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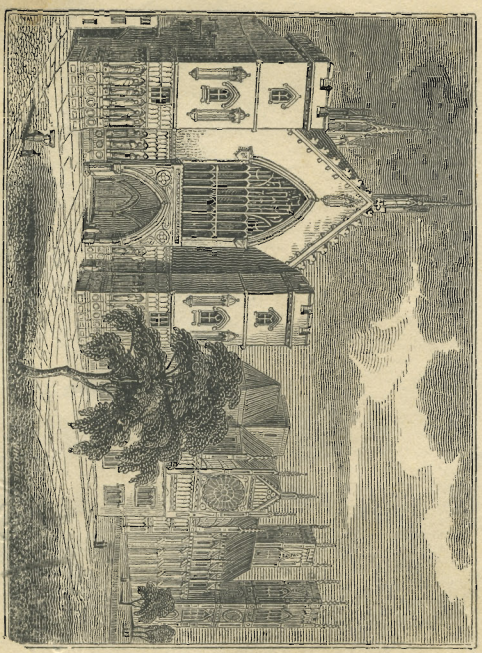
THE

WESTMINSTER REVIEW.

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VOLUME I.

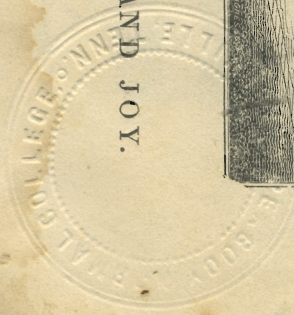
JANUARY—APRIL, 1824.



BALDWIN, CRADOCK, AND JOY.

LONDON.

1824.



best informed and most experienced may always come up first, it might be arranged so as to prevent such contrivances.' (P. 108.)

M. Cottu is a lawyer, and of a lawyer's notions of simplicity he gives us a tolerable exemplification, when he says (p. 121.) that he considers our English civil procedure — "in general sufficiently simple," — a procedure under which, by every species of unnecessary complication, a man who has been injured to the amount of 50s. must pay from 50 to 500*l.* for the mere chance of obtaining redress.

It is impossible for us, in an article like the present, to follow our author through all the interesting and extensive topics which his work embraces; we have touched those only which seemed of paramount importance, and with one more we must conclude.

The indifference which is usually manifested in England touching the prosecution of offenders, and the indisposition to know whether he must ascribe this to the natural humanity of our tempers, or to the fear of seeing an increase in the already overwhelming numbers of our criminals: he is so little skilled in the theory of criminal legislation, that he never dreams of looking for the obvious cause of the object of his wonder and punishment, and in the expense and trouble attendant on prosecution in consequence of the defective organisation of our judicial establishment. Where death, or a chance of death, or even of six or seven years' hard labour in the hulks, is to ensue on the loss of a small sum by theft, embezzlement, or forgery, sufferers are slow to prosecute, jurors to convict, and judges to sentence. This indisposition in all parties to give occasion to punishment, multiplies the chances of escape to such a degree, as to hold out the strongest temptation to crime, and sufficiently to account for the enormous crowd of offenders with which our goals are filled. Nicely to apportion the degrees of punishment to the degrees of crime, can only be the work of an enlightened legislator profoundly skilled in the application of the principle of utility: indiscriminately to visit with death offences the most various in degree, is a work that may be accomplished by the most ignorant barbarian; and to such hands, unfortunately, a great proportion of our jurisprudence has owed its existence.

From the foregoing extracts our readers will, we trust, be enabled to form a pretty accurate judgment of the nature of M. Cottu's commentaries, and of his political dispositions. His work, like that of Blackstone and of all other writers

who in good set language engulph existing institutions, has attracted a large class of readers: the extensive circulation it has attained, especially on the Continent, rendered it expedient that something like a true account of it should be given by an Englishman; and as we have met with no such account, we thought it not too late to attempt the task on the appearance of a translation, which, though bald, is in general sufficiently faithful to convey the meaning of the original.

ART. X. *On the Means of arresting the Progress of National Calamity.*
By the Right Honourable Sir John Sinclair, Bart. London. 1817.

The Question concerning the Depreciation of our Currency stated and examined. By W. Huskisson, Esq. M. P. New Edition. Murray. London. 1819.

ERRORS on subjects where the public interest is concerned are seldom stopped in their first stage, but they are not infrequently arrested in the second. And if they are still not checked, there appears to be a *Vis Medicatrix* in the political body, which continually throws them out in mere violent forms, till an end is in some manner put to the disorder of the public opinion. One of these efforts of nature may be considered as having taken place in the case of the prevailing doctrines on the subject of national profusion. The authority of Burke might long have induced men to believe, that there was something like a balance between expenditure and its effects; — that a country under taxation was really like the earth which receives back the moisture extracted from it, and not like a reservoir from which some feet are drawn annually by the sun and some inches returned by the rain. But his successors have resolved upon maintaining, not only that the reservoir receives again what is extracted, but that it does so when the substantial moisture is drawn out, and only fictitious showers and paper representations of humidity are added in its place; — nay more, that the distress of the owners during some remarkable periods of difficulty, has arisen from the supineness of the overseers, who neglected to draw sufficiently largely for their own consumption and replenish the reservoir with the paper representative.

Among the most eminent of the supporters of these opinions and of their opponents, are the writers cited at the head of this article. The principles contended for by the Right Honourable author of the work which is placed first, may be summed up in the axiom exhibited in his title-page, — that 'either the means

of circulation must be increased, or the burthens and payments to which it is liable must be diminished; from which it is concluded to follow, that the way to enable a people to support burthens and payments is to increase the quantity of the circulating medium. His ministerial opponent maintains, that the currency of a country may be depreciated by excess, which is the great point at issue;—though this admission is not followed by any calculations of the consequences. But as each has given the description of his belief rather than of the means by which it was attained, there appears to be no way of arriving at any conclusion but by going back to the simplest state of the phenomena in question, and so endeavouring to investigate the nature of the instrument of exchange; the effect of alterations in its volume, and particularly whether any stimulus to production is created by its augmentation;—when the augmentation is made in paper, who gains, how much, and who pays for the gain;—with the effects, either in the way of calamity or the contrary, entailed on different classes of the community.

In the earliest stage of society after the division of labour had been begun, exchanges might possibly be confined to cases in which each of the parties desired to consume the object which he was to receive. But it would soon be found out that any thing which possessed a general and undoubted value in the eyes of those who wanted to consume it, was a good and desirable payment if offered at a proper rate;—on the ground, that though the receiver did not want to consume it himself, the persons could never be far off who would be willing to obtain possession of it by giving something which he did want to consume in return. And the substances accepted in consequence of this discovery, may be denominated the instrument of exchange; for by means of them individuals in the end exchange their commodities for what they wish actually to consume or to enjoy.

When the communication among the different parts of the community was sufficiently improved for the formation of markets and the equalisation of prices which is the consequence, if any object, as for instance a bushel of corn, was offered to a retailer or other commodity for a quantity of the furs, salt, gold-dust or other substances which he was in the habit of receiving for corn which he sold, the utmost which he would consent to give would be, not the quantity for which he would sell a bushel of corn in the market, but this quantity diminished by the portion which would ensure his necessary profit, supposing him to sell the bushel for the first. And if the bushel of corn was offered to purchase something else, as for instance cloth, it is evident that, first, if the dealer in cloth did not want to eat or consume

corn, the quantity of furs, salt, gold-dust or other substances in use as the instrument of exchange, to which he would accept it as equivalent, would be that which he could recover for it from a retailer of corn, diminished by the amount of any trouble, expense or risk which would attend its reception and conveyance to the retailer; or in other words, he would accept it for what he could realise by sending it to a retailer who bought it to sell again. It is true that if he chose to set up the trade of a dealer in corn in addition to his own, he might at some time obtain the full market price. But he must deduct the amount of his expenses, trouble and delay; and his deduction for these, instead of being less than the deduction of the regular corn-dealer, must always be considerably greater. So that he would gain nothing by the preceding, even though the trouble, expense, and risk attending the transmission of the corn to a retailer, which are escaped by it, would be of considerable amount; and *à fortiori* if they were comparatively small. And, secondly, even though the dealer in cloth was in want of corn for his own consumption and on the point of sending for it to the market where he will pay the full market price, he would not accept the bushel of corn from any of his customers for more than has been stated. He knows that his being in want of corn for consumption is not within the knowledge of his antagonists, and that he has only to keep his own secret and the corn will come into his hands at the same rate as if he had no such want. A hawker, indeed, would go away in search of a higher rate; because his object is to find out persons who want to consume at the market price, and secure their custom by bringing the corn to their doors. But a customer who offers corn as the instrument of exchange does it to escape trouble, and expects only to get what it is worth to every man alike. And a customer is distinguished from a hawker at first hearing, by his saying 'I want,' instead of 'Do you want?' And what is true of corn will be true of other substances, furs, salt and gold-dust among the rest. Summarily therefore, the value for which an object of any kind would be accepted as the instrument of exchange, would be the value which could be realised by sending it to a retailer who bought it to sell again, deducting all the expenses of the transit.*

