his own and others' wants, or in uniting it with industry in order to create still greater wealth. Wealth is of no avail to its possessor unless he so uses it as to make it contribute to his rational enjoyment and improvement. Nor is it of any avail to others unless it is devoted in some way to their good, or made to employ their industry in changing it into other forms of wealth, and thus increasing its value. Hoarded wealth is of no advantage to any one.

LESSON III.

MEANS OF CREATING WEALTH.

1. THE MATERIALS FOR WEALTH ARE ALL FURNISHED BY NATURE.—As already stated, we can create nothing. The materials upon which we are to work are all given in nature. We may work upon these materials, with them, and by them, but we can do nothing toward creating wealth without them. These materials are as various as the objects of nature. There is scarcely an object accessible to us, or a property of an object, or a law of nature, but is capable of being made, in some way, to subserve the wants or interests of man. With the progress of the race, more and more objects are continually pressed into our service. Every succeeding generation is served effectively by numerous objects and agents of nature which the preceding generation considered useless, or even nuisances.

It is not extravagant, therefore, to suppose that before the end of time, all the accessible objects of nature, with all their hidden properties and laws, will be pressed into the service of man. Let us now briefly consider the nature and extent of the material thus inviting our labor.

2. The Materials Furnished by the Earth.—There is first the *earth*, with its numerous primary substances and elements, variously mixed and compounded into almost an infinity of objects, and susceptible of still further combinations, in ever-varying proportions, and all with widely-differing attributes and aptitudes. And at the same time, the whole mass is pervaded by various subtile and powerful agents, or principles of action, such as heat, electricity, galvanism, cohesion, attraction, repulsion, gravitation, and the various affinities and principles of inter-action which constitute what are called the laws of nature. Of these various objects on the surface of the earth, some are organic and some inorganic; some are animate and some inanimate; some animal and some vegetable. But, on

the whole, the grand end of nature seems to be life and growth. Just as the frame-work and organs of our own bodies seem designed to serve the purposes of the spirit that is in them, so the frame-work and powers of nature seem all to conspire to the promotion of life and growth. We thus have, in the course of nature, animals and vegetables without number, and almost infinite in variety, all adapted, either directly or indirectly, to the wants of man. All these, containing in themselves the principle of propagation, may be reared or cultivated, and variously improved under the care of man, and form, either directly or when further wrought, the most necessary and useful articles of wealth.

3. The Materials Furnished by the Water.—As a part of the earth, the great collections of *water* also furnish materials for wealth. Not only do the waters, like other parts of the surface of the earth, teem with innumerable forms of animal and vegetable life, adapted to the wants of man, but by their buoyant properties and the mobility of their particles, they furnish a medium for the easy conveyance

of products to the various points where they are wanted. "There go the ships, there is that leviathan, made to play therein." The sea also contains many useful ingredients and objects which may be extracted from it by the labor of man, as salt, coral, pearls, etc.; while the leaping mountain-stream may be so confined and directed by the skill of man, as to turn the busy wheel of the factory; and the sparkling spring-water, as to propel the ponderous locomotive, with its precious freight of passengers, over its iron track.

4. The Means of Wealth Furnished by the Air.—Even the *air* and the supermundane world are not wholly beyond the reach of, nor without fruit to, human industry. We may not only extract animating and fructifying gases and influences from the air and light of heaven, in the processes of vegetation and life, but make the sun paint our pictures, and the wind turn our mills and propel our ships. While, therefore, these supermundane influences and agents, like the other all-pervading principles of nature, are chiefly the great undivided possession

of all, they may—but yet without diminishing the supply to others—in some small measure be appropriated by individuals, and made to do their work.

5. But these Materials become Wealth only through the Efforts of Man.—Such are the means and materials for production furnished to our hands by nature. But these materials are all inert, and none of the natural agents act to any purpose without the superintendence of man. Under God, the moving cause to all the train of operations concerned in production is in ourselves. The powers of body and mind with which we are endowed constitute the grand force which sets the whole machinery in motion; or, to speak more accurately, as the body is but the servant of the mind, and its apparent powers only adaptations to its use, the indwelling and outworking spirit of man is the real *primum mobile* in production. The materials and means are furnished in nature, but it is the human spirit which really works on and by them. And even the forms of speech used in communicating with each other, and in instruction, discourse, etc.,

though uttered by the bodily organs, are dictated by the spirit within.

