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ECONOMICS AND THE  
COMMUNITY



# ECONOMICS AND THE COMMUNITY

BY

JOHN A. LAPP, LL.D.

AUTHOR OF "OUR AMERICA," "LEARNING TO EARN,"

"THE FUNDAMENTALS OF CITIZENSHIP,"

"CIVICS CATECHISM," ETC.

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## INTRODUCTION

This book has been written as an attempt to place the principles and problems of economic life in their relation to the community, in so simple a form that the study thereof might be of greater service to the citizen in the performance of civic duties. It is the purpose of the book to give what the citizen needs to know about economics rather than to explore and expound economic theory.

A glance at the problems of civil society today discloses that to a large degree, economic problems are the issues which dominate elections, law making and administrative actions. In fact the great central purpose of government—the protection and welfare of the citizens—is seen to take on economic aspects when we consider and determine such questions as the prevention of civil disorder, trade abuses, exploitation, monopoly, waste of resources or when we consider the positive side in the promotion of transportation, mediums of exchange, banking, international trade or the education of producers and consumers through schools, laboratories, statistics and research. Taxation, the life principle of the state, constitutes a combined political and economic problem. Taxes must be levied to support the government, but they must not be so high as to destroy legitimate production.

Whether the economic problem be the tariff, conservation, thrift, insurance, good roads, regulation of railroads

or the prevention of false weights and measures, it is entwined with community action because the citizens decide such matters in the long run through the election of representatives or by referendum.

These truths are so obvious as to need no elaboration. Yet how strange that the study of the subject of economics, so vital to community safety and welfare, has been so largely neglected! That which should be imparted to all citizens as a common civic necessity has been postponed to the upper grades in high school or even to the college, if indeed it is given at all. Obviously, if we are to meet the needs of the citizen, economics in its community relations should be brought forward in the curriculum as far as possible and certainly to the first years in high school, the vocational schools and continuation classes. It should be borne in mind that only a small part of the future citizens reach the upper grades in high school. Over ninety per cent have left before those grades are reached.

The materials presented in this book are designed to be in form for the use of those who are beginning the study, whether in high school grades, junior high schools, vocational schools or continuation classes.

The difficulties which have perhaps hindered the widespread teaching of economics have been due to the lack of concrete text material related to community life. The same difficulties formerly confronted the teachers of civil government. Just as the study of the social and civic environment enlivened the teaching of civil government and brought it into the elementary grades in the form of community civics, so we may expect a like result for the

teaching of economics from the study of economic problems in the community laboratory. A wider appeal will thus be made to younger students, and especially to those who profit by concrete instruction.

The plan of instruction outlined provides for a preliminary gathering of local data for each chapter before beginning the study of the text. Questions for community surveys therefore precede the text. With the preliminary data in hand the text may be studied more concretely. The material collected should be classified and retained as a permanent file of materials, but fresh data and reports should be gathered for each succeeding class. Public reports should be secured for comparison with the data in the text, thereby serving the additional purpose of bringing the students into touch with government activities through the reports of the various local, state and national offices and departments.

This method of instruction should result in an understanding of economic principles and problems in connection with current affairs. The test for examination might well be one to determine how efficiently the student has been able to observe and understand community activities in the light of the discussion of the principles and problems in the text. That is the final test which good citizenship fixes upon all who determine community action by their ballots.

J. A. L.

January 21st, 1922.



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ECONOMICS AND THE  
COMMUNITY



# ECONOMICS AND THE COMMUNITY

## CHAPTER I

### COMMUNITY ECONOMICS

#### *Community Survey*

1. What are the products of your community?
2. What products are sent to other communities?
3. Name all of the principal occupations in which people engage in your community.
4. Which are the most important to the community?

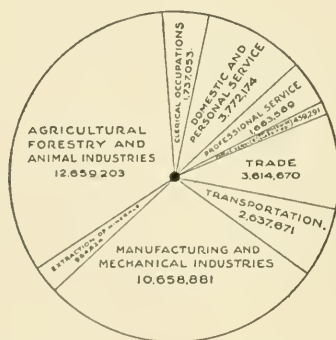
The student of economics will get a clearer view of the subject at the start by observing and listing the activities that are taking place. These activities consist principally in producing, transporting, buying, and selling goods, and in the furnishing of services, to satisfy human wants.

With few exceptions, all able-bodied men and women are engaged in work of some kind. The majority of men produce or distribute goods or perform services in order that they may provide themselves and their dependents with the means of livelihood and enjoyment; some men work to acquire property for a variety of reasons, and some seek to be influential through the value of their

services. These motives cause men to work and to achieve. We see the results in the activities around us.

### *Specialization of Labor*

In earlier times, before the development of transportation, individuals or families supplied for themselves the bulk of the goods they used, or at least each community provided almost entirely for its own needs. In remote regions and uncivilized countries individuals and com-



The occupations of the people of the U. S. in 1910

munities still produce a large part of the goods they use. The great majority of people, however, produce certain goods, and rely upon others to produce other goods that they need or want. The growth of transportation and means of distribution have made this possible. Each person in civilized countries produces a small part of what he consumes. Some people do not consume any of the goods that they produce. The combined work of all provides for the wants of all.

Formerly the clothes for the family were made in the home from home-grown and home-spun wool, flax, or cotton. Now the clothing for the family is made in factories by thousands of workers and scores of processes, from materials grown in distant places and transported and handled by a variety of agencies.

Workers are engaged in thousands of different occupations. Thousands of workers may be employed in producing a single article. Each worker may perform only a single process. The work of all combines to produce the completed article. It is said to require as many as eighty-four special processes in certain factories to make a pair of shoes. No single worker makes a complete pair of shoes, but the eighty-four workers operating machines produce many pairs of shoes in a single day. While one group of workers is producing shoes for thousands of people, other groups are producing other articles.

### *Specialization by Communities and Countries*

Communities and countries also specialize in production. Each country or community produces what it is best adapted to produce, and exchanges with other communities or countries for the additional goods that it needs. No country or community supplies all that is deemed necessary for its own people.

Many countries and communities supply all or nearly all of certain products. Chile has the principal deposits of nitrates; Japan and China supply most of the tea used in the world; coal and iron are limited in supply principally to five or six countries; silk is produced largely in France,

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Japan and Italy; the United States manufactures most of the world's agricultural implements and electrical equipment; all countries in temperate climates produce wheat, but the bulk of supplies comes from the United States, Canada, and Russia. These are merely examples of specialization by countries. A list of national or community specialization could readily be made from a standard text-book in geography or physical geography.



A rural shipping point, Fillmore, N. Y. From thousands of places like this farm products are shipped

Many thousands of separate products are imported or exported each year by the people of different countries. The vast exchanges of goods between country and country emphasize to everyone the importance of the economic processes by which the whole world supplies the wants of the people of each country.

The morning meal gives us a striking illustration of the way we call upon the world to supply our own needs.

The grapefruit came from California or Florida; the coffee from Brazil; the corn-flakes from the Middle West; the bacon from Chicago, whence it came from the farms of Iowa, Illinois or Indiana; the eggs from the surrounding country, perhaps, but possibly from distant farms. If we should carry the examination further we would



Modern shipping

find that the breakfast-room equipment also came from many countries.

Many of the present generation can remember when their own community provided for a much larger part of its needs than it does now. Transportation has been improved, distances have been cut down, and we reach farther out for products that we need or want. For

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illustration: Milk is brought to New York City from a distance of more than four hundred miles, although milk is a highly perishable product. Perishable fruits are transported from the tropics to all parts of the world.

Our dependence upon other people and upon far-distant places for useful things increases with the growth of



Loading fruit in the Tropics

knowledge and invention, and with the improvement of processes of production, transportation, and distribution. New products are found; new inventions require the use of additional products. The discoveries of science are constantly making things useful that were formerly useless, and are thereby enlarging the field of business activities.

We seldom think of the processes by which we are supplied with food, clothing, shelter, and the comforts of life, until they break down at some point and we are deprived of certain things that we need or want. We seldom think of our dependence upon transportation until floods, strikes, or bad service stop the flow of goods. We seldom think of the dependence of the city upon the country, and of the country upon the city, until production or transportation of some important article fails. We seldom think of our dependence upon each other and upon other communities or countries, and of their dependence upon us, until we are deprived of some necessity or comfort of life, thus forcing it upon our attention. Yet we grow more and more dependent upon one another for the supply of the things needed for our daily use, comfort and enjoyment.

### *Economics Defined*

The system by which goods are produced and exchanged to meet the varied wants of all people is the subject-matter of economics. If each person produced all he used, there would be no special value in this study. It is because specialization of production and distribution creates an extensive and complicated system that the study of economics becomes important. The more minutely specialization is developed, the more complicated the system becomes, because thereby each person becomes more dependent upon the perfect working of the whole system. When a person produces none of the goods he consumes, it naturally follows that he depends entirely on the process of exchange for his livelihood.

Everyone should have an interest in economics, because the subject concerns the livelihood and comfort of everyone. It is important to the individual to understand the economic system, because each person makes decisions constantly on economic questions which may affect his own or his country's welfare. Everybody is an economist in one way or another, although he may be unconscious of the fact.

Economics may be defined as the subject that deals with all of the activities of men in satisfying their needs and wants. It deals with the processes by which people produce and distribute goods to meet the needs of consumers. It deals also with the services that are performed to satisfy needs and wants. Everything that relates to or results from the carrying on of business, including those things that help or hinder the process, is within the field of economics.

### *The Subject-Matter of Economics*

What are the activities that relate to or result from the production and distribution of goods to meet human wants, and that are therefore included in economics? We naturally think first of the actual work of production of goods on farms and in factories, forests and mines. Next we think of the necessary means for transportation by highway, railroad, water, or air, and the means for care and storage. We observe everywhere the business of buying and selling goods at wholesale and retail. We recognize the need for money to make exchanges, and also the importance of having sound money of staple value to avoid loss and confusion.

When we look into the processes of business further, we see the place that banks occupy in creating credit and lending money to carry on production and distribution, and in transmitting money from place to place. We see also the importance of banks and other institutions in bringing together the people's savings in order that they may be safeguarded and used to finance business activities. Insurance of all kinds, by protecting business against the risk of sudden calamities, promotes stability and safety for the business man.

Most important of all in economics is the study of the way in which the income from production and distribution is divided among those who take part in the making and distribution of goods among the employees, workers, managers, landowners, and capitalists.

### *Control of Economic Evils*

What evils resulting from the economic processes are we bound, in fairness to all the people, to prevent? First, there is the necessity of preventing greedy men from controlling necessary goods and extorting unfair prices. Monopoly of products or raw materials is condemned by fair-minded men, and is generally prohibited or regulated by law. Profiteering—meaning the charging of unfair prices—is also universally condemned. All citizens desire that the process of supplying the people's wants should work for the benefit of all without selfish control or advantage.

### *The Citizen's Interest in Economics*

The people are interested in the freest and most efficient exchange of goods, and to that end they promote better

means of transportation and better systems of buying and selling goods, particularly by bringing producers and consumers closer together. Since the good of all is the ideal of democracy, the citizen as an economist is especially desirous that the natural resources of the country shall not be wasted for the selfish advantage of a few. Conservation of mines, forests, and soils, and of the health of human beings as well, is of concern to all. The promotion of efficiency of production and consumption to prevent waste, and to make the most of what we have, is a matter of special interest to the citizen.

The citizen as an economist is also interested in the community control and regulation of business for the public welfare. He is interested in seeing that the people are protected, and, at the same time, that business activities are not unduly hampered by unjust regulations. Taxation is especially important to him, because if taxes are not imposed with scientific care and fairness, they may not only harm individuals but may seriously hamper the processes of business and may even destroy business activities. "The power to tax is the power to destroy," and therefore it should be exercised with great care.

In short, the citizen as an economist seeks the assurance that the processes of business by which the wants of all the people are supplied shall go on at their fullest efficiency for the benefit of all, and shall be as free as possible from selfish control. We all desire that the economic agencies that produce and distribute goods, or that aid in the process, shall be conducted for the benefit of all.

*Economics and the Community*

Economics in its community or social aspects deals with the economic processes of production and distribution of the fruits thereof among the agencies of production, as those processes are controlled or regulated by the community for the benefit of all. The community is concerned in guarding the people's welfare through measures that promote good and restrain evil in the processes that provide for human wants.

We are concerned, in the study of economics, with the needs of the people of the community and their fulfilment, because the welfare of the people is the first consideration. Since all of the people are consumers, the consumer is entitled to first place in our concern. Production is for the purpose of consumption and not for the selfish advantage of the producer. We encourage production of necessities in order to benefit the consumer. We discourage production of luxuries at times, in order not to interfere with the production of necessities. We encourage efforts to get goods from the producer to the consumer more economically in order to supply better the needs of the consumer. We are concerned, first and foremost, with the consumer's essential needs, because we are all consumers and we seek the greatest good to the greatest number.

The following examples will illustrate more fully the place of the community in economic activities:

- (1.) The economic processes of business, if uncon-

trolled, might place a necessity of life in the hands of one man or group of men, who would be able thus to oppress others. In such cases the community properly acts to curb the power of the monopolist.

(2.) The farmer may exhaust the soil or the miner may waste coal for immediate profits; but the community is interested in saving such resources and in the conservation of productivity.

(3.) Railroads might charge excessive rates and thereby hinder the transportation of goods that the consumers need. The community is interested in fixing the rate at a just and reasonable amount in order to promote transportation for the benefit of all consumers.

(4.) Banks or insurance companies or corporations might be run for the benefit of the few who control them; but the community steps in and regulates their conduct for the benefit of all.

Such examples might be multiplied to show how the purely economic processes of producing, transporting, and selling goods are regulated by the community to protect and promote the interests of the people.

It is plain to any observer that the principal business of men consists in producing and distributing goods to provide the means of supplying their own needs. The process of getting goods to the consumer with the greatest efficiency is the problem that most vitally concerns all. The most difficult questions that confront the people are economic questions growing out of the process of providing for the needs of the people. These questions must be understood by all people in order that the laws that are

passed and the actions that are taken may be for the public benefit.

In the study of economics and the community we shall follow the production and distribution of goods and learn about the agencies that carry on the world's work. We shall see how the people act together in local community, state, and nation to facilitate the processes of business and to check those practices that in any harmful way affect the interests of the people.

### *Questions and Problems*

1. Name different reasons for people selecting the occupation in which they work.
2. Make a complete catalogue of the products used in the construction of your school building and the sources of supply.
3. Make a catalogue of the principal food-stuffs displayed in a grocery store and give the sources of supply.
4. Describe the dependence upon other cities, states and countries for these products.
5. From any standard physical geography or similar sources make a list of the principal countries upon which we rely for important articles.
6. What are the advantages and disadvantages of supplying one's self or of dividing labor and depending upon others?
7. What are the advantages and disadvantages in the specialization of production by communities and countries?
8. Is our dependence upon others for the goods we want likely to increase or to decrease in the future?

### *References*

Clay, *Economics for the General Reader*, Chapters 1 and 2.

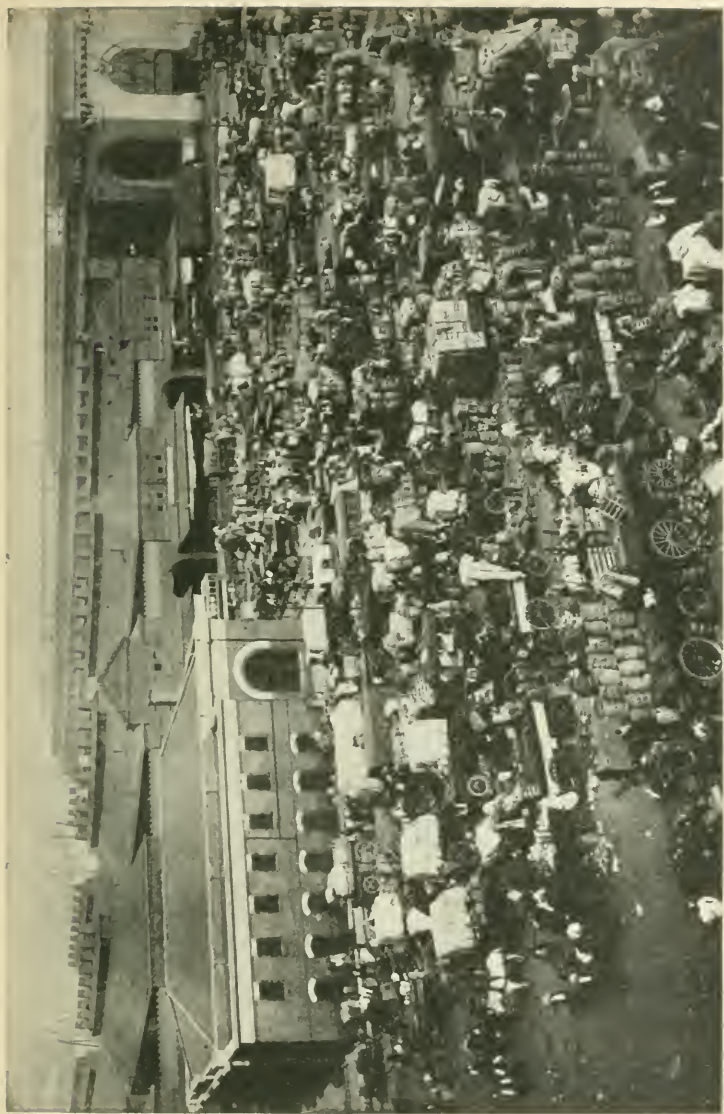
## CHAPTER II

### CONSUMPTION

#### *Community Survey*

1. Make a list of all goods consumed in your community.
2. Make a list of what you consider necessities of life.
3. Make a list of what you consider comforts of life.
4. Make a list of what you consider luxuries of life.

The subject of consumption is dealt with first in economics because consumption is the beginning of the process that results in the production and distribution of goods and in the furnishing of services. It is because people want goods and services that production and distribution are carried on and services are performed. If men did not want shoes there would be no shoes produced, nor products used exclusively in making shoes, nor machinery for the production of shoes. If men wanted some available substitute for leather shoes, production of the substitute would follow. If men wore long hair and beard, there would be no need for the services of the barber, nor for the production of barbers' tools or equipment. The great variety of needs and wants of millions of people call for a great variety of products and services, and induce people to engage in the production of goods and the furnishing of services.



SUPPLYING THE PEOPLE'S NEEDS  
Gansevoort Market, New York

*Kinds of Wants*

The wants of people may be classified into essentials and non-essentials, according as they are necessary or not for comfortable living. Wants may be classified also into necessities, comforts, and luxuries. Food, clothing, fuel, and shelter, sufficient to sustain and protect life, are essentials or necessities. Most people would also include many of the ordinary comforts of life among the essentials. For example: one could live without sugar except such as nature supplies in raw foods, but few persons will do so if sugar is to be had. Nearly all people would count it a real hardship to go without a liberal supply of sugar. Education is not essential to existence, but it is necessary in modern civilized life; hence all equipment and work connected with education are essentials. Luxuries or non-essentials, such as diamonds, silks, and many forms of personal service, are those that are not needed for comfortable living.

A little thought will show that necessities, comforts, and luxuries overlap one another. No one can tell exactly where each begins. It is comparatively easy, however, to classify most of the important needs, such as food, clothing, shelter, and fuel. The governments of the nations at war were forced to make such classifications when pressed to produce the essentials of life in war-time without waste of material or effort. Some kinds of production were stopped entirely, while others were given special aid and encouragement. Everyone could see plainly that diamonds should not be produced when men were needed to grow wheat or make clothing, to say

nothing of the manufacture of guns and ammunition. Many of the countries of Europe will probably find it necessary to center attention for years upon the production of the most important necessities of life, to the exclusion of luxuries and of many of the comforts of life. The United States will probably find that it is at least desirable to encourage production of necessities in order to meet the most pressing needs of the people.

### *Partial and Complete Consumption*

Consumption of goods may be complete, as when food is consumed or coal is burned. Consumption may also be for further production, as when iron is used in the manufacture of steel, or when steel is used in the manufacture of rails or agricultural implements. The term "consumer" is broader, therefore, than is usually understood. It means not merely the person who uses food and clothing, but also the producer who uses raw material to produce goods.

Every person who buys goods, either for complete consumption or to use in further production, is a consumer of those goods. The one who actually uses the final product for which the whole economic process is carried on is called the "ultimate consumer." The user of bread is the ultimate consumer of the products and service of the wheat-grower, miller, baker, and distributor, as well as the manufacturer of machinery used in farming, milling, baking or transportation.

The farmer is the consumer of agricultural machinery, in the manufacture of which there were several steps, namely, the making and assembling of the parts, the

manufacture of steel from iron, the manufacture of iron from ore, and the mining of the ore itself. The manufacturer is a consumer of the machinery that he requires in the making of his product. But the ultimate consumer is the one who starts the whole process of consumption. His demand for goods for his own use and satisfaction requires not only the direct production of those goods but also of all of the materials and equipment needed to produce goods in the form wanted.

### *The Ramifications of Consumers' Needs*

Simple examples drawn from everyday life will show the ramifications of demands for goods to supply human wants. Such examples will indicate the world-wide stimulus to production caused by the demands for goods. Take the example of our demand for bread. This demand makes necessary the work of the miller, farmer, baker, transporter, and manufacturer. The baker needs machinery and utensils. The miller needs extensive equipment for the grinding of grain and the milling of flour. The farmer needs farm implements of many varieties. Transportation agencies need road-beds, tracks, vehicles, and power. The manufacturers require vast amounts of machinery to supply the needs of the miller, farmer, baker, and transporter, and of those who supply other necessary products that go to the making of bread. The manufacture of machinery and apparatus requires innumerable products from mines and forests, the getting of which in turn creates demands for other goods. The remotest parts of the earth are called upon to supply some

of the things that go to produce bread. The same story may be told of other necessary food-stuffs, clothing, and building materials. To supply each causes wide ramifications of demands.

Perhaps the idea can be more readily grasped by an example of the demand for a new product, such as the automobile. The automobile industry has developed to



Rubber plantation

enormous size in a few years. A new chain of demands was set up by the growth of this industry. What were the products that were called for by the demand for automobiles? Rubber was needed in large quantities. Into the remote regions of the tropics, organizers and workmen went to develop rubber production. This in turn required machinery for producing and manufacturing

rubber, as well as means for transportation, including railroads and steamships. These demands in turn increased the demand for iron and wood products in endless succession. Other products specially needed for the auto-



Picking cotton

mobile were nickel, copper, platinum, leather, oil, and gasoline. Each need set in motion a new chain of demands, which reached around the world. Activity was stimulated in many directions by the demand for automobiles. Communities that possessed raw materials or where manufacturing of automobiles was started were changed into flourishing industrial centers. New occupations connected with the manufacture, repair and opera-

tion of cars came into being, thus creating new sources of demand for services and for other goods.

The same story could be repeated in respect to the motion-picture business, the electrical business, the talking-machine and numerous other industries that have sprung up in recent years. The ramification of demands spreading out from these industries stimulated activities everywhere, and the process of expansion continues endlessly. Every new invention or scientific discovery creates new needs, which men in all parts of the world supply.

### *Community Consumption*

The people in organized communities have needs in common which create large demands for goods. Townships, counties, cities, states, and the nation all perform certain functions for the people that require large supplies of materials. They also require the service of individuals in great numbers. Fully two per cent of the people of the United States are engaged in public work for a part or all of their time, in the effort to supply community needs. At present more than six billion dollars are spent annually in supplying the needs of local, state and national governments.

An analysis of public or community needs for materials shows how important are the collective demands of the people upon production. In recent times the need for war materials overshadowed all other needs. Thousands of industries devoted their whole time to the supplying of the collective needs of the people for military supplies. The need for public buildings, and the materials and equipment that go into them, the building of harbors and

docks, the dredging of rivers, and the building of canals make important demands on the output of productive enterprises. Highway, street, and bridge construction and maintenance call for enormous supplies of materials and machinery. Education calls for large amounts of material products to provide the necessary buildings, books, and equipment. Drainage, irrigation, parks, playgrounds, and hospitals require large supplies of many products. The collective demand for goods to supply public needs has the same economic effect upon production as if they were individual wants. Production responds to meet all of the needs of people, whether expressed individually or by community action.

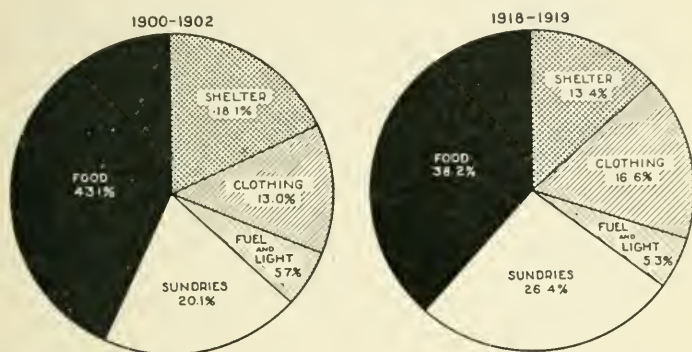
### *The Demand for Services*

In addition to material goods, people have wants for services of various kinds. These wants encourage people to engage in occupations to supply them. Nearly everybody has need of the professional services of physicians, nurses, lawyers, and dentists. Many people use the services of barbers, chauffeurs, waiters, and housemaids. The people as a whole or in groups require churches, schools, libraries, and play-grounds, each requiring professional and personal services. The need for professional and personal services creates additional demands. Schools require buildings, books, charts, desks, blackboards, and stationery. Churches, libraries, and play-grounds require large equipment calling for many products.

Artists and musicians and the love of art and music create demands for a number of products, such as musical instruments, sheet music, painters' and sculptors' materials

and equipment, besides the erection of music-halls and art galleries.

It would be hard to find a single activity in the whole range of life that did not directly create the need for products and services and that did not consequently stimulate economic activity.



How the people spent their money in 1900-1902 and in 1918-1919

### *Essential and Non-Essential Goods*

All activities and wants, whether essential or non-essential, stimulate the productive process. The demand for luxuries causes men to produce luxuries, just as the demand for necessities causes people to engage in the production of necessities. Men engage in occupations that will give them the largest economic return, whether the occupation be the production of food-stuffs, the manufacture of automobiles, or the cutting of diamonds. The bulk of the wants of the people are, however, for the necessities of life, including those comforts and satis-

factions of life which people have come to consider as necessities.

Fully three fourths of the entire income of all the people of the United States is spent for food, clothing, and shelter. A great part of the remaining expenditures goes for other products and activities that are considered essentials, such as religion, education, and recreation. Only a comparatively small portion of the total income of all of the people is spent for the purchase of luxuries, such as diamonds and silks, or for uneconomic goods, such as liquors, chewing-gum, and habit-forming drugs.

It is for the direct benefit of all of the people that production of essential things should be promoted, so that people may be supplied as readily and economically as possible with the first essentials of comfortable living. The people are not greatly concerned, from an economic viewpoint, with the production of non-essential goods, except when such production draws labor and materials away from the production of essential goods to such an extent as to curtail the production of the things that the people need most. If the majority of the people should cease to produce food and clothing and should engage in hunting gold or diamonds, we should soon be reduced to dire distress.

There is generally a recognition of the advisability of prohibiting the use of goods that are harmful to human beings. Such drugs as opium and alcohol are, therefore, prohibited. The sale of other products is restricted, as for example the sale of cigarettes to children. The sale of luxuries is generally allowed to go on, but special taxes

are often levied to discourage sales as well as to secure governmental revenue. It is clearly recognized that luxuries should not be produced at the expense of the production of essentials. During the war this principle was put into widespread practice in America and Europe. In 1920 the Federal Reserve Board, which has general control of the banking system of the United States, began a movement among bankers to cut down bank loans to producers of non-essentials, in order that capital and labor might be more freely available to supply the necessities of life.

The wants of consumers are constantly increasing. This is caused by the growth of science and invention and the consequent creation of new products, the wider education and experience of consumers, and the creation of wants by means of solicitation and advertising. The wants supplied to-day in the family of the poorest workman contain many products that a century ago even kings could not enjoy. Sugar is a good example. A century ago the average consumption of sugar was less than seven pounds per person per year for all purposes. Few people used sugar. To-day the average consumption is between ninety and one hundred pounds per person per year, and the use of sugar is universal. We have learned many new uses for sugar, besides increasing its use in old ways.

The standard of living is constantly improving and enlarging, and the process will undoubtedly go on as fast as science and invention are able to produce additional and desirable products within the reach of man. The power of salesmanship and advertising to enlarge and create

desires is well understood. By these means people's attention is called to certain products, and their consumption is thereby encouraged. Advertisers stimulate and edu-



The education of consumers. A domestic science class

cate the people in the use of goods. They make a market in people's desires for new goods, and they also keep attention focused on well-known products. If it were not for advertising and salesmanship, people's desires would change but slowly. Styles would remain constant for many years. Advertising makes knowledge of products universal and creates desires which express themselves in demands for goods.

*Education of the Consumer*

The consumer's knowledge of products and his desires for them are constantly expanding, but his demands are limited by his ability to purchase. The consumer's income determines the amount that he may purchase. Anything that enables the consumer to conserve in one direction allows him to expand in another. The education of the consumer in the prevention of waste and in the economic use of goods enlarges his capacity to purchase



Training teachers of domestic science, Columbia University

products. The education of the consumer in the wise use of food and clothing generally prevents much waste and enables him to apply the savings to other purchases.

The education of the housekeeper makes possible the fuller use of products and the supplying of additional wants. The education of the consumer as a purchaser enables him to purchase more effectively, and consequently to supply a wider range of wants and provide for future needs. It is of direct economic value, therefore, that schools should teach rational consumption through practical courses in the selection and use of food, clothing, shelter, and other essential goods.

### *Questions and Problems*

1. Why are we concerned in economics first of all with the wants of people?
2. What are the necessities of life?
3. What are the comforts of life?
4. What are the luxuries of life?
5. What part of the wage-earner's income is spent upon necessities? Comforts? Luxuries?
6. Why should we be specially concerned about making it easier to secure the necessities and comforts of life?
7. Is there any reason why we should promote the production of the luxuries of life?
8. Is there any difference between necessities and luxuries in the effect of wants upon production?
9. Is it ever proper to discourage or actually prohibit the production of luxuries?
10. What is the effect of the growth of science and invention upon the wants of the people? Give examples.
11. What are community wants and how do they affect production? Name twenty community wants.
12. Discuss the merits of advertising in its results in stimulating the use of goods.
13. Show the way wants cause other wants in an endless chain.
14. What goods are totally consumed in the process of

consumption, and what goods are merely changed in form?

15. Trace the demand for goods produced by the demand for automobiles, motion pictures, electrical supplies, farm machinery, bananas, wool clothing, cotton clothing.

### *References*

Clay, *Economics for the General Reader*.

## CHAPTER III

### PRODUCTION

#### *Community Survey*

Make a complete survey of the community to determine the kinds of production, the processes of manufacture, the kinds of power used; the importance of the various products; and the number of men engaged in different occupations.

Production consists in the preparation of goods in such form that they will satisfy human wants. Nature produces some goods entirely unaided, such as wild fruit and nuts. Nature guided by man produces many things, such as agricultural products. Nature produces vast stores of minerals, which man secures by his own efforts in mining. Man takes the raw materials from nature and shapes them into useful products, or he may take the partially formed products and shape them into other and more usable forms. Iron ore is produced by mining. Crude iron is produced from the ore by smelting. Steel is a finer product of iron made by special processes, and steel is used in making scores of other products.

Each of these processes is included in the term "production." Production consists in giving utility or usefulness to goods in the eyes of the consumer. The producer may create goods that the consumer wants, and

thus give form-utility. He may distribute goods to the place where the consumer wants them, thus giving place-utility. He may store and preserve goods until such time as the consumer wants them, and thus give time-utility. All these processes are included in production. For convenience and clearness, the distribution of goods is discussed in the next chapter.

Production responds to the wants of the consumer. The known wants of the consumer for food causes men to engage in agriculture to produce food-stuffs. The wants of the farmer for tools and equipment cause men to engage in the manufacture of farm implements. The wants of the manufacturer for steel and wood cause men to engage in steel production and lumbering. The wants of the manufacturer for fuel cause men to engage in coal-mining. And so on through the infinite demands created by the original wants of the consumer for food-stuffs.

### *Production Anticipates Wants*

Production does not wait until the wants for goods are made known. The farmer anticipates the wants for food-stuffs and grows his crops in advance of demand. The manufacturer, the producer of steel, coal, and lumber, anticipates the wants of the consumer for their products and produce their goods in advance. Production responds to the expected wants as well as to the actual wants expressed in orders for goods. The producer, from the experiences of past years, measures the probable needs of the future and attempts to provide for them in advance.

Producers also create wants for goods in the mind of the consumer. The producer of a new article anticipates that a demand will be created for it when its merits are known. A new breakfast food or a new style of hat may be produced at the risk of being wanted by the consumer. When it is once on the market and the probable demand for it has been measured, the volume of its future production can be more readily determined.

### *Advertising*

The producers also stimulate wants for goods by advertising. They do not wait for the wants of consumers to be expressed, but they call attention by clever statements to the merits of their products, thus stimulating the consumers' desires for them. Some well known products have been made universally known to consumers through the power of advertising. A producer carries on his advertising both by printed advertisements and by salesmen.

### *Importance of Essential Goods*

The great bulk of consumers' wants are fairly stable and continue uniformly year after year. Food, clothing, and shelter are primary wants and take the greater portion of the entire income of the people. If all other wants were cut off except the demand for these necessities of life and for the necessities that grow out of their production, the total volume of products would not be greatly decreased. It is important to keep in mind that the great bulk of business is in the production and distribution of essential goods.

*Types of Production*

Production may be classified as extractive industries, manufacturing industries, and commercial industries, including transportation. All production can be readily grouped in these divisions.

Extractive industries are those that produce the raw materials for the purpose of consumption or manufacture.



A source of raw materials

The most important extractive industries are agriculture, forestry, and mining. Agriculture is the creation of products by the cultivation of the soil. Since most of our food-stuffs and clothing come from the products of the soil, agriculture must be considered as our most important industry. Mining is the taking of the mineral substances stored up in the earth to produce the raw materials for manufacture. Forestry creates various products, in-

cluding the raw materials for the manufacture of lumber, paper, and rubber.

Manufacturing consists in taking the raw materials produced by the extractive industries and changing their



Copper mining

form so as to give new use to the product. Manufacturing may be partial or complete. Iron is manufactured when the ore produced by mining is smelted. The same iron is further manufactured into steel. Steel is further manufactured into many articles of commerce. The most important kinds of manufacture are iron and steel farm implements, automobiles, machinery, electrical devices, hardware, drygoods, food products, leather, chemicals, and paper.

The third division of production includes the activities of buying, selling, and transporting raw materials for manufacture, and of selling and transporting the products of manufactures to the consumers, together with all of the related lines of business—such as banking, which helps to finance the process of distribution, and insurance, which safeguards the owners of property from a calamity.

### *Factors in Production*

We have seen that raw products are first extracted from nature, given new forms by manufacture, and distributed to the consumer. The process of extraction, manufacture, or distribution consists in organizing the necessary factors to bring this about. There are four main factors of production, namely, land, labor, capital, and management. It will be necessary to establish a clear idea of the meaning of land, labor, capital, and management, because the solution of many social and economic problems depends upon our understanding of the part played by each in production. •

### *Land*

The term “land” is intended to include all of the materials and forces of nature above and below the surface of the earth. It includes soils from which vegetable matter comes, minerals, waters, and natural forces. These materials and forces lie dormant until utilized by man. Many of these materials and forces lie undeveloped until science and invention teach man how to utilize them. Science and invention are constantly discovering new uses

for the materials and forces of nature, as well as improving old ways of using them.

### *Labor*

The term "labor" includes all of the physical and mental efforts of man applied in utilizing the materials and forces that have been described as land. We sometimes think of labor as merely the manual or hand workers. As a matter of fact, labor includes the work of inventors, scientists, bookkeepers, and clerks, as well as manual laborers. Any one who contributes the work of brain or hand to production is included in the term "labor."

### *Capital*

The term "capital" includes all of the accumulated goods that have resulted from past production and that are organized for further production of goods. All of the equipment of farm, shop, mine, store, railroad, and other agencies of production and distribution is included in the term "capital." It will be seen that the term is broader than the idea of money capital, held by many people. Goods that are included in the term "land" may become capital. Coal in the mine is land; but stored in the bins of a manufacturer it becomes capital. Iron ore in the mine is land; but transformed into iron or steel it becomes capital in the hands of a manufacturer.

### *Management*

Management includes those who bring together capital and labor and organize them for the extraction of raw materials or the manufacture and distribution of goods. Management organizes land, labor, and capital, with a

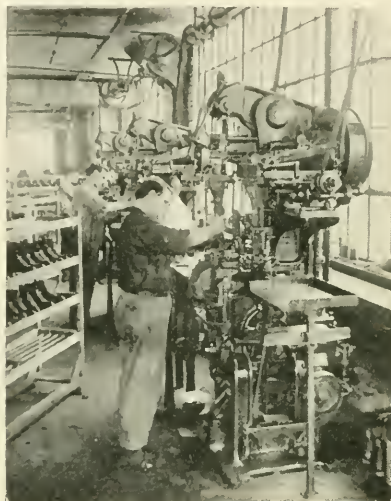
view to the creation of products from which a profit can be made.

### *Division of Labor*

We have already seen that production is carried on by workers, each one of whom is engaged in a particular part of the process. Some may work in agricultural production, some in manufacturing, and some in the distribution of products. The agricultural workers are divided into specialties, such as the producers of grain, cotton, tobacco, dairy products, fruit, poultry, and livestock. The workers in manufacturing are divided into many special lines of manufacture, and in each plant the men are specialized to perform a single operation. Even in a special trade, such as carpentry or machine work, there are scores of subdivisions. Workers in the distributive process are likewise specialized. There are bookkeepers, clerks, salesmen, laborers, and specialists of many types. The United States Census Bureau lists several thousand distinct occupations in which workers engage.

The division of labor described by these examples is the special feature of the present system of production. Adam Smith, the great English economist, was one of the first to point out this characteristic of production. Since his time the division of labor has been infinitely extended. For many decades the tendency has been toward a narrower and still narrower division of labor. Factories have reduced many processes to mere routine by labor-saving machinery. The division of labor has extended so far that many occupations have become extremely monotonous to the worker and require very little skill or

thought on his part. By division of labor in factories each worker may become more expert in the process he is performing through constant repetition. At the same time, it requires greater skill in management to keep all of the processes working efficiently. The effect of too narrow specialization upon the worker is to deprive him



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Shoe industry. Heel fastening machine at work

of initiative, and consequently of interest in his work. Specialization of work that enables a person to know all about a vocation is good, but specialization that makes a worker merely a part of a machine is harmful.

