

## CHAPTER II.

## MATERIAL COMMODITIES.

VALUABLES fall naturally and exactly into three classes, Commodities, Services, and Credits. The reasons are obvious at first glance, why articles falling in the first class occupied the thoughts and the efforts of men almost exclusively for the first thousand years of recorded history. Commodities appealed to the senses of men: they are visible, tangible, weighable. Some form of personal slavery existed everywhere, and largely withdrew attention from personal services bought and sold; and there was not apparently sufficient personal confidence between man and man in the earlier ages to allow much development of credits, whose ground is personal trust and whose sphere is future time. Commodities, on the other hand, fitted by the efforts of some men to satisfy the immediate wants of other men, all ready for delivery, to be exchanged against other commodities similarly fitted and at hand, took the field apparently in the earliest ages of recorded Time, gradually became very large in volume, opened new routes of travel and transportation, and served to connect in a rough and ready way neighboring tribes and even neighboring nations.

*Commodities are the class of Valuables comprising material things, organic and inorganic, fitted by human efforts to satisfy human desires.* Cattle were probably among the first things to become valuable, that is, salable; and it is

certain, that they became very early in many quarters of the world a sort of Money or standard of comparison among other things exchangeable, and indeed they continue to be such in some quarters to this day. Near the middle of the sixth book of the Iliad occur these lines:—

“Then did the son of Saturn take away  
The judging mind of Glaucus, when he gave  
His arms of gold away for arms of brass  
Worn by Tydides Diomed, — *the worth*  
*Of fivescore oxen for the worth of nine.*”

Gold and silver also became valuable in the ordinary way in very early times, and later became Money or a medium in exchanging other things; and much later other metals came into use as commodities and then too as money; for the Latin word for money, *pecunia*, derived from *pecus*, cattle, seems to imply some original equivalence in value between the bronze stamped with the image of cattle and the cattle themselves. Parcels of land subdued and improved by human hands were probably bought and sold in some portions of the world as early as anything was, — at any rate very early. Land-parcels are a commodity under the definition. Another passage from Homer, towards the end of the seventh book of the Iliad, displays some of the commodities in common use during the heroic age in Greece:—

“But the long-haired Greeks  
Bought for themselves their wines; some gave their brass,  
And others shining steel; some bought with hides,  
And some with steers, and some with slaves, and thus  
Prepared an ample banquet.”

The earliest detailed record of a commercial transaction in commodities, is the purchase by Abraham of the field and cave in Hebron, more than 2000 years before Christ. It is narrated at length in Genesis xxiii. Long before



this purchase, however, it is said of Abraham that he "went up out of Egypt very rich in cattle, in silver, and in gold." This formal sale to him in Hebron of the field and cave of Machpelah is in all its parts instructive to us, and full of signs of the drift of those times. It was "*in the audience of the sons of Heth, before all that went in at the gate of his city, that the field and the cave were made sure unto him for a possession. And Abraham weighed unto Ephron the silver which he had named in the audience of the sons of Heth, four hundred shekels of silver, current money with the merchant.*" In the lack of written and recorded deeds to land-parcels, as we have them now, the sale of them was "*made sure*" before the faces of living men, who would tell the truth and pass on the word. The market-place in those days was "*at the gate of the city,*" where the judges also used to hold their courts, the place most frequented of all, and sales were made "*before all that went in*" thither; "*in the audience of the sons of Heth*" was the silver weighed out, and the field made sure in exchange. Then there were "merchants" as a class; silver passed by weight rather than by tale, although it had already passed beyond a mere commodity and had become money, "*current money with the merchant*"; and even at this day the Bank of England takes in and pays out gold and silver by balance rather than by count, though they be in coined money: it is the more accurate method.

