, however, involve an expense, and it might not, therefore, be convenient to resort to it, unless it were deemed advisable to make a sacrifice to expedite the change. It is not necessary to success. It would also be of advantage to substitute gold for the reserves to be kept against "gold notes," with the view to its being available

* *Vide* Report of Conference, held by the India Committee of the Society of Arts, 1870; Appendix, paras. 32 to 34.

for export when required, or employed in circulation whenever the time arrived for the gold coins to be declared legal tender at the option of the *creditor*, as well as the debtor, either in whole or part of payments.*

49. It is an important fact that the proposed measures, even supposing them to be absolutely ineffectual for the object contemplated, could do no harm. If the decline in the price of silver should hereafter continue, the Indian currency, being isolated from it, would remain, at the worst, unaltered. If the price of silver, on the contrary, should rise, and the exchanges approach their former rates, this circumstance would tend to help the consummation desired; and at any moment the coinage of silver for individuals might be resumed, when affairs would revert to their present position. The acquisition of the Indian currency, by the shipment of silver bullion, being put a stop to, a much larger demand would exist for the bills of the Indian Council, and the rates could not fail quickly to reach the point at which the cheaper gold from the Australian mines would find its way to the mints. The Indian currency would then be restored to, and permanently fixed at the value which it has been proved to have possessed for the 15 years previous to 1870, and from which it would never, in future, vary more than to the extent of the cost of the shipment of gold either way.

50. It will have been observed that in all the preceding remarks the arguments have been made to embrace the supposition that the market value of the rupee now current in India has fallen in comparison with goods, equally with the gold value of the metal of which it is composed, though it has been pointed

* It is suggested that, when it is considered that a sufficiency of gold coin is in circulation, creditors may be empowered by law to demand a certain portion of their debt in gold. For instance, at first one-fifth, later on three-fifths, and finally the whole. After which silver would be restricted as to legal tender.

out in para. 44 (1st) and in the note to page 12, that this cannot really be the case. In fact, if a general comparison be made of the prices of articles in the Indian market before and after the late decline in the price of silver, it will be found that they are at present (Calcutta, March, 1876), if anything, lower than before, and it has been explained (para. 44–1st) that they will not rise until the currency has been swelled by the absorption of a sufficient amount of silver. To bring the value of the rupees into correspondence with the present rate of exchange would probably require the addition of fresh coins, besides the normal requirements of commerce, to the amount of 20 to 30 millions of pounds sterling; and, hitherto, any very large additions have been prevented by the increase of the drafts of the India Council.

51. It may be presumed, therefore, that at the present moment the Indian currency is not materially depreciated, but only in the position of being about to be so, by the augmentation of its bulk, through the importation of silver bullion, hitherto checked by the Council Bills. This prevention and check cannot very long continue, because the abnormal state of the exchange between India and Europe stimulates exports from India, and discourages imports into it; and if matters continue as they are, will enlarge the balance of trade in favour of India over and above any drafts which are likely to be drawn.

52. It is at the present moment, therefore, before any very large additions have been made to the Indian currency, that we have the power to interfere with the certainty of success; the object being prevention rather than cure. If nothing be done, then, after the Indian currency has been filled up to a level corresponding with the relation of silver to gold, and prices have risen accordingly, the rupee will have sunk to its value in bullion plus 2·1 per cent. (seignorage) and, ingress and egress, in and out of the currency being free, will remain so. If

it should happen that the future permanent gold value of silver should be that indicated by the exchange of 1s. 8d. per rupee, the effect would be that the Indian revenue would be condemned to a perpetual loss of value of 8⅓ millions of pounds sterling per annum.

53. The argument is advanced by some that the fall in the price of silver is a mere temporary fluctuation, and that if we have patience we shall, sooner or later, see matters restored to their former position. Let us suppose this possible, but it may be asked, Does it meet the urgency of the claim to remedy the inherent vice of the arrangement which can at any time give rise to the consequences of these fluctuations? Can any one who is aware of the enormous losses and distress which have been occasioned only thus far, contend that it is right to leave matters in their present state, when it is certain that the mischief may be prevented and put a stop to for all future time by a single act of the Indian Legislature, involving not the least shock or disturbance, and effecting a saving of the heavy losses now experienced?

54. It is to be feared that these proposals may be met by innumerable doubts, but this is not a time when it will be safe to indulge in them. Decisive action is called for, but the stake is large, and, in so very important a matter, the course of the Government ought not to be influenced by the mere misgivings of many, who most probably doubt because they do not clearly see their way. It would be a very serious misfortune if, for want of the courage of decided convictions, the only remedy against the very terrible calamity now threatening the Indian Empire were set aside on account of difficulties to which we unadvisedly attached undue importance.

J. T. SMITH.

33, New Broad Street,
1*st May*, 1876.

ESSAY No. 2.

CONTAINING ANSWERS TO SOME OBJECTIONS AND FURTHER EXPLANATIONS OF THE PROPOSALS CONTAINED IN THE ESSAY DATED 1ST MAY, 1876.

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1. The object of the accompanying remarks is to afford an explanation of difficulties which have been suggested in reference to the proposals contained in my essay of the 1st May, and some of which are ably stated in the following extracts from a letter with which I have been kindly favoured by a gentleman who has made the various questions of political economy, and more particularly those connected with currency, subjects of his special study. His criticisms are as follows :—

"First one word as to fundamental principle. The metal of every legal currency does its work as a commodity, by means of its value in the metal market. A sale for metallic money is an exchange by pure barter of two commodities of equally supposed value. It is absolutely impossible to give any intelligible and conceivable explanation of metallic currency, except upon the perception of this nature of the action of money." "Convertible paper-money acts as a ticket giving possession of the substance—the commodity—on demand. Inconvertible paper money, as the American dollar, is also a ticket for a commodity acknowledged to be due, but as the time for giving it is not defined, it is bought as a debt, subject to uncertainty of actual payment. It passes as such. When there is too much of such debt for use or currency, it drops in value from excess, as it cannot be got rid of."

"My own experience illustrates this truth I paid a sovereign to the proprietor of an hotel at Geneva a few years ago. He took it, and then asked me whether I had a Victoria sovereign, as this one was a St. George and the Dragon, of George III. Surprised, I asked for the reason. 'Sir,' he said, 'this sovereign will be melted down before to-morrow evening. The new sovereign will prove full weight, the dragon will be light.' In other words, the sovereign paid my bill as a lump of yellow metal, at its value in the metal market."

"No law can alter this process. Aristotle, ages ago, understood the truth, and described coinage as a contrivance to save the trouble of weighing. Nothing could be more accurate. Ergo, coinage will not do what you desire in India. Nothing but demonetisation will, unless silver recovers its value, and is steady, which it will not be."

"It is quite impossible by mere cessation of coinage to bring a rupee worth 1s. 6d., as silver, to two shillings as coin. The coining in that case would not cease. Excellent rupees would be manufactured by a new style of forgers, as good as possible, and they would flood every Indian market. No art of man can make silver worth 1s. 6d. in Europe, largely and permanently worth 2s. in India. The holders of Indian gold would hold it tight, except upon a premium, which would practically make the rupee worth 1s. 6d. only. You would not get gold coin out in the place of silver. Mr. Seyd's reference to a diminution of green backs, accompanied by an increase of value does not apply. There were not two prices for the same article; the paper dollar had its American value, and none other. In the India case there are two values of the rupee, one, supposed, in India, at 2s., the other all over the rest of the world at 1s. 6d."

"Now the action on prices would be certain, though slow and capricious during the period of transition. No European would sell goods to India for the same number of rupees calculated at 2s. He would have to bring the rupees to Europe at a heavy loss, for they would count only as 1s. 6d. in every English market; and he would not be able to get gold except at a premium, which would be no cure of the evil. Gold would never come out in India in exchange for 2s. rupees, or ten of them for a sovereign, when the rupees were worth only 1s. 6d. everywhere else."

"I see no remedy but the demonetisation of silver, accompanied, to ease the transition, by the issue of small convertible notes."

"If, indeed, India had no foreign trade, and no permanent debt, but only village every-day transactions for ready money, then she might endure the evils of an ever changing value of her currency with comparative ease and indifference. The alterations of the currency's worth would be very slow, and the loss would be distributed in small fractions all over the community. But large and abiding debts, great freight trade, much credit and the like, would inflict terrible losses and inconveniences."

2. In the above, the difference between my correspondent and myself is that his remarks apply to the cosmopolitan, and mine to the local value of coins; for although it is quite true that, when the introduction and withdrawal of coins from circulation is absolutely free, Aristotle's definition of coining applies, and the coins circulate and pass for only their world-wide metallic value; so it is equally true that when the supply of the coins is strictly limited, they may, if legal tender, have a higher local value, either when, as in the case of our shillings and half-

crowns, their worth is regulated by that of a superior currency; or, as in the case of inconvertible notes, their value is regulated by the proportion of the supply to the demand. My correspondent's personal experience in Geneva merely proves this, that outside of any country in which a coin might possess a local value, it passes only as a piece of metal.

3. Hence it appears, that the principles which are quite true as applied to the original and primitive establishment of current coins, require considerable modification when they are brought to bear upon some of the methods for measuring and transferring values subsequently invented, and which have long received the sanction of successful experience. It will be necessary to examine these in detail, in order to understand properly the proposals under consideration.

4. And, first of all, it is very necessary to examine closely the meaning of the statement that coins circulate and pass for their simple metallic value. What is that metallic value? Is it not the aggregate of *all* the expenses *unavoidably* incurred in bringing metal to the market? It has been well explained in regard to metallic gold, that "If the miner fails to obtain "for his gold ore a quantity of goods sufficient to replace what "the mining has cost him, with a reasonable profit for himself, "he gives up the business and abandons the mine.*" The same is true also with regard to the coins. They must exchange in the market for a sufficiency of goods to replace *all* the expenses unavoidably incurred in bringing them there, or they will not be brought. Fewer coins will then be produced, "the demand for them continues, they rise in value and exchange for a larger quantity of other commodities; that is, the price of every thing sold falls,"† till the equilibrium is gained.

* Bonamy Price, Currency and Banking p. 20.

† Ibid p. 21.

5. Let us now go a little further, and say that if the metal of which the coins are struck should cost the merchant double the present expense, the coins (*cæteris paribus*) would exchange for double the number of goods; and the same would also be true whether the tax were laid on the metal at the mine's mouth, or upon the coin at the mint's mouth, so to speak. If it were *absolutely impossible* by any means whatsoever to procure a sovereign, weighing 123·274 grains of standard gold, without surrendering 246·548 grains of the same gold, the sovereign so obtained would exchange for double the amount of goods now commanded by it.

6. It would be no answer to this argument to say that, in the case of a seignorage or tax, the coins would not be worth more, because no waste actually occurred, and the number retained by the State are put into the market; for it is not the produce of the whole bulk of metal delivered to the Mint, but only that part of its produce which the miner receives for his share which influences the further supply.

7. Hence we see that a tax, such as a "seignorage" *if it be quite unavoidable*, necessarily adds to the market value of a coin; and that it is possible for a coin, under certain circumstances, and within the territories to which such circumstances apply, to command goods in exchange to a greater extent than the mere metallic value of its contents; although it is true that, generally, the principal or standard coins of every country are manufactured for the public at a trifling expense, and it is contrary to sound policy to burthen the chief instruments of exchange with any tax whatever.

8. It is possible, therefore, by seignorage to cause a metallic currency to pass in local exchange for goods at a higher value than that of its metallic contents in the metal market.

There is another case in which the same phenomenon may occur.

9. The quantity of current money required by any country depends upon the number of its cash transactions, the rapidity of circulation, the means of economising cash, and a variety of circumstances which vary in different countries, and and at different times in the same country. When the currency consists of full weight untaxed metallic coins, the quantity of currency regulates itself, by a self-acting process, through its operation on prices. When such coins are in excess, and do not exchange for the same value of commodities as they do in other countries, they are withdrawn and sent abroad; when they are deficient, they are found to exchange for more value of commodities than in other countries, and they are consequently brought in from abroad, and the equilibrium is restored. The variations in the value of the coins, as between any two countries, can only proceed as far as the cost of transmitting and transferring the coins from the one currency to the other; but when they are of full weight, and passing for their metallic value, they will never exceed that.