### *The Factory System*

Modern manufacturing is carried on principally in the factory. Mechanical devices, instead of human hands,

are used in many processes. Mechanical power drives the machinery, and the whole is guided and controlled by one management.

The factory system developed because of its greater efficiency over preceding systems, such as the family and handicraft systems, which formerly flourished. Science and invention brought increased possibilities in the application of steam, water, and electric power, and in the use of mechanical devices. With a machine and sufficient power, one man can perform the work of several handicraftsmen.

Dependence on power caused the concentration of workers in factories, and the location of factories near sources of power and labor. The growth of modern industrial cities has resulted largely from the development of the factory system.

The problems of organization and management of industrial enterprises have been brought to the front with the growth of the factory system. The factory requires efficient organization and considerable capital. There must be a continuous supply of raw materials and of labor. The arrangements of the plant must be made to promote efficient handling of materials. Waste of time and materials must be prevented. Workers must be selected and trained for the kind of work they are able to do best. The entire factory must be organized so as to work smoothly and harmoniously as a unit. The management must dispose of the product in distant markets, and profit is essential to enable the factory to be run.

*Large vs. Small Scale Production*

In some lines of work production on a large scale is found more profitable than production on a small scale, while in other lines the reverse is true. Manufacturing, mining, and lumbering are generally more profitable when conducted on a large scale. Diversified farming, fruit-growing, and dairying are usually more profitable when conducted on a small scale. Large-scale production permits wholesale purchases of materials; more efficient use of power; finer subdivision of labor; greater specialization of ability; employment of the latest improved machinery; the disposal of the product with fewer salesmen; and fuller utilization of by-products. On the other hand, the small producer is able to exercise a personal supervision over the whole industry which is impossible in a large industry.

The personal interest and supervision of the manager of the small plant often overcomes the advantages of large-scale production. We see examples in almost every industry of the small producer competing successfully with the large producer. In general it may be said that in industries that require originality of workers and adaptability to several processes, as in farming, the small-scale producer has the advantage; while in industries using specialized mechanical processes the advantage lies with the large-scale producer.

Since production is for the purpose of supplying the needs and wants of the consumers, it is apparent that the consumers have a direct interest in the most efficient conduct of productive enterprises, particularly of those that

supply the necessities of life. An inefficient system of producing shoes, for example, must be of concern to the users of shoes, because higher prices must be paid on account of inefficiency. Inefficient agricultural practices that would increase the price of wheat would react directly upon all consumers. The people as consumers are therefore interested in the most efficient system of producing essential goods and of placing them within their reach.

Private industries may be relied upon, in the main, to develop and use efficient methods and machinery for production. The search for profits will lead men to study and apply the best methods in industry, especially if there are rival producers. When the margin of profit is small, producers must make special efforts to promote efficiency, because of the danger that profits may be wiped out. When the margin of profits is large and when competition is not keen, there is not the same driving reason for the producer to study and apply the most efficient methods. The intelligent and progressive producer will promote efficiency in any case, but the unintelligent and unprogressive may not do so unless forced by the competition of his rivals or the fear of failure.

The problem of efficiency in production has in the past been considered solely as the problem of the producer. That idea is being modified rapidly with the growing need for essential goods and the increasing cost to the consumer of goods that he must have. There is coming to be a clear recognition of the interest of the people as a whole in the efficiency of production of those goods upon which the livelihood and comfort of the people depend.

*Over-Production*

One of the weaknesses of the system of production is that the producer can not tell whether there is to be produced too much or too little of an article in any year. Each producer produces without full knowledge of what others are producing or of the extent of the consumer's wants. There may be more furniture produced than the consumer wants, and the surplus stock may compel some producers to close their shops until the demand catches up. The farmer sows and plants, not knowing whether the crops are to be small or large. A small crop and a high price for wheat this year naturally encourage farmers to sow more wheat next year. A large crop on the increased acreage will usually cause the price to fall. The farmer can not accurately gage the amount and price of his products. This is especially true of perishable crops such as potatoes, cabbage, and similar crops.

Where one person or a small number of persons have full control of a product, they may restrict or enlarge the output as needed. The producers of petroleum can generally determine how much is to be produced because a few concerns control the bulk of the output. In most industries, however, this is not the case, and considerable uncertainty confronts the producer as to the amount produced. Moreover, the amount purchased by consumers will depend upon circumstances. A mild winter will reduce the demand for gloves; a crop failure will reduce the farmer's purchasing power for machinery; a period of business depression will restrict the purchaser to the most essential goods.

*Education for Efficient Production*

On account of the clearer recognition of the importance of production, the value of education as an aid to production is coming to be clearly understood. Colleges and vocational schools have been for some time preparing men and women for the farms, shops, offices, and engi-



Learning to be producers

neering professions. When such education was first suggested, it was considered theoretical by practical men. The "book farmer," as he was called, had to prove that what he learned from science could be applied to produce better crops. He proved that he could do so, and great numbers of farmers, young and old, began to go to agricul-

tural schools and colleges. Thousands of farmers now go annually for the short courses at the state schools and colleges. Thousands of young people are studying agriculture in vocational schools, high schools, and colleges.

The study of trades and industrial pursuits has also been recognized by practical men. Commercial education can be had everywhere in business schools, high schools, and colleges. Schools for the engineering profession, including civil, mechanical, chemical, electrical, and mining engineering, have prepared the greater number of the new recruits to the profession. Schools of business management, to train men to organize and manage industrial and business concerns, are growing in number.

In all kinds of vocations the value of knowledge applied in the day's work is recognized, and training in one's vocation is deemed essential.

One practical type of vocational education has been organized by means of part-time schools throughout the country. These schools take the student for a part of the time only from his work, and teach him the things he needs to know about the science and art of his vocation. The courses in these schools are fitted to the daily work of the student, and thus provide a practical combination of theory with practice.

Training for agricultural or industrial vocations brings direct results in production. Science applied to the soil produces larger crops. Science applied to industrial work improves the processes and increases production. Science applied to the management of industries improves the organization of business enterprises and facilitates production.

*Questions and Problems*

1. Define production.
2. Define form-utility; place-utility; time-utility. Give examples.
3. Show how production increases needs for further production.
4. How does it happen that when we want ordinary goods we generally find them already produced?
5. Does this mean that consumption wants follow rather than precede production?
6. Give as many examples as possible of extractive production.
7. Is the smelting of iron an extractive industry? The making of steel?
8. Which are the more essential industries, extraction, manufacturing, or transportation?
9. What are the factors of production?
10. Give examples of land as a factor in production.
11. Which is the most essential—if any one is more essential than another in production—land, labor, capital, or management?
12. Have we reached the end of the evolutionary process of change in the organization of production?
13. How do producers measure the consumers' needs in advance?
14. Describe fully the term "division of labor." Make a list of all of the divisions of labor you have observed.
15. Why is the worker in the city interested in the efficiency of the methods of farming?
16. Why is the farmer interested in the efficiency of the methods of manufacture and distribution of goods?
17. What forms of vocational training are found in your schools and institutions?
18. Why is vocational education of interest in economics?

*References*

- Sparling, *Business Organization*, Chapters 1-5.  
 Clay, *Economics for the General Reader*, Chapters 3 and 4.

## CHAPTER IV

### DISTRIBUTION OF GOODS

#### *Community Survey*

1. Make a list of retailers, wholesalers, mail-order houses, manufacturers who sell direct to consumers, and all other distributing agencies in your community.
2. How do the producers sell their products?

The distribution of goods is a part of production. It places goods within reach of the consumer, thus giving what we have called place-utility. Distribution also includes all the storage facilities, such as grain-elevators and cold-storage warehouses, by which goods are kept until the time they are wanted, thus giving what we have called time-utility. Production is, in fact, not completed until the goods are delivered at the place and time wanted.

#### *Simple Forms of Distribution*

Some goods are consumed by their producers. Farmers produce the bulk of their own food-stuffs. The artisan constructs some articles for his own use; nearly everyone provides himself with some of the products he wants. Distribution may be simple and direct, as the delivery of milk from the farm by the producer directly to the consumer in the village or city, or the sale and

delivery of the products of the truck farm directly to the consumer. Even the indirect sale of farm products to the consumer through the merchant or the produce dealer in the near-by village or city is comparatively simple.

In early times practically all distribution was simple in character, because the bulk of products was delivered from producer to consumer. There was no need for elaborate means of transportation and storage of goods



Country trading center

when producer and consumer dealt directly with each other. When transportation was by pack or wagon, the products that were carried long distances were few, and those mostly precious materials of small bulk. In the middle ages, throughout Europe, distribution was largely by means of markets and fairs. People came to central points to sell their goods, and the consumers or merchants came to buy.

*Modern Distributive System*

In modern times more elaborate systems are needed, because transportation facilities make the market for



Loading cars with produce

goods world-wide. Organization on a large scale is necessary to supply the wants of consumers with the goods of the world. Systems of transportation and storage have made it possible to deliver goods at the time and place needed. The development of means of transportation

makes the organization of distribution more and more important. Local manufacture of products for local use has given way to specialized industries in distant cities and towns. The products of the farms are sent to far-away points wherever needed. The products of the specialized industries of the cities and towns in turn reach the consumer in distant places. We are reminded of the possibility of bad consequences when the organization of distribution is inefficient or breaks down. A flood or storm, disorganizing the supplies of a city, brings the people to serious distress for lack of food or fuel.

The central feature of distribution is the system of transportation. This subject is dealt with in another chapter, but its place in distribution will be here suggested. From the beginning of recorded time transportation facilities have been improving, and with each improvement the system of distribution has been extended and quickened. Each improvement has added new markets and demands for goods, and enlarged old markets and demands. Early transportation followed the water-courses. The interior was isolated. The day of the trail was the day of local markets. Highways extended the area of transportation. Wheeled vehicles made land transport easier. Systems of good roads decreased the cost of carrying products and made it possible to transport goods over longer distances. Canals penetrated to new centers and opened new markets and new sources of supply.

The railroad and the steamship brought virtually every corner of the civilized world within the range of the distributive system. The motor-truck is fast linking up the

isolated producers and consumers with the centers of transportation. The airplane has just begun to show its possibilities for the transportation of small articles where speed is essential. The invention of refrigerator cars and ships has made it possible to bring many perishable products within reach of millions at all seasons of the year. Transportation has enabled the building of big cities and industrial centers. It has also made those cities and centers more sensitively dependent upon the outside world. It has enabled the producer on the farm and in the city alike to provide for a wider market; but it has made producers and consumers alike dependent to a greater degree upon the efficiency of the distributive system.

### *Storage*

Storage is an important factor in the distribution of goods. When distribution was local the problem of storage was simple. The producer or the local dealer supplied whatever storage was required. Now, when goods are purchased months and even years in advance of use, they must be stored. Wheat is harvested in a few weeks' time, but must supply the needs for the rest of the year. Warehouses and grain-elevators are therefore needed in agricultural centers to save the grain and equalize the supply to the market throughout the year. The producer sells or stores his wheat to secure cash for his immediate needs. Local and central warehouses and elevators have been built to provide storage within reach of the farmers and the market. Cold-storage warehouses have been built to meet the need for storage of perishable

goods. They serve the purpose of equalizing prices in different seasons, and make it possible to distribute goods more widely and throughout longer seasons. Without cold



Cold storage plant

storage such products as eggs would be extremely cheap during certain seasons and quite beyond reach in other seasons.

### *Terminals and Warehouses*

Terminal facilities are essential in the distributive system. No matter how efficient production or transportation may be, they will not serve the people efficiently unless products can be readily loaded, unloaded, and cared for at the terminals. Ship-owners may do their part

efficiently in bringing goods across the seas, but their work would be seriously hampered by lack of adequate docks and warehouses to which the ships could be unloaded.

The terminal facilities are frequently overlooked in the plans for transportation systems. Cities frequently make only slight provision for terminal facilities for railroads, ships, or trucks. It costs considerably more than it should to get goods in and out of a terminal or from a wharf if facilities are not well planned. This extra cost and inconvenience must be paid by the consumer. Progressive cities are planning and constructing adequate railroad terminals, docks, and wharves for passengers and freight. Cities that are making intelligent plans for the future are also arranging for landing-fields for airplanes.

The statements regarding terminals also apply to the unloading of goods at rural stations or at factories, mills, and mines. Anything that makes this process slower or more expensive adds to the cost of articles to the consumer. Every extra handling of goods is an economic loss, and in the long run the people must pay for the loss.

### *Transportation of People*

The transportation of people with the least amount of waste time and with the greatest ease is often overlooked as a problem in economics. When a worker must lose time unnecessarily in going to his work because of an inefficient street-car system, it is plainly an economic loss to him. The worker must live closer to his work, perhaps in crowded sections, or spend an excessive amount

of time going to and from his work. When thousands are thus inconvenienced the loss becomes serious. The time lost in transferring thousands of passengers from one station to another in a city is a waste. Much time and energy are wasted in some cities of our country by poor and ill planned transportation.

### *Buying and Selling Goods*

We come now to the consideration of another phase of distribution, namely, the system by which the producer sells his goods to the consumer. As far as the local market is concerned, the process needs no special explanation. The goods are shown to the prospective purchaser and a direct sale is made. The farmer may sell milk from his dairy or potatoes from his field to the local consumer. Such processes of trade are simple. The business problem of distribution arises from the necessity of arranging for a market for goods next month or next year in widely scattered places.

Let us take the example of a manufacturer of boots and shoes. The manufacturer must have a continuous market for his shoes, or else the factory could not operate continuously. What are the methods by which the manufacturer may reach the consumers of boots and shoes? First, he may organize to sell his shoes directly to the consumer by establishing local stores. This is done by several well known manufacturers of shoes. Secondly, he may advertise through newspapers, magazines, or circulars, and sell directly from the factory to the consumer. Thirdly, he may secure local merchants as agents to handle his shoes on a commission. This is a common method by

which the manufacturer is relieved of the risk of organizing and conducting local stores. To avoid this uncertainty he may sell his shoes to the retailers, who then take the responsibility of disposing of the goods to the consumer. Lastly, he may sell in advance to a jobber or wholesaler, who organizes the business of selling the shoes at his own risk. The jobber or wholesaler finds the market, and thereby relieves the producer of all matters excepting the manufacture of the shoes. This is the common method employed by manufacturers. The jobbers and wholesalers organize the market and take from the manufacturer the risk of disposing of the goods.

Whether the sale is made directly to the consumer by the manufacturer, or indirectly through jobbers, wholesalers, or retailers, some one must bear the risk that the shoes will be needed at the price asked for them, or that some other brand will not be preferred. Whoever assumes the task of selling shoes analyzes the market and the probable supply from all sources. He will attempt to determine what the probable demand for shoes will be and what the entire supply will be. If he analyzes correctly he may make a profit; otherwise he may suffer a loss.

### *Selling Agricultural Products*

Let us now take another example of selling goods, namely, the marketing of wheat. Wheat is produced by a multitude of small farmers scattered over wide areas of country. Few producers are in a position to handle the problem of selling their wheat in the same way as the manufacturer of shoes. With the exception of some



The wheat pit. The Chicago Board of Trade

small sales to millers in the local market, there is no direct selling of wheat by the producer to the consumer. Neither is there any great amount of selling directly to retailers; nor do jobbers and wholesalers buy the product and organize the selling of it in the same manner of manufactured products.

The system of selling wheat, and likewise most other farm products, is worked out through exchanges or boards of trade. The producer takes his wheat to the local elevators or the terminal elevators. Wheat is graded according to quality, and the owner receives a warehouse receipt for a certain amount of a certain grade of wheat. The wheat brokers, who are organized in the exchange or board of trade, buy and sell wheat for future delivery. Only members are allowed to buy and sell on these exchanges. The members of the exchange may, however, buy and sell for outsiders at certain rates of commission which are fixed by the rules of the exchange.

The wheat brokers are specialized dealers who are in touch with the market conditions. They analyze the market months in advance, and buy or sell at a certain price for delivery at a certain time, perhaps several months later. The actual owner of the wheat sells it through the brokers. The millers and other wheat purchasers buy through the brokers. Speculators buy and sell wheat through the brokers for future delivery, on the gamble that prices will go up or down. Out of this conflict of buyers and sellers the price of wheat is fixed several months in advance. When a sale is made of actual wheat for present delivery the warehouse receipts are turned

over to the buyer. These receipts, as we have seen, call for a certain amount of a certain grade of wheat.

Exchanges exist for all of the main products of the farm. The Board of Trade of Chicago and the Chamber of Commerce of Minneapolis are the principal wheat exchanges. Other exchanges are the New York Produce Exchange, the New York Cotton Exchange, the New Orleans Cotton Exchange, the New York Coffee Exchange, the Live-Stock Exchange of Chicago, and the Richmond Tobacco Exchange. There are many smaller exchanges for the sale of the same products and other products. In each of these exchanges the process is about the same as that described for the sale of wheat.

These exchanges work under rules and regulations which aim to prevent manipulation and fraud. They are subject to much criticism because of the amount of gambling that creeps in. Sometimes speculators attempt to secure control of the supply of a product by means of a "corner." Attempts of this sort have been more often a failure than a success. The evils of a single successful "corner" have caused justifiable criticism. The agitation for closer public regulation of the exchanges to prevent gambling and the manipulation of prices resulted in the passage, in 1921, of a federal law to prevent certain evils in the grain exchanges. Considerable power was given to the Secretary of Agriculture to regulate and control the practices of these exchanges.

The advantages of the system of exchanges are summed up by Sparling in his book on "Business Organization" as follows: "First, it tends to establish stability

of price; second, it distributes the risk among a special expert commercial class; third, it relieves the producer and consumer from carrying a whole year's stock for better prices; fourth, it reduces the profits of the middleman; and fifth, it means cash to the producer and a regular supply to the consumer." With effective public regulation, exchanges give the advantage of organizing the market for thousands of scattered producers who could not do it for themselves, and of fixing prices in advance, so that consumers may buy at a definite price for delivery at a future time. In contrast to the method of selling employed in disposing of manufactured goods this system, if honestly conducted without gambling, has some advantages.

### *Jobbers and Wholesalers*

The jobber and the wholesaler stand between the manufacturer and the retailer. They buy a product from the manufacturer and organize the market. Sometimes the entire output of one or more manufacturers is handled by one jobber or wholesaler. The business of jobbing and wholesaling is specialized into single lines such as hardware, drygoods, drugs, and groceries. The wholesaler or jobber makes a specialty of one of these lines. The managers of the business of wholesaling or jobbing therefore become expert in the lines of goods that they handle and are consequently specially informed and able to assume the risks.

In some lines of business the department-store, the mail-order house, and direct selling by the manufacturer have virtually driven the jobber and wholesaler out of

business. In other lines their services are increasing, especially in handling the products of manufacturers who are unable because of limited output or otherwise to organize direct selling to consumers or to sell directly to retailers.



The mailing of packages in a large mail-order house

### *The Mail-Order House*

In recent times the mail-order house has been developed especially to meet the needs of the country trade. The mail-order house is usually conducted on a large scale. It is able to purchase directly from manufacturers, and thereby serves the function of the jobber and the wholesaler. A large mail-order house sometimes purchases the entire output of a factory. It sells directly to the individ-

ual, promoting its business by means of advertising in newspapers, circulars, and catalogs. Shipments are made by freight, express and parcel post, and payments are made in advance or when the goods are delivered. The



Interior of a department store

entire business is conducted by mail without the use of agents. The carefully prepared catalogs of mail-order houses bring information concerning many lines of goods that the small-town or country store is unable to carry.

### *The Retailer*

The retailer stands next to the consumer. His business is direct selling. He anticipates what his customers will want, and provides in advance to have a stock of

goods on hand. He buys from the wholesaler or in some cases directly from the factory. If his business is extensive, as in the case of large department-stores, he usually is able to deal directly with the manufacturer, thus eliminating the wholesaler. His business succeeds by his ability as a buyer and as a salesman, or by his ability to secure good buyers or salesmen, by the courtesy with which he treats his customers, by the quality of his goods, and finally by the price that he asks for his goods. His problem is to gauge the desires of his customer. He loses when he overstocks with goods that his customers will not buy.

Retailers sometimes carry many lines of goods, as in the department-store. They also specialize, as in single-line stores. Each of these types has its advantages, and both are necessary in different localities. A store that carries several lines of goods has a wider range of customers. The single-line store, however, by concentrating on certain goods, becomes more expert in the goods that it handles. Many people prefer to buy at a single-line store, even at higher prices, because of the better knowledge of goods possessed by those who specialize in a particular line.

The retailer sometimes organizes his business on a large scale by establishing a number of stores located in different cities, or in different localities of the same city. These stores are under one management. The large business transacted by several stores makes it possible on the part of the managers to purchase goods more economically by dealing directly with the producers.

*The Auction*

The auction as a system of disposal of goods is well known to almost everyone. The farm auction, where a farmer disposes of his stock and equipment to the highest bidder, is well known in rural districts. The auction of household goods, books, and antiques is familiar to all observers in the city. As a system of selling goods on a large scale the auction is not so well known. Some products are sold almost entirely at auction. The new gold of the world is sold at auction in London at regular times. Nearly the entire supply of imported fruit in this country, bananas in particular, is sold at auction. The apple crop has in some instances been sold at auction. These are examples of what may become an important system of selling certain kinds of goods.

*Purchasing Systems*

The consumer also takes a part in the organization of distribution. He is not always a passive factor, waiting for the producer or his agents to come to him. He goes into the market himself, seeking the goods he wants. Large business concerns employ purchasing agents and have well equipped purchasing departments. It is the business of these departments to purchase all supplies needed by the concern. Purchasing departments seek out the best sources of supply and the best bargains. They deal with the retailer, wholesaler, or producer. Some cities, towns, schools, and public departments employ agents to purchase all supplies for their use. Coöperative societies sometimes organize their purchases through purchasing agents.

It will be seen from these examples that the organization of distribution is not entirely in the hands of the producer and distributor. The growth of coöperative societies and of purchasing departments in business concerns and in public work is changing the system of distribution, so that, in the purchase of many lines of goods,



Purchasing department of a large industry

organized consumers on their own initiative are bargaining directly with the producers instead of waiting for solicitation by the producer or distributor.

### *Competitive Bidding*

The practice of competitive bidding is becoming more common in purchasing by business concerns and public departments. The consumer having a need for certain goods or services advertises the fact, with specifications

of the goods or services needed. The producers make bids for the supply of the goods or services, and the contract is let to the lowest bidder who is responsible. This plan of organized purchasing gives certain advantages to the consumer; the producers must meet the consumers' specifications in open competition with other producers.

### *Defects of Distribution*

The process by which goods are transferred from producer to consumer should be as simple as possible. Wherever possible the consumer should be able to buy directly from the producer. For the great bulk of goods this is obviously impossible. The consumer of sugar in Wisconsin can not readily deal with the producer in Cuba. The residents of the city can buy but a mere fraction of their food supplies directly from the farmer. Organization is necessary to supply the service of distribution. A distributive organization is a necessary part of the process of supplying products at the time and place needed.

The defect of existing systems of distribution is found in the excessive number of distributors, or middlemen, as they are called. That middlemen are necessary is clear when we analyze the actual process by which goods must reach the consumer. When, however, goods are sold and resold, and finally reach the consumer after passing through several hands, the cost to the consumer is excessive because of the numerous profits that have been taken by the numerous middlemen who have handled the product. Products sometimes pass through as many as eight or ten hands, each taking a profit, before reach-

ing the consumer. This fact accounts for the wide margin between the amount the producer receives and the amount the consumer pays for the same article.

### *Questions and Problems*

1. What are the means of transportation by which the products of your community reach the consumer?
2. Figure the relative importance of the highways, railroads, canals, and steamships in transporting goods from producer to consumer in your community.
3. What facilities for storage of grain, potatoes, eggs, and dairy products are found in your community?
4. What effect does cold storage have in your city upon the prices of eggs, meat, and fruits at different seasons.
5. What is the function of the wholesaler and jobber?
6. Is it possible to do away with the business of the wholesaler and the jobber and sell directly from producer to retailer?
7. What are the advantages and disadvantages of direct selling from the producer to the consumer?
8. What examples are there in your community of direct selling from producer to consumer?
9. Do mail-order houses do business in your community?
10. What advantages do people claim for dealing with mail-order houses?
11. Describe a department-store.
12. What advantages and disadvantages are there in a department-store in comparison with the dealer who sells a single line of goods?
13. Get further information regarding one of the following exchanges: wheat exchange, tobacco exchange, coffee exchange, butter and cheese market, live-stock exchange.
14. What are the advantages and disadvantages of exchanges for agricultural products?
15. What are the chief elements of an efficient system of distribution of goods?
16. What means can be suggested looking toward the

making of more direct sales between the producer of raw material and the manufacturer, and between the manufacturer and the consumer?

17. What means can be suggested looking toward the more direct selling of farm products from the producer to the consumer?

### *References*

Sparling, *Business Organization*, Chapters 9-14.

Briscoe, *Economics of Business*, Chapters 10 and 11.

## CHAPTER V

### BUSINESS ORGANIZATION

#### *Community Survey*

1. Make a list of businesses in your community conducted by individuals, by partnerships, and by corporations.
2. Secure samples of articles of incorporation, shares of stock of corporations, and articles of agreement among partners.

The organization of business activities now claims our attention. We have seen that men work in order to provide for their wants, including the necessities, comforts, and luxuries of life. Many work also to accumulate property or acquire power in addition to their immediate needs.

Anyone may engage in any lawful occupation according to his own choice. He may organize a business of his own, or he may work as an employee for another. If he organizes a business, whether it be as simple as a peanut-stand or as complex as a steel plant, he takes the risk of being able to secure a profit for himself after the expenses of running the business are paid. If he works for others he does not assume that risk, but receives a definite amount for his services.

The organizer of a business is sometimes called an enterpriser, or an *entrepreneur*. There is no essential

difference between the enterpriser who organizes and runs the business of a farm and the enterpriser who organizes a manufacturing plant. Each takes the risk of securing a profit after the expenses of running the business are paid.

### *Individual Organizers*

The simplest form of business organization is that of the individual organizer. One person undertakes to run a business. He secures the necessary equipment, employs assistants if needed, and takes the profits if the income is greater than the cost. The majority of farmers are individual business organizers. The farmer secures land and farm equipment, hires labor, and takes the risk of securing profits from combining land, labor, and equipment in the production of crops.

Numerous other enterprises, such as retail stores and small shops, are owned and managed by individual business men.

### *Partnerships*

When two or more individuals combine to conduct a business jointly, the form of organization is called a partnership. The partners combine their labor, management, capital and land and hire additional land, labor and capital if necessary, to conduct a business. Partnerships have the united strength and resources of two or more persons.

The partnership is formed by an agreement among the partners setting forth the purpose of the partnership, the

nature of the business to be performed, the powers that may be exercised by the individual partners in carrying on the business, and the method of dividing the profits. The value of the partnership consists principally in the union of skill and resources of the several partners, thus enabling many things to be undertaken that would be impossible for any one of the partners acting alone. The advantage of the union of skill is seen clearly in the running of a store. One partner may be a good salesman but a poor bookkeeper, while another may be a poor salesman and a good bookkeeper. Still a third may be an expert buyer of goods. Such a partnership combines the skill essential to the success of the business.

The weakness of a partnership lies principally in the fact that each of the partners is liable, as a rule, to the extent of his entire fortune for the lawful acts of any of the partners in the conduct of the business. A partner may lose not merely what he has invested in the business, but also all other property possessed by him, through the dishonesty or bad judgment of a partner. Men naturally fear such risks. This risk is offset by a special form of limited-liability partnership. In this form a partner's liability for the debts of the partnership is limited to the amount of his interest in the partnership.

Until about fifty years ago the partnership was the prevailing form of business organization for large undertakings. It is still found to a considerable extent in the professions, especially the law, and in small retail and manufacturing enterprises. In the main, however, it has given way to the corporation.

# Articles of Agreement, *Made the*

*day of* *one thousand nine hundred and*

*Between*

*as follows: The said parties above named have agreed to become co-partners in business, and by these presents do agree to be co-partners together under and by the name or firm of*

*in the* *buying, selling and vending all sorts of goods, wares and merchandise to the said business belonging, and to occupy the*

*their co-partnership to commence on the* *day of*  
*and to continue*

*and to that end and purpose the said*

*to be used and employed in common between them for the support and management of the said business, to their mutual benefit and advantage. And it is agreed by and between the parties to these presents, that at all times during the continuance of their co-partnership, they and each of them will give their attendance, and do their and each of their best endeavors, and to the utmost of their skill and power, exert themselves for their joint interest, profit, benefit and advantage, and truly employ, buy, sell, and merchandise with their joint stock, and the increase thereof, in the business aforesaid. And also, that they shall and will at all times*

Page one of a partnership agreement

*during the said co-partnership, bear, pay and discharge equally between them, all rents and other expenses that may be required for the support and management of the said business; and that all gains, profit and increase, that shall come, grow or arise from or by means of their said business shall be divided between them*

*and all loss that shall happen to their said joint business by ill-commodities, bad debts or otherwise shall be borne and paid between them*

*And it is agreed by and between the said parties, that there shall be had and kept at all times during the continuance of their co-partnership, perfect, just, and true books of account, wherein each of the said co-partners shall enter and set down, as well all money by them or either of them received, paid, laid out and expended in and about the said business, as also all goods, wares, commodities and merchandise, by them or either of them, bought or sold, by reason or on account of the said business, and all other matters and things whatsoever, to the said business and the management thereof in anywise belonging; which said book shall be used in common between the said co-partners, so that either of them may have access thereto, without any interruption or hindrance of the other. And also, the said co-partners, once in*

*or oftener if necessary, shall make, yield and render, each to the other, a true, just and perfect inventory and account of all profits and increase by them or either of them, made, and of all losses by them or either of them, sustained; and also all payments, receipts, disbursements and all other things by them made, received, disbursed, acted, done, or suffered in this said co-partnership and business; and the same account so made, shall and will clear, adjust, pay and deliver, each to the other, at the time, their just share of the profits so made as aforesaid.*

*And the said parties hereby mutually covenant and agree, to and with each other, that during the continuance of the said co-partnership, of them shall nor will endorse any note, or otherwise become surety for any person or persons whomsoever, nor will sell, assign, transfer, mortgage or otherwise dispose of the business of the co-partnership, nor each of share, title and interest therein without the written consent of the parties hereto.*

*And at the end or other sooner termination of their co-partnership the said co-partners each to the other, shall and will make a true, just and final account of all things relating to their said business, and in all things truly adjust the same; and all and every the stock and stocks, as well as the gains and increase thereof, which shall appear to be remaining, either in money, goods, wares, fixtures, debts or otherwise, shall be divided between them*

*The Corporation*

The greater part of business is organized to-day by means of the corporation. The corporation is an association of two or more persons formed and authorized by law to act as a single person in the conduct of a particular business. A corporation is, in fact, an artificial person. It may do many of the things that an individual may do. It may contract debts, sue and be sued in the courts, and may enter into contracts in the same manner as an individual.

*Kinds of Corporations*

There are public corporations and private corporations. Public corporations are those formed for government purposes. The city is a public corporation; so also are counties, townships, school districts, and drainage districts, in most cases. The state organizes these public corporations to carry on public business. The private corporation, with which we are especially concerned in this chapter, may be a private stock corporation organized for profit, or a non-stock corporation created for certain common enterprises, not for profit, such as the management of churches, clubs, and charitable institutions.

*The Private Stock Corporation*

The private stock corporation is the special subject of our study here. It is the form most commonly meant when the term corporation is used. It is organized to conduct a business. Its ownership is divided among stockholders in proportion to the number of shares of stock that each possesses. Private stock corporations are

organized under state or national laws. They receive a charter which specifies clearly what they may do. Nothing can be done legally which is not provided for in the charter. The charter corresponds to a constitution. It is the form of organization of and a grant of powers to the corporation.



A share of common stock

### Capital Stock

The ownership of the private stock corporation is represented by the capital stock. Each share of the capital stock represents a certain portion of the ownership. A corporation with a capital stock of \$10,000, divided into shares of \$100 each, would have one hundred shares. The ownership of one share represents one-hundredth of

the ownership of the entire corporation. The ownership of fifty-one shares represents a majority of the stock. Any person or group holding fifty-one per cent or more of the stock, therefore, may control the business of the corporation.

### *Preferred Stock*

Some corporations issue preferred stock, which is given some special privileges. A certain dividend is allowed to the preferred stock, and this dividend must be paid before any dividends are allowed on the common stock. Preferred stock frequently has other privileges also, such as a prior claim upon the assets of the corporation over that of the common stock, if the corporation fails. The preferred stock, on the other hand, does not usually share in the profits of the corporation beyond the specified dividend allowed it. The holders of preferred stock generally have no voice in the management of the corporation. The common stockholders take the greater risk and may receive larger returns if the business is successful. They are more likely than the preferred stockholders to lose if the business fails.

### *Management of a Corporation*

The charter of the corporation granted by the law defines the plan of organization and management. The charter fixes the number of directors, their term of office and method of election. The directors are usually elected annually by the common stockholders from among the stockholders. Each person casts as many votes for direc-

tors as he has shares of common stock. The directors are responsible for the conduct of the business of the corporation, and select the officers who conduct its affairs.



Board of Directors' meeting

The chief officials of the corporation are the president, vice-president, secretary, and treasurer. The charter and by-laws of the corporation determine the duties and powers of each of these officials. Usually the boards of directors of a corporation elect a general manager for the work of actually organizing and running the business in which they are engaged.

*Advantages of Corporations*

The corporate form of business organization permits many people to invest in a business who would not themselves be able to organize a business or engage in a partnership. People of small means are thus given a chance to participate in business organization and management by the ownership of one or more shares in a corporation. Each investor risks only the amount that he puts into the business, except in some instances, such as bank corporations, where the stockholders are liable, if the bank should fail, for twice the amount of their investment.

It is easier to induce people to engage in business through the purchase of shares of stock when their liability is limited to the amount invested. A corporation brings together small amounts from many sources and thus increases the capital engaged in business enterprises. The corporation has another great advantage in that it is a permanent body. The death of an individual owner or a partner may compel the reorganization or sale of a business. Death of stockholders or officers does not affect the corporation. The stock may be transferred to others and new officers may be elected.

*Disadvantages of the Corporation*

One of the chief disadvantages of the corporation is that the owners of the stock do not actually manage the business. They must hire others to do this. There is not, in consequence, the personal interest that there is in the case of the individual owner or the member of a firm or partnership.

Corporations are sometimes promoted by individuals for personal gain and abuses frequently occur. The capital stock in many instances is much greater than the fair value of the business. Purchasers of the stock are thus defrauded. Corporations are frequently over-capitalized, the excess being known as "watered" stock. Public control is necessary to prevent such fraud and unfair practices.

It is the abuse of corporations that brings criticism rather than corporate organization itself. Modern business could scarcely be organized on so complete a scale if it were not for the corporation. Just as the partnership was necessary in earlier times to undertake enterprises too big for the individual, so is the corporation necessary to-day to undertake enterprises too large for either the individual or the partnership.

### *Coöperative Organization*

Another form of business organization rapidly coming into use is the coöperative form. This subject is discussed more fully in a later chapter. At this point we are concerned with it as a means of organization to conduct a business.

A coöperative organization is a union of many people to produce or exchange goods to supply the needs of the coöperators. It takes the form largely of an organization for the purchase or sale of goods. Farmers, dairy-men, and fruit-growers having a common need for facilities for marketing their products form a coöperative society to build storage-elevators and warehouses, or to handle the sales of their products. Consumers sometimes

form coöperative stores to purchase the necessities of life.

In a coöperative plan the whole group of people to be served become the organizers. They generally act for convenience through a special form of corporation rather than as partners. The purpose behind coöperative organization is to bring the producer and consumer more closely together, and thus give larger returns to the producer and eliminate some of the expense in supplying the consumer's needs.



A PUBLIC ENTERPRISE  
N. Y. City water supply dam at Croton, N. Y.

### *Public Ownership*

Instead of the organization of enterprises by individuals, partnerships, corporations, or coöperative societies,

the people, acting through their government, sometimes undertake to organize and manage certain enterprises. Highways, streets, schools and sewage and refuse disposal are universally organized and managed by the people. Waterworks, electric-light and gas plants, docks, wharves, and warehouses are sometimes owned and operated by the people of cities. Drainage and irrigation are government enterprises principally. The post-office, with its parcel post and postal savings bank, is organized and run by the national government. Canals are government undertakings. The railroads were operated by the government during the war. Many other enterprises in war-time were organized and managed through government agencies. In public ownership and management the people, as a whole, unite through their government to take the place of the business organizer.

### *Internal Organization of a Business*

What about the details of organization by which the business conducted by individuals, partnerships, or corporations is carried on?

In small enterprises the individual owner, the partners, or the officers of the corporation carry on the business without much organization. The farmer and the shop-keeper manage their business personally, employing such managers, foremen, or labor as may be necessary. The partners and corporation officers in small business usually divide the work, each taking charge of a certain part.

Large business enterprises can not be conducted with-

out an organization that clearly divides the work to be done and fixes the responsibility upon some one to do each part. The head of a large store or manufacturing plant can not give attention to the many details of the business. Success depends upon the ability of the head of the business to organize departments and select capable managers.

### *Departments of a Business Organization*

The main departments into which large business enterprises are organized are:

Administration;

Production;

Employment;

Sales;

Accounting.

The administration department includes the general planning of the business and the executive direction of the work. Problems of securing finances to conduct the business are handled by this department. The heads of the business usually conduct this department.

The production department comprises the actual processes by which raw materials are transformed into manufactured articles. It includes the workmen, foremen, and superintendents, who actually do the physical work of the enterprise.

The employment department has charge of the selection of employees and their control. In enterprises where special skill is required the employment department is of very great importance. Many enterprises require special

physical fitness. Some enterprises require physical examination before employment.