The author of the book of Job, believed to be of great antiquity, and certainly true to nature and to fact in its essential parts, knew very well the modes in which the ancient mines were wrought, and the worth of the commodities extracted:—

"Truly there is a vein for silver,  
And a place for gold, which men refine.  
Iron is obtained from earth,

And stone is melted into copper.  
Man putteth an end to darkness;  
He searcheth to the lowest depths  
For the stone of darkness and the shadow of death.  
From the place where they dwell they open a shaft;  
Forgotten by the feet,  
They hang down, they swing away from men.  
The earth, out of which cometh bread,  
Is torn up underneath, as it were by fire.  
Her stones are the place of sapphires,  
And she hath clods of gold for man.  
The path thereto no bird knoweth,  
And the vulture's eye hath not seen it;  
The fierce wild beast hath not trodden it;  
The lion hath not passed over it.  
Man layeth his hand upon the rock;  
He upturneth mountains from their roots;  
He cleaveth out streams in the rocks,  
And his eye seeth every precious thing;  
He bindeth up the streams, that they trickle not,  
And bringeth hidden things to light."

The prophet Ezekiel, who wrote in the sixth century before Christ, incidentally described in his chapter xxvii the commerce in commodities, that then centered in the city of Tyre on the eastern Mediterranean. "*All the ships of the sea with their mariners were in thee to traffic in thy merchandise: many islands were at hand to thee for trade: with silver, iron, tin, and lead, they traded in thy fairs: they brought thee for payment horns of ivory and ebony-wood.*" Among the commodities besides these exchanged in that market, are mentioned by the prophet horses and mules and lambs and rams and goats, wine of Helbon and white wool, fine linen and embroidered work, and riding cloths and mantles of blue and chests of damask and thread, wheat and pastry and sirup and oil and balm, precious spices and cassia and sweet reed, and gold and



carbuncles and corals and rubies. These old Phœnicians of Tyre colonized Carthage, and thus bore a vast trade in commodities to the West, going overland into the heart of Africa for dates and salt and gold-dust and slaves, and by sea through the Pillars of Hercules northward to the British Isles for the sake of the trade in tin.

The amount of transactions in commodities, the first class of Valuables, has been constantly increasing, under natural impulses which we shall have shortly to describe, from the dawn of authentic History down to the present moment; and figures are baffled in expressing to our minds the sum of these transactions even in a single country, still more their aggregate in the commercial world. The foreign trade of every country is almost exclusively in commodities, and is only a small fraction of its domestic trade in the same; and so, when we remember that the foreign trade of the United States, for example, under a commercial system designed and adapted to curtail such trade, amounted in 1889 to about \$1,600,000,000, and the foreign trade by Great Britain the same year to about 4,000,000,000, we gain a glimpse, we touch as it were the hem of the garment, of the gigantic traffic of the world in commodities alone.

*The Production of Commodities is the getting them ready to sell and the selling them.*

1. We must look first at the REQUISITES of such production. They are three, *Natural Agents, Human Efforts, Reserved Capital*. The following lines of Whittier touch incidentally on these three requisites, and may serve us as a general introduction to them:—

“Speed on the ship! — But let her bear  
No merchandise of sin,  
No groaning cargo of despair  
Her roomy hold within.

“No Lethean drug for Eastern lands,  
No poison-draught for ours:  
But honest fruits of toiling hands,  
And Nature’s sun and showers!”

Natural Agents include not only “Nature’s sun and showers,” but also all the forces and fertilities and materials of free Nature, that men may and do avail themselves of in preparing commodities to exchange with the commodities of other men. Of higher rank in Production than these natural agencies are the Efforts of men in molding them so as to answer other men’s Desires, of which efforts the “toiling hands” of the poet are a symbol. They include also the inventive brains and eloquent tongues and the skilful manipulations of every name. The poet’s “ship” is an instance of capital, which is always a result of previous toil reserved to help on some future sales. These three elements, Nature, Labor, Capital, conspire in all production of commodities. Nature comes first with her free forces and materials; and then present toil aided by the results of past toil in the form of capital does all the rest in getting commodities ready to sell and selling them. Let us now note each of these three a little more closely.