Hence it would be a mistake to think, that if a bushel of corn would buy an ell of cloth, an ell of cloth would buy a bushel of corn. It would buy less, in the ratio that what could be realised for an ell of cloth in any kind of substances by sending it to a retailer of cloth, multiplied by what could be realised for a bushel of corn by sending it to a retailer of corn, bore to the market price of an ell of cloth in the same kind of substances, multiplied by the market price of a

as long as there was any competition for payment in coins, there would be no man who would not increase his wares by a thousand to obtain them. And consequently a thousand of the coins would come to be received every where for at least as many commodities as a thousand and two drachms of gold-dust and a fraction, or the corresponding quantity of other substances. And in the same manner they would come to be received for as many as a thousand and three, and a thousand and four. And similar consequences would be repeated over and over, with as much rapidity as men could come to the knowledge of the value which coins were at the existing moment bearing in the market. In short, the phenomenon would amount to this,—that whatever was the height to which the negotiable value of coins should be known to have risen in the market at large, it would be the interest of all sellers to offer to receive them at a rate somewhat higher, rather than be paid in substances which, though they would command the same at the next place of purchase when they arrived there, would be attended with some previous expense or inconvenience; and this would cause the negotiable value of coins to rise. And it would continue to rise, till either it had risen to such a height as to make the existing supply of coins complete or sufficient to conduct all the exchanges of the community, and thereby put an end to further competition,—or till the anxiety of men to secure coins by an increase upon the market rate, was counterbalanced by the fear that the rate might from some cause be shaken before the coins were out of their hands.

But for the first of these events to take place, it is clear that the second must not. And the further the rate was raised above the value of the metal, the more its durability would become liable to suspicion, and the greater would be men's dread of the consequences of a downfall. The rising of the rate, therefore, would go on as long as men were willing to risk their property on the durability of the existing rate, and no longer. Individuals would compare the loss which they would suffer if the downfall of the rate should happen within the period for which they expected to retain the coins, with the advantage which they would derive if it should not; and according as the loss multiplied by the fraction which expresses the apprehended probability of its occurrence, was less or greater than the gain multiplied by the fraction which expresses the probability of escape, they might be expected to undertake the risk or to decline it. And there would be no situation in which the rate would not rise by some amount or other;—because, however great might be the apprehended probability of a downfall, there must always be some rise so small,

that the loss if it happened to its greatest possible extent, combined with the probability of its happening, would be less than the advantage held out combined with the probability of escape. Hence there would be a height to which the market rate of coins would rise in the early periods of the issues, and a height to which it would not rise; and the height to which it would rise would depend on the degree of security established in the community, and could only be determined in any particular case by experiment. And at this rate the market rate of coins would go on if the issues were increased; with the addition of such alterations as might be caused by subject. And public security, or in the public opinion upon that subject, if the issues were persisted in, a period would arrive when the number of coins in circulation, passing at this elevated rate, would make the supply complete; and when the supply in all coins was thus made sufficient for them to be employed in all exchanges, they would be employed so accordingly, without impediment from the elevation of the rate.

If when this period arrived the number should be further increased, the *market rate of coins would fall*, to such a point as would render the final number no more than was required to make the supply complete. For before the number was enough to render the supply complete, every increase of quantity would be followed by the dropping of a assist in composing had of the substances previously employed to assist in purchasing was instrument of exchange. If, for example, these substances had been corn, a portion of corn introduced, would cease to be equal to that of the new coins introduced, and would be either employed as the instrument of exchange, and would not continue to be employed by the holders or sent into the market for the purpose of exchange by the holders or sent into the market for the purpose of exchange; for it is certain that men would not continue to employ it at an inferior valuation as the instrument of exchange after it had ceased to be wanted in that capacity, when by consuming it or selling it for consumption they might make it available for its full market value. Hence an increase of the number of coins would, under these circumstances, be attended with no increase of the total volume of the instrument of exchange. But when the number of coins had become enough to make the supply complete, — since all the other substances previously in circulation would have been dropped already, any farther increase would cause some persons to have in their possession a greater numerical quantity of the instrument of exchange than would have been the case if the coins had not been increased. For the elevation of the rate would prevent the additional coins from being applied to the uses of ordinary gold. And since the

owners can employ them in no other manner, they must bring them into the market with the intention of purchasing a novel quantity of some commodities or other at the existing prices, or a quantity which they would not have thought of purchasing if it had not been for the increase of the coins. And by the appearance of these novel intentions in the market, an extraordinary demand would be created for all or nearly all kinds of commodities, and particularly for the necessities of life. Though the additional coins might be poured into a small number of channels at first, they would quickly be subdivided into an almost infinite number of channels; and a great proportion of them would ultimately be employed as the wages of mechanical labour, which are principally expended on the necessities of life. And when an extraordinary demand thus arose for any particular kind of commodities, the dealers would attempt to raise the substantial price. For the raising of the substantial price upon an increase in the demand, is not an arbitrary act arising out of a desire to take advantage of other men's necessities; but, to a certain extent at least, it is what the sellers must either effect, or make the buyers a present of a portion of the commodities at their own expense. In the first place, an increased quantity of commodities cannot be extracted from the natural sources from which every thing must be ultimately derived, without the exertion, not only of a greater quantity of labour, but of a greater comparative quantity. Again, if individuals are to increase their labour, they have a just claim not only to an increase of reward at the old rate, but to an increase in the rate for a given quantity. A man who is working twelve hours a day already, will not, unless in cases of extreme want, be induced to work fourteen by the mere prospect of being compensated for the additional hours at the same hourly rate as before, and other men have no right to expect it of him; but he may be induced to do it by an advance in the rate per hour. And thirdly, since the sellers are exposed to all losses which arise from unexpected diminutions in the demand, they must either protect themselves by raising their substantial prices on occasion of an increase, or bear those losses without redress. From some or all of these reasons, therefore, the dealers in general, and particularly the dealers in the necessities of life, would be obliged to attempt to raise their substantial prices; and this could only be done by attempting to raise their money prices. And they would not only attempt to raise their money prices, they would effect it. For the reason why dealers cannot always raise their money prices as they might be disposed to do, is because they cannot depend on the cooperation of each other.

But where the necessity is real and general, none will undersell the other; and consequently the prices will be raised. An exception may appear to be presented in the cases of some kinds of dealers, who from particular causes cannot raise their prices to meet small variations in the demand, or in the value of money; as in advanced stages of society is exemplified in the fees of lawyers and physicians, the prices to theatres, and other instances. But these dealers, if they do not raise their prices at one time do it at another, or else reduce the quality of what they give; for they can no more go without their just recompense to an indefinite extent than any other set of dealers. The advances in the money prices of different commodities would not necessarily be all in the same proportion; and there might even be some kinds of which the money prices would not be raised at all except as they were affected by the prices of other kinds. But if there was a rise in the money prices of all or nearly all kinds of commodities, and particularly in those of the necessities of life, every man would discover that the coins were of less substantial value to him than before. Their substantial value would not be deteriorated to all men exactly alike; but it would be deteriorated to all. Let it be supposed then, that to those to whom the deterioration was least, it amounted to a thousandth; — and if it had been preferred to fix on any other fraction, the nature of the result would not be altered. But under these circumstances all dealers would find that instead of receiving the substantial increase of reward to which they had a just claim, their expected recompense had been diminished in at least the proportion of nine hundred and ninety-nine to a thousand. And their first proceeding would be to attempt raising their money prices again in at least the opposite proportion; and, as before, they would not only attempt it, but they would effect it. For they would be conscious that they were only seeking for their just recompense; and consequently none would undersell another or flinch from his demand. But by this second rise of money prices the substantial value of coins would be deteriorated to all men by at least a thousandth again. And consequently the dealers would raise their money prices as before, in at least the proportion of a thousand to nine hundred and ninety-nine. And similar consequences would be repeated over and over, with as much rapidity as the dealers could learn the existing market rate of coins, and raise their money prices with a view to counteract the effects of its declension. And what is described above, would be the consequence of the impulse given by one appearance of the increased number of coins in the market. But as long as the market rate was not reduced to the point which rendered the

number in circulation no more than was required to make the supply complete, the presence of the excessive number of coins in the market would cause a succession of new impulses, whose effects must be added to those of the first. And the final result would be, that by the efforts of the dealers to overtake their substantial payment, the market rate of coins would be reduced till the progress of the reduction was met by the opposite tendency for the rate to rise. But when the reduction had arrived at this point, it could proceed no further, and the dealers would be obliged to give up the pursuit after their substantial prices. For by giving it up they in fact give up next to nothing; because what they were in pursuit of was the smallest quantity which was sufficient to make itself felt. But if they were to reduce the rate any lower, their interest in raising it again would be of perpetual recurrence, and must amount in the end to more than they submit to once for all by giving up the pursuit. — And if after this the number of coins should be diminished, their negotiable value would rise, on the same principle as before. Also, if instead of any alteration in the number of coins, an alteration of a contrary nature should take place in the aggregate wealth and business of the community, the effects produced would be the same. The negotiable value of the coins, therefore, would possess an expanding and contracting property, by which it would accommodate itself to the number and the demand.