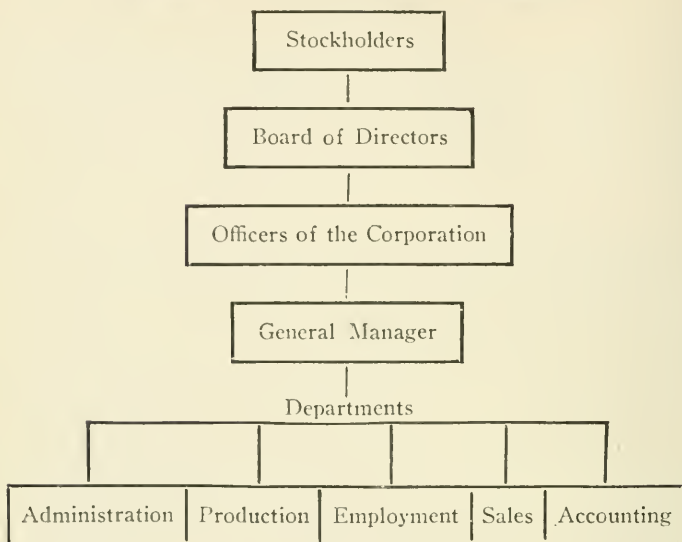
The sales department disposes of the product to the wholesalers, retailers, or consumers. This department includes the sales office force, advertising staff, and salesmen.



Employment department of an industry

The accounting department has to do with the keeping of the books and financial accounts, and the collection and payment of accounts.

The foregoing organization of business may be illustrated in the case of a corporation by the following diagram.

*Diagram of Corporate Business Organization**Questions and Problems*

1. Are partnerships common in your community among lawyers, physicians, merchants or other business men?
2. Discuss fully the advantages of the partnership over the individual organizer.
3. What are the weaknesses of the partnership plan?
4. Define a corporation in your own language.
5. What is meant by the terms "common stock," "preferred stock," "dividends"?
6. What are the advantages of the corporation over the partnership or the individual organizer?
7. What are the weaknesses of the corporate form of organization in securing the interest of the managers?
8. Why should corporations be subject to public control?
9. Why should the amount of stock issued by a corporation be regulated by the public?

10. What are the objects that induce men to organize a business, either as an individual, partnership or a corporation?
11. Does the corporation give any advantage to the small investor? What disadvantages are there to the small investor?
12. What advantages does the coöperative plan of organization have over the individual, the partnership, or the corporate organization?
13. What advantages and disadvantages come from organizing business under public management?
14. Why is it necessary to organize a large business in departments?
15. What are the principal departments of a large business organization? Explain each.

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Sparling, *Business Organization*, Chapters 1, 2 and 3.  
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## CHAPTER VI

### TRANSPORTATION

#### *Community Survey*

1. Upon what means of transportation is your community dependent to get its products to market?
2. Upon what means of transportation is your community dependent to provide goods for its needs?
3. What kinds of roads and streets are built?
4. Are motor trucks extensively used?

We have discussed briefly the part that transportation plays in the distribution of goods, and we have seen how business depends upon it. We will now take up the subject in greater detail.

#### *Importance of Transportation*

The history of transportation is the history of civilization itself. The degree to which a country has developed means of transportation is a fair measure of the civilization of that country. Without transportation consumers could get few of the comforts, and would be deprived of some of the necessities of modern life. The producer would produce in vain, except for his own needs, if he could not readily have his products transported to the consumer.

Location, with respect to facilities for transportation, is important to all producers. A factory situated at a

distance from a railroad affords an example of defective transportation. Farm-land situated at a distance from means of transportation has a smaller relative value. Great tracts of mining, agricultural, and timber lands lie useless for lack of transportation. That is why the people sometimes undertake to build railroads at public expense—such, for example, as the Alaskan Railway. Improved transportation quickens the pulse of business life. Civilization has advanced and will continue to advance along the routes of transportation.

The early routes of travel were by water. People, therefore, developed the lands and other resources close to the rivers, lakes, and seas. Transportation was slow and dangerous and was confined principally to goods of small bulk. Each community depended largely upon its own immediate surroundings for the more important goods, such as food-stuffs. The early trade routes from Europe to the East Indies were primarily used to bring expensive spices, silks, and similar goods from the Orient. Yet even these trade routes for transportation of supplies of limited use were of extreme importance to many cities. It will be remembered that Columbus sought a water route to India, not merely to prove that the world was round, but also because the trade route to the East, upon which his native Genoa depended for her business life, had been closed by the Turks.

Even as late as the beginning of the nineteenth century the settled portions of the United States were to be found principally along the water routes. Only a few adventurous pioneers had gone out to settle in the interior beyond the routes of water transportation.

*Highways*

The development of highways capable of extensive transportation was slow throughout the world. The Roman Empire bound its provinces together by good



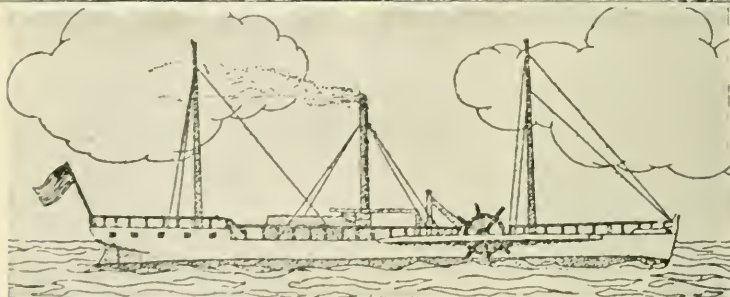
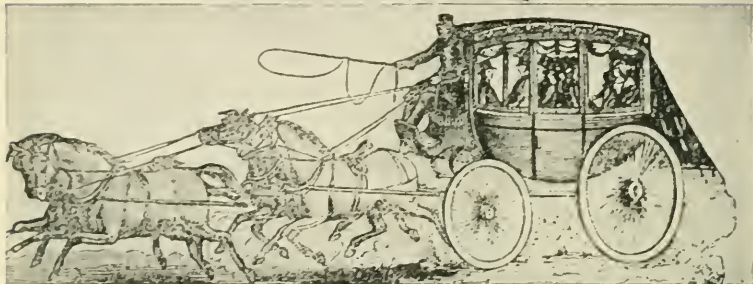
Old Appian Way, Rome

roads. These roads were developed primarily for military purposes; the idea of trade was secondary. Vehicles for transport were crude and unsuited to any great volume of trade. It remained virtually until the era of the railway before interior transportation became important.

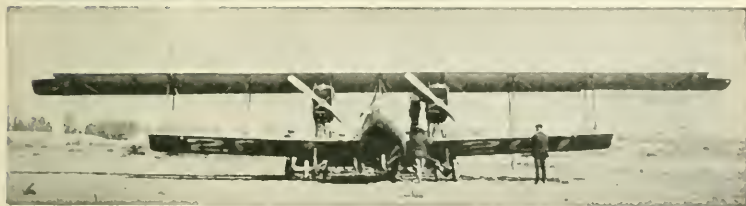
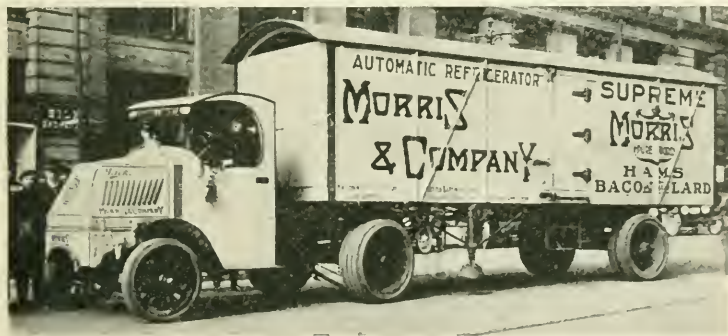
In this country highways were built on an extensive scale by private enterprise. The owners charged a "toll," and the roads were known as toll roads. In due time all toll roads were taken over as public enterprises. There are now about two and a half millions of miles of free public highways in the United States. The volume of traffic that passes over these highways exceeds by far that passing over the railroads. It is consequently important that attention should be paid to the character of the roads. If the roads are poor, transportation over them is expensive. The better the roads, the lower the cost of getting goods to market. Improved roads of macadam, concrete, and brick greatly reduce the cost of transportation. It has been estimated that the cost of transportation over unimproved dirt roads is about twenty-five cents per ton per mile. The cost of transportation over improved roads is less than ten cents. The saving in the transportation of a billion tons for an average haul of five miles would therefore be \$750,000,000.

It is estimated that about one-eighth of the roads of this country are improved. These roads carry the bulk of the entire traffic, and have made possible great reductions in the cost of getting goods, especially farm products, to market.

The United States started early to build national highways to link up with the East the country west of the Alleghanies; but as means of long-distance transportation the highways remained an unimportant factor until the coming of the automobile and the motor-truck. At present a great campaign for better roads is being waged all over the country. The federal government has re-



Development of transportation  
90



Development of transportation (continued)

sponded by making large grants of money to aid the states in building improved roads.

### *Canals*

It was natural that the early settlers, accustomed to water transportation, should develop the idea of the canal. In order to reach the interior, canal projects were planned early in the last century. New York, Pennsylvania, and Ohio had extensive systems of canals already constructed before the era of the railroad. The famous Erie Canal tapped great resources of raw materials and opened up the way from New York to the Great Lakes and the West. Economic development followed at a rapid rate. Cities grew up along the line. Canals connecting with the Erie Canal were extended into regions that supplied raw materials. The Erie Canal became the central artery of a great system of waterways. If the railroad had not been made practicable for another fifty years, canals would probably have been constructed to reach a large part of the economic resources of the Eastern states.

The importance of the canal is still apparent. The Welland Canal, connecting Lakes Erie and Ontario, the Cape Cod Canal, the Sault Sainte Marie, the Panama and Suez canals are very important agencies of transportation. The new Barge Canal in New York state, from Buffalo to the Hudson, may also be a very influential trade factor. Other proposed canals of importance are the routes from Lake Michigan to the Mississippi and the Gulf, and from the southern end of Lake Michigan to

Lake Erie, and the Intercoastal Canal along the Atlantic. As a means of reaching interior points, however, the canal is no longer considered, and most of the canals constructed for that purpose have been abandoned. The railroad has superseded the canal for interior transportation.

### *The Steamboat*

In the early part of the last century the steamboat was invented. This invention revolutionized and quickened transportation all over the world. Instead of depending upon the slow, uncertain sailing-vessel, traders could now bring goods long distances quickly and with greater regularity and safety. The contrast between the modern steamship, crossing the Atlantic in less than five days, and the old sailing-craft, which took several weeks, gives a fair indication of the way in which transportation by water has been affected.

### *The Railroad*

The railroad further revolutionized the world's transportation. It furnished the necessary link to connect producers everywhere with the markets of the world. It made possible the shipment of bulky food-stuffs, coal, iron ore, and lumber. The railroad enabled settlers to press farther back into the interior. Resources of mines and forests that had been beyond reach were now opened, and the process has been extending rapidly into the remotest sections of the world.

In 1830 there were twenty-three miles of railroad in the United States. In 1920 there were about two hun-

dred and seventy-five thousand miles in operation. In the early sixties the government subsidized, by the grant of lands, the building of a railroad to the Pacific coast. Since then several lines of railway have been built across the continent. The economic result has been that vast areas of fertile lands in the United States and Canada have been opened up. The United States is now engaged in the building of a railroad into the interior of Alaska. This railroad will reach the mineral and forest resources in that territory.

We get some idea of the world-wide effect of economic forces from the fact that the opening of the fertile Western lands by means of the railroad greatly decreased land values in the Eastern states, and even caused disaster to farmers in England and on the continent of Europe. The Eastern and European farmers could not compete with the farmers on the fertile but inexpensive soil of the West.

The political significance of transportation is seen in the fact that the building of railroads to Illinois, Wisconsin, Minnesota, and Iowa before the Civil War linked those states by trade routes to the East, and took away their dependence upon the water route down the Mississippi. By this means the trade interests of these states were linked with the North instead of with the South at the time of the Civil War.

The electric railroad is the most recent development in railway transportation. It has created an effective means for the carriage of goods and people into many rural regions, and has linked cities and towns more closely with the great railroad centers.

*The Motor Truck*

The building of good roads and the perfecting of the motor-car brought another new era in transportation. We are now at the beginning of this era. Millions of passenger-cars are in use. Motor routes for the carriage of passengers and freight have been developed to supplement the steam and electric railways. Remote sections of the country are brought closer together, and sections formerly isolated are now in close touch with the centers of trade and transportation.

The development of the motor-truck bids fair to revolutionize transportation. Short hauls are now being made principally by truck. It is an economical method because it eliminates the extra loading and unloading of freight-cars. Since a great part of hauling is for short distances, the truck is destined to fill an important place.

*The Post-Office*

The transportation of written messages has long been an essential part of social and commercial life. One could scarcely imagine a civilized country without a postal service. Business would be badly hampered if it were not for the post-office. Business would be badly hampered also if the cost of the postal service were excessive. Social life would be dreary without means of communication by letter. In all civilized countries the post-office is a function of government. The postal system of the United States was organized long before the Revolution, Benjamin Franklin being one of the earliest postmaster-generals. It has been conducted by the federal government since the beginning of this nation.

At the present time the mail is carried by various conveyances to the remotest parts of the country and distributed by means of the railway mail service, the rural delivery, city delivery, and the post-office. The prime object of the postal system is service, not profit. So use-



Sorting mail in a large post office

ful is the post-office that it is deemed wise to make the rates as low as possible. Letters are carried to any part of the country and to Canada and England for two cents. A strong movement is on foot to reduce letter postage to one cent, in the belief that cheap postage promotes business as well as education.

So important is the postal system deemed to be that

an international postal union has been established, by agreement between the leading commercial nations, to facilitate the forwarding of letters to foreign countries.

### *The Telegraph and Telephone*

The transportation of intelligence by means of the telegraph, telephone, and wireless has become a factor of great importance to business in recent years, and is likely to increase greatly in importance in the future. A large part of the world's business is transacted by the telegraph and the telephone. These agencies supplement the post-office for quick service, and business men have come to rely upon them in important transactions.

The telegraph and telephone are conducted by private enterprise in this country, but in Europe they are generally conducted by the government as a part of the postal system.

### *The Parcel Post*

The postal system also undertakes to transport parcels of limited size from place to place. This is done as a part of the regular postal service by the same organization of railway mail, rural delivery, city delivery, and post-office. The country is divided into zones, and the rates are fixed according to the number of zones from one place to another.

A great business has grown up in this part of the postal work. The marketing of food-stuffs directly from producer to consumer has been carried on in many places by means of the parcel post. The easy access to the postal stations or the mail-carriers makes the use of the parcel post convenient for everybody.

*Express and Special Freight*

Private enterprise has developed specially organized systems of transporting and delivering goods by means of express and special freight. Express companies are agencies that make a business of handling goods, usually



Refrigerator car

of small bulk. They collect and deliver parcels and hire the railroads to haul their cars.

Special fast freight lines are organized to forward certain kinds of freight. Refrigerator lines are operated to carry goods requiring cold storage. These special freight lines facilitate the transportation and delivery of goods, and particularly aid in the marketing of perishable goods.

*Air Transportation*

The success of the airplane in the war and its increased efficiency as a carrier caused the extension of its service to peace times. The first use was made in transporting mails. The first route in the United States was inaugurated between Washington and New York in 1917. The success of this venture caused the establishment of other routes between New York and Cleveland, Chicago, and other points. The speed of the airplane cut down the time from New York to Chicago to less than one-third of that required by the fastest trains. For some time the airplane will doubtless be limited in its use to the carriage of mail and packages of small bulk, although air routes for passenger traffic and express have already been projected.

*Transportation Rates*

The rates charged for transportation have always been a matter of great concern to producers and consumers. The people have, therefore, for many years taken an active part in fixing by law the rates charged by carriers. The amount of toll on toll roads and bridges was usually fixed by law or contract. Finally the people took over the roads and bridges and made them free. From the beginning the post-office has been conducted at or below cost. The rates of street railways are usually fixed by contract or are regulated by law or by official commissions. Railroad rates are fixed by public bodies. The principle has been established that a service so necessary to the people should be conducted at reasonable rates.

*Discriminations*

One of the evil practices that grew up in transportation systems was the granting of special rates and favors by carriers to certain producers or consumers. This practice is known as discrimination. One of the basic principles of democracy is that all persons shall be treated alike. Discrimination cannot be tolerated in any service that is public or semi-public in character. Discrimination has been used to build up certain industries and to destroy others. Two competitors are not on an equal footing when one gets a better railway rate than the other, or when one receives favors not granted to the other. This evil has been so serious and so contrary to the sense of fair dealing that laws have been passed prohibiting it. The Interstate Commerce Commission and the State Railway and Public Utility Commissions have been given power to prevent discrimination of all kinds.

Discrimination between certain cities or communities has had a similar effect on a wider scale. The transportation systems, by giving special rates or service to a city, give advantages to the business enterprises of that city over enterprises of other cities. If the rate from Pittsburgh to New York is materially lower than that from Pittsburgh to Baltimore, the traffic will tend to go to New York, while Baltimore will suffer, and *vice versa*.

Failure to give equitable rates and service has handicapped many cities. Cincinnati built a railroad into the South as a public enterprise to maintain its trade. Each city and community should study the problem. Many cities are doing so through the traffic divisions of their

chambers of commerce or boards of trade. Fair practice affecting communities are even more important than those affecting individuals or single industries.

### *Rebates*

When discrimination was prohibited, attempts were made to evade the law by collecting the full amount from each and then returning a part to the favored ones. This practice was called rebating. The result was the same as if different rates were charged in the first place. This practice was finally condemned by law and the Interstate Commerce Commission and State Railway Commissions were given special powers to enforce the laws against the practice.

Discriminations and rebates have been generally stopped in this country. The sense of fair dealing condemns these practices as inconsistent in a country where fair play and the square deal are the goals of the people's efforts.

### *Public Regulation*

To insure fair service at reasonable rates, the people have passed laws and have set up boards and commissions to investigate and regulate rates and service of transportation companies. The Interstate Commerce Commission was established in 1887 to control the rates and service of railroads that do an interstate business. This commission has been given broader powers from time to time, particularly in 1906, and has exercised great power and influence. When the railroads were restored to private ownership in 1920 further and enlarged powers of regulation were given to the commission.

The states have also created commissions or boards to regulate rates and service of railroads within their borders. In many states in recent years these commissions have been enlarged and placed in control of all forms of public utilities such as street railways, gas, electric-light, water, and power companies.



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The Interstate Commerce Commission in session

### *Future of Transportation*

Transportation in the future will play an increasing part in the country's trade. Each day adds to our reliance upon transportation facilities to get the goods we want and are accustomed to use. This fact is brought home every time an interruption of transportation occurs. Large cities may be reduced to want in a few days by the failure of railway or delivery service. The effect of a transportation tie-up extends to all parts of the economic

system. Factories soon begin to close for want of materials, men are thrown out of employment, and food becomes scarce.

The railroad of the future will be our chief reliance, as it is at present; but we shall also be dependent upon water transportation on canals, rivers, and oceans. The motor-truck will fill a large place in the system of transportation for short hauls, and the airplane will become an important means of transit where speed in the delivery of small bulk is a factor. Increasing attention will be paid to the development of an American merchant marine to insure the shippers of this country of a means of reaching the markets of the world effectively and without discrimination.

The increasing reliance of the people upon transportation for the necessities, comforts, and luxuries of life will cause constant efforts to be made to insure the fullest service at the most reasonable rates to all through public regulation or ownership.

### *Questions and Problems*

1. Discuss the relative importance of the railways and canals as means of transportation.
2. Discuss the relative importance of the highway in the scheme of transportation.
3. What developments have occurred in the use of the motor truck in your community?
4. Make investigation of the system of transportation by express in your community, including rates charged, system of delivery, and arrangements with railroads to carry express.
5. Make investigation of the parcel post system, including rates, zones, kinds of goods allowed, marketing of farm products by parcel post, etc.

6. Why should the postal system be based upon the idea of service? Should parts of the system such as rural delivery be conducted even at a loss?
7. Why are rates in transportation fixed by law, while the prices of most goods and services are unregulated?
8. Explain fully the nature of discrimination and rebating.
9. Make further investigation to learn the scope, purpose, and work of the Interstate Commerce Commission and the State Railroad Commission or Public Utility Commission.
10. Why will transportation systems become increasingly important?

### *References*

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## CHAPTER VII

### COMPETITION AND MONOPOLY

#### *Community Survey*

1. Make a complete list of all of the sources from which the people of your community buy the principal products which they use, as for example food, clothing, farm implements.
2. Find out all of the cases where prices are fixed by law or services are regulated, such as for gas, water, electric light.
3. What examples can you find of the control of the sale of products which people need, by one concern or a small group?

Business is conducted on the competitive or on the monopolistic plan, or a combination of the two. Competition means that there is a contest on the part of sellers to sell their goods or services or on the part of buyers to buy for their needs. Monopoly means that one concern or a number of concerns, acting together, control so large a part of the sales of a given article or service that they have power to determine the price to be paid and the quality of the goods or service. Generally speaking, the bulk of business is carried on by a combination of the competitive and monopolistic plan.

#### *Competition of Sellers*

Let us trace the competitive method in the sale of a suit of clothes. Let us suppose that we purchased a suit from

a local clothier. We might have purchased it from any one of a dozen other clothiers, or from a mail-order house. We might also have had it made to measure by a local tailor. All of these sellers were in competition for the sale of clothes. Back of these sellers were the wholesale dealers, competing with each other for the sale of suits to the merchant or the mail-order house. Back of the wholesalers were the manufacturers, competing for orders from the wholesalers. Back of the manufacturers were the various concerns that supplied the material from which the suit was made, competing for the goods to the manufacturer. Back still further were the growers of such raw materials as cotton and wool, competing for the furnishing of the raw materials.

Competition is said to be the "life of trade." It is plain from these examples that it is an important factor.

### *Competition of Buyers*

The buyers of goods are also in competition. We perhaps did not notice the competition in buying the suit of clothes, and yet we went early to have our choice. We competed with other buyers for the particular suit of clothes. The merchant competed with other merchants in buying his supply from the wholesaler. He also competed with the others for the location of his store and in employing his salesmen. The wholesaler competed with other wholesalers in buying from the manufacturer. The manufacturer competed with other manufacturers in buying raw materials and factory equipment.

When supplies of raw materials, stocks of goods, de-

sirable locations, and competent salesmen are scarce, the competition of buyers becomes as intense as the competition of sellers. Such competition is especially keen in buying desirable lots of goods, renting strategic locations, or securing highly competent service.

The workers of free competition tend to keep prices of goods at a fair level and the qualities of goods at a fair standard. The purchasers are constantly comparing quality and price of goods of different sellers, and the seller who gives the best combination of quality and price will, in the long run, get the orders. Effective competition, therefore, protects the consumer both in quality and in price.

### *Difficulties of Free Competition*

There are so many possibilities of the breakdown of free competition that full reliance can not generally be placed in it to insure the consumer good quality at a fair price.

In the first place, to carry on our example, the merchant from whom we bought the suit of clothes may have been in agreement with the other merchants to fix the minimum prices of suits of clothes. In that event we have the comparatively weak competition of the mail-order house and of the local tailor to guarantee us fair prices and quality.

The wholesalers and manufacturers may have had a similar agreement. The merchants, wholesalers, and manufacturers may have been compelled also to pay higher rents because of lack of competition in desirable buildings and locations. The supply of certain necessary

materials may be controlled by single persons or groups, or transportation service may be without competition, and consequently exorbitant rates may be charged. The workers may withhold their services, and because of lack of competition may require a higher rate of wages. At



Street car service is a monopoly here

every step in the supply of materials and service there arises the possibility of interference with free competition.

### *Natural Monopoly*

Some kinds of business are not suited to the competitive method. Railroads, street railways, gas and electric-light companies, telephone companies, and water-works can not

compete successfully, except in rare instances. Each performs its best service when combined into one system. Two street-car companies or two water companies in competition in a city make a wasteful condition. Two railroads between points where one railroad would suffice make an expensive form of competition. In such instances free competition is a failure. Businesses of this character are called natural monopolies.

### *Private Monopoly*

We come now to the discussion of monopoly that frequently drives out the competitive method to a greater or lesser degree.

Whenever any person, or group of persons, has control of any part of the productive or distributive processes to the extent of being able to control the market, they constitute a monopoly. Likewise, anyone who controls the use of any goods to the extent of being able to control the market constitutes a buyer's monopoly.

### *Methods of Creating Monopoly*

A monopoly may arise in several ways: (1) The producers or sellers of goods may enter into an agreement to fix prices. (2) Producers or sellers may unite to sell their goods through one selling agency, and divide the profits. (3) The producers or sellers of certain products may pool their entire business and divide the profits on an agreed plan. (4) One producer or seller may get control of so large a portion of the product as to be able to dominate the market. (5) The producers or sellers may form a trust through which their business is controlled

by a single head. (6) One person or corporation may buy competing concerns and bring them under one control.

It is not necessary for one concern to have control of



Oil pipes leading in from Ohio, Missouri, Pennsylvania and Kansas to South Bayonne, New Jersey

all competing concerns in order to have a substantial monopoly. If the portion controlled by one concern is large enough to make it the dominating power, it can, to a large degree, dictate the prices of its goods.

But a monopoly needs more than the foregoing powers to maintain itself. Even though one concern may have entire control of the output of a given product, there is nothing to prevent competitors from entering the business and eventually breaking the power of the monopoly.

Monopolies may maintain themselves against new or old competition in several ways: (1) By getting control of the supply of raw materials. (2) By getting control of the available transportation, such as pipe-lines. (3) By patents, which prevent their processes being used by others. (4) By unfair methods, such as price-cutting, to crush weak competitors. (5) By securing special concessions, such as rebates from railroads. (6) By controlling the banking and credit facilities and withholding proper financial credit to competitors. (7) By getting control of the best talent and skill in a given field, such as actors, musicians, or members of other professions.

The control that one or more of these powers gives to a business renders it a buying as well as a selling monopoly. When a monopoly has been formed, the producers of raw materials have but one market in which to sell. The monopoly thus dominates consumers and producers alike.

### *Limits of Monopoly*

It will be seen from the foregoing discussion that a monopoly must have control of some essential processes, goods or services in order to be permanent. If it merely depends upon its size and present control, it must reckon with potential competition in exercising monopoly power and raising prices. While it may have the power to be

a monopoly, it does not always dare to exercise the power arbitrarily for fear of new competing enterprises. When it controls an essential factor, such as raw materials, patents, or special talent, it must still reckon with the potential competition of substitutes. It must further reckon with the wrath of the public if prices are raised without warrant or if unfair practices come into use.

### *Trusts*

The term "trust" is used in this country to designate a form of monopoly. The use of this term came about because the first large monopolies were formed by the union of competing concerns in the form of a trust, which was a central holding committee. The trust did not own the separate companies; it merely managed them under an agreement. The object was to eliminate competition and create monopoly.

Laws were passed prohibiting this form of agreement. The term "trust" was applied, however, to the consolidations that thereafter took place. The trust, as we know it to-day, is really not a trust in the strict sense of the term, but rather a consolidation of several concerns into a single company.

### *Trusts and the Law*

When trusts first appeared they were immediately condemned by the people. Laws were enacted prohibiting them. Several states enacted anti-trust laws, and the United States Congress in 1891 passed the Sherman Anti-Trust Act. This act prohibited monopolies and contracts in restraint of trade, declaring that "every contract, com-

bination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract, or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor. Every person who shall monopolize, or attempt to monopolize, or combine to conspire with any other person or persons to monopolize any part of the trade or commerce among the several states, or with foreign nations, shall be deemed guilty of a misdemeanor." In any case the misdemeanor was made punishable by fine or imprisonment.

When the trust was changed into the form of the consolidation this law had less force. Attempts were made to break up several of the large consolidations on the ground that they were agreements to restrain trade. Little was accomplished, however, in these attempts, because of the difficulty of obtaining proof. Finally, the Clayton Act and the Federal Trade Commission Act were passed in 1914. The former carefully defined the evils that were condemned, and the latter created a commission to consider complaints and correct unfair practices.

The Clayton Act prohibited discrimination in prices between different purchasers of the same goods; prohibited agreements whereby sellers require purchasers to agree not to handle the goods of competitors; and prohibited one corporation from acquiring the control of another with the purpose of lessening competition. Interlocking arrangements by which directors of one corporation sit on the board of another corporation to promote monopoly and lessen competition were also prohibited.

The Federal Trade Commission Act declared that "unfair methods of competition in commerce are hereby declared unlawful. The commission is hereby empowered and directed to prevent persons, partnerships, or corporations from using unfair methods of competition in commerce."

### *Remedy for Trust Evils*

The experience of many years has shown that free competition can not be strictly maintained. The tendency is toward consolidation of or agreements between competing concerns to eliminate competition. The alternative that has been forced upon the people is the regulation of monopoly itself.

Private monopoly in the necessities of life is looked upon as intolerable by free people. Governments are therefore called upon in the interests of the people to regulate prices, qualities, and service. In so far as this can be done by preventing unfair practices and by maintaining competition, it should be done. When a monopoly is in a position to dictate the price of necessities to the people, the government should step in to prevent injustice.

Public regulation has gone further in respect to natural monopolies than in other matters. State railroad commissions and public service commissions now regulate very minutely the rates and conditions of service of railroads, street railways, gas, water and electric-light companies.

The Interstate Commerce Commission exercises extensive powers over rates and service on railroads that cross state lines. The Act of Congress restoring railroads to

private management in 1920 further extended the regulation of railroad management, rates, and service. The idea of competition has been abandoned in nearly all kinds of public utilities, and the policy of regulation substituted.

### *Questions and Problems*

1. Define competition. Give examples.
2. Discuss the phrase, "Competition is the life of trade."
3. What effect does competition have upon prices and quality?
4. When several stores handling the same products exist in a town, is that proof that there is competition?
5. What is the importance of location in competition?
6. How do sellers compete otherwise than by price-cutting?
7. Give the forms of monopoly. What forms of monopoly are found in your community?
8. Upon what basis does a monopoly usually fix its price?
9. What is a natural monopoly? How are the prices or rates of a natural monopoly fixed?
10. Obtain copies of the federal anti-trust acts and the Trade Commission Act and study their provisions.
11. What is the most effective way of preventing monopolies?
12. How can monopolies be regulated to the best advantage?

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## CHAPTER VIII

### DISTRIBUTION OF INCOME

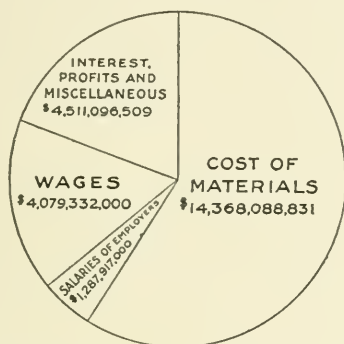
#### *Community Survey*

1. Give examples to show the meaning of interest, wages and profits.
2. Why is interest paid?
3. Are there limits to interest charges?
4. What is the usual meaning of the term "rent"?
5. Describe all of the different ways in which wages are paid. What are the principal methods of payment of wages in your community?

The factors in production have already been named and described as labor, land, capital, and management. Each of these factors contributes something to the total product. The total income from production is divided among these four factors.

The study of the distribution of income among the four factors of production consists in the analysis of the way in which the total income is divided among them and of the problems growing out of the present system of distributing the income. Since each of the factors contribute something to production, each is entitled to a return for its contribution. The return for the contribution of labor is called wages; the return for the contribution of land is called rent; the return for the contribution of capital is called interest; the return for the contribution of management is called profits.

Wages, rent, interest, and profits do not necessarily go to different individuals. Two or more of the separate returns may go to the same person. The farmer, for example, may own his own land, supply his own capital, manage the farm, do the work himself, and receive the profits. He thus receives wages, rent, interest, and profits. The manager of a factory may supply part or all of the capital and raw materials, and perform a part of the labor. The laborer may own his own tools and



The distribution of cost of manufactures, 1914

may even own some shares of the capital stock of the corporation that runs the business.

### *Wages*

Wages is remuneration to labor for its part in the production of goods. The term wages means the amount paid for the service of labor for a day, week, month, or year, or the amount paid for doing a certain piece of work. The former is called time wages, the latter is called piece wages. The term "wages" signifies the amount paid in lawful money rather than the amount of

standard goods that the wages will buy. The wage is said to be five dollars a day, whether the five dollars will buy four bushels of wheat or only two bushels. The bulk of the workers of the country are paid by time wages, usually figured on an hour or day basis. Under this system of wages each worker receives the same amount for a given length of time, no account being taken of the varying capacities of the workers. The speedy worker receives the same as the slow worker. Workers can not easily be held responsible for defective products, and they have nothing to lose immediately by inferior production.

Piece wages encourage the workers to produce the maximum of products, but often result in excessive speed. The worker is held accountable for defective products, and greater care is usually exercised. Careful inspection of products is necessary to prevent slighting of the work. Many combinations of time and piece wages have been tried, by which the worker receives a certain amount for a certain number of hours and a bonus for extra production. Thus, if a worker produces more than the average in a standard day, he is paid for the extra production.

### *The Amount of the Wage*

The real question with which we are concerned is the amount of the wage, whether piece or time wage, and the way in which it is fixed. The problems involved are as old as civilization. They have been discussed throughout the centuries since labor came out of slavery and serfdom and became an independent factor in production.

The theory has been held by some economists that the amount of wages is determined by the cost of subsistence. Malthus taught that population increases so fast in relation to the food-supply as to hold labor to the level of a bare subsistence. This "iron law of wages" was very depressing, since it implied that improvement and advancement were impossible for the great mass of workers.

The cost-of-living theory of wages is an outgrowth of the old subsistence theory. The idea is held by some economists that the cost of a comfortable living should be the basis upon which to fix wages. But the question immediately arises, "What constitutes a comfortable living?" Is it merely the provision of food, clothing, shelter, and a few enjoyments, or does it include some of the luxuries of life?

Another theory of wages is based upon the proposition that the laborer is entitled to a return large enough to be sufficiently befitting to his status as a human being. This status is held to be above the line of bare subsistence or the bare cost of living. According to their theory, labor is not a commodity, to be bought and sold under the law of supply and demand. The wage should be sufficiently high, according to the supporters of this theory, to provide for all of the needs of the worker throughout life and of all dependents of the worker throughout the period of dependency. The wage, it is claimed, should include the necessities, comforts, and some of the luxuries of life.

### *Minimum Wage*

The term "minimum wage" means the lowest wage upon which a normal adult may support himself or herself

and dependents in reasonable comfort. The theory of the minimum wage is that no normal human being should receive less than enough to sustain himself and his dependents. The minimum wage is not necessarily the actual wage or the average wage. It is merely a minimum standard below which the worker can not sustain himself in reasonable comfort. Those workers who are defective or subnormal, and who can not therefore earn the minimum wage of normal workers, constitute, under the minimum wage system, special problems to be solved by vocational training, rehabilitation, readjustment, or charitable relief.

### *The Fixing of Wages*

The foregoing theories of a proper basis for wages leave unanswered the question, How are wages fixed in the world to-day? The question is a practical one that must be met every day, and it is variously answered in different employments. Sometimes the employers bargain with individual employees. Employees unite in trade-unions to bargain collectively with the employer. Employers combine in associations to bargain with the representatives of trade-unions on the question of the scale of wages to be paid. Governments sometimes fix wages by law in private industry, and fix minimum wages for women and children. The wages of public employees are determined by legislation.

But, after the fixing of wages by employers or the government, or after bargaining between employers and employees, the question is not settled, unless sufficient labor has been secured at the wages fixed. The govern-

ment may fix the wages of mail carriers at fifteen hundred dollars a year, and may find that not enough qualified men are willing to work for that amount. In that case the wages must eventually be raised to induce enough men to engage as mail-carriers. Employers may find that the wages fixed may not induce sufficient workers to enter their employment. The wages must therefore be increased. The supply and demand of labor influences the actual wage to a large extent. When work is plentiful and pressing, and labor is scarce, wages will naturally go up. If labor is plentiful and work is slack and not pressing, wages will naturally go down.

We might conclude that the supply and demand of labor have a powerful influence on wages, and in the long run determine the amount of wages to be paid, if it were not for the limitations enforced by the collective action of workers or by law in fixing wages or establishing minimum standards of wages.

### *Rent*

Rent is the compensation paid for the service of land in production. The meaning of the term "rent" in economics is not the same as that in popular use. The term as popularly used refers to the payment made to an owner for the use of land, buildings, rooms, or durable goods. The term in economics refers to the payment for the use of land only. The term "land" itself, as previously defined, means not only land proper, but the natural resources and forces above and below the surface of the earth.

Distinction should also be made between the terms

"contract rent" and "economic rent." The owner of land bargains with the tenant on the terms of rental, and the amount of rent agreed upon often depends upon the relative ability of the owner and tenant in bargaining. Contract rent, the amount agreed upon, may be more or less than the real rental of the land. Contract rent tends



NO-RENT LAND  
A deserted farm

by the force of bargaining, however, to be nearly the same as economic rent; but it is not necessarily the same.

The economic rent of a piece of land is the measure of the productiveness of that piece of land over and above the productiveness of the poorest piece of land that is actually cultivated. Illustration will bring out this point clearly.

Let us suppose that there are four fields side by side.

One of the fields is so poor that it is not cultivated at all. Another is poor, but is cultivated, although it produces a crop barely sufficient to pay for its cultivation. The third has a fair soil, and produces, let us say, twenty dollars more in products than the second field. The fourth field produces thirty dollars more of products per acre than the



SITE VALUE

One of the busy corners in New York City

third field. The first two fields are called no-rent land, because the first does not produce any return at all and the second does not produce anything above the cost of production. The economic rent of the third field is twenty dollars and of the fourth field fifty dollars.

A similar example might be taken from fields of equal fertility located at varying distances from means of trans-

portation. A field twenty-five miles from a highway may not be cultivated at all, even though it might be very productive. A second field may be ten miles away from a highway, and be cultivated, although the cost of bringing the produce to market may be so great as to leave nothing after the cost of production and marketing are paid. The third field may be located on the highway and near enough to market to enable products to be marketed profitably. A fourth field may be near the market, and the return above the cost of production and distribution may be considerably greater than that of the third field. The first two fields, under these circumstances, are no-rent land; the third and fourth fields produce an economic rent.

Another illustration might be taken from a series of coal-mines at different depths. A vein of coal three thousand feet below the surface may not be profitable enough to be mined. A second vein at one thousand feet may produce barely enough to enable producers to operate it. A third at five hundred feet may be operated at a fair profit. A fourth mine may be practically on the surface, and may be worked with large profit by the process of strip-mining. The first and second mines are no-rent lands; the third and fourth produce an economic rent.

Various factors enter to transform no-rent land into land that produces an economic rent. A wheat field that produces five bushels per acre may be no-rent land if wheat is worth one dollar a bushel, but would produce economic rent, other things being equal, if the price of wheat were three dollars per bushel. A coal-mine might be unprofitable if coal brought two dollars per ton, but

quite profitable if coal brought five dollars per ton. Increases in population, which increases the local demand for goods, may develop no-rent land into land having an economic rent. The extension or improvement of roads and the betterment of methods of production all tend to bring no-rent land into use and to enhance the economic rent of other lands. The growth of a city may give large rental value to favorably situated real estate which would otherwise be worthless.

