

## CHAPTER X.

### Credits and Accounting.

When I gave you my crude illustration of the circles of trade, I injected the remark, if you remember, Doctor, that it made no difference how the buyers at retail stores paid for what they got, because the whole affair was in the end simply a matter of service for service. And it really didn't make any difference in that connection. But as part of the mechanism of social service, the mechanism of payments is highly important. Maybe I had better call it the mechanism of intermediate payments. For ultimate payments are, of course, the services desired and which are received in exchange finally for services rendered. In connection, then, with the mechanism of intermediate payments, we ought to realize how buyers at retail stores pay for what they get there, and how retail storekeepers pay wholesalers, and how these pay manufacturers, and how manufacturers pay material producers, and how all pay transporters, and how employers pay employes, and so on, back and around and in and out, through all the intricate windings of the whole complex system of the multitudinous circles of trade.

Money is a factor, of course. But in the last analysis the mechanism of intermediate payments is altogether one of credits and accounting. Even cash payments fall into that category, as the cash account of any double-entry ledger will illustrate pretty well. Isn't cash always debited with its supposed value, just as any person to whom you give credit would be? and isn't

cash always credited with the value of what it pays for you, just as a person is who pays you what he owes? What does all that mean, but that cash transactions are only forms of credits and accounting?

To get an apprehension of the interlinked phenomena of credits and accounting, suppose we look a little into the probable development of the mechanism of what I have distinguished as intermediate payments in the circles of trade.

The simplest trading of which we can conceive is just barter—pure swap. That is evident. But if pure swaps were the only kind of trading there wouldn't be much trading; no, nor much civilization, either. Trading would be too cumbersome, too clumsy, too much retarded by friction. Anybody who wanted to swap—well, it makes no difference what, only so it is simple enough for illustrative purposes—say, an apple for a pear, would have to find some one who not only had a pear that he wanted to swap, but who wanted to swap it for an apple. If he could find no such person, but did find one who had a pear which he wanted to swap for a plum, intermediate swaps would be necessary. The owner of the apple might be obliged to swap it for a peach, and the peach for a quince, and the quince for an orange, and the orange for a plum, in order to procure the only thing for which the man with the pear would part with it.

That would be pretty troublesome, Doctor; don't you see it would? and not very conducive to specialization in social service. But don't you also see that no matter how many intermediate swaps occurred, the essence of the transaction would be the same as if there had been a direct swap of an apple for a pear? The necessity for those intermediate swaps would have been obstructive. Like a wide river, or a high mountain, or a broad ocean,

or a protective tariff, it would have served only to make swapping difficult. Pure barter, then, is subject to a degree of friction which would tend to prevent the development of specialized service by jamming down an automatic brake upon the circles of trade with greater and greater pressure as they tended to superior and more general usefulness. Just as labor tended to divide and subdivide, and the circles of trade consequently grew more and more complex through more and more minute specialization of service, the inefficiency of pure barter for placing products where they were most desired would inevitably operate—don't you see it would?—as an obstacle to the extension of social service.

But with the introduction of currency, this friction would be incalculably diminished. Don't you see that also? The man with an apple who prefers a pear would no longer be under the necessity of either hunting for a man with a pear who prefers an apple, or of carrying forward a series of intermediate exchanges until he finds a plum which the other man will take for his pear. All he would have to find would be some one who would give him currency for his apple, and then to offer that for a pear; whereupon the man who sold his pear, which he really didn't want, could go out and buy the plum, which he did want. But this transaction is the same in its results, you see, as the simplest possible example of pure barter. An apple is swapped for a pear, and a pear for a plum. By means of currency, then, all the benefits of pure barter are obtained in a complexity of extensive trading; but with the friction generated by that complexity as completely avoided as if there were but one simple swap between two neighbors.

Sellers of a commodity take currency, you remember, not because of any inherent quality of

the material of which it is made, but because, for some reason or other no matter what, they are confident that other sellers will take it in turn. By common usage it is a certificate of the possessor's title to any commodity in the market, of a given value, that he demands. Consequently, whoever parts with a commodity for currency, has made but half a trade. His trade is not complete until he parts with the currency for the commodity he really wants. Then, and not until then, does he give what he desires the less for what he desires the more, which is the essential principle and impulse of trade, the principle in harmony with which each party to a trade receives greater value than he gives.

