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SENSES OF "CAPITAL."

IN a former article[1] I have endeavoured to show that the incessant attempts to distinguish between capital and "other wealth," are, in reality, half-conscious efforts to distinguish between a "stock" of wealth and a "flow" of wealth, and that the definition of capital sought for is to be found, not in any classification of wealth whatever, but in the two-fold relation of wealth to *time*. Capital is a quantity of wealth existing at an *instant* of time, and is antithetical to a quantity of wealth acquired, produced, transferred, imported, or otherwise changed from one category to another during a *period* of time. A full view of capital would be afforded by an instantaneous photograph of wealth. This would reveal much that has often been called "income," goods of rapid consumption. It would disclose, not the annual procession of such goods, but the members of that procession that had not yet passed off the stage of existence, however swiftly they might be moving across it. It would show train-loads of meat, eggs and milk in transit, cargoes of fish, spices and sugar, as well as the contents of private pantries, ice-chests and wine-cellars. Even the supplies on the table of a man bolting his dinner would find a place in our flashlight picture. So also the clothes in one's wardrobe or on one's back, the tobacco in a smoker's pouch or pipe, the oil in the can or lamp, are capital.

This view simplifies the conception of capital, and rids it at once of most of its difficulties and ambiguities. We are no longer called upon to mark off sharp distinctions between goods which are "productive" and "unproductive," "intermediate" and "enjoyable," "durable" and "perishable," for "supporting labourers" and for "unproductive consumption," nor are we constrained to enter into sophistical disputes as to whether the

[1] *What is Capital?* (ECONOMIC JOURNAL, December, 1896, pp. 509–534). Certain additions which reached the printers after the proof was paged, crowded out the closing paragraphs. In these I had stated that several economists (besides Mr. Cannan, with whom the idea was original) have already adopted the proposed conception of capital. Among them is Professor Hadley (see his *Economics*, New York, 1896, pp. 5, 273), who had independently applied the distinction between a "stock" and a "flow" to problems other than capital and interest.

distinction between capital and "other wealth" lies in the "nature of the goods" or in the "intention in the mind of the capitalist," or whether rented dwellings may be capital to society as well as to the owner, or whether land and natural agents can be separated from their improvements.

But there remain confusions and disagreements of a different order. They relate not to the "extent" of capital but to its "content," not to whether this or that concrete object is capital, but whether capital is concrete at all. When business men speak of the "capital stock" of a company, they refer to a sum abstracted from any specific machinery and ships, or coal and iron. Professor J. B. Clark proposes to give a meaning to capital which shall make it a fund of value and not a collection of objects. Professor Böhm-Bawerk, on the other hand, has no sympathy with such attempts to "disembody" capital. A fund of value cannot "grind corn, or spin yarn, or plough up land, or carry a load."[1] Is there then no common ground between the "concrete capital" of economic science and the "abstract capital" of a business concern?

The instinctive answer to such a question is, that abstract capital "represents" concrete goods, that "capital stock" is a liability item and is balanced on the asset side by the entry of actual land and buildings, tools and utensils. This brings us to observe another difficulty, viz., that, alongside of these material objects the assets often contain such items as bills of exchange, promissory notes, stocks and bonds. Are we to include a bundle of securities in our "stock of wealth" or capital? Or, if we reject Mr. MacLeod's dictum that "credit is capital," can we consistently call the owner of railway bonds or consols a capitalist? To gain clear ideas on such questions, we must note the double distinction which they involve. We must separate wealth from property, and quantities from values, obtaining the following cross division:

Quantities of wealth,	Quantities of property.
Value of wealth,	Value of property.