The owners of land roughly measure the productivity of their land and value it accordingly. The economic rent becomes the measure upon which the capital value of the land is based. If land produces twelve dollars net per acre of economic rent, the owner might capitalize the rent at six per cent and fix the value at two hundred dollars per acre. Having capitalized the rent, he then measures his return in terms of interest. Economic rent thereby becomes interest through the process of capitalization.

### *Interest*

Interest is the compensation paid for the use of capital. Capital includes, as we have already seen, not only ready money, but investments in equipment, supplies, and raw materials. The farmer needs capital in the form of tools, horses, stock, and feed; he needs capital for the cost of seed, fertilizer, and labor; capital is necessary for the planting, cultivating, and harvesting of the crops.

Let us take the case of the farmer who raises potatoes. Suppose the seed for an acre costs thirty dollars, the fertilizer twenty dollars, spraying ten dollars, and labor

for planting, cultivating, and harvesting fifty dollars. These expenditures, amounting to one hundred and ten dollars per acre, must be advanced by the farmer for a period of from six to ten months before the crop is marketed. A potato farm of fifty acres would therefore require \$5,500 in capital for operating expenses. The farm equipment would cost \$5,000. Interest on \$5,000 for a year at six per cent is \$300.

An allowance should also be made for depreciation of the equipment by wear. This depreciation would amount to fully five per cent a year, or \$250 on the entire equipment. The farmer must calculate on an annual depreciation of \$250, an interest charge on equipment of \$300, and the interest on the \$5,500 of capital used to finance operations for at least six months, or \$165. This makes a total interest and depreciation of \$715.

The farmer may furnish the entire capital himself, or he may furnish the equipment and borrow part or all of the operating expenses. In any case, the interest should be calculated as a charge against production. Usually the farmer merely adds up his total expenditures and his income without separating it into the items of rent, interest, and labor cost, and the difference is figured as a profit or loss, as the case may be.

Another illustration taken from a manufacturing enterprise will explain the place of capital and interest. A shoe factory has a capital investment in buildings and equipment of \$50,000. The interest charge on this capital at six per cent is \$3,000. The management must keep on hand a supply of raw materials. The product of the

factory is sent to distant parts, and from thirty days to six months usually elapse before payment is made to the manufacturer. In the meantime labor has been paid and money for fuel has been expended. The manufacturer also keeps a supply of shoes on hand, in storerooms or in warehouses, in order to have a reserve to draw from when filling orders.

All of these investments in raw materials, fuel, labor, and stock on hand or on its way to the purchaser constitute capital. The total amount of capital used continuously in producing shoes and financing all operations until payment is made to the manufacturers is, let us assume, \$50,000. The annual interest charge at six per cent would be, therefore, \$3,000. The total interest charge would therefore be \$6,000. If the depreciation on the building and equipment were five per cent, the total depreciation would be \$2,500 annually. The total interest and depreciation would be \$8,500.

These examples show the function of capital and the place of interest. It is plain that capital is essential when production is specialized and when an interval must elapse between production and the receipt of payment for the product. Since capital performs a service, it is entitled to compensation for the service. If it did not receive a compensation there would be small incentive for the people to save and thus accumulate capital.

The next questions relate to the rates of interest and the causes that determine the fixing of the rates. Why do we pay five, six, or eight per cent, as the case may be? And why does the rate vary from place to place, or accord-

ing to the type of loan? Why does the law permit pawnbrokers to charge as high as forty-five per cent a year, and is such a charge justified? Why do government bonds pay only four or five per cent, while other bonds sometimes bring seven and eight per cent?

The answers to these questions may be found in the degree of risk that the owner of capital takes in lending money, and in the supply and demand of capital.

The risks of lending are of three kinds: First, the loan of capital may not be repaid; second, the interest on the capital may not be paid; third, if the property that secures the loan is taken for payment, such property cannot be sold. Pawnbrokers charge a high rate of interest because of the risk of non-payment and the difficulty in disposing of pledged property. People are willing to lend money to the government at low rates because of the certainty of payment of the loan and the interest. Risks are taken by some investors for larger returns, while other investors prefer to take slight risks and receive smaller returns.

The law of supply and demand applies to capital as well as to commodities. If capital is plentiful the rate of interest will be lower than if it is scarce. In some of the western states capital commands higher interest rates than would be required on the same security in the East, because the supply of capital is lower. The Federal Reserve Act had for one of its objects the equalizing of the supply of capital in all parts of the country by the establishment of twelve regional banks throughout the country. The Federal Farm Loan Act also had for its principal object the equalizing of capital for loans upon farm-lands throughout the country.

*Profits*

After the rent of land, the wages of labor, and the interest of capital have been paid, the remainder of the income from production or distribution of goods is called profits. The organizer of a business takes the risk that he can pay rent, wages, and interest and still have something left. If he is efficient in organizing land, labor, and capital, he will have profits for his risk. If he makes a mistake or is inefficient, he may suffer loss. Profits are simply the difference between the cost of production and what the management gets for its product. The farmer who pays \$100 rent for ten acres of land, hires labor for \$200, and pays \$50 interest on the capital used, and who receives \$600 for his product, will have a profit of \$250.

The manager of a business may be also the land-owner, capitalist, and laborer. The farm-owner generally supplies land, labor, and capital without keeping accounts of the amount properly due to each factor. Rent, interest, and wages are all lumped together, and if the gross expenditures for production are less than the income, he is said to have made a profit. Many other small businesses fail to separate the amount properly allowable for rent, interest, and wages. Strict accounting would make the proper allowance to each of the factors, whether the business organizer hired labor and capital or whether he supplied labor and capital himself.

The idea of profits may be better understood by the concrete example of a corporation engaged in manufacturing automobiles. A business organizer, believing that profits can be made in manufacturing automobiles, organizes a corporation. A hundred men invest in the

business by buying the stock of the corporation. Land is purchased or rented, buildings are constructed, raw materials are secured, and labor is hired. Money is borrowed from capitalists or from banks to help finance the sale and distribution of the automobiles. At the close of each year the total receipts and expenditures are calculated, and the profits are divided among the stockholders in proportion to the amount of their stock. The returns upon the stock are profits rather than interest, because the stockholders have taken the risk that the business will succeed. They are not guaranteed a certain rate of dividend.

On the other hand, those who have lent capital are guaranteed a certain rate of interest, and, whether the business succeeds or fails, they may demand their interest. They do not share in the profits, nor in the losses, as the stockholders do. Theirs is a fixed amount, and they have a claim against the corporation's assets for it.

The essential feature of the management of a business is that of risk-taking. While in many old established lines of business there is a minimum of risk, in new ventures there are many risks. The management of a farm or of a retail store along well established lines does not involve the risk that is run in the organization of a plant to manufacture a new product, the demand for which is uncertain. Organizers of new businesses therefore expect larger returns to compensate them for the greater risk of failure. Men would not risk their capital in doubtful enterprises without the lure of greater gains than are obtainable in lending their money at a fair rate of interest in safe enterprises.

*Distributing the Income*

The final inquiry on this subject relates to the causes that fix the proportion of the total income distributed to labor, land, capital, and management. One of the facts frequently overlooked is that the total income is not determined by any one of the factors. The total income depends primarily on the law of supply and demand, which is for the most part beyond the control of land-owners, laborers, capitalists, or organizers. Each business organizer must face the question squarely in his own business. He can not fix his total income at will by raising prices. The prices of his products are fixed largely by competition, except in case of a monopoly, and hence his total income is fixed by forces over which he has no control. What part shall he pay to labor, land, and capital?

If he could dictate arbitrarily, the problem would be easy. But the possessors of land, labor, and capital have something to say. The return that is demanded by land and capital depends largely upon the law of supply and demand. The return to labor also depends upon the law of supply and demand, plus the established principle that labor is not a commodity and must be accorded the human right to live decently. The organizer is faced with the problem of organizing the factors of production, whose compensation he can not arbitrarily control. He must see that the cost of producing goods will be less than what he receives from the sale of the goods. It is his task to keep a margin between his costs and his income. He can enlarge the margin by improving the organization of his factory, making selection of well trained employees, and

improving his processes of production and distribution. Those who fail to make improvements will finally be driven out of the business by the competition of those who do make improvements.

The distribution of the total income from production among the factors, labor, land, capital, and management, is not determined by any fixed rules, but depends upon many conditions. There is a conflict among the factors for greater rewards.

Numerous plans have been advocated and steps taken to change the system. The advocates of the single tax propose the abolition of rent, claiming that society, rather than the owner of land, creates rent. Laws have been passed in some states and countries, taxing heavily the increase of land values in cities.

Socialists attack private ownership of capital and land, and demand that all capital and land be owned collectively. Capital has been limited in its return for several hundred years, and at one time the taking of interest was entirely prohibited. Usury laws are in force in all states, limiting the rate of interest that may be charged on loans.

The organization and management of businesses are taken over by coöperative societies or by the public, and profits are either unknown or are distributed among the coöperators or used for public benefits. Profits taxes and income taxes are some of the means used to control profits for the public benefit.

Labor has pressed its claim for greater recognition, and by collective action through trade-unions has forced minimum standards of wages in many employments. Employers have been giving more and more voice to labor

in management, and in some instances have divided profits with the workers.

In the future the hope for justice in the distribution of income rests upon the clearer understanding by each factor of the rights of the other factors and its own obligations, and upon the creation of the spirit of fair play.

### *Questions and Problems*

1. Why should a part of the income from production go to each of the factors of production?
2. Explain the distribution of income received from running a farm.
3. Explain the distribution of income received from running a manufacturing plant.
4. Which is the better kind, time wages or piece wages? What are the advantages and disadvantages of each?
5. Upon what grounds is the minimum wage supported?
6. Suppose that an industry can not pay the minimum wages necessary to maintain workers and their dependents: does that justify the payment of less?
7. Explain the term "rent" as used in economics, and show the difference between contract rent and economic rent. Between economic rent and rent as the term is generally used.
8. Show how rent is capitalized by the owners of land.
9. Does a landowner usually think of his rent per acre or of the interest on the value of the land?
10. What conditions fix the rate of interest?
11. Why is the rate of interest upon money limited by law?
12. What is the effect of the rate of interest in the promotion of savings and the accumulation of capital?
13. Why is it necessary to figure the depreciation on capital in calculating the interest returns?
14. Explain by examples the meaning of profits.
15. In what ways are profits similar to interest?
16. Why should the farmer keep account of his wages, rent, interest, and profits separately?

17. Suppose that rent, wages, and interest take all of the income. What will be the result?
18. How can the returns to labor, land, capital, and management be adjusted with fairness to each factor?

*References*

Clay, *Economics for the General Reader*, Chapters 16-20.

## CHAPTER IX

### VALUE AND PRICE

#### *Community Survey*

Give examples to show that the value of an article is not always the same as the price.

We are constantly comparing goods and services in money as the measure of value. Whenever we attempt to place a value upon goods or service, we do so in money. We exchange goods after having reduced them to a common denominator—dollars—in determining for ourselves their relative values. We measure a day's work, the cost of an automobile, or attendance at the circus in money.

#### *Value and Price*

But why do we give \$10 for a hat, receive \$5 for a day's work, or pay \$1.50 to see a baseball game? How do we arrive at those figures? Why was the seller able to demand \$10 from us for the hat, or \$1.50 for the ticket to the ball game, and why are we able to secure \$5 for a day's work? The answer to these questions is the explanation of value.

We use the word "value" loosely to express the rate at which things are exchanged; but things have value that are not for sale and are not exchanged. Things may also

exchange without regard to value. It is more correct to say that the rate at which goods actually sell or exchange is the price rather than the value. Price and value may correspond, but there may be value without price and price without value. We do not, as a rule, pay more than our estimate of value. The seller of goods or service must generally fix the price at the point that the buyer estimates as their value. The seller considers what the buyer's estimate will be when he fixes the price. Most exchange prices represent value, but there are exceptions, such as the cheating of purchasers, selling to intoxicated persons or to persons who are mentally deficient.

Many theories have been held by economists regarding value. Some have contended that the value of an article is equal to the amount of labor expended in its production. This is known as the labor theory of value. Other economists have held that value is measured by the cost of production. This is called the cost-of-production theory of value. Others have held that the value of goods depends upon their supply and demand.

### *The Labor Theory of Value*

Those who have held the labor theory of value include the great economists, Adam Smith and Ricardo, and the socialist philosopher, Karl Marx. Adam Smith stated the case plainly when he said: "It is natural that what is usually the product of two days' labor or two hours' labor should be worth double what is usually the product of one day's or one hour's labor."

Ricardo speaks of the relative quantity of labor as "almost exclusively determining the relative value of

commodities." Karl Marx stated that "the value of a commodity is determined by the quantity of labor expended during its production."

The weakness of the labor theory of value is, however, apparent when we ask such questions as these: "What is the meaning of labor?" Does it include skilled and unskilled workers, office workers, brain workers, managers, and executives? If so, what is the measure of each person's contribution of labor? Is the standard of the day's work to be that of the skilled or the unskilled worker, the office or brain worker, or the manager? What becomes of this theory of value when we can not measure the first element, namely, the value of the unit of labor? Are the wages of all men, skilled and unskilled, office boys and managers, to be equal? Is capital and land to be assigned no part in the process of production?

This theory fails to take account of the fact that, after labor has been expended in the manufacture of a machine, there is no value unless some one wants to buy the machine at the value fixed by the labor in it. It also fails to take account of the fact that labor is sometimes misdirected and goods are often spoiled by shiftless workers. If the value of a product is to be measured by the labor in it, then the spoiled product should have value which it does not have. This theory overlooks the fact that goods and services that were not produced by labor are bought and sold for high prices. Diamonds do not represent the value of the labor in them; neither does the gold that is picked up in nuggets. The service of manicuring has value, not because of the labor in it, but because some one desires that particular kind of service.

*The Cost-of-Production Theory of Value*

The theory that the cost of production determines value takes into account other factors of production besides labor. It assigns a place to capital, land, and management. It assumes that, when proper compensation is allowed for the contribution of each of these factors, the sum total equals the value of the article produced. This theory of value has all of the difficulties of the labor theory of value plus the difficulties encountered in trying to measure the value of the contribution made by capital, land, and management toward the final product.

The primary objection remains also that after an article has been produced it can not be sold at all unless someone wants to buy it, and it can not be sold for as much as the cost of production unless someone wants it badly enough to be willing to pay as much as the cost of production. Likewise an article may be sold for a price far above the cost of production if a purchaser can be found who is willing to pay the price. In that case the cost of production does not measure the value of the article as represented by what the consumer pays for it. It might be contended that an inflated price does not represent value. In answer it may be said that if an article that costs ten cents to manufacture and upon which a price of one dollar is fixed is in demand by the consumer, it represents the consumer's estimate of its value to him. He is willing to expend his money for it at that price. In the long run, of course, an inflated price might be forced down by competition more nearly to the cost of production.

It is true that an article will not be produced continuously for less than it actually costs to produce it. Producers could not continue to supply articles for less than the cost to them; therefore in the long run the cost of production is the minimum price at which goods can be sold. It is true also that competition, when effective, forces the price charged down toward the cost of production. It should be kept in mind, however, that there are many products whose price bears no relation to the cost of production, and that there are many products for which there is no market or which must be sold for less than the cost of production. These exceptions are so numerous as to make the theory that the cost of production determines value unworkable in explaining everyday experiences.

There is another weakness also in the cost-of-production theory of value in that for a given article the cost of production may vary in different localities, in different plants, or on different farms. One plant, because of better organization, may have a lower cost of production than another; another plant having the use of patent devices may have a lower cost of production than the first. A plant that is accessible to raw materials and fuel may have an advantage over a plant that is not so accessible. One farmer by employing efficient methods may have a lower cost of production than another farmer. Which is to be considered the cost of production of a yard of cloth—that made in the mill that is most efficient, or that made in the mill that is least efficient? Which is to be considered the cost of a bushel of wheat—that raised by the most efficient farmer, or that raised by the least efficient farmer?

Or is it to be the cost of production to the producer of medium efficiency that is to be the standard?

These questions indicate the difficulties of trying to measure the value of articles by the cost of production.

Difficulties also arise in attempting to measure the cost of production of a given unit of the product. The actual costs of each unit of a product are not usually figured. Cost-keeping in industries has not succeeded in determining costs under all circumstances. Such questions as these arise: How is the cost of running a train to be determined? What is the cost of attaching an additional car to a train? What is the cost of manufacturing a yard of cloth after the regular hours of the working day?

As a matter of fact, if costs of production determined value, we would know very little about value, because we know very little about actual costs of production. As an explanation of why goods exchange at certain prices, the cost of production theory breaks down.

### *The Consumer's Part in Determining Value*

The labor theory of value and the cost-of-production theory of value try to explain value from the point of view of the producer by determining the amount of labor, or of labor, land, capital, and management, put into a product. Actually it is the consumer who determines the value of a product, and we shall now consider the explanation of value from the consumer's standpoint. It has already been stated that goods exchange only when a purchaser is found who is willing to take them at the price at which

they are offered. Goods could be manufactured without end, but they would not be sold if the consumer did not want them.

The consumer measures the utility of an article, and will pay what he thinks it is worth to him. If the price asked by the producer is too high, the prospective consumer will take less of the product, go without, or choose some substitute. The producer can not charge whatever he pleases, because the consumer has the final say in the matter. If he will not buy at the price asked, the price must be lowered. The producer's problem is to estimate the utility of the article to the consumer, and to fix the price at a point low enough to induce the consumer to purchase. The producer may try various arts of salesmanship and advertising to make the consumer more desirous of possessing an article or product; but, finally, he must fix the price to suit the consumer's estimate of what the article or product is worth to him.

Consumers figure the utility of goods closely, because the purchasing power of the great body of consumers is limited, and they try to make their income go as far as possible. Every purchase by the consumer must be made with due regard to his means. Even the wealthy must make a choice of goods and of services. The consumer is consequently deciding whether he will purchase a little more of this or of that article. He is constantly choosing the avenue of his expenditures, and price is an important factor in his decisions.

Certain necessities of life, such as bread and potatoes, will be purchased at higher prices than other products;

but even with these products there is a limit to what may be charged. The use of the article will be restricted, and substitutes will be used if prices are excessive. Outside of the necessities of life the field of choice is more extensive; there is an easier transfer of desires from one thing to another.

### *Marginal Utility*

The consumer does not judge the value of goods by the immediate utility, but by the marginal utility. The immediate utility of a loaf of bread to a man who has been without food for two days is greater than that to a person who has enjoyed regular meals. The utility of a second loaf is less than the first, and that of a third loaf less than the second. If the value of loaves of bread were to be fixed by the utility of the first loaf to the hungry man, we would have an excessive value. The second, third, and successive loaves would have less immediate utility and consequently less value to the consumer. The value is not measured by the first loaf, but by the last loaf, that the consumer is induced to purchase. This last loaf is the marginal loaf, and its utility to the consumer is the marginal utility of loaves of bread. To make the example more concrete, let us suppose that fifty cents was charged for the first loaf, twenty for the second, and ten for the third or last loaf to be purchased. If the purchaser is to be induced to buy three loaves of bread, the price must be ten cents rather than fifty cents. The marginal loaf determines the price. It is the marginal utility that determines the value of goods in the eyes of the consumer.

*Supply and Demand*

The supply of a product does not determine its value. There is no value, whether the supply be large or small, unless consumers wish to buy the product and back their wish to buy by actual purchase. The demand must be present in determining value. Assuming that there is a demand for the product, the value will then depend upon the supply. A certain amount will bring a certain price. If there is a desire to sell a larger amount of a certain product, the goods must be offered at a lower price. If a small amount is offered for sale, a larger price may be secured.

The term "supply" does not mean the total supply in existence, but the amount that is actually offered for sale. The term "demand" does not mean the total wants for the product, but the amount that will be actually purchased at a certain price. Wheat held in the farmer's bins does not constitute supply in the market; the desire for wheat by those who can not pay for it does not constitute demand. Supply means the amount that will be offered for sale at each of a series of prices; demand means the amount that consumers will buy at each of a series of prices.

Some products are more sensitive to supply and demand than others. Bread is regular in the demand at different prices. People must have bread when they have nothing else, and a decrease in price will not greatly increase demand; nor will an increase in price cause any considerable decrease in demand. The demand for bread is not elastic. Should the price be greatly increased, however, there would be a decrease in demand, because many people would begin to use substitutes. On the other hand, the

demand for such products as woolen clothing is elastic. An increase in price will lessen the demand because of the use of substitutes, and a decrease in price will increase the demand because of the greater desirability of woolen garments over garments made of cotton and other materials.

### *Monopoly Price*

The fixing of the price of goods by a monopoly that supplies them takes into account the law of supply and demand. We have already seen that the consumer has a voice in fixing the price. The monopolist takes this into account. He fixes his price generally at the point that will encourage the largest demand at the highest price. If the price is fixed too high to suit the consumer, less will be purchased. The monopolist balances small sales and high profits per unit against larger sales and smaller profits per unit, and follows the policy that gives the largest gross profit. The monopolist must be a close observer of supply and demand in order to accomplish his purposes.

If the monopolist has control of bread, which is not elastic in demand, he may increase the price considerably without lessening the demand. When the product thus controlled is a necessity of life, or when it is in general use, the wrath of the people against the monopolist will sooner or later bring about public action for the control of the monopoly and the regulation of prices.

### *Price-Fixing by Law*

The practice of price-fixing by law has been followed to an increasing extent in recent years. Railroad fares were formerly fixed by law at two cents a mile; they are

now fixed by public commissions. Street-car fares and taxicab fares are fixed by law or contract; state commissions control and regulate prices for service of street railways, gas, electric-light, water, and power companies. During the war the prices of wheat and sugar were fixed in the United States. European countries fixed by law the prices of many products. The fixing of prices by law is incorrectly supposed to be an interference with the law of supply and demand. As a matter of fact, the supply and demand of a product becomes adjusted to the prices fixed. The price can not be permanently fixed in defiance of supply and demand. If the price is too low producers will cease to produce, and if it is too high consumers will lessen their demands for the product or begin to find substitutes. The law can not make values; it can prevent extortion by preventing excessive prices charged for goods by monopolists.

### *Questions and Problems*

1. Does the amount of labor in a product determine its value? Give reasons.
2. Can the actual cost of labor that goes into a product be measured?
3. Why does the labor theory of value fail to explain value?
4. What is the value of the labor in a machine that will not work after it is constructed? What is the value of the labor in a suit of clothes that does not fit and that must be made over?
5. Define the cost-of-production theory of value.
6. Show why it is difficult to figure the costs of production.
7. Suppose it costs one hundred dollars to build a machine that no one will buy at any price: is there one hundred dollars of value in the machine? What is its value?

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8. Define supply and demand.
9. Give examples of the way the prices of the following products are fixed by supply and demand: potatoes, automobiles, wheat, diamonds.
10. What are the limits of the monopolists' power to fix prices?
11. Discuss the value of fixing prices by law or by public official bodies.
12. What is the utility of an article?
13. Do diamonds have utility?
14. Does recreation have utility?
15. Define marginal utility and give original examples.

### *References*

Clay, *Economics for the General Reader*, Chapters 14 and 15.

## CHAPTER X

### MONEY

#### *Community Survey*

1. What kinds of money are used in your community?
2. Examine carefully all kinds of paper and metallic money.
3. What examples of trading without money are found?
4. Describe fully the part that money plays in business activities, and especially how it aids in getting goods to the consumer.

Money should be studied from two points of view: as a medium of exchange, and as a standard of value. As a medium of exchange it serves to make possible the transfer of goods from one person to another. As a standard of value it becomes the measure by which the value of goods is determined in exchange.

#### *Money as a Medium of Exchange*

The method of buying and selling goods among primitive people was usually by barter. The man who had more skins than he needed for himself exchanged the skins for some other product. All wants for goods produced by others were supplied by such exchanges. There is some barter taking place at all times whereby articles are traded. The farmer, for example, trades eggs and other produce at the store for groceries. At present,

however, nearly all commerce is carried on otherwise than by barter. The method of barter had obvious difficulties even in primitive times, and those difficulties under modern conditions are insurmountable.

Under the barter system the person who had something to sell and who wanted certain economic goods would



A scene of barter

have to search to find a man who had those goods and who at the same time wanted the article offered in trade. Also he would have to find the person who had the right amount of the article he desired, in order to balance the value of the article he had to sell. Because of these difficulties fairs were held where people brought the things they had to exchange. Exchanges were thus more easily arranged. The difficulty still remained, however,

that a person who had something for sale that was not divisible, such as an animal, would find great difficulty in exchanging it for equal value. If a man had a cow and wanted a sheep, the exchange would be quite impossible if the value of the cow and of the sheep were materially different.

The outgrowth of the barter system was a medium of exchange for which goods could be sold and with which other goods could be bought. The medium of exchange was necessarily something that was acceptable by all people.

The mediums used for exchange have been numerous. In this country wampum and furs were mediums of exchange with the Indians. Tobacco, grain, and different metals of various designs have been used. At the present time the mediums of exchange in this country are metallic and paper money. Other countries have also used many different articles as mediums of exchange, such as animals, grain, iron, leather, and tin.

### *What Makes a Good Medium of Exchange*

The characteristics of a good medium of exchange are: It must have real value, or be backed by real value; it must be divisible, so as to make possible small exchanges; it must be easily carried; it must be practically indestructible by wear; it must be stable in value, that is, it must not fluctuate widely.

It will be observed that very few articles possess all of these characteristics. Many articles possess some of them in a high degree. Diamonds are highly prized and have value in exchange. They are also easily portable.

But they are not divisible, and they are easily lost or destroyed. Aluminum would have many of the qualities, but would lack value.

It has been arrived at by experience that gold is the most approved medium of exchange, because it comes nearer to possessing all of the required qualities than any other substance. But gold lacks certain of the qualities, and to make an ideal medium of exchange these deficiencies must be made good. Gold is not conveniently divisible. A dollar in gold at present would be a very small coin, and a ten-cent piece in gold would be so small as to be entirely impracticable in use. Moreover, gold in large quantities is not easily portable. From both of these causes comes the necessity for substitutes. This is accomplished by making token coins from silver, nickel, and copper to provide for small exchanges, and paper money to provide for large exchanges. Checks and drafts are other substitutes for gold as mediums of exchange.

### *Standard of Value*

As a medium of exchange the substance used as money must have value or else it would not be readily accepted. The owner of wheat would not give up his product for money that he could not be sure would be acceptable to others from whom he might wish to purchase goods. Mediums of exchange are necessarily of such substances as are in general demand. The substances used in past times had value as goods at the time they were used as money. The value of a bushel of wheat becomes a matter of general knowledge. The owner of a horse might therefore fix its value in terms

of bushels of wheat. The owner of a harness might also state its value in terms of bushels of wheat. After thus reducing the value of the horse and the harness to a common denominator it is possible to compare the value of the horse and the harness. All articles could be valued in terms of bushels of wheat, just as measurements are compared by reducing them to the standard yard. The bushel of wheat would be the standard or measure of value.

But the value of wheat is not the same from year to year; its value depends upon its production annually throughout the world. Its value is not like a yard-stick, which is always the same length. It is obvious that a standard of value should be a substance or thing that does not fluctuate widely in value. It will not be a good measure of value if its own value is not stable from year to year. To emphasize this point let us consider the possible use of a bushel of potatoes as a standard of value. Potatoes have fluctuated in price in the last few years, at times being fourfold as valuable in the market as at other times. Clearly, such a standard would be no standard; its value would change from month to month. Similar tests would eliminate most substances as possible standards of value. The world has finally settled upon gold as the substance that best fits the requirements as a standard of value.

### *Standard of Deferred Payments*

The need for a stable measure of value is brought out clearly when we remember that much of the business of the world calls for payment in the future. The bor-

rower promises to pay in sixty days, six months, six years or other period. The lender has a right to expect payment in money just as good as he lent to the borrower: the borrower has the right to pay his debt in money no better than that which he borrowed. Contracts calling for payment on the completion of a piece of work would be unfair to one party or the other if the measure of value fluctuated between the time the contract was made and the time it was fulfilled. Agreements to work for an employer for a certain period would work an injustice upon the employer or the employee if the measure of value fluctuated widely, as would be the case if the measure of value were wheat, potatoes, or corn. Deposits in banks would be impossible unless the depositors were sure to get back money of equal value. Because the gold supply increases only slightly from year to year, gold has a more stable value than other substances or products, and hence it is more dependable as a standard of future or deferred payments.

### *The Single Standard*

When one substance is used as a measure of value it is called the single standard. For many years the great commercial countries of the world have used gold as the single standard. The United States has used gold virtually as the single standard since 1873. Since 1900 gold has been legally the single standard in this country.

### *The Double Standard—Bimetallism*

The double standard, or bimetallism, is the use of two metals—gold and silver—as measures of value. The

United States used the double standard for many years prior to 1873. Gold and silver were coined free of charge by the government at the rate of sixteen to one (approximately sixteen ounces of silver equaling one ounce of gold). The advocates of the double standard claimed that the value of gold and silver would remain at about the same ratio. As a matter of fact the values fluctuated, so that at times the value of silver was greater as bullion than as coin, and likewise the value of gold at times was greater as bullion than as coin. When the value of either, as bullion, was greater than the value as coin, the coins were melted and no others were coined. The large increase in the production of silver, and the discontinuance of its use as a standard of value by the leading countries, caused a heavy drop in the price of silver. At one time the ratio to gold was about thirty-two to one. In recent years the price of silver has increased, and at one time in 1920 it was quoted slightly higher than the ratio of sixteen to one.

### *Free Coinage*

Free coinage means that the government will coin, free of charge, bullion brought to the mint. At present the privilege of free coinage is enjoyed only for gold bullion. Any owner of gold bullion may take it to the mint and receive an equal amount of gold in coins. Formerly silver dollars were coined free, but free coinage of silver was discontinued in 1873. Silver, nickel and copper coins are coined by the government, as the need arises, from metal purchased by the government.

*Paper Money*

Paper money has been used in all countries, and at times excessive amounts have been issued by governments as an easy way to pay their bills. The cost of the paper is slight, and engraving shops and printing presses turn out paper money with great speed. When the value of the money consists merely in the stamp of the gov-



Interior U. S. mint

ernment, it is called fiat money: the government declares it to be money. The value of fiat money depends upon the confidence in the government. If the government issues a small amount and promises to redeem it, people readily accept it. If large amounts are issued, the people lose confidence and refuse to accept it at full value. In time, if the policy of issuing paper money is continued, confidence is entirely lost and the paper money becomes

practically worthless. Continental paper money fell to almost nothing during the American Revolution. Russian paper money is almost worthless to-day, and the paper money of some other European countries is accepted at a small fraction of its face value.

Not all paper money is fiat money. The paper money of the United States to-day is not fiat money. It is backed by value, either by being convertible into gold or by being backed by the credit of the banks that issue it as well as the deposit of gold, silver, or securities. All forms of money of the United States are accepted in transactions at face value. If anyone has doubts about the value of paper money he can readily exchange it for coin. Confidence is thus established in all forms of paper money.

### *Kinds of Money in the United States*

There are ten different kinds of money in use in the United States, as follows: Gold, gold certificates, silver dollars, silver certificates, subsidiary silver, treasury notes, United States notes, federal reserve notes, federal reserve bank notes, and national bank notes. On June 30, 1919, there were in circulation the following amounts of the different kinds of money:

|                                               |                 |
|-----------------------------------------------|-----------------|
| Gold coin, including bullion in treasury..... | \$1,112,353,324 |
| Gold certificates.....                        | 530,362,211     |
| Standard silver dollars.....                  | 80,754,524      |
| Silver certificates.....                      | 169,148,295     |
| Subsidiary silver.....                        | 231,886,499     |
| Treasury notes of 1890.....                   | 1,745,161       |
| United States notes.....                      | 332,862,551     |
| Federal reserve notes.....                    | 2,494,029,931   |
| Federal reserve bank notes.....               | 103,245,730     |
| National bank notes.....                      | 649,641,741     |

*Gold Coin*

The gold in circulation in the United States consists of coin and bullion. The gold coins are the double-eagle (\$20), the eagle (\$10), the half-eagle (\$5), the quarter-eagle (\$2.50). Formerly \$1 gold pieces, and \$3 gold pieces were coined, but their coinage was discontinued in 1890. A large part of the gold is held in the form of bullion in the treasury. When weighed and



Money in circulation June 30, 1919. Treasury notes of 1890 omitted from graph = \$1,745,161

stamped it serves the same purpose as coin, because its value as bullion is exactly the same as its value as coin.

*Gold Certificates*

Because of the difficulty of using large amounts of gold in everyday transactions, gold certificates have been issued, representing the actual gold held in the treasury. Gold certificates have been called warehouse receipts for the gold stored in the treasury. Anyone holding a gold certificate may present it to the treasury and receive the amount of the certificate in gold coin.

It will be readily seen that gold certificates are much more serviceable than the coin itself would be. They save the wear of the gold coin and are easier to handle. Since they may be exchanged for full value in gold, everyone accepts them as if they were gold.

### *Silver Dollars*

Silver dollars have been issued in large quantities, but the size and weight of the coin makes their use limited in ordinary business. In the early years of our nation the silver dollar was the standard money; but its value decreased so rapidly in comparison with gold that the free coinage of silver was discontinued in 1873. The value of the silver in the silver dollar at one time fell to about half its face value. The rise in the value of silver in the last few years has brought the value of the silver at times above the face value of the coin.

That the silver dollar is readily received in transactions at its full value, even when its value is less, is due to the fact that it is readily exchangeable for gold, and therefore everyone accepts it as if it were gold.

The law does not compel the treasury to pay gold in exchange for silver; but the policy of the country has been to maintain all kinds of money at par, so that in practice silver may be exchanged for gold.

### *Silver Certificates*

Silver certificates are similar to gold certificates in that they circulate in place of the silver dollars that are held in the treasury. Silver certificates merely represent silver that is kept in the treasury because it is too bulky to use.

Silver certificates are readily accepted in trade, because they are also, in practice, exchangeable for gold. The law does not compel such exchange; but the practice has always been to make one kind of money as good as another.

### *Subsidiary Silver and Minor Coins*

To meet the needs in small business transactions a number of coins made of silver, nickel, and copper have been provided. The half-dollar, quarter-dollar, and ten-cent piece are made of silver. At one time a three-cent piece, made of silver, was in circulation. Other coins are the five-cent piece, made of nickel, and the one-cent piece, made of copper. Formerly a two-cent piece and a half-cent piece were in circulation.

Money of this kind is called token money. None of it has actual value equal to the face value, but because it is in practice redeemable in gold, it passes in current trade for its full face value.

### *Treasury Notes*

The treasury notes were issued in 1890 to pay for silver bullion that was required by law to be purchased. These notes were redeemable in gold or silver. They were later retired from circulation, and the small amount still in circulation represents the part that has not yet found its way to the treasury for redemption in other forms of money.

### *United States Notes*

The United States notes were issued for the first time during the Civil War. Later they became known as

greenbacks. They were first issued as emergency money to meet the enormous expenses of the Civil War, and large amounts were issued before the war was over.

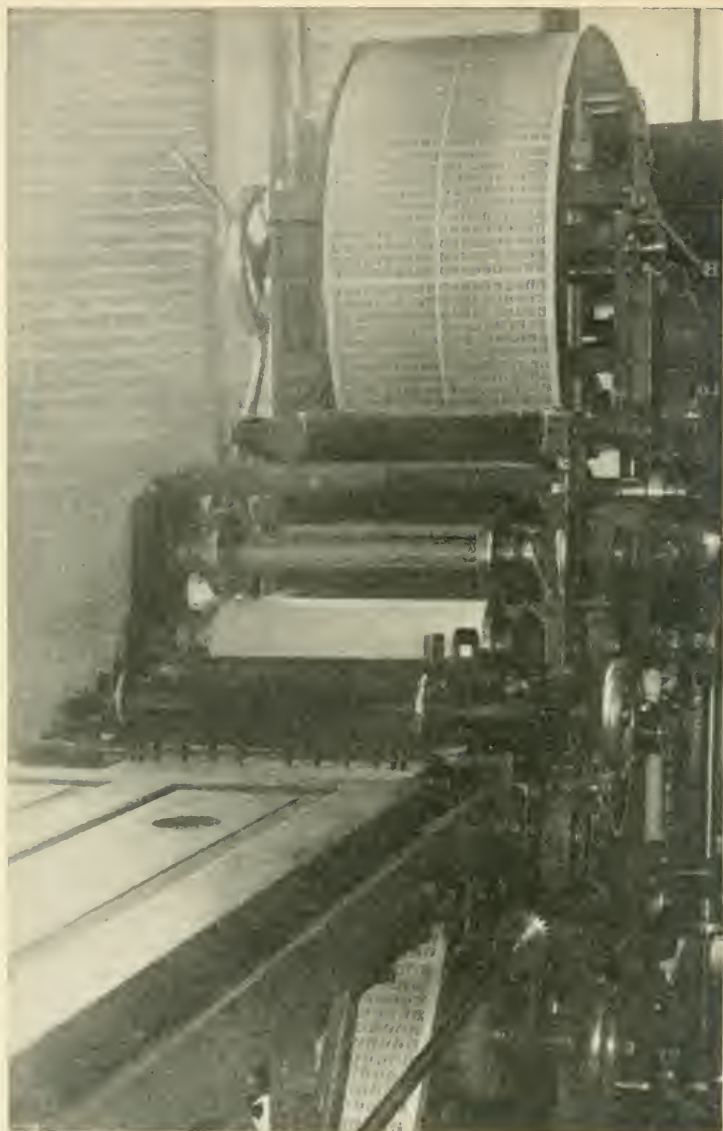
The issue of these notes in large quantities caused their depreciation in value, and at one time they could be bought for about one third of their face value. Later they were made exchangeable for gold, and a special fund is now held in the treasury to redeem them when presented. The amount of such notes has remained about the same since 1878. The value of these notes depends entirely upon the credit of the government and the fact that they are redeemable in gold.

### *National Bank Notes*

National bank notes were first issued during the Civil War as a part of the means of financing the operations of the government during war. They are issued by national banks on the security of United States bonds owned by the banks and deposited in the national treasury. The bank becomes responsible for their payment, and the holder of the notes is secured by the government bonds held in the treasury. All national banks are required to receive the national bank notes of other banks at their face value.

