

CHAPTER XII.

DEMAND AND SUPPLY.

117. We have seen that men who have stores and warehouses, those who are engaged in transporting goods to and fro by wagons and railways, are all devoted to the task of exchanging goods, so that men from the results of their own work can get in exchange the things they want. Though we have learned that goods are everywhere exchanged in vast quantities, we do not yet know by what general rules these exchanges are governed. Why is it, for instance, that a pine table may be exchanged for five bushels of wheat? Why should it not be exchanged for only one, or for one hundred? Why may a table made of mahogany, of exactly the same design, be exchanged for five pine tables? In exchanging goods, we are comparing a quantity of one article with another; that is, fixing their exchange values relatively to one another, and so we are to seek the laws which regulate the values of commodities which are exchanged against one another. We must now try to discover why it is that one thing may be exchanged for more or for less of another thing.

118. It must be understood, however, that in this and the following chapters (from XII to XIV) we take it for granted that **competition is free**. By this is meant that nothing exists to prevent each person from satisfying his economic wants in the quickest way, or along the line of least resistance; that, if labor is more highly paid in one

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industry or in one place than in another, laborers will be able to move at once, and take advantage of the fact; and that capital, likewise, both knows and seeks its own advantage by going where it can get the highest profit; that is, when free competition exists, we say that there is nothing to interfere with the free migration of labor and capital. We must also understand by it that people do not follow customs and traditions which interfere with the natural exercise of their impulses. Competition, to be sure, does not always exist; but for the present we are searching for the laws which govern values in the long run, and in permanent conditions, and we shall assume that it does exist. Later we shall take other influences into account.

119. If A has money and B a coat, and a trade is taking place, we can easily see that, if A is very anxious for the coat (because it may be essential to protect him from the cold in work out of doors), he may raise his offer of money for the coat until, because of A's eagerness, B gets a better bargain. On the other hand, if A held off, and B seemed very anxious to sell, and, rather than not dispose of his coat at all, would sell it for less money, then A would get the better bargain. The price, then, would depend on the relative eagerness of A and B, the one to sell and the other to buy; or, as it is called, on **the demand and the supply**. Here A represents the buying class, because he has general purchasing power, having already parted with his own produce for money; and B represents the selling, or supplying class, who wish to exchange goods for general purchasing power.

120. Yet we should keep in mind a distinction already made (section 106), that, if we assume a position where we can take in the whole industrial community, we can see that all are at once producers and consumers. Of course, no one can get money, or general purchasing power, unless he has goods of value; so that no one who has not produced, or does not control the production of wealth,

can have a demand for other goods. All producers, therefore, form the class, which, having goods, convert them into money, and so create a demand. As before said, if all industries are represented by the alphabet, A, is producing for B, C, D, etc.; B, for A, C, D, etc.; C, for A, B, D, etc.; and so on. So, when we take all the industries together, all are producers, and solely for that reason all can have a demand. This is true, however, only when we take demand in its general sense.

So, also, of supply. A, B, C, D, etc., are all supplying something, and it is only because they can supply a thing that there can be any demand. In brief, when we look at **demand and supply generally**, we find that they are but two sides of the same thing. All our wealth is a supply, and all our wealth is also a demand.

121. We can from this see the error of those who talk of **general overproduction**. For, the more there is produced of things which others want (and for which others are willing to work in order to give things in exchange), the more is the general supply increased; but, if properly adjusted to people's wants, the more the general supply, the more people have to offer as demand. A produces in order to get the product of B; and B produces in order to get the product of A. If A and B both come to have more productive power, A and B can produce more things, and so have the means with which to buy more things from each other, and so to satisfy a great many more desires than before. If this be true of all in the country, and all produce more, they will all have the means to buy more, and all can satisfy more wants than before.

But, if it is clear that there can be no such thing as a general overproduction of goods from increasing the supply, can it come about because people have more than they want, and so do not create a demand, because there is a lack of desire for goods? Think for a moment. Did

you ever know a person, all of whose wants were satisfied? Did you ever know of a community in history who had all they wanted? If there is a lack of desire anywhere, why do the people go on producing? People do not undertake arduous labor, unless they have some desire which can be satisfied by their productive power. They work in order to get something they want. Never before in the world's history were men producing as much as now. In fact, as civilization progresses, new desires come into existence.