And you will not forget, Doctor, will you, that the value of the material of which currency is made is not of the slightest importance, except as it may affect confidence in it as a dependable title to commodities. It may be of material equal in value to its denomination, or it may be of material of lower value, or of no value at all. So long as it passes current it is currency.

But while that is so of money for currency purposes, it is not so of money in its use as a standard for—no, just wait a minute, won't you, until I think of that. I was going to say "standard for measuring values," but I don't believe that this phrase is very accurate. I fear it may be misleading. We usually measure values by the money symbol, algebraically, as it were—by the dollar mark, the pound-sterling mark, and so forth. But the service that the value of the material of which money is made performs, is distinctively more in the nature of a measure for deferred payments and of a storage place for labor.

Yes, we also store labor in wheat or corn or furniture, or anything else that labor produces. But in those things we store only one kind of labor,

as a rule—the kind of labor that produces the particular thing—and only very temporarily, too. The utility of such things usually passes quickly away, and their value with it; and they are not easily traded for other things at all times, nor can they be readily altered from a commodity useful in the arts to a currency useful in transferring accounts, and then back again as occasion requires. The material fit for money for deferred payments and labor storage should be of considerable value relatively to its bulk; it should be durable; and it should be capable of being transformed from a commodity into many currency pieces of various denominations, and back again, with the least possible labor cost and the least possible wear and tear. And it must be something which labor produces. For you will remember, Doctor, that labor is the real measure of values. It is the irksomeness of work that determines the value of the things produced, and of everything else within the circles of trade. Things are worth the work their possession saves.

But for valuation purposes we must have units, and it is impossible to define a unit of work in terms of work. We may indeed assume ideal labor units for purposes of abstract reasoning, much as in geometry we assume ideal points, lines and surfaces; but the variations of labor power in different persons are too subtle for us to specify a labor unit by any time measurement, or human energy measurement, or anything of that sort. The serviceability of the day's labor of one man differs from the serviceability of the day's labor of another, as the minds and muscles and temperament and tastes and training of the men differ. We accomplish the same thing, however, for all practical purposes, by referring to a given quantity and quality of some generally desired product of labor as a concrete expression of the labor unit.

Possessing this product we have a storage of labor units according to its quantity and quality—labor units of anything we want, mind you, and not merely of the particular product used for storing them.

Yes, the value-measuring factor is present in that commodity. If it were not, the commodity wouldn't serve as a storage for labor and an expression of labor units. Yes again, the commodity may be used as currency. I haven't intended to imply that "intrinsic value money," as it is sometimes called, is not usable for currency, nor that it is not usable for a measure of values. What I mean is that these are not its distinctive qualities. Other things, not necessarily dependent in any way upon "intrinsic value money," may serve as currency; and there are other methods of measuring values. But the material of "intrinsic value money" affords the only means of actually storing up units of labor in such a manner as to release them at will and approximately unimpaired. Although the same effect may be produced by means of loans, yet, for labor-storage purposes, these are only agreements to return the storage material or its equivalent. It is the material, after all, in which the labor units are stored.

Now, to go on with the effect of currency in lessening the friction of complex trading. We have already noted the fact that as the circles of trade become more and more involved, even currency is inadequate to overcome increasing friction. Similar effects to those noted in connection with pure barter are observable. Dangers of loss and of robbery, together with the labor involved in handling currency in large quantities, and the difficulties often in the way of obtaining it because of its relative scarcity, would naturally operate—don't you think?—to create a demand for

easier and better methods of credits and accounting in social service.

It seems to me that book-keeping might be expected to develop new possibilities under those circumstances; that traders, instead of passing currency with every transaction, would fall more and more into the habit of keeping mutual accounts and of using currency only to settle balances. That is the way the storekeepers did, you remember, when you and I went over to town with grandfather to trade. But with increase in the volume and complexity of mutual accounts, due to the still greater extension and intensity of trading, there would naturally be a new demand for currency in order to settle balances, and this would tend to re-create friction by making currency dear. At any rate that would be so if the quantity theory of money is sound, and I know that you accept that theory. And what do you suppose would happen now? Isn't it reasonable to expect that some new device would spring up to keep down the value of currency? I don't know what you think about it, but I should expect something like banks and clearing houses to come in—common bookkeepers who would lessen the demand for currency relatively to the volume of trade by expanding the utilities of bookkeeping. And isn't that precisely what has happened. Imagine the enormous supply of currency that would be necessary to make intermediate payments with the present volume of trade, if it were not for the bookkeeping facilities which bank checks afford.