### *Federal Reserve Notes*

Since the passage of the Federal Reserve Act in 1913 it has been the policy of the government to limit the issue of national bank notes, and provide for federal reserve notes in their place. These notes are issued by the Federal Reserve banks, of which there are twelve in the different districts into which the United States is divided.



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A printing press in the U. S. Bureau of Engraving and Printing  
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Federal Reserve notes are issued by the banks on the security of bonds, or of commercial paper, held by the bank. The intention of the provision for Federal Reserve notes was to secure sufficient money to meet the needs of business expansion.

The fact that should be noted is that behind this kind of paper money is the security of commercial paper or bonds and the credit of the bank as well as the honor of the country to redeem the obligations that it incurs.

### *Federal Reserve Bank Notes*

Federal Reserve bank notes are issued by Federal Reserve banks to retire the national bank notes. The national banks are not compelled to retire the notes issued by them, but they are allowed to do so. In lieu of national bank notes redeemed, the Federal Reserve banks issue Federal Reserve bank notes.

### *Legal Tender*

Money that is by law made legal tender must be accepted for any purpose in public or private transactions. Not all kinds of money are legal tender for all purposes in any amount. Gold is legal tender for every purpose. Silver dollars are legal tender, unless specially stated otherwise. Subsidiary silver coins are legal tender up to \$10. Minor coins are legal tender up to twenty-five cents. Gold certificates and silver certificates are not legal tender, but the government accepts them for customs, taxes, and public dues. National bank notes likewise are not legal tender, but are receivable by the gov-

ernment for debts, except for interest on public debt and in redemption of currency.

The United States notes, or greenbacks, have been made legal tender for all debts, public and private, except customs, dues, and interest on the public debt. In actual practice, however, since all forms of money are exchangeable for gold, practically every form passes as legal tender, although a man might, for example, refuse to receive the payment of a debt of \$100 in nickels, quarters, or half-dollars.

### *Questions and Problems*

1. What is barter? Give examples of barter in the present day.
2. What are the limits of barter as a means of exchange of goods?
3. What is the meaning of the phrase, "medium of exchange"?
4. What are the characteristics of a good medium of exchange? What articles or substances are satisfactory? Name some that are not.
5. Why should the medium of exchange have value?
6. What is the meaning of the statement that gold is the standard of value?
7. Does paper money have real value?
8. What gives value in exchange to paper money?
9. What are the dangers of issuing paper money by governments?
10. What is meant by free coinage?
11. Define the term "bimetallism."
12. Define the single standard or monometallism.
13. Why is the making of money entirely under the control of the government?
14. May individual states issue money? What would be the disadvantages if the states should issue or coin money?

*References*

- Clay, *Economics for the General Reader*, Chapter 9.  
Holdsworth, *Money and Banking*, Chapters 1-6.  
Fetter, *Modern Economic Problems*, Chapters 2-6

## CHAPTER XI

### BANKING

#### *Community Survey*

1. Make a complete list of banks in your community and secure copies of regular reports from each.
2. What different kinds of banks are found in the community?
3. Secure samples of checks, drafts, notes, deposit slips, etc.

Banks are institutions organized to receive money in the form of deposits, to safeguard it and use it in the form of loans or credit. They also perform other functions, such as transferring money from one place to another, making collections of notes, checks, and drafts drawn on other banks, and safeguarding securities and other valuables in safety deposit vaults.

The bank is a necessary part of the machinery for financing the production and distribution of goods. Without it the funds of the community would lie idle in hiding-places and private safes. The producer could not adequately finance production and distribution, and payments would have to be made largely in cash with all of the expense and risk of loss. Banks mobilize the money of the community for the use of business.

Banks may be classified as private banks and public or incorporated banks. Private banks are managed by

individuals or partnerships. Public or incorporated banks are conducted by corporations organized under the banking laws of the state or nation. Public or incorporated banks may be classified as state banks and national banks, according as they are incorporated under state or national laws. Before 1862 all banks in the United States were state banks. In that year national banks were au-



Interior of a New York bank

thorized, and since then they have been largely extended. On June 30, 1919, there were 7785 national banks; 17,225 state banks; about 3500 private banks; 1377 trust companies; and 1719 savings banks—making a total of 31,606. The magnitude of the banking business in this country will be seen from the figures of deposits in the different banks for the year 1920:

|                                 |                  |
|---------------------------------|------------------|
| National banks .....            | \$13,705,000,000 |
| State banks .....               | 10,873,000,000   |
| Savings banks .....             | 6,536,000,000    |
| Loan and trust companies .....  | 6,085,000,000    |
| Private banks (estimated) ..... | 169,000,000      |

*Commercial and Non-Commercial Banks*

Banks may also be classified as commercial and non-commercial. Commercial banks seek to serve the business man with short-term loans on commercial credit. Non-commercial banks seek to serve the borrower who needs money on mortgages, bonds, and personal credit, and also the individual who needs opportunity for investment. Most of the national, state, and private banks are commercial banks, although many of them do a non-commercial business also. The non-commercial banks are the savings banks (described in chapter 13) and trust companies, although most trust companies do a commercial banking business also.

*Trust Companies*

Trust companies were not formed originally as banking institutions, but to act as guardians of persons and administrators of estates and to execute trusts. There are many kinds of trusts which the trust company is designed to carry out. Herrick, in his book, "Trust Companies," names the following kinds of trusts:

"From active business men who have some special matters that they do not care to handle for themselves; from teachers, artists, doctors, clergymen, women, and others who feel that their inexperience or lack of time makes it wise to shift financial affairs to other shoulders; from persons whose health requires that they live in other climates and leave their business cares behind; from absentee property-owners; from the aged, either too feeble to attend to active business or willing to take a well-earned rest; from persons planning to spend some time in

travel and who must have a responsible agent to look after their affairs while away; and from others who, either from choice or from necessity, wish to avoid the care of their property either temporarily or permanently. In such cases the trust company takes entire charge of the property, whether real or personal, or both, just as an individual acting in like capacity would do."

In most of the states trust companies have not confined themselves to their original purpose, but do a banking business; and in a few of the states the laws permit banks to engage in a trust company business. Some trust companies make their banking business of minor consequence to their trust company business, while others engage extensively in banking.

### *Commercial Banks—Deposits*

If there were no banks, individuals and business men would be compelled to keep their ready cash in their own homes or business places. Business men receive and disburse large sums of money daily. Private individuals at times have considerable sums of money on hand. The purpose of a bank is to bring these funds together for the advantage of the holder and the community. The money is received in the form of deposits. The bank credits the deposit to the owner and is obligated to return the amount to the owner.

If the deposit is made subject to withdrawal upon demand, it is called a demand deposit. If the deposit is made for a certain length of time, or if a notice of withdrawal is required before payment may be required, it is called a time deposit. The bank agrees in the case of

demand deposits to pay back the amount of deposits upon demand, and in the case of time deposits after a certain time or a certain notice.

The bank must keep on hand enough money to pay the demand deposits when called for, and the time deposits when due. All

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DEPOSITED TO THE CREDIT OF

*Henry Williams**January 15* 1922

IN THE

**Lincoln Trust Company**

204 FIFTH AVENUE

PLEASE LIST ALL CHECKS SEPARATELY  
WHEN PAYABLE OUT OF TOWN, GIVE NAME OF CITY  
IN LEFT HAND MARGIN

|               | DOLLARS | CENTS |
|---------------|---------|-------|
| <i>Gold</i>   | —       |       |
| <i>Silver</i> | 8       | 57    |
| <i>Bills</i>  | 153     |       |
| <i>Checks</i> | 385     |       |
|               | 210     | 36    |
|               | 25      | 75    |
|               | 782     | 68    |
|               |         |       |
|               |         |       |
|               |         |       |
|               |         |       |

A deposit slip

of the depositors do not want their money at the same time. In fact, the new deposits will generally equal the amount of withdrawals, and in a growing bank will, on the average, exceed the withdrawals. The bank can figure, therefore, that new deposits are coming in to offset withdrawals. A business man who requires five thousand dollars daily to run his business will keep more than that much on deposit, besides any

surplus that he may have accumulated. Each day his incoming cash is deposited in the bank, and each day he is drawing out certain amounts. Hundreds of other business men are doing the same, and the deposits and withdrawals are equalized. The result is that the reservoir

of money in the banks in normal times is kept supplied. The bank, knowing that its deposits are being renewed every day, can use a large part of the deposits on hand to make loans.

### *Checks and Drafts*

Money is withdrawn from the bank by a depositor by means of a check. A check is an order by a depositor upon the bank to pay a certain amount of money to the

|                                                                       |                                     |
|-----------------------------------------------------------------------|-------------------------------------|
| NO. <u>123</u>                                                        | NEW YORK <u>Jan 15</u> 192 <u>2</u> |
| <b>LINCOLN TRUST COMPANY</b> 1-116<br>204 FIFTH AVENUE                |                                     |
| PAY TO THE ORDER OF <u>Richard Roe</u>                                | \$ <u>150<sup>85</sup></u>          |
| <u>One hundred and fifty and <sup>85</sup>/<sub>100</sub></u> DOLLARS |                                     |
| PAYABLE THROUGH THE NEW YORK CLEARING HOUSE<br><u>William Stevens</u> |                                     |

A bank check

person designated, or to the bearer of the check. When presented at the bank the amount is paid out and deducted from the deposits of the one drawing the check. The check must be indorsed by the one to whom it is made payable.

When a depositor desires to use a check where he is not known, or to bind a contract, he may ask his bank to certify his check. The bank certifies a check by writing the word "Certified" across the face and signing it, thereby guaranteeing its payment. The amount of the check is immediately deducted from the depositor's ac-

count, and the bank becomes responsible for the payment of the check whenever it is presented. Instead of certifying a check the bank may give its own check, signed by the cashier. This is called a cashier's check.

### *Bank Drafts*

A bank draft is an order by one bank upon another bank for the payment of money. It is used principally in payments sent to other places. Banks keep some of their funds on deposit in the larger commercial cities, such as New York, Chicago, and St. Louis. Virtually every bank has some deposits in New York.

In issuing a New York draft a bank merely draws its own check upon its funds deposited in a New York bank. Since all banks have dealings in New York, a New York draft will be accepted anywhere. Similar drafts drawn by banks on their funds in the banks in Chicago, St. Louis, or other cities are readily used in the territory of which those cities are the commercial centers.

### *Travelers' Checks and Letters of Credit*

Travelers have difficulties in securing cash in places where they are not known. Such difficulties would be serious if it were not for travelers' checks and letters of credit. A traveler can not carry enough cash to pay heavy expenses except at great risk. The money that he carries from his own country may not, moreover, be accepted in other countries.

These difficulties are met by the travelers' check, issued by express companies, banks, and associations such as the American Bankers' Association. These checks



go to Europe, buys a letter of credit for \$10,000. He may present the letter to any of the banks mentioned in the letter. His signature, compared with his original signature on the letter, proves his identity, and the amount desired is paid and deducted on the letter. From a bank in Paris he may draw \$500; the balance then appears on the letter as \$9,500. Each successive payment in London, Amsterdam, Rome, etc., is deducted, and each banker to whom it is presented knows how much is still due on the letter.

### *Bank Loans and Credit*

As we have seen, the business of the bank is to receive deposits and to make loans or grant credit. Business men need to borrow money from time to time. Production precedes actual sales by weeks and months and even years. The producer puts his money into the production of articles from which he will receive no return for some time. Even in the case of direct sales, some time must elapse before the money for goods is received by the producer. The function of the bank is to help finance the producer and distributor from the time of production or sale of goods until the money for the goods is paid.

The custom of extending credit to purchasers for thirty, sixty, or ninety days greatly enlarges the need for money to tide the producer over from the time his money goes into the product to the time when he receives it back from the purchaser. The distributor also has the same need for money to tide himself over from the time he purchases an article to the time he receives payment

from the one to whom he sells. Farmers have need of more extended credit to carry on their operations during the months of planting and cultivating, and until the money for their products is actually paid to them. Farmers need still further credit to enable them to hold their products for a favorable market.

It is the business of the bank to meet the legitimate needs of all producers and distributors during the period from production or distribution to the time of payment. It is not the business of the bank to finance production itself. That is the business of the investor and the capitalist.

It is not the business of the commercial bank to lend money for the purchase of property. The non-commercial bank may do that, as well as individual investors. The commercial bank should help finance operation rather than ownership.

When a business man needs to borrow money from the bank he may give his note to the bank or he may sell to the bank the notes given to him by others. This process is called discounting. The bank takes the note of the individual and pays him the amount of money, less the interest for the time that the note is to run. Likewise, the bank discounts the notes given to the borrower by others, paying the face of the note less interest to the time when due.

### *Trade Acceptances*

A new form of credit, called the trade acceptance, has come into use in recent years. The idea of trade acceptances is simple, as will be illustrated by an example.

A customer of a Chicago bank buys a bill of goods in New York. The seller of the goods makes shipment to Chicago and draws a draft, due in ninety days, on the Chicago man. This draft is sent along with the bill of lading to the bank of which the purchaser is a customer. The Chicago customer arranges with his bank to pay the draft when due in ninety days. The bank accepts the draft by stamping the word "Accepted" on the face of the draft and adding its signature. By this act the bank assumes the obligation to pay the draft to the New York man at the end of ninety days. The draft may then be taken by the New York man to his own bank and discounted, the same as a customer's note. The Chicago man agrees, of course, with his bank to provide the money to pay the draft when due. The Chicago bank thus lends its credit by agreeing to pay the draft in ninety days.

A customer may also draw his own draft upon a bank, due at a future date, and when accepted by the bank it is discounted the same as a note.

Trade acceptances are convenient forms of credit, serving the purposes of trade better than notes, and their use is growing rapidly.

### *Domestic Exchange*

One of the principal functions of the bank is to collect for its customers the checks and drafts on other banks received by them from all parts of the country. This is called domestic exchange. The local checks and drafts are collected daily through the clearing-house by the

settlement of differences. The checks and drafts on distant places are collected by a settlement between sections of the country. Thus, the New York banks may receive from their customers \$1,000,000 worth of checks and drafts on Chicago banks, and at the same time the Chicago banks may receive \$950,000 in checks and drafts from their customers on New York banks. The settlement would involve the payment of \$50,000 to the credit of New York. The checks and drafts received by the banks of all cities upon banks or persons in other cities are canceled as far as possible, and the balances only are paid.

If it were not for this system of exchange each bank would have to collect checks and drafts in distant cities, and the money would have to be shipped in payment. The more efficient the system of exchange, the smaller will be the amount of money that must be transported to settle balances.

A concrete illustration will explain the function of the bank in collecting customers' bills of exchange. A manufacturer in Cleveland sells a bill of goods to a merchant in New York. The manufacturer draws a draft on the New York merchant for the amount of the bill, payable at sight, or in thirty, sixty, or ninety days. The manufacturer takes the draft to his banker in Cleveland, who sends it for collection to a New York bank. The draft is paid at the New York bank. The money is not transported to Cleveland, because drafts by others in New York are drawn on Cleveland. The items are canceled, and only the differences are actually sent from one city

to the other. The settlement of accounts between people of different countries is called international exchange, and is explained in Chapter 18.

### *Bank Reserves*

Reserves of cash are kept on hand by banks to insure the payment of deposits. While ordinarily the deposits of a bank equal the withdrawals, there may be times when an unusual withdrawal of money from a bank might exhaust the supply of cash. If a bank should exhaust its cash and be unable to pay the checks of its depositors, even for a day, it would be a serious blow to the reputation of the bank. The depositors would probably become alarmed, and large numbers would try to draw out their funds, thus making what is called a "run" on the bank.

Banks keep on hand a sufficient reserve of cash to safeguard themselves against the possibility of being called upon for unusual amounts of deposits. A larger reserve must be kept on hand to pay demand deposits than time deposits, because the demand deposits may be called for without notice, while in the case of time deposits the bank requires a notice.

The banking laws require all banks to keep on hand a certain reserve. This reserve need not be kept entirely in the vaults of the bank, but may be deposited with other banks, and part of the reserve may be deposited in the central reserve cities or in the Federal Reserve banks. The law seeks to safeguard the banks against the possibility of being without cash to meet large withdrawals of funds.

In practice the bank reserve needs to be adjusted to meet the special demands of customers. Large withdrawals are to be expected, for instance, especially on the first and the fifteenth of the month, when many employers pay their employees. It is true that most of the money paid to employees immediately finds its way back into the bank, either by deposits of individuals or by payments to others, who in turn deposit it in the banks.

It will be seen that the reserve is a very important matter in banking. It must be kept sufficiently high to prevent the danger of shortage of cash to pay depositors. At the same time banks can not afford to keep larger reserves than necessary, because idle cash in the bank is of no value to the bank and does not directly aid business.

### *Money as the Basis of Credit*

The total amount of money in circulation in the United States on July 1, 1919, was \$5,766,000,000. The total amount of deposits in all the banks of the country on that same date was \$33,000,000,000. One might ask how it is possible to have \$33,000,000,000 of deposits when there is less than \$6,000,000,000 in actual money in the whole country. The explanation will serve to show how important credit is to the business of the country.

Let us suppose that in a given community \$1,000,000 in cash is deposited in the banks. Let us suppose that 10 per cent of this is held by the banks as a cash reserve. That would mean that the other \$900,000 is lent to customers. The business men who borrow money from the bank do not take it away from the bank in cash. The \$900,000 borrowed by business men is immediately de-

posited in the banks, thus enlarging the deposits by \$900,000, making a total of \$1,900,000 in deposits. The \$900,000 additional deposits, after deducting 10 per cent cash reserve, enable the banks to make further loans to the extent of \$810,000, which is in turn deposited in the banks, thus increasing the total deposits to \$2,710,000.

Each successive deposit makes possible additional credit, until the million dollars in cash that we started with becomes five or six million dollars in the form of deposits, through the process of extending credit to business customers.

### *The Clearing-House*

A clearing-house is organized in cities where there are several banks, in order to facilitate the daily settlements between the banks. Each bank receives daily from its customers many checks drawn on other banks. If it were not for the clearing-house, a bank would need to send a messenger to the other banks with the checks drawn against them that it had received. The messenger would then have to carry back the cash. The inconvenience of that method, and the risk of carrying cash from bank to bank, are eliminated by the clearing-house.

Representatives of each bank meet at the clearing-house every business day and exchange checks. The amounts against each bank are largely canceled by the checks that it holds against other banks. The balances due to any bank are then paid. The clearing-house is thus a labor- and time-saving device to expedite settlements of checks.

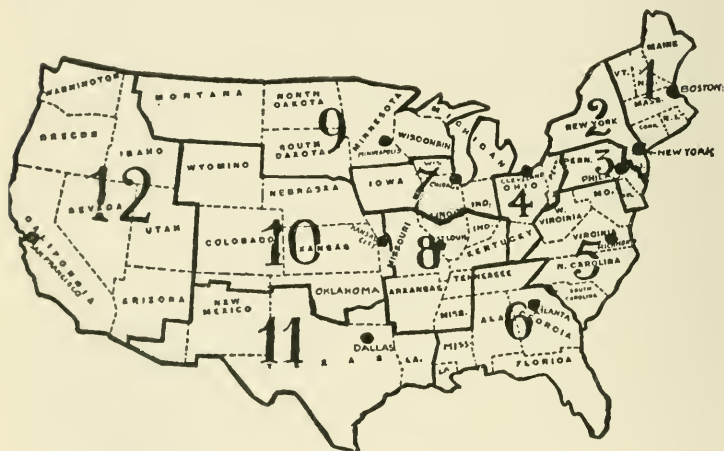


N. Y. Clearing House

The amount of clearings in a day is very large in many cities of the country. The average daily clearings in New York City for 1919 were \$708,592,225. The total clearings for the New York clearing-house in 1919 were \$214,000,000,000.

### *The Federal Reserve Banks*

Since 1914 the banking of the country has been organized under the Federal Reserve banking system. Un-



Federal Reserve Bank Districts

der this system there are twelve Federal Reserve banks, located in the following cities: New York, Boston, Philadelphia, Richmond, Atlanta, Cleveland, Chicago, St. Louis, Kansas City, Dallas, Minneapolis, and San Francisco. The country is divided into twelve districts, tributary to the Federal Reserve banks. At the head of the

system is the Federal Reserve Board at Washington, composed of the Secretary of the Treasury, the Comptroller of the Currency, and five members appointed by the President. Banks are not required to be members



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#### U. S. Federal Reserve Board, 1922

Left to right: Andrew W. Mellon, Chairman; W. P. G. Harding, Governor; Edmund Platt, Vice Governor; Charles S. Hamlin, Adolph C. Miller, D. R. Crissinger, Comptroller of Currency, and J. R. Mitchell.

of the system, but most banks, national and state, have voted to be members.

The Federal Reserve banks are bankers' banks. The stock is held by the banks of the district, and these reserve banks carry on business with banks only. Individuals do not borrow from Federal Reserve banks; their

purpose is to lend money to banks on approved commercial security held by the bank. A commercial bank having more demands upon it for loans than it can meet may furnish approved commercial securities to the Federal Reserve bank of the district and borrow money to meet the needs of its customers. This process is called rediscounting. It makes the funds of the district and of the country more readily available at the places where funds are needed. It is especially valuable in providing the finances to move the farmers' crops after the harvest, because it makes more money available in remote regions.

The whole system is supervised by the Federal Reserve Board, which is constantly engaged in studying the financial needs of business and of the government.

### *Federal Farm Loan Banks*

An extension of federal banking activities was provided for in 1916, when the Federal Farm Loan Act was passed, creating a federal farm loan board and twelve farm loan banks. These banks are for the purpose of making funds available in all parts of the country for loans upon farm-lands to resident owners. They are more fully described in Chapter 16.

### *Guaranty of Bank Deposits*

The number of bank failures has been reduced greatly by the vigilance of bankers and by the supervision of state and national officials. Yet occasionally a bank fails, and when that happens the depositors suffer serious losses. Such failures cause loss also to other banks, be-

cause they promote fear among timid depositors and deposits are withdrawn.

To meet this condition it has been provided in several states that every bank shall pay a certain percentage of its deposits into a guaranty or insurance fund, from which the losses to depositors of any bank that fails are paid. It is merely the application of the insurance principle to the possibility of loss by innocent depositors. In place of public guaranty of bank deposits by law, some banks voluntarily combine to insure their depositors against loss.

### *Supervision of Banking*

Banks hold so important a place in the life of the community that they are subject to the closest supervision. Very strict laws regulate their organization and conduct. They are subject to inspection constantly by public officials, and reports of their condition are required regularly.

The national banks are under the supervision of the Comptroller of the Currency, and in some respects under the Federal Reserve Board also. Reports are required at least five times a year, and as much oftener as the Comptroller decides. Special reports from a bank may be called for at any time.

State banks are under the supervision of a state official, usually called Bank Commissioner or Superintendent of Banks. This official exercises about the same authority in most of the states as the Comptroller of the Currency does over national banks.

# LINCOLN TRUST COMPANY

*Member Federal Reserve System and New York Clearing House Association*

## STATEMENT OF CONDITION AT THE CLOSE OF BUSINESS DECEMBER 31st, 1921

| ASSETS                                                      |                        | LIABILITIES                   |                        |
|-------------------------------------------------------------|------------------------|-------------------------------|------------------------|
| Cash in Vault and Banks                                     | - - - - \$5,841,702.04 | Capital                       | - - - - \$2,000,000.00 |
| Exchanges for Clearing House                                | - - - - 1,062,749.83   | Surplus and Undivided Profits | - - - - 1,234,543.37   |
| U. S. Government, New York State and<br>New York City Bonds | - - - - 2,191,664.09   | Reserved for Taxes, Etc.      | - - - - 56,117.74      |
| Other Bonds                                                 | - - - - 1,403,061.99   | Acceptances                   | - - - - 1,518,804.72   |
| Stocks -                                                    | - - - - 238,941.00     | Accrued Interest Payable      | - - - - 76,372.85      |
| Demand Loans on Collateral                                  | - - - - 4,803,826.37   | Treasurer's Checks            | - - - - 188,210.97     |
| Time Loans on Collateral                                    | - - - - 5,797,399.18   | Deposits                      | - - - - 24,563,092.65  |
| Bills Discounted                                            | - - - - 5,812,604.02   |                               |                        |
| Acceptances Purchased                                       | - - - - 165,376.92     |                               |                        |
| Bonds and Mortgages                                         | - - - - 614,020.00     |                               |                        |
| Building, 204 Fifth Avenue                                  | - - - - 38,500.00      |                               |                        |
| Customers Liability on Acceptances                          | - - - - 1,518,804.72   |                               |                        |
| Accrued Interest Receivable                                 | - - - - 148,492.14     |                               |                        |
|                                                             | <u>\$29,637,142.30</u> |                               | <u>\$29,637,142.30</u> |

A bank statement

The banks are also subject to the supervision of certain associations to which they belong. Thus, in many cities the banks belong to the clearing-house association, which exercises considerable supervision and control over those belonging to it.

### *Questions and Problems*

1. Write a report on the function of the bank in financing production. Give concrete examples of the financing of manufactures, agriculture, merchandising, etc.
2. Define commercial and non-commercial banks. Classify the banks of your city or county on this basis.
3. Classify the banks of your city or county as private, state, or national.
4. What advantages are there in the different forms of banks?
5. What is a trust company? Give details of the actual functions performed by trust companies in your city.
6. Why is close supervision of banks by the government and also by the banks themselves important?
7. Describe the method of handling checks received by a bank on other banks in the city.
8. How is money transferred from one city to another? Give concrete examples of payments from your own city to other cities.
9. What are the arguments for and against guaranty or insurance of bank deposits?
10. Describe the Federal Reserve banking system. What are the advantages of having several reserve banks scattered over the country, instead of having one central bank?
11. Obtain the published statements of the banks of your city and compare them.
12. What are demand deposits? Time deposits? What advantages do time deposits give to the banker?
13. If there is a clearing-house in your city, make a study of the way it does its work.
14. Secure samples of travelers' checks and letters of credit.

15. What is meant by credit?
16. Why should bank loans not be made to finance the purchase of buildings?
17. Should commercial banks lend on farm mortgages for a term of years? Give reasons for your answer.
18. Explain how there can be thirty-three billions of dollars of deposits when there are only six billions of dollars in money in the country.
19. What are bank reserves? Why is it necessary to keep a reserve?
20. How large should the bank reserve be?
21. Who fixes the amount of reserve?

### *References*

- Fetter, *Modern Economic Problems*, Chapters 7, 8, 9.  
Holdsworth, *Money and Banking*.  
U. S. Comptroller of the Currency, *Annual Report*.  
State Banking Department, *Annual Report*.  
Federal Reserve Board, *Reports and Bulletins*.

## CHAPTER XII

### INSURANCE

#### *Community Survey*

1. Name the different kinds of insurance written by insurance agencies in your city or community.
2. Obtain samples of different kinds of life insurance policies from local agents. Study the exact provisions of each.
3. Obtain samples of policies of fire, accident, sickness, liability, burglary, fidelity, and plate-glass insurance from local insurance agencies, and analyze their provisions.
4. Give local examples of losses met by insurance.

Insurance is the sharing of common risks by a number of people. Each pays a certain sum into a fund from which those who suffer a loss are paid. Each one of a hundred farmers, for example, is liable to lose his buildings by fire. No one can tell which is to be the unlucky one. They combine to protect the group by creating a fund to pay the loss of any member. Because they fear the calamity of fire they wish to be safeguarded against it.

#### *Importance of Insurance to Business*

The function of insurance in business is to relieve business enterprises of the risk of a calamity that might cripple or destroy it. Insurance takes away the fear that investments may be wiped out by a single disaster such as fire, storm, accident, or embezzlement. Insurance

stabilizes business conditions by distributing the risk of calamities.

### *Insurance and Gambling*

The difference should be made clear, at this point, between insurance and gambling. If a man agrees to stand another's fire loss in return for a fee, it is a gamble. But if a man agrees to stand the fire loss of a thousand men in return for a fee from each, and if the amount of the fee is carefully calculated, it is a business transaction from which gambling has been eliminated. The combined payments of all will provide enough to pay the losses. Insurance as it is conducted to-day is not gambling. It is a scientific measuring of probable losses and the creation of a fund to meet them.

### *Kinds of Insurance*

The business of insurance has been extended to many lines as rapidly as it has become possible to estimate losses in a given field. Insurance against sea disasters, fires, accidents, sickness, death, old age, hail, losses to livestock, bank failures, plate-glass breakage, boiler explosions, tornadoes, and even unemployment and burglary, has been developed. Wherever losses can be measured in advance, or estimated somewhere near the actual figures, it is possible to apply the insurance method.

### *Marine Insurance*

Insurance began several centuries ago in the form of protection against losses at sea. Shipowners and merchants often risked everything on a single voyage. It

was a gamble on their part whether their ship or cargo would reach port and make large profits, or go down in the ocean and leave them bankrupt.

Gradually there arose insurance brokers who took the risk from the shipowners or merchants for the payment of a certain percentage of the value. If the ship sank they paid the stated value to the owner. If there was no loss the amount paid to the insurance broker became a profit. When the broker carried the risk on many ships or cargoes he could figure with a degree of certainty the amount of probable loss. There would be little likelihood that all would go down. Still, of course there was always a chance that storms would be widespread and the losses severe. The business flourished, however, and to-day there are few, if any, ships and cargoes that go out without insurance. The risks of each owner are borne by all through marine insurance.

### *Life Insurance*

The statistics of death show how many people die each year, and from these it can be estimated in advance how many people in every thousand will die each year. From the statistics of death by ages it is possible to tell how long a man is expected to live at each age. Thus, a man at twenty may expect, according to the figures for the United States census, to live 42.48 years; at thirty-five he may expect to live 30.94 years; at forty-five 23.77 years, and at fifty-five 16.98 years.

The life insurance companies, after years of experience, can tell from their figures of deaths at each age how long men may be expected to live. The life tables are the

## 100 ECONOMICS AND THE COMMUNITY

LIFE TABLE FOR BOTH SEXES IN THE ORIGINAL REGISTRATION STATES:  
1910

| AGE<br>INTERVAL                                   | OF 100,000 PERSONS BORN<br>ALIVE:                |                                  | RATE OF<br>MORTALITY<br>PER<br>THOUSAND.                                                      | COMPLETE<br>EXPECTATION<br>OF LIFE.                                                             |
|---------------------------------------------------|--------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Period of<br>lifetime<br>betw. two<br>exact ages. | Number alive<br>at beginning of<br>age interval. | Number dying<br>in age interval. | Number dying<br>in age interval<br>among 1,000<br>alive at begin-<br>ning of age<br>interval. | Average<br>length of life<br>remaining to<br>each one alive<br>at beginning<br>of age interval. |
| Years.                                            |                                                  |                                  | Annual rate.                                                                                  | In years.                                                                                       |
| 0-1                                               | 100 000                                          | 11 462                           | 114.62                                                                                        | 51.49                                                                                           |
| 1-2                                               | 88 538                                           | 2 446                            | 27.62                                                                                         | 57.11                                                                                           |
| 2-3                                               | 86 092                                           | 1 062                            | 12.34                                                                                         | 57.72                                                                                           |
| 3-4                                               | 85 030                                           | 666                              | 7.83                                                                                          | 57.44                                                                                           |
| 4-5                                               | 84 364                                           | 477                              | 5.65                                                                                          | 56.89                                                                                           |
| 5-6                                               | 83 887                                           | 390                              | 4.66                                                                                          | 56.21                                                                                           |
| 6-7                                               | 83 497                                           | 327                              | 3.91                                                                                          | 55.47                                                                                           |
| 7-8                                               | 83 170                                           | 274                              | 3.30                                                                                          | 54.69                                                                                           |
| 8-9                                               | 82 896                                           | 234                              | 2.82                                                                                          | 53.87                                                                                           |
| 9-10                                              | 82 662                                           | 204                              | 2.47                                                                                          | 53.02                                                                                           |
| 10-11                                             | 82 458                                           | 187                              | 2.27                                                                                          | 52.15                                                                                           |
| 11-12                                             | 82 271                                           | 180                              | 2.19                                                                                          | 51.26                                                                                           |
| 12-13                                             | 82 091                                           | 182                              | 2.22                                                                                          | 50.37                                                                                           |
| 13-14                                             | 81 909                                           | 193                              | 2.36                                                                                          | 49.49                                                                                           |
| 14-15                                             | 81 716                                           | 210                              | 2.57                                                                                          | 48.60                                                                                           |
| 15-16                                             | 81 506                                           | 232                              | 2.84                                                                                          | 47.73                                                                                           |
| 16-17                                             | 81 274                                           | 256                              | 3.16                                                                                          | 46.86                                                                                           |
| 17-18                                             | 81 018                                           | 285                              | 3.52                                                                                          | 46.01                                                                                           |
| 18-19                                             | 80 733                                           | 315                              | 3.89                                                                                          | 45.17                                                                                           |
| 19-20                                             | 80 418                                           | 344                              | 4.28                                                                                          | 44.34                                                                                           |
| 20-21                                             | 80 074                                           | 375                              | 4.68                                                                                          | 43.53                                                                                           |
| 21-22                                             | 79 699                                           | 398                              | 5.00                                                                                          | 42.73                                                                                           |
| 22-23                                             | 79 301                                           | 412                              | 5.19                                                                                          | 41.94                                                                                           |
| 23-24                                             | 78 889                                           | 418                              | 5.29                                                                                          | 41.16                                                                                           |
| 24-25                                             | 78 471                                           | 425                              | 5.42                                                                                          | 40.38                                                                                           |
| 25-26                                             | 78 046                                           | 432                              | 5.54                                                                                          | 39.60                                                                                           |
| 26-27                                             | 77 614                                           | 440                              | 5.67                                                                                          | 38.81                                                                                           |
| 27-28                                             | 77 174                                           | 451                              | 5.85                                                                                          | 38.03                                                                                           |
| 28-29                                             | 76 723                                           | 465                              | 6.06                                                                                          | 37.25                                                                                           |
| 29-30                                             | 76 258                                           | 479                              | 6.28                                                                                          | 36.48                                                                                           |

LIFE TABLE FOR BOTH SEXES IN THE ORIGINAL REGISTRATION STATES:  
1910—Continued

| AGE<br>INTERVAL                                   | OF 100,000 PERSONS BORN<br>ALIVE:                |                                  | RATE OF<br>MORTALITY<br>PER<br>THOUSAND.                                                      | COMPLETE<br>EXPECTATION<br>OF LIFE.                                                             |
|---------------------------------------------------|--------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Period of<br>lifetime<br>betw. two<br>exact ages. | Number alive<br>at beginning of<br>age interval. | Number dying<br>in age interval. | Number dying<br>in age interval<br>among 1,000<br>alive at begin-<br>ning of age<br>interval. | Average<br>length of life<br>remaining to<br>each one alive<br>at beginning<br>of age interval. |
| Years.                                            |                                                  |                                  | Annual rate.                                                                                  | In years.                                                                                       |
| 30-31                                             | 75 779                                           | 493                              | 6.51                                                                                          | 35.70                                                                                           |
| 31-32                                             | 75 286                                           | 511                              | 6.78                                                                                          | 34.93                                                                                           |
| 32-33                                             | 74 775                                           | 530                              | 7.09                                                                                          | 34.17                                                                                           |
| 33-34                                             | 74 245                                           | 550                              | 7.40                                                                                          | 33.41                                                                                           |
| 34-35                                             | 73 695                                           | 568                              | 7.72                                                                                          | 32.66                                                                                           |
| 35-36                                             | 73 127                                           | 588                              | 8.04                                                                                          | 31.90                                                                                           |
| 36-37                                             | 72 539                                           | 605                              | 8.33                                                                                          | 31.16                                                                                           |
| 37-38                                             | 71 934                                           | 617                              | 8.59                                                                                          | 30.42                                                                                           |
| 38-39                                             | 71 317                                           | 631                              | 8.84                                                                                          | 29.68                                                                                           |
| 39-40                                             | 70 686                                           | 644                              | 9.11                                                                                          | 28.94                                                                                           |
| 40-41                                             | 70 042                                           | 658                              | 9.39                                                                                          | 28.20                                                                                           |
| 41-42                                             | 69 384                                           | 674                              | 9.72                                                                                          | 27.46                                                                                           |
| 42-43                                             | 68 710                                           | 693                              | 10.09                                                                                         | 26.73                                                                                           |
| 43-44                                             | 68 017                                           | 716                              | 10.52                                                                                         | 25.99                                                                                           |
| 44-45                                             | 67 301                                           | 740                              | 10.99                                                                                         | 25.26                                                                                           |

guides that tell the insurance manager how much he must charge in premiums. The table used in this country for many years was called the English Life Table. It was the experience of English insurance companies, and showed the expectancy of life in England. After several years the American companies combined the figures of American experience and made the American Experience Table. This is now the most widely used, but there are other tables that are equally good. Recently the United States Census Bureau compiled a table for the deaths in a

number of states, which gives the most complete estimate in existence of the length of life of all people in America.

When an insurance company has accurate figures that show by past experience what may be expected in the future, it is a simple matter to fix rates that will provide a certain sum at death. In any group of people a few will die early; but many will live for years. Those who die early pay less than the others. Those who live longest may pay more for their insurance than will be received by their heirs at death. During all of the time, however, each person is assured that if he happens to be one of the early victims his dependents will receive the amount of the insurance. This assurance that dependents will be protected is worth a great deal to the individual.

### *Kinds of Policies of Life Insurance*

There are many types of policies of life insurance, requiring different terms of payment. The level premium fixes the rate for the whole life, and the rate always remains the same. The step-rate premium makes a certain rate for a certain number of years, after which for another period it is higher. The twenty-payment policy is one that fixes the rate to cover the entire insurance in twenty payments, after which no further premiums are required. Assessment companies fix the premiums to be paid after the losses are known. Many policies provide that after a certain number of years a fixed sum shall be payable to the policy-holder, if the policy-holder desires.

Some policies provide for the payment of a fixed sum monthly for a certain number of years to the beneficiaries after the death of the insured. Others provide for monthly payments after a certain age as long as the insured person lives. There are numerous variations of the terms and conditions of policies.

### *The War Risk Life Insurance*

When this country entered the European war, a plan for insurance of soldiers and sailors was formed by the government through the War Risk Bureau. The men paid the actual cost of ordinary insurance, and the government paid the extra cost due to the extra hazard of war. When the war closed the plan was continued, so that the men could carry their insurance at cost.

