of one thousand laborers before referred to, contains a great breadth of choice arable land, of which the laborers have been hitherto able to cultivate but a small portion. If, now, the number of laborers be increased twenty per cent. with a corresponding increase of capital, production will be more than proportionally increased (see par. 50), through the effect of the division of labor and the union of forces in production. Here, again, we find the wage-fund theory at fault. So great is the virtue of this cause that an increase of laborers—before the condition of diminishing returns is reached—might be followed by an increase of production even in the lack of a proportional increase of capital, or indeed, of any increase at all.

458. But now let us take the condition of diminishing returns in agriculture, that state where, if anywhere, it might be supposed the wage-fund theory would hold good. In such a condition, the soil, as we have seen (par. 51), fails to respond adequately to new applications of labor; the product falls off, not absolutely, but relatively; and, thus, while the aggregate crops are larger through the incoming of new laborers, the actual amount falling to each laborer is diminished. Wages fall. But does this happen in accordance with the economic doctrine we are considering? No; *per capita* wages fall, because *per capita* production is diminished, although often this is coincident with an actual increase of capital.

It would be brutal to inflict further blows upon a body so exanimate as the theory of the Wage-Fund. The natural and the literary history of this doctrine will be found at length in an article in the *North American Review*, for January, 1875.

VI.

THE MULTIPLE OR TABULAR STANDARD OF DEFERRED PAYMENTS.

459. We saw (par. 191) that, with a view to avoiding the fluctuations to which even the precious metals are subject, through long periods of time, it has been proposed by writers

of eminence to create a multiple or tabular standard of value. This is to be done by joining together a number of articles, of importance in the economy of daily life, in such a way that the fluctuations of value in the several constituent articles shall largely neutralize each other.

460. The details of the scheme as proposed by these writers may be stated as follows. A number of articles in general use, corn, beef, potatoes, wool, cotton, silk, tea, sugar, coffee, indigo, timber, iron, coal, and others, shall be taken, in a definite quantity of each, so many pounds or bushels or cords or yards, to form the standard required. The value of these articles, in the quantities specified and all of standard quality, shall be ascertained monthly or weekly by government, and the total sum which would at the time purchase this bill of goods shall be, thereupon, officially promulgated. Persons may then, if they choose, make their contracts for future payments in terms of this multiple or tabular standard.

For example, suppose I sell a house to-day, the value of which, as agreed upon between myself and the purchaser, is $20,000, one-half to be paid down at the time, two-tenths to be paid in two years, three-tenths in five years, with interest on the last two sums. One-half of the purchase money, being payable at once, is paid in money, $10,000 in gold or bank notes. For the rest, the purchaser and I look at the last published statement of the government commissioner, and find the value of a unit of the tabular standard to be $12.50; that is, $12.50 will now purchase the bill of goods which form the standard. The purchaser then gives me two notes, one for 320 units of the tabular standard, payable in two years, and one for 480 units, payable in five years, with interest at six per cent., per annum, meanwhile. At the end of the first year, the two parties interested look in the official gazette, and find the value of the unit at the time to be $12.75. There is then to be paid one year's interest on each note, amounting, in the case of the first note, to 19.2 units, which obligation is discharged by the payment of $244.80 in current money; and, in the case of the second note, to 28.8 units, which obligation is discharged by the payment of $367.20.

At the end of the second year the value of a unit of the tabular standard might be ascertained to be $13, or $12.25; in the latter case the interest on the first note is discharged by the payment of $235.20, and that on the second note by the payment of $352.80. If, however, the value of a unit has been ascertained to be $13, the interest on the first note will be $249.60, and that on the second note $374.40.

But the principal of the first note, 320 units, is now to be paid. A similar computation shows that, if the value of the tabular standard is $12.25, the maker of the note must pay $3,920 to discharge his obligation; if the value of the unit be $13, he must pay $4,160.

461. What has been Effected?—Now, without waiting for the maturity of the second note, let us see what the use of the tabular standard has thus far effected. When I sold my house, two years before, I gave the purchaser two years' credit for two-tenths of the price. Had I taken the money at the time, it would have bought me so many pounds of beef, so many bushels of corn, so much iron, coal, etc. Now, at the end of the second year, what I receive as the stipulated two-tenths payment for the house will bring me precisely the same amount of beef, corn, iron, coal, etc. Meanwhile the debtor has paid me, every year, as interest, enough to enable me to purchase six parts in a hundred of this entire list of commodities. The purchaser has had the advantage of obtaining credit, to that extent, but has derived no unearned benefit from the delay of payment; and, on the other hand, has been protected from any loss through that source.

