

the policy of raising the rate of discount, sharply and rapidly, whenever signs of a considerable export of gold shall appear. Of course, the decree of the directors can absolutely control the rate of discount only upon the capital which the Bank itself has to loan; but the moral influence of such an act upon the joint-stock and private banks and upon individual capitalists is naturally very great, and the general rate of interest is at once appreciably affected.

In doing this, the object of the directors of the Bank, who deem themselves, by the force of tradition, though not of law,* largely responsible for the financial integrity of the kingdom, is so to raise the rate of interest, or of discount, as to induce foreign creditors, who have the right, at the time, to demand gold from England, to leave that gold for awhile in England, thus checking a "drain" which is considered dangerous. By raising the rate of interest at once, from three or four to six or eight † per cent., the profit on the investment of funds in England is made so great that any foreign creditor, who is not absolutely required by his financial circumstances to draw his money away to his own country, feels a strong inducement to leave it still longer in England.

It is in this way that the financial authorities of the kingdom seek to "tide over" a highly unfavorable state of the exchanges; and it may be said that the policy, although involving a resort to means which are altogether artificial and highly exceptional in finance, uniformly proves successful. "The fact," said Mr. Goschen, "has been that almost every advance in the bank rate of discount is followed by a turn of the exchanges in favor of England. Foreign creditors give their English debtors a respite, and prefer to wait longer for remittances, gaining interest meanwhile at the profitable English rate."

558. The Special Case of England and the United States.—We have said all that the limits of our space will allow concern-

* Walker: Money, Trade and Industry, pages 292-98.

† The Bank has, in pursuance of this policy, more than once raised the rate of discount as high as eleven per cent.

ing foreign exchange in general. A word may, however, be added regarding the exchange between England and the United States. The valuation, in American money, of the English pound sterling, has been several times changed. Prior to 1792, the pound sterling was valued at \$4.44 4-9, according to the bullion standard of the Spanish dollar, then universally current among us. From that date down to 1834, the American dollar was worth 97½ cents in gold, at which rate a pound sterling was worth \$4.56½ cents. By the coinage act of 1834 our standard was so reduced that the bullion contained in the American dollar was worth only 91½ cents, so that the pound sterling became worth about \$4.87. The United States custom-house valuation of the "sovereign," that is, the coin representing the English pound sterling, was, however, fixed at \$4.84. By this difference in bullion value between our dollar and the English standard money, a fictitious par of exchange was created between England and the United States, so that an American stock or bond worth \$100 in New York, would be quoted in London at about \$109, whenever the amounts respectively to be paid and received between the two countries were equal.

By an act of Congress of January, 1874, the custom-house valuation of the English sovereign was again changed, this time to \$4.87⁶⁵/₁₀₀, at which point it now remains. The London stock exchange responded to this action, the same year, by valuing the American dollar at four English shillings, equivalent to about 97½ cents of our money, from which it results that American stocks or bonds worth \$100 are quoted in London at about \$102.75, subject to variations on account of the fluctuations in commercial transactions.

XIV.

BI-METALLISM.

559. The question of Bi-metallism is to be decided solely upon the principles which have been laid down in Part III., as governing the value of money; but the question is one of so much popular interest and has been so confused by the pas-

sionate controversy waged over it, that it may be worth while to set the points at issue fairly forth, for the assistance of the beginner in economics.

And first let us depict the situation, in view of which the controversy has arisen.

560. The Gold-Using Countries.—We find one group of States, of great importance in international commerce, whose habits of trade make gold money, or bank notes predicated upon a reserve of gold money, the most agreeable and convenient medium of exchange. These are rich countries, having vast accumulations of wealth, derived from the industry of the past. In them, because their productive power is large, wages are high. In them, trade and industry are organized with a great degree of complexity and minuteness. It is not needful for our present purpose to name all the countries of this group; but clearly it embraces England, France, Belgium and Holland, in Europe, and on this continent, the United States.