### *Fire Insurance*

Fire insurance was conducted before life insurance began. The risk of fire being always present, men sought to buy protection by the payment of a definite sum each year. The chance that a certain house may burn is slight; most buildings never burn. The cost of protection is therefore not heavy. But if a house does burn, it is a calamity to the owner. Men prefer to pay the sum necessary to make sure that if fate picks them to suffer the disaster of fire they may be sufficiently protected to enable them to rebuild.

Fire losses can not be measured as exactly as the loss of life, but an average loss may be determined by the figures for previous years. Except for some unusual

conflagration, the average losses are a guide to insurance companies. The average loss of farm buildings is an accurate index of future losses. The isolation of farm buildings eliminates the danger of conflagration and excessive losses.

City and village risks are more difficult to measure. Fires such as those that occurred in Chicago, Baltimore, and San Francisco sweep whole villages and cities. A single company that attempted to carry the whole insurance of a city or large village would run the risk of bankruptcy from a single conflagration. For safety it is necessary to distribute the risks over wide areas and among many companies. Thus an insurance company would not take all of the insurance in a large village or city, or upon large single risks, unless it reinsured itself in other companies against the extra risk. By reinsurance the risks are more evenly distributed among a number of companies, and the danger of disastrous losses to each is lessened. If all fire insurance were in a single company, the danger of disaster in any one city would not be serious, because the total losses for the country would be averaged. There are hundreds of fire insurance companies; hence the possibility of reinsurance among them to avoid the risk of particular disasters.

The fact that some types of property are less exposed to fires or have more uniform risk of fires than others has resulted in the organization of mutual companies for special kinds of risks. Farmer mutuals are the most common. Millers, drug-store owners, and various classes of manufacturers have formed mutual companies for their own class of property.

*Health and Accident*

The constant risk of sickness and accident and the serious nature of the disaster, when a long disabling sickness or accident occurs, has caused the development of insurance in these fields.

The principles are the same as in other forms of insurance. This insurance depends for its stability upon the ability of insurance companies to measure the probable amount of sickness or accidents. Sickness and accidents occur, like other hazards, with a fair degree of regularity. Barring the risk of a serious mine or factory disaster or an epidemic, the rates of sickness and accident for a year can be accurately measured for large groups of people.

Experience has shown about how many accidents will take place, how many men will be sick, and the average length of disability. Among a million men it is a fairly well established fact that the average sickness will be not more than nine days each, and the average loss of working time will be about seven and one-half days. Sickness insurance of 1,000,000 men must therefore provide enough to pay for 7,500,000 days of lost time at the rate fixed, plus the cost of conducting the business and the cost of medical care if such care is provided. The total cost of accidents can likewise be fixed from experience.

*Special Hazards and Experience Rating*

In any form of sickness or accident insurance, account must be taken of some important factors. Some occupations are more dangerous than others, and in some the

rate of sickness far exceeds others. Sickness increases with age. The age of the insured must therefore be taken into account in sickness insurance. The occupations must be rated also as to accident hazards, and rates must be fixed accordingly. The rating for office workers is naturally very low, while that of coal-miners is high. When experience tells whether a rate is too high or too low in a given occupation, it may be adjusted. This is called experience rating. Fire insurance companies likewise fix different rates on different hazards, according to the degree of risk.

### *Carriers*

The first carriers of insurance were individuals who commanded large capital. There are still a few individual insurers to-day; but as a usual thing the corporation takes the place of the individual. Some corporations are engaged in the business for profit; others are mutual companies which divide the profits among the policy-holders after paying losses and expenses. Assessment companies are mutual companies which make up the losses by assessments upon the policy-holders after they occur. Fraternal insurance companies are mutual companies which have certain lodge features attached.

Mutual insurance is found on an extensive scale among farmers; the losses from fire are collected by assessment from those joining the mutual company.

### *Public or Social Insurance*

When the insurance on any risk is conducted by the government to cover a certain loss, it is called state in-

insurance. Some states have hail insurance by taxation. Each acre of farm-land is taxed a proportionate amount, and losses from hail are paid from the fund thus created. In this case the tax becomes the premium. Several states require banks to pay a certain percentage of deposits into a deposit insurance fund from which depositors who lose money in banks that fail are paid.

When the government provides or requires the insurance of individuals against sickness, accident, unemployment, old age, or death, this protection is called social insurance.

In some states employers are compelled to insure their workmen against accidents in a state fund. The state collects the money and pays the losses to workers. It has been proposed that the health of people be insured by collecting from all workers and employers a fund to pay losses from sickness, and that the state require the collection of a fund to insure workers against failure to get work. Likewise proposals are made to collect money by taxation or assessments upon everyone to insure that those who live to be old will not be destitute. All of these are forms of social insurance. The principal value of collecting and administering such insurance through the government is that the cost is collected more easily, and therefore it is cheaper for the persons insured.

### *Other Forms of Insurance*

Liability insurance is a very common form of insurance. An employer who is liable to his workmen for injuries may insure himself against the liability through insurance companies. Automobile-owners insure them-

selves against the possibility that they may cause damage to others and be liable for the losses.

Burglary insurance provides for losses incurred through burglary. An important feature of this insurance is the system of detection and prosecution of burglars. Private detective agencies are employed by the companies for this purpose.

Fidelity insurance secures an employer against the dishonesty of an employee. If an employee embezzles money or valuables from an employer, the insurance company stands the loss. In this case diligent search and prosecution by the company deters people from embezzling. The losses from plate-glass breakage, boiler explosions, defective titles to property, and elevator accidents are other objects of insurance.

### *Prevention and Insurance*

In every kind of insurance it is clear that if the calamity is prevented, payment for the loss will not have to be made. It pays, therefore, to prevent fires, accidents, sickness, deaths, burglary, explosions, bank losses, and embezzlement. The insurance carriers gain by prevention, because the losses for which they must pay are not as great as they would be otherwise. The insured persons gain in the long run by the reduction of premiums.

The value of prevention is so apparent that great national movements are under way, such as the safety first movement, the fire prevention campaigns, and the prevention of sickness and death by public health agencies.

Prevention helps to reduce the occurrence of the event insured against, but it is not a substitute for insurance.

After everything has been done that can be done, there will still be losses. Deaths, sickness, accidents, and fires will occur in spite of the most effective measures of prevention. When they do occur insurance distributes the losses, thereby taking the excessive loss from the victims of the calamity.



Fire ruins of a city

### *Public Regulation*

The business of insuring risks involves the collection of premiums to-day for possible losses next week or next year. In the case of life insurance the premiums are collected to pay beneficiaries many years later. It is very important, therefore, that the business be conducted at all times on sound principles to prevent failure and provide the money when due.



Files of reports made to New York Department of Insurance by insurance companies doing business in New York State

Insurance carriers are subject to supervision by the states. Every state has a superintendent of insurance, or an official performing the function of a superintendent, whose duties are to examine all insurance companies to determine whether they are financially sound and carefully and honestly conducted. Such supervision is necessary because of the importance of insurance to the people, and because the nature of the business is such that the individual can not readily protect himself against clever schemes that are sometimes carried on under the guise of insurance.

### *Questions and Problems*

1. Define insurance.
2. Formulate questions for further information and submit the same to well-informed insurance agents.
3. Obtain full explanation of the premium-payment plans, such as the level rate, twenty-pay, thirty-pay, term policy, etc., from local agents.
4. What is meant by the term "expectation of life"?
5. What is the difference between insurance and gambling?
6. If an insurance company should insure a fair against the possibility of a stormy day, would that be insurance or gambling?
7. What is reinsurance? Show how it works in fire insurance, life insurance, liability insurance.
8. What is social insurance? What are the advantages and disadvantages of social insurance?
9. Show the importance of exact statistics in the insurance business.
10. Show how prevention helps the insurance business.
11. Should an insured person expect to get back the money paid in premiums?
12. Suppose that every insured person should be disabled by sickness or accident long enough each year to receive as much as he had paid in: what would be the effect on the business?

13. Most accident and sickness insurance requires that no payments be made for a few days. This is called the waiting period. Why is such a plan desirable?
14. Which would be the better insurance against accidents or sickness: (a) payments after three days, but stopping at twenty-six weeks, or (b) payments beginning after thirty days and lasting as long as the disability lasts?
15. How are insurance companies regulated in your state?
16. Get information about the plans and workings of any mutual fire insurance companies in your community, such as farmers' mutuals.

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## CHAPTER XIII

### SAVINGS AND INVESTMENT

#### *Community Survey*

1. What different kinds of savings institutions are in your community?
2. Describe each.
3. Find out the amount of savings in each institution.
4. Collect information and reports from all such savings institutions.
5. Secure specimen forms of mortgages, bonds, preferred stock, common stock, and study the provisions in detail.

People save money and accumulate property for a variety of reasons. Some desire to enter business on their own account, and accumulate money and property to that end. Others save for the purpose of providing for the emergencies of life such as sickness, accident, unemployment, and dependent old age. Still others accumulate for some specific object which may be temporary or permanent in its nature, as, for instance, the child who saves his pennies to go to the circus, or the youth who saves his money to go to college. A few misers save merely for the sake of saving.

It is hardly necessary to emphasize the importance of saving, both to the individual and to the community. Every individual must provide for his entire lifetime, or run the risk of being an object of charity. Business

enterprise depends upon the accumulation of capital in the form of money and property. Business enterprise also depends upon the use of the funds that are made up from the savings of large numbers of people. The people and the community prosper when there is individual thrift and business activity.

### *Limits to Saving*

There are limits to saving beyond which the individual can not go without harm to himself and his dependents. Those who preach or practice thrift should remember that the first consideration should be the health of the individual. The first payment from the daily or weekly income must be directed toward securing adequate food, clothing, and shelter for the worker and his dependents. If a man receives wages sufficient to provide only for physical care, he can not save without harm to himself and his dependents. To cut off necessary food is merely to shorten the period of working efficiency. After the material needs of the worker and his dependents are met, and proper provision is made for moral and educational welfare, any surplus may be saved. Thrift does not consist in mere savings, but in the wise use of income.

We are concerned in this chapter with the education of people in wise expenditures so as to enable them to save, and with the provision of agencies to safeguard savings and make them productive.

### *Institutions for Savings and Investment—Savings Banks*

The savings bank performs a different function from that performed by the commercial bank. The purpose

of the savings bank is to provide a place where the individual may deposit his money and have it invested wisely. The individual of small means can not invest in securities of large denominations. The savings bank solves the problem by bringing together the small savings of a large number of individuals and serving as a medium of investment.

The widespread use of the savings bank is indicated by the fact that in 1919 there were 1719 savings banks in the United States with a total of deposits of nearly \$6,000,000,000.

The savings bank does not engage in making loans to individuals or to business men. The funds of the bank are, for the most part, loaned on real estate, mortgages, and bonds. The loans are for longer periods than commercial loans. Special regulations are made by law to safeguard their funds, and to that end savings banks are permitted to invest in specified investments only.

There are two kinds of savings banks—the mutual and the stock savings bank. The former are not conducted for profit, while the latter are conducted for profit.



A line of bank depositors

Many of the mutual savings banks arose because of the desire on the part of able business men, who had the welfare of the people at heart, to provide for the safeguarding of the workman's small savings and to help him invest. In many instances such banks were run at small cost, because the directors served without compensation, in the interest of their fellow-men. The stock savings bank was a later development. These banks seek to aid the men of small means to safeguard and invest their savings through a commercial organization conducted for profit.

The deposits in savings banks bear interest usually from the day of deposit. Deposits may be withdrawn at any time, but the bank reserves the right to require a notice of withdrawal. Because of the fact that these banks were intended to serve people of small means, the amount that any one person may deposit is usually limited. This provision is not very effective, inasmuch as a man might carry savings accounts in several savings banks if he found it to his advantage.

Savings banks maintain a reserve fund, but because of the permanent nature of the majority of the deposits, and owing to the requirements for notice of withdrawal, the reserve is usually very small. Because of the greater permanence of deposits, also, savings banks are enabled to invest in loans having a longer time to run, such as mortgages and bonds.

The savings bank as a separate institution will probably not increase greatly in numbers in the future. The risk of starting new institutions is so great that the development of the future will probably be in the direction

of savings departments of state and national banks and of trust companies. The permission of the Federal Reserve Board given to national banks to establish savings departments will doubtless cause great extension in the use of the national banks as savings institutions. There are some sections of the country, however, where savings banks are so well known and highly thought of that they will be favored for many years, in preference to any other form of institution.

### *Postal Savings Banks*

The United States government established a postal savings bank system in 1911, following the example of European countries where such a plan had been in force for years. The system is conducted by a board of trustees composed of the Postmaster-General, the Secretary of the Treasury, and the Attorney-General, and is operated in connection with the postoffices of the country. The postal savings bank is in reality not a bank at all, but merely an agency to receive savings and deposit them. It does not hold the funds deposited, but places them in approved banks.

The purpose of the postal savings bank is to make available to every person facilities for savings, even though he be living in the remotest towns where banks are not at hand. The system was designed also for the purpose of encouraging people to bring their savings out of hiding-places. Many timid people who are afraid of commercial institutions are not afraid of the government. Large numbers of immigrants, accustomed to the postal savings banks of their own countries, it was be-

lieved, would find the postal savings system of great service.

Any person over ten years of age may be a depositor, and may deposit as small a sum as one dollar. It was at first provided that no one could have a deposit greater



Postal Savings Department, New York City Post Office

than five hundred dollars. This was later changed to permit a deposit of one thousand dollars, and an additional deposit of one thousand dollars without interest.

The postal savings system had a rapid extension over the country, and in 1916 there were about six hundred thousand depositors. Since that time there has been a decrease in the amount of deposits and in the number of

depositors, owing to the opportunities afforded to people of small means to purchase liberty bonds and war savings stamps. These investments pay a much larger rate of interest and are therefore favored. Yet, in spite of this fact, there were, in 1919, 565,509 depositors, and a total of more than \$167,000,000 on deposit.

### *War Savings Stamps*

With the advent of the war a plan of saving was authorized by Congress to provide for the investment of small savings of men, women and children. Thrift stamps were sold at twenty-five cents each, and war savings certificates were sold in varying amounts. The holder of thrift stamps was permitted to transfer the stamps into certificates. The war savings certificates were made payable



Thrift poster

in five years. They were purchasable at an amount which, at four and one-half per cent interest, would equal the face of the certificate when due. Thus a five-dollar war savings certificate could be bought for a sum less than five dollars, which at interest would equal five dollars when it was payable.

The patriotic campaigns of the war made the thrift stamps and war savings certificates very popular, and

millions of persons invested their small savings in this way. So popular was the system of saving that it has been continued. Opportunity is now afforded to invest small savings in United States treasury certificates on a plan similar to that used in the war savings stamp plan. The liberty bonds of small denominations, purchasable by monthly payments, also became and continue to be a popular form of savings investment.

### *School Banks and Penny Banks*

Many devices have been worked out to encourage people to establish the habit of saving small amounts. Many schools have adopted the plan of school savings banks. Pupils are encouraged to make deposits of their pennies and nickels, in lieu of spending them for candy and sodas. Some industries have adopted the same plan for workers. Other industries have secured branches of savings banks and institutions in their plant to encourage savings and provide safe investment.

All of these devices are intended as a means of education to turn people's attention to the need for saving, and to give opportunities for saving and investing small amounts.

### *Building and Loan Associations*

Building and loan associations are coöperative enterprises for the collection of regular dues from members for the purpose of supplying funds for building homes or paying for homes. These associations have been in existence since 1831, and in some states have a widespread influence as a means of saving and investment.

There were in 1920 more than three million members of building and loan associations, with assets of about a billion and a half dollars.

These associations are operated on a mutual plan. The officers are elected by the members, and generally receive small salaries. The members of the association pay in a



Teaching habits of thrift through the school bank

certain amount regularly, and when the amount of money on hand is sufficient, it is lent to one of the members for the purpose of building or paying for a home.

Whenever a person borrows from a building and loan association he subscribes for shares in the association equal to the amount of his loan. The borrowers regularly pay back into the association the money they bor-

rowed, and this money, together with that paid in by other members, constantly provides money to lend to other people, who in turn become subscribers.

There have been several different plans in use. One is called the permanent plan, under which all shares begin at the same time and mature at the same time. When the shares are all matured, the association starts again. Under this plan there are very few funds to lend while the association is young, and very large funds toward the end when the shares are nearly paid up. The serial plan was devised to meet the difficulties of the permanent plan. Under this plan new series of stock are issued at intervals, and mature, therefore, at intervals, thus keeping a steady flow of money coming in, without accumulating large sums at one time. The continuous plan provides that when a man joins, his shares begin at that date. This makes a more even flow of money and prevents excessive accumulations.

The income of the building and loan associations is derived from interest on its surplus deposited in banks; from interest on the loans made to individuals; from regular payments made by members on their shares of stock; from fines for delinquency in payment; for premiums charged on loans, or deductions on account of withdrawal of members before the maturity of shares. The earnings of the association derived from interest, fines, premiums, and deductions are distributed every six months and placed to the credit of the shareholders in proportion to their shares.

The building and loan associations have given a great

impetus to savings because of the association of savings with home-building and owning. Almost every person has the desire to own his home. The coupling of this desire with the means of its attainment has made building and loan associations deservedly popular. The dividends paid on the shares of building and loan associations usually give a much higher rate of interest on the money invested than is secured in other forms of savings institutions. This is an additional reason for popularity.

Building and loan associations are subject to regulation by state authorities. In some states regulation is exercised through a special department of the state government, and in some as a part of the duties of the state auditor or some other state official. Regulation is important to prevent unsound business practices and unwise or dishonest use of the funds.

### *Insurance as Savings*

Insurance as a method of saving is coming into widespread use as insurance principles become better understood. The object of saving is to provide for a future good out of a present surplus. The object of insurance is to provide for future contingencies by small payments from month to month or from year to year.

The thrifty workman saves to provide a fund to carry him over a possible disability, and to give him the means of livelihood after his working days are over. The wage system takes little account of the fact that the man to whom a wage is paid must have support during sickness and in old age. The thrifty man understands this, and

makes his wage a lifetime wage if possible, rather than a daily wage, by saving a certain portion to provide for later times when he is not working.

Insurance is a means by which men can provide more certainly for their disabilities in sickness, accident, and old age. The payment of a small sum regularly is an investment against the time of disability. The thrifty worker considers also his dependents and their care after his death. Life insurance, which makes provision for dependents, is a saving and investment to that end.

Some policies of life insurance provide especially for saving. Endowment policies are an example, in which a greater premium is charged than the present cost of insurance, and the balance accumulates with interest. The twenty-year payment, twenty-five-year payment, and thirty-year payment, and similar policies, are also an investment because of the fact that the accumulation of these payments creates a fund sufficient to pay the premiums from the end of the twenty-, twenty-five-, or thirty-year period to the end of the life of the insured. Many policies of life insurance provide for the repayment at certain times of a guaranteed amount with the interest accumulations.

### *Investments*

When money has been saved and accumulated the next step is its investment. We have already seen how savings institutions help the small investor to invest his savings. In investing there are certain things that should be demanded by the person who has accumulated savings. First, the investment should be safe; second, it should

bring a fair return in interest; third, it should be readily salable. Wise investors balance these requirements so as to get the largest possible return with safety, and to enable them to sell their investment if pressing need should come for them to do so.

There are some investments that are entirely sound, but that pay only a small rate of interest. United States government bonds of the earlier issues are of this character, since they pay but two and one half or three per cent. Other investments offer a high rate of interest, but may not be fully relied upon as to their safety. Still others may be sound and have a fair rate of return, but because of one condition or another could not be marketed without loss if the owner should need to sell.

### *Investment and Speculation*

A clear distinction should be drawn between investment and speculation. The speculator takes a chance on investments of doubtful security offering a high rate of interest. New enterprises that offer possibilities of high return are speculative. Sound investments offer fair returns with security and certainty of payment of interest and principal.

### *Forms of Investment—Land*

The ownership of land offers a sound investment to those who are expert enough to judge land values. The return is uncertain, however, and increase in values is dependent upon economic conditions. Few people are able to judge land values, and must depend upon the opinion of others. Lands are not always salable readily,

hence for the investor of moderate means it does not in every case measure up to the requirements of a fair income, certainty of payment, security of investment, and salability.

### *Mortgages*

Mortgages are claims upon property which is usually worth twice as much as the amount of the claim. They bring a fair rate of interest, and, if they are secured by insurance against the loss of property by fire or by defective title, they furnish certainty of payment. Mortgages are favored forms of investment and may generally be readily sold.

Mortgages, however, depend upon the expert knowledge of land values and of the legal forms required. This information is not usually available to the small investor. Mortgages are usually for amounts of considerable size, and are, for that reason, not available for small investors.

### *Bonds*

Bonds are another favored form of investment. Bonds of private enterprises are, in fact, merely parts of a mortgage. They are usually based upon a mortgage: for instance, a railroad company will give a mortgage for one million dollars, representing one half the value of the property mortgaged. Upon the security of the million-dollar mortgage, bonds are sold to the amount of one million dollars, in denominations of varying amounts. Any person, by the purchase of one of these bonds, becomes a part-owner of the mortgage.

Mortgages upon real estate are being handled in the

same way to an increasing extent. The burden of examining the property and the conditions of the mortgage are carried by experts in the employ of financial institutions. When a good financial institution has passed upon the mortgage itself the investors in the bonds are reasonably secure in their investment. Bonds approved by strong financial houses bring a fair return in interest. They are safe and in the case of the better known issues they are salable without loss.

Government bonds, municipal, state and national, are generally the best investments, because they are safe, certain of payment, bear a fair rate of interest, may be marketed readily, and are not subject to taxation.

### *Preferred Stocks*

Many corporations issue preferred stocks paying a fairly high rate of interest. Preferred stock has a prior claim to the common stock upon the property of the corporation, and no dividends can be paid upon the common stock until the interest specified for the preferred stock is fully paid. If the business is successful, preferred stocks give security, a high rate of interest, and a fair degree of salability. If the business is not successful, there is no certainty of interest, security, or salability. If a corporation has issued bonds in large amounts also, the preferred stock becomes an uncertain investment, since the bonds and debts of a corporation would have a claim prior to the preferred stock.

There are some issues of preferred stock that are a good investment, but great care should be exercised to understand fully the condition of the company and the

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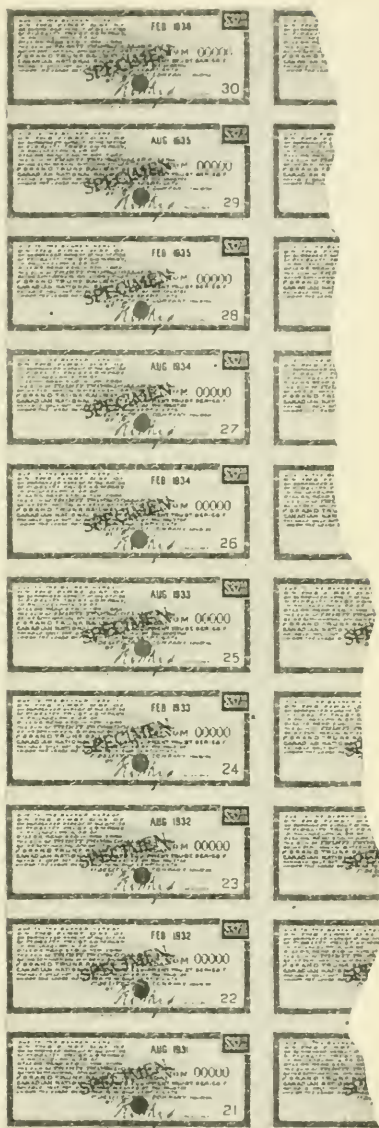
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terms upon which the stock is issued. Preferred stock should not be confused with bonds. Bonds represent actual property upon which they have a first claim. Preferred stock represents an interest in a corporation. If a corporation is successful the stock is secure; if it is not successful the investment may be entirely lost.

### *Common Stock*

The common stock of a corporation is usually speculative. One who invests in common stock takes the risk that the company will be successful. If it is successful the profits, after paying expenses and interest charges, are divided among the common stockholders and may amount to an extremely high rate of interest. On the other



Part of the coupons of the  
railroad bond

hand, if the company is not successful, or if it fails, the investment may be largely or entirely lost.

### *Conclusion*

It will be seen, from this discussion of kinds of investment, that the small investor needs to exercise great care to safeguard his savings and at the same time secure a fair return in interest. The importance of stable institutions, such as savings banks, savings departments of commercial banks, postal savings banks, and building and loan associations, should be apparent. They specialize in accumulating the small funds from millions of people, and provide safe investments for people of small means who can not afford to run any risk of speculation.

### *Questions and Problems*

1. Discuss fully the value of savings to the individual and to the community.
2. What are the limits of saving for the individual?
3. What is the relation between the minimum living wage and the ability to save?
4. Find out the number of savings banks in your city, and learn the plan and organization of each. Do the commercial banks and trust companies have savings departments?
5. Study the actual plan of operation of savings banks in your city. How are deposits made? What are the rules regarding withdrawals? What rate of interest is paid? When do deposits begin to draw interest?
6. Secure all the information at hand regarding the postal savings bank in your city.
7. Explain fully the war savings stamp and certificates. Why are these good forms of savings investment?
8. Secure full information regarding the plan of operation of the building and loan associations doing business in your community.

9. Explain fully the uses of insurance as a method of savings.
10. What are the requirements of a good investment? Explain fully.
11. Why is the ownership of lands a good investment? Why is it not always a good investment?
12. Explain the advantages and disadvantages of mortgages as an investment for small investors.
13. Explain the uses of bonds.
14. Why are bonds good investments?
15. Explain the advantages and risks of preferred stock as an investment.
16. Show why the ownership of common stock is a speculation. Is ownership of common stock always a speculation?

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## CHAPTER XIV

### EMPLOYEES AND EMPLOYERS

#### *Community Survey*

1. Make a list of all of the trade unions in your community.
2. What are the hours of labor in various employments and the prevailing wages?
3. What strikes have recently occurred, if any, and how were they settled?
4. What are the usual methods of employing workers, fixing wages, and determining the length of the working day in the industries in your community?

We have already studied the part that labor, capital, and management play in the production and distribution of goods. We are now to consider labor in the sense of employee, and capital and management in the sense of employer. All men who are engaged in work are either employers or employees. Some who work for themselves, such as individual farmers, are known as self-employers. The term labor, as it has been used, includes the labor of superintendents and foremen; those who work with brains as well as those who work with hands. We are to consider now the relations between the employee and the employer under present conditions.

The employer organizes the business, secures the necessary capital to run it, employs managers and workmen, and gains or loses according to many factors that enter

into the business. The employer takes the risk of success or failure, which usually depends upon the skill with which the business is organized and conducted. The employee sells his labor to the employer for a certain length of time at a certain rate of pay, or for a given piece of work at a certain rate. The employee does not take the risk of the business, and does not usually share in the profits or stand the losses. He does share the risk, and it is a serious one, that he may be subjected to the hardships of unemployment if the business fails.

So far the problem appears simple. The employer, seeking workers, agrees with men who seek the fruits of labor to employ them at certain rates of pay. The employee, seeking work, sells his labor to the employer. A man who is dissatisfied may refuse to work or may quit work, and a man who is unsatisfactory to the employer may not be hired, and if hired may be discharged. It is apparently a free bargain between the two factors.

The system does not work, however, as simply as it would appear. The two factors are not on an equal footing. The worker must find and keep employment, because he depends solely upon his daily labor for his living and the support of his dependents. He can not be out of work for a great length of time without distress to himself and his dependents. The employer, on the other hand, is not dependent upon the hiring of any particular man. Under such circumstances the employer has power to fix the wages, the hours of labor, and the condition of working-places. Under such circumstances the worker must accept what is offered to him. He can take the job or seek another.

*Collective Bargaining*

The weakness of the individual worker in bargaining for employment has resulted in the organization of men in trade-unions to bargain collectively with the employer. Unions are now organized in the majority of industries, and all of the workers in a shop or trade coöperate to



Meeting of railroad employers and employees

make a bargain with the employer; committees selected by the union make a bargain with the employer for all of the employees. Under such conditions the employer and employees are more nearly equal in strength. This method is called collective bargaining.

The organization of men in trade-unions for collective bargaining extends, in some instances, to the union of

all of the employees in a given trade. Instead of a group of workers in a single shop bargaining with their own employer, the men of an entire trade bargain through their committee with a committee of employers of the same trade for all of the men and plants of the trade throughout the country. For example, the soft-coal mine operators have committees that bargain with committees from the miners' union for the purpose of fixing wages, hours of labor, and conditions of work throughout virtually the entire soft-coal region of the country. The railroad unions, representing conductors, engineers, firemen, and trainmen, sometimes bargain for all of their members with representatives of all of the railroads.

### *Strikes and Lockouts*

Questions arise immediately of this sort. Suppose the bargainers do not agree? What if the men refuse to accept the wages offered, or the employers refuse to pay the wages demanded? A deadlock, in which one side or the other refuses the terms or demands, is not infrequent. A state of industrial warfare results. The men may quit work, or the employers may close their plants or attempt to substitute other workers. When the men as a group refuse to work it is called a strike. When an employer closes his plant to his former employees it is called a lockout.

When a strike is declared a battle of endurance between employers and employees generally follows. The employees suffer loss of wages, and the employers suffer loss of profits and markets. Sometimes employers attempt to run their plants with new men, known as strike-

breakers. The striking employees oppose the use of strike-breakers, and use every means of persuasion to prevent men from going to work in the places of the strikers. Picketing is the term applied to the activity of strikers who stand near entrances to shops and yards for the purpose of persuading men not to go to work.

The bitterness against strike-breakers is often so intense that acts of violence take place. Both sides usually attempt to avoid violence, and each accuses the other of active interference. In the turmoil of strikes hot-headed men will sometimes do violent things that bring disrepute and criticism on them and on their cause. The public usually takes the side of the one who plays fairest, and both employers and employees desire favorable public opinion.

### *Sympathetic Strikes*

Sometimes men in a trade agree to strike in sympathy with some other trade. A body of street-car men may be striking for higher wages, and a body of teamsters, who have no special grievance of their own, may strike to help the cause of the street-car men. Occasionally threats are made that all organized labor in a community will strike in sympathy with some particular union that is on strike. Such strikes are called sympathetic strikes. It very seldom happens that the threat of a general sympathetic strike is carried out.

### *Boycott and Blacklist*

Until recent years employees used the boycott and employers used the blacklist as weapons to defeat their opponent. Under the boycott, men agree not to patron-

ize certain places or to buy the goods of certain manufacturers who are considered "unfair" to labor. By means of the blacklist, employers agree among themselves to refuse employment to certain workmen who are placed on the blacklist. These weapons have been going out of use, principally because of legal prohibition.

### *Mediation and Conciliation*

A strike ends either in the defeat of one or the other of the parties to the strike, or by the mediation of outside parties. The states have nearly all provided some public agency to investigate the causes of strikes and to attempt to conciliate the strikers and employers. The United States government has a Railway Labor Board to attempt to settle disputes in railway employment before they result in strikes, and to bring about conciliation or arbitration between the parties. During the war the War Labor Board was created to settle disputes between employers and employees, and attained considerable success. It frequently happens that when an impartial agency investigates the causes of a strike, it influences the parties to try to settle their differences peaceably.

### *Arbitration*

The method generally followed in bringing about a settlement of a strike or threatened strike is called arbitration. The usual plan of arbitration is the selection by each side of a certain number of representatives, who jointly choose one or more additional representatives. The parties agree to accept the decision of the arbitrators. The arbitration board hears both sides, investigates the conditions, and makes an award. If the award is based

upon thorough study and a careful attempt at justice, both sides usually accept it with good feeling.

### *Compulsory Arbitration*

It happens sometimes that one side or the other refuses to accept arbitration, or to abide by an award given by an arbitration board. To meet these situations it has been proposed that a plan of compulsory arbitration be tried,



A board of arbitration in session

whereby the public would first attempt to mediate to prevent a strike and would investigate fully the causes of the strike, and would then compel the acceptance of the award by the employers and employees. Most people agree that the public has rights in most controversies superior to any group of employees or employers except of course when fundamental rights are at stake. There are many difficulties in forcing the award upon the parties.

If employees refuse to work they can not be forced to do so. Compulsory labor is a form of slavery. On the other hand, if an employer can not run his plant without loss under an award, he can not rightfully be forced to continue operation for any great length of time. Some plans are now being tried out in the United States, such as the Kansas Industrial Court Act, enacted in 1920. These experiments are being watched with keen interest.

### *The Open and Closed Shop*

One of the causes of strikes in the past has been the fight over the question of the open or closed shop. The closed shop is one in which only members of a union are permitted to work. The open shop is one in which any one, regardless of membership in a union, may work. Many strong labor-unions have worked for the closed shop, and in some trades the closed shop prevails. Employers, on the other hand, generally demand the open shop. Labor-unions rightly contend that the open shop means, in the mind of many employers, a shop that is open only to non-union men and closed to union men. Some employers, while maintaining an open shop, bargain collectively with those of their employees who belong to labor unions. The controversy over the open and closed shop comes up frequently as an industrial problem, and there are widely varying views on the subject. In the main the public believes that men should not be refused employment because they belong to a union, nor should a man be forced to join a union to get work, but that the principle of collective bargaining should be preserved.

*Minimum Living Wages*

One of the chief causes of dispute has been the subject of wages. More strikes have been carried on to enforce wage standards than for any other reason. Union labor, by means of organization, has been able to fix in many trades certain minimum wages. Minimum wages have been urged on the theory that labor is not a commodity to be bought and sold according to the law of supply and demand, but that each human being is entitled to a wage that will be sufficient to support him according to the dignity of a human being.

The idea of the minimum wage has been taken up by legislatures, and in a number of states there are already state laws providing for a minimum wage for women. Such laws have been passed to prevent the exploitation of women's work at less than a living wage. These laws have been upheld by the courts of the country. Minimum wages under these laws are fixed usually by commissions after investigation to determine the amount that is necessary to provide the worker a decent living. Some states require employers to pay the amount fixed, while others provide merely for the report of a fair minimum wage, and then depend upon public sentiment to secure the wage determined upon. In the latter case, if a manufacturer does not pay the rate specified, his name may be published in the newspapers, and public opinion is deemed strong enough to require his compliance with the standard.

*Profit-Sharing*

There have been many suggestions for the uniting of employers and employees by means of profit-sharing.

Many concerns have put such schemes into operation. The plan provides that on some agreed basis the men shall receive, in addition to their wages, a part of the profits of the business. Under this plan the men are given a direct interest in the promotion of the business



Share holding employees attend huge stockholders' meeting of the Firestone Tire & Rubber Co.

Directors were elected at this annual meeting, at which more than 95 per cent of the stockholders were officers and employees of the company.

and its efficiency. The chief advantage, however, lies in the better understanding that exists between employers and employees when all of the facts regarding profits are made known. When profits are shared they must necessarily be divided on a fair basis, or else the cause of discontent will remain.

*Labor Participation in Management*

The next step that has been taken by several business and industrial concerns in this country is the union of employers and employees through joint management. In a number of business concerns the men have been invited to select from their ranks members of the board of directors. Others have provided for advisory committees, while in some instances employers have invited employees into the management on equal terms. The chief advantage claimed for labor's participation in management is that employers and employees are brought together in closer unity. Each comes to understand the problems of the other better when they sit down together to determine policies and make plans for the industry. The experiments now being tried in some of the larger industries of the country are being watched with great interest.

*Unemployment*

The most serious problem for the employee is the uncertainty of employment. Many causes operate to prevent steady employment. Weather conditions affect some occupations. Sickness and accident cause a large loss to many men. The breakdown of machinery or equipment keeps plants closed for days, or perhaps weeks. Business depression causes the labor forces to be cut down. Many occupations can be carried on only in certain seasons and the workers in these occupations must find other employment or be idle for a part of the year.

All of these causes result disastrously for the workers affected, because workers depend for their living upon

their daily wage. It is a serious disaster in the life of a worker to be out of employment for a great length of time. The evils of unemployment have given rise to discussions as to means of stabilizing employment so as to prevent the hardships that fall upon those who are



Public employment office

compelled to be out of work. Employment bureaus or exchanges are provided for better distribution of labor. Public works are planned to take up the slack in dull times. Business is distributing its operations more and more throughout the year. Insurance plans are meeting some of the difficulties of unemployment. The problem of assuring the chance for steady employment to workers

is one of the most serious that confront the people of this country, for there is no more potent cause of unrest than involuntary unemployment.

### *Health and Safety*

Public attention is directed throughout the country to the conditions under which people labor. We have come to recognize the fact that the individual can not fully protect himself against disability arising out of employment, and that public measures are needed to prevent accident and disease in industry. Nearly every state in the Union has, within the last twenty-five years, provided for state departments for the inspection of industrial plants. These departments enforce the laws requiring safety devices for the prevention of accidents and disease, thus promoting the health and safety of workmen. The larger cities also have similar departments to safeguard workers. This has come about through a clear insight into the need for healthy workmen, who are valuable not only to industry but to the community. The safety first movement for the prevention of accidents has made rapid progress. That movement is now being directed also toward the prevention of disease.

Nearly every state has provided for insurance of workers against accidents in employment. This is known as workmen's compensation for industrial accidents. The employers pay the cost of the insurance, which provides for a part of the injured man's wages and for the cost of medical care. These laws are usually administered and enforced by state industrial boards or commissions.

*Hours of Labor*

The length of the working day has been decreasing for a good many years. When factories were first established it was common for men to work fourteen and sixteen hours a day. Gradually the length of the working day was reduced successively to twelve hours, ten hours, and eight hours. To-day the standard working day is eight hours, although there are large numbers of employments that still have a ten-hour day.

The shortening of the day has come from the demands on the part of the men for more leisure, and also from some employers, who recognize that the shorter day promotes efficiency. Laws have been enacted in several states prohibiting the employment of women for more than eight hours a day. Laws have also been enacted prohibiting the employment of men in certain occupations, such as mining, for more than eight hours a day. It is generally recognized that in monotonous and unhealthy employments, and in those in which the workers are under a nervous strain, the shorter day is necessary in order to preserve the physical well-being of the workers.

*Questions and Problems*

1. What is collective bargaining? Why is it important to the workers?
2. Why is it important that wages should be similar throughout certain industries, such as coal-mining?
3. What is a strike? A lockout?
4. Why are the boycott and blacklist made illegal in many states?
5. Gather information and discuss fully the merits of the closed and the open shop.
6. It is claimed by many that a man can do as much work

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in some employments in eight hours as he can in ten hours. Explain the reasons.