If the issues of new coins were persisted in, a period would arrive when a coin would purchase the same quantity of commodities that might be purchased with the metal contained in it, or with what would be given for it by a goldsmith. And if the issues were continued further, it would purchase less; and coins would be returned to the uses of ordinary gold, till the number was reduced to that which being circulated at the value of the metal would make the supply complete. For till this was accomplished, there would be a premium upon removal. But if the application of coins to the uses of rude metal was artificially impeded, then what could be purchased with a coin would be reduced below what could be procured for the metal contained in it by any person who chose to deface it in defiance of the obstacle.

If, during these operations, any alterations took place in the aggregate wealth and business of the community, the requisite corrections must be made. But the savings arising from the employment of the improved instrument of exchange will, themselves, constitute additions to the aggregate wealth; and consequently a correction will be required. And the effect would be, to defer the time when the issues would render the

supply of coins complete; or to make a greater number of coins required to produce this result. But though the time would be deferred, it would not be put off without limit. For it must be an extraordinarily wretched and unsettled country indeed, where the market rate of coins would not rise sufficiently to afford the government a fair profit on coining, and even to pay the expense of increasing its issues by borrowing. But wherever it rose sufficiently for this, the issues would be sure to overtake any demand for coins which could arise out of their own employment.

After the supply of coins had been rendered complete at the most elevated market rate, no increase of demand, production or wealth in the aggregate, would ensue from an increase of their number; but on the contrary, a diminution. For since the additional coins are continually swallowed up by a proportionate rise of money prices, the aggregate power of the community to purchase and to consume cannot be finally augmented; it being clearly indifferent as to this point, whether the business of the community is transacted with a certain number of coins at a given value, or with double the number at half the value. The only question is whether an increase of something does not take place during the period that the value is shifting. But the increase of demand for commodities which is the cause of the change in the value of coins, exists only while the change is taking place, and its immediate operation is to produce its own counteraction. For example, if the effect of the additional coins was to throw a demand for a thousand bushels of wheat into the wheat market, the rise of price which would be the consequence would cause the consumers of wheat in general to economize their consumption and their demand; which must be set off against the other. And every time the impulse on the wheat market is renewed, the stimulus to economize demand in another direction will be renewed also; and the same for any other commodities. Hence, to expect a final increase of demand on such a foundation, is like expecting a pyramid of water on a lake; for the foundation is always giving way. And not only will there be no increase, but, on the other hand, the amount of what was given to the government for the additional coins will be deducted from the wealth of the coin-holders at large; which must diminish their power of demanding.

An increase of production, employment and wealth, might be created in some particular branches of trade, in consequence of the direction given by the government to the additional coins; but it would be balanced by an equal diminution in some other branches. For if the purchases of the government with the

new coins had been so divided among all imaginable commodities, that the numbers applied to the purchase of each should have continued in the same proportion as before, the new coins would have been quietly absorbed by a corresponding depreciation, the government would have obtained a portion of all commodities for its coins, and the amount would have been lost by the coin-holders at large; and there would, on the whole, be neither increased production, employment nor wealth. And if the purchases made with the new coins were distributed in some different manner, the same sums could only excite the same quantity of production, pay for the same quantity of labour, and employ the same quantity of capital, in the aggregate, in one place as in another. If the favoured trades, therefore, had been more lively, some others must have been proportionably more dull.

What are called Agios appear to present experimental proof of the truth of the foregoing principles. When it happens, as it does in some countries, that bank paper will sell for more than the value expressed in it, the difference, as is well known, is the agio. Since this bank money has the advantage of being secure from fire, robbery, and other accidents, and of being paid away by a simple transfer, without the trouble of counting or the risk of transporting it from one place to another, it is evident that to all persons who are in the habit of employing such sums as the paper is drawn for, it will be more advantageous to be paid in this paper, at whatever may be its existing negotiable value, than in ordinary money. Hence, if this difference of advantage amounted to a thousandth or to any other fraction that can be named, the negotiable value ought to rise to the greatest height which the confidence of the public in the durability of the price would allow; unless the issues were sufficient to supply the public demand at a lower rate. And if the bank should determine, as any other trader would do in similar circumstances, to increase its issues as long as the price would pay for the trouble of issuing, the price ought to fall to the point thus determined, and there remain; with the exception, that the demand for bank money should happen to decrease, in which event the price would fall further, unless the bank should offer to buy up its paper. And accordingly, it appears that the Bank of Amsterdam has of late years come to the resolution to sell at all times bank money for currency, at five per cent. agio, and to buy it again at four per cent. agio; in consequence of which resolution, the agio can never either rise above five, or sink below four per cent.* But before this resolution was taken, the market price of bank money used sometimes to rise so high

as nine per cent. agio, and sometimes to sink so low as par.* From all which it may be inferred, that five per centum was the bank's living profit, or what left a fair remuneration for its trouble in this branch of its trade after paying the expenses; and that the issues were consequently extended till the agio was reduced to this point. And at the same time that a hundred pounds in this bank money was being negotiated for as much as a hundred and five pounds currency, the absolute and intrinsic difference between being paid with a hundred pounds bank money but passing for a hundred and five, and with a hundred and five pounds currency, might not be worth two shillings. The phenomenon has been differently accounted for, by supposing the agio to be the difference between the good standard money of the state, and the clipped, worn, and diminished currency poured into it from all the neighbouring states. To which it may be objected, first, that the variations of the agio from nine per centum to nothing are inexplicable upon this ground, unless it can be supposed that the deterioration of the coins brought from all the neighbouring states would ever with one consent become nothing; and secondly, that since the bank can command the magnitude of the agio by regulating its issues, and can afford to fix it permanently at one value, the agio cannot be the difference between the standard money of the state and the degraded currency of its neighbours, which it is clear the bank can neither command nor foretell.

In a State where the receipts and disbursements of the public had been made only in commodities, much trouble would be saved if the government was to fabricate paper billets having a certain value specified in each, as for instance a bushel of wheat, and deliver them in its payments in lieu of the commodities specified; engaging to receive them again for the same value in discharge of taxes, and at all times to return the specified commodities upon demand. And in consequence of the convenience attending the employment of the billets as the instrument of discharge of a number of them would be neither returned in discharge of taxes nor in demand of payment. And for every billet so retained in circulation, it is clear that the commodities which had been received when it was issued would be in the hands of the government, over and above the receipts of the same or just revenue; and that a corresponding quantity of some commodities which had been previously employed as the instrument of exchange, would be restored to their ordinary uses. The public have given commodities for paper, and in

* Wealth of Nations, B. 4. Ch. 3.

return paper performs for them the office of the instrument of exchange, and releases an equal quantity of commodities from that employment. The public therefore are just where they were; and the commodities which were given for the paper remain with the government. A kind of creation has taken place, by making paper perform the office of valuable commodities; and it is the government that is the gainer.

If the government should issue from time to time a greater number of the billets than were returned in discharge of the taxes in the same interval, they would proceed to occupy the circulation to the exclusion of commodities; and on account of their superior convenience, they might be expected to bear an *agio* till it was reduced by the multiplication of their number. But when the number retained in circulation had become sufficient to reduce them to their natural value, or cause each to exchange for the value of the bushel of wheat which was expressed in it, the number retained in circulation could not be further increased, whatever might be the issues. For any increase of the number would cause the exchangeable value to be diminished below that of the wheat which might be obtained upon demand; and consequently they would be carried in for payment till the superfluous number was reduced.