122. It is, however, essential that only so much of a particular commodity should be produced as people want. Even though the productive power of a community may be increasing, by use of new machinery and by newly-discovered processes, yet some persons may not calculate correctly the quantity of a particular thing which other people (who at the same time are producing, and so have something to offer as a demand) want. In this case, there may be an **overproduction of a particular commodity**. If there are several industries of which this can be said, it is then possible that some persons should suppose they see in it a general overproduction—which is impossible. For, if the power to produce increases greatly, and if many industries suffer from overproduction, that means, of course, that the productive power is not properly adjusted to people's wants. To use an illustration, in certain caves there are stalactites and stalagmites; that is, drippings from the roof form long pendants, like icicles, hanging downward, and corresponding forms rise from the floor upward to meet those above. When there is overproduction of a particular commodity, it is as if there were a stalagmite without a corresponding stalactite; that is, that the persons who want the particular commodity, and have purchasing power, do not turn demand in this direction, or who, because of a distrust of the conditions of trade, are not producing at all. Reciprocal production for

reciprocal wants is necessary to properly-adjusted demand and supply. The business-world is all the time occupied in trying to make this adjustment; but errors are often made, and so goods are often in supply greater or less than the demand.

123. If, as is commonly the case, we are thinking of the **demand and supply of a particular thing**, then we see at once that **demand comes from buyers only**, or from those who offer money for the thing which they desire. Desires alone do not create a demand—"if wishes were horses, beggars might ride." Together with a desire, the buyer must offer purchasing power. Our ideas as to money now come in to help us. We see that men have money only because they first get goods of value, which they exchange for money (in order to be a buyer, one must first be a seller); that is, the possession of goods of some kind is the source of purchasing power, and of demand. Hence some people wrongly think that the quantity of money in existence is the only purchasing power, and that demand for goods is synonymous with the quantity of money. Since demand is seen to appear only in the form of money offered for goods, men often get exaggerated and distorted ideas of the office performed by money. In truth, money (as a medium of exchange) is only like a bridge, by which we cross a stream from one bank to the other—it is a means by which goods get from one person to another. The seller brings his commodity and gets money for it, and with his money he straightway goes and exchanges it for goods again, or becomes a buyer through the intervention of money. The real object of the operation was not to get money alone and keep that, but to get money so that one could conveniently buy the articles which satisfy one's wants. **The supply is furnished by those who have the desired goods, and who at the same time wish to exchange them for money, or general purchasing power.**

But it will be found that, when the supply of an article is very great as compared with the demand, it sells cheaper than usual; and the lower price in turn brings out more buyers. By this we see that the amount of a commodity which can find purchasers depends on the price, or value. The cheapening of cotton goods has greatly increased the quantity which people consume. If they were to rise in price, there would be a less amount wanted than there is now; that is, the supply which people want rises when the price falls, and diminishes when the price rises. As people's wants are constantly varying, there is a constant oscillation going on in the market between demand and supply, and so there are constant changes in market prices. It will appear, however, that these fluctuations can not go beyond certain limits under the operation of demand and supply; for a point will be reached where, if a less price were accepted by the seller, he would not get back what he has a right to expect in making the article. He will not do this usually or often. In the next chapter we shall try to find out what that point, or limit, is.

124. **Exercises.**—1. What is the difference between the cause of the existence of value and a measure of value? What is the difference between the cause of the existence of heat (as fire) and a measure of heat (as a thermometer)?

2. If I had a secret chemical process by which ink could be made well and cheaply, and were to gain large profits thereby, would you say that my profits were exposed to competition and regulated by it?

3. If I were the only man in my town who could manage a bank well, would my salary be lowered by competition of other persons? Would my wages be settled by competition?

4. Why is it that perishable ripe fruit sells at a lower price on Saturday night? If market-men have accumulated a large stock of poultry, why is it sold cheaper when warm weather comes?

5. If a man were lazy and would not work, and if no one were to give him anything, how could he have any demand for goods? How could he get his food? What would he have to do before he could get money to offer for food? If he succeed in creating a demand, has he at the same time increased the supply of something?