It is admitted, that, in these countries, the use of silver as the ordinary money of trade would be attended with great inconvenience, and would meet so much prejudice on the part of the people as to render it inexpedient for any government to propose the introduction of that metal as the sole money of full legal-tender power. These countries, however, use a large amount of silver as fractionary money, for the purpose of making change in transactions, and for retail purchases.

561. The Silver-Using Countries.—On the other hand, we find a group of countries, embracing an aggregate number of inhabitants several times greater than those previously mentioned, in which the facts of industry and the habits of the people respecting exchange are such as to make gold an impossible money. Such countries, beyond a doubt, are China and India, where the ordinary wages of labor range from two to eight cents a day. There are other countries—some in Europe and some in America—settled by the people of Southern Europe, in which wages range from twelve to thirty cents a day, in some of which the ordinary use of gold as money can not be pronounced exactly impossible; yet

where reasons, both of practical convenience and of sentiment and habit, give a decided preference to silver for that purpose: a preference so decided that it is not reasonable to anticipate that these countries will soon, if ever, pass over from the silver-using to the gold-using group of countries. The group of countries in respect to which we have spoken of the use of silver money as more consonant with the facts of industry and the habits of the people than the use of gold, comprise the Spanish American states, Russia, and most, if not all, of the southern states of Europe.

I have said that it is not necessary for our present purpose that all commercial countries should be named on the one side or the other of the dividing line drawn. Controversy might easily arise as to the proper location of Italy or Germany,* perhaps also of Austria; but we have no call to undertake the question. It is enough if it appear not only that there is one great group of states which, in fact, use gold as their principal money, and another great group which use silver, but that the preference for the one metal or the other is so far determined by economic causes, such as the rate of wages, the degree of accumulated wealth, etc., as to make it highly probable that the two money metals will continue to be used, as now, each within a wide field that is peculiar to itself.

562. What the Bi-Metallist Proposes.—It is this situation which the bi-metallist has in view when he propounds his scheme. Accepting the existence of a large group of countries in which gold naturally circulates as money and another in which silver is so used, he proposes to create a league of states, some of which are what we may, for brevity, call silver states, and some, gold states, which shall, each for itself, but by simultaneous action, establish the free coinage † of the two

* If, for example, Germany were resolved into its constituent States, several would naturally gravitate towards the gold-using group; more, still, towards the silver-using group. In like manner, Northern Italy might go to the gold-using group, while Southern Italy would tend the other way.

† The distinction between free and gratuitous coinage is noted in par. 196.

metals, making the money of one metal to be legal-tender indifferently with money of the other metal, in payment of debts, at a certain ratio determined upon in advance by the consenting states. Say, for example, $15\frac{1}{2}$ dwt. of silver to 1 dwt. of gold, the ratio adopted by the states of the Latin Union, viz., France, Italy, Belgium and Switzerland. The bi-metallist asserts that, if such league be formed between a considerable number of important commercial countries, even though it does not embrace all countries, the relative value of gold and silver will be kept close to the mint-ratio so established.

When asked what is the object in view in such an international arrangement; what advantage is anticipated of sufficient importance to make it worth while to endeavor to overcome the natural reluctance of nations to bind themselves to act in common respecting matters which touch their sovereignty, to make it worth while to resort to international conferences and congresses, the bi-metallist adduces two considerations which he alleges to be of vast importance to the world's trade and industry.

563. A Par of Exchange* Desired between Gold Countries and Silver Countries.—The first is the establishment of a par of exchange between silver-using and gold-using countries.

We saw (par. 543) that between two countries having the same money metal, a par of exchange exists. This par of exchange is realized whenever the sum of the payments to be made in one country by merchants of the other country, within a certain brief period, is equal to the sum of the payments to be made in the latter by the merchants of the former country, in which event a merchant paying down a certain amount, say 1,000 ounces, of the common money metal, say gold, in his own country, can thereby purchase the right to receive, himself, or through his agent or representative—his creditor, let us suppose—1,000 ounces of that metal in the country in

* The question of foreign exchanges has been treated under a preceding title.

question. Exchange will, in fact, fluctuate about this par of exchange, now above and now below, according to the movements of supply and demand, as these are determined by the relative amounts of debts to be paid and of payments to be received, respectively, in the course of trade between the two countries. The outside limits of these movements of exchange are, as we saw, fixed by the cost of exporting or importing specie.