If when the government had thus issued the greatest number which would be retained in circulation, it should cease to pay in wheat upon demand, it does not follow that there would be a general overthrow of the whole circulation, or that every man would apply his billets to the purposes of waste paper. On the contrary, if the refusal to pay in corn was accompanied by a law making the billets legal tender in all contracts where the value had been expressed in bushels of wheat, — in which, by making legal tender, it is sufficient to understand that the law denies remedy, — men would make an attempt to continue the circulation, and what they attempted would succeed. Considerable agitation would probably occur at the moment; but when this was over, it is as well established as any other fact can be by experiment, that the public paper would continue to perform the office of the instrument of exchange. Paper issued by private bankers might do the same, if the consent of the community, expressed through the organ of a law, would make it legal tender also. By such a proceeding it would in fact be made public paper; for it could make no difference whether the paper thus adopted by the law was signed in what was called the government's bank, or in one that went by some other name. But inasmuch as neither the community nor the government sees any good reason for doing

this kindness to the private bankers, they are obliged to depend upon their power of paying on demand.

If after this, the government should continue to issue from time to time a greater number than were returned in discharge of the taxes in the same interval, then, on every addition, an increased number must in some manner make their appearance in the market; and from this, an increase of paper prices, or, which is the same thing, a depreciation of the paper, would take place by the same steps as in the case of an addition of superfluous coins. For example, if exclusively of the number occupied in the discharge of the taxes, four thousand billets were in circulation at any particular instant where three thousand circulating at par would be sufficient, — then the billets would be depreciated by one fourth, or a billet purporting to be for a bushel of wheat would in fact exchange only for the value of three-quarters; or, which is the same thing, the paper prices of commodities would rise by one third. It would be of no consequence that a bushel of wheat was expressed in the billet. The government, which made the promise of a bushel of wheat, has refused to keep it; and other persons are bound to give, not what the government promised without intending to perform, but what the state of the market will allow. If the government should attempt to prevent the depreciation by forcibly causing the value of a bushel of wheat to be given for every billet as before, this would be equivalent to enacting that every man should have a right to take a bushel of wheat from his neighbour upon giving him three quarters of a bushel in return. And the consequence of pushing the enforcement to the limit of possibility would be, that every man's property would be at the disposal of his neighbours; or in other words that there would be no such thing as property at all. — Hence the proportion of the nominal value to which each billet would be reduced would at any time be expressed by a fraction, whose numerator was the number sufficient for the circulation when the paper was at par, diminished by the number engaged in discharging the taxes; and its denominator the number actually in circulation, diminished by the same. And if this is subtracted from unity, the fraction which remains will express the depreciation.

It may be useful to examine the consequences of such a system; — and first, if the nominal amount of the taxes remains unaltered, or they continue to be discharged by the same quantity of paper as at first. When the whole of the circulation had come to be occupied by the billets at par, if the government should go on issuing from time to time — as, for instance, daily — a number

equal to what were returned in discharge of the taxes in the same interval, no depreciation would ensue; for the number in circulation would remain unaltered. These, then, may be called the *legitimate* issues; because in any period they are authorized by the number returned by the taxes. And any issue over and above this number may be called a *superfluous* issue; and the sum by the *nominal* value or amount of any quantity of paper must be understood the value or amount of the commodities, as for instance the bushels of wheat, which are expressed upon the paper; in opposition to the *substantial* value, or what can really be got for it in exchange.

No part of the superfluous issues could be returned by the payment of the taxes; because the legitimate issues are equal to the paper returned by the taxes, and the superfluous issues are over depreciation. Let it be supposed then, that the issues and the nominal produce of the taxes are uniform; and that the effect of each day's superfluous issue becomes sensible at the conclusion of that day or the beginning of the next. During the first day no depreciation would be felt. But on any of the following days, the sum of the augmentations to the number in circulation would be equal to the superfluous issue of one day multiplied by the number of days during which the superfluous issues had been carried on;—from which the depreciation may be found. And what the government would substantially receive on the same day in exchange for the superfluous issue, would be expressed by the nominal amount of the daily superfluous issue, diminished by the product of itself and of the fraction which expresses the depreciation. And what it would substantially lose on the same day by the diminution of value of the legitimate part of the issue, or the paper received for the taxes and re-issued, would be expressed by the nominal amount of the legitimate daily issue multiplied by the same fraction. And the result to the government on any given day would be equal to the first of these quantities diminished by the second; or to the nominal amount of the daily superfluous issue, diminished by the product of the actual daily issue and of the fraction which expresses the depreciation. Hence, when the depreciation became such that the product of itself and of the actual daily issue was equal to the daily superfluous issue, the daily result to the government would be nothing, or the increase of gains would be at an end. And this would be, when the depreciation became equal to the daily superfluous issue, divided by the actual daily issue. But if the superfluous issues were continued after this period, the government would

begin to lose; for it would suffer more by the diminution of what it obtained for the paper received for the taxes, than it would obtain for the superfluous issue. And the losses would in no very long period amount to as much as all the previous gains; after which there would be no escaping final loss.—And conversely to have produced a given depreciation by gradual and uniform issues spread over the largest period for which the influx of gain is possible, the daily superfluous issue must have been to the actual daily issue, as the numerator of the fraction which expresses the given depreciation, to the denominator. For example, to have produced a depreciation of one seventh in this manner, the daily superfluous issue must have been one seventh of the actual issue, or one sixth of the nominal produce of the taxes. But when the depreciation had reached one seventh, there would be an end of daily gains, and daily losses would commence. And these losses would amount to the sum of the previous gains, when the depreciation reached twenty-six hundredths nearly; as may be verified by trial.*

* If A represents the number of billets, each nominally for a bushel of wheat, which are sufficient when at par for the whole circulation including the payment of the taxes, b the number occupied in discharging the taxes, s the daily superfluous issue, p the daily nominal produce of the taxes or legitimate issue, t the number of days that the superfluous issues have gone on, and z the fraction which expresses the depreciation,—then, the issues and nominal produce of the taxes being supposed uniform, z will be equal to $1 - \frac{A-b}{A-b+st}$?

or to $\frac{st}{A-b+st}$. The bushels of wheat received for the superfluous issue during t will be st ; and the bushels lost on the remainder of the issue will be ptz . The result therefore during t will on the whole be $st - (s+p)tz$, or $\frac{A-b-pt}{A-b+st} \times st$. Of which the fluent, corrected so as

to be nothing when t is nothing, is $\left(\frac{s+p}{s}\right) \times (A-b) \times \text{hyp. log.}$

$\frac{A-b+st}{A-b} - pt$; which is the total gain of the government in any time t , expressed in bushels of wheat. When the depreciation is such that $(s+p)tz$ is equal to st , the daily gains will be at an end.

And this will be when $z = \frac{s}{s+p}$; or when $\frac{A-b+st}{A-b+st} = \frac{s}{s+p}$, or

$t = \frac{A-b}{p}$. When t is greater than this, the result during t will be negative, or there will be a daily loss. And these losses will balance

What is given to the government on any day for the superfluous issue, will on the following day be lost among all the holders of paper by the consequent increase of depreciation. But the payers of the taxes will, on the following and every successive day, gain the amount of the additional depreciation on their respective payments, in addition to all that they gained by the old; for the paper which they require to pay their taxes will be procured with so much less of substantial cost. And what the payers of taxes gain, the government will lose; because the paper will buy less by the same quantity when it is re-issued. The gain of the government therefore will be made once for all, and there will be no more of it; but its losses from the consequences will recur every day and be endless. And this is what makes the government sure to lose in the end.