6. If all the manufacturers in all the industries of the United States were to take a whim to make axes and nothing else, why would that not be a good thing? When a man goes into manufacturing, does he ever consider whether there is a limit to the amount which he ought to make of anything? Could he spread his factories over acre after acre without limit as to his market? Why can he not do this?

7. Since the metallic money of the world is far less than the value of goods in existence, how is it that any man having goods can get money, and so create a demand? Compare the case of a general commanding a hundred thousand men, on approaching a pass in the mountains through which only four men can walk abreast, and who is alarmed because all his men can not go through the defile at the same moment. The hundred thousand men, however, all get through the narrow pass. Are all goods offered for money at once?

8. Why is it that, in good fruit years, apples are cheaper than in other years?

9. If hearses were to fall in price, would there be an increased demand for them? Would it be the same if woolen goods and flannels were to fall in price? When but a few of a thing are desired, does a fall in price affect the demand as much as when the article is in common use?

10. What is the difference between a buyer and a producer? Can a producer be a buyer if he has not sold his commodity for money? Which do you think stands in the more favorable position—the buyer or the seller? Why? Does not every seller soon become a buyer?

CHAPTER XIII.

COST OF PRODUCTION.

125. In seeking to find out the laws of value, it will be convenient to classify commodities according to the possibility of increasing their supply, as follows:

I. Articles whose **supply is incapable of increase, or whose production is monopolized**—e. g., Raphael's pictures, or a patented article.

II. Articles whose **supply can be increased, but at an increasing expense**—e. g., grain (when the law of diminishing returns begins to act).

III. Articles which are practically unaffected by the law of diminishing returns, and whose **supply can be increased indefinitely at a diminishing rather than at an increasing expense**—e. g., hammers, shovels, clocks.

In this chapter we shall discuss the law of value of only the last class, which includes commodities of ordinary manufacture, and many of common use.

126. In the beginning, however, we must clear away a possible confusion of ideas arising from the use of the phrase **cost of production**. Business men use it to express the expenditure of money incurred in making their goods, exclusive * of their own "profit." Cost, however,

* This corresponds closely with the idea conveyed by "cost of labor to the capitalist" in Mill's treatise, Book II, chap. xv, § 7 (abridged edition, Book II, chap. v, § 5).

means sacrifice, and **cost of production should mean the sacrifice undergone in production.** In the manufacture of a shoe, the man who furnishes capital, which he abstains from using for his own consumption, undergoes, on his part, a sacrifice of abstinence; but he is not the only party to production. Labor, as well as capital, is essential to production; and the laborer's exertion, or physical and mental energy, is sacrifice to him. The sacrifice, or abstinence, of a capitalist is, to be sure, a thing different in its nature and quality from the physical or mental sacrifice of a laborer, but both must be taken into account in speaking of cost of production. In the ordinary use of the phrase in the business world, the sacrifice of the capitalist only can be included in its meaning. This, of course, is an error; and we shall use the expression to describe the **sacrifice of both the laborer and capitalist undergone in the production** of an article.

127. Let us take the simple case of a cabinet-maker making tables. First, before tables can be begun **capital is necessary**, in the form of lumber, tools, and a workshop; so that some one must have abstained beforehand in order to save this capital out of the results of past production. Some one, therefore, has chosen to abstain from wealth which he might have consumed for his own enjoyment. This giving up, this sacrifice, must be rewarded, or it will not be repeated. This is not a small matter. Think what it really means. Imagine that you own a horse, and are using it to plow your land. Now I come along and ask the loan of your horse (which is capital to you) to plow my own land. You know well enough that, if you give up your horse to me, your land must wait and your crops must suffer by delay; and you would never think of granting my request unless you received from me a sum which would be a fair compensation for the losses you would suffer. If you consent to abstain from the use of your own horse, you must be **paid for your abstinence**, or

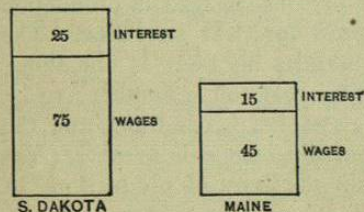
sacrifice. So it is with the cabinet-maker. He must receive from the sale of his tables enough to pay him back his capital again, and also give him something for his abstinence while his capital was invested in lumber, tools, and workshop.