6. What Man Does in Production.—Commencing with nothing but his hands, man has gone on improving his means and opportunities till he has brought the machinery of production to its present high state of efficiency. Thus the fish which are now caught by thousands with hooks and seines, were at first caught laboriously with the hands, and afterward with a crooked stick or a bone; and the wild animals which are now shot with a gun, or tamed and made to serve us, were at first pursued and caught, or killed with clubs and stones, and afterward with bows and arrows. In like manner, also, vegetation, which is now aided by various stimulating manures, and cultivated by the use of the most effective instruments, was formerly assisted only by such feeble aid as could be furnished directly by the hand; while clothing made from the skins of animals or the bark of trees, has given place to curious fabrics wrought by the most complicated machinery from silk, wool, flax, and cotton;

and locomotion by the use of the feet, has been quickened by the power of the horse and the energy of steam. And all these improvements have been made by the contrivance of man. The first simple tools and implements were fashioned by him either by his hands and teeth, or by the aid of objects furnished in nature; and these simple instruments were used again to fashion others more complicated, and these again others, and so on. But the process was started originally, and has been continued at every step, by man. Animals and machines may be made to work for man, but not without his superintendence and aid.* Hence, besides the numerous operations which must always be performed literally by the hands, all simple tools, even after they are made, must be operated directly by them, and all machinery be started and kept in motion by their assistance.

LESSON IV.

VALUE, COST, PRICE.

1. What the Real Value of Objects Consists in.—The real value of any article, or what is sometimes called its intrinsic value or utility, consists in what it *avails* to gratify some desire or want of our nature. It depends, then, wholly upon its qualities in relation to our desires. These qualities may, and in most cases do, require some modification or preparation in order to fit them to gratify our desires, but the original capability or susceptibility of these changes and adaptations is in the things themselves, and can never be put there by man. Thus, the properties of edge-tools, by which they become so valuable to man, are only the properties of the native ore modified and changed by the action of other natural objects and agents, through the intervention of man, so as to fit them for human uses. So grain is but

an effect drawn from the natural properties of seed, earth, air, sunshine, and water. And the same is true in other cases. These native properties of objects are the ground of their utility, and it is the object of all labor to develop and prepare them for human use.

2. Of Exchangeable Value.*—But while all the real elements of value are in the objects themselves, and could never be put there by any amount of labor, still, with the exception of air, water, and sunlight—which are the great undivided inheritance of all, and hence, under ordinary circumstances, have no exchangeable value—but few if any articles, in their natural state and place, are directly available to gratify human desires without some modification or change, either in form or place, from the hand of man. Being thus, in their native state, all equally unfitted for use,—but possible objects of value, and wholly the gift of nature,—the exchange-

* Some writers on political economy confine the term "value' to what is here termed "exchangeable value;" but I think this hardly exhausts the meaning of the term as commonly used.

able value, or market-value, of articles may be said in general to be determined by the amount and kind of labor necessary to prepare them for use. Some objects require more, or a more difficult kind of labor in their preparation, and some less, and by this their value is determined. Thus, while almost any clumsy workman can fashion clay into a rude vessel, to transform iron ore into a razor requires more, and more skillful labor. Now, the amount of labor required to produce an article in market, or where it is wanted for consumption or sale, is called its *cost*, and the representative of the cost in money is called the *price*. When this representative is gold and silver, the cost and price are substantially the same, since the equivalent of any article in gold and silver must, on the average, always cost as much labor as that article; but when it is irredeemable paper money, millions of which can be produced by a few days' labor, the cost and price vary materially.

3. The Value of Articles Proportionate to the Labor Bestowed upon them.—Of course, then, articles of use which require more labor for their production must have a higher market-value than those requiring less, provided the labor be of the same general order. A laborer would not spend three days in producing an article for which he should receive only two dollars, when he might get three dollars for three no more irksome days' work on some other article. So, too, if a coat costs six days' labor and a pair of boots two, a pair of boots will bring in market only one-third the price of a coat; and if an ounce of gold can be obtained from the mines by the same number of days' labor by which the materials for a coat can be produced, manufactured, and made up, the market-value of the coat and the ounce of gold will be the same. But the market-value can never exceed the intrinsic value, since the use of an article will always be foregone when it is more irksome to produce or obtain it than to be without it.

4. The kind of Labor to be Taken as a Unit of Measure.—The most natural unit of measure, therefore, in determining the value of any article, is a day's labor, such as the average of the community

are capable of performing without any special training, and with nothing but their hands, or the simplest tools. Other kinds of labor, as mechanical, manufacturing, scientific, professional, require more or less time and expense in the preparation and furnishing necessary for practicing them; that is to say, in such cases a given number of days' work and the price of a given number more are expended in the preparation, which must be regained by higher pay afterward. If educated labor is better remunerated than common labor, taking the preparation and all into the account, the tendency will be for men to press into this kind of labor till it is no more remunerative than other kinds of labor. It is only the difficulty and irksomeness of such labor, including the preparatory labor, which render it, if it be so, more remunerative than common labor.