10. Let us now consider the case of a country in which the currency consists of inconvertible notes. It will be at once perceived that, with them, the self-acting regulating principle just mentioned does not exist. It would, no doubt, be possible to frame regulations by which the issues and withdrawal of the notes should be so regulated that the current value of them, within the country, should be uniformly kept equal to that of full weight metallic coins of the same denomination; as was the case with Bank of England notes for many years after the suspension of cash payments; but this duty might be neglected, or for political purposes abused, and the consequence might be variation and uncertainty in the value of money, and all the

injustice and evil consequences attending the disturbance of contracts.*

11. Whenever, from the causes just referred to, or any others, the limitation and regulation of the quantity of inconvertible currency have not been attended to, and the notes have been issued in excess, that is, beyond the requirements of the trade of the country, the result is invariably found to be that, although they may have the privilege of legal tender, their value in exchange for commodities varies in inverse proportion to the amount of the excessive issues.

12. The converse of this is also true, that when an inconvertible note currency has been issued in excess, and has partially lost its power in exchange for commodities, the gradual withdrawal of part of it has the effect of restoring its value, until by a due limitation, it may be brought to the full value of standard metallic money. In like manner also, if, when all the other circumstances remaining the same, the requirements of trade very largely increase, without a corresponding increase in the quantity of the circulating medium, the result is that the latter becomes "appreciated," and attains a greater power of purchase in the market, in proportion to the greater number of cash payments which have become necessary.

13. The instance which was referred to in my first paper (para. 25) of the "appreciation" of the American Greenbacks by mere reduction of numbers, is objected to, and stated not to

* The objections urged against an inconvertible paper currency properly apply to an unregulated one. When such a currency is strictly limited, and maintained of the full value of coins, it effects an economy to the State employing it, for it performs the duty of metallic money without the cost of it. The chief danger of inconvertible notes consists in the risk of over-issue. This would be impossible with the rupees when they became tokens, as the coinage of them being stopped, they would cease to be supplied, and the self-acting regulation of the currency would be effected and secured by gold.

apply, because "there were not two prices for the same article. The paper dollar had its American value and none other. In the India case there are two values of the rupee, one, supposed in India at 2s., the other all over the rest of the world at 1s. 6d." But upon this I would remark that the instance not only applies, but does so "*a fortiori*." It was brought forward to show that mere reduction of numbers would "appreciate" the instruments of exchange, and the fact mentioned by Mr. Seyd proved that mere reduction had improved the American greenbacks 77 per cent. To which might perhaps have been added the case of Bank of England notes, previous to the resumption of cash payments. If bits of paper, which are worth next to nothing, and have no definite engagement to pay, can be made more valuable by restriction, surely bits of metal may be so too. It could hardly be contended that if the American greenbacks had been engraved upon tablets of copper, or aluminium, or stamped upon any fibrous material having a decided value in the market, that fact would have *prevented* their appreciation as money.

14. There is a third case in which coins may circulate and exchange freely for commodities in a greater ratio than that of their metallic worth; and that is when they are subsidiary to another superior currency, by which the exports and imports, and consequently prices in a country, are regulated; and in subordination to which smaller payments are made. Of this character is our own silver currency.

15. It is hardly necessary to explain, that just as an inconvertible paper currency, so a metallic token currency may circulate in local exchange at a higher value than that of its metallic contents; and, in regard to that part of its value in excess of its market price, it would be seen to be the same in principle as an inconvertible paper currency, if the latter were supposed to consist of notes stamped upon some material which

possessed a sensible value in the market, independently of their value as legal tender money.

16. When, therefore, it is stated that a sale for metallic money is an exchange by pure barter of two commodities of equal supposed value, and also that it is impossible by mere cessation of coinage to bring a rupee worth 1s. 6d. to 2s. as coin, an exception must be made in respect of the three cases above-mentioned, in which either, firstly, the local value of coins has been increased by seignorage, or secondly, a restricted currency has by limitation been raised to a higher local power of exchange than the market worth of the materials composing it; or thirdly, when it is established in a position of subordination to a superior currency, by which latter the values of all commodities are regulated.

17. Now in both these two* latter respects my proposal for the restoration of the Indian currency is free from the difficulties which have been supposed to attach to it. First, it is proposed to completely restrict the further issues of silver coins; and it has been shown that, owing to the improvements under our administration, the trade of the empire has increased and is increasing with so much rapidity, that the requirements for circulating medium would probably ten years hence, be double what they are present; so that even if the rupees were now depreciated one half, there would be reason to expect that, in that time, at all events, they would have resumed their normal local value; in addition to which the fact is stated that up to a very recent period (March 1876) it has been ascertained that the rupees had not *on the average* become materially depreciated; so that little or nothing has to be done, except to

* I might have said "In all three respects," for Indian rupees are now in the same position as if they had been coined under a seignorage of 24½ per cent.

correct the inequalities which the disturbance of the exchange may have effected.

18. But upon this head it is objected that we cannot restrict the coinage of rupees for India; that "the coinage in " that case would not cease. Excellent rupees would be manu- " factured by a new style of forgers—as good as possible, and " they would flood every Indian market." Upon this point it may be observed that, although it is true, that a strong temptation to forgery would hereafter exist, yet it is also true that the temptation and risk would not be greater than they are at the present moment, and have always been in India since the year 1835. It is not supposed by any one that the existing rupees are now worth more than usual, but, if anything, less. Now, the gain by forgery being the whole value of the rupee, minus the expense of the counterfeit, it is clear that this gain could not be greater than it has always been, if the rupees never exceed their former value. But instead of the forgery by counterfeit coins, there may be hereafter the new temptation more especially referred to by my correspondent, namely, that of unlawful coining from true standard silver. This would be a crime of a very different character. A Native workman, using the more fusible inferior metals, may, without much difficulty, produce a tolerably fair imitation of a rupee, capable of being got rid of under favourable circumstances. In that case, reckoning, for argument's sake, the rupee is worth 2s., his profit would be for each counterfeit coin 2s., less the value of his time and materials. He could not produce so good an imitation of a rupee with standard silver without much more labour and the help of machinery, as it is an exceedingly difficult coin to execute in true metal, and his gross profit in this case, instead of being 2s., would be only about 4d. or 6d. Thus we perceive that the temptation to unlawful coinage of genuine rupees could not apply to the solitary forger with his few rude im-

plements; but to be of any benefit, must be undertaken on a large scale, and with good machinery. As has been remarked in my first essay, para. 29, this could not occur in India without detection, nor could the coins be imported from abroad, subject as they would be to discovery and confiscation at the Custom House. Nor could any Native State in friendly relations with our Government permit or countenance a fraudulent imitation of our coins in a way that we could not immediately and for ever put a stop to. Remembering the comparative absence of the necessary mechanical appliances and skill, it may be safely asserted that India would be far safer from fraudulent coinage of that kind, than England, France, America, and all other countries using silver token currency, and which are liable in the same way; and that the idea of India being supplied dishonestly with any thing approaching to 50, or even 5 millions of coins per annum is quite unworthy of consideration. Hence I venture to assume that it is quite possible to restrict the coinage of rupees in India, and that the necessary consequences of restriction may be safely calculated upon.

19. *Secondly*, It having been shown (paras. 12 & 17) that, even if the rupees in India were at present materially reduced in value, which lately they were not, they would be "appreciated" by restriction till they reached their former normal powers of local exchange, it has now to be stated that, independently of this, if the proposals I have made be carried into effect, the rupees would, as a matter of necessity, re-acquire their normal value, as the subordinate tokens of a gold standard currency.

20. Here I shall be met by the exclamations, 1st, "How can you have a gold standard currency without gold? 2ndly, Where is the gold to come from? 3rdly, Who can foresee the consequences of 'taking so momentous a step' as a change of standard in India?"

21. It will be well to meet all these and other similar terrified expostulations by a few frank statements; and in regard to the first, it must be remarked that a gold standard monetary system does not, necessarily, imply the general use, or indeed, any use at all of a gold currency. The standard of a country may be changed from silver to gold, and from gold to copper, lead, tin, aluminium, or any other metal, and still the actual currency, whether coins or notes, remain the same. The standard depends upon, and means, the commodity or article, by the surrender of a certain amount of which the current legal tender money is obtainable; and the value of which commodity the coin consequently conveys and exchanges for. A note which should be procurable *only* by the surrender of 123·274 grains of gold, that is, at the rate of £3. 17s. 10½d. per ounce standard, and redeemable at the same rate, is of the same value in exchange as a sovereign, and if the whole currency consisted of such notes, they would constitute a gold standard currency, without a single gold coin belonging to it.

22. In Scotland and Ireland this is, in a rough way, approximately the case, as the people there generally prefer the use of notes to coins. It is true they are not inconvertible, and it might be denied that they would circulate if they were; but while I would remark, in passing, that if they were properly restricted in number they would do so, just as the Bank of England notes did, I must add that the objection would be quite irrelevant, as the only object of mentioning them here is to show that a gold standard currency (not a standard gold currency) may exist without the indispensable use of gold coins.

23. It is possible that, in any country, a gold standard currency might be established without the aid of a single gold piece in circulation. If £1 legal tender notes were delivered on the deposit of standard gold bullion at the rate of 123·274 grains for

each note, and if they could not possiblybe procured in any other way, they would command in the market the same purchasing power as our present sovereigns; and they would do this even without being payable on demand, provided that, after the currency had been stocked with them, the demands of the country for circulating medium never diminished, however slightly; for the moment that the notes began to be produced in excess, so as to be slightly impaired in value, it would be a loss to any one to give gold bullion in exchange for them, and they would cease to be produced. Hence, although in a country like England, where, owing to innumerable circumstances, the demand for cash may be very variable, and the regulating check of payment of notes on demand is highly necessary, on the other hand, in a country like India, where the commerce is advancing with rapid strides, and the demand for circulating medium is constantly increasing, the want of such a check is not so important, and its *temporary* suspension of no consequence at all. The greatest apparent evil of an inconvertible currency is when there is a want of bullion for export; and as a self-acting means of securing the unalterable sufficiency of the note, it would be better, in any permanent arrangement, to make it by law convertible into bullion. At the same time, it must be observed that, upon the hypothesis that the notes are kept fully up to the value of gold coins, there would be no loss in purchasing bullion, for export, in the market.

24. Just as the business of a rapidly prospering country could be transacted by means of paper tokens, as above, so could it also be managed by means of metallic tokens; and all the more certainly if the metallic tokens were already in the hands of the people, and were readily accepted by them in exchange for the full value they originally cost, and at which only they could be increased in number, as the daily enlarging requirements of commerce called for them.

25. Such is the position of India at this moment. Its inhabitants are in possession of a currency, which, up to a recent date, was still circulating and received at the value of its original cost; and if the necessary change be not postponed too long, but measures be promptly taken to secure that the cost of procuring rupees hereafter shall be not less than what it formerly was, before the decline in the value of silver, there would be no difficulty in maintaining their original value, and causing them to take their place as subordinate parts of a superior currency, to be afterwards gradually supplied, and founded upon a gold standard.

26. By the measures proposed, the Government would not be called upon to provide any portion of the metal required; and hence the first question to which I have referred in paragraph 20 meets with an answer, which shows that the standard of value of a country may be changed without the acquisition by the Government of the new metal constituting it. The second question also is answered by the above remarks. The parties who propose it are evidently ignorant of the fact that the Government of India, as a rule, have nothing whatever to do with the provision of the precious metals to be coined, any more than of the letters carried by the Postal Department. Parties engaged in commerce, chiefly, and all the public enjoy the privilege of having the precious metals coined, and it is therefore from the public that the metal would be obtained for any coins required by them.