128. Secondly, **labor is necessary.** The mere tools, lumber, and workshop will not by themselves make a table; the time, skill, and handicraft of the carpenter, or his energy as a laborer, are an essential part of the process. This exertion is a sacrifice to the laborer; but it is, to be sure, a very different kind of sacrifice from that required in abstaining from the consumption or use of wealth. Yet, although different in kind, each is to be rewarded by a payment. Just as capital receives **interest** for the sacrifice of abstinence, so labor receives **wages** for the sacrifice of exertion. No one works month in and month out for the pleasure of working without any hope of recompense. The cost of production, then, of a commodity is the sacrifice involved in producing it; and wages and interest are the sums paid as rewards for the various sacrifices.

129. This shows us that there is a vast difference between the **sacrifice** to the persons engaged in production and the **compensation paid for that sacrifice.** The toil of the laborer which wearies his body is one thing, and the wages he receives for that toil is another; to be cut off from the use of one's capital is one thing, and the compensation paid for that abstinence is another. Yet people constantly speak as if the "cost of production" of an article was the amount of wages or profits paid out. This ignores the fact that sacrifice is one thing, and remuneration for that sacrifice is another. By considering "cost" as sacrifice, we give due importance to the sacrifice of the laborer as well as to that of the capitalist. The way of looking at cost of production only from the capitalist's standpoint leads to error. It is not a laborer's wages

that tire him out ; nor, when a man receives interest, does it cause him to suffer abstinence.

130. Where competition is free, although the sums paid as wages and interest can not **measure** the actual sacrifices, yet they will tend, on the average, to be **in proportion to the sacrifices**. We can find an illustration in knife-making, where one man drills rivet-holes and another grinds the blades. In the latter work, minute particles enter the mouth and nostrils of the grinder, and it is known that he does not live as long as workmen in other departments. Now, if the same wages were offered for both kinds of work, every one would choose the safer and less disagreeable task ; and, as a consequence, no one could be got to do the grinding until the wages given for it were so much higher than for making rivet-holes that they would compensate the laborers (according to their own estimate, since they have free choice) for the greater sacrifice. So that, while it may be impossible to estimate or measure in dollars and cents the sacrifice undergone by a laborer, yet the payments of wages for two kinds of sacrifice will, where competition is free, be (in the minds of the laborers themselves) *in proportion to the degree of sacrifice*.



131. It is a mistake, then, to say that, because wages and interest are high, cost (or sacrifice) of production is high (except in so far as the capitalist must abstain from more capital). Let two men employ equal amounts of labor and capital on two different pieces of land—one in Maine and one in S. Dakota. The same outlay and labor will yield very different returns in these two cases : in Maine perhaps only 60 bushels of grain, but in

S. Dakota probably 100 bushels. If one fourth of the product goes to interest and three fourths to wages in both cases, then the same exertion of the laborers in S. Dakota gains for them a reward of 75 bushels of grain, and in Maine only 45 bushels. Even though wages and interest are higher in S. Dakota than in Maine, no one would think of saying that the cost of producing grain was greater in S. Dakota than in Maine. On the contrary, we should say that the cost of production of grain was less in S. Dakota than in Maine ; and this properly means that, owing to the fertile soil of S. Dakota, the difficulties of production are less there than in Maine, or that the sacrifice involved in producing an equal amount of grain was less in S. Dakota than in Maine. In brief, **where the cost of production is least, there wages and interest are highest**.

132. Since cost of production means the sacrifice of production, and since both labor and capital (the payment for land can be omitted for the present, see Chapter XXIV) are necessary to production, we may state the manner in which they enter into the manufacture of such a commodity as a table as follows :

Capital	Labor				
will be required for :	will be that of :				
1. Buildings and ground-rent.*	1. Workmen.				
2. Taxes.	2. Manager.				
3. Insurance.					
4. Machinery.					
5. Materials.					
6. Wages	<table border="0" style="display: inline-table; vertical-align: middle;"> <tr> <td style="font-size: 2em; vertical-align: middle;">}</td> <td>a. Of workmen.</td> </tr> <tr> <td style="font-size: 2em; vertical-align: middle;">}</td> <td>b. Of a manager.</td> </tr> </table>	}	a. Of workmen.	}	b. Of a manager.
}	a. Of workmen.				
}	b. Of a manager.				