(a) Natural Agents. The most important point about these is, that they are the free gifts of God, and continue so throughout the complications and transformations wrought on them and through them by Labor and Capital, until the material commodity of whatever kind is finally sold, and so passes out of the purview of our Science. Many of the gifts of God, like the air we breathe and the light in which we recreate ourselves and the water of refreshment drunk from spring or brook, do not connect themselves in any way with commodities bought and sold, and nobody ever thinks of them as salable at all; but it has seemed and still seems to many, as if the natural fertility in a land-parcel, the



water-fall along the course of river or stream, the timber-growth which the hand of man planted not, the deposit of gold or coal in the bowels of the earth, and other such-like cases in which natural gifts *do* connect themselves with human services and then are sold, lifted the Value of the things sold above the point to which the mere human efforts, whether past or present, would raise it. In point of fact, this seeming is not a reality, as will fully appear in the sequel. God is a Giver, and never a Seller; and he has arranged it so in his great world of gifts, that, however much shrewd men may try to monopolize these gifts and then dole them out to other men for pay, they are always practically thwarted in the attempt. God himself never takes pay for anything, and has never authorized anybody to take pay in his behalf; and when this role of Seller of free gifts, which have cost him nothing and which he has not improved, is taken up by any one, he is shortly crowded off the stage in shame by other actors true to Nature.

This is the place for a grand induction. When we study in detail the free gifts of God to this world and its inhabitants, we find they come and keep coming *in great classes*. This is one of the uniformities of Nature, on whose solid ground men tread and stride in safe inductive reasoning. Can a farmer get pay in the price of his grain for the original fertility of his field, which neither he nor his fathers nor his neighbors have bettered or made more available? Doubtless he would be *glad* to do so, doubtless he *would* do so, were it not for the primary fact, that such fertilities as his are in a *class* of fields, that other men in more or less proximity to him raise grain on other fields, whose original fertility is equal to that in his field; and some of these other men in common competition with the rest as sellers will be willing to part with *their* grain for a price which will be a fair equivalent for the onerous human services rendered

in getting their grain ready to sell and selling it; and the free action of *these* men as sellers will tend to fix a general market-rate for grain then and there, at which rate *all* must sell whether they will or nill; and where now is the effect on price of God's free gift? It is still free.

Here is a fine water-fall on the bounding river, the banks are low at this point, just the place for mill and factory, the weight of God's free water will turn the wheels, a hamlet will grow up around them—perhaps a city,—can the riparian owner charge a fancy price for site of dam and mill? He might under some circumstances; but the same river doubtless, above, below, rolling over similar geological strata, leaps and falls at other points also; there are other owners of mill-privileges within hail; besides, there are other streams and tributaries in the region round about; and water has a knack of dropping to the lower levels. God's gifts are broad in classes; competition naturally has free play; natural agents are an essential factor in commodities; so and more so are human efforts; but Values tend perpetually and powerfully under natural competition between men as sellers to proportion themselves to the onerous human efforts involved, and to eliminate completely from all influence on themselves the broad and bountiful gifts of Providence.

What has been observed to be true in respect to two or three or more of the classes of God's free gifts *to men*, or *in men*, may almost certainly be inferred to be true of all such classes. Therefore, inductively, *such free gifts have no effect on Values to lift them, their influence being eliminated by human competition*. Of course, if there be unique cases of remarkable gifts, falling in no class, subject consequently to no competition, one cannot say confidently that the free element in conjunction with the onerous element may not make the return-service greater than it



would be otherwise. It may, or it may not, make it greater. There is no living principle at work in such cases, that makes it certain, that the return-service will *not* be greater. Still, unique cases, if they exist, are of little or no consequence in Economics. They are most remarkably few, at all events. Where come in the solitary gifts, that may later be connected with Valuables, on the round earth as God fashioned it? Gold, silver, diamonds, copper, coal, tin, amber, spice-shrubs, chinchona-trees, and all such things, have been scattered too widely and liberally for individuals to monopolize them, or even combinations of men unless they be assisted by law. Where even are the unique cases of God-given talent or genius in men themselves, such as may become connected with Valuables of the second class? Daniel Webster had his competitors in the Court-room and in the Senate, Ben Jonson did not let Shakspeare have it all his own way on the stage, and even "Milton's starry splendor" did not make Paradise Lost sell well.