7. Is employment in your community regular throughout the year, or are some men laid off during parts of the year?
8. Study the local industries and see which ones lay off men during parts of the year.
9. What employments do the men follow during the time they are laid off?
10. What are the reasons for laying men off at times?
11. How could the evils of unemployment be best prevented?
12. What is meant by unemployment insurance?
13. In what ways can the city, state or nation aid to prevent unemployment?
14. What is the function of a factory inspection department?
15. Describe fully the process by which workmen are insured against accidents and the process of collecting the amount due the injured worker.

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## CHAPTER XV

### COÖPERATION

#### *Community Survey*

1. Secure examples in your community where consumers unite to buy goods and producers unite to sell their products by means of coöperative arrangements.
2. Find out if any local coöperative schemes have failed, and learn the reason for failure.

Coöperation is a system of business organization in which a number of people join for the common purpose of buying, selling, producing, or distributing goods, or of securing some other end in common. Instead of the organization of an undertaking by an individual, a partnership, or corporation for profit, the people who are to be served form a coöperative society to conduct the business or secure the desired service for their mutual benefit.

Coöperation may be divided into the following main divisions: Producers' coöperation, consumers' coöperation, distributors' coöperation, and other forms of coöperation.

#### *Producers' Coöperation*

The simplest form of producers' coöperation is found in the common ownership of certain kinds of farm machinery, such as tractors, ensilage cutters, threshing machines, and power machinery. In some cases the joint owners have only an informal agreement; in others there

is a coöperative agreement, with fixed rules and regulations. Professional workers also coöperate to provide mutual needs, such as libraries, laboratories, and expensive apparatus.

A more elaborate form of producers' coöperation is found in the coöperative ownership of creameries and cheese factories. Such coöperative enterprises are conducted under articles of agreement, and each coöperator



Rural grain elevators, Hettings, Iowa

shares in the conduct of the business. In some cases the coöperative arrangement is merely another form of the corporation, in which the owners are stockholders. A real coöperative enterprise is one in which the idea of profit is secondary to the idea of mutual management for mutual benefit.

A still more elaborate form of producers' coöperation is found in a few factories where the workmen coöperating in the management of the business share the profits.

This form is rare in the United States. Ownership and management by workers alone is also a rare form in this country. Only a few attempts have succeeded because of the difficulties of combining labor, capital, and management in the same group of workers. Simple



Courtesy Dairymen's League

Coöperative milk plant

industries lend themselves to this form. Much more success has been achieved in England and in European countries in workmen's coöperative production than in the United States. The famous Rochdale system of England, described hereafter, is one of the best examples in European experience. An example in this country of coöperation in a factory is found in the Cooper Shops in

Minneapolis, where for many years a plan of coöperative management has been carried out.

### *Coöperative Distribution*

Coöperation has been found much more successful in this country when applied to the distribution of goods than to their production. Numerous examples of suc-



Exterior view of a coöperative store

cessful coöperation can be mentioned. Grain-growers, fruit-growers, and dairymen have used the system extensively. The most notable examples on a large scale are found among the fruit-growers of the Pacific Coast. In that part of the country the individual fruit-grower had struggled for years against odds in marketing his product. He did not have adequate storage or finance. He could

not, by himself, establish standards or grades for his fruit. He had to depend upon the railroads for refrigerator service, and upon the commission men in far distant cities for sales. The result was failure on a widespread scale. Then came coöperation. The individual producers, confronted with the same problems, combined to provide common facilities to store, transport, and sell their products, to finance their operations, and to grade and standardize their products.

The advantages derived from coöperation among fruit-growers have been:

1. Uniform grading, which makes the quality of the fruit reliable.
2. Uniform and scientific packing, which adds to appearance and salability.
3. Better selection of markets and better estimates of the needs of the market.
4. Storage facilities to equalize the flow of the fruit to market.
5. Utilization of surplus fruit by canning, drying, or preserving.
6. Better shipping facilities, including coöperative ownership of refrigerator cars.
7. Adequate finance by coöperative arrangements to produce the crop and market it.
8. Coöperative supply of barrels, boxes, baskets, and other essentials for packing and shipping.
9. Improvement of the fruit-growing industry by the spreading of scientific and practical information among members.
10. Increased facilities for the care of the growing

fruit and for its harvesting through coöperative ownership of equipment.

11. An increased interest in the industry among those engaged through the influence of common action among them.



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Packing canteloupes on a melon ranch in the famous Imperial Valley, in Southern California

Other important examples of coöperative distribution are found among the grain-growers and dairymen of the northwestern states, notably Wisconsin and Minnesota. Coöperative grain-elevators and warehouses and coöperative selling of the products of cheese and butter factories are numbered by the thousands.

Coöperative work by dairymen has been especially ef-

fective in securing greater returns to the producer of dairy products and in advancing scientific practices among dairymen. Not only is provision made in coöperative societies for the manufacture of dairy products, but also for their marketing and for the utilization of surplus products to the best advantage. Improved dairies and dairying methods have resulted. In one large association the production of cheese per hundred pounds of milk has steadily increased during ten years of coöperation on account of the spread of scientific knowledge of dairying.

### *Consumers' Coöperation*

Consumers' coöperation is the system by which consumers combine to purchase goods for their use directly from wholesalers or producers. A group of farmers may combine to purchase seed, fertilizer, food-stuffs, and farm machinery. A group of workmen in a factory may combine to purchase food and clothing. Large numbers of people may combine to operate a store where goods may be purchased at cost, or where the profits may be divided among the purchasers. The plan usually followed is to require the purchase of at least one share of stock by each member, and to divide the profits among the members in proportion to their purchases.

The object of consumers' coöperation is to make as direct a contact between producers and consumers as possible. The advantages of such coöperation are achieved when unnecessary middlemen are eliminated, and when by good management the wastes of competition are lessened.

*Other Coöperative Plans*

The coöperative idea has been worked out extensively and successfully in the insurance field. Coöperative or mutual fire insurance companies are found almost everywhere among farmers. There are also numerous examples of mutual or coöperative insurance among millers, drug-store owners, hardware dealers, and other business men. Life insurance has also been developed on a large scale through mutual companies and fraternal orders. Sickness and accident insurance has also become widespread through fraternal orders, mutual benefit societies in industries, and similar organizations.

Coöperation has found favor in the financial field. Coöperative banks have been organized; coöperative building and loan associations have flourished everywhere, and coöperative farm loan associations are gaining in favor under the stimulus of the Federal Farm Loan Act. These organizations have many of the characteristics of commercial undertakings, but the spirit and results are in most cases coöperative.

*Complete Coöperative Organization*

Thus far we have considered the producer, the distributor, and the consumer separately. There still remains the question of the coöperation of the consumers to the extent of actually producing and distributing certain of the goods that they need. Business enterprises conducted for profit sometimes go into the business of producing some of the goods that they use. Canning concerns in some instances grow the products to be canned, and manufacture their cans. The paper-mill company may produce

its own wood for pulp. The steel company may have and operate its own iron- and coal-mines. Rubber manufacturers may own their own rubber plantations. Industries may have their own railroads, pipe lines, and other carriers. Coöperative enterprises apply the same practice in producing goods for their members. For instance, a body of consumers having need for thousands of pairs of shoes might own and operate their own shoe factory; or, having need for milk and milk products, might operate their own coöperative dairy. Only slight attempts have been made in this form of coöperation in this country.

### *The Rochdale Pioneers in England*

The Rochdale coöperative system was organized in 1842 by twelve men—the Rochdale Pioneers—who agreed to pay twenty pence a week into a common fund to make purchases coöperatively. Their first purchases were tea and sugar, which they bought at wholesale and sold to their members at a little more than cost. At the end of a year they had twenty-eight members, and they started a small store with a small stock of flour. The society grew, and by 1876 it had 8892 members and £251,000 in funds, and did a business of £305,000 a year.

The conditions of membership require the payment of a small sum, and regular payments afterward until a minimum share at least is paid for. A member is permitted to allow his shares to accumulate to £100. Any member may withdraw by giving due notice of his intention. The society pays back all but the amount of the minimum share, and the share may be transferred to a new member with the approval of the society. The net

profits are distributed quarterly. After deductions are made for interest and for education, the balance is placed to the credit of the members in proportion to the purchases that each has made. The members are not personally liable for losses over and above their respective shares.

The management is vested in an executive committee of twelve members elected annually by the members, each member having one vote.

The Rochdale Pioneers confined their operations for a few years to the operation of coöperative stores. Their next step was the starting of some cotton looms in 1855. The venture proved successful, and part of a factory was rented. A mill was built in 1860; but, owing to the Civil War in the United States, which cut off the supply of raw cotton, the business was in depression for a few years. The workers in the cotton-mills received the profits, after interest at five per cent was paid on the capital, in proportion to the amount of wages earned.

The next step in coöperation in England was the organization of the Coöperative Wholesale Society. This society engaged in the wholesale business to supply the coöperatives and other companies. The profits were divided among the coöperators and companies in proportion to their purchases, the coöperators receiving full dividends and other companies receiving half dividends. The society began the production of goods in 1872 by the purchase of a biscuit factory. This was followed by the entrance of the society into boot-making, leather-currying, woollen manufacture, ready-made clothing manufacturing, yarn-making, corn-milling, and printing.

The coöperative movement that began with the Roch-

dale Pioneers and expanded into wholesaling and production has extended widely in Great Britain. In 1918, according to the *Coöperative Union Report*, there were 1364 coöperative distributive societies, with 38,465,532 members, a total capital of £65,737,980, annual sales of £155,157,963, and profits of £16,495,645. The productive departments of coöperatives produced goods to the value of about £14,000,000 annually.

### *Conditions of Success of Coöperation*

The success of coöperative undertakings depends upon the ability with which the business is organized and conducted. There is no magic about coöperative plans by which they can be successful under bad management. The managers of a coöperative undertaking meet the same problems as those who are engaged in a private business. The managers of a coöperative store, for example, must measure the needs of their customers, the same as a manager of a store conducted by private enterprise. Bad judgment in buying or misjudging the market will affect a coöperative business just as they will a private business.

Consumers' coöperation is dependent for success upon the ability of the coöperators to eliminate excessive middlemen. If they can not buy directly from the producer they must purchase from the wholesaler, and they are in exactly the same position as a small private business—the advantage to the coöperators in such case being merely the elimination of the profits of the storekeeper.

The success of producers' and distributors' coöperation depends likewise upon the management being equal in ability to the management by wholesalers and jobbers in

private enterprises. Unless they deal directly with consumers they are also confronted with the same problems of organizing the market for the sale of goods as the wholesalers and jobbers. They may secure for their members the profits of the wholesaler or jobber if the business is managed successfully enough to secure profits, but successful coöperation requires more than that. The real purpose of coöperation should be to secure as direct dealings as possible between producer and consumer. The test of coöperation should be the extent to which excessive middlemen are eliminated and the producers and consumers are brought together. The numerous successful examples of coöperative undertakings and the rapidity with which coöperative organizations are spreading over this country indicate that they are found to be practicable ways of accomplishing the primary purpose of bringing the producer and the consumer together.

### *Questions and Problems*

1. What are the essentials for success of coöperative business?
2. What difficulties does a retail coöperative store encounter?
3. Why is it necessary sometimes for coöperative organizations among consumers to extend their operations to the wholesale business, and even to production?
4. Does coöperation remove all need for middlemen?
5. Why is it necessary for consumers' coöperative organizations to organize their market completely?
6. What advantages are there in local consumers' clubs for the purchase of certain articles?
7. Why is coöperation especially important to the farmer?
8. What are the forms of coöperation most useful to the farmer?

9. Should coöperative stores attempt to carry all kinds of goods, or merely those that enter most largely into the cost of living?
10. Study in the references the history of coöperation in this country and European countries.
11. What examples of coöperative insurance and banking are found in your community?
12. Study the plans of mutual or coöperative fire insurance companies doing business in your locality. Other forms of banking or financial coöperation.

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## CHAPTER XVI

### AGRICULTURAL PROBLEMS

#### *Community Survey*

1. If your community is a rural one, make a study of ownership or tenancy.
2. What is the character of farm production?
3. Explain the process by which the products reach the market.
4. Explain the process by which farm production is financed.
5. Secure copies of the Federal Farm Loan Act and study its provisions.

Agriculture is the basic industry of this country. The products of the soil are the most essential of all products. They furnish the raw materials for food, clothing and shelter, the primary needs of everyone. The value of farm products in the United States exceeded \$24,000,000,000 in 1919. The value of manufactured products in the year 1914 amounted to \$24,000,000,000, of which less than ten billions was added by manufacture to fourteen billions of raw material. In the same year the value of farm produce was nearly ten billion dollars. These comparative facts, together with the close relationship of agricultural production to the welfare of all the people, make the special study of agricultural problems important.

*Decrease of Agricultural Workers*

The percentage of the people of the United States engaged in agriculture has been decreasing for many years, as shown by the Federal Census. In 1880 those engaged in agriculture numbered 44.1 per cent of the total population; in 1890 the percentage had been reduced to 37.2 per cent; in 1900 to 35.2 per cent; and in 1910 to 32.5 per cent. This reduction in the proportion of



Sandusky tractor drilling

persons engaged in agriculture means that those who continue as agricultural workers must produce more, if the supply of necessities of life is to remain constant.

Men who think about public problems have been alarmed at this state of affairs, and have predicted calamities if the farmers are continually drawn from the country to the city. The fear that the situation will continue until our farms do not produce enough to feed the country has caused careful thought to be given to methods of improving agricultural conditions.

A great deal of the alarm is without foundation. The reduction of the percentage of people engaged in agriculture is partly due to increased efficiency on the farm. While the percentage of farmers has been decreasing the production of each farmer has been increasing. Farm machinery has revolutionized farm production. One man with a tractor may plow as much as several men with teams. The self-binder does the work of a score of men with the old-fashioned cradle. The grain-drill, mower, horse-rake, hay-loader, wheel-cultivator, windmill, gasoline-engine, milking-machine, cream-separator, and other machinery have made it possible for one man to produce as much as two or three could have done twenty-five years ago. Science and invention have brought this change about, and will doubtless continue to promote similar improvements in the future. The need for machinery has, however, created problems of increased farm finance which we shall discuss later in this chapter.

### *Decrease in Production*

While the decrease in number of farmers is offset largely by improved machinery, there has not been a corresponding improvement in production per acre for the country as a whole. The average yield of most of our crops is far below what it should be. We have been producing only about fifteen bushels of wheat, thirty bushels of corn, and one hundred bushels of potatoes per acre. This is far below the results obtained from the soils of European countries, and also from the more intelligently cultivated soils of our own country.

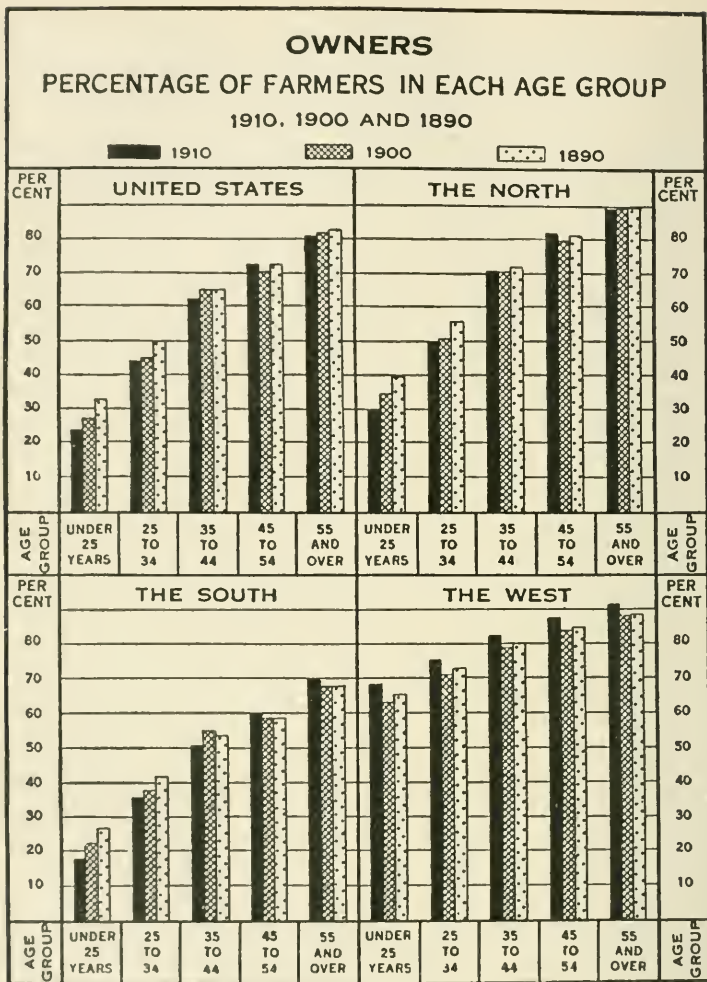
We have plenty of evidence that we have been destroying our soil by destructive tillage. We have been extracting the soil elements and have not been replacing them. The one-crop system—that is, the system of planting the same crop year after year—has prevailed to a considerable extent in some parts of the country. Soil exhaustion follows such a practice unless scientific fertilization is used. In the early days, as fast as soils were exhausted new soils were brought into use, and the old fields were left fallow for a time or were abandoned.

Deserted fields and farms can be found in many parts of the country. Many such farms are practically valueless, while some may be restored by scientific care. The problem of soil exhaustion becomes a serious one in these times, when there are no new fertile lands to develop, except at large expense.

### *Farm Ownership*

In 1910, 63 per cent of the farms in this country were operated by the owner, and 37 per cent by tenants. The percentage of farms operated by owners has been decreasing for a number of years. In 1880 it was 74.5 per cent; in 1890, 71.6 per cent, and in 1900, 64.7 per cent. This is natural when we consider the increased investment that is necessary in nearly all parts of the country to own and operate a farm.

There are two forms of tenantry—the cash system and the share system. In the cash system the tenant pays a cash rental for the use of the farm and sometimes for the farm equipment. In the share system the owner and the tenant divide the product on some prearranged



Farm ownership in U. S.

basis. In either system the tenant may provide a part or all of the equipment.

The tenant system has a tendency to promote soil exhaustion. The tenant is interested only in the immediate crop, because he will probably move to another farm in a few years. He has no direct interest in keeping up the productivity of a farm belonging to someone else. Neither has he a direct interest in the upkeep of the buildings and equipment belonging to the owner. While there are many examples of tenants who take the same interest in improved agriculture as the owners themselves, this is not usually the case. Those who have the best interests of agriculture at heart have looked with concern upon the growth of permanent tenantry. In so far as it represents a stage of growth from farm-laborer to farm-owner, tenantry is a healthy sign; otherwise it is not.

### *Agricultural Finance*

The increase of equipment necessary to carry on agricultural production, and the increase in the cost of land, have brought to the front the problem of providing means for the farmers to finance the purchase of farms and the production of crops.

Not many years ago a man ambitious to be a farmer could secure fertile lands free or at small cost. A small investment in farm tools, horses, and live-stock sufficed to make a beginning. To-day the purchase of a farm in nearly all sections of the country involves the investment of large sums of money. The necessity for modern farm equipment requires another large investment. It is growing more and more difficult for the young man

ambitious to be a farmer to acquire the initial capital needed to purchase land and equipment.

Agriculture has also become a business, and must depend, like any other business, upon financial credit. In fact it must depend even more than many lines of business upon financial credit because of its nature. A long period must elapse between the sowing of the seed, the reaping of the harvest, and the selling of the product.

The farmer without adequate finance or storage facilities is compelled to sell as soon as possible after harvesting his crop. Many farmers place their products on the market immediately, for whatever they will bring. This results in a glutting of the market immediately following the harvest, and a reduction of price. The process works for the benefit of middlemen and speculators, who take advantage of the farmers' needs for the immediate sale of his products.

### *Farm Loans and Credit*

To meet the financial need of the farmers, two systems of financial backing are at present being provided by public and private enterprise. The first makes provision for the lending of money for the purchase or improvement of land. The second makes provision for the financing of production, the storage of products, and the financing of the handling of the products until sold.

### *The Farm Loan Act*

After many years of study and agitation the Federal Farm Loan Act was passed in 1916. The purpose of this act, as stated in the title of the act, is "to provide capital for agricultural development, to create standard forms of

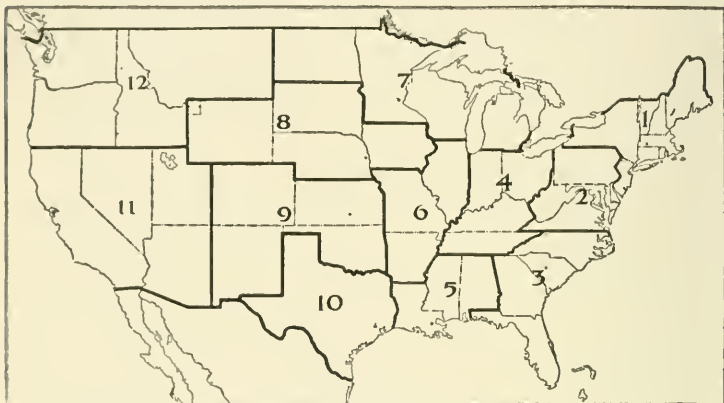
investment based upon farm mortgage, to equalize rates of interest on farm loans, etc."

The act created the Federal Farm Loan Board, consisting of five members, four to be appointed by the President and the fifth the Secretary of the Treasury, who is the chairman of the board. The board was directed to divide the country into twelve districts, "with due regard to the farm-loan needs of the country," and to establish a federal land bank in each district. Following out this direction, the board established districts with locations of farm-land banks as follows:

| <i>Location</i>    | <i>District</i>                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| Springfield, Mass. | New England, New York, and New Jersey.                                               |
| Baltimore, Md.     | Pennsylvania, West Virginia, Maryland, Virginia, Delaware, and District of Columbia. |
| Columbia, S. C.    | North Carolina, South Carolina, Georgia, Florida.                                    |
| Louisville, Ky.    | Indiana, Ohio, Kentucky, Tennessee.                                                  |
| New Orleans, La.   | Louisiana, Mississippi, Alabama.                                                     |
| St. Louis, Mo.     | Illinois, Missouri, Arkansas.                                                        |
| St. Paul, Minn.    | North Dakota, Minnesota, Wisconsin, Michigan.                                        |
| Omaha, Neb.        | Wyoming, Nebraska, South Dakota, Iowa.                                               |
| Wichita, Kan.      | New Mexico, Colorado, Kansas, Oklahoma.                                              |
| Houston, Tex.      | Texas.                                                                               |
| Berkeley, Cal.     | California, Nevada, Utah, Arizona.                                                   |
| Spokane, Wash.     | Idaho, Washington, Montana, Oregon.                                                  |

The act provides for the creation of farm-loan associations consisting of persons who desire to borrow money on farm-mortgage security. These associations are mutually managed by the members. Loans are made by the land banks through these associations.

Loans may be made for the following purposes:



Farm loan districts

- (a) To provide for the purchase of land for agricultural uses.
- (b) To provide for the purchase of equipment, fertilizers, and live-stock necessary for the proper and reasonable operation of the mortgaged farm.
- (c) To provide buildings and for the improvement of farm-lands.
- (d) To liquidate indebtedness of the owner of the land mortgaged.

The loans must not exceed one half the value of the land; must be payable in instalments running for not less than five years nor more than forty years; and must be

made only to persons who are actually engaged, or about to be engaged, in the cultivation of the soil.

This act makes available in all parts of the country ample money for loans on farm mortgages. It does not provide for short-time loans to finance the operation of farms. It does, however, provide that the board may disseminate information for the instruction of farmers "regarding the methods and principles of coöperative credit and organization."

In 1919 there were 3890 farm-loan associations, having an average of 27.5 members for each association. The total number of loans made under the act to November, 1920, was 106,929, and the total amount lent amounted to \$282,007,781.

Some of the states have provided for similar assistance by state laws. Private agencies, banks, and building and loan associations have been rapidly extending their operations to the financing of farm undertakings.

### *Short-Time Loans*

The financing of production and distribution of farm products has thus far been left largely to private agencies, although some of the states have made a beginning in such work. Formerly the farmers in some communities were compelled to pay exorbitant rates of interest to secure any money at all. Those conditions have changed radically, and banks have begun to lend more freely to provide for farmers' needs. Associations have been formed to provide finance and storage for producers.

One of the most efficient methods of financing the farmer is the use of warehouse receipts. The producer

of wheat stores his wheat in elevators or warehouses and secures warehouse receipts for the amount and grade stored. These receipts are taken at banks as security for



Bad road

loans. The farmer may thus hold his grain in the warehouse and yet secure money to meet his needs. A wider extension of this method of financing is to be desired. It is merely the extension of banking facilities to the producers of farm products that have long been extended under similar conditions to manufacturing industries.

### *Coöperation among Farmers*

We have discussed in another chapter the subject of coöperation among producers, distributors, and consumers. Probably to no class is coöperation of as much significance as to the farmer. It is likewise most difficult among farmers, because of their isolation. Indications point,

however, to the success and rapid extension of some forms of coöperation, especially in the sale of farm products and the purchase of farm necessities.

### *Rural Transportation*

The farmer is particularly dependent upon transportation. Almost everything he produces must be transported over the highways and the railroads, rivers, canals, or ocean. The goods he uses must run the whole extent of transportation facilities. It is not to be wondered at that the great movements for the extension of transportation and the regulation of railways and other means of transport originated among the farmers.



Same road after improvement

Improved highways have a direct influence upon almost every farm condition. Bad roads isolated the farmer. They compelled the immediate moving of products before

the roads became impassable in the fall and winter, and added considerably to the cost of marketing crops. Bad roads prevented adequate medical attention, proper schooling, and community coöperation. Far-sighted farmers have supported every move for improved roads for economic as well as for social reasons. We have reason to expect that good roads and the use of automobiles and motor-trucks will correct many of the evil conditions in rural communities in the production and distribution of goods, and in the supplying of rural community needs.

### *Questions and Problems*

1. Explain fully why special attention should be paid to farm production.
2. What are the causes of farmers leaving the farm for the city?
3. Is there any indication in your community of city residents leaving the city for the farm?
4. How do the economic conditions of the farmer compare with those in the city?
5. What is the effect of unimproved roads and means of rural transportation upon farm conditions?
6. Talk to some person who has had experience with the Farm Loan Act and learn of its detailed working.
7. What forms of agricultural coöperation are found in your community? Explain some plans in detail.
8. What are the advantages and disadvantages of tenantry? What is the usual form of tenantry in your community?
9. Secure copies of sample warehouse receipts and study their provisions.

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## CHAPTER XVII

### THE ECONOMIC PROBLEMS OF CITIES

#### *Community Survey*

1. Make a study of the growth of your city in population and area.
2. Make a map of the street plan, showing railroads and terminals, belt lines and warehouses.
3. What are the principal means of transportation for workers?
4. Describe the workings of the city market, if any.
5. Are the roads leading into the country improved?

The growth of cities is an economic factor of prime importance. For many decades the census figures of the United States have shown an increasing percentage of people living in cities. In 1870, 20.9 per cent of the people lived in cities of more than 8000; in 1880, 22.6 per cent; in 1890, 29.2 per cent; in 1900, 33.1 per cent, in 1910, 38.8 per cent. In the latter year 46.4 per cent lived in cities and villages of more than 2500 population. The census of 1920 showed a majority of the people living in such cities and villages. Why is this growth taking place, and what are the economic problems resulting? These questions are the subject of this chapter.

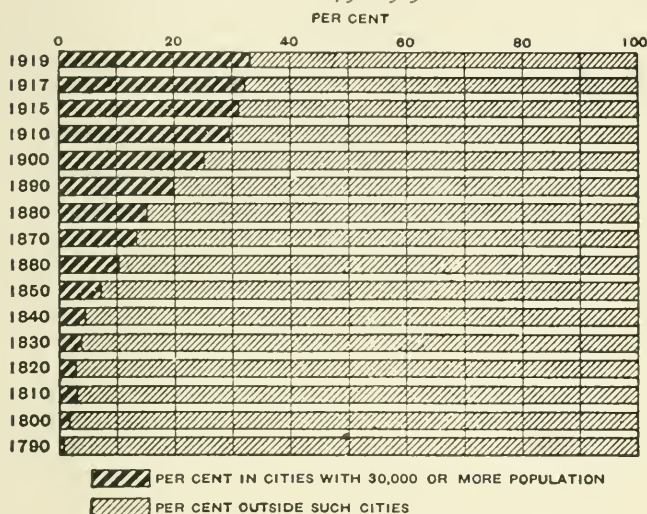
#### *Causes of City Growth*

Cities were originally built for protection. They were the centers to which people retired when menaced by

enemies. The builders of such cities sought places that could be easily defended. The cities were not commercial in the modern sense, but some of those that were well placed have developed into industrial and commercial centers. We have had no such cities in the United States.

The growth of the modern American city has been due

PER CENT OF TOTAL POPULATION IN CITIES HAVING A POPULATION OF OVER 30,000 AND PER CENT OUTSIDE SUCH CITIES FOR SPECIFIED YEARS: 1790-1919.



The growth of city populations

in large part to the factory system and to the improvement of transportation. Many industries are more profitably conducted in large units. Consequently the factory with power-driven machinery has replaced the small shop. The concentration of industry under the factory roof has also caused the concentration of population around the

factory. Increased transportation facilities have made the city the market for wider areas. The trade of cities is extended into more distant areas as transportation improves.

The first cities in this country were water ports. They were built along the bays, inlets, and navigable rivers, and were principally the outlets for goods that were brought by river and trail from the inland. New York, Boston, Philadelphia, Charleston, and Savannah were among the earliest of these. Gradually, as people pressed into the interior, highways were constructed and canals built which served to increase the volume of trade and extend the possibilities of distribution. This, in turn, necessitated an increase in the number of workers, and also increased facilities for the maintenance of the population. The building of the Erie Canal caused the development of a number of commercial centers in New York state. Even yet the most important locations for cities are on navigable waters.

When railroads developed it was possible to have other industrial and commercial centers than those located on navigable waters. The railroad tapped new areas, thus permitting industrial and commercial development in heretofore inaccessible places. Those cities that were located on navigable water and that were also the terminals of railways developed most rapidly. The building of interurban railroads brought further development for inland cities, and promoted still wider extensions of trade from the central trading cities.

The supply of labor and capital has been an important element in promoting city growth. Industries seek loca-

tions where there is the best prospect of obtaining labor while those requiring special kinds of skill must generally locate where that skill is to be found.

The capital necessary to conduct industries is, as a rule, to be found in cities. Those cities that have the largest amounts of capital available for investment make strong appeals for the location of new industries, which in turn bring more people.

Many cities and towns have developed as trading centers, particularly in agricultural areas. Such cities supply the needs of the surrounding country and serve as the outlet and shipping centers for agricultural products. The trading cities that are most favorably located become distributing centers for many of the smaller cities, serving as the outlet and inlet of goods for wider areas.

Power has been another cause for the growth of cities. In earlier times cities grew up around waterfalls where cheap power was available. Several cities in New York and New England owe their start to the presence of abundant water-power.

Other cities, such as Pittsburgh, Pennsylvania, owe their growth to coal as a source of steam-power. In more recent times electric power, generated from water-power, has made possible the growth of cities within range of transmission of electric current generated from water-power. The cities around the Falls of Niagara demonstrate this fact.

Special industries have caused certain cities to grow. Rubber plants located at Akron, Ohio, in the infancy of the rubber industry, grew to large proportions with the growth of that industry, and brought about the develop-

ment of a large industrial city. The electrical industry developed Schenectady, the shoe industry Brockton, the cash register industry Dayton, the automobile industry Detroit. Many similar examples could be named.

Cities have also been established at points where raw materials such as iron ore and other products, such as coal, are conveniently brought together. The cities of Gary, Cleveland, Youngstown, Canton, and other industrial centers in Ohio, Indiana and Pennsylvania are examples. Coal from the mines of Indiana is transported to Gary to smelt the iron ore brought by boat from northern Michigan. Coal from Ohio, Kentucky and West Virginia meets the iron ore of Michigan at the industrial centers of Ohio and Pennsylvania, while in some places in Pennsylvania, and notably in Birmingham, Alabama, coal and iron are found in the same area.

Immigration is another source of the growth of cities. Immigrants from Europe have remained largely in the cities of this country because of their own inertia and the lack of facilities to get to the farm-lands. Once in the city the immigrant has had a tendency to remain there, thus making a further bid by his labor for the location of still more industries in the city.

Some other causes for growth of cities may be mentioned such as the location of seats of government, state and national. Washington is the best example of this. It has remained primarily a city of government employees. Many state capitals obtained their start as cities merely because they were state capitals. A few are still political rather than industrial or commercial centers.

Other special reasons could be given for the location

and growth of many cities, but some one or more of the causes set forth above has determined the location and growth of most of our cities.

### *Lack of Planning*

Practically all of the cities of the United States have expanded from small to large size without a plan. A few, like Washington, were laid out in advance; but the majority have had an unregulated and unplanned growth. Many cities are overgrown towns, with narrow streets and alleys, and without traffic thoroughfares. Consequently they are congested. This has resulted because the streets, alleys, and thoroughfares were laid out to accommodate the traffic of the small city or town before the era of the automobile. The large city, swarming with motor-vehicles, is compelled to accommodate itself to the traffic facilities of the small community.

Planning for such cities consists in the expensive rebuilding of streets and development of other means of transport. City planning for the future city involves the laying out in advance of all of the facilities that may be necessary to accommodate the people, business, and industries of the city for all time. Cities are delinquent in their duty if they do not make provision for future growth by promoting efficient means of transportation and providing for the health and welfare of their people.

### *Problems of Transportation*

The transportation of passengers and freight within a city, and into and out of a city, is the major economic problem in city planning. This problem would have been

comparatively simple if means of transportation had been planned adequately in advance. As it is, the problem will be a growing one in most of our cities as population and trade increase.

The transportation of passengers is the problem that comes first to mind. The inconveniences of lack of facilities for passenger traffic are readily appreciated. The problem in large cities is that of providing adequate street railways to enable people to live in good surroundings. This problem becomes acute in those cities where the congestion of traffic on the streets makes surface railroads slow and unsatisfactory. Such cities must provide elevated tracks, subways, motor-buses, and suburban railways to meet the traffic needs. The congestion in downtown Manhattan, in the Chicago loop, and in parts of Cleveland, Boston, Pittsburgh, and other cities call for increased facilities.

Central terminal facilities for passenger traffic on the railroads, or easy transportation between terminals, is of great importance. Those cities that have union stations save enormous amounts of time for railroad passengers. The waste of time in transferring from station to station is necessarily very great in any large city.

The building of freight terminals and facilities for expediting shipments of goods is of no lesser importance. The congestion of freight causes loss of time and materials, and directly increases the cost of goods to the consumer. Some cities have developed belt lines of railway connecting the terminals of the different railroads entering the city and the wharves with the industries. When these lines are sufficiently developed, with spur

tracks reaching all of the leading industries, so that freight-cars coming in from any direction may be easily switched to their destination or to the wharves or tracks of another railroad, they will prevent waste and promote efficiency.

From the economic standpoint, the cities that plan all of their terminals for freight and express will make it possible for their people and industries to produce more effectively. The economic loss in time wasted by passengers or by shippers through badly planned transportation and terminal systems is a serious one, and cities serve their own special interests by studying and solving the problem.

### *Street Planning*

Cities have generally been laid out on the checkerboard plan. Streets cross one another at right angles. This arrangement permits direct entrance to the center of the city from only four points. For convenience in getting goods into and out of the city, the ideal plan would provide for diagonal streets in addition, so that the heart of the city might be reached from all directions. Very few have such a plan. The older cities were frequently laid out irregularly, with crooked streets. Many of these cities have found it necessary to cut new streets at immense cost to facilitate the carrying on of business.

Closely related to the problem of the streets are the highways leading into the country. The use of motor-trucks in supplying the urban needs has made the connecting country roads of increasing importance to the city. Impassable roads or roads that do not connect with traffic

thoroughfares in the city cause waste of time and increased cost of transportation. Cities that have a true sense of their economic welfare promote extensive plans to make the city accessible to all kinds of traffic, whether by highways, interurban lines, railroads, water, or airplane.

### *Housing*

The planning of a city from the economic as well as from the social point of view includes provision for proper housing of all the people who live in the city. When transportation facilities are inadequate people are compelled to crowd into the sections nearest their work. Low wages often compel workers to live under bad conditions near their employment. The congestion of population on Manhattan Island is due largely to these causes. When transportation facilities are good and the rates reasonable workers move out farther and farther from their work, and their children grow up in better surroundings. Business and community enterprise should promote this result. Bad housing means increased sickness, and consequent inefficiency, which, in turn, hurts industry and the community. Many industries have found it to their advantage to build houses for their workmen in favorable surroundings. Cities sometimes engage directly in housing projects. The federal government found it necessary to build houses for the war workers in several industrial centers during the war. Such enterprises pay in economic and social welfare.

### *City and Country*

The city depends upon the country for food-stuffs and raw materials. The country depends upon the city for

manufactured goods, including many of the necessities of life. Generally, however, there is too little understanding of the dependence of each upon the other. The city people do not understand the problems of the country, and the country people do not understand the problems



Connecting country and city

of the city. As a result each suspects the other of unfairness and profiteering.

From an economic point of view there should be the closest relation between the business of the country and the business of the city. Facilities for transportation should be made as efficient as possible, so that the goods of city and country may be interchanged with ease.

Storage facilities should be made available and easily accessible. Moreover, the buying and selling of goods between city and country should be as direct as possible. City markets and coöperative movements have been developed to simplify the exchange of goods between producers and consumers in city and country, but these have only begun to solve the problems of getting goods from producer to consumer. Frequently apples sell for twelve cents a pound at the grocery, or six dollars a bushel, while thousands of bushels are rotting under the trees in the country because the farmers are not offered enough to pay the cost of gathering.

### *The Planned City*

It is apparent that a great deal of the economic problem of distribution of goods is connected with the planning of cities. City planning becomes, therefore, of the greatest concern to all people, whether they live in the city or the country. Cities are the distributing centers, and raw materials must be brought in and manufactured articles shipped out. The population must be fed and housed. The city that is correctly planned provides for these things to the fullest possible extent, and prepares for the future by creating facilities that may be readily enlarged from time to time as needed.

The properly planned city so arranges its industries and its transportation as to prevent congestion at any point. It establishes zones where houses may be built, and also where industries may be constructed. It builds convenient freight and passenger terminals, union stations, warehouses, and transfer facilities. It prevents congestion at certain points by limiting the height of buildings. It

provides parks and play-grounds and proper housing to promote the efficiency of the people. It provides for safety, sanitation, and health measures, including the adequate disposal of waste. These things are done by the city not only because it is the right thing to safeguard health but also because it pays the city, its industries, and its people.