But between two countries having money of different metals, say of gold in one country and of silver in the other, there is no par of exchange, irrespective of a bi-metallic league like that under consideration. Wholly in addition to the usual movements of exchange, the question, how much gold an Indian merchant can obtain the right to receive in London, by paying down a certain amount of silver in Calcutta, depends on the silver price of gold and the gold price of silver, at the time. And as the two metals have their separate sources of supply, and, to a certain extent, independent uses, whether in the arts or as money, their respective values are likely to fluctuate greatly.

564. It is a necessary result of this that much more uncertainty is involved in trade between a gold and a silver country than between two gold countries, or two silver countries: the chances of undeserved losses or unearned gains are greatly increased. No merchant in a silver country selling to a gold country, no merchant in a gold country selling to a silver country, can know for how much of the metal which forms the money of the country to which he exports his wares he must sell them, in order to make himself good for the metal which he has expended at home in producing or purchasing them.

The English merchant who sells to Calcutta or Hong Kong or Mexico, may do all that lies within him with the highest wisdom and skill; he may buy the right sort of goods and buy them at a bargain, ship them at the proper season to the best market, sell them at the highest ruling prices, and bring the proceeds safely home to Liverpool, yet a fall in silver, between the sale of the goods and the receipt of the proceeds, may

strip him of all the profits of his venture, of all the fruits of the year's business, or even entail a heavy loss upon him.

It is true that, in one sense, what one merchant in an individual case loses, some other merchant, or some banker, or some speculator, may gain. But it is not true that unearned gains encourage industry to the extent to which undeserved losses discourage it. On the contrary, not only does the good done almost always fall far short of compensating for the evil wrought, but it often happens that, as mercy between man and man blesses both him that gives and him that takes, so the sums of wealth transferred by speculation or accident, not only leave the loser grieving and crippled, but curse and blight him whom they seemingly enrich.

565. Now this grievous disadvantage under which international trade suffers, the bi-metallist professes to be able to remove, through the scheme that has been described. It is not now the question whether this can, indeed, be done; but whether the result be desirable, and, if so, whether desirable in a degree to justify a considerable effort, perhaps some sacrifice.

It is one of the accidents of the controversy over this question that the mono-metallist writers are estopped from denying that this result would, if practicable, be desirable in a very high degree. There are but few of those writers who have not, in discussion of the effects of inconvertible paper money, treated the loss of a par of exchange with foreign nations (par. 220) as a serious disaster. In dealing with such a case, for example, as that of France between 1871 and 1877, they have attributed most unfortunate consequences to the inconvertibility of the money of the Republic into that which was the money of the commercial world, even though the notes of the Bank of France were at a very slight, often hardly appreciable, discount. In the same way these writers, during the continuance of the American suspension, 1862 to 1879; were accustomed (and rightly) to attribute to the inconvertibility of the greenbacks most injurious effects upon the trade and production of the United States, and this, even after the premium on gold had sunk to a low average, and had ceased to fluctuate vio-

lently or rapidly. "Any degree of depreciation, however small, even the liability to depreciation, without its reality," to use Mr. Bagehot's phrase, was declared to be a cause of mischief, to be eradicated by the most heroic efforts of the suffering nation, at almost any sacrifice.

566. The Greater Stability of Value in Bi-metallic Money.

—A second benefit which, according to the bi-metallist claim, would result from the establishment of an international league for the free coinage of both metals, as indifferent legal tender, at a certain fixed ratio, in payment of debts, is that the two metals, thus bound together, would constitute a better money than either metal by itself could be. The inequalities of mining production would tend in a degree to equalize each other, with the result of greater uniformity in the production of the compound mass, and hence of greater steadiness in the value of money.