The conceptions of "stock" and "flow" apply to each of these four items, thus yielding in all eight sorts of magnitudes. The bushels of wheat in a granary are a stock of wealth; the bushels imported into England during a year are a flow of wealth; the value of the stock-in-trade of a merchant is a stock of wealth-value; the merchant's annual sales are a flow of wealth-value; the supply of tickets in the possession of a traveller is a stock of

[1] *Positive Theory of Capital*, English translation, London, 1891, p. 58.

property, the number annually used is a flow of property; the deposits in the Bank of England at a particular date are a stock of property-value; a day's bank clearings through the Clearing House are a flow of property-value. The four sorts of stock are four distinct *senses* (not classes) of the term capital. They may be distinguished as wealth-capital, wealth-capital-value, property-capital and property-capital-value. Very roughly speaking the first is the capital of the ordinary economists, the second is that of Professor Clark, the third is Mr. MacLeod's, and the fourth is the capital of the business man.

The relations which exist between these four senses of capital will depend largely on the definitions which are given to wealth and property. Without pretending to construct definitions satisfactory to all parties, I shall try to point out that definitions are possible which will bind the four senses of capital into a very simple and intimate union, and at the same time correspond closely with both popular and scientific usage.

If by wealth we mean useful appropriated material objects,[1] and by property we mean rights of ownership in wealth, it is evident that wealth and property become correlative terms. But before elaborating this correlation it may be worth while to note the scope of the foregoing definitions. Taken literally, the formula for wealth includes man himself. Man is "material" as truly as a horse or an ox. He is "appropriated" whether the owner be another person, as in the case of slavery, or himself as in the case of freedom. He is also "useful" to his owner. There is, of course, abundant precedent for thus including man as wealth. I need only mention the names of Davenant, Petty, Canard, Say, McCulloch, Roscher, Wittstein, Walras, Engel, Weiss, Dargun, Ofner, Nicholson and Pareto.

If, however, it be desired to exclude man (when free) from wealth, it is only necessary to insert "external" as a fourth modifier in the foregoing definition of wealth. This procedure brings us closer to ordinary usage, but is not free from difficulties. It compels us to say that the self-purchase or emancipation of a slave is not a transfer of wealth, that the object parted with by the master is wealth, but that the object acquired by the slave is not wealth, though the two objects are identical. It also makes it impossible to classify cases intermediate between slavery and freedom, such as serfdom, where the ownership of the individual is divided between himself and his lord. But it is quite unnecessary

[1] *Cf.* Cannan, *Elementary Political Economy;* J. B. Clark, *Philosophy of Wealth; Nouveau Dictionnaire d'Économie Politique*, s.v. "Richesse."

to insist either that man is or is not wealth. Those who take the latter view may readily accept what follows after replacing "wealth" by "wealth and man."[1]

Property has been described as rights of ownership "in" wealth, by which is meant rights to services of wealth. Wealth is said to render a service when it is the means of bringing about the occurrence of desirable "events,"[2] or of preventing the occurrence of undesirable events. It may be said to render a disservice when it occasions undesirable or prevents desirable events. A horse renders a service when it draws a load. It renders a disservice when it eats up oats. Of course the utility of the services must preponderate over the disutility of the disservices, in order that an article may be wealth. Services are therefore inseparable from wealth. They are implied in the first of the three attributes of wealth, utility. An article is useful only as it is expected to render services.[3] "We value and desire goods only on account of the material services that we expect from them. The services, as it were, form the economical substance. The goods themselves form only the bodily shell."[4] To use Rae's term, an article of wealth is merely an "instrument" for obtaining desirable events. A house is simply an instrument for providing future shelter. An orange tree is simply an instrument for obtaining future oranges.

[1] Nor do we need to delay over a contrary objection, viz., that the adopted definition of wealth is too narrow, failing as it does to provide for so-called "immaterial" wealth. Most of such "wealth" turns out, on examination, to be mere *attributes* of material wealth. The "properties and powers of nature," the fertility of the soil, &c., are qualities of land, and no more to be counted as additional wealth than the elasticity of rubber or the sharpness of scythes is to be counted as wealth additional to rubber and scythes. So also skill and knowledge, honesty and courage, dexterity and good health are qualities of man. Not even the general attribute utility can be called wealth. If "wealth consists of utilities," as is sometimes carelessly stated, especially by German writers, then the law of diminishing utility, that equal increments of wealth bring diminishing increments of utility, is a contradiction of terms. Whatever "immaterial wealth" remains, after striking out attributes of material wealth, comes under the head of services of, or rights in, material wealth, and is provided for later on in the text.