The cost of production will be greater, the greater the amount of capital required, and the longer it is needed. The wine-maker, for example, after growing the grapes,

* For the meaning of this word, see section 262.

making and bottling his wine, will let his product stand for some years to improve in quality; and in that case the interest on his capital must be estimated according to the **time** the principal is invested, and the cost of production will be greater the longer the capital is abstained from.

The cost of production, too, will be greater or less, according to the **quantity** of labor needed in making an article. In working ten days to make a table, more sacrifice of labor is needed than if the same laborer made a chair in five days' labor. Of course, if skilled labor is employed, that will be equivalent to greater sacrifice to the laborer; since the skill on the average represents training and previous outlay by the laborer for his education.

Cost of production of a commodity, then, varies with the quantity of capital abstained from, together with the time it is employed, and with the quality of labor engaged, together with the time it is employed. What the payments are for these sacrifices is another thing.

133. Where competition is free, the wages paid for work involving the same sacrifice in different employments will be the same, and the payments for capital will be the same. We do not say that competition always exists; but where it does, this is true. The charge for the use of capital, where the security is the same, would not be different to different persons and industries. If it were, there would then be a **migration of capital** to the spot where it would earn more, and away from the spot where it would earn less, until the rates were equal—just as water, when nothing interferes, tends to seek a level. So with labor. If wages were higher in some places and industries than in others, the tendency would be for **laborers to migrate** where wages are highest, and thus to equalize wages. If, then, there is the same sacrifice to laborer and capitalist involved in making a shoe and a hat, the

payments for the sacrifice should be the same in each case; that is, the wages and interest would amount to the same sums in each case. When this happens, it is clear that the two articles will exchange equally for each other; the value of the shoe will be equal to the value of the hat. Therefore, **where competition is free, commodities exchange for each other in proportion to their cost, or sacrifice, of production.** This is the **law of normal value** of manufactured goods, or articles unaffected by the law of diminishing returns, for which we were seeking in this chapter.

134. The **fluctuations of value** may carry the price of a hat, for example, above or below that sum which is proportional to its cost of production. If the price in the market were **less** than the normal value, men would not long be content with receiving a smaller remuneration for their labor and capital than they could get elsewhere, and they would seek some other industry. The most skillful would probably remain in the business, but others would gradually withdraw from it. This would result in a reduction of the supply of hats; and, as the supply fell off, the existing demand would finally raise the price to a point where it would equal the normal value.

If the price of hats were **greater** than the normal value at any time, each producer would try to increase his product in order to reap the advantage of the high remuneration; and, if it were believed that the demand would continue to keep up the price, others, hearing of it, would enter this industry, and increase the supply. These causes would increase the supply until the price fell to the normal value. According to the law of demand and supply, **a fall of price increases the demand for the goods and lessens the supply, and a rise of price diminishes the demand and increases the supply.** The manufacturer watches the market closely: if he sees that the supply is large, he will limit his production; that

the supply is short, he will increase his production. In this way the self-interest of the manufacturers is enlisted to **keep the supply in the market sufficient to satisfy the demand for the goods at a price which will just equal the normal value.** The market value, therefore, may fluctuate above or below the normal value, but will always tend to recur to it. Although waves are rising above and falling below the surface, yet the water of the ocean is always seeking its level.

135. It may be well to remember, however, that the normal value does not always remain the same. If materials, for example, increase in value, that would cause an increase in the outlay of capital. When, on the other hand, the laborers become more efficient, or improved machinery is introduced, or a better division of labor is rendered possible by the system of large production, then more can be produced for the same outlay, and so the value of each article can be reduced in value and price. To illustrate, suppose that 1,000 tables are produced in three months, at an expense, all told, of \$30,000, or \$30 each. But, if new machinery were introduced which enabled 1,500 tables to be made in the same time, by the same number of men, then, even allowing a greater charge for the use of better machinery,* each table could be sold for about \$23.33 $\frac{1}{3}$. In other words, the cost of produc-

* This supposition may be roughly stated as follows:

(1.) Buildings, etc.....	\$600	(2.) Buildings.....	\$600
Materials used up.....	9,280	Materials.....	13,820
Machinery (use and wear)..	300	Machinery (use and wear)..	700
Taxes.....	250	Taxes.....	250
Insurance.....	1,000	Insurance.....	1,000
Wages (100 men).....	17,000	Wages.....	17,000
Manager's wages.....	1,200	Manager's wages.....	1,200
	<hr/>		<hr/>
	\$29,630		\$34,570
Int. 3 months, 5 per cent.	370	Int. do., about.....	430
	<hr/>		<hr/>
1,000 tables, at \$30 =	\$30,000	1,500 tables at \$23.33 $\frac{1}{3}$ =	\$35,000

tion or the sacrifice involved in making a single table has been diminished by the introduction of more efficient machinery, and this result becomes apparent in the lowered normal value of the article made.