Here, again, the mono-metallists are at a controversial disadvantage. In order to establish the impracticability of the bi-metallic scheme, they have dwelt strongly on the tendency of the two metals to vary widely in value, and this view is fully borne out by the facts of the last three or four centuries.* But this argument against the practicability of the bi-metallic scheme virtually amounts to an admission of the merits of that scheme, if found practicable.

* Take the present century only, for illustration. When the century opened, silver was in course of rapid production. Three dollars' worth of silver was taken out, where one dollar's worth of gold was produced. Then came the series of South American and Mexican revolts and revolutions, between 1809 and 1829, by which mining machinery was destroyed, mining populations scattered, and the most prolific mines of the world closed. Mr. Jacob estimates that the stock of the precious metals in civilized hands fell off one-sixth in those twenty years. But gold now came in to fill the void. In 1823, the mines of the Oural began to yield largely, while about 1830 the gold sands of Siberia became known. And now only 68 cents' worth of silver was produced to a dollar's worth of gold.

In 1848 and 1851 came the gold discoveries of California and Australia, and so altered was the relative production of the two metals that only 27 cents' worth of silver was taken out, to a dollar's worth of gold! After 1861, however, the facts of production became more favorable to silver.

I think it must be conceded, on this statement, that the bi-metallic scheme, if it could be carried out so as to realize the expectations of its advocates, would confer very great benefits upon international trade, and, by consequence, upon the production of wealth.*

567. Is it Practicable?—Let us, then, inquire what are the economic conditions of the case; how far it is reasonable to believe that this scheme could be successfully established.

What is the force to which the bi-metallist looks to restrain the tendency to divergence between the values of the two money metals, silver and gold? It is evident that any rational scheme to influence value must aim at affecting either supply or demand. Can, then, government influence the supply of or the demand for a money metal? Clearly, unmistakably, yes. Government can in a very great degree influence the demand for either of the money metals by coining it into money and conferring on the coin legal tender power.

In 1873 began a still further movement in the same direction. The director of the United States mint estimated the world's production of gold in 1884 at one hundred and two million dollars, and of silver (at 16:1 of gold) at one hundred and sixteen million dollars.

* I do not here present the argument from the STATUS in favor of the remonetization of silver in Europe and America, as money of full legal tender power, at a certain ratio to money of gold, under free coinage. That argument has respect to the vast bodies of debts and fixed charges, both public and private, contracted before the German demonetization of silver (say, 1873). It is urged that to require these debts, whether interest or principal, or both, to be paid in money whose purchasing power has been enhanced by the diminution of its volume through the extrusion of silver (except as small change) from the money system of Europe and America, will prove both a grievous injustice, as between debtor and creditor, and a great source of injury to trade and production. The English economic statisticians are generally agreed that the purchasing power of gold has largely increased since the German demonetization. How far this has been in consequence of that demonetization, is matter of dispute. The aggregate amount of national debts is now stated at \$27,000,000,000. There are, in addition, vast bodies of public or political indebtedness, on the part of counties, cities and towns. Then we have the enormous mass of corporate (industrial), and private debts, the burden of which (at any time) depends primarily upon the purchasing power of the money in which interest or principal is to be paid.

To illustrate this, let us suppose that, in any country, both gold and silver are made legal tender in payment of debts, at the ratio of 15½ of silver to 1 of gold: that is, the law decrees that a debtor may extinguish an obligation by the payment of coins containing a certain number of ounces of gold, or, at his option, coins containing fifteen and a half times that number of ounces of silver. Let it be assumed that, at the moment of the decree, this was the actual market ratio between the metals.