If a system of funding had been previously established, the gains of the government would be extended, in consequence of what would be taken from the stockholders. And if the payments to the stockholders also are supposed to be made daily and uniformly, then on any given day the result to the government from the depreciation would be equal to the result in the preceding case, increased by the product of the daily nominal payment to the stockholders and of the fraction which expresses the depreciation. Or it would be expressed by the nominal amount of the daily superfluous issue, diminished by the product of the difference between the actual daily issue and the daily nominal payment to the stockholders, and of the fraction expressing the depreciation. And by substituting this, the consequences may be computed as before.—Hence the gains of the government would be continued, till the depreciation became equal to the actual superfluous issue divided by the difference between the actual daily issue and the daily nominal payment to the stockholders. And if the superfluous issues were continued after this the previous gains, when the fluent above given becomes nothing. And this will be, when the depreciation becomes such that $\frac{1}{1-z}$ is equal to $\frac{s+p}{z}$; from which the depreciation may be found by the method of approximation. Conversely, for the daily gains to come to an end when the depreciation is of a given magnitude, s must have been in such proportion to p , that $\frac{s}{s+p}$ shall be equal to the given depreciation. If, for instance, the gains come to an end when the depreciation is one seventh, s must have been $= \frac{p}{6}$. And the losses will balance the previous gains, when $z = .25975$.

period, the government would on any day lose more by the taxes than it received both by the superfluous issue and by the gain made from the stockholders.—For example, if the daily nominal payments to the stockholders amounted to one half of the daily nominal produce of the taxes, and if, as before, the daily superfluous issue had been one seventh of the actual issue, the gains of the government, instead of coming to a conclusion when the depreciation was one seventh, would be continued till it was one fourth. But from the time that the depreciation was one seventh, the government, though it continued to gain from the stockholders, would be losing from the other consequences of the depreciation: and these losses are what at length bring the influx of gain to a conclusion. And when the depreciation had reached one fourth, there would be an end of daily gains, and daily losses would commence. And these losses would balance the previous gains, when the depreciation reached a little more than forty-two hundredths. Hence even the gains from the stockholders would not prevent final loss. This system therefore could answer no purpose; except to a government intent only on present gain and careless of the consequences.*

But where men had been brought to be in any degree tractable under taxation, it would be a poor financier that could not contrive that the substantial value of the taxes should continue undiminished. For it is for the most part practicable to lay a tax so that it shall operate *ad valorem*; and where it is not, the proof of the relative magnitude of the tax having declined is always a good foundation for demanding that the rate should be increased. And in reality such an augmentation is not an increase of the tax. There is a fraud going on, but not a fraud upon the payers of the taxes. In that capacity at least, they are only spectators. It may be assumed therefore, that in practice the substantial value of the

* If $p = q + r$, of which q is paid daily to the stockholders, the result to the government during t will be $st - (s+p)tz + qtz$, or $st - (s+r)tz$; and the consequences may be deduced from the former computations by substituting r for p . The influx of gain will cease when $z = \frac{s}{s+r}$; but loss will have been arising from the effects of the depreciation in all quarters except the gains from the stockholders, from the time that z was equal to $\frac{s}{s+p}$. If $s = \frac{p}{6}$ as before, and $q = \frac{p}{2}$, r will be equal to $3s$, and the influx of gain will be at an end when $z = \frac{1}{4}$. The losses will balance the previous gains, when $z = .42317$.

taxes would be made to keep pace with the depreciation. But if this was the case, the influx of gain would at once be made perpetual; for there would be no deductions for loss upon the taxes. The proportion of the nominal value to which each billet would be reduced, would at any time be expressed by a fraction whose numerator was the number sufficient at par for the whole circulation, and its denominator the number actually in circulation; the number occupied in discharging the taxes being left out of both, as being the same proportional part. What would be substantially received on any day for the superfluous issue, would be equal to the nominal amount of the daily superfluous issue, diminished by the product of itself and of the fraction which expresses the depreciation. What would be substantially gained on the same day from the stockholders, would be equal to the nominal amount of the daily payment to the stockholders multiplied by the same fraction. And the sum of these two quantities would be the daily gain of the government. By computing the bushels of wheat received for the superfluous issue on each successive day of the period in which any given depreciation has been brought to pass, their number will be found to amount to such a proportion of the number of billets sufficient at par for the whole circulation, as is expressed by the hyperbolic logarithm of the inverse of the fraction which expresses the reduced value of each billet. * And the bushels extracted from the stockholders will be found to amount to such a proportion of the number of billets sufficient at par for the whole circulation, as is expressed by taking the product of the fraction which expresses the depreciation and of the inverse of the fraction which expresses the reduced value of each billet, — diminishing it by the hyperbolic logarithm of this inverse, — and multiplying the remainder by the nominal payment made to the stockholders in any given period, divided by the superfluous issue in the same period. And the sum of these two amounts will be the gain of the government. †

* The hyperbolic logarithms may be found from the logarithms in the common tables, by multiplying them by 2.30258529. The logarithm of a fraction is equal to the difference between the logarithms of the numerator and of the denominator; considering the difference as subtractive instead of additive and *vice versa*, when the denominator is the greatest. By the inverse of a fraction, is meant the fraction inverted; as four thirds instead of three fourths.

† Where the nominal amount of the taxes rises with the reduction of value of the billets, if $\frac{A}{m}$ is the number engaged in discharging the taxes when the depreciation begins, $\frac{A+st}{m}$ will be the number

Because the portion of the instrument of circulation which is engaged in discharging the taxes rises in nominal amount in proportion to the reduction of the substantial value altogether. It has been seen that it may be left out of the calculations. And this leads to an observation of importance. If the instrument of circulation consisted in part of bills of exchange, the nominal amount of the bills drawn from time to time would rise in proportion to the reduction of the substantial value of any given elementary part, as, for instance, of the pound sterling. Hence bills of exchange, so far as they will be affected by depreciation, may be left out of the calculations altogether.

The losses of the stockholders from the reduced value of the payments made to them, would have no effect in lowering the nominal price of stock. For if an annual payment of five notes would sell for a hundred when there was no depreciation, an annual payment of five depreciated notes would sell for a hundred

engaged in the same employment after any number of days t . For if this number is called x , x will be to $\frac{A}{m}$ as $A+st-x$ to $A-\frac{A}{m}$; from which it follows that x will be to $A+st$ as $\frac{A}{m}$ to A , or x will be equal to $\frac{A+st}{m}$. The proportion of the original value to which each billet will be reduced, will be equal to $A-\frac{A}{m}$, divided by $A+st-\frac{A}{m}$; which is equal to $\frac{A}{A+st}$. And z will be $= 1 -$

$\frac{A}{A+st-\frac{A}{m}}$ or $\frac{st}{A+st}$. The bushels of wheat received for the superfluous issue during t , will be stz ; or $\frac{A \times st}{A+st}$. Of which the fluent, corrected so as to be nothing when t is nothing, is $A \times \text{hyp. log.} \frac{A+st}{A}$. The bushels gained from the stockholders during t , will be qtz or $\frac{stqt}{A+st}$. Of which the fluent, corrected as before, is $qt - \left(\frac{qA}{s} \times \text{hyp. log.} \frac{A+st}{A} \right)$; which is equal to $\frac{qtAs}{As} - \left(\frac{qA}{s} \times \text{hyp. log.} \frac{A+st}{A} \right)$, or to $A \times \frac{q}{s} \times \left(\frac{st}{A} - \text{hyp. log.} \frac{A+st}{A} \right)$. And $\frac{A}{A}$ is equal to $\frac{A+st}{A}$ multiplied by $\frac{st}{A+st}$; or to the inverse of the reduced value of each billet, multiplied by the depreciation. If $z=1$, st will $= \frac{A}{3}$; and the first fluent will $= A \times \frac{q}{s} \times .0456192$; and the second fluent will $= A \times \frac{q}{s} \times .04565141$.

depreciated ones; the security of the government and other circumstances in general being supposed unaltered.

If such a paper purposed to represent coins instead of coin, and were made a legal tender in lieu of them, the progress of depreciation would cause coins to disappear from circulation, for if their value were more than would be sufficient for the circulation.

But as soon as the coins were depreciated below their metallic value, they would begin to be depreciated more and more. And as long as the paper in circulation was below the number of coins by issuing new ones, all efforts to increase the value into a silver.

If the transformation of coins was opposed by laws, these laws would produce no effect in finally preventing it. Nevertheless, the government might have a motive for putting a stop to the transformation of coins. For if it could make it impossible for decent people to turn their coins into rude metal, to be a useless privilege; and what would be useless to them if they had it, they would not murmur at being refused.