The great improvements in machinery and the marvelous progress of invention and skill have, in the last one hundred years, reduced the prices of manufactured goods to a very remarkable extent. This has been done in just the way we have explained, although wages of hired workmen have also risen. It is precisely with manufactured goods that division of labor, large production, and improved processes have had the greatest influence in cheapening their attainment (see Chapter VIII). We give herewith Chart IV, which shows the movement of prices* since 1850. Starting in 1850 from the same line marked 100, the rise or fall of the lines indicates how the prices have fluctuated. It will be seen that the fine dotted line, representing the prices of manufactured goods, rose from exceptional causes during our civil war, but fell afterward from about 128 in 1873 to 100 in 1885. If it had not been for the great production of gold, these prices would have shown a still greater fall. We shall refer to the chart again when we come to discuss agricultural products. But it will be well to remember that the general tendency of manufactured goods is to fall in price, as people grow in skill, intelligence, and experience, and as invention furnishes new machinery. We shall soon find that the value of this class of goods stands in marked contrast to those articles affected by the law of diminishing returns, whose value tends to rise as more is wanted by an increasing population.

136. A distinction should be kept in mind between cost of production and expenses of production. Cost, of course, means sacrifice, and is subjective; and it is incapable of definite measurement. But, for the personal sacri-

* The chart is based on prices at Hamburg, published by Dr. A. Soetbeer in 1886 ("Materialien," etc.).

rice, society gives industrial rewards in the form of wages, interest, etc. Hence, the subjective costs are represented in practical experience by the quantitative rewards given for them; that is, the quantitative rewards for subjective sacrifices make up the expenses of production of one article. And, in everyday life, it is the expenses of production which business men have in mind when they use the term "cost of production." Only by using concrete expressions for costs could we give them any economic treatment. For instance (in section 132), the subjective estimates by laborers and capitalists are both a part of production; but the expenses of production appear by adding up the sums paid for each of the subjective estimates, as may be thus illustrated:

COST OF PRODUCTION OF A TABLE.		EXPENSES OF PRODUCTION OF A TABLE.	
Subjective estimate on use of Capital for	Buildings, etc.	Buildings, etc.	\$600
	Materials.	Materials used up	9280
	Machinery.	Machinery (use and wear)	300
	Taxes.	Taxes	250
	Insurance.	Insurance, etc.	1000
	Wages.	Wages (100 men)	17,000
	Manager's Wages.	Manager's Wages	1200
			29,630
Labor of	Workmen.	Int. 3 months, 5 per cent	370
	Manager.	1000 Tables, at \$30	\$30,000

The distinction is largely one of convenience, to avoid misunderstanding; because most persons really mean expenses of production when talking of cost of production. In speaking of price corresponding to "cost of production," of course it can be true only in the sense of expenses of production. For a rise in the amount of wages paid, or in the amount of interest exacted, would increase the price which must be sufficient to cover the expenses of production.