Let it now be supposed that causes, natural or commercial, that is, affecting the supply of one metal or the other, or affecting the demand for the one or the other, begin to operate to produce a divergence from this ratio: say, to make an ounce of gold worth 15.60 ounces of silver, what will occur? The bi-metallic principle will at once begin to act in restraint of this movement toward divergence. How will it operate? Through the desire of every debtor to meet his maturing obligations in the cheapening metal. All debtors will, in the case supposed, seek silver. This extension of demand acts directly in contravention of the force which is lowering its value. On the other hand, the metal—gold—which is tending to become dearer, from that fact falls out of demand. No debtor seeks it as the means of paying his debts. This diminution of demand at once operates in counteraction of the forces tending to raise the value of gold.

568. The Opinion of Mono-Metallic Writers.—Now, is this a purely fanciful view of the subject, taken only by advocates of the bi-metallic scheme? On the contrary, it has been seen in operation over extensive countries, of great commercial importance, through long periods of time; and the validity of the cause is fully confessed by mono-metallic writers of the highest reputation.

M. Chevalier, the eminent French economist, writing of this system as it prevailed in his own country in 1857, when, in consequence of the great gold discoveries in California and Australia, gold was tending to fall and silver to rise, and thus to pull away from the mint ratio of 15½:1, then established in France, speaks thus emphatically: "Whilst this state of

things lasts, it will be *impossible* at London, Brussels, Hamburg, or even at New York, or at any other great center of commerce, for gold to fall much below $15\frac{1}{2}$ times its weight in silver." And Prof. Cairnes, writing of the same period, said: "The crop of gold has been unusually large; the increase in the supply has caused a fall in its value; the fall in its value has led to its being substituted for silver; a mass of silver has thus been disengaged from purposes which it was formerly employed to serve; and the result has been that *the two metals have fallen in value together.*"

Mr. Bagehot wrote in the London *Economist*: "Whenever the values of the two metals altered, these [bi-metallic] countries acted as equalizing machines; they took the metal which fell, they sold the metal which rose; and thus the relative value of the two was kept at its old point."

And the late Prof. Jevons, writing in 1874, under the title, the Equivalence of Commodities (see par. 142), says: "It is upon this principle that we must explain the extraordinary permanence of the ratio of exchange of gold and silver: that *this fixedness of ratio does not depend upon the amount and cost of production* is proved by the very slight effect of the Australian or Californian discoveries."

And elsewhere Prof. Jevons thus illustrates the compensatory action of the two metals: "Imagine two reservoirs of water, each subject to independent variations of supply and demand. In the absence of any connecting pipe, the level of the water in each reservoir will be subject to its own fluctuations only. But, if we open a connection, the water in both will assume a certain mean level, and the effects of any excessive supply or demand will be distributed over the whole area of both reservoirs."

"The mass of the metals, gold and silver, circulating in Western Europe in late years, is exactly represented by the water in these reservoirs, and the connecting pipe is the law of the 7th Germinal an XI,* which enables one metal to take the place of the other as an unlimited legal tender."

* French revolutionary style for the year 1803, the date commonly assigned to the establishment of the bi-metallic system in France.

569. *Bi-Metallism not a Chimera.*—We see, thus, that the bi-metallic scheme is based upon economic principles which are incontestable. If it be worth while for any nation to undertake this work of holding silver and gold together, it can do so just as long as it has any considerable quantity of the metal which at the time tends to become dearer, to dispose of. If it be worth while for any group of nations to undertake this, they can maintain the approximate equivalency of the two metals just as long as their joint stock of the metal which at that time tends to become dearer remains unexhausted. Every additional state that joins the bi-metallic group strengthens the system in two ways, first, by contributing to the supply of the metal which may, under the natural or commercial conditions prevailing at the time, tend to become dearer, and, secondly, by withdrawing itself from the list of States which may possibly contribute to the demand for that metal.

570. *The Operation Illustrated.*—We may suppose the commercial world to be divided into sixteen states, A to P, the first six having the single gold standard; four, G to J, the so-called double standard of gold and silver, under the bi-metallic system: say at $15\frac{1}{2} : 1$; the remaining states having the single standard of silver, thus:

A, B, C, D, E, F, (G, H, I, J,) K, L, M, N, O, P.