27. It may be as well now to draw attention to the fact that the standard of value is a measure of the labour and expense, that is, "capital" expended in producing articles in a market for sale; and that the Royal metals have been used for the purpose of this measure because, together with other qualities, they have been for lengthened periods nearly uniform in

their relation in this respect to one another and all other commodities; but we may add that any other substance equally convenient would have answered the purpose. Supposing, for instance, Platinum had a perfectly steady, and uniform, and readily saleable value of 30s. per ounce, and it were thought desirable, besides the English gold standard, to establish also that of Platinum. Apart from legal objections, which might be innumerable, there would be no difficulty in declaring by statute that coins might be minted without charge, containing as many grains of platinum as would be *precisely* equal in value to the 123·274 grains of standard gold contained in a sovereign, and should be admitted into circulation, having the same legal tender as our sovereigns. When the public had become familiarised with the use of them, they would pass current freely, and no injury would be done; for it is assumed that they would cost precisely as much as sovereigns, and be readily saleable for as much. But this would be a double standard. If, after a time, when the platinum coins were fully established, the reception of gold by the mint were stopped; that would constitute a change of standard. Admitting all the particulars of the hypothesis, it is conceivable that the change might be effected without disturbance or injury to any one.

28. As an illustration of the propriety of the proposed interference on the part of the Government, let us suppose that, owing to some unforeseen convulsion of nature, it were discovered that the length of the pendulum vibrating seconds, on which our standard yard measure is founded, had gradually declined, from 39⅛ inches to 27 inches, and it were well known that innumerable contracts founded upon the legal standard had been vitiated by the change, which was still going on, to the enormous loss and distress of the commercial world. Can we conceive it possible that the Government would hesitate to take immediate measures for substituting in lieu of the defaulting standard, the equivalent measure of some other more reliable one, such as

the corresponding portion of the earth's axis, or the French metre? They would be satisfied that in faithfully re-establishing a measure of correct dimensions, they were not only not incurring a "momentous" responsibility and creating a "revolutionary" change, but that they were simply doing their duty by arresting the mischief and restoring order.

29. Admitting, then, that it is the duty of the Indian Government to guard the standard measure of value, and prevent its alteration; that is to say, in other words, to keep the labour and expense, or the *cost*, of procuring rupees as much as possible constant and invariable, it is obvious that when the cost of procuring the rupee has become less, it is indispensable to its truth and accuracy as a measure of value that it should be restored to what it was, and uniformly kept so, as long as it is retained as a measure. Ten years ago the cost of procuring, that is the value of 10 rupees, was steadily the same as that of half a quarter of wheat worth 40s. per quarter. Since that time the cost of the rupees has fallen 23 per cent., and it would appear to be clearly the duty of the Government to see that they are restored to their former cost and value in India, so as to command the same half-quarter of wheat and other commodities as before; just as much as it would be their duty to restore the truth of any other standard measure. This duty might be fulfilled without changing the standard, by increasing the charge for coining silver, more, and more, as the latter became of less and less value in the market; or by an import duty on silver bullion and uncurrent coins; but as these might give rise to opposition, it is satisfactory to know that they are not necessary, and that the required improvement can surely be brought about by the "appreciation" of the rupee and the gradual rise of the exchanges.

30. We must remember that the rate of exchange with India depends upon, and in fact *is*, the price at which current rupees can be procured. When they can only be had, as pro-

posed, by delivering an ounce of standard gold, worth 933d., for 38 Rs. 14as., every rupee costs and becomes in currency worth 24d., and will for ever continue worth that, unless admission into the currency should at any time be made cheaper. The rupees cannot possibly leave the currency, as they would be comparatively worthless outside of it; but they will purchase, at the same rate which was given for them, viz., 38 Rs. 14as. per ounce, gold which may be required for barter or export, till there is a plentiful diffusion of gold coins available for the purpose.

31. Another objection pointed out by my friendly critic has no doubt proved an obstacle in many minds, and it is expressed in the following sentences:—"Gold would never come out to India in exchange for 2/- rupees, or ten of them for a sovereign, when the rupees were worth only 1/6 everywhere else." "The holders of gold would hold it tight, except upon a premium, which would practically make the rupee worth 1/6 only." Now, in answer to this seemingly formidable objection, it is only necessary to draw attention to the fact that the commerce of India has for the last eight years required returns in silver and bills at the rate, on average, of 17* millions of pounds sterling per annum. That is the amount which it has been absolutely necessary should be obtained directly in metallic currency, after the exhaustion of all means of making returns by goods. Such being the case, when 17 millions of pounds sterling must be had in rupees, and can only be obtained by Council bills or gold, it is obvious that the rate of the Council bills must rise to that of gold, or 2s. per rupee. When that rate has been arrived at the price of gold in India *necessarily* falls to 38 Rs. 14 as.†; and the rupee is worth 2s. in gold and everything else. So far from a premium or "batta" on gold interfering with my proposed plan; it is contemplated and in-

* Vide Report of Committee on the Depreciation of Silver, pp. 32, 33.

† Vide Appendix, para. 18.

tended to be rather an assistance to it.* If it should be high at first it would facilitate the introduction of the gold; and as the rupee became "appreciated" and established at its true former value, and the supply of gold coins more plentiful, it would gradually fall till it disappeared entirely; after which the gold coins would in due course be made demandable, and the payments in silver more or less restricted.†

32. The remark is made that there is no remedy but demonetisation, to which it may be replied that my proposals do in fact amount to nothing less than demonetisation; but it is demonetisation altogether free from the very serious difficulties which have accompanied it on some occasions. When it is resolved by a state possessing a full-weight silver currency to change the standard to gold, and reduce the silver coins to a subsidiary condition, it is necessary to call in and recoin the latter, in order to make them of less value than their denomination outside the currency, and so prevent all the evils of a double standard. But in the case of India at the present moment, this, fortunately, is quite unnecessary; because hitherto, although our rupees have retained the high value they formerly possessed, and which would be embodied in the future gold coins, they are already of about 23 per cent. less value outside the currency than

* Vide 1st Essay, paragraph 44. 2ndly.

† In India gold coin would be hailed with gladness by the people, but they would at first be used chiefly for hoarding and transactions with foreign traders. For years to come, the vast bulk of the internal transactions of India will be carried on by silver, the circumstances of the country being very different from those of European nations. As long as the supply of the silver currency is in the hands of the Government, the use of gold coins will be capable of being, in some measure, regulated. If the supply of silver currency be overdone, the gold will leave the country; if it be kept short, more gold will be brought in again. This would only take place slowly, and by the action on prices; and the scarcity or abundance of the supply of gold to meet the wants of the people would be indicated by its commanding an agio. But it must be remembered that, independently of relative values, a premium upon new coins is unavoidable, at first, to meet the reasonable profit of the money-changer.

the new denomination, as part of a gold standard currency, would give them, and they would remain immovably fixed in the currency as long as they lasted. If, indeed, my proposal involved the necessity of recoining the whole 1,500 millions of rupee pieces now in India, in addition to the fresh supplies of silver brought in by commerce, it would be a formidable undertaking; and it would be a very expensive process also, as there would be no room for any profit. But happily, as just explained, no such recoinage would be necessary; the existing rupee currency would go on fulfilling its functions without any change, except a very gradual appreciation, or increase of exchangeable value; so gradual indeed that the vast bulk of those habitually using the coins would be utterly unconscious of it.

33. Although not referred to by my able correspondent, I think it may be of some use if I here notice the proposal made by M. Cernuschi for the establishment of what he has termed bi-metallic money.

34. This project appears to be, that an agreement should be entered into by all the principal nations of the world to establish double standard currencies, on the basis of the free coinage of gold and silver, in the unalterable relation of $15\frac{1}{2}$ by weight of the latter, for one of the former; and the main argument in support of the scheme is that, if it be carried out, the demand for silver would be so much increased, and that for gold so much diminished, that they would gradually approximate to one another in value, owing to increase and diminution of supply, and in the end would settle down in the ratio fixed by the law of all countries.

35. This proposal may perhaps be very tempting to France and Germany, at the present moment, as they possess large masses of silver currency they wish to dispose of; for it would give the silver a status and value it is not likely to attain in any other way, and save them from very heavy losses. It might

also be tempting to India, if it were necessary to get rid of her silver currency to establish gold, which fortunately it is not. But let us look at the suggestion in a practical light, and judge by the consequences necessarily involved in it, whether there is any probability of its early successful accomplishment.

36. Even if we were to admit that, supposing the measure carried out to its full extent, it would be attended with all the advantages claimed for it by its author, yet it would be enough to say that as it essentially requires the consent of so many of the nations of the world, the time unavoidably spent in negotiations before the result could be accomplished would forbid the idea of resorting to it as a remedy for the present Indian difficulty, which urgently demands immediate action. Let us assume, however, that this difficulty does not exist, that universal consent has been obtained, and laws universally established upon the basis required; and even, moreover, let us for argument's sake, grant that the results contemplated have taken place, and that the two metals have become finally settled in their relations to one another, namely, in the ratio of 15½ to 1.

37. Let us further, too, for argument's sake, allow that the two metals in approximating to one another, yield equally; that gold from the diminution of demand, falls in value as much as silver by the increase of its demand is appreciated; and also that they start from the present position of things; in other words that before the new system and laws come into operation, there is no further loss of the value of silver, which will therefore be reckoned at 48d. per standard ounce; and, considering that neither the French francs nor the German thalers have been yet sent to market, this is making a very large concession; the result to Great Britain would be as follows:—

38. If the price of standard silver be 48d. per ounce of 444

grains, that of the ounce of pure silver containing 480 grains is 51·8918d., and if the price of standard gold containing 440 grains be 934·5d., the corresponding price for the ounce of pure metal is 1010·27d. Hence the price of $15\frac{1}{2}$ ounces of pure silver is 804·323d. and the difference between that and the ounce of pure gold is 205·947d. If we suppose the silver to rise, and the gold to fall equally, so as to meet half-way between their present positions, the result would be a declension in the present value of gold of 102·973d. out of 1010·27 or 10·19 per cent., in which ratio the pound sterling and every other value connected with it would be impoverished.

39. It is true that such a change *might* be effected, and that tables of compensation might be prepared for the adjustment of every value and of all contracts in the kingdom; but going back to the position in which we were just now placed, before the enactment of any law upon the subject, it will be evident that if the rectification of the Indian exchanges be made dependent upon the agreement of the British public to so large and complicated a measure as would be involved in the adoption of the bi-metallic system, it would be tantamount to the postponement for years of a remedy urgently required within a few weeks; and that even if it were sure that the bi-metallic system would be eventually adopted by the whole world, it would be absolutely necessary to legislate in the meanwhile to remove the present immediate and urgent distress in India.

40. If I might without impropriety venture to express an opinion as to the course to be adopted by the advocates of the bi-metallic system, I would very respectfully observe that if, instead of pursuing an attractive theory, they would adopt the arrangement proposed for India, namely, allow things to remain as they are, continuing the legal tender of both

metals, but prohibiting the future coinage of silver except upon the vote of the representatives of the nation, they would do all that is practicable towards lessening the evils of the sudden change in value of the precious metals, and provide fully for the wants of commerce by an arrangement differing almost imperceptibly from the existing system.*

41. Before concluding, I think it may be very desirable that I should succinctly state some of the objects which it is necessary to aim at in arranging a plan for the restoration of the Indian currency, the difficulties connected with a change, and the dangers to be guarded against in carrying it out: and at the same time explain how these have been foreseen and provided for by the measures I have endeavoured to advocate. The proposal being to establish a full weight metallic gold currency at the head

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* It has been explained in Essay No. 2, paras. 21 to 24, that it would be possible to have in any country a gold standard currency without gold coins, and this was illustrated by the fact that both in Scotland and Ireland, where gold is the standard of value, very few gold coins are in circulation. As a corollary to this, it follows that if all the chief European nations were to adopt a gold standard of valuation, it would not *necessarily* happen that the relations of value between gold and silver should be thereby prejudiced; on the contrary, they might possibly be improved thereby. If, for instance, all the nations used no gold for their internal circulation, but only silver or notes, or both, strictly regulated by gold—using the latter in the form of bullion exclusively for the exports and imports, and thereby the regulation of their internal currency and prices—it will be evident that there would be a much smaller use of gold, and a larger use of silver; and, as silver would hold in all these countries a subordinate position, commerce could in no direction whatever be prejudiced by any fluctuation in the relative values of the two precious metals. If instead of dispensing altogether with use of gold for internal circulation, means were adopted, by agreement of all countries, for its use to a limited extent, the relative demand for the two metals might be, in a great measure, controlled, and variations in their relative values checked and moderated.

of the present silver one, the following are the chief objects and supposed difficulties :—

1st. Supposed difficulty.—To provide a stock of gold.

