

TEN LESSONS IN MARKETING—Lesson V

Manufacturing in Relation to Marketing

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1. **What do we understand by manufacturing?** In this series of lessons we are interested in manufacturing, because the manufacturer forms an important link in the chain of connections by which goods make their way from the first producer to the final consumer. In this respect, as we shall see, it is closely related to the subjects discussed in Lesson IV on the preservation and storage of commodities. In fact, the Bureau of the Census classifies such operations as canning, drying, and preserving of fruits and vegetables under the general head of manufacturing.

A moment's thought will convince us that a large proportion of Nature's bounties do not come in the form best suited to the use of man. The wise Giver of all good things has provided abundantly the materials necessary for the satisfaction of all our wants, but has left us to exercise our intelligence and ingenuity in adapting the materials to our use. Nature offers us cotton and wool, but our demand is for specific articles such as collars, shirts, overalls, suits of clothes, and blankets. She supplies us with iron ore, while our demand is for steel rails and locomotives, motor cars, tractors, axes, and pocket knives. She provides for us trees, but our demand is for houses and furniture. She supplies us with cattle, hogs, and sheep; while our demand is for beef steak, bacon, roast mutton, gloves, and shoes.

Examples such as these indicate the reason for the development of manufacturing. It is probably well that things have been arranged as they are. We recognize that all progress comes through effort, through work, through the exercise of our mental and physical powers. By leaving to us the task of inventing, manufacturing, and processing, Nature has wisely taken precautions to compel us to make the effort necessary for our own development.

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Under manufacturing, then, we include all the operations and processes by which the form or condition of commodities is changed so as to make them better adapted to the satisfaction of human wants. Many products in their natural state are entirely unsuited to meet any human need; but when they have been processed or manufactured these commodities provide some of our most valuable and necessary goods. From this we see that the work of the miller and the baker is just as much a part of the production of our modern food supply as is the task of the farmer who produces the wheat.

2. The history of manufacturing. The development of manufacturing has gone hand in hand with the growth of civilization, and its story is one of the most interesting in human history. It is probable that it had its beginning about the time man made his appearance upon the earth. It is found in great variety among all primitive peoples. To manufacture means literally to make by hand. But man very early learned to help out his hands by simple tools, which have been gradually replaced by more and more complex machines. In America the Indian had ground his corn with pestle and mortar from time immemorial. This simple operation was the forerunner of our American milling industry of today which grinds out products valued at two billions of dollars annually. In drying and smoking his fish and meat we find the beginnings of our enormous slaughtering and meat packing industry, which is now turning out products worth four and a quarter billions of dollars annually. In chipping his tools and weapons from the flinty rock, tanning his skins, fashioning his clothing, hollowing his dugout, or shaping his birch bark canoe, the Indian was engaged in manufacturing just as truly as are the great industries which are performing similar services for us today.

In fact the manufacturing carried on by the white settlers during the period of self-sufficing agriculture in the early days of this country had a close resemblance to that of the Indian who had preceded the white settlers. Most of this primitive manufacturing was carried on by each family for the purpose of supplying its own wants. It was done with the help of hand tools and simple machines worked by hand. Then came the next step in advance, when men more skilled than others built themselves shops in the villages equipped with more efficient tools and machines, so that a better product could be turned out than that which the family was able to produce for itself. These simple home industries and shops had existed with comparatively little change for hundreds of years.

But about 150 years ago great changes began to sweep over manufacturing. These changes were due to the invention of new and complicated machinery which the family and the skilled tradesman in his small shop could not afford to buy. Among these inventions was the steam engine which supplied the power to drive the

other new machines. Large, specially constructed buildings were needed in which to house and operate the new machinery, and modern factory industry was born.

The tendency of modern manufacturing is to become concentrated in larger and larger industries, because most lines of business and industry can be carried on more economically and profitably on a large scale. This process has gone on until three and one-half per cent of our establishments are producing almost sixty-eight per cent of our manufactured goods. This large-scale industry has created marketing problems with which we shall deal in a later lesson.

3. Importance of modern manufacturing in the United States. If you could turn with me to our last Census Report, you would find there a long table giving the facts about the manufacturing industries of the United States for the year 1925. This table gives information about 187,390 manufacturing establishments. They employ 8,384,261 persons as wage earners. They use raw materials costing them \$35,935,648. Out of these raw materials they make goods valued at \$62,713,714. From these figures we see that the process of manufacturing adds over 25 billion dollars to the value of the materials used after they have been through the factory. With these figures we can compare the gross value of the products from our 6,371,640 farms, which amounted to \$15,809,083,000 for the year 1925.

4. Importance of manufacturing for the farmer. In these lessons we are especially interested in those industries upon which the farmer depends for a market for his products. We are perhaps surprised to notice what a large proportion of our big manufacturing industries are dependent upon the farm for their raw materials. In the first group of industries, for example, are those turning out products valued at one billion dollars or more annually. There are fifteen industries in this group and eight of them are dependent directly upon agriculture for their raw materials. At the head of the list stands slaughtering and meat packing with over four and a quarter billions of dollars output annually. In the same list of the big industries are cotton goods, flour and grist mill products, women's clothing, men's clothing, leather boots and shoes, bread and bakery products, worsted goods. A study of the rest of the table shows a liberal sprinkling of industries which obtain their raw materials from the farm.

A study of the census tables convinces us that the farmer and the manufacturer are very dependent upon each other. The farmer needs the manufacturer to transform his wheat into flour and bread, his cotton and wool into cloth and clothes, his hogs into hams and bacon, his beets and cane into sugar, etc. Without the manufacturer a large part of our commercial agriculture could not exist. Neither

could our large cities. The city dwellers are largely dependent upon the manufacturer for the work by which they make their living and for their food which the manufacturer prepares for them from the products of the farm.

Then, too, the manufacturer is dependent on the farmer for a market for many commodities which are not made from farm products. We immediately think of tools and farm machinery, wire and nails, trucks and automobiles, and numerous other articles used on the farm and in the farm home.

The manufacturer performs one other great service for both the farmer and the city dweller. The manufacturer makes it easier to transport products from one to the other. In Lesson III on transportation we noticed that many things could not be produced in some localities because of the high cost of transporting them to market. The manufacturer is often able to take such products and transform them into others of greater value, smaller bulk, or of a less perishable character. The new commodities can then be transported long distances and marketed at a profit. Sugar or sirup made from the bulky sugar beets and cane is a good example. Along with it we might class butter and cheese; corn sirup and oil; canned, dried, and cured meats and fish, etc.

Another great gain to the farmer from manufacturing is the changing of perishable products into others which can be kept for longer periods. We think of the manufacture of cheese from milk, butter from cream, starch from potatoes, sugar from cane, and many others. The advantage resulting for both producers and consumers is apparent.

5. A balanced civilization best. From this discussion we conclude that the modern nation is most fortunate which can keep a proper balance between its agriculture and its manufacturing industries, between its city and its farm population. The farmer needs the city factories and the city consumers to use his products. The city dweller needs agriculture to furnish his food, the raw materials for his factories and a market for his finished products.

QUESTIONS AND EXERCISES

1. Name the factories which you have been through and tell where they obtain their raw materials and where they market their finished products.
2. Make a list of the farm products from your community which find a market through some form of manufacture, and also a list of those which are consumed as they come from the farm.

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