The actual history of the thing I can't give you. Neither can anyone else except in a very superficial and incomplete manner. But isn't it fairly evident that trading must have been at first by means of barter—supplemented, perhaps, by some crude modes of credit, like those, for instance,

that our folks used to give to old Aunt Famy when she would trudge across the fields to our house to "borry" molasses or coffee or sugar, and promise to "bring 'em back next week," after she had been "over to town to trade"? But it is only in the simplest and most neighborly conditions that barter, even when supplemented with friendly borrowing, could have been the sole method of trading. As soon as it had begun to extend, currency would be necessary; some common medium of trade; something that everybody within the common circles of trade would accept, not from a desire of much of that particular thing, nor for any of it at that particular time it might be, but from confidence that any one else would take it at any time for anything. Furs or cattle might be utilized as currency for a while, but as these do not long retain their utility and value, and cannot without permanent loss be divided and restored again to suit changing needs, wouldn't it be reasonable to infer, even if there were no historical evidence, that metals would eventually take their place—such metals as are easily carried and easily stored, and such as are but slowly consumed or worn away, and the particles of which may be separated and reunited over and over again without much labor and without prejudice to their utility and value? It certainly is an inference.

And these inferences have a considerable support from history. Various products—furs, cattle, leather, shells, etc.,—have been used as currency, and in primitive places some of them are used yet. But they have been superseded by metal, owing to its greater adaptability. Among the metals, silver was long the favorite for "intrinsic value money," but gold has come into principal use for that purpose. Relatively to the volume of trade, however, neither silver nor gold is any longer much employed as currency, as you



know. Government notes and bank notes are most common. The metals are hardly used at all, except as pocket money and for labor-storage purposes in reserve funds.

At first, no doubt, silver and gold passed as commodities. The historical evidence of this is abundant, and we are not without examples in some parts of the world even in very recent times. Those who handled them much, carried scales to try the weight and acids to test the quality of what they received. An improvement upon that custom came with their use as authorized currency, symbols of weight and fineness being stamped upon pieces of the metal of various sizes and values. In other words, the metals were "coined."

The theory of "coining" is that government certifies to the quantity and quality of the metal in the coin, thereby protecting the ignorant from imposition and relieving the prudent from the necessity of using scales and acids with every trade. But governments have not always been faithful in this respect. They have frequently taken coinable metals of certain values and stamped them with higher values. This is the way, I understand, that the pound of silver got reduced as a coin to a small fraction of a pound. Whenever it debased its coinage, the government kept the surplus metal and called it "seigniorage." An easy way, wasn't it?—to collect taxes without taking the taxpayer into your confidence. Easier than our own methods of indirect taxation. And it wasn't as oppressive, either, except upon persons who used coins for labor-storage. Those who used them simply for currency, passing them out as soon as they took them in, lost hardly anything.

When intermediate payments were made chiefly by means of gold and silver currency or money,

wouldn't you suppose that the hoarding of those metals must have been a favorite method of "saving up against a rainy day"? Seems so to me. It wasn't all honest hoarding, either, I guess. You remember those old stories of pirates and their buried treasure, don't you, that you and I used to read in the haymow of a Sunday afternoon, or down on the creek bank in the intervals of going in swimming? May be honest folks didn't bury their gold and silver coins, but they hoarded them somewhere, I reckon. Even if they didn't hoard them, they had to have a good supply on hand for currency according to their needs, which must have been frequent and in pretty large amounts among the nicest people—those who lived honorably in the sweat of other men's faces, you know.

But whether hoarded for saving or kept on hand for use as currency, gold and silver coins would certainly have been good plunder for thieves. And they do say that this is what brought about the use of checks on banks, which is now so common. I don't vouch for the story, for I'm no historian; but it seems that persons possessed of gold and silver coins and without safe places of their own in which to keep them, but who were customers of some silversmith, used to deposit their coins with him to be put into the receptacle he kept for the exceptionally valuable materials of his handicraft—gold and silver, you know.