We must just note here in passing the supreme importance in an economical point of view of untrammelled competition in the sale of commodities. It is the divinely-appointed means, and the only possible means, of preventing wide-spread injustice through Monopoly. Nothing else in the world can be made effective to estop men from robbing their fellow-men through exchanges artificially restricted; from charging more in the market for their wares than a just compensation for their own efforts; from enriching themselves by impoverishing their neighbors; from worsening the quality of their wares offered for sale; and from relying upon the artificial restrictions put on their competitors, rather than on their own skill and enterprise and the goodness of their goods, for a market. The Common Law of England holds monopolies to

be illegal, and the reasons given (11 Coke, 84) are, first, because the price of the commodity will be raised; second, because the quality of the commodity will not be so good and merchantable as it was before; and third, because they are apt to throw many working people out of employment. It is nothing less than a crime against Civilization, than a sin against the clear ordinance of God, than an artificial obstruction to individual and national Progress, to put up bars and barriers by law for the purpose of cutting off competition, whether domestic or foreign, either by putting disabilities in the path of any or through monopoly tariff-taxes, in the buying and selling of useful commodities anywhere.

(b) Human Efforts. Every way unlike the free forces and materials of Nature, indispensable as these are in the production of commodities, is the second requisite in such productions, namely, the onerous efforts of men. Persons are very different from things, from powers, from lifeless materials. Persons act from motives only. Minds lie back of bodily exertions, impelling and guiding them. Such efforts as are needful to mold materials into commodities are only put forth in view of, and for the sake of, a remunerative return; and only rational beings, acting under motives whose goal is in the future, capable of foresight and of adapting means to ends, can put forth such efforts. No degree of training can make even the most intelligent animals capable in any degree of that kind of exertion, which we call *Labor*; and there is no improvement whatever in the methods of animals in reaching their instinctive ends, — the beaver builds his dam and the bee gathers and deposits the honey exactly as bees and beavers did ages ago.

In the strictest sense, accordingly, there is no such thing as physical labor, because the mental must coöperate with



the physical even in the lowest forms of human exertion; and in the same sense there can be no such thing as exclusively mental labor, for the bodily powers conspire more or less in the highest intellectual efforts that are ever sold. Nevertheless, both the phrases, physical labor and mental labor, are convenient and not harmful, whenever on the one side the bodily powers seem to be predominant in the effort, and on the other the intellectual.

It is now to be noticed, that all that men can do, when they labor physically, is *to move something*. When a man works with his hands or his feet or his whole body, all that he does or can do, is to begin a series of motions or resistances to motion, for this good reason, human muscles in their very structure are capable only of starting motion and stopping motion. All the marvellous results of physical effort in all the world have flowed from so simple a matter as the contraction and expansion of muscle; and the world of materials is so cunningly constructed, that, when these are moved into right position by human hands, or by some form of capital itself the result of previous human handling, the free powers of Nature do all the rest, and valuable commodities are the good outcome. For one example, when the woodman fells a tree for sale, he brings a series of motions (*labor*) to bear upon the trunk, by means of his sharp axe (*capital*), and then the power of gravitation (*nature*) seizes the tree and brings it crashing to the earth. For a second illustration, wool and cotton have by nature a certain tenacity of fibre, and what is more to the point, a certain *kinkiness* of fibre easily interlinking one with another indefinitely in length; men move these separate fibres in certain relations to each other by an instrument (*capital*) called a spindle, and the result is thread; then other men move these threads into relations with each other by means of an implement (*capital*) called

a shuttle, and the outcome is a web of cloth; lastly, the tailor moves his shears through the cloth, and then his needles, and the issue is a coat, a commodity, the valuable for which all these processes were gone through with, and by the sale of which all the onerous factors therein are compensated.