[2] John Rae, *New Principles of Political Economy*, Boston, 1834, p. 92. The writers who have shown the keenest appreciation of the nature and importance of services as an economic concept appear to be Rae, Walras, Böhm-Bawerk, Cannan, and Pareto. Rae's long-neglected masterpiece has recently been revived by Mr. C. W. Mixter in the January number of the *Quarterly Journal of Economics*.

[3] But utility must not, for this reason, be confused with services. Where the services of an article of wealth are homogeneous they may be measured by the number or quantity of "desirable events" occurring, the number of strokes of a printing press, the amount of spinning or weaving, of ploughing or reaping (*cf.* Cannan, *Elementary Political Economy*, London, 1888, p. 50).

[4] Böhm-Bawerk, *Capital and Interest*, English translation, London, 1890, pp. 226-7.

We are apt to forget these elementary principles when the services of an article of wealth are not marked off and owned by separate persons. Owning a chair is not consciously identified with owning its future services in supporting the human frame. Attention is fixed on the chair, not its services. But where ownership is divided, attention is often fixed on the services and not the physical shell which enables us to obtain these services. We are then inclined to make an untenable distinction, viewing for instance the ownership of specified services, such as the use of rooms at an hotel next week, as an ownership of something in the future, and the ownership of a private house as the ownership of something in the present, whereas both are equally present and equally future—present rights to future services. The totality of the rights to services of an article of wealth are said to constitute the total ownership of that article. If one man owns the right to fish and hunt on a given piece of land, and another owns the right to mine under its surface, and a third owns a ten years' lease of the right of farming and such other services of the land as he may wish or be able to obtain without conflicting with the former specified rights, while a fourth owns the succession to such services after ten years are up, the four persons are said together to own that piece of land completely. This does not, of course, necessitate that they utilise all possible services which the land might be made to render, nor that the services which it renders under joint ownership are the same as those which it would render under single ownership.

Transverse to the distinction between wealth and property is that between quantities and values. These two words are the familiar headings of the two columns in import and export statistics. "Quantities" are the primary magnitudes. "Values" are derived from them by means of a price factor. If we multiply the number of bushels of wheat by the price per bushel, in terms, say of yards of cloth, we obtain the cloth-value of wheat. The wealth, wheat, is measured in bushels; its value is measured in yards. To double the quantity of wheat will not double its value, and if it did, there still remains a fundamental difference of *dimension* [1] between the two magnitudes.

[1] If w be wheat measured in bushels and c be cloth in yards, the cloth price of wheat, p, is of dimension cw^{-1} and the cloth value of a certain amount of wheat is of dimension wp, that is wcw^{-1} or c. Here price and value also appear as of different dimensions (cw^{-1} and c respectively). The value of wheat is not its price, but its price multiplied by its quantity. This is, I believe, the distinction between price and value as used in business, and there seems to be no good reason for departing from it. The same distinction might profitably be applied to marginal utility and

Given the requisite price ratios, we can always express the value of a complex of heterogeneous wealth in yards of cloth or ounces of gold. But the results are not quantities of wealth. These are obtained only by measuring each kind of wealth in its appropriate unit. The aggregate of wealth is therefore not a sum but an *inventory*. Simple addition may be applied to the value of wealth, if expressed in a common denominator, but not to wealth itself. A "sum of wealth" is meaningless. We cannot jumble together tons of coal, sacks of salt, bottles of wine, and express the result by a single figure.