In the beginning, these coins deposited with silversmiths for safety, were no doubt carefully kept by them as special deposits; that is, they expected to return to their customers the identical coins. But sometimes a depositor would call for his deposit, or part of it, not by withdrawing it bodily himself, or through a servant, but by giving in intermediate payment to somebody he owed, a written order upon his smith to deliver the specified

amount to that person. By "intermediate payment," I don't mean, you understand, what lawyers might mean. They might mean conditional payment; but I mean absolute payment, though in a form, money, which is not final payment, because that is not what the payee finally wants. Well, when both the drawer of this order and the payee happened to be depositors with the same silversmith, the payee didn't always withdraw the coins. Sometimes he would ask the smith to shift them, or so much of them as the order called for, from the drawer's deposit in the vault to his own. This accomplished the purpose—don't you see it did?—of both drawer and drawee. And something similar occurred even when the drawer of the order and the drawee didn't happen to be depositors with the same silversmith. In that case the drawee often saved himself trouble by asking his own smith to go or send and get from the other the coins called for by the order; and when the two smiths came together in that connection, it sometimes turned out that each of them held orders against the other. Now, what do you suppose would probably happen then? Why, if the amounts balanced, no transfer of coins would have been made either way. What would be the use of those silversmiths lugging coins back and forth if they could save the trouble and accomplish the same result by merely exchanging little pieces of paper and making a few simple entries in a set of books? And if there had been a balance either way, well what would be the use of lugging coins either way to any greater amount than the balance? If the balance were small, or similar transactions had got to be of frequent occurrence among silversmiths, it is probable that even the balance wouldn't be carried either way in coins with every transaction, but that mutual accounts would be

kept and balances adjusted with coins only now and then.

After a time the more observant smiths noticed a curious fact. They noticed what we now realize was bound to occur, that a proportion of all the coins deposited in their vaults never went out again. It was a great discovery. What Watt's observation of the antics of his mother's teakettle was to steam power, that observation of those astute silversmiths was to modern banking in so far as depositing and checking are concerned. With an eye to the main chance, no doubt, those old silversmiths took advantage of their superior astuteness of observation by quietly using as material in their trade some of the coins deposited with them. It helped to enrich them by giving them a good deal of gold and silver for the melting pot without a farthing of cost beyond the deposit accommodation they were giving their customers, and it didn't harm their customers, because they could always get what coins they wanted. These profitable yet harmless speculations of the silversmiths—the Big Business men of their time—came out of that proportion of deposited coin which, in consequence of the orders passing between silversmiths, was never wanted by the depositors, taking them as a whole.

But wouldn't you infer that when the silversmiths generally came to realize all this, competition would set in and adjust the whole thing upon an honest basis? Wouldn't they begin to encourage general instead of special deposits of coin? Wouldn't they be likely to stop receiving deposits of coin as a favor or for a storage fee, and do it for the privilege of being allowed freely to use the gold and silver coins as raw material in their handicraft? And wouldn't the depositors be satisfied with repayment upon demand in coin,—not necessarily in the identical coins deposited, but

with others of equal value, or even with depositable orders upon silversmiths? That's what happened, I guess, Doctor. At any rate, that is the way the story runs, and it is essentially what the modern bank is actually doing.

As that custom developed, while affording profits to the smiths from the use of capital costing them nothing, its benefits extended much farther. The retiring of a very large proportion of gold and silver from service as currency and from hoards of saved up money, tended to make those metals more available for use in the arts. And of course trading generally must have been freer and easier when orders on smiths served as substitutes for currency than when gold or silver had to pass with every trade.

All this appears to be in substance historically true, and modern banks to be in one at least of their functions, an evolution from a custom of the old silversmiths of London. I mean the bookkeeping function of modern banks, for banks are really common bookkeepers. Instead of paying out and receiving currency with every transaction, we deposit the checks that we get, and draw checks for the payments that we want to make, and the banks shift our credits accordingly in their sets of bookkeeping books. Their pay for doing this they take by reserving the right to lend from 65 to 85 per cent of their depositors' credits, retaining the interest for themselves; the theory being, analogous to that of the old silversmiths, that a certain proportion of the aggregate credits that pass through bank ledgers will never be checked out.