To send new coins into circulation, would be like pouring reduce a depreciation; but the cost of coining would be one way to away, because the coins must disappear. The same result may be obtained without cost, by destroying the paper as it comes in, instead of re-issuing it. And if the government was bound to destroy the depreciation at its own expense by the contrary of the steps by which it had brought it on, it would make but a partial restoration, and be a great gainer on the account of the account. But there is something yet behind;—for it would possible for the government to destroy the depreciation on the balance do it at its own expense. It may do it at the expense of other persons; as, for instance, of the payers of the taxes, and not indeed be obliged to make advances of money in the expense of other persons. And for this end it is only necessary to change the mode of laying the taxes, from imposing *ad valorem* to impose fixed in nominal amount. The case will then be the reverse of the case first examined; and the having to pay the reverse of a period when what is gained upon the stockholders all the outgoings. Hence, if through the cessation of war or other causes the government should be master of any sur-

plus revenue, it would be a most profitable speculation to employ it regularly and constantly in buying up the superfluous paper. And universally, if a government can procure the nominal value of the taxes to be raised from time to time while superfluous issues are being carried on, and to remain stationary when they are reduced—as the value of a pump allows a passage in one direction, and prevents it in the other,—both the issuing of superfluous paper and the withdrawing will be profitable operations. But if instead of the nominal amount of the taxes remaining undiminished for an unlimited period, a surplunder can only be deferred for as long as is necessary to pay the expenses of the process, the government will make a clear gain of all the credit of the proceedings, and most probably make a farther gain by the unobserved increase of the substantial value of the taxes which are left.

If billets of the nature described were issued by individuals, they could cause no depreciation as long as either commodities or coins could be obtained for them on demand. But if the government should allow its own paper, which was itself not recoverable upon demand, to be legal tender in payment of the notes of private bankers, then the existence of depreciation would have no effect in causing the notes of private bankers to be returned. For there is nothing to be gained by demanding one kind of paper in exchange for the other. It may be thought that some inducement would arise out of the increase of value which would be produced by diminishing the quantity of paper in circulation. But the way to determine the effect is to see what an individual would gain. In 1810, for example, when there are asserted to have been fifty-six millions of paper in circulation in Great Britain, the holder of five pounds of the paper of a private banker, on the supposition that by returning it he increased the value of the paper in circulation by the whole five pounds, would gain something less than the two-thousandth part of a farthing. And the holder of two hundred and forty pounds, by carrying it back might make a gain of very near a farthing sterling. That is, he might enjoy the prospect, that in his purchases with the two hundred and forty pounds, he would receive the value of a farthing more, in consequence of the change of money prices. Little seems to be required to prove, that such temptations never caused a single note to be returned. The author of the second pamphlet however has adopted a different conclusion*; in which he appears to follow the author of the Essay on the Principle of Population.†

On the foregoing grounds, the gains in particular cases may be calculated. For example, it has been asserted, that the circulation of the notes of the Bank of England amounted in 1810 to twenty-three millions sterling, and the total circulation of Great Britain, including the notes of private bankers, to fifty-six millions; to which may be added about four millions in specie.* In 1814 under the same system, the depreciation below the metallic value was something more than one fourth. Upon which data, supposing the superfluous issues to have proceeded with uniformity since 1797, the sum required for circulation, free of depreciation, might be collected to be near forty-five millions. But an allowance must be made for the increase of the sum demanded for the circulation. Let it be supposed therefore that this sum in 1797 was thirty millions; an amount at which it had been stated by some persons in 1776†, and which can hardly be extravagant at the other period. And by employing this instead of forty-five millions, it will follow, that on the supposition that the depreciation proceeded from over issues and that the allowance for the increase in the demand for money is sufficient, there would have been received for the superfluous paper the substantial value of thirty millions multiplied by the hyperbolic logarithm of four thirds,—or eight millions six hundred and thirty thousand four hundred and fifty-eight pounds, sixteen shillings and sixpence; which would have been taken from the holders and users of the instrument of exchange during the progress of the depreciation. Of which, by dividing it according to the paper of each in circulation in 1810, three millions five hundred and forty-four thousand six hundred and fifty-two pounds, sixteen shillings and eleven-pence would have been received by the government, and five millions eighty-five thousand eight hundred and five pounds, nineteen shillings and seven-pence by the private bankers;—the whole being over and above what might have been gained in any quarter through the substitution of paper for coins. And if the payments to the stockholders are supposed to have amounted to sixteen millions annually on an average, and the superfluous paper to have been accumulating from 1797 to 1814 at the rate of ten seventeenths of a million annually so as to make the depreciation finally one fourth,—the difference between this and the paper really in existence being allowed for the increase in the sum demanded for the circulation,—the government would

* Speech of Mr. G. Johnstone in the House of Commons on the 19th of July, 1811.
† Wealth of Nations, B. 4. Ch. 1.

1824. further have gained from the stockholders the substantial value of thirty-seven millions two hundred and fifty-one thousand five hundred and fifty pounds, eleven shillings and twopence.* Which makes the whole gain of the government forty millions seven hundred and ninety-six thousand two hundred and three pounds, eight shillings and a penny; and the whole loss of the public, including what is taken by the private bankers, forty-five millions eight hundred and eighty-two thousand and nine pounds, seven shillings and eight-pence. And all these are substantial millions, clear of depreciation; but if their value is reckoned in the degenerate millions of 1814, the numbers have been increased by one third. The four millions in specie have been treated as if they were non-existent; for it is evident that they were not in circulation. The moment one of these coins appeared in public, it must have been hunted down for the melting-pot or exportation. Those therefore that escaped must have lain hid.

The advocates of the paper system, when pressed on the subject of the depreciation, say that it proceeded from a rise in the value of gold. But if it had proceeded from this cause, it would have been the interest of the government to make the value of paper keep pace with that of gold by diminishing the quantity, for the sake of the increased value which would be given in perpetuity to the taxes through the simple contrivance of fixing them in nominal amount. And the same will apply to the suppression of a diminution in the sum demanded for circulation, whether proceeding from a diminution of the wealth and business of the community, or from what has been called 'economizing of the circulating medium.'

It might be interesting to inquire into the causes of the good understanding between the ministers of past times and the private bankers, which could induce the former to give up so much of what they apparently might have brought into the coffers of the government. It can only be explained by supposing that the bankers had strong means of defence. They must evidently have been of all men the best informed on the nature of the process going forward; and to have had them in opposition in their quality of bankers, would never have been got over. Fairs and markets would have rung of the extracted

* In this case g = sixteen millions divided by the number of days in a year, and s = ten seventeenths of a million divided by the same.
Hence $\frac{g}{s} = 16 \times \frac{17}{10}$. And the fluent = thirty millions $\times 16 \times \frac{17}{10} \times 0,4563141$; which is = 37251550.56.
0 2

millions, as they have since rung of the omnipotence of credit and the blessings of an extended circulation; and a tribune would have been erected in every country town, which no statutes could have silenced. It is difficult to say the bankers were to blame, in taking what it was so necessary to offer them. At the same time it is consolatory to see, that forty millions could not be taken by the ministers, without allowing some other persons to take five millions more. A despotic government would clearly have taken all. The fact therefore affords a measure of the distance from despotism, and of the difficulty of taking money from the public.

An inference from the above theory is, that a public paper not payable upon demand may be maintained at a given standard, by increasing or diminishing the quantity in circulation according to the market price of gold. If the government should never create new paper, but upon proof produced before the popular branch of the legislature that a note would purchase a certain prescribed or standard quantity of gold and something more,—and if the creation was limited to what would reduce the quantity purchasable to the standard quantity,—it would be impossible for depreciation to arise; unless the demand for the instrument of exchange should ever become retrograde. And in this case, the withdrawing of a quantity of paper would remedy the evil.* The expense of doing this would be no more than would take place if the paper was payable upon demand. But there would be this advantage, that a necessity for refunding could not be brought on by alarm, but only by a real diminution in the demand for the instrument of exchange. At the same time a nation which should have the process of substituting paper to begin, would do well to keep the value in sight. Hence if such a nation had a debt,—and there appears to be little use in considering the case of a nation which has none,—it could apparently do nothing better with what was brought into the hands of the government by the substitution of paper for gold, than apply it in aid of a sinking fund. For the whole would then be employed with the same advantage to the public as other sums which are levied from them with the same specific purpose; and any paper which

* If the standard or proper price of gold is to the variation of price as G to g , the proportion of the existing currency which must be added or withdrawn to bring the price of gold to the standard price will be $\frac{g}{G-g}$; the negative sign being used when the price of gold is too low or paper is to be added, and the positive in the contrary case.

it might ever become desirable to absorb, could be procured without waste by returning into the market a portion of the stock of the fund. And this is not the old mistake of making a treasure of a redeemed debt. For the debt has received an express diminution, with the included purpose of giving back a part in case of urgency. A diminution of ten pounds, even with the possibility of being obliged to give up one, is at all events a diminution of nine. And there is also the chance, that the surrender will not be required at all.—The standard price of gold must be fixed a little above the metallic price or that which is expressed by the number of coins into which a given quantity of gold is wrought. And at the same time, the private bankers must be obliged to pay in coins; and when the government is applied to for coins, it must sell them at such a rate as will pay the cost and just profit of coining. Without these precautions, there will be nothing to prevent the private bankers from driving in the paper of the government, and causing as much depreciation as they please. One of them cannot outrun the other; but there will be nothing to hinder them from all going on together till they reach any assignable point. And in particular, the confining either a private or public bank to discounting bills at dates however short, will be no limitation. For it amounts to a permission to issue in perpetuity as much paper as men can be persuaded to borrow, under the formality of from time to time renewing the contract.—Subjection to the proposed standard would attach the value of the currency permanently to that of gold. And to demand a standard abstractedly free from variation, is like seeking for better bread than is made of wheat. Gold is by general consent the best standard for the use wanted. But if it is required to compare the value of gold at distant periods, corn, taken on the average of a sufficient number of years to obviate the diversities of seasons, affords an almost perfect measure, through the interference of the principle of population.