In precisely the same way quantities of property and value of property are to be distinguished. Property rights are as heterogeneous as articles of wealth and as incapable of being added into a single sum. Rights of the same kind may be added together as where we count a number of shares in the same company or a number of tickets to the same performance, or a number of bonds of the same description. But before we can apply addition to unlike property we must multiply by the proper price factors.

Having effected the separation between wealth and property and between quantities and values we have reached a standpoint from which the relations between the four senses of capital may be surveyed. It follows from the definitions and principles already stated that wealth-capital and property-capital are co-extensive.[1]

Wealth, being "appropriated," implies property, and property, being "rights in wealth," implies wealth. To each article of wealth corresponds a bundle of property rights, viz., all rights to services of that wealth, and to each property right corresponds concrete wealth, viz., the wealth to whose services the property right is a title. But, while these principles follow from the definitions adopted, it may of course be claimed that these definitions are inadequate to interpret actual conditions. Such a question can only be settled by recourse to facts.

The cases where doubt or difficulty enter, turn out to be cases

"subjective value"; the latter is the former multiplied by the quantity of commodity considered. The marginal utility of wheat being $\frac{du}{dw}$, the subjective value would be $w\frac{du}{dw}$. The dimensions of the two magnitudes are: of marginal utility, uw^{-1}; of subjective value, wuw^{-1} or u. In this connection I may correct a misprint in the December article. On page 515, line 17, "ct" should be ct^{-1}.

[1] MacLeod (*Dictionary*, articles "Capital," "Credit") makes property more comprehensive than material wealth, while Hadley (*Economics*, p. 7) makes "private property" less comprehensive than "public wealth." But the former confessedly adds negative quantities as if they were positive, and the latter draws no distinct line between wealth and welfare.

of divided ownership. Where ownership is not divided the correlation of wealth and property is so evident as to lead in the popular mind to a complete identification of the two. We do not ordinarily distinguish between a loaf of bread (wealth) and the right to eat it (property). We frequently call a man's house his property, though strictly we know, as Mr. MacLeod says, that "property is not a thing but a right." With divided ownership, however, the matter is not so obvious, and it is the obscurity enveloping such cases which has engendered most of the misunderstandings and disagreements among economists. This principle of divided ownership forms the most striking feature in the economic history of the last century. Firms and partnerships supplanted individual ownership, and have in turn been supplanted by corporations and trusts. These are the legal forms under which the ownership of huge aggregates of wealth is parcelled out in small fractions. The economist who would see the economic world as it is must make a place in his system for stocks, bonds, mortgages, mechanics' liens, entails, and countless rights "carved out" of property.

It cannot be said that economists as a rule have given much attention to this matter. Wagner and other German writers have treated parts of the subject from the "historical" point of view, and all economists are forced to give it a passing glance in connection with banking. But, so far as I know, no attempt to lay down general principles has been made. The nearest approach seems to be in Mr. MacLeod's writings, but, by calling credit "independent wealth," this talented author let go at the outset the distinction between wealth and property. It is of course clear that when two brothers own a farm their rights are no more "independent wealth" than when one of the brothers owns it alone. In either case we have wealth on one side and the ownership of that wealth, or property, on the other. If one of the brothers mortgages his interest, and this mortgage be sold or re-divided, such shuffling about or splitting up of the "estate" cannot cause any of the rights to fly off at a tangent and become detached or "independent" wealth. It will not help them to do so by recording the part-rights on printed forms, as in the case of railway shares. It is natural, however, that when such paper changes hands in Lombard Street and neither buyer nor seller has ever seen the locomotives, rails and buildings, of which he is or was part owner, they should often fail to associate the railway (wealth) with the shares (property).