By lending this proportion of their customers' credits the banker's function is made to extend beyond that of a common bookkeeper. He becomes also a broker in and insurer of individual

credits. Of course his guild likes to assume larger functions. That is as natural with bankers as Jefferson said it was with judges; and I suppose, Doctor, that we all have an itch to draw power to ourselves. So let's not think of bankers as a different "run of shad" because they want to add to their functions, even if in doing so they do invade public rights. We are all poor sinners.

One of the alien functions that the banks have long tried to draw to themselves is the right to issue currency and to control its volume. But here they run afoul of the sentiment that if that is anybody's function it is the government's, and ought not to be farmed out to banks or anyone else. We won't discuss this just now, Doctor, but I should like to remark in passing that I rather incline to think that the only normal functions of banks are brokerage in credits, insurance of credits, and common bookkeeping. They borrow from all depositors without interest, to lend to one or more for interest; and to compensate for taking that interest, they do the common bookkeeping for all.

This bookkeeping function may need some further exposition. Even you, Doctor, with all your familiarity with banking transactions, both as a bank clerk for that first year or two after we got home from college, and as a bank customer ever since—I doubt if even you have reflected upon the significance, with reference to social service, of this bookkeeping function. Just listen, then, for a few minutes longer.

Let us think of a group of men as interchanging serviceable commodities. You remember that in primitive barter each must have or must get exactly what the other wants, or else there is no trade. But then comes currency, whereupon either can sell what the other wants to buy, and use the currency to buy of some one else what he

wants himself. This facilitates trading. But as the carrying of currency back and forth becomes irksome and risky in consequence of increased trading, we have mutual accounts; and, mutual accounts becoming in great measure impracticable, as the circles of trade extend and interlace, the same law of human nature that gave us currency and mutual accounts will now give us banks, which in turn and under similar pressure will give us clearing houses.

Here we have, then, a wonderful extension of the bookkeeping principle, for that is what it is. Checks that go to banks are nothing but orders to bookkeepers to transfer credits from one customer's account in the books of the bank, to another's; and as the clearing house merely does for all the banks of a group what each bank does in this respect for its own customers, bookkeeping would adjust the entire volume of trade if all banks were connected with one clearing house and all traders were depositors in a bank. To that ideal perfection the bookkeeping principle of credits and accounting in the mechanism of social service may never attain; but the nearer the approach to the ideal, the greater will be the advantage realized. Normally, you know, Doctor, normally; without considering the pathology of the subject.

True, very true; some folks do not understand how a trade between widely separated strangers could be accomplished without money. I reckon you really do, but all the same, since you have made the remark, I am going to risk boring you about it, so that I may be sure that you have the same understanding of the matter that I have.

Though each of those strangers were too far separated as participants in social service to be able to use mutual accounts, or even checks, between themselves, yet they are linked together in a

chain of traders, each of whom knows the trader immediately before and the one immediately after himself in the chain.

For instance, here is a farmer in Kansas, and yonder is a shoe factory foreman in Massachusetts. They don't know each other. Neither would give credit to the other, and neither would take the other's check for goods. Yet the factory foreman may buy corn of the farmer without money; and the farmer, also without money, may buy the factory foreman's share of the shoes he has helped to make.

The foreman, let us say, keeps an account in the village bank where he lives. He takes a check from his employer for his wages and deposits it in his bank. This check is essentially the consummation of an advance sale from himself to his employer of his share in a quantity of shoes that have been made under his direction as foreman. The employer sells the shoes to a Boston house, and the Boston house sells some of them to a house in St. Louis, which sells some to a house in Topeka, which sells some to the village storekeeper at Hymer, near where the Kansas farmer in question lives. In actual experience, those shoes would probably go more directly from Massachusetts to Kansas; but then the problem of payment by checks would be simple, too simple for illustrative purposes, and I am trying to make it sufficiently complex to be illustrative.

Now observe, Doctor, that the Hymer storekeeper has paid for that invoice of shoes with a check upon his village bank, which has set in motion a series of bookkeeping entries at various points from Kansas to Massachusetts, including Topeka, St. Louis and Boston. The result is that the balance which would otherwise be to the credit of the Kansas storekeeper in the Hymer bank, has passed to the credit of the factory foreman in the



Massachusetts village bank, in consequence of his having deposited to his own account the check from his employer.