And here it becomes a question, how much of the instrument of exchange a nation is bound to allow the private bankers to occupy. A people by their own act or that of their government, can make a substantial saving of forty or fifty millions sterling, through the process of issuing a paper currency not payable upon demand, under a proper check upon the issue. That they have the power of doing this, arises from the fact of their being a nation, and is totally distinct from the principle on which an individual can circulate notes under a promise to pay. It is a pure perquisite of nationality, which nothing else can acquire or possess. A portion of risk too attends the gain; and this also the public takes. If ever there was a process by which the pub-

he has an exclusive right to profit, it is this. There is nothing in it like commerce or exchange; it is a simple exercise of internal economy on a national scale, like that by which an individual replaces his silver vessels with glass. In the midst of this stands up an order of men, and represents that it will be convenient to them to take twenty or thirty millions of the public profit, and that they have a right to do it because they will be at the expense of issuing the paper. Which is precisely as if they should enter the house of an individual, and insist on carrying off his silver drinking-vessel on the ground that they would leave glass ones in their room. It would be of no use to try to persuade him that it was their trade, or that they were benevolent dealers, who established agencies in every town and village out of apprehension that any man should be in want of vessels. And it would be equally useless for them to assure him, that the glass was just as good for the purpose of drinking. He would admit it; but he would aver that he, and not they, had a right to the difference. If they proceeded to positive attempts, he would proceed to lock up his plate. Which they would probably pronounce to be iniquitous, and contrary to the right which all men had to be on an equal footing in his plate closet. Upon which he would double his lock. Men are hawks when they view their interests singly, and beetles when they are to lose in crowds. There is no reason why a single pound of the public any more than of the private saving, should be carried off by any but the owners; — though it seems to be considered, like Park's caravan by the Africans, as a '*dammulofong*' or thing to be eaten by any that can lay hands on it. A government may not always be the most exact representative of the public; but it must always be some representative. For it must be a very bottomless pit, if the public is not something richer for what it saves, and poorer for what it gives away.

But perhaps there is not much danger that any government, when the necessity for conciliation was removed, should do otherwise than take all. The stewards of the public are often suspected of allowing the general wealth to drain out; but, without peculiar reasons, they can never find it economical to make it over to whole orders of men in the gross. There must be some merit, beyond the mere willingness to take it and be thankful; — the most expansive administration will be more select in its attachments. Where the contrary took place, it was to secure the taking of a greater sum, and by no means for the simple services of the private bankers, though doubtless they were always helpful. But in the absence of such a reason, a government seems as likely to allow the public forests to be scrambled for by

the landlords, as to permit what it might take for itself to be taken by the bankers.

Since the issuing of superfluous paper is likely to be carried to a greater extent than that of coins, there may be consequences which it would have been useless to notice under the head of coins, though they might have been traced there if it had been preferred. One of these is, the multiplication of bankruptcies. If the increase in the nominal prices was mistaken by the manufacturers and traders for an increase in the demand, they would endeavour to increase their rate of manufacturing and trading; and as there could in the end be no real demand for a greater quantity of goods than before, this increase of production would be checked by the expulsion of those traders who were least able to bear up against disappointment. The rate of profits in every branch would be reduced to the lowest at which men with average advantages and good conduct could maintain themselves in the degree of comfort which custom had made necessary for their station, — those of extraordinary abilities and good fortune would accumulate wealth, — and the weakest and least advantageously circumstanced, among whom might be expected to be found those who had to pay for borrowing or long credits, would be driven out of business by bankruptcy, or avoid it by a voluntary retreat. Hence what are rightly termed 'failures in business,' including the rare cases in which bankruptcy is avoided by retreat, appear to be the natural check to the indefinite multiplication of traders, as the consequences of diminished food are the check to the multiplication of the inferior classes of labourers. Under ordinary circumstances, the process of expulsion goes on without exciting much attention; but under the operation of a stimulating cause like the fallacious semblance of an increase in the demand, the evacuation might assume a tremendous appearance, and exhibit itself in the shape of incalculable misery to innocent and hopeful individuals. And if this is a natural process, which from the inevitable operation of men's eagerness to better their condition must be always taking place with the weakest, it forms a striking reason for the moderation with which modern nations have agreed to treat the unfortunate in trade. — As long as the superfluous issues were persisted in, the fallacious appearance of an increase in the demand would be prolonged; but it would not accumulate, though its effects would. If the advances of the depreciation were uniform, it would be a uniform constant force. For it depends, not on the absolute magnitude of the depreciation, but on the rate at which it is increasing. And while the force existed, its effects might be looked for in a progressive elongation of the List of Bankrupts, in proportion

as by the action of the cause more and more individuals were drawn into the vortex and cast out.

The solitary case in which an increased quantity of commodities might be finally called into existence in consequence of the multiplication of superfluous paper, would be if the substantial wages of labour did not keep pace with the progress of the depreciation. For there would be a continual struggle on the part of the masters to prevent the nominal rate of wages from rising; and in most countries the laws give an unjust advantage to the masters. And if the workmen did not succeed in raising the nominal rate of wages so as to keep pace with the depreciation,—and it is almost certain that they would not succeed,—one portion of the substantial recompense of which they were thus defrauded would be employed in exciting them to an increase of production, and the remainder would pay the profits of the masters on the additional commodities produced. The portion applied in the first of these ways would be so adjusted, that the remainder should be sufficient to pay the profits. And this adjustment would be effected by the same means by which the adjustment of the supply is enforced in other circumstances. If the profit left was too great, the rate of manufacturing would be increased; and the contrary. But it is evident that all that was gained in this manner, would be extracted from the nerves and muscles of the labouring classes, by the double process of increasing their labour and diminishing their reward. And this could cause no increase of the aggregate wealth; for all that was given to one would be taken from another. Yet in the eyes of the masters it might appear to be a material improvement; and they would probably not fail to celebrate the advantages of an augmented circulation, the extension of manufactures and commerce, and particularly the increased employment given to the poor.

It will be urged in denial of the injury sustained by the labouring classes, that taxes cannot be levied on the wages of labour. Which is true, as it proves that there is no use in a government's attempting to levy taxes upon wages; but is not correct if extended to prove, that nothing can be taken from the poor. The recompense of labour will find its level as water does,—that is, as fast as it is able. But the Nile may always have been two miles higher at its source than at its mouth, and all manner of difference may have been made by it to travellers upon the stream. There is a wide difference between an effect that has taken place, and an effect that is endeavouring to take place; and between the effort being in a man's favour or against him. And when the labouring classes have been endeavouring

to overtake their wages for twenty years together, they may well be supposed to be behind. The strength of the argument against them is, that if any thing is taken from them their numbers cannot be kept up; and consequently, if their numbers are kept up, there can have been nothing taken from them. But happily for the poor this assumption is as yet incorrect. It is quite evident that the very poorest classes have still something that they might lose. All minor moralists and dispensers of admonitory pamphlets are full of demonstrations of it. The promoters of saving-banks are so many evidences to the belief, that the poor might possibly save; and if they can save, they have something that they might go without. It is undoubted that to the present hour, some of them consume their superfluous wealth in tobacco, and others waste it in spirits; and it is impossible to say that if this was transferred to the master, either their own health or that of their posterity would suffer. It is difficult to prove that white bread has any inherent advantage in increasing population, over brown; and it has at all events been demonstrated that nothing can upon this ground be reasonably objected to potatoes. It is not yet in any part of Great Britain a moot point, whether the hog lives in the house or the labourer in the pig-stye; the labourers of Great Britain have therefore all this that they may come to. And even the Irish labourer may find a lower point in the West, as long as a hog is better company than a slave-driver. Whenever it is thought desirable to answer the complaints of the poor by logic, they are reminded that in comparison with the poor in other countries they live like gentlemen; which is an avowal that they might possibly live worse. In short there is a cloud of witnesses, that, in Great Britain at least, the poor have still something that might be taken from them. They cannot keep up their numbers and live as they used to do; but they may live worse. There are strange depths in ill living; and the rich are almost sure to be mistaken, when they undertake to think the poor past the possibility of being hurt. The most substantial friend the poorer classes ever had,—though some of their sincere well-wishers persist in not finding it out,—has declared that he 'really cannot conceive, any thing much more detestable than the idea of knowingly condemning the labourers of Great Britain to the rags and wretched cabins of Ireland, for the purpose of selling a few more broad cloths and calicoes.*' The first step towards preventing this detestable consummation appears to be the removal of the idea that the poor cannot be deprived of what they have. They can-