It is evident that, in the event of a change in the conditions of supply tending to cheapen silver relatively to gold, the new silver would pass into the countries of the double standard, G to J, and be there exchanged for gold, at the rate of $15\frac{1}{2} : 1$, with some small premium as the profit of the transaction, and, as a result, the gold displaced from the circulation would be exported to the gold countries, A to F, in settlement of trade balances.

The rapidity with which this substitution of silver for gold in the bi-metallic states will proceed must depend, first, on the force of the natural causes operating to cheapen silver; and, secondly, on the force of the commercial causes operating to maintain or advance the value of gold. The length of time during which the drain of the dearer metal

can be sustained without exhaustion, will (given the rate of movement) depend solely upon the stock of that metal existing in the bi-metallic states when the drain begins.

But chief among the causes operating to advance the value of gold, is the exclusive power with which gold is invested by law to pay debts in states A to F; while the stock of the dearer metal available to sustain the drain described, is made up, not of all the gold in the sixteen states A to P, or in the ten states A to J, but only of the gold in the four bi-metallic states, G to J.

Now, let us suppose the sixteen commercial states to be somewhat differently divided, as follows:

A, B, C, D, (E, F, G, H, I, J, K, L,) M, N, O, P.

The bi-metallic system is now not twice merely, but many times as strong, since not only is the amount of the dearer metal subject to drain increased, but the demand for that metal, in preference to silver at $15\frac{1}{2} : 1$, now comes from four countries only, instead of six, as formerly.

The transfer of still another state from each of the two single-standard groups, would vastly increase the stability of the bi-metallic system.

A, B, C, (D, E, F, G, H, I, J, K, L, M,) N, O, P. Not only would the base of the system be broadened by bringing the dearer metal of ten states, D to M, under tribute, in the event of changes operating on the supply of either metal; but the force threatening the equilibrium of the system would be reduced, since the demand for the dearer metal would now come from only three states: A, B, C, in the case of a cheapening of silver relatively to gold; N, O, P, in the case of a cheapening of gold relatively to silver. Those three states can not take the dearer metal indefinitely. They would soon be surfeited. A further increase of money in them would be followed by a fall in its value, which would soon proceed so far as to bring the metals together again.

And it is to be noted that, with a bi-metallic league embracing so many states, those which tended naturally to the use of silver as money would continue to use silver predominantly; those which tended to use gold would still use gold as their

main money of circulation. Whenever causes began to operate to cheapen silver relatively to gold (at the mint ratio between the two metals established by the league), the gold using countries would take some additional silver and discard some gold; but this increase of demand for silver and diminution of demand for gold would check the movement to divergence before the character of the circulating medium became greatly changed. In the event of a cheapening of gold relatively to silver, the substitution of gold for silver, in the silver-using states, to the extent only of a small fraction of their circulation, would suffice to put a stop to the movement.

571. This is the bi-metallic scheme. The question of securing the co-operation of independent states to any end, is a political, not an economic question: that is, the desired end is to be obtained by the action of governments, moved by various considerations and interests, and not by the laws of trade.

Our limits will not permit us to enter into a discussion of the causes which have, since 1874, suspended the bi-metallic policy of the Latin Union, or of the probabilities of the future respecting the indifferent use of gold and silver as money.

XV.

THE REVENUE OF THE STATE.

572. The revenue of the State may be derived from:
I. Voluntary Contributions.*

It is, to most of us, difficult to conceive a state of society where the expenses of government should be met through spontaneous self-assessment; yet, in a more primitive condition, such a state of things has existed widely,† and in a few happy instances has come down nearly to our day.

* Voluntary Taxation, says Emile de Girardin, it is the State stimulated; it is the State economical; it is the State Republican and Democratic.

† The words *Dona*, *Benevolences*, etc., in the history of revenue, testify to the original assumption that contribution was voluntary.