Meanwhile, the farmer has sold corn to the Hymer grain buyer and received a check upon the Hymer bank, if there is a bank there; or upon a Topeka bank, it maybe; at any rate upon the same bank in which he keeps his own account. This check the farmer deposits in the Kansas bank, whether at Hymer or elsewhere, with which he does business. And what has happened to the corn? Why the local grain buyer has sold it to a Kansas City grain buyer and taken the latter's check; the Kansas City grain buyer has sold it to a Chicago house, taking its check; the Chicago house has sold to a New York house, taking its check; and the New York house has sold to a storekeeper in the Massachusetts village where the shoes were made, taking his check.

Observe now that the factory foreman's shoes have reached the Kansas village store; that the Kansas corn has reached the Massachusetts village store; and that the shoes have been paid for by a series of checks, beginning with one drawn upon the Kansas bank, and ending with a corresponding deposit in the Massachusetts bank. Currency has not been disturbed at either end. There is the same amount of currency in each village as if those transactions had not occurred. Even the credits in the banks are undisturbed. The only difference is this, that the Massachusetts factory foreman has a larger credit in his bank account, which has come through a series of banking transactions from the Kansas storekeeper; and the Kansas farmer has a larger credit in his bank account, which has come through a series of banking transactions from the Massachusetts storekeeper. Although the amount in the bank at each terminus of the series of exchanges is the same as before, it

has been transferred to a different depositor, somewhat as in the old days of the silversmiths there was the same amount of gold and silver coin in a smith's vault after a deposit or a draft as before, but the title to some of it had been transferred from one depositor to another.

Now the factory foreman may go to the Massachusetts village store and with his check buy corn, while the Kansas farmer goes to the Kansas village store and with his check buys shoes. The balances in both village banks are then shifted again, that of the foreman being transferred to the Massachusetts storekeeper and that of the farmer being transferred to the Kansas storekeeper. Each intermediate party to this series of exchanges will in due course have received back all that he expended, with his profit added; and the factory foreman will have obtained in exchange for his share in the shoes what he desired more than shoes, while the farmer will have obtained in exchange for the corn what he desired more than the corn. And yet no money will have passed. Those two men, so far apart and utter strangers, will, without money, have made a swap of one man's corn product for the other man's shoe product.

Most exchanges are effected in this way, as you know, Doctor. The process may be in some respects more intricate and in others less so, but the principle is the same.

People who have no bank account must of course use more currency, dollar for dollar, than those who do have bank accounts; but even such people transact much of their business by means of book-keeping, for they often have open accounts at stores which they settle with store orders or the checks of bank depositors with whom they happen to have other financial relations. They also handle bills of exchange and postal orders, or notes, or

all; and every one of those bits of paper belongs to the bookkeeping as distinguished from the currency mode of effecting exchanges of social service. All are orders upon bookkeepers—part of the mechanism of the clearing house principle.

In foreign trade, bills of exchange serve instead of bank checks. But bills of exchange, though they differ slightly in form, are in principle indistinguishable from checks. Both are merely written instructions to bookkeepers.

The use of the bill of exchange is said to have grown out of the necessity for guarding against the dangers of transporting gold and silver. There were shipwrecks, you know, and highwaymen, and pirates in the old days. And even in those days there was governmental plundering of strangers who had "more money than the law allowed," as you and I said to Pearson's bound boy that time when he had three pennies and we hadn't any, and three pennies, as we explained to him, would buy "just enough chewing gum for the crowd." I believe that the credit for inventing bills of exchange is given to the Jews. But never mind about that. They just had to invent them in order to protect their property from a type of Christians who were afraid the poor Jew might not get through the needle's eye, and there's not much merit in doing what you have to do. Anyhow, you and I are not concerned so much about who invented bills of exchange as we are about the way in which they work in the mechanism of social service.