137. Exercises.—1. Is there any limit to the production of cotton cloth? To which class would you assign it?

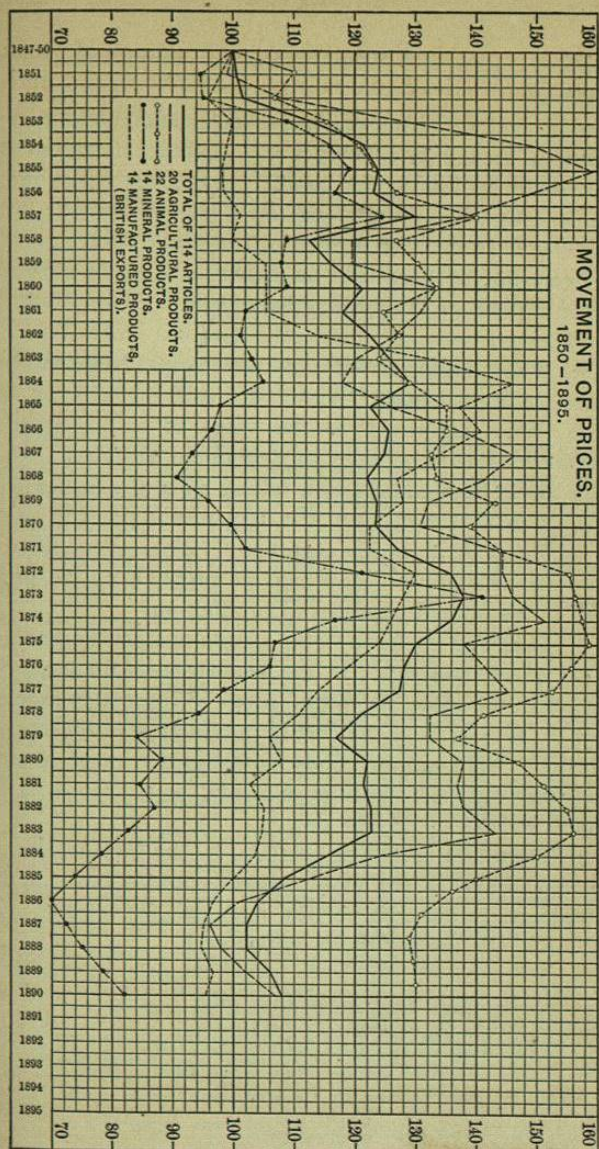


CHART IV.

To which class would you assign the raw cotton out of which it is made?

2. If you were poor, and had saved enough money to buy a pair of shoes just as winter was coming on, why would you not be willing to let another person use them for a month? Could any one complain if you refused?

3. If you depended on hunting for your existence, would the deer shot by your rifle be wages for labor or payment for the capital in the form of your rifle? What kinds of sacrifice were necessary before the deer was shot?

4. When large and efficient steamships drove sailing-vessels, to a great extent, out of the carrying-trade on the ocean, what happened to the value of sailing-vessels? Why were some to be seen rotting in our harbors? What effect would be produced by a falling off of the demand?

5. Why is it that, when the demand for shoes is good, the factories are all busily occupied? What effect has demand on the supply? How can the supply keep the price down to the normal expenses of production?

6. If all the workmen in the cotton-mills strike and get higher wages, and those in the woolen-mills do not, will that affect the value of cotton goods in respect to woolen goods? Will it raise the cost of production in the cotton industry? Will cotton goods exchange for more woolen goods than before? Will more capital be advanced in the form of wages?

7. Show how it may be possible, by the introduction of new machinery, to pay more wages to workmen (as in the second case in the note, section 135), and yet sell the 1500 tables for, say, twenty-seven dollars each.

8. If improved machinery lowers the price of manufactured goods, does that mean that gold is scarce? If the price is the amount of gold for which the goods exchange, then, when the price falls, does that imply that the rise in the value of gold is due to its scarcity? Has gold moved away from the goods, or the goods away from the gold?

CHAPTER XIV.

THE VALUE OF COMMODITIES AFFECTED BY THE LAW OF DIMINISHING RETURNS.

138. WE may now go on to study the law which governs the value of commodities affected by the law of diminishing returns, of which agricultural products furnish the best example. (Class II in section 125.)

It will appear at once that, unless the price of an article is equivalent to the normal value, just as in the case of manufactures, it will not be regularly produced. This is true. But there are **different costs of production** in growing such things as grain, and we must decide which one is to be taken as the regulator of value. A bushel of wheat when raised on poor land at great cost sells in the market for no more than another bushel grown on rich land at comparatively little cost. The sacrifice necessary to get a bushel of wheat from the soil is thus not the same, and yet the two products have the same value in the market. Why is this? If the cost of production is higher in one case than in the other, why is it that both exchange for the same amount of money?

139. Recall, for a moment, what is meant by the law of diminishing returns (see section 39). **After a certain point in the cultivation of land has been reached, any additional supply can be obtained only at an increasing cost.** This means that the same labor and capital will obtain a less quantity of products than before.