Now, since human muscles are soon wearied in action, and since motion is the only thing required of men in the production of commodities, they naturally look around for outside help in this matter; and the first help they lighted on for moving things was the domestic animals, the ox and ass and horse, doubtless domesticated in the very beginnings of society; and as these can be used in so many different places, and for such a variety of purposes, and are so cheaply reared, they are exceedingly useful as a motive power, and will probably never be superseded as such. Inanimate auxiliaries in moving things into right position for the production of commodities, such as the water-wheel and wind-mill, were undoubtedly brought into use much later; and much later still, steam and electricity and other more subtle and recondite natural agents. All of these helps, whether animate or inanimate, do but cause simple motions of the same kind as those caused by the human hand. The most ponderous engine merely reduplicates that which the arm of a child is capable of; while in point of delicacy and firmness of touch, perhaps no machinery can subdivide and apply this motion so skilfully as the human fingers can. It is said that some of the lace made wholly by hand is finer and more delicate than any yet woven by machinery, although the introduction of machinery into lace-making has cheapened lace products in general to a small fraction of their former cost.

What we commonly call "*Power*," then, by whatever instrumentality furnished, is simple auxiliary motion, addi-



tional to that of physical human Labor. Commodities are produced in unlimited quantity and variety by such labor, assisted by the free forces of nature applied by means of animals and implements, which are capital. But such labor is irksome as well as wearisome, and is never expended except in view of a reward, which is secured only from the sale of the finished commodity.

(c) Reserved Capital. We must examine the nature of Capital with care, and follow its varied forms without confusion, because it is the only other factor besides labor in the production of commodities, that has to be paid for out of their sale.

Simplest cases are always the best in economical discussions. Let us take for illustration a recently observed case from the gold hills of North Carolina. All the methods are strongly primitive, but all the elements of production are present. A negro woman is the laborer, the bits of gold scattered in the soil are the free gift of nature, a bored log to divert the water from the mountain stream, and a tin pan in which to gather and wash the sand and gravel, are two crude forms of capital; free gravitation also brings the water through the log, and free gravity carries down the particles of gold to the bottom of the washing-pan, and many other agencies of free nature coöperate in this very simple case of production; and besides the log and the pan, there are doubtless some other forms of capital, at least the whittled plug to stop at need the flow of water through the log. The chief factor in these processes of production is still the laborer, the motions of her hands in stirring the sand and picking out the precious bits at the bottom of the pan are the chief motions, the labor is both physical and mental,—no animal could be trained to adopt means to ends like this negro woman.

It is her capital that now engages our attention. *Any Valuable outside of man himself reserved to assist in the production of further valuables is Capital.* The idea of growth and increase inheres in the very word, which is derived from the Latin noun, *caput*, a head, a source, and gives intimation in its etymology of its scientific meaning. The word, *caput*, is often used in classical Latin for a sum of money put out at interest, and its derivative, *capitale*, is also used in the same sense, at least in mediæval Latin; and from this form of the word have come into English not only *Capital*, but also by corruption *Cattle* and *Chattels*. Flocks and herds were at one time the principal riches of our Saxon ancestors, and also the principal means of *increasing* their riches, and in process of time the same root-word came to be spelled differently as applied to animate or inanimate things of value; while the notion implied in the Latin *caput*, and in the English *source*, came along in all three of these words; and hence the careful definition of Capital above given.