462. It is to be observed regarding the proposed tabular standard, first, that it is not obligatory upon any one to use it. Persons buying and selling still make their contracts in terms of money if they please. The government merely affords them the opportunity to make their contracts payable in units of the tabular standard, if it be worth their while to do so. Secondly, the only machinery required for the operation of this system would be a commission to ascertain the current prices of the articles on the official list and to publish the same. No new method of accounting would be introduced. Interest and principal could be computed as easily as under the present system. The courts would enforce the obligation of contracts on precisely the same principles when expressed in units of the tabular standard, as when expressed in dollars or pounds sterling. Thirdly, no new medium of exchange would be introduced. The creditor would not be obliged to receive, at the maturity of the note, so many cart-loads of vegetable, animal and mineral products, to be hawked about for sale. The payment, at the maturity of the obligation, would be made in money. The only effect of the introduction of the tabular standard would be to decide how much money at that date constituted the equivalent, in the power to purchase the necessaries, comforts and luxuries of life, of the money which would have been paid had the sale been for cash. In short, it is a means of giving and taking credit without receiving an unearned advantage or suffering an undeserved injury through fluctuations in the value of money.

463. Is it Practicable?—Such being the contemplated advantages of the system of a tabular or multiple standard, the question whether the use made of the system, if established, would be worth the small degree of effort necessary to establish it, is a question which could only be answered after trial. The mere fact that the scheme is sound and the advantages of its adoption unquestionable, would not of itself be sufficient to secure any considerable application of this standard to the actual operations of trade. It took hundreds of years for the Arabic figures to drive the abominably clumsy Roman figures out of the counting rooms of great merchants and bankers. The slow progress of the metric system, even in this age of innovations and of quick communication, affords a measure of the difficulty of supplanting one habit of trade by another, however much superior.

The practical limits of this system, were it to be once introduced and tried, are fairly a matter of doubt. Prof. Jevons deemed it practicable to extend this mode of determining the claim of the creditor, the obligation of the debtor, to ordinary commercial paper having three months or more to run.

I do not myself apprehend that the system would trench, in any considerable degree, on the field of so-called commerce. The merchant, buying every day and selling every day, giving notes with one hand and taking them with the other, may fairly look to see his losses, through fluctuations in the purchase power of money, offset by his gains through the same source; or, in a worse result, he is in a position, by greater energy and economy, to make good his capital. It is essential, or at least highly important to the conduct of business, in the modern organization of industrial society, that the merchant or manufacturer shall be able to tell just where he stands, at any time; to strike an exact balance between assets and liabilities. But this would not be possible with the tabular standard. A note for 400 units, payable in September, might not offset a note for 400 units receivable in August or October. The difference might be small; it might also be large. It would thus be impracticable for the man of business to cast up, at a moment, the results of any given transaction, or ascertain precisely his own standing. By the very description of the system, every note given or taken would have to be liquidated.

Commerce will not tolerate any such obstruction; and the scheme, so far as this application is concerned, may be dismissed at once. Commerce will do the best it can with the use of money and of credit expressed in terms of money. Nothing is more characteristic of the commercial spirit than the disposition to take the evil with the good, roughly to strike the average of gain and loss, promptly to charge-off bad debts, always looking on towards the future, never regretting the past. This spirit leads, doubtless, into many errors, but it is the very life of commerce.

464. For what classes of contracts, then, might the multiple tender be advantageously employed?

Certainly the need of such a standard of deferred payments is most imperative in the case of those who are not in the way of repairing any losses they may suffer through fluctuations in the value of money; upon whom the full effects of depreciation fall directly and remain without relief. And

while the advantages of such safeguards upon the value of debts here rise to their maximum, the obstruction sinks here to a minimum. In permanent investments of property not the least inconvenience will be encountered by the scheme of a multiple tender, which might be extended to the cases of all who have definitively retired from active life, carrying away with them all they will ever have to support old age and provide for their children; to the cases of trustees and guardians, under a solemn responsibility in the care of estates, where loss is more to be dreaded than gain to be desired; to the cases of institutions whose funds are sequestered from the stock of active capital, for pious and charitable uses. The funds of savings banks might be put under the same safeguard, and government loans might also be issued in terms of the multiple tender.

VII.

TRADE UNIONS AND STRIKES.

465. Wholly a Practical Question.—It has been shown (pars. 348–56) under the title of Distribution, that the question, whether any law or institution does or does not promote the freedom of industrial movement enjoyed by the community, is a question not to be decided *à priori*. Consideration must be had of the actual effects of such a law or institution, comparison being made not between the state which will result therefrom and an ideal state of perfect economic mobility, but between the new condition and the condition which does exist or probably would exist without that law or institution.

Let us take the case of Trade Unions, so called, which undertake, through agreements among themselves and perhaps simultaneous strikes against their employers, to fix wages, regulate the hours of labor, and control many of the various details of industry. To the first suggestions of such associations, the economist promptly and properly objects that all combinations in the sphere of economics are opposed to competition. The objection is well taken, and it remains for the