Divisibility of ownership applies to man as well as to external wealth. With the extinction of slavery a man cannot sell himself completely, but he may sell rights in himself, that is, rights to his services. Those who own such claims on him hold a right of ownership in him in the same sense that a tenant or mortgagee owns a claim in a piece of land. The part ownership is usually insignificant, but not always. An apprenticeship or a long labour contract is to "human wealth" what a long lease is to land. If the term of apprenticeship or of contracted labour be extended sufficiently and be paid for in advance, we reach a condition of virtual slavery, just as a 999 years' lease paid for in advance is virtual ownership of land. So also a penniless man deeply in debt is "practically owned by his creditor." He may even be forced to "work out" his debt under the creditor's direction. But if the debtor has other assets than his own person, the creditor's property is quite as much in the man's goods as in his person. Strictly speaking, it is a right in both, just as a share in a railway is a right in more than one article—roadbed, stations, rolling stock, &c. The growing tendency is to limit the extent of a creditor's claim on the debtor's person. The abolition of imprisonment for debt, the writ of *habeas corpus*, and bankruptcy laws are designed to prevent undue encroachment of the rights of one man over another. The same tendency is illustrated in the extension of the principle of limited liability. In a primitive community debts are personal affairs; in the modern business world they are almost impersonal. The mortgagee, if indeed he thinks beyond the paper document which he holds in his safe, regards the title as a "mortgage upon land" rather than on a person. Properly it is both. We can reduce the personal element to a minimum, but we cannot make it zero. A mortgage on land will not draw an income automatically from land. The mortgagor must intervene, sell his crops, and turn over the stipulated sum. These are personal services to which the mortgagee has a right.

Claims on a person or a joint claim on him and his external property are called his liabilities. The person's property, including that on which claims are outstanding, is called his assets. What is a liability to him is therefore an asset to the claimant. The latter being called positive and the former negative, the two items cancel when the aggregate property of the two persons is considered. An inventory of the property of society or of the world after such cancellation gives the ownership of the world's wealth-capital or stock of useful appropriated material objects. This will be true whether or not corporations, firms, partnerships, governments and other "legal persons" are taken into account. In the inventory of such fictitious persons, the assets and liabilities are necessarily equal (for the "corporation" is just as truly in debt to its stockholders as to its bondholders). A corporation is simply a dummy set up to hold wealth owned in fractions, a sort of clearing house for the entry of debits and credits of real persons. It is, however, convenient to consider legal persons [1] as well as individuals. We begin by entering in our inventory the assets of a railway company, (rights to) engines and buildings, roadbed and bridges, furnishings and fuel. To dispose of the liabilities, instead of cancelling them against the assets already entered, we regard each item as cancelled by the same item in the assets of the creditors.[2] Thus if the company's books show a liability to John Smith of ten shares of stock, the books of John Smith will show these same shares as assets. The two items destroy each other when we combine the accounts of the company and John Smith. Dropping, in this way, all items in the liabilities of the company by pairing each with its corresponding asset in private accounts, we find left in our inventory the wealth held by the corporations and whatever property John Smith and the other creditors of the company own, exclusive of their rights in the railway. If this outside property consist solely of undivided rights in wealth, such as unencumbered houses, lands, furniture, our inventory is already found to contain nothing but a stock of useful material

[1] Where property is held jointly, but the joint holders are not legally incorporated, as in the case of voluntary associations, and the informal joint ownership of a family, we may, in order to carry out the method in the text, make the fiction of a legal person. Farmers who have clubbed together to buy a reaper may be considered as forming a virtual corporation with unwritten stock.

[2] This method saves the trouble of making up the whole estate or property in an article by collecting the scattered rights in it. Another method would be to cancel a person's liabilities against his own assets instead of against the assets of his creditors. In this method "legal persons" drop out entirely, as their assets and liabilities cancel each other. The wealth held by the corporation is reached by putting together all the individual rights in it. For debts between individuals we may take, as an example, a farm mortgage held by a merchant. The mortgage is a liability to the farmer, and cancels a part of the farm property in his assets. The net rights of the farmer combined with the rights of the merchant make up the complete estate. Here the mortage enters twice as an asset—viz. to the farmer and the merchant, and once as a liability—viz. to the farmer. If a banker has a lien on the mortgage, this lien enters three times as an asset and twice as a liability. Being included in the mortgage, it enters every time the mortgage enters, that is twice as asset and once as a liability; and besides this, it is a liability to the merchant and an asset to the banker. Here the farmer owns his farm less the mortgage encumbrance. This residuum is owned by the merchant less the lien encumbrance, and the latter is the property of the banker. The three together constitute the ownership of the farm. In general a right enters once more as asset than as liability.