* Essay on the Principle of Population, b. 4. ch. 10.

not be deprived of it all; they cannot be deprived all at once. But their habits may be gradually deteriorated by the pressure of a constant force. They may learn to do without one fringement of comfort to-day and a second to-morrow. One decency of life after another may be dropped into the gulph, till they approach within any assignable quantity to the basis that perish. When there is a given standard for honest poverty, those who are below it will not multiply, or will multiply less. But it is evident that the obstacle is in the mind and not in the physical impossibility, and that if the mental standard is depressed, population may go on. If any thing can effect such a depression, the double screw of a depreciation appears competent to do it.

One of the worst properties of this depression of the reward of labour would be, that it would accumulate, and the interests engaged in support of it would accumulate with it. And if the system was carried to any great extent, it might form one of the most intolerable engines of oppression on the labouring classes which it is possible to conceive. Its operation would be silent, gradual, irresistible. It would give no warning, there would be no jerk, no exertion, nor any thing which could be fixed on to concentrate resistance into a particular period. The bewildering misery of an animal in the receiver of an itinerant philosopher, would be a faint image of the situation of an uninformed mechanic, — dying because working would not support existence as it used to do, — knowing neither the source of his evils nor the remedy, — cajoled, threatened, tormented, pitted, — in sight of the comforts of his neighbours, yet running against a wall harder than brass if he attempted to help himself, — disgusting to the refined by the uncouthness of his distortions, and suspiciously eyed by the timid as one who would bite if he could. The very workers of the machine might be employed in condoling with the sufferer, and perhaps scarcely themselves know the nature of the process. And a hundredth part of the gains thus squeezed from the classes who are already weakest, would suffice to keep up no mean apparatus of splendid charity. It will be asked if it would be better that the charity should be omitted. It is like an inquisitor's giving cordials to his patient; — it would be better to give no occasion for the kindness.

But there have not been wanting those who have thought that a superfluous issue of paper, with the consent of all parties concerned, was an excellent mode of taxation. It is a tax on the users of the instrument of exchange, levied in exact proportion to what they employ; so that it may be considered as the *beneficial* of a uniform tax upon expenditure. And it has one singular advantage; — that it costs nothing to collect. But the

objections to it appear to be three. The first is, that uniform taxation is essentially unjust. In whatever mode taxes are collected, it is plain that not only more should be levied, but a greater proportion should be levied, on the rich than on the poor. If a man of two thousand pounds a year contributes a twentieth of his income to the exigencies of the state, it is plain that, to preserve fairness, a man of two hundred a year should contribute less than a twentieth. For as he is much nearer to the possession of the mere necessities of life, to diminish his power of purchasing by a twentieth would make a much more dangerous inroad upon his happiness than a levy of a twentieth upon the other. The necessities of life are those things of which the non-possession necessarily causes physical suffering, as hunger, thirst, or injury from exposure to the weather; and the nearer a man is to the simple possession of these already, the less he can afford to be reduced in any given proportion. There is an infinite difference between being driven from white bread to brown, and being driven from burgundy to port. And it would be difficult to prove that any right to inflict greater distress on the poor than on the rich, can arise out of the fact that the poor are distressed already. The object, therefore, should be, to make taxation bear on all with fairness; or if there are not data for doing this with exactness, to assign a scale which shall approach to it. And the first thing that presents itself, is that there are some stages of poverty on which it is evidently improper to lay any direct taxation. Day-labourers, for example, may safely be placed in this class. But there is another class who are in point of fact equally unable to bear any reduction of their means of support. And this is composed of the persons who, though ostensibly better paid than the day-labourer, are placed just on the other side of the great gulph which the habits of civilized society have established between manual and mental labourers. The respect paid to mental labour in all its forms, joined to the frequent necessity there is for such labourers mixing with the wealthier classes, has created a demand upon them for a certain elegance in their appearance and mode of living, which it is in vain for them to think of resisting without giving up all the resources which previous habits have placed within their reach. And though it may be true that the possession of this superior elegance is in itself a source of enjoyment, yet the mental labourer may be as utterly unable to support any diminution of his means of living as the other. And this appears to show, that an equitable scale of taxation must commence above the class which contains the poorest order of mental labourers. And another requisite would evidently be, that in no

imaginable case the taxation should exceed a certain per centage. It would be an absurd rule which should make the per centage on a wealth of any imaginable magnitude approach to the whole; and it might be equally improper that it should amount to half or a fourth. The scale, if expressed by the visible arithmetic of curves, should be nothing at a certain income, and approach to some reasonable per centage as to an asymptote. The simplest scale of this kind would be one where the per centage should be nothing on the income supposed to contain the poorest class of mental labourers, and should fall on the higher incomes according to a uniform rate upon their excess above the sum which is to pay nothing.* For example, if a hundred and fifty pounds a year paid nothing, two hundred should pay at a fixed rate, as for instance five per centum, upon fifty; two hundred and fifty at the same rate of five per centum upon a hundred; and so on. On such a scale the per centage on a unlimited magnitude would approach to five per centum on the whole.—The above considerations display a strong objection to taxes on the instrument of exchange, on the ground of their uniformity. And the other objections are, their acting on the labouring classes as an intolerable engine of depression, and the endless mischief arising from the violation of money contracts.

The leading error in the first pamphlet appears to consist in not perceiving, that after the instrument of exchange, composed either of coins or paper, has been made sufficient to conduct the exchanges of the community without the aid of commodities, its volume or numerical quantity has no connexion with what men

* The equation to the curve is $y = M \times \frac{m}{n} \times \frac{x-a}{x}$; where x is the abscissa measured from a point without the curve, a the distance from this point to the vertex of the curve, y the ordinate, M a given line, and $\frac{m}{n}$ a given fraction. If x represents the income, a the income at which taxation is to commence, $\frac{m}{n}$ the uniform rate levied on the excess of x above a , the ordinate y will vary as the per centage which the proposed scale assigns to the income represented by x . Or the proportion of the ordinate to the given line M , will always be that of the numerator to the denominator of the fraction which expresses the per centage on the income.—If a line is drawn parallel to the abscissa at a distance equal to $M \times \frac{m}{n}$ and on the same side of it as the curve, it will be an asymptote; for when x is indefinitely increased, y approaches to being equal to $M \times \frac{m}{n}$.

will be able substantially to pay or to expend. The argument appears to be, that when men have an increased quantity of the instrument of exchange, they must necessarily be anxious to employ it. 'Put money into people's pockets, and they will consume.' And a stimulus to production is concluded to be the consequence of the continual necessity of finding employment for the instrument:—without adverting to the possibility that the project may evaporate, as so many other projects for a perpetual motion have done, through some simple principle which is overlooked. Let it but happen that there is depreciation, and the whole expectation vanishes. The mistake is in assuming that because a certain increase in the improved instrument of circulation, or every increase up to a certain point, promotes production, an increase beyond that point will do the same. An insufficient supply of coins or paper which should necessitate the employment of commodities, may be compared to a bad and insufficient highway. The wares which are circulated by means of it, will be conveyed with a degree of difficulty and delay which is a hindrance to production; and every improvement in it will have a contrary effect. But when the road has been brought to the best condition which the materials will admit, and has been made wide enough to convey all that is to be carried upon it without confusion or delay, it would be unreasonable to expect that, by making two or three parallel roads of the same kind, production should be any further increased. The same produce which might have been conveniently carried upon one road, would only be carried on two or on three. And if any man was led into increasing his business or expenditure by confounding such an increase in the means of conveyance with an increase of the wealth to be conveyed, it is evident that he would be corrected by disappointment.