It makes no difference whether the colored woman bored her own log by means of an item of capital already existing, namely, an auger, or hired another person to bore it for her, or bought the log already perforated, it is an article of Capital, a valuable kept to increase future valuables; she might doubtless sell it for something to a new-comer wishing to operate other sand in the neighborhood, but she keeps it to help herself gather more gold for ultimate sale, she practises what we call in Economics *abstinence* and must have her reward for this in the form of *profits* from the ultimate sale of her commodity, gold, as well as a reward for her labor in the form of *wages* from the same source. As one person furnishes both the labor and capital in this case, there is no actual division of the gross return into wages and profits, as there always must



be when separate parties furnish the two essential factors, both of which must be remunerated by the sale of the commodity. What is thus true of the log, is equally true of the tin-pan, and even of the plug also, if it be capable of repeated use and cost something of labor and the help of a previous item of capital, namely, the jack-knife. Our negro woman of the South is a small capitalist as well as a rude laborer, and practises *abstinence* as well as puts forth *exertion*, and consequently is entitled to receive *profits* as well as *wages* in the return she gets for her gold-dust when she sells it.

We are now beginning to see what the nature of Capital is, and what the motives are for employing it. In the production of commodities Capital is always something that makes easier to the producers the getting ready to sell and the selling of future commodities. The capital always spares more or less of onerous and irksome human exertion. It always mediates between some free force of Nature and some otherwise more onerous effort of men. The sole motive to employ capital in any one or in all of its multitudinous forms from the simplest to the most complex is to throw off upon the ever-willing shoulders of Nature some part of the irksome effort that would otherwise come to the easily-wearied muscles of men. Nature is "good," to use a commercial term, for all she can be made to carry of men's work, through implements devised and machinery contrived to apply, to commodities in every stage of their transformation and transportation till the last, the ever-present potencies of this physical world. These potencies cost nothing. The implements and machinery cost much in present labor and previously created capital. The ultimate sale of commodities must make return for all the forms of capital employed in their production, in the shape of Profits, the reward of *abstinence*;

and for all the forms of direct labor employed in their production, in the shape of Wages, the reward of personal *effort*.

The beaver gnaws down the tree with his teeth from generation to generation in precisely the same manner; but man is a being more nobly endowed than the beaver, and no sooner had he occasion to fell trees, than something of the nature of an axe suggested itself to his ingenuity. It is true, that his earliest attempts at axe-making were probably of the rudest sort, but just as soon as anything was devised, whether of flint or shell or metal, that rendered easier the felling of a tree, Capital made a beginning along that line of obstacles. Our chief interest in studying the implements of the successive so-called Ages of Stone and Bronze and Iron, is to witness the increasing degrees of ingenuity displayed by those pre-historic men. Among the more gifted races, progress in this direction was perhaps more rapid than we are wont to think it was, since Tubal-Cain, the first artificer of record, is said to have "*hammered all kinds of implements out of copper and iron*" (Gen. iv, 22). Lucretius, writing in the century before the Christian era, put down the following lines in vigorous Latin, as translated by Mason Good:—

"Man's earliest arms were fingers, teeth, and nails,  
And stones, and fragments from the branching woods;  
Then copper next; and last, as later traced,  
The tyrant iron."

We are at no loss, then, to explain the origin of Capital and its motives. Tools are invented and employed for no other reason than this, that, by means of their help, the human efforts are lessened relatively to the given satisfactions. Since it requires tools to make tools, the progress of this branch of capital must have been relatively slow at



first; but, since every advance in mechanical contrivance makes still further advances easier, there is a natural tendency, which facts abundantly exemplify, to a more and more rapid progression in the number and perfection of all implements of production. The same motive that impelled to the first invention, has impelled to the whole series of inventions since, and will constantly impel to further inventions till the end of time. Every step of this progress gives birth to a larger and still larger proportion of satisfactions relatively to efforts; marks an increasing control on the part of man over the powers of Nature; and gives promise for the time to come of greater advantages still in both of these directions. The powers of Nature, such as those which make the grain grow, bring the tree down, turn the water-wheel, impel the locomotive, and send the message round the world, all stand ready to slave in the service of man; but in order to make their aid available for human purposes, there must be a plough, an axe, a wheel, an engine, an electric machine; and it is because capital brings gratuitous natural forces into service, and the more so as capital progresses, that the Value of those commodities produced by the aid of capital tends constantly to decline as compared with those commodities, in the production of which capital conspires less.