possessions. But if John Smith owns rights in another company, the screen of property which covers wealth cannot be completely rolled aside until we include the accounts of the new company and its creditors. Or again, if our original railway company itself has among its assets part rights instead of wealth, for instance a lease of another road, we must enlarge our circle to include the accounts of this other road. We then cancel the lease as asset and liability between the companies. In this way all debts and encumbrances, shares and fractional claims in wealth ultimately disappear from view and leave disentangled and in clear relief the world's stock of physical wealth.

Tracing in the same way the value of property rights instead of the property rights themselves, we find the total value of the world's property to be simply the total value of the world's wealth. If we adopt the method of cancellation explained in the preceding note, that is, subtract the value of each man's liabilities from that of his assets, we have what is known as his capital value. This represents his fractional share in the total stock of wealth. All these relations hold true whether or not the valuations employed are correct ones. We are therefore quite independent of theories or methods of valuing wealth at times other than the moments of actual exchange or in cases where only part rights are ever sold, and we need not enter into the controversies over methods of valuing public parks or the "human capital"[1] of a country.

The foregoing results flow from the definitions of wealth and property with which we started. The fact that these results coincide perfectly with the ideas embodied in the "capital account" of actual business bookkeeping is offered as evidence that the definitions chosen are able to do the work required of them. It may seem, however, that some cases are too refractory to be brought under our system. As types of such apparent exceptions may be especially named, (1) paper money and bank credit in general, (2) the "good will" of a business, the "custom" of a tradesman, and the "practice" of a physician, (3) patents and copyright. These are all regarded as property but are they so recognised under the definition? Are they rights in concrete wealth?

According to Mr. MacLeod:—

[1] Nicholson (*The Living Capital of the United Kingdom*, ECONOMIC JOURNAL, Vol. I. pp. 95–107) estimates the "human capital" as about five times the "dead capital."

"When I deposit my furniture, etc., in a warehouse, and receive a ticket, or warrant, to certify my right to it, . . . the property in the goods still remains in me, and the ticket and the goods are ONE property; . . . But if I deposit my money in a bank and receive an instrument of credit, entitling me to demand an equal sum back at will, . . . the instrument of credit and the money are totally separated, and form TWO properties. There is a new right created."[1]

The fact which Mr. MacLeod has here in view is that the banker does not retain the money as would a safe deposit company, but invests it freely. The "deposits" much exceed the actual cash in bank. But they are claims, not simply on that cash, but on the general assets of the bank. To take a case intermediate between a bank and safe deposit company, the owners of wheat often deposit it in elevators and accept warehouse receipts entitling them, not to the identical wheat deposited, but to an equal quantity. The depositors own the wheat jointly, but no one owns a specific portion of it. The principle would not be altered if the contents of the elevator were wheat and rye, the depositors of which may receive back either at an agreed ratio; nor would it matter if the ratio were variable with the market, and the depositor of wheat could require that his share be paid in wheat even if the elevator company had to exchange some of its rye for wheat. In this case the company would require capital of its own (wheat and rye) in order to insure solvency. Substitute gold for wheat, and property in general for rye, and we have a bank. The depositors, instead of accepting any miscellaneous item out of the bank's assets, which they could exchange for gold, can require the bank to do this work for them. A "deposit" is simply a property right in the bank's assets, plus a right to the banker's services in so managing those assets as to be able to pay gold on demand.