Well, you see, a trader in one country who expected to make payments in another, and was afraid of shipwreck, or pirates, or governmental "protection," would open friendly credit relations with some one in the latter country; and upon making his payments, instead of shipping gold or silver, he would ship bills of exchange. These be-

ing honored satisfactorily when and where payable, were charged by the payer to the drawer. Conversely, if a payment needed to be made by a trader in the second country to one in the first, he also would forward a bill of exchange or draft upon a friendly concern, instead of sending gold and silver, and a charge would be made against him. If these drafts happened to be for the same amount, one balanced the other, and no gold or silver changed countries in consequence of that trade. If they were unequal, the difference was adjusted by a shipment of gold or silver to the amount merely of the difference; or else the account was allowed to stand open, and the balance fluctuated from time to time one way or the other as further drafts were sent or received.

Out of this custom among traders there grew up eventually a system of bookkeeping between traders of different countries, which bankers conducted. That is to say, a business of dealing in foreign drafts evolved. A dealer in drafts in one country would open credit relations with one in another country, and then they would buy and sell the drafts of traders. A trader who wished to pay a foreign debt would try to buy a draft. If the difficulties of transporting gold and silver were great, the cost of the draft would be high; if they were slight, the cost of the draft would be low. And that is the way, Doctor, in which payments are made between dealers in different countries, even unto this day.

When a merchant in New York, for example, ships apples to London, and a merchant in London ships canned fruit to New York, two bookkeeping entries on the debit side are made, one in New York against the London consignee, and one in London against the New York consignee; and upon the basis of those entries bills of exchange are drawn. This may be done by the shippers, or

the shippers may sell the right to do it to bankers, taking pay in local bank checks. At that stage of the transaction, New York owes London a certain amount and London owes New York let us say the same amount.

In very truth neither city owes the other anything. An individual in London owes an individual in New York, and an individual in New York owes an individual in London. But it is easier just to say London and New York.

The draft upon London finds its way through bankers there to the account book in which New York is charged for canned fruit, and being therein entered as a credit item, it offsets that charge; the draft against New York finds its way through New York traders and bankers to the account book in New York in which London is charged for apples, and it similarly offsets that charge. Canned fruit will then have been exchanged for apples between the two countries—England and the United States,—and all accounts are squared.

Of course the details might be much more intricate, but the principle would be unchanged. Though very few if any individual transactions exactly offset other individual transactions, that fact makes no essential difference. When a banker in New York comes into possession of several bills of exchange of various amounts against London, he, by forwarding them to his London correspondent and charging the total, acquires the right to draw upon his correspondent any number of drafts for any amount not exceeding that total. This enables him to sell drafts upon London for any amount to persons who demand commodities from places where London drafts are receivable, just as a bank depositor, by forwarding to his bank all the checks that may be given him acquires the right to draw upon that bank. And when all that London owes to New York is set off against

all that New York owes London, the balance is what New York would be required to pay or be entitled to receive in gold, if there were no other cities within the circles of trade. But as there are other cities, the balance owed, say, by New York to London, may be offset by a balance owed by Berlin to New York, while Berlin's debt to New York is offset by one from Paris to Berlin, and that of Paris by one from Madrid, which in turn is offset by one from Brazil and that by one from London. Taken together, don't you see, there would then be no balance. All accounts would be squared. Even if there were a balance, international trading goes on continuously, just like trading "over to town" used to, and consequently balances shift. When all the trading centers of the world, and all the commodities in the circles of trade, are considered together, and a sufficient time is allowed for the reaction that invariably follows action, or, in commercial terms, for the exports that follow imports and the imports that follow exports, there is no balance for or against any locality, except such as may be traced to one-sided payments. Among these are payments for the purchase of land, for the rent of land, for loans, for interest on loans, for investments and for profits on investments, for tribute of some kind or other, and for gifts. Yes, gold may have to go one way or another, and it may be said that it goes in settlement of balances. But gold is a labor product and goes as a commodity, just as corn and wheat do. In normal conditions it would be shipped much more for use in the arts than for the highly uneconomical purpose of merely settling balances.