It is already plain, that the class, Capital, is a smaller and a peculiar sub-class under the great class, Valuables; nothing can become Capital until it first become a Valuable, and then be *capitalized* by a distinct act or intention on the part of the owner to reserve it in his own hands as an aid in further production, or transfer it to other hands to be so used, he meanwhile receiving profits as the reward of his abstinence; only a *transferable* valuable, accordingly, can become Capital in any case, that is to say, it must be either a Commodity or a Credit, since per-

sonal services, though they may be sold, cannot be put over into the hands of another to be used in production, and therefore cannot become Capital in any case; and the chief peculiarity of this sub-class, Capital, is, unlike the three great classes of Valuables, each of which is utterly distinct from the other two, so that a Commodity can never become a Credit or a personal Service either of the others, that Capital as a class has extremely flexible limits, and consequently certain Commodities and Credits may easily enough be Capital to-day, and fall back to-morrow into their respective classes of mere Valuables and the next day come out from the class Non-Capital into the class Capital again. The same commodities and credits may be capital at one time, and non-capital at another, though they must be valuable all the time, or cease to be commodities and credits. When it is said that a young man's talents and skill are his "capital," the word of course is used in a metaphorical sense, and the meaning is, that skill and talents are *like* capital in some respects. Popular language is not scientific.

Cicero wrote long ago: "Optimum et in privatis familiis et in republica vectigal est parsimonia." *Abstinence is the best means of revenue as well in private families as in the State.* The source of Capital in a distinct act of will saving or sparing from present use (*parsimonia*) a valuable commodity or credit, and the quick nature of Capital as adding to itself (*vectigal*) in profits, are both brought out in this Latin maxim, which is rather an expression of an old and ingrained Roman sentiment than anything original with Cicero. It is the very nature as well as the very name of "Capital" to increase itself by rapid increments. It is as well the Stream as the Source. For example, any sum of money soon doubles itself when put out at compound interest, because the original sum increases day and night



until it be repaid. It is of the essence of every form of Capital to make growth, because its sole purpose as such is to become an aid to future and further production. A trowel in the hands of a mason, which is capital, pays for itself every day he works with it, and perhaps every hour of the day, in the increased production wrought by means of it. The wheel, which free water turns, though a costly implement, repays that cost a hundred fold in the additional bushels of wheat turned into flour through its aid as capital. So of all implements. So of all machinery. So of all means of transportation: ships, canals, railroads.

There was a strange prejudice in ancient and mediæval times against this natural increase of capital out of its own bowels, as it were, owing probably to this dictum of Aristotle: "*For usury is most reasonably detested, as the increase of our fortune arises from the money itself, and not by employing it for the purpose for which it was intended.*" In 1360, a French bishop, Nicole Oresme, repeats the error of Aristotle under the same rhetorical image: "*It is monstrous and contrary to Nature that a barren stock should give birth, that a thing sterile in its whole being should fructify and be multiplied from itself, and such a thing is money.*" Even Shakspeare catches up the old figure: "*Is your gold and silver ewes and rams?*" Shylock answers: "*I cannot tell; I make it breed as fast.*" In the light of the three requisites of Production, in the light of the purpose and wisdom of God in arranging the active forces of this world, the prejudice in question disappears, and intelligence rejoices in the ever-increasing use of Capital as the handmaid of Labor, in the quick and sure reward of him who practises abstinence, in the production of commodities constantly made easier and cheaper in all directions, in a scale of comforts for the masses of men assuredly rising, in a divinely appointed force lifting like Christianity itself upon the otherwise sagging condition of mankind.