2nd. Do.—To provide a currency for use, when the present rupees are demonetised.

3rd. Object.—To avoid the difficulties inseparable from a double standard, which has been proposed by almost all writers upon the subject.

4th. Do.—To establish the new currency in easy and simple relations with that of Great Britain.

5th. Do.—To avoid any loss in the value of the Indian revenue.

6th. Do.—To avoid any material alteration of present prices and contracts.

42. All these objects are believed to be realised by a combination of the measures proposed, which embody the following principles.—

1st. The practical exclusion of silver from the mints in favour of gold.

2nd. The consequent spontaneous admission of gold into the currency, by the mere balance of trade only.

3rd. The establishment of the present rupee currency at the value it has formerly held, and still holds, in relation to commodities in India, by stopping further silver coinage, and making the exchange at 2s. per rupee, the limit for the admission of gold.

4th. By utilising the present silver currency at its full local value for all payments till they can be made by gold.

5th. By the gradual legalisation of gold without, at any time, permitting a double standard.

6th. By the final settlement of the silver rupees as purely auxiliary tokens when the gold coins are sufficiently abundant for all payments, and can be made legally demandable.

43. Returning now to the supposed difficulties to be overcome and objects to be attained stated in para. 41. It may now be explained that the *first* named difficulties of the want of gold to form a gold currency, and of a stock of gold coins to enable the Government to declare them legal tender; and to make gold the standard of value; are met and overcome by the facts, 1st, that a gold standard may exist with any kind of currency, provided the latter can *only* be obtained by the delivery of gold; and 2ndly, that gold coins may be introduced as legal tender, and enter the currency by degrees, provided that they be not made demandable without due notice, and then only in such proportions, and at such times as the stock of coins in the country admit of it.

44. *Secondly.*—The supposed difficulty—that of providing a currency for use when the present rupees are demonetised, is disposed of by the fact that although silver is demonetised, the coins retain their present full local value, and are as useful for all future time within the country as they have ever been. As, in fact, it is not proposed to demonetise the rupees, this supposed difficulty has no existence.

45. *Thirdly.*—The difficulties supposed to arise from the

temporary existence of a double standard, evidently do not exist, according to my proposal; because, from the moment the reception of silver by the mints is stopped, and the currency is made procurable only by the delivery of gold, the standard would be changed to gold, and the silver coins become subsidiary. They would retain their former value, but it would be local only. The gold, circulating at its world-wide value, would effect the self-acting regulation of the currency.

46. *Fourthly.*—The object of establishing the new currency in an easy and simple relation with that of Great Britain is effected by fixing the exchanges at 2s. per rupee, which is proved by the elaborate analysis and investigation laid before the Society of Arts in 1870, to have been as nearly as possible the true average of its value for the 15 years previous to that time.

47. *Fifthly.*—The object here indicated is also gained by the arrangement just mentioned, as it would fix the exchanges for all future time within the smallest trifle of 2s. per rupee, and the present value of the Indian revenues at 50 millions sterling per annum.

48. *Sixthly.*—The avoidance of any material alteration of present prices and contracts will evidently be secured by continuing to use the present currency as it stands, provided the measures proposed be not delayed too long, and the violent strain which is now brought upon commerce by the derangement of the exchanges allowed to disorganise existing prices.

49. The following is the probable course of events if the proposed measures be adopted. The Government would, with or without successive steps, practically close the Mints to silver. The exchanges would then rise, till they reached 2s.

per rupee, the price of gold bullion falling "pari passu" to less than 16 rupees per tola pure, after which it would be brought to the Mint for coinage.

50. The existing rupees would continue to occupy the place they have always held in the currency; and prices, if and so far as at present deranged, would insensibly resume and for ever retain their former scale. The price of gold being reduced to the normal rate of 38Rs. 14as. per standard ounce, or 15Rs. 14as. per tola pure,* will be procurable in exchange for rupees without loss, when required for foreign barter or export, pending the time when an abundant supply of gold coins shall have been diffused throughout the country. When, also, a stock of gold has been accumulated as cover to the issue of currency notes, a large fund will be readily available for the same purposes. The way to the prompt restoration of the exchange and currency is to be found in the absolute control gained by the Secretary of State the moment that the ruining competition of cheap silver is got rid of.

51. Finally.—I am anxious to refer to a remark which is sometimes made applicable to my proposals, namely, that the rupees would have a "forced" currency, and an "artificial" value. Such an epithet is rarely applied to our shillings and half-crowns, which circulate very readily without forcing; and in regard to artificial value, this expression is never used as to the price of highly-taxed commodities, such as ardent spirits. And in this particular case it is in one sense hardly correct; for what an article actually costs to bring it to market is a real value when there, although it may be cheaper elsewhere. I would also notice an expression used by more than one respectable writer,

* Gold could be delivered much cheaper, and has been sold even as low as 14Rs. 8as. 5½ pies per tola. Vide my "Remarks upon a gold currency for India," note to p. 28.

and referred to in para. 20, speaking of the "momentous step" of changing the standard. If the remarks upon this subject which have been already made have afforded the explanation intended, it will be understood that the momentous thing is, not the rectification of the standard, but the vast mischief that has been caused by its having got out of order; in other words, that it would be as appropriate to speak of the momentous step taken by a man who had fallen into a ditch scrambling out of it, as to apply that term to the necessary rectification of the measure of value in India. It will also be apparent, from what has gone before, that no difficulty, and not the slightest expense, would attend the measure, on the contrary, if we take into consideration the heavy losses prevented by the change, a very large profit to the Government would be realised.

J. T. SMITH.

LONDON,
1*st August*, 1876.

ESSAY No. 3.

Containing Answers to some further Objections.

1. The proposal of the Bengal Chamber of Commerce to stop the coinage of rupees, has been objected to on the ground that its effect would be to hold out the greatest stimulus to private coinage which has ever been given in the world. That the Americans will not lose the Indian markets if they can help it, and if the Government will not coin these rupees, they will do it for themselves, that no law will be able to keep what they coin out of India.

2. This objection has been remarked upon in my Essay No. 1, paras. 28 & 29, and in No. 2, paragraph 18; and I have there stated that the "stimulus" to forgery in India is not greater than it has always been since 1835, and is at present; nor as to unlawful coinage sensibly greater in India than it is in France or England; and that it is not within the bounds of reasonable probability that fifty millions, or even five millions of rupees per annum should be smuggled into the country. The coiners must indeed be much more successful than is at all likely, if they should succeed in smuggling *one* million, or even half a million of coins annually into India; and the utmost amount of mischief they could do, if they succeeded in smuggling in fifty millions annually, would be to delay the "appreciation of the currency."

3. A great deal has been written also respecting the evils of an "appreciation" of the currency, which have been stated to be an "obstacle to commerce." But according to the plan I propose, just the opposite is the case. It is the fact that the

currency is at present "appreciated," in the sense of being worth more in exchange for commodities than its metallic value; and the effect of the proposal of the Calcutta Chamber of Commerce would be to prevent its *de*preciation, and to keep it, for the moment, in the same position as the 5-franc pieces in France. But, as regards the obstacle to commerce, the proposal of the Bengal Chamber of Commerce is only so far defective, that it does not go far enough. It is only a half measure. If, in addition to closing the mints for silver, they had proposed to open them for gold, at a certain limit, that would have established the "specie point," the want of which is referred to as being so mischievous.

4. Again, as to the obstacle to commerce, it would seem to be implied that an obstacle would be created which does not exist at present. Is this true? On the contrary, is it not the case that there is an obstacle to commerce now? By way of determining whether there would be any fresh obstacle, let us consider what would be the effect of stopping the coinage of silver, the mints being open to receive gold. If the coinage of rupees were stopped to-day, and the Secretary of State were to issue bills at a minimum rate of 2s. per rupee, the mints being open for gold, as proposed by me, the rate of exchange must inevitably rise to 2s., and would remain so for all future time, as long as that state of things existed, and with barely the slightest fluctuation. Would that be an obstacle to commerce? Would it not, on the contrary, be a vast improvement on the present state of things?

5. It is not recommended that the Secretary of State should thus arbitrarily raise his demand, and that suddenly; but if he only left it to competition, the alternative being gold at the rate of 38 Rs. 14 as. per oz., it would most certainly rise of itself; and then all further trouble and all further loss would be at an end.

6. What is the "true remedy" which has been recommended? It is as follows:—"not to impede silver going to "India, but to permit the laws of trade to diffuse silver through "India and through the world." This might be all very well if India had no connection with England, no fixed silver revenues, and no gold liabilities; but having that intimate relation with her, it is but common prudence to consider what *may* be the consequences of leaving matters alone.

7. It has been said that in some mines silver can be produced at as low a rate as 1s. 6d. per ounce. If by any possibility that should be the future permanent price of silver, in gold, what would be the effect on the Indian revenues?

8. This result, if it were within the range of even remote probability, ought, at the least, to be considered. What is it? It would indicate a reduction in value of the Indian revenues by nearly three-fourths of their whole amount! As it may, however, be considered an extravagant supposition, let us suppose the permanent future value of silver, stated in gold, is 4s. per ounce. How would that affect the Indian revenues?

9. It would inflict a permanent loss in the European value of our revenues of eleven and a half millions sterling per annum; and admitting that, in time, much of this might be recovered, it is certain that two-fifths of it would be wholly beyond early redemption.

10. What is the alternative proposed by me? It is, that the rupees being already "appreciated," should not be allowed to fall; that the further wants of the country should be provided for by admitting gold, which would take the lead in the currency, and for ever put an end to variations in the rate of exchange.

11. It has been stated that my argument in favour of the suggestion, that a Gold Standard might be adopted in India without buying the gold, is based upon a supposed balance of trade of India, as follows :—

"According to the last return there was a balance of trade during the last eight years of 17 millions sterling in favour of India. By adopting a gold standard they would make their balance payable, not as it was now, in silver, but in gold, and in this way they would obtain the necessary gold. If there was a balance of 17 millions sterling in favour of India, in the first place, the balance was in rupees converted, at 2s. the rupee, into gold. In the second place, against the balance of trade they had the India Office draughts upon India, amounting to 15 millions sterling in gold, to which must be added all private remittances from India, amounting to several millions. There are, therefore, grave doubts as to the large reputed balance in favour of India, after taking into account all these transactions. But if there were a balance of trade in favour of India, it was due to the expansion of her export trade, and as the rise of prices in India had not corresponded to the fall of silver in London and elsewhere, the export trade was now greatly stimulated. The sole object in adopting a gold standard in India was to raise the value of the rupee outside India, and the effect of thus suddenly raising the value of the rupee would be at once to check and curtail the export trade. But the scheme being based entirely upon the excess of exports over imports, the first result of its adoption would be to check natural causes now operating in our favour, and so destroy the foundation on which it rested."

12. The above does not at all represent my views; my argument that a gold standard might be established without buying the gold, had in reality nothing to do with the balance of trade. It was founded upon the fact that a gold standard and a gold currency are not necessarily connected, and that a currency made of paper or of rupees might be based upon gold—that is, upon a gold standard—without having a single gold coin in circulation.

13. The fact, taken from the report of the Committee, of the actual remittances to India at the rate of seventeen millions per annum in specie and bills, was used in support of a very different argument, in which it was quite immaterial whether

the figures represented pounds sterling or the calculated value of rupees at 2s. per rupee. The argument, which will be found in Essay No. 2, para. 31, merely requires the admission of the fact that there is a very large balance remitted to India in specie and bills.

14. Let me repeat, that a gold standard and a gold currency are totally different things. If the Secretary of State for India were to forbid the future coinage of silver for individuals, and at the same time declare that for ever hereafter he would issue bills on the Indian Treasury to all applicants at 2s. per rupee, he would virtually have changed the standard by that single act, and the rupee currency would from that date be based upon gold.* If this statement be fully considered, it will be seen clearly, that the change of standard is not so very formidable an undertaking as has been supposed.