Bank notes are to be treated in precisely the same way. Fiduciary money is not, therefore, an addition to the capital of a country. It is an asset to the holder and increases his capital-value, but it is an equal liability to the issuer. It economises and utilises wealth, but it is not wealth.[2] Irredeemable paper money has sometimes been described as a forced loan or a species of taxation. It is usually issued by a needy government for war

[1] *Dictionary of Political Economy*, p. 351. The doctrine enunciated seems the more remarkable, as many passages in support of it assert in substance that property is *not* independent of material wealth, *e.g.* p. 345 on land, and pp. 353, 355 on credit, where property is treated as rights in land and persons. For an excellent refutation of Mr. MacLeod's theories, see Knies, *Der Credit*, Erste Hälfte, Berlin, 1876.

[2] *Cf.* Roscher (*Political Economy*, 13th edition, § xc.), who, however, in the first four editions enunciated a somewhat different doctrine.

supplies, and is in the nature of a requisition on the community to furnish goods, services, or quittance of debt. Anybody is liable to be forced to accept it, and, we may say, cash it in some one of these ways: It is a cheque rather than a note, an order to pay rather than a promise to pay. It is an asset of the holder and a liability of the government or of the general community which the government represents.

"Goodwill" is often pictured as a kind of ethereal essence attached to or hovering over a "business." A little reflection will show, however, that it is simply a collection of promises or quasi-promises. We have seen that a promissory note is a claim on wealth—a man's own person or his external wealth, or both. It is still a claim on wealth, though a more precarious one, if the promise is not written but verbal; and again if it is not verbal but tacit. In many countries a man who gets into a cab or sits down to dine in a restaurant, makes a tacit promise to pay a "fee" at the end of the drive or dinner. When a "newspaper business" is sold there are many subscriptions which have not been collected. The buyer receives the right to these dues, which are actual promissory notes. But besides these explicit promises the subscribers have tacitly agreed to renew their subscriptions next year and thereafter as long as they live, or remain in the locality, or are satisfied with the paper. These quasi-promises of the subscribers are their "goodwill" toward the paper, and may be sold as a precarious but no less real right.

Patents, copyrights, and other government monopolies are closely similar. An author writes and prints a book with the guarantee that others will refrain for a given period of time from copying it. To thus refrain is to render the author (or his assignees) a service. The author, being entitled to these services of forbearance, owns a part right in the persons who thus forbear. The case is quite parallel to that, which has been known to occur, of a manufacturer who is under contract not to run his factory. When, for certain supposed benefits, a community surrenders its freedom to copy a book, those who feel the restraint are publishers. We see this clearly when we consider what goes on where copyright is absent, as it is between nations. If the publishers of the *Encyclopædia Britannica* held the written promises of American publishing houses not to pirate their work, we should find no difficulty in perceiving that the English publishers owned a claim on the American publishers strictly similar to a promissory note. Legal copyright conveys just such a claim but through the agency of government.

It may seem to some persons that, even if in every case actually occurring property is associated with wealth, yet this association is an accidental one, that property is in essence not a right to things, but a right to actions—a license or permission to *do* something. But this view reduces us to the one adopted. It must be evident that to act in this physical world is necessarily to make use of physical objects—persons or things. The right even to walk across a piece of land is a right to use that land. Moreover, the physical objects used must always be wealth, for the right to use useless or unappropriated articles is not called property.

We need delay over but one other apparent objection. In tracing the correspondence between property-capital and wealth-capital, promises, mortgages, &c., have been treated as *present* rights in *present* wealth. But a promise of wealth to-morrow is not the ownership of that wealth to-day. May it not be possible, —is it not in fact common—to own titles to more wheat than is yet in existence? Are we, therefore, not forced to admit, with Mr. MacLeod, that credit, reaching out into the future, lays claims to more wealth than the present existing stock? The puzzle is easily solved. We have already seen that the title to present wealth is identical with the title to its future services. It is equally clear that a title to future wealth implies a claim on present wealth by the services of which the future wealth is to be acquired. To own next year's fruit is to own a right in present fruit trees. To own next year's wheat is to have a claim on the present farm, farmer and farm implements. To own a chair or table yet unmade is to own a claim on (the assets of) the carpenter. No future commodities can be owned in the present except as claims on the existing requisites of their production. We cannot own next year's goods suspended in mid-air as it were. We can own them only through some existing source, land, persons, or other capital.