5. Influence of Supply and Demand upon Prices.—The price of articles thus determined, in general, by the cost of production, *i.e.*, by the labor bestowed in producing them in market, varies, however, under the influence of supply and demand, which, again,

are determined by the views and opinions of men. The same is true, also, of the price or wages for labor itself. The regular wants of each community, and hence of the world at large, demand a given supply of the various articles of necessity and comfort, and consequently of the labor required in producing them. If, now, producers make a miscalculation, and, from false views of what is wanted in any case, produce a supply of an article disproportionate to the demand, the price of that article varies from the cost price accordingly,—being *greater* as the demand is excessive, and *less* as the supply is excessive. For, when the demand is excessive there being more persons desiring to buy than to sell, they will over-bid each other, and thus raise the price; while the reverse will be the case when the *supply* is excessive, *i.e.*, the sellers will under-bid each other, and thus lower the price.

6. But the Tendency of Prices is always to the Cost Standard.—Still, from the inevitable tendency of labor, when not restrained by artificial hindrances, to the most profitable employment, no

article can, under ordinary circumstances, long remain at a relatively higher price, in proportion to the cost of production, than other articles. Greater profits in any kind of production make wages higher in that business, and hence attract labor to it; while, for the same reason, labor is repelled from the production of articles which are relatively lower than other articles, compared with the cost of production. Thus, ordinarily, any excess of price is sure to be speedily brought down by increased production, and any deficiency to be brought up by diminished production. If, for instance, the relation of supply and demand for fish in any market be such, that there is not so much profit in furnishing fish as in furnishing butchers' meat, labor will at once be diverted from the fish-market to the meat-market till the equilibrium is restored. And so in other cases. It is only where the article requires considerable time for its production, as is the case with grain, which can be grown only once a year, that its price can remain long above its relative cost of production. So, too, a diamond found by chance may be worth more than the labor expended—the *average* labor determines the price in such cases.

7. Effects of Sagacity on the Profits of Labor —But, after all, there are always operating certain disturbing causes, which, in particular cases, make prices vary from the cost standard. The first of these is sagacity, or the want of it. As the want of sagacity often engages men in costly and unprofitable modes of production, so, on the contrary, sagacity often secures to them unusual profits. Sagacity anticipates the new wants which are sure to arise in the progress of things, and devises modes of meeting them. It discovers new and useful qualities in objects, and cheap and convenient methods of rendering them available. Hence sagacity always gives one a certain advantage in production, which often becomes very great. Thus, the savage, who discovers the best fishing or hunting ground, can produce fish or game at less than the average cost. So the person who gets possession of the best soil, or discovers useful qualities in objects which others do not perceive, has an advantage over the less fortunate. In like manner, great and rare capacities for any kind of productive labor, as in producing wise counsels, fine paintings, and fine music, always command a large remuneration, since

in the region to which they rise there can be but little competition.

8. Effects of Energy and Capital on the Profits of Labor.—Energy and capital, however, are generally necessary in order to secure the full advantages of sagacity. What is discovered by sagacity must be seized upon by energy and improved by industry and carefully husbanded resources. The best soils are usually covered with a heavy growth of wood to be removed, and often require extensive draining before they are fit for tillage. These obstacles can be overcome only by rare energy and perseverance, and the use of such resources as spring alone from long-continued and persistent frugality. And, as it is only by considerable means that the best soils are subdued, so, usually, the great forces and recondite principles of nature, by which we are so greatly aided in production, are pressed into our service only through complicated and expensive arrangements. Thus sagacity, accompanied by energy and aided by capital, gives one a great advantage in production, and enables him to produce articles in many cases

far below the ordinary cost price, and hence to make large profits in his business.

9. Variations in Price.—The price of an article being its representative in money, that price, of course, must vary with the value of money. Even when the money is gold and silver, if these are produced in excess of the wants of the community, or if by new discoveries and improved processes the facilities for producing them have increased more rapidly than the facilities for producing other articles of utility, the price will rise accordingly, and fall if the reverse be the case. The variations from this source, however, are but slight, and usually gradual;* but where irredeemable paper money is the medium of circulation, the price of articles in this medium, as it does not derive its value from the cost of production, varies with the amount of it in circulation and the opinions of men as to its being ultimately redeemed and made good in gold and silver.

* The annual depreciation in the value of gold and silver has never exceeded one-half of one per cent., either from the discovery of new mines or new processes of extracting and refining the ore