15. In regard to gold *currency*, that certainly does require the use of gold, and I have stated my belief that it would be gradually brought into India and accumulate there, although I admitted that it would always be the first to leave the country. But this belief was not founded upon balances of trade produced by the stimulus referred to; it was based upon the expectation that the increase of the commerce of India would require an increase of her circulating medium, at least as large as that which it has been proved to have required in past years; and no one who considers the probable, indeed certain effect of the vast efforts made by the Government of late years in opening the means of communication, and affording facilities for trade, can doubt that it will be even much greater. If it be so, if in the course of the next 39 years only

* It might perhaps be desirable to adopt this as a tentative measure, the coinage of rupees on private account being only suspended till further notice. This might be continued for a considerable time, with or without the use of gold coins, if a sufficient supply of the ordinary coinage were kept up by the Government. By regulating the amount of bills put into the market from time to time, the rate of exchange might be raised by competition to a high figure; but it would be advisable to fix a maximum rate at which bills might always be had, in order to provide for the necessities of commerce.

as much be added to the currency in gold as Colonel Hyde states was added to it in silver during the period from 1835-6 to 1874-5, namely, 167 millions sterling, my expectations will be fully realised; and more than sufficient gold coins for the use of the public will have been established in circulation.

16. But it may be said that no additions can be made to the circulation except by means of the coinage of precious metal brought in by the balance of trade; and, consequently that a scheme which is based entirely upon the excess of exports over imports, and which checks the causes now operating in its favour, stimulating the export, and discouraging the import trade, must, as a result, destroy the foundation upon which it rests.

17. This argument, which appears to be only reasonable and conclusive, is nevertheless in reality fallacious and inapplicable to the real circumstances of the case. In order to examine it thoroughly it is necessary to separate the extraordinary and abnormal stimulus now given to the export trade of India, occasioned by the fall of silver, from the natural and healthy stimulus necessarily occasioned by the increase of commerce. It is enough to say regarding these, that the former, which is temporary and accidental, will, if not stopped, work its own comparatively speedy cure, by causing importations of silver bullion, flooding the currency, and raising all prices till the present "appreciation" or difference in the value of the rupees in and out of India ceases to exist; and it is this which it is desirable to prevent, because it would carry with it a heavy loss of the Indian revenues. The latter is the natural and self-acting corrective of the insufficiency of the circulating medium, arising from the expansion of commerce, and which, acting slowly by the insensible "appreciation" of the insufficient currency, draws to itself the requisite supplemental coinage, through the agency of the favorable balances of trade, which it steadily and persistently

creates; in the same manner as the accidental "appreciation" is now working the same result.

18. The same "appreciation" of the currency, and balances of trade will continue and occur, when the expansion of commerce requires it, whether the rupee be now fixed at 2s. by selling it for gold only, or be allowed to sink to 1s. 6d. by a comparatively sudden influx of silver. And it is not correct to say that the measure which would stop the influx, and fix the rupee at 2s., would prevent the future balances of trade, which would be caused from time to time as the currency became too small for the work it had to do; or that it would destroy the foundation on which it rests. That foundation is the future increase of the currency; and if it can be affirmed with any show of reason or probability that 20 years hence the currency of India will be of no greater value than it is at present, then it must be admitted that there will be nothing to represent the value of gold coins to be introduced during the interval, except that of the silver coins destroyed or lost out of circulation.

19. Another argument brought against my proposals is the difficulty of procuring the gold, in consequence of the large amount of that metal as well as silver used for the manufacture of ornaments, or hoarded; but this objection is, I trust, sufficiently met by the fact that I have only reckoned upon the same additions being made to the *currency* in future, as it has been proved have been made in past years, in spite of the hoarding and ornaments; and also that, as the standard can be changed without the possession of a single ounce of gold, there is not the least difficulty to be apprehended in doing so at once; thereby for ever putting an end to all but trifling fluctuations of the exchange, and awaiting the gradual establishment of the gold currency, as the expansion of commerce shall call for and introduce it.

20. The following objections have been urged against the explanations given in my second essay.

In regard to para. 5 it is said—

"The '*cæteris paribus*' spoils the argument. The coins will exchange for double only if they do not encounter the metal cheaper in bullion, consequently the 'if it be quite unavoidable' (in para. 7) must be proved, and it is not unavoidable if cheap bullion competes. A *small* seignorage is sustainable because the stamping and coining are processes worth something above bullion."

21. This objection is, perhaps, due to my omission to explain the nature of the "legal tender" and its effect in the market. Having legal tender, bits of paper, containing no definite promise to pay, nevertheless exchange for value, and sometimes equal to full weight coins; and bits of metal when stamped and of legal tender do the same. There is absolutely no *competition* between coins which have legal tender and bullion which has not. The latter not being available for the legal discharge of debts, or for the payment of any tax or impost, naturally commands only an inferior place in the market, the difference representing the "appreciation" of the coins, whether by seignorage or any other cause. The effect of seignorage or other "appreciation" is to raise the local value of coins above that of bullion.

22. It is unnecessary to prove that which is matter of hypothesis, namely, that the seignorage payable to procure coins is quite unavoidable; because when a seignorage is established by law, it is *impossible* to obtain new coins without paying it. Bits of bullion are not coins, and are useless for very many purposes for which coins must be had, at any price.

23. In para. 16 my statement as to the three exceptions to be made is admitted with the following limitations:—

"A, for a trifling seignorage. B, if restricted and having no competitor at a cheaper rate. C, if the subsidiary or token currency of metal has no great divergence of true metallic value."

"Silver is legal tender here only up to 40s. Below that the metallic value is near enough, but if the silver depreciation abides, shillings will be coined by forgers I am persuaded, and they will have to be increased in weight."

24. The remark under B is also applied to para. 17, but the answers already given will be sufficient. It must be allowed that when the divergence of metallic value is very great, the temptation to unlawful coinage is much increased; but as I have explained in No. 2, para. 18, the danger is far less in India than in European countries.

25. In regard to this same para. 18, my correspondent writes :—

"There is something in this reasoning. To forge genuine silver rupees may be very difficult for India. I do not at all think that, the great difference of value abiding, it would be impossible, but it is here shown to be hard. Still I would back the forger as likely to win in the long run. The temptation would be so enormous, and the gain so large. And do not forget that coin is easily smuggled, it lies in small compass, and would come in in driblets. India has many pores through which a little coined metal might penetrate."

26. On this objection it does not appear to be necessary to make any further remark than (referring to Essay 2, para. 18), to draw attention to the facts that the gain by coinage of genuine rupees, with all the expenses of dishonest distribution, would not probably be "enormous;" and that even if a small number were successfully smuggled into the country, they would form but an insignificant proportion of the 40 or 50 millions of rupees annually required.

27. Of course the importation of foreign made coins must be prohibited, and they must be rendered liable to confiscation; the necessity for guarding against smuggling being an inconvenience which must be tolerated by India, as well as other countries, if we are to prevent rupees from sinking in value together with silver. But the temptation to unlawful coinage might be gradually reduced and extinguished if, after the price of silver was settled and become steady, the Government were from time to time to replenish the currency with heavier new token coins at 10 per cent. seignorage; making use of the profits thus obtained to call in

and re-coin a corresponding number of the old pieces, giving them the same deficiency of value.

28. It may perhaps be objected that these new pieces would be bought up for hoarding, or for the melting-pot or exportation; but they would not be liable to this common disadvantage because, as regards hoarding, they would be preserved by the much greater suitableness of gold for that purpose; and, with regard to melting and exportation, they would be superseded almost entirely by the superior cheapness of silver bullion.

29. Those who share my belief as to the future rapid development of our Indian commerce, and the very large demand sure to be made in the course of years for additional currency, will agree that I am within the mark when I reckon that five or six millions sterling will be required annually, of which three millions, supplied by the Government, might be of silver, and two to three millions by the public, of gold. If we assume, by way of argument, that the future normal price of silver will be 48d. per ounce, the cost of the rupee on the present system being 1s. 6½d., or, say, a reduction of 23 per cent., there would be a gain of 9½ per cent. on all the new rupees added to the currency, if 10 per cent. seignorage be taken, and ½ per cent. be allowed for the expense of coinage, and there would be a loss of 15 per cent. upon all old coins called in and re-coined. This would allow nearly 19 millions of the old coins to be renewed without loss to the Government, besides the 30 millions of new coins added to the currency; but even then the process would be a tedious one; and to do more would involve a sacrifice. If a million sterling per annum were devoted to this object, it would take probably 12 to 14 years to accomplish it.

30. The renewal might be also greatly accelerated, if some practicable measure could be devised whereby the loss in the transaction could be slowly and equably distributed over the whole population, during a lengthened period. For instance, if at the time the new and heavier coins were introduced, it

were enacted that at the end of every successive year, for 15 years, the old rupee and half rupee pieces would be reduced in value as legal tender, and in all payments made by the Government, and all receipts of revenue and taxes, by a cumulative discount of 1 per cent. per annum, or, preferably, of two and one pies respectively, up to, and not exceeding 30 and 15 pies, of which 192 make the rupee; the effect would be that in each succeeding year an increasing number of the old pieces could be called in and re-issued of the heavier weight without any loss. If the increasing reduction of 1 per cent., or two pies in the rupee, were made annually, it would follow that at the end of the sixth year it would be possible to call in and renew nearly 31 millions of old coins, besides the 30 millions of new coins; and at the end of 14 or 15 years to work up all the remaining old currency without any loss whatever. By that time, supposing the Indian Mints capable of easily executing 100 millions of pieces per annum, two-thirds of the work would have been accomplished.

31. The argument of Para. 19 is denied, it is said to be—

"Not shown as to reaching 'former normal powers of local exchange;' the argument, if good, would place a power in the Indian Government of decreeing one rupee equal to one sovereign; and that this would work. 'Former power' is a mere phrase; directly the metallic value exhibits a wide discrepancy, 2s. is not more likely than 20s.; but, of course, 2s. is all you want."

32. This is an important objection, and one worthy of careful discussion, the more so as the remarks which have been made upon the subject of legal tender may appear to give support to it. It is very necessary, therefore, to explain that, when I say that the rupees if restricted would become appreciated till they reached their former "powers of local exchange," I did not refer to any power or authority of the Government, not even to the "legal tender" they possess, but merely to the fact that if they were restricted they would become gradually reduced in numbers compared with the transactions to be settled and the

commodities to be transferred by them; and would then be "appreciated" up to their former value, because their number would be absolutely limited, and the demands of trade rapidly increasing. No authority or act of the Government, not even of the legal tender, gives any *absolute* value to a piece of money. It only defines what a coin, such as a rupee, is, and how it is to be obtained; which conditions being complied with, the coin is a legal tender in discharge of contracts expressed in rupees: but the quantity and value of commodities given in exchange for the coin, depends upon the comparative sacrifice of capital required to procure one and the other; that is the *cost* of procuring rupees and other articles.

33. A few years ago the cost of procuring a rupee was equal to that of procuring $12\frac{1}{3}$ grains of standard gold, and prices throughout the length and breadth of India then, and a short time ago, remained adjusted to that ratio. Now, they may be had for little more than the cost of $9\frac{1}{2}$ grains of gold, but in the interior of India they would be considered of equal value with the older rupees; and, but for the exchange with Europe, would continue to do so till the gradual flooding of the Indian currency raised all prices, and reduced the value of every rupee in the empire to its mere metallic worth. If the Indian Government were to close the mints to silver, without providing any other means of obtaining the currency, they might rise in value, putting aside the administrative difficulties connected with smuggling and forgery, to almost any degree.

34. In regard to para. 24, it is observed that—

"A vital difference is unnoticed between paper and metallic tokens. These last have nothing but their metal to stand upon. The paper token professes to give a dollar. That is, so many grains of gold. Of course if the metal pledged sinks in value, the paper token follows."