Exchanges of commodities tend, you see, to equalize balances between trading centers. And they do it—pathological conditions apart. Some cities become clearing houses or central bookkeep-

ers for the surrounding territory; others become clearing houses or central bookkeepers for these; and one ultimately becomes the common clearing house or bookkeeper for all. A village, for instance, is the central bookkeeper for producers within the influence of its commercial attraction; the neighboring city is to its dependent villages what they are to the adjacent country; the great trading city of the country is to the smaller ones what they are to the villages; and the great trading city of the world is the same to all the other cities. London, you know, is the clearing house for the world. In the same sense New York is the clearing house for the United States, Chicago is the clearing house for the western region of which it is the commercial center; the village of Herkimer is the clearing house for the little farming territory that spreads out before it at the foot of the Adirondacks.

Now notice this—a draft drawn upon London is good anywhere in the world. You know that, but do you know the reason? The reason is that London is the market city of the world, the center of the world's exchanges. Goods go from there in every direction. Consequently its people have debtors in every direction. And because it is easier, cheaper and safer, those debtors would rather pay their debts with drafts than with gold. For similar reasons a check or draft upon the center of exchanges in any territory is more acceptable than one upon a place in the same territory from which goods go only in some directions but not in all. Such drafts will as a rule command a premium, which is more or less according to the expense of shipping currency and insuring its delivery. It is true enough to be sure, that debts for goods are owed by the center of exchanges no less than to it. But mark you, Doctor; drafts upon centers find debtors to the centers everywhere, and may there-

fore be used to pay obligations not only at the centers upon which they are drawn, but anywhere else in the territory; whereas drafts upon minor points are not likely to find debtors elsewhere, and consequently cannot be as conveniently used for payments elsewhere.

Of course bills of exchange have a market among the bankers in all cities. It is part of the banker's business, you remember to utilize these orders upon bookkeepers in his function of common bookkeeper. When there is a balance owing by London to New York, New York bankers can to the extent of that balance draw upon London without shipping gold. This tends to make a surplus of drafts in New York upon London, and therefore to place such drafts at a discount. Law of supply and demand, you see; our index finger law, don't you remember? If goods are not imported from London or elsewhere so as to affect that balance, London must ship gold to settle the debt; and as this involves expense and risk without profit, drafts upon London will rule in New York at a point as much below par approximately as this cost would be, and drafts upon New York in London at about as much above par. When the balance is the other way, the rate for drafts is reversed.

Inasmuch, then, as an excess of exports would seem to give us the right to draw, and so make drafts upon London cheap, excessive exports are spoken of as a "favorable balance of trade"—favorable, that is, to buyers of drafts. And this patter slides smoothly off the tongue of campaign orators, who ignorantly make it mean that a continuous balance of exports is a continuously favorable balance of trade. As if a continuous export balance wouldn't mean a draining of the country of goods, and not a creation of a right to draw at all. For a right to draw means, when exercised,



that commodities will be imported to offset the exports.

Did you never consider, Doctor, that there is something very significant in the fact that although we have had a heavy export balance all these years—something like 6,000 millions, I think it has run up to—yet New York drafts upon London are almost continuously dear? Why, if we had a right to draw against that huge export balance—that “favorable balance” as some of our deluded friends used to call it,—yes, and you among them,—drafts upon London wouldn’t be dear. They would be so plentiful that they would be a drug in the market.

How do I explain it? Well, it is partly explained by the fact that our export balance includes gifts by foreigners to friends at home, travelers’ expenses abroad, freights earned by foreign ships, interest on debts public and private created long ago, dividends, and rentals for American land owned by foreigners; and partly by erroneous valuations, as when our manufacturers ship goods at the price they charge us and settle with the foreigner at a heavy discount.

The mechanism of social service, business as we call it, is little understood, simple as it is, outside of business circles. Even there its principles are little considered with reference to their social service relations. But you see, don’t you, Doctor? that the whole matter will sum up in the simple statement that in the last analysis, legitimate business is barter in the social service market. It results in normal circumstances, in the distribution of social service fairly between the people who serve, and leaves those who do not serve to be cared for fraternally if they are unfortunate, and to suffer the natural penalty if they are unsocial. It is a practical expression of the Pauline law, that “he who will not work neither shall he eat.” If it does

not come out in this way, if many who will not and do not work nevertheless live upon the fat of the land, while armies of those who will work and do work faithfully and serviceably, are continually in want, this is because the mechanism is out of order. I want to talk with you a little about that when we meet again. For neither you nor I, Doctor, can escape responsibility for any serious derangement of the mechanism of social service.