Capital assumes but two economical forms, namely, Circulating Capital and Fixed Capital. *Circulating Capital is all those capitalized products, whether commodities or credits, the returns for the sale or use of which are derived at once and once for all.* All circulating capital will be found in one or other of the following sub-forms: (1) raw materials; (2) wages paid out in view of an ultimate profit; (3) completed products on hand for sale; and (4) products bought and held for the sake of resale. The crucial test of circulating capital is the question, Are the returns to be secured by the single use or single transfer of that particular product? Tools, for example, in the hands of him who has manufactured them for sale is circulating capital. *Fixed Capital is all those capitalized products, which are purchased or held with a view of deriving an income from their delayed and repeated use.* All fixed capital will probably be found in one or other of the sub-forms following: (1) tools and machinery in use; (2) buildings used for productive purposes; (3) permanent improvements in land parcels; (4) investments in aid of locomotion and transportation; (5) products rented or retained for that purpose; and (6) the national money considered as a whole.

2. We will next look at the essential CONDITIONS of the production of Commodities. These are also three, as are the Requisites, namely, *Association, Invention, Freedom.* More or less will men make and sell to one another commodities in any state of society, in which there is permitted any considerable degree of association of men with men locally or commercially, in which is encouraged in any way the universal spirit of invention or the desire to get hard things done easier, and in which some degree of liberty of action and security of property and equality of privileges is guaranteed; but it is very plain, that the



production of commodities will increase in all directions and become the greatest in that age and country when and where are allowed the closest ties of human association both in place and in commerce, the freest scope and largest rewards of inventive genius, and the highest possible degree of liberty and security and equality of rights. Let us illustrate from a state of things in the southern half of the United States during the first half of the nineteenth century. For the most part the land owners lived on isolated plantations widely separate from one another, these plantations were cultivated by gangs of slaves, a system that tends to bring all manual labor into contempt, the poor whites scattered in hamlets felt themselves above the slaves and beneath the masters, intercourse between the three classes was little, opportunity to better essentially their condition was denied to all three alike, there were but few cities sprinkled over the vast territory and these relatively small, the only commodity produced on a large scale was raw cotton, the simple device for ginning this had been invented in the decade preceding by a college boy from Connecticut, the agricultural implements were of the rudest kind, even the coarse shoes for the slaves were bought at the North;—in short, the degree of association and invention and freedom was each so low, that the production of commodities was exceedingly small, even as compared with what that production became in one quarter of a century after the abolition of slavery.

(a) Association. If we may continue for purpose of illustration our childhood trust in the story of De Foe, Robinson Crusoe came to lead a very tolerable life upon his desolate island by means of his own industry directed so as to satisfy his own wants by his own efforts. He did everything for himself, and had no opportunity to buy anything or sell anything. The whole course of such an

isolated life could never develop the idea of Value, would require no such word as Commodities or suggest their production, and such a man while solitary upon his island could not possess Property in the true sense of that word. Association is the first main condition of Production, because of the natural obstacles interposed between the isolated man and the supply of his various wants. If any one man try to surmount a considerable number of these natural obstacles, he must miserably fail, because his powers are not adequate to the task; and hence it follows, that, in a state of isolation, *men's wants exceed their powers*; but now let the same man devote himself to overcome a single class of obstacles, for instance, those in the way of procuring suitable clothing, and his powers are adequate to this, he soon acquires skill in it, he learns to avail himself of the free help of Nature and the facilitating processes of art, he is able to realize large products along his line, and is now ready to offer his surplus in exchange with other men, who meanwhile have been giving themselves each to another class of obstacles, have concentrated efforts and skill upon them, have succeeded by the help of Nature and art in surmounting them, and are now ready to offer their surplus commodities in exchange for others; and, the exchanges beginning to be made in all directions, men find that they thus obtain vastly greater satisfactions for their various desires than they could possibly get by direct efforts: so that we may even say, that, in a state of society through association, *men's powers tend to overtake their wants*.

Without association with his fellow-men, there is no creature so helpless, so unable to reach his true end, as is man; and therefore it is, that the impulse to association is one of the strongest of our natural impulses. Men come together, as it were by instinct, into society; and, thus