My argument is, that if inconvertible paper tokens may by restriction be kept of the value of full weight gold coins, it follows that metallic tokens can be so too. It would certainly be better that the Government of India should be prepared, and should advertise its readiness at all times to exchange gold for their token currency, under certain conditions, and it will be proper that this should be done hereafter. This step would meet the objections as to "divergence of metallic value," but I have not proposed it at present, because it would be a serious difficulty for the Government at first to provide the means of exchange in all parts of the empire, and most probably be attended with heavy losses; while, on the other hand, it is not really necessary, for as soon as the exchanges have been restored to the normal rate of 2s. per rupee, gold will be procurable at par; and in the course of time gold coins will be abundantly dispersed, and it will then be easy to establish the privilege.

35. Much objection has been raised to paragraph 25 as follows:—

> "The cardinal point has to be proved. No proof yet given. That 2s. will be given for what may be had for 1s. 6d." This assumes that, by Government decision and action, a seller of goods who can get more silver from a buyer at 1s. 6d. will be content to give the same goods for less silver at 2s. A difficult job to prove."

What is here referred to is a matter of fact, which is well known and established by abundant testimony, namely: that up to a recent date, prices throughout the length and breadth of the interior of India were not as yet materially increased by the fall in the value of silver. If rupees passed current only as so many bits of metal, it might have been different, but at present they pass only as rupees; and the natives know but little what they cost, or are worth, except in the prices of the accustomed tariffs.

36. At the chief Indian ports, the abnormal state of the exchange tends powerfully to affect the prices of both exports and imports, and thereby to induce large shipments of silver to be converted into rupees, which would in time raise all

prices to the level required by 1s.6d. per rupee, or the true price of silver. My correspondent continues—

37. "The action on prices must be considered now. It must be remembered that much silver in India is taken for hoarding, ornaments, &c., &c., &c., and was bought at 2s. It can be had now at 1s. 6d. as bullion, and the same goods, the same sacrifice of the buyer, will fetch more silver. That will be seen so; and, if by nothing else, there would be two prices in every shop. So many rupees at 1s. 6d. in bullion, so many less if they have a mark upon them. Do you think that possible for long? That the whole country will not be in conspiracy against it. Contracts for payments will stipulate the particular form of the metal to be paid. The 2s. rupee will be hemmed in and pushed out."

The writer here is evidently not aware what a patient and submissive race we have to deal with in the generality of our Indian subjects; even if it were a case of hardship, instead of inconvenience, it would take a vast deal more to awaken them to any demonstration. But the truth is that the matter is settled in a much more simple and effectual manner, as explained in my answer to the objections against para. 5, namely that the effect of seignorage or appreciation is to raise the local value of the coins above that of bullion; the consequence, therefore, is that the value of bullion stated in rupees would appear to fall in all parts of the country.

38. In regard to the 29th paragraph, my correspondent asks—

"But can any Government permanently do, or for any appreciable time, this indispensable thing?"

This I am obliged to answer in the negative, for human research has not yet succeeded in finding any article or commodity which can with certainty, and for a permanence, be referred to as a precise standard or measure of value; nevertheless, the statement may be justified as true in theory although in practice it can only be carried out with a certain amount of imperfection.

39. It is here asked—

"If the rate of the Council bills must rise to that of gold at 2s., why does it not do so now?"

The answer to this question seems to be so very obvious that the enquiry can only be accounted for by the fact that the subject has not been properly explained by me. The reason why the Council bills cannot now rise to 2s. is because the rupees which they transfer can be had in unlimited abundance at a much cheaper rate by the transmission of silver bullion. When this can be had at 48d. per ounce, rupees can be had for about 1s. 6½d., and it is not to be expected when that is the case, that merchants would give 2s. for them. However great may be the demand and competition for rupees by bills, the competition is obviously limited by the price at which they can certainly be obtained, in indefinite quantities, otherwise. When they are obtainable freely by silver, the price given for them in bills is limited by the price of silver; but when, as in the case referred to by me in the paragraph objected to, they would be only procurable by gold at a certain rate, the price given for them in bills will be limited by that rate, viz., 2s. per rupee; and if the supply of bills is short and the competition active, they would very nearly, if not quite, fully realise it.

40. A further remark is made upon this paragraph to the effect that—

"There would be no true 'former value'"

of the rupees. This is perhaps best answered by referring to the 46th paragraph of the second Essay, and the elaborate analysis printed in the appendix.

41. On the 43rd paragraph it is observed—

"If gold is not demandable till after due notice, the rupees become inconvertible notes, and what basis have they for *any* value? The shopkeepers in America will alter their prices to the value of the day."

Coins which are legal tender must be taken in payment, and they exchange for commodities in exact proportion to what it costs to procure them, as has been already explained in para. 32. *That* is the basis of their value. If they be as is assumed, properly restricted, gold bullion will sell in the markets at par; and the value of the silver coins once fixed in regard to gold, will not vary as the American greenbacks did, when they were issued or withdrawn at the option of the Government. It would be unreasonable to make gold coins, which will be only an authentic and convenient form of gold bullion, legally demandable, when there are no coins; and the arrangement proposed, by which they would be gradually admitted into and take the lead in the currency, is thought to be convenient and free from any real objection.

42. The conclusion at which my friend arrives after all his objections, is as follows :—

"But practically we agree. I would coin no more rupees, and as soon as possible adopt a gold standard. Only, till silver steadies itself, you cannot say how many rupees should go to the pound."

Gratifying as it is to find that my correspondent, personally a stranger to myself, is, on the whole, prepared to support my views, I am reluctantly compelled to take an exception to his last sentence. It appears to me that as the measure of value has been seriously disturbed, we are bound to restore it to what it was before the disturbance began; and this not only in justice to the parties to all contracts entered into before and while the measure was impaired; but also in justice to the Indian taxpayer, to keep up the value of his payments in the markets of the world.

43. If the standard be changed it will be a final settlement; but in establishing a new one it would be as unjust to allow debtors to gain an advantage from the fact of the former standard having failed, as to allow creditors to be mulcted in heavy sums, because the rectification was not sooner made, or anticipated and rendered unnecessary.

44. The following objections have been kindly sent to me by another correspondent, an Indian Banker, personally a

stranger to myself, said to be long familiar with the practical consideration of these questions.

"He (Col. Smith) supposes that from the absorption of silver, the currency would become scarce, and that therefore the rupee would rise in value, and circulate at the level, as compared with gold, thus artificially fixed for it."

"The immediate effect produced by the closing of the Mint against silver would be a heavy fall in the price of that metal; and it seems inadmissible that any scarcity of rupees in India could ever raise the value of the rupee, intrinsically worth, say one shilling, to command two shillings."

45. The argument respecting the fall in the price in silver is answered in Essay No. 1, paras. 40 and 41, to which may be added, that if India should hereafter take two or three millions sterling per annum of silver bullion out of the market, she could not be blamed for any further decline in its future price. In regard to the inadmissibility that any scarcity of rupees could raise their *local* value, I must refer my critic to paras. 19 to 27 of my first, and 9 to 13 of my second essay, and my answers to the remarks of my first correspondent who takes up the same argument with himself at pages 31 and 32.

46. My proposition is that with a *limited* currency, the so-called intrinsic value has little or nothing to do with the matter. In all markets commodities are offered for sale at such prices as the vendors can afford; and in the Indian market the rupees have held the place which the cost of procuring them indicated in reference to all commodities; and they hold that place, pretty much, still. Suddenly, the cost of procuring rupees has greatly fallen, and if admission to the currency remains free, they will in time be superseded and reduced to the value of the cheaper rupees. But if the currency be closed, as to the present method of procuring rupees, and they should in future be only had by a mode as expensive as the former one, then my argument is that they will *retain* their value; that is, they will continue to exchange for what they really cost.

47. The cause which is assumed by me to bring about the scarcity of rupees, is the increased demand for currency sure to be occasioned by the expansion of the internal trade of the Empire, which in the last 39 years required additions to the value of 167 millions of pounds sterling. If it can be affirmed that there never will be any further demand for currency, then the "appreciation" would be confined to the contraction caused by the annual loss or destruction of coins, which has been estimated at three millions sterling per annum; but if, as I believe to be certain, there will be a future demand for additional currency, much exceeding that of past years, it will be not unreasonable to calculate a requirement of five or six millions of £ sterling per annum; and when this has continued for a few years a scarcity must ensue. In ten years the deficiency would be no less than from 500 to 600 millions of rupees.

48. "The very causes which are assumed to be the means of bringing about the scarcity of rupees would cease to exist. Rupees would no longer be hoarded; but, on the contrary, would be at once pressed forward for conversion into exchange at two shillings, and would sink to their real value."

This argument has been already answered in paras. 15 and 19, pages 61 and 63, where it is shown that the demand for additional currency has existed, *besides* the absorption of silver and gold (of which latter 86 millions sterling have been absorbed in 20 years*) and during all which time hoarding has been going on, as it always has done, and always will do, while the nation is prospering.

49. As for the rupees "being brought forward" for conversion into exchange at 2s. per rupee, and sinking to their real value, it seems to be forgotten that when the exchange really is 2s. per rupee, there is no more object in exchanging rupees for English money, than when it is at a lower figure. No profit

* Miscellaneous Statistics, Finance Account, No. 93.

can be made by buying English money at 2s. and then re-purchasing rupees at 2s., but only a loss, by brokerage and commission. If it be meant that the rupee should be sent out of India to be exchanged for gold at 2s. per rupee, then it must be pointed out that gold can only be brought into India in payment of a balance of trade, and that the rupees themselves cannot be used as exports to bring returns of gold, as their value is strictly local.

50. Hence the rupees will be worth 2s. as expressive of the value of goods, either locally or for export, and the rupees themselves will be worth 2s. in exchange for commodities, as indeed they now are, but only in India. They cannot sink in the value given to goods so long as the exchange continues at 2s., and that will be almost immovably so, when it is fixed, as proposed by me, in gold.

51. " Prohibition of silver coinage would introduce gold, no doubt, but would not in any way alter the relative values of the two coinages, as the laws of supply and demand would come into play, and force all commercial transactions to be finally adjusted with reference to English exchange."

The laws of supply and demand are precisely those which will effect the objects proposed by me, and they will establish the relative values of the two coinages, those values being equal. What is understood by the law of supply and demand is, that if there be an effective and unlimited demand for any article in the market, it will command in that market *at least* as much as its cost price.

52. If the present rupees have formerly cost as much as one-tenth of a sovereign each—are at present exchanging with commodities for about that value—and in future cannot be procured for less than that value, the inference is allowable that, under those circumstances, the relative values of the two currencies will be equal.

And what will be the English exchange? If 17 to 20 millions sterling in value of Indian rupee currency *must* be procured within the course of every year, and there is no other possible means of procuring them (imports into India of commodities having been exhausted) except by gold at 2s. per rupee, and Council bills at the same rate, it appears to be pretty certain that it would be 2s. per rupee.

53. "The importer of gold, who has bought that metal at its true value with reference to silver, would never consent to hand his gold over to the Mint at Rs. 38.14as. per ounce (equal to Rs. 10 per sovereign). If he should require to have his gold coined for convenience sake, he certainly would only then part with it at its natural and real premium. Under no circumstances would gold coinage accumulate in the hands of the Government; and it seems a fallacy to imagine that by any arbitrary act could even a Government succeed in putting such pressure upon private individuals as would force them to part with their gold at a price far below its real value."

When the rate of exchange is 2s. per rupee, it will be found by merchants and bankers on many occasions easy to deliver gold at less than 38.14as. per ounce,* and they will gladly do so without any pressure. When it is said that "under no circumstances" would gold coinage accumulate in the hands of the Government, my meaning as stated in Essay No. 1, para. 11 and para. 15 of this Essay, page 62, seems to be misunderstood; for it is not declared that gold would accumulate in the Government treasuries, but in the country, and in circulation; and it can hardly be denied that the Government would have as much power and opportunity of acquiring, and if they wished it, of hoarding gold as private individuals, without using force or oppression.

54. "Colonel Smith admits that gold coins would for a time command a premium, but that this would disappear as they became abundant and silver coins became scarce. But the rarity of the silver rupee would in no way enhance its value, even if the silver coin did become scarce."