There is nothing in this which conflicts with ordinary usage. Railway stocks or bonds, though held exclusively for the sake of future returns, are always looked upon as present property in the present railway. When one person owns a lease of land and another owns the reversionary title, the latter, rather than the former, is called "the" owner, though the benefits accruing from this title are the more future of the two.

With these explanations, and such as the reader will readily supply for himself, the foregoing statement of the relations between the several senses of capital may serve to harmonise several ideas in economic science usually supposed to be at variance. It may also serve to bridge over the wide chasm separating the capital of economic science from the capital of the business world. One may usually search in vain through chapters on "capital" for any reference to "assets," "capital stock," or "the capital account." It would lead beyond the subject of the present article to discuss systematically the various applications and classifications of each of the four sorts of capital. To indicate, however, what is included under these two heads, an instance of each may be given.

The most important practical application of capital in its fourth sense is to the "capital" of a joint stock company, *i.e.*, the difference in value between its assets and those liabilities due to others than the stock-holders. It is important to distinguish between real and nominal capital. The latter is the "capitalisation." It can be kept equal to the former only by a constant "recapitalisation" and the issue or recall of stock. As such changes are quite impracticable except at long intervals, we are content to find the true capital value by multiplying its nominal amount by its selling price. If the assets are "active" securities whose value is daily registered in the market, they may be frequently revalued, while if they are constantly being sold and the proceeds reinvested, or if profits are turned back into the business, new assets enter. In these ways the assets side of the account is altered, and to make the books balance without recourse to recapitalisation, an item called "surplus" is inserted.

The most natural classification of capital in its first sense is into "human capital," land capital, and what for want of a better name we may call products. This is the classification of Walras [1] and corresponds roughly to the so-called "three requisites of production." Another important classification is into business capital and private or personal capital. The distinction cannot be drawn with perfect precision. In early times it did not exist. Capital consisted of stores of food kept in subterranean caverns.[2] With economic progress, accumulations took on diversified and specialised forms. A difference began to be marked between those portions associated with private and personal use and those portions devoted more especially to exchange. The latter were gradually set off by themselves, first

[1] Except that (as explained in my previous article) he excluded altogether those "products" which are destroyed by a single use.

[2] Cunningham, *Growth of English Industry and Commerce*, Cambridge, 1890, p. 33.

in special rooms and afterward in special buildings, until at length we reach the modern shop and factory so totally separated in position, contents, and uses from the private dwelling.

Such and other distinctions of classification, whether well-marked or not, are of undoubted importance in descriptive economics. It seems certain, however, that the *conception* of capital useful in economic analysis is not to be sought in that direction. To fully justify this opinion, it will be necessary to show how the alternative conception aids in constructing a "positive theory of capital." This must be postponed to another occasion. I will here only observe that classification has never been an efficient instrument of scientific analysis. It comes forward in what Bacon called systems or pseudo-sciences. Physical science among the Greeks was classificatory; modern physics is analytic. The former was barren, the latter is progressive. Analysis was not aided by classifying the world into light and heavy objects; it required instead the conceptions of density and weight. "Natural history" gained little from drawing the distinction between plants and animals. It began to be a science when Darwin introduced the abstract ideas of variation, heredity and selection. In economic science itself the greatest progress has been made in those departments where analytic distinctions have been put uppermost and the least where classificatory distinctions have been depended on. The conception of marginal utility has borne rich fruit. The distinctions between productive and unproductive labour and between "capital and other wealth" have borne little or none.

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