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* Vide note to paragraph 50 of Essay No. 2.

I think this objection is answered in Essay No. 1, paras. 21 to 26, Essay No. 2, paras. 12 and 15, and in this Essay, paras. 21 and 32. It arises from the difficulty felt by many minds in understanding that legal tender currency, whether made of paper or metal, circulates with authority, and exchanges for as much "capital" or "value" as it takes to bring it into the market.

55. "But what is to bring about the scarcity of rupees? They can never be exported. They are hoarded to an enormous extent. And the moment it is found that ten rupees could purchase a gold coin equal to a sovereign, the hoardings of years would be produced, and the law that an inferior coinage always drives out one superior to it, would have another illustration."

It is true that the rupees cannot be exported, and it is probable that they are to some extent hoarded, but not to an enormous extent, because it is known that gold has been hoarded to a very large amount; and, whenever possible, it is likely gold has been substituted for silver for that purpose. There is, therefore, not much to fear on the score of this objection, though hoarding may tend somewhat to delay the early diffusion of gold coins. As for the inferior currency always driving out one superior to it, that only happens when the inferior, or, rather, cheaper currency can be freely obtained by the public; and the reason is obvious; but the law does not apply when the cheaper currency is not procurable freely, as we see exemplified for years past in England, and now in France.

56. "The Indian by no means prefers the bulky rupee to the more convenient sovereign, as a coin for hoarding. On the contrary. And it is to be feared that any attempt to carry out this plan would only cause great disturbance, and would entirely fail in bringing about the objects sought."

The first of these statements is, probably, quite correct; and it affords a reason for my belief that, although there is a very large amount of precious metal hoarded, it is principally gold and fine silver bars, and not very much of coined silver. The second does not require any special answer.

57. "Much might also be said of the impossibility of preventing illicit coinage of rupees when a gain so enormous would be the temptation.

This objection has been answered in No. 1, paras. 28 to 30, No. 2, para. 18, and No. 3, para. 26.

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58. The foregoing objections contained in the three Essays are the most important that have been received up to the present time; and it is hoped that they will afford a sufficient illustration of the principles upon which the proposals for the restoration of the Indian currency and the introduction of gold are founded, and of the chief arguments by which they may be attacked and defended.

59. The most interesting point for enquiry and decision is, whether the Indian Legislature, by suspending the coinage of silver, and publicly undertaking to transfer Indian rupee currency to all applicants, in London or elsewhere, at a fixed rate in pounds sterling, would not thereby change the Indian standard of value to gold, without the slightest disturbance or even knowledge of the native community; and be enabled to put an end to all material variations of the currency, and future depreciation of the Indian revenues.

J. T. SMITH.

LONDON,
1*st Sept.*, 1876.

Extract from Report of Conferences held by the India Committee of the Society of Arts, 1870.

ON THE METHODS OF COMPUTING THE COMPARATIVE VALUES OF GOLD AND SILVER IN INDIA.

1. Before proceeding to explain the various methods of calculating the relative values, in India, of gold and silver, it is necessary to say a few words about averages. A fair estimate of the truth cannot be arrived at, unless an independent and unbiased judgment be first formed as to the number of years' average best suited to the purpose. I shall myself on the present occasion refer to the statistics of the years 1853 to 1867, the largest number of which reliable data are procurable, and beyond which the important influence of the gold discoveries in Australia does not come into operation.

2. It must be remarked also that, in calculating the average market-price of silver and gold, allowance ought to be made for the quantities imported and sold at different times. To do this involves troublesome calculations, and it is not always that the labour very much affects the result. This may, perhaps, account for the omission.

3. The methods above referred to are as follows:—

First.—By taking the average prices of the two metals in the ports whence they are supplied, and adding to them, respectively, the costs and all the expenses of their transmission to India.

Secondly.—By ascertaining the average market-price of gold bullion, in rupees, in the Indian market.

Thirdly.—By ascertaining the value of the bullion contents of a sovereign, in rupees in the Indian market, as compared with the value of good bills on England, as shown by the quoted rates of exchange.

4. *First Method.*—To begin with the first of the above methods of calculation, it may be well to state that the value of gold bullion in India is very nearly the same, but, if anything, rather less than in London. This has been brought about by improvements in the means of communication established of late years. Although in some degree a repetition of what has been before stated, yet, as the observation is a novel one, bearing upon the subject under discussion in all its aspects, a little further explanation is desirable.

5. It is almost unnecessary to mention that gold bullion sent to England for sale fetches the invariable price of £3 17s. 9d. per standard ounce, immediate payment; to which it may be added that, lately, large quantities of gold produced in Australia have been sent by the Peninsular and Oriental Company's steamers *via* Ceylon to England. When at Galle, (in Ceylon), goods and passengers are within a week's transit of Calcutta or Bombay, but not nearer than about three weeks from England. The practice has been established by the principal banks having branches in Australia and the East, to telegraph instructions to their agents in Galle, as to the destination of gold arriving there on its way to England. When the exchange with India and the price of gold rise above a certain point, orders are sent to alter the destination of the gold to Calcutta, or Bombay, where it is sold, and bills on London purchased with the proceeds, thereby producing a better result than the actual delivery of the gold itself at the Bank of England in exchange for the £3 17s. 9d. per ounce, as above stated.

6. At present, we have no further connection with this fact than to point out the inference that gold bullion, which is on its way to England for sale at £3 17s. 9d. per ounce, must on its arrival in Ceylon be worth only £3 17s. 9d. per ounce, less the charge of conveyance and delay, &c., from Ceylon to England; and the same gold taken to Calcutta, cannot in reality be worth more than the same £3 17s. 9d. per standard ounce, less the difference between all the charges of the longer voyage from Ceylon to London, and the shorter one from the same place to Calcutta. Owing to the absence of competition, it happens that, just now, the charges for freight and insurance by the Peninsular and Oriental Company's steamers are more for the shorter than the longer voyage; but the difference in the loss of time, owing to the greater length of the voyage to England, makes up for the overcharge; so that, including delay, the cost of landing gold bullion in Calcutta or Bombay is not more, and (if a gold currency were established, and a large supply of bullion required to feed it, so as to induce competition) it will probably be materially less than the cost of delivery in London; and hence its value may safely be calculated as the same.

7. The value of standard gold bullion in India may, therefore, be taken as being, in English money, £3 17s. 9d. per oz. or less. We will now inquire into that of silver bullion.

8. In my "Remarks on a Gold Currency for India,"* published in January, 1868, I gave a list (at page 33) of the London market prices of silver, taken from the Parliamentary papers, supplemented by information very kindly furnished to me by Messrs. Pixley, Abel, and Langley, extending from 1853 to the end of 1866. To this I am now able to add the facts for the year 1867.

9. The ordinary average price, taken in the common way, for these fifteen years, is 61·3375d. per standard ounce. The freight and charges incurred in sending this to India, including loss of interest during transit, amount to $2\frac{3}{4}$ per cent., which, added to the cost in London, brings up the price per oz. in India to 63·0242822774d. But the English standard ounce of silver contains 444 grains of pure metal, so that the ounce of pure silver would be worth in India 63·02428 $\times \frac{480}{444}$, or 68·13435885078. On the other hand, the ounce of standard gold, containing 440 grains pure, being worth in India, as above explained, 933d., the ounce of pure gold must be worth 933d. $\times \frac{480}{440}$, or 1017·81818181 pence, &c. Hence the relative value of the two metals, according to the above statement, is:—

$$\frac{1017{\cdot}8181818181}{68{\cdot}13435}\ \&c.,\ \text{or}\ 14{\cdot}938399.$$

10. The above appears to be the relative value of the two metals, as bullion, in their pure state; and the same ratio applies also when both contain the same proportion of alloy, which is the case with rupees and sovereigns. So that, to find the value of a sovereign, containing 123·274 grains of standard gold, in rupees, we have first to multiply the number of grains by the above ratio, to show the corresponding number of grains of rupee standard silver bullion of equal value; and secondly, in order to reduce this bullion to

rupees in coin, to take off from the amount so obtained the Indian charges of mintage, 2·1 per cent.

11. Now, 123·274 × 14·938399=1841·516198326 grains; and deducting 2·1 per cent. from this, the remainder is 1802·8443598, or rather less than 6th per cent. more than 10 rupees, of 180 grains each, being exactly 10·01580, &c., or 10 rupees 0 annas 3 pies (*Vide* par. 32.)

12. It must be here observed that the above result is arrived at by using the valuation of silver founded on the ordinary average. The value of gold has been taken without any deduction for the high freight and insurance now charged between Australia and India.

13. It must further be remarked also, that the values above calculated are based upon the present cost of transmission of the silver to India applied to the former average market prices. To obtain a true average of the value of silver bullion in India in former years, the price of each year ought to be added to the cost of transmission of the same year, and if this were done, the average value of the ounce of pure silver would be ½ per cent. more than has been above shown, and would be represented by a price in English money of 68·4750d., the value of the gold contained in a sovereign being then only 9 rupees 15 annas 5½ pies.

14. *Second Method.*—This method is comparatively more easy and intelligible than either of the others, as it is the mere statement of the actual selling price, in rupees, in the Indian market, of gold bullion, as quoted in the returns, and reduced to "standard" fineness.

15. Taking the fifteen years from 1853 to 1867 inclusive, the average price of gold in the Calcutta market is 257·4 annas per tola, pure. The result is very nearly the same, whether the ordinary average be taken, or if it be calculated in the more exact manner above referred to.

16. Taking the above average, it appears by mere proportion that when the tola, or 180 grains of pure gold, costs 257·4 annas, the 113·001605 grains pure in the sovereign must be worth 161·592295 annas, about one per cent. in excess of ten rupees, or 160 annas, the exact value being 10·099518 rupees. It must be observed, however, that in discussing the comparative values of the two metals for coinage, we are bound to consider the cost of both as delivered to the mint. Now if, as has been proposed, gold were coined free of charge, and paid for immediately on delivery, its comparative cost would be much less than the average market price, where, in addition to the cause presently to be stated, it is enhanced by charges which would be avoided by delivery to the mint, viz., brokerage, delay, and the necessity for selecting finenesses to suit the market. These causes united amount to half per cent.; but the chief cause which tends to raise the market price of gold above what, in the nature of things, it must needs be, and shortly will be, is that, for want of telegraphic communication between India and Australia, a great deal of gold is actually sent from London, at an extra cost of nearly two per cent. In fact, gold which might be sent direct from Galle to India, virtually comes to London, and is sent back again burdened with the unnecessary cost of a six weeks' voyage. This is owing to the following causes:—The gold market in India is a very limited one, and very sensitive, and cannot be supplied with so costly an article as gold on speculation; for a very slight addition to the stock causes a fall in the price, so that the despatch from Sydney or Melbourne of a precious commodity which cannot be kept waiting for a rise of prices would be attended with the greatest risk; and hence, with the exception of bullion which happens to be on its way to England, and capable of diversion to India, sudden changes in the market can only be met in London, prices being reported, and sales "for arrival" being effected by telegram. As before explained, this involves an additional expense of nearly two per cent., and therefore adds to the average quotations of prices in the market; but it will certainly be put an end to whenever telegraphic communication shall have been successfully opened between the two continents, or when there is a steady and certain market for gold at a fixed price.

17. *Third Method.*—The method of calculating the average relative values of silver and gold in India by means of the exchanges, is founded on the following principles:—

18. When the balance of trade is in favour of India, and bullion is required to be imported, it has been above shown that it may be delivered there at the same cost as in England, if not less; and it must be especially noticed that the gold bullion imported into the Indian market arrives there in lieu of being delivered at the same time and cost as in London.* Its value in Calcutta, therefore, must be equal to its value in London, as either alternative is equally at the command of the owner, and hence, in order to exchange it in Calcutta without loss for a bill on London, he must do so at such a price as would give him the same value as the gold would fetch in London at the very time of sale in Calcutta; that is to say, for example, in exchange for an ounce of standard gold he must have at least the equivalent of £3 17s. 9d. payable in London at the very time of his parting with the bullion in Calcutta.

19. The effect is nearly the same,† and it will, perhaps, make the explanation more clear if, instead of applying our remarks to an ounce of standard gold, we refer to the quantity contained in a sovereign, and say that a bank manager or merchant landing gold in Calcutta, must, to avoid loss, exchange every sovereign's weight of standard gold for the equivalent of a bill for 240 pence, payable in London at the very time of sale.

20. A first-class six-months' bill will be necessarily detained a month in transit, and be discounted on its reaching London; and if we assume the average rate of discount at 4 per cent., thus making the charge for six months 2 per cent., and allow ½ per cent. for the loss of interest during the transmission, we arrive at the fact that when gold bullion is required to be sent to India it is more valuable there by 2½ per cent. than first-class six-months' bills; and that, on

* The time is in fact not the same, as it would not reach London for two weeks after it would arrive in Calcutta, but the difference in the freight and charges by the Peninsular and Oriental Company as present make up for this delay, as before explained, so that, as regards values, the gold is about the same in both places.

† The only difference is that the bullion contents of a sovereign would not be quite worth 240 pence, but only about 239·6 pence; so that, by using 240 pence, the gold is reckoned at a trifle above its true value.

the average, the gold bullion necessary to form a sovereign (123·274 grains standard) is equivalent in value to a first-rate bank-bill for 240 pence, plus 2½ per cent., that is 246 pence.

21. It is obvious this is only an average statement, and that various circumstances may, from time to time, slightly modify the equation. If, for instance, the rate of discount in London were 6 per cent., gold would, for six-months' bills, be worth 3½ per cent. more than its intrinsic equivalent. If the rate were only 2 per cent., then it could be sold without loss for only 1½ per cent. more. And the same may be said for the allowance for interest during transit. We are, however, now only dealing with averages, and therefore what has been already said is sufficient, and it leads to the conclusion that gold from Australia may be delivered in India, in any quantity, in exchange for unexceptionable six-months' bills, at the rate of 2½ per cent. above its London price. It may be useful to add that the Bank of England price for a tola of pure gold is 381·6818 pence, and 2½ per cent. beyond that is 391·22386 pence. If the London rate of discount be such as to require 2½ per cent. to be added, a merchant could afford to sell his tola of pure gold for as many rupees as are shown by dividing 391·22 by the number of pence given for a rupee in six-months' bills. For instance, when the rate is 2s., he could sell

pure gold for $\frac{391 \cdot 22}{24}$ or 16 rupees 2 annas per tola.

If the London rate of discount be less than 4 per cent. he can afford to sell his gold cheaper, and *vice versa*. But if the rate of exchange be high, the price of gold necessarily falls in due proportion. At 2s. 1d. per rupee (London discount being, as before, 4 per cent.), the price of gold would be $\frac{391 \cdot 22}{25}$ or 15·648952 rupees per tola pure.

22. Let us now alter the conditions, and suppose that, the exchanges being adverse to India, it is necessary to send gold to England; we have to inquire at what rate, supposing the gold existed in India in the accessible form of gold currency, it could be transmitted to England, and what would be its value as compared with first-rate six-months' bills. Here, taking the same form of illustration as before, we may remark that sovereigns worth 240 pence in London would in the event of its being necessary to transmit funds thither from Calcutta, be of a ¼ per cent. more value than a first-class six-months' bank bill, because it takes the same time to send both to London and realise them, and the cost of sending the gold is about 1¾ per cent. The bill costs nothing to send, but it must, on its arrival, be discounted for the six months, at an average charge of 2 per cent. The difference is ¼ per cent. in favour of the sovereign remittance, and hence each sovereign in Calcutta would be worth 240 pence plus ¼ per cent., or 240·6 pence, in a six-months' bill.

23. We have now established the fact that, supposing a gold currency of sovereigns coined free of charge existed in India, any amount of metal required for the purpose could be supplied from Australia, and the value of the coins so struck would vary from a maximum of 246 pence to a minimum of 240·6 pence in first-class six-months' commercial bills. Hence the mean value of the sovereign would be equal to 243·3d. in six-months' bills.

24. We have next to find out the average value of first-class commercial six-months' bills, in rupees, in the Calcutta market, and then compare the two, viz., the gold and rupees. By returns with which I have been favoured from the India-office, showing the average monthly price of first-class bills in the Calcutta market, it appears that, throughout the sixteen years from 1853 to 1868 inclusive, the average rate was 24·39 pence per rupee. Consequently, ten rupees would command 243·9 pence in bills. But the mean value of the bullion contained in a sovereign is, as we have just seen, 243·3 pence in bills. Hence, if coined without charge (as in England), the sovereign would be of less value than ten rupees, the difference being 0·6 in 243 pence, or about one-fourth per cent. Dividing 243·3 by 243·9 we have 9·975 rupees as the true value of the sovereign.

25. In the above statement I have endeavoured to show what the value of the sovereign must necessarily be, if it were established as legal tender in India, supposing the rates of exchange to be on the average what they have been for the last sixteen years. But the results are open to this correction, that they are based on the assumption that the present disproportion of the charges of freight and insurance between Australia and Calcutta on the one hand, and Australia and London on the other, will continue; a most improbable supposition when coupled with that of an Indian gold currency. Were the rates of freight and insurance properly adjusted, the effect would be to reduce the value of gold in the above calculation by one-fourth to one-half per cent. more.

26. These remarks appear to show, conclusively, that if sovereigns were coined in India free of all expense, they could and would be supplied at a less cost and current value than ten rupees, supposing the latter to be of the same value as that which they have borne on the average during the last sixteen years; but it must be observed that this conclusion involves the supposition that there is a ready market for the gold, such as a mint would be, and that the metal can accordingly be at once disposed of for the net value at which it can be afforded. This has not been the case hitherto, and it may be useful as well as interesting to trace the effect of this want of a ready market in the enhanced market price of gold.

27. It has been shown that the value of gold must, as a matter of necessity, be superior to that of six-months' commercial bills, representing its intrinsic worth in the English market, the superiority amounting on the average to ·3·3 pence in each sovereign, or about 1⅜ per cent. Hence, an ounce of standard gold in coins would be worth 945·828 pence in good six-months' bills, and a tola (180 grains) of pure gold would be worth 386·929 pence in bills. Now, the average price of bills for the last sixteen years having been 2·439 pence per rupee, we have only to divide the number of pence in a six months' bill, equivalent to a tola of pure gold, by the number of pence in a six months' bill given on the average for a rupee, to obtain the value in rupees of pure gold. On doing this (dividing 386·929 by 24·39) it follows that the average value of gold per

tola pure, as compared with bills, was 15 rupees 13 annas 9·9 pies (which, it must be remembered, is the rate at which it could certainly be delivered at the mint), is more than ⅜ per cent. below the price (15 rupees 14 annas 10·3 pies) which would yield sovereigns for 10 rupees, and nearly 1½ per cent. below the average actual selling price, which, as stated before (par. 15) was, during the sixteen years referred to, 16 rupees 1 anna 5 pies per tola pure. This difference between the rate at which it could be and what it actually has been sold, shows the effect of the absence of a certain market, and the other cause above referred to (*Vide* par. 16).

28. A difficulty may perhaps arise in consequence of its having been stated, in par. 20, that when the exchange is favourable to India, and the rate, for instance, is 2s. 1d. to 2s. 2d. per rupee, a sovereign's weight of standard gold is worth 246 pence in bills; and in par. 22, when the exchanges are against India, and the rate, for instance, 1s. 10d. per rupee, it is worth only 240·6 pence, whereas, it is well known that gold is much dearer in the Calcutta market during an adverse than during a favourable state of the exchanges. This apparent contradiction will be explained when we consider that, during a favourable exchange for India, bills command a much lower price in rupees than during an adverse one, so that when the rate, for instance, is 2s. 2d. per rupee, a sovereign worth 246d. in a six-months' bill would be equivalent to only 9·46 rupees; when the rate is 1s. 10d. per rupee, a sovereign worth 240·6 pence in a bill would be equivalent to 10·93 rupees. Thus the large number of pence in a bill represents a smaller number of rupees.

29. If we were to attempt to deduce an average value of gold from an average of the prices so calculated from the highest and lowest rates of exchange, we should be led to a somewhat higher value of gold, because a fall in the exchange has a greater effect in raising its price than a rise has in lowering it. But the result so arrived at would be inaccurate, because it will be seen, from what immediately follows, that the introduction of a gold currency would have the effect of restraining the variations of exchange within narrow limits; and the value of gold, as derived from the normal rate, agrees with that stated in pars. 24 and 27, making the bullion value of the sovereign ⅜ per cent. less than 10 rupees.

30. For instance, if we assume that a gold currency of sovereigns, at the rate of 10 rupees each, were established in India, the short exchange between England and India could not fluctuate more than 2s. to 1s. 11½d. per rupee. In regard to the former, when the exchanges were favourable to India, gold would be laid down there from Australia at its English value, and the 123·274 grs. of standard gold, which would otherwise have produced 20s. in England, will become 10 rupees in India, thereby saving the expense of transmission from London. In regard to the latter, sovereigns in free circulation in India at 10 rupees each, will be sent home at an expense of 1¾ per cent., thus giving an exchange of 1s. 11½d. The greatest fluctuations would, therefore, be from 2s. to 1s. 11½d., or one per cent. on either side of the average. At present, the greatest fluctuation amounts to 8 per cent. or even more on either side of the average; but this refers to six-months' bills, and at times must include variations in the rate of discount.

31. We may also observe that the establishment of a gold currency in India would not only reduce the fluctuations in the exchange eight-fold, but would put an end to a very large unnecessary expense now incurred in supplying the wants of India for specie. Including the loss of interest during transit, silver cannot be sent out to India at a less charge than 2¾ per cent., nor placed in currency for much less than 5 per cent.; and these charges, at the rate of supply of the last ten years, amount to half a million per annum, of which the whole would be lost, and £275,000 more, making the total loss of £775,000, on the return of the metal to Europe during an adverse exchange. Gold, on the other hand, would be landed in India at its European cost only, thus supplying India at a saving of £300,000. And 10 millions in value would be returned to Europe at the expense of about £225,000, which would be the whole loss, instead of £775,000.

32. On summing up the results at which we have arrived by these three different methods of inquiry, we find that, by the first method, as applied to the last fifteen years, the value of the bullion contained in a sovereign is found to be 10·0158026, &c., rupees, or 10 rupees 0 annas 3 pies.

33. By the second method, the bullion value of the sovereign in rupees, taking the average of the last fifteen years, is found to be 10·099 rupees, or 10 rupees 1 anna 7 pies. By the third method, we find the bullion value of the sovereign, as reckoned on a fifteen years' average, 9·975 rupees or 9 rupees 15 annas 7 pies, all these valuations being subject to reductions on the establishment of the gold currency, as shown in the following table:—

TABLE SHOWING THE BULLION VALUE OF A SOVEREIGN IN RUPEES.

First Method..	10·0158	Subject to a reduction of ½ per cent.*
Second Method	10·0995	Subject to a reduction of 1¼ per cent.,† besides ½ per cent.
Third Method..	9·9750	Subject to a reduction of ½ per cent.‡

Average .. 10·0301, or 10 rupees 0 annas 5¾ pies.

34. It will be observed that the valuations above stated are subject to heavy deductions, owing to causes sure to come into operation on the establishment of a gold currency and a certain market for gold at a fixed price. As the calculations have been founded on data collected from the most authentic sources with great care, during the past three years, it is not probable that they will be found very far from correct; and even supposing that they should be sensibly modified by later information or facts derived from other sources, there seems, nevertheless, to be little room for doubt that the future value of gold would be so much reduced by a free communication with the mines, and its establishment as the standard currency of India, that the British sovereign would probably need the addition of a mint charge, to a greater or less extent, to bring it up to a fairly estimated equality with the 10 rupees hitherto current in India, as expressive of legal contracts and the commercial value of the liabilities of the Government.

J. T. SMITH.

* On account of undue charges of freight and insurance from Galle to India, *vide* pars. 6, 12, and 25.

† On account of brokerage, delay in sale, *vide* par. 16.

‡ On account of the undue market price of gold, owing to want of telegraphic communication with Australia, *vide* pars. 26 and 27.