### *Questions and Problems*

1. What were the causes for the beginning and growth of the following cities: New York, Chicago, Cleveland, Youngstown, New Orleans, Flint, Atlanta, St. Louis, Toledo, Rochester, Brockton?
2. What were the causes of growth of your own city and of neighboring cities?
3. Name some cities and towns that have grown as a result of one or more of the causes of city growth set forth in this chapter.
4. Describe the passenger terminal facilities of your city or of the nearest large city.
5. Estimate the losses of time for the passengers coming in or going out from the terminals of your city.
6. What facilities are there in your city for belt railroads, storage, grain-elevators, or wharves? Are these facilities easy of access for the people and the industries?
7. Study the street plan of your city or of a near-by city, and discuss its merits.
8. Study the plan of roads leading into the country, and discuss its merits.
9. What is the condition of the roads and streets that form the links between city and country?
10. Discuss fully the relation between good housing and industrial efficiency.
11. Why should the heights of buildings be limited in cities?
12. Discuss fully the dependence of city and country upon each other.

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## CHAPTER XVIII

### INTERNATIONAL TRADE

#### *Community Survey*

1. What products from your community are shipped in large quantities to foreign countries?
2. Get examples from the local bankers of the payment for goods sent abroad and for goods sent here from other countries.
3. For what products of daily use are we dependent upon other countries?

In previous chapters we have seen how the United States depends upon other countries for goods that we want, and how we send our goods to all parts of the world to supply the wants of consumers. Our merchants and manufacturers have agents in many foreign lands. Foreign merchants and manufacturers likewise have agents in this country. People of all countries exchange products; otherwise people could not supply all of their wants. Goods brought into a country are called imports; goods sent out of a country are called exports.

We get a clearer view of the exchange of products between countries by showing the actual exchange of goods between this country and the other countries of the world.

The total value of our imports and exports for each year from 1910 to 1920 is given in the following table:

VALUE OF IMPORTS AND EXPORTS 1910-1920

|            | <i>Imports</i>        | <i>Exports</i>  |
|------------|-----------------------|-----------------|
| 1910 ..... | \$1,556,947,430 ..... | \$1,710,083,998 |
| 1911 ..... | 1,527,226,105 .....   | 2,013,549,025   |
| 1912 ..... | 1,653,264,934 .....   | 2,170,319,828   |
| 1913 ..... | 1,813,008,234 .....   | 2,428,506,358   |
| 1914 ..... | 1,893,925,657 .....   | 2,320,684,025   |
| 1915 ..... | 1,674,169,740 .....   | 2,716,178,465   |
| 1916 ..... | 2,197,883,510 .....   | 4,272,177,579   |
| 1917 ..... | 2,659,355,185 .....   | 6,227,164,050   |
| 1918 ..... | 2,945,655,403 .....   | 5,838,652,957   |
| 1919 ..... | 3,904,364,932 .....   | 7,749,815,556   |
| 1920 ..... | 5,278,481,490 .....   | 8,080,480,821   |

The following table shows some of the principal items of our imports and exports:

IMPORTS, FISCAL YEAR 1919

|                                                     |                 |
|-----------------------------------------------------|-----------------|
| Crude Materials for Use in Manufacturing.....       | \$1,250,715,064 |
| Food-stuffs in Crude Condition, and Food Animals... | 376,228,130     |
| Food-stuffs Partly or Wholly Manufactured.....      | 456,241,348     |
| Manufactures for Further Use in Manufacturing....   | 605,826,278     |
| Manufactures Ready for Consumption.....             | 393,194,577     |
| Miscellaneous.....                                  | 13,671,185      |

EXPORTS, FISCAL YEAR 1919

|                                                      |                 |
|------------------------------------------------------|-----------------|
| Crude Materials for Use in Manufacturing.....        | \$1,215,960,910 |
| Food-stuffs in Crude Condition, and Food Animals.... | 719,715,994     |
| Food-stuffs Partly or Wholly Manufactured.....       | 1,785,179,560   |
| Manufactures for Further Use in Manufacturing....    | 952,775,871     |
| Manufactures Ready for Consumption.....              | 2,384,801,297   |
| Miscellaneous.....                                   | 15,577,897      |

We have already seen that countries specialize in certain products, just as do our communities and individuals. Some countries produce all or the bulk of certain goods, and other countries rely upon them for these goods. Nearly every country produces some products important to the needs of the people of other countries.

Trade with other countries is accepted as an ordinary fact. All informed people recognize the dependence of

one country upon another for many products to supply the wants of consumers. As civilization increases this dependence increases. The growth of science and invention makes it necessary to seek new sources of products. The invention of the automobile, for example, increased our interest in and dependence upon tropical countries for



American Legation, Portugal, where differences may be ironed out rubber. The growth of the electrical industry required a world search for platinum, and a dependence upon the United States for copper.

### *Protection of Foreign Traders*

One of the first problems in international trade is that of safety for the traders and their business in foreign lands. Every civilized country strives to protect the

rights of foreign traders as long as they obey the laws. Every civilized country expects of every other country that protection will be given to the rights of its citizens. A French enterprise in the United States receives the same protection as an American enterprise, provided it observes the laws of the country.

The problem of protection of persons and property in foreign lands becomes serious in uncivilized countries, or in countries torn by revolutions, where the authorities are not strong enough to assure protection. The problem is also a serious one in countries whose officials are corrupt and unscrupulous and therefore unreliable. As a rule, international trade is on a high level of fair dealing. Each country knows that it must treat others fairly, so that its people will be treated likewise. Self-interest of itself tends to promote international good will.

### *Consuls and Agents*

The trade relations between countries are so intimate that nearly all countries send representatives to other countries to look after the trade interests of their people. Such representatives are called consuls or consular agents. These representatives help to adjust differences arising in matters of trade by their countrymen; keep their government informed of trade relations; and give information that may help to promote trade. They are advisers in controversies and serve as the connecting link to present matters in dispute to the authorities of the countries in which they are serving. On the whole, they are friendly visitors and arbiters to keep things running smoothly by settling trade difficulties before they become acute.

*Ambassadors and Ministers*

These officials represent a country in all its relations to another. Representatives in the more important countries are called ambassadors; in others they are called ministers. They reside in the country to which they are sent, in order to promote good relations. Problems of trade present many questions that cause differences of opinion, and the ambassadors or ministers are called upon to deal directly with the government in their settlement. The ambassadors and ministers are friendly visitors to promote harmony and good feeling and therefore better trade relations between countries through better understanding of each other's aims and purposes.

*Trade Restrictions*

A country may prohibit the exportation or importation of goods, or may levy tariffs on goods imported or exported.<sup>1</sup> The citizens of another country have no right to complain of such prohibition or taxes; these are matters for each country to decide for itself. Two or more countries may agree to grant certain privileges to each other's citizens. Reciprocity is the term applied to such mutual agreements.

Countries may pass laws affecting foreigners doing business within their borders, and there can be no cause for complaint unless there is unfair discrimination; but the citizens of other countries have the right to know the laws and to seek protection under them. All civilized countries support the lawful rights of their people in

<sup>1</sup> The United States Constitution prohibits the levying of a tax or duty on exports from any state.

other countries. Sometimes it is difficult to enforce those rights in countries where disorder reigns.

### *Tariffs*

A tariff is a tax levied upon the privilege of importing or exporting goods. All countries levy a tariff upon goods imported. A few countries also levy a tariff upon goods exported. The United States levies a tariff on imports, but is prohibited by the Constitution from levying a tariff on exports.

When the tariff upon imports is levied at a high rate, with the intention of restricting the importation of goods, it is called a protective tariff, because it is designed to protect home industries from foreign competition. When it is levied at a low rate, with the intention of collecting revenue but not seriously restricting importation, it is called a tariff for revenue only.

Examples will illustrate fully these definitions. If it costs \$100 to manufacture an article in this country, that same article could not be imported successfully from another country unless its cost of manufacture, plus the cost of transportation, were no greater than \$100. If the cost of manufacture in another country were \$75 and the cost of transportation \$10, then it would be profitable to import it. Now, if the tariff on the article were \$25, the total cost to the foreign manufacturer would be \$110, and the article could not be imported successfully in competition with the home manufacturer, whose cost is \$100. Such a tariff would be a protective tariff. On the other hand, a tariff of \$5 would not prevent importation, because it would make the cost only \$90 to the foreign

manufacturer. Such a tariff would be one for revenue only.

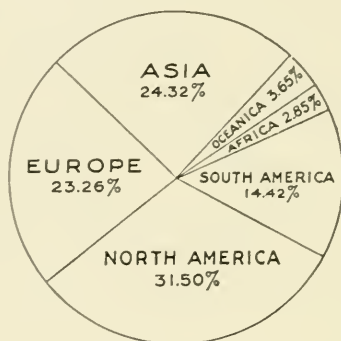
The term free trade is used more commonly to express the opposite of protection; but free trade is in practice generally a tariff for revenue only. The bulk of importations are taxed to some extent under a so-called free-trade policy, although some articles are imported entirely free from any tariff.

We have used both the policy of protection and of free trade in the United States at different times. The issue as to whether the one or the other shall be adopted is always prominent in national elections. Actually we have some articles that are admitted free, some upon which a tariff for revenue is levied, and others that are protected by a high tariff.

The approved idea to-day is to study the costs of production at home and abroad and levy taxes at rates that will be more scientifically planned. The United States Tariff Commission has been created for that purpose. It has been conducting extensive investigations of the cost of manufacture of various products at home and abroad.

The policy of protection or free trade will probably be a political issue for some time. Those who favor protection declare that American labor ought not to compete with the poorly paid labor of other countries, and that American industries ought to be protected against the competition of other countries. They maintain that young industries—the infant industries—should be allowed to get a start before being subject to the competition of older industries.

The opponents of protection argue that it promotes monopoly by cutting off outside competition. Prices are thereby increased. They are willing to protect infant industries while they are starting, but object to their being dependent permanently on protection. They claim that American industry can meet any competition without protection, because of the inventive genius of American workers and efficient management by American employers.



Where we buy our goods

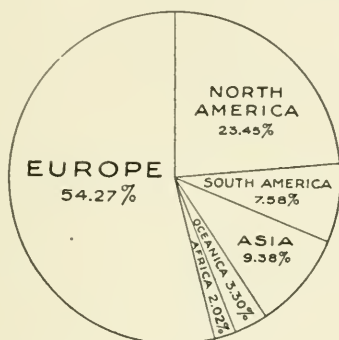
### *Balance of Trade*

The difference between the amount a country imports and the amount it exports is called the balance of trade. If the country imports more than it exports, the balance of trade is said to be unfavorable. If exports exceed imports, it is said to be a favorable balance of trade.

The United States has had a large balance of trade in its favor for a number of years. In 1919 the balance was \$3,978,000,000. The total balance of trade for 1909-1919 exceeds \$16,000,000,000. How is this balance

settled? If it were paid in gold, the whole gold supply would soon be gathered in this country.

To understand this question attention should be directed to the whole range of dealings between different countries. The importing and exporting of goods, which gives rise to the balance of trade, are not the only transactions between countries. Before the war European investors bought large amounts of public and private bonds and securities in this country. Investments were made by them in the



The customers of the U. S. Percentage of our exports sent to each Grand Division in 1920

United States, Canada, South America, Asia, and Africa. Since the war the condition has been reversed, and the people of the United States have been buying back the securities held abroad and have been investing in European bonds and in enterprises of South American and Asiatic countries. Large loans are made by international bankers in America to different countries.

Before the war travelers from America to Europe spent nearly \$200,000,000 every year. Large sums are also

carried back to Europe by emigrants returning from this country.

It is clear from these illustrations that there is great variety and extent in international financial transactions, and that if actual money had to be shipped to handle each transaction, the money of the world would be in transit from country to country most of the time.

The problems of international finance are well illustrated by examples growing out of the war. The Allied countries purchased large amounts of supplies in the United States. The balance of trade grew heavily in favor of this country. France and England secured a large loan in the United States with which to purchase supplies. The money furnished by the loan was not taken out of this country. After the United States entered the war the government lent the Allied countries several billions of dollars. The money from these loans was paid out in this country for goods. At the same time large amounts of American bonds and securities bought by England and France before the war were sold back to investors in this country. Investments by the people of Allied countries in South America were also sold to American interests. These loans to the Allies and sales by them supplied the means to offset the large balance of trade that otherwise would have drained Europe of gold.

In the future, if trade continues so largely in favor of the United States, it must be balanced largely by investments in other countries and loans to governments or individuals by American bankers and investors. The stream of money can not run one way forever. The

United States must put back into the stream nearly as much, in the long run, as it takes out.

### *International Exchange*

The process of foreign exchange may be described by examples. An American exporter sells ten thousand dollars' worth of cotton to a dealer in England. The cotton is insured against loss and is shipped to England. The exporter takes the bill of lading and the insurance papers to an international banker or broker and draws a draft against the dealer in England. The banker or broker sends the draft, the bill of lading, and insurance papers to his correspondent in England for collection.

The English dealer can not secure the bill of lading, and therefore can not secure the goods, without arranging for the payment of the draft. The American banker is protected by the bill of lading, which represents the ownership of the cotton. The American exporter probably received his money at once from his banker or broker, who assumed the responsibility in the transaction. Sometimes the draft is not accompanied by the bill of lading if the banker has entire confidence in his client's financial ability.

### *The Rate of Exchange*

Before the European war London was the acknowledged financial center of the world, and the bulk of foreign exchange was in pounds sterling. The exchange rate of the pound in American dollars was \$4.8665. If pounds sterling sold for more than that when they were in special

demand, they were said to be at a premium. If they sold for less when demand was slack, they were said to be at a discount. The pound sterling was the standard measure in international banking.

Since the war the financial capital of the world has shifted partly to New York, which now disputes with London the financial leadership of the world. The dollar is now more generally used in international exchanges, partly because of the predominance of America in financial matters, and partly because of the greatly depreciated and fluctuating value of the pound, the mark, and the franc.

### *Raw Materials and International Trade*

The source of supply of raw materials is an important and increasing problem of international trade. It is important because no nation supplies all of its own raw materials. It is increasing because of the growth of science and invention and the increased need for special raw products.

International troubles have arisen frequently because of the demand for raw materials. History furnishes many examples. The blockade of the South during the Civil War cut off the supply of cotton from the mills of England. The mills closed, thousands were thrown out of employment, and distress followed. The ill feeling resulting brought us to the verge of war with England.

Another example discloses our absolute reliance upon international trade. A few years ago an insurrection in Mexico shut off for a time the supply of sisal from

Yucatan. Sisal was a necessity in making binder twine. Binder twine was a necessity in harvesting the grain crop. The food supply was menaced by the cutting off of what seemed to be a minor product. In the long run substitutes would have been found for sisal, but for the time being the cutting off of the supply was a serious matter. Examples of this character might be multiplied.

The war and its period of reconstruction have emphasized anew the importance of the supply of raw materials. The strategy of the German armies was based upon the plan of seizing the sources of basic materials such as coal, iron, and oil. Each military drive had an economic goal. The peace conference had no more difficult problem than the distribution of the sources of raw material. The coal and iron deposits of Germany were partly transferred to France. It was plain that all of these resources could not be taken away from Germany without rendering that country helpless, and consequently destroying its power to meet its obligations.

The future international problems are bound to center more and more around the ownership and distribution of raw materials. There is no power to compel a nation to share its store of raw materials with other nations, but there is an international good will, which can not be flouted. Probably the solution of the problem in the future will rest upon the promotion of the feeling of fair play among nations and the enforcement of economic consequences in the form of retaliation upon those countries that attempt to monopolize important world necessities.

*Questions and Problems*

1. What is international trade?
2. What would be some of the results if all our foreign trade were stopped?
3. Why should a nation protect its citizens in foreign countries?
4. How far should that protection extend?
5. Make investigations in other books, and after inquiries discuss fully the merits of protection and free trade.
6. Why should infant industries be encouraged and protected by high tariffs?
7. Should an infant industry engaged in the production of a luxury be protected by high tariffs?
8. Should taxes on exports be levied?
9. How would you send money to London? The Argentine Republic?
10. Make inquiries of bankers and brokers regarding the exact method that would be followed in settling accounts in different countries.
11. What is the value of a favorable balance of trade to a country?
12. What steps are necessary for the people of the United States to maintain a favorable balance of trade?
13. What is the balance of trade of the United States in the current year? How does it correspond with previous years?

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## CHAPTER XIX

### TAXATION

#### *Community Survey*

1. Make a list of all kinds of taxes collected and the amount received from each source in the community for local purposes.
2. What property is not taxed?
3. How is property assessed?
4. How are taxes collected?

The public enterprises that people carry on for their mutual benefit and protection cost large sums of money. The money necessary to pay for these common benefits is raised by taxation.

The people conduct their affairs on a different principle than that on which individuals conduct their affairs. The individual fits his expenditures to his income; the government decides what expenditures are necessary, and then proceeds to collect the necessary income by taxation to meet the expenditure.

Taxation takes several forms—property taxes, income taxes, excise taxes, tariffs, inheritance taxes, licenses, and several minor forms.

The property tax is a direct tax upon property. Property is assessed at its full value or at some fixed part of its value, and upon each dollar of assessed property a certain amount is levied. Property assessed at \$10,000,

subject to a tax of \$2 on the hundred, will pay a tax of \$200. This tax is based upon the amount of property and not upon what the property yields. It is the form of taxation in most common use throughout the country, and was formerly the most important of the taxes levied.



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U. S. Treasury Building, Washington, D. C.

### *Income Taxes*

Income taxes take a percentage of the income from all sources. They are levied upon personal incomes and also upon corporation incomes. The amount of the tax generally increases with the size of the income. Incomes below a certain amount are generally exempt from any

taxation. As the amount of income increases the percentage of the tax increases, until in some instances half or even three fourths of the larger incomes are taken. The income tax is based upon the idea that the income is a better test of the ability to pay a tax than is the amount of property possessed.

Income taxes, both personal and corporate, are levied by the federal government. Only a few of the states levy a personal income tax, but several levy a corporation income tax.

### *Excise Taxes*

Excise taxes are special taxes levied against certain kinds of goods, such as liquor, tobacco, and luxuries. These taxes are levied upon the theory that the producers and consumers of articles of no social value can afford to pay for the privilege. These taxes have been important sources of revenue.

Both the states and the nation derive revenue from this kind of taxes.

### *Tariffs*

The subject of the tariff has been discussed under International Trade. As a system of taxation it consists in levying a percentage of the value of goods imported into the country. If the assessment is according to value it is an *ad valorem* duty. If the assessment is upon a specific object, regardless of value, it is known as a specific duty.

Tariffs are levied only by the federal government. The states are not permitted to levy such taxes.

*Inheritance Taxes*

Inheritance taxes are levied against property transferred by gift or bequest. Such taxes are really levied against the right to receive property by inheritance, rather than against the property itself. Such taxes generally increase as the amount of the inheritance increases. Small inheritances are exempt. As the amount of the inheritance increases the tax increases until in large inheritances sometimes as high as seventy-five per cent is taken by taxation. The tax also increases according to the relationship of the person who inherits or receives property. The rate charged when property goes to a son or daughter is much smaller than when it goes to a distant cousin or to a person not related by blood. When the tax is levied upon inheritances of a direct descendant it is called a direct inheritance tax; when it is levied upon inheritances by others than direct descendants it is called a collateral inheritance tax.

Inheritance taxes are levied by the federal government and by most of the states.

*Licenses*

License taxes are levied for the privilege of doing business in certain lines or for public privileges. The best known of such taxes are the automobile licenses. In some states virtually all occupations and businesses are licensed and pay a tax. The amounts are not generally based upon the amount of business done, but in some cases a classification is made and different rates are charged according to the size of the business. For example, the tax upon ice-cream parlors is often based upon

the number of chairs used to accommodate patrons.

The states and the nation both use this type of taxation.

### *Poll Tax*

In addition to these forms of taxation there is the poll tax, which is a tax of a certain amount upon each male between certain ages.

### *Special Assessments*

The cost of building public improvements that directly benefit the property of individuals is usually covered by assessments made against the property benefited. Sidewalks, pavements, sewers, and drainage works are forms of such improvements paid for by special assessments.

The method of assessment is usually based upon foot frontage in the case of sidewalks and pavements, and upon acreage in the case of drainage.

### *The Basis of Fair Taxation*

Taxes are collected to provide for the common good. It is the duty of each person, therefore, to pay his fair share. Just taxation requires equality. All persons must be treated alike under the same circumstances. We could not permit inequality of taxation to continue without serious harm.

How much should a person pay in taxes? Some have answered this question by saying that each person should pay according to the benefit he receives. Others maintain that the person should be taxed according to his ability to pay. The argument against the benefit theory is that benefits can not be measured. How, for instance, can it be determined how much benefit a man receives from the

use of the highways, the public library, parks, or playgrounds? Those who argue for taxation according to ability to pay maintain that ability to pay is proportional to income. This proposition is denied on the ground that the receiver of a small income can not pay as much in



Line of taxpayers

proportion to income as the receiver of a large income. The most widely accepted idea to-day is the latter theory, namely, that ability to pay is the best basis, and that income is the best measure of such ability; but, further than that, it is accepted that the tax should increase according to the size of the income.

An efficient taxing system must produce revenue. The test of a taxing system is the ease with which money is collected. The failure to collect poll taxes from thousands of men has caused many people to disapprove of that form of taxation. Those who frame taxation laws look carefully to see that the taxes they levy will actually bring money into the treasury.

Taxes must be easily gathered without great expense. A system of taxation that would cost fifty per cent merely to collect would be a bad system. Only fifty per cent of the total tax would go into the treasury, the rest being used for the machinery of collection.

Taxation must be definite. Every person must know exactly what he is expected to pay. This enables taxpayers to plan and provide for the means of paying the tax. The taxpayer must know also the exact time and place of payment, so that he may have the money to pay the tax at the right time and place.

Taxation systems must be arranged also to meet the convenience of taxpayers. A taxing system that required farmers to pay their taxes in April or May would be a bad system. These are the months when the farmer is investing his money in the planting of crops. He could not easily spare it at that time for taxation. Taxing systems provide generally for the payment of taxes in the late fall or early winter, thus enabling farmers to pay their tax from the harvest. By that time the farmer has also paid the business man for advances and credit, and the business man is thereby able to pay his taxes more conveniently.

Taxing systems should also fix the dates of the taxable

year to conform to business practice. Business men usually close their books January 1. The federal income tax laws properly use that date as the date from which taxes are reckoned.

### *Effect of Taxation upon Business*

The power to tax is the power to destroy. If the government levies a tax greater than the income from a business or a piece of property, it gradually takes or confiscates the property itself. If the tax is so high that profits can not be made from a business, the business will not be continued. When taxes are light, business does not feel the effect. When taxes become heavy, the producer and distributor of goods must consider carefully the amount of the tax in the cost of the goods.

The study of taxation is an important duty for the business man and the law-makers. Those who pass the laws fixing the taxes should take into consideration the effect that the taxes will have upon production. If taxes are so high as to discourage production, they do not produce revenue, but they do cause harm. To tax production so heavily as to stop it or seriously lessen it is to kill or cripple "the goose that lays the golden egg." If taxes on investments are so high as to discourage savings, it has a serious social effect.

### *Public Debts*

Governments go into debt the same as do individuals. Whenever there is a piece of work to be done requiring large expenditures beyond the ability of the present taxing system reasonably to provide, bonds are issued and sold to meet the cost. Bonds are nothing more than the

people's notes. They are the promises of the people, acting through their government, to pay the amount of the bonds at a certain time in the future, with interest payable at intervals.

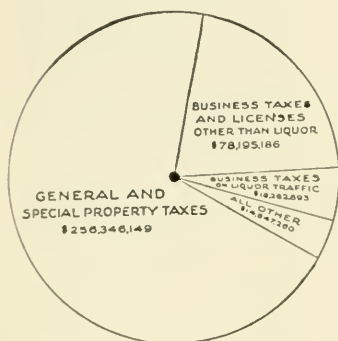
Bonds are sometimes issued unwisely to meet expenditures that should be borne out of present taxes. The issue of bonds to pay the salaries of public employees would be bad policy. Bonds should be issued only for permanent improvements, the benefits of which are shared by future generations. Bonds should not be issued for any temporary work or work that does not outlive the date of payment. Many states have issued bonds for highway construction, running for periods as high as fifty years. Highways constructed by such bond issues have frequently been worn out within ten years. The future generation must not only build the road anew, but in forty years must pay for the worn-out road. Such a plan is bad business finance, and therefore is bad public finance. Emergencies may arise when bonds may be needed for temporary purposes, but such bonds should be payable at the earliest possible moment.

Bonds have generally been issued to fall due at a certain date in the future. When such is the case provision must be made to have the money at hand to pay the bonds when due. The money needed to pay can not readily be collected in taxes all at once. The sinking fund has been used for the purpose of providing a fund to pay debts when due. Additions are made regularly to the sinking fund, which, together with the interest, equals the amount of the bonds at maturity. A newer plan is to issue serial bonds. Under this plan an issue of bonds

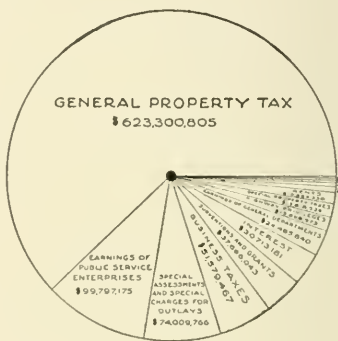
is made to fall due at different times, some falling due each year for a period of years, thus equalizing the burden of payment. This is the method which all business concerns have found to be the most suitable.

### *Proposed Changes in Taxation*

Some proposals are made for radical changes in the system of taxation. Among the most important are the



Where the income of the states comes from. The combined revenues of all of the states in 1916



Where the income of the cities comes from. The combined revenues of cities over 30,000 in 1916

proposals for the classified property tax and the single tax. The classified property tax is merely an attempt to tax property more nearly according to the principle of ability to pay. Property is classified roughly on that basis, and different rates are applied to different classes. This is merely a modified form of the general property tax. The single tax is a tax on land values only. Lands are taxed, while improvements are not. The single tax is based upon the proposition that the rent from land depends upon

site value, or the value of the location, and that site value depends upon the community rather than upon the individual who owns the land.

It is argued that when a piece of property is made valuable by the growth of a city, the owner is not entitled to the increase. The single tax is not in full force in any part of the country, but the idea of taxing the increase of land values has been used in a number of cities in the United States and Canada.

### *Taxation as Social Control*

Since taxation may be made high enough to prevent the production of certain goods, it has been used to suppress some forms of production and service. The tax on opium imported into the country has been placed so high as to prohibit its importation. Federal taxes on products of child labor make it unprofitable for employers to use child labor. Taxation by the federal government of ten per cent on bank notes issued by state banks prohibits their use.

Income and inheritance taxes have been frankly advocated by such statesmen as Theodore Roosevelt, in order to prevent the growth of large fortunes, as well as to produce revenue. Many such illustrations could be given where the power of taxation is used as a means of regulation or prohibition.

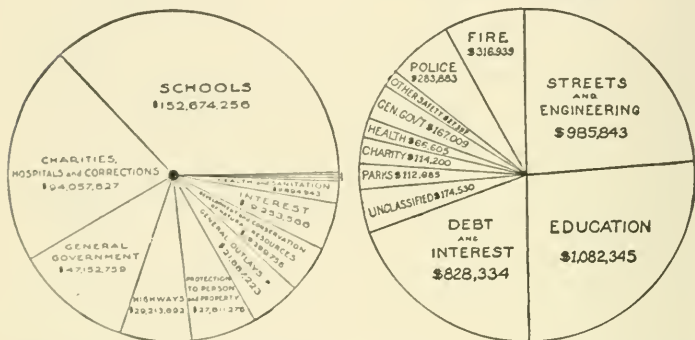
Tax exemptions are also employed to promote desirable forms of production. Some states allow exemption for a number of years to desirable infant industries. Forest lands are sometimes exempted to encourage reforestation. Homes are sometimes exempted to promote building and

home-owning. Bonuses are also paid for the purposes of promoting desirable enterprises.

### *Shifting and Incidence*

It is a matter of common knowledge that in many forms of taxation the tax levied is not borne by the ones upon whom it is levied. The tax is shifted to someone else.

#### SPRINGFIELD, MASS. 1916 BUDGET



How the cities spend their revenues. Combined expenditures of all cities over 30,000 in 1916

How one city's money is spent

The place where it really falls is called the incidence of taxation.

The tax upon producers of an article is in the long run added to the cost of the article and is paid by the consumer. The tariff charged upon imported goods is passed on to the consumer. The taxes on land and buildings is transferred to tenants in the form of rents, and the rents in turn are added to the cost of goods to the consumer. License taxes are merely added to the consumer's bill.

Income taxes are, to some degree, passed on to consumers through increased rentals or increased costs. Inheritance taxes may not be passed on to someone else.

Taxes should be considered with a full understanding of their shifting and incidence. It is not so important to consider the person who pays the tax money to the government as it is to consider the effect upon those who actually bear the burden.

### *Questions and Problems*

1. Why should each person pay taxes?
2. What are the benefits that people receive from governmental enterprises?
3. What should be the basis in determining what each person should pay in taxes?
4. Work out the property assessments of owners of property from whom you can get the data regarding assessments.
5. What is the rate of the general property tax in your community? How much of this goes to the state? How much to the city? How much to the county and township?
6. Work out actual cases of personal income taxes under the federal law and state laws.
7. Work out actual cases of inheritance tax laws under the federal law, and also under state laws.
8. Get information concerning rates of taxation under license and excise taxes in force in your community. Work out actual examples of such taxes.
9. Work out examples close at hand of special assessments levied for sidewalks or street improvements.
10. What are the relative merits of the benefit theory and ability-to-pay theory in taxation?
11. Why should the small incomes be exempt?
12. What should be the limit of such exemptions?
13. What is the value of certainty in taxation?
14. What is the effect upon business if taxes fluctuate widely from year to year?

15. Should governments go into debt?
16. What should be the limit, if any, of such indebtedness?
17. What provision should be made to pay bonds when due?
18. Discuss taxation as a means of regulation or prohibition.
19. What is meant by "shifting and incidence of taxation"?

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## CHAPTER XX

### CONSERVATION

#### *Community Survey*

Give examples of waste of resources in the community, and describe the measures taken to conserve and protect human beings, forests, soils, minerals, fish and game.

Some goods that are consumed are not replaceable; they are wholly destroyed in consumption and no further production is possible from them. Coal and oil taken from the earth and used are forever destroyed, and when the supply that was stored in the earth is gone there can be no further supply provided.

Other productions may be replaced in the course of time. Trees reproduce themselves, and forests, when cared for, will keep up a permanent supply of wood products. Soils may be depleted considerably, and then restored in time by the application of proper fertilizers. Metals, when used in manufactures, are not destroyed, but may generally be used over again.

Conservation is the term applied to the wise use of unreplaceable products and to the wise provision for the reproduction of replaceable products. It is the policy of foresight that keeps the welfare of the future in view. It would be unfair to deprive future generations of necessities by our present wastefulness of products that can not

be restored, or by impairing the production of replaceable products.

In conservation we are concerned with the wise use of goods, not with the hoarding of goods. We are concerned with those goods that are limited in supply, and not with those that are limitless. Coal is limited in supply. Building-sand and brick-clay are not limited. We are concerned with the saving of coal, while disregarding building-sand and brick-clay. The term conservation is also applied to the saving for public use of certain resources such as public lands, water-sheds, and water-power.

### *Mineral Conservation*

The wise use of minerals that are limited in supply makes an immediate appeal to all men. Most of the useful minerals are limited in supply. Great hardships might be caused by their exhaustion. When a useful mineral is finally exhausted substitutes will probably have been found in most cases. Steam-power may be replaced by water-power when coal is exhausted. Aluminum may be more widely used when the limited supply of iron and steel is used up. The object of conservation should be to save exhaustible minerals until satisfactory substitutes are available.

### *Coal*

The coal resources of the United States are divided into three classes: anthracite, bituminous, and lignite. Anthracite coal is relatively scarce. The chief deposits are confined to about four hundred and eighty square

miles in the state of Pennsylvania, containing originally nineteen and one half billion tons of coal. Bituminous and lignite coals are found over wide areas, covering nearly five hundred thousand square miles in different parts of the country.

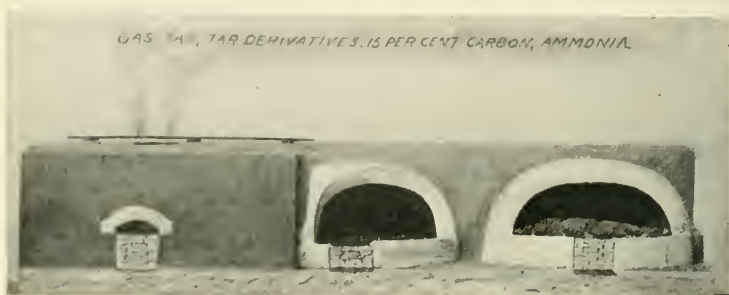
It was estimated in 1916, for the United States Geological Survey, that the total amount of coal already mined or wasted in the United States equaled a total of 15,083,000,000 tons, and that there were left in the ground, to the depth of three thousand feet, workable veins containing 3,538,000,000,000 tons. It would appear from these figures that less than one-half of one per cent of the original coal in the ground has been mined or wasted in mining. These facts would indicate that the coal resources of the country will last for several hundred years.

When we look at the increase of production, however, and estimate the future needs upon the present rate of increase, we find that the coal-fields of the country will be virtually exhausted in about one hundred years. Other estimates place the probable life of coal-mines at two hundred years. It is certain, however, that within fifty years the best and most accessible veins will have been mined. Within that length of time virtually all of the hard coal will have been used up.

The conservation of coal consists primarily in the prevention of waste in mining and in more efficient use. Fully fifty per cent of the coal has been wasted in the process of mining. Only the best veins were mined, while other veins were allowed to cave in. Inefficient

methods of mining caused large losses. It is estimated that the waste in mining could be reduced as low as ten per cent.

The second waste of coal is found in the method of its use. Vast quantities have been wasted in the manufacture of coke in beehive ovens. The introduction of the "retort" has largely stopped this waste. The heat energy of coal transformed into steam produces only about 8 per



Open hearth coke ovens

cent of the heat efficiency of the coal. Great quantities of heat are thus wasted in the manufacture of power, light, and heat, and in poor combustion, which results in the smoke nuisance.

The progress of science and invention is showing new ways of preventing waste of coal in mining and waste of heat energy in using coal.

### *Petroleum and Natural Gas*

The supply of petroleum and natural gas in the ground is narrowly limited. Both of these substances have been

shamefully wasted. Natural gas has been allowed to escape into the air, and in many producing fields gas has been allowed to burn until the supply was exhausted. Only a few years will pass before natural gas as a fuel will be gone. It has already been exhausted in the great fields near industrial centers, where it could be most readily used in productive industries.

Petroleum is likewise being rapidly exhausted. Van Hise estimated in 1910 that about one tenth of our available supply of petroleum had already been taken from the ground. The rapid increase in production would indicate the probable exhaustion of the known fields by



The waste of petroleum

1940 or 1950. The conservation of petroleum should be directed to the finding of substitutes as fuel. Many such substitutes are available and the rapid increase in the price of petroleum may hasten the perfecting and use of these substitutes.

*Metallic Resources*

The problem of conservation of the metallic resources differs from the conservation of fuel resources in that they may be used indefinitely. The important metals are iron, copper, lead, zinc, gold, and silver. Those of lesser importance at present are aluminum, manganese, chromium, nickel, tin, cobalt, platinum, vanadium, and tungsten.

Iron is by far the most important metal for industrial use. It is also limited in supply. The best estimates indicate a reserve of iron ore ranging from four and one-half to seven and one-half billion tons. Other possible resources may increase the supply somewhat, but the great increase in the use of iron points to the probable exhaustion of the supply within one or two hundred years. Substitutes for iron, such as stone and cement, will probably prolong the life of this metal. Iron may be used over and over, and the supply decreases only gradually by rust and wear. The resources of the other important metals have not been estimated, and the probable length of life of the supply is unknown.

At the present time we are producing more than seventy per cent of the world's copper, which is an essential product in electrical and chemical industries. The value of the product makes the conservation of old copper profitable, and very little of the metal is lost.

Lead is another metal of considerable importance, being used principally in paint-making. When thus used it is destroyed for further use. There is considerable waste in the mining of lead and in the smelting process, and it is hoped that these wastes will eventually be eliminated.

Substitutes are also likely to be found. Zinc is a metal that is badly wasted in mining and smelting; it is also used in paint-making.

Gold and silver are carefully conserved both in production and in use. The world's stock of gold and silver is reduced only to a slight extent by wear and tear and by industrial processes. The supply has probably reached its maximum, unless some new mines are unexpectedly discovered. The importance of gold as the standard of value in virtually all countries renders it important that there should be no wide fluctuation in supply.

### *Soil Resources*

There is a clear recognition in the United States to-day that national welfare depends upon making soils more productive. Unless we can increase agricultural production there will come a time when there will be insufficient production of food-stuffs to feed the increased population. So important is this subject that national and state agencies are working to promote conservation of soil and to increase production. The United States Department of Agriculture, the state departments of agriculture, experiment stations, agricultural colleges, and vocational schools are all studying the problem and training farmers to apply scientific methods to the cultivation of the soil.

There are two chief ways in which the productive power of the soil is decreased: first, by erosion, whereby soils are washed away; and, second, by exhaustion, or the using up of the fertile elements of the soil by wrong methods of cultivation. Erosion can be controlled by

proper methods of plowing and terracing, by conservation of forests, and by the prevention of floods. It has been estimated that more than four million acres of land have already been destroyed by erosion. This would indicate the economic importance of public and individual action for the prevention of such waste.

The exhaustion of soil by cultivation is due principally to bad methods of farming, and particularly to the desire to obtain the largest immediate crop, without regard to future crops. Single crops, when produced year after year from the same soil, finally use up the available elements of the soil. Crop rotation is the remedy for this condition. Some crops put into the soil certain elements that other crops take out.

Another method of preventing soil exhaustion is the use of fertilizers. The wise use of fertilizers that supply the exhausted materials of the soil will keep the soils permanently in productive condition. There is no more important matter confronting the individual farmer, and the country as a whole, than the maintenance of the soil and its improvement.

### *Forests*

The forest products form a large part of the goods that we consume, and we shall have to rely upon them for increased production in the future. We have wasted our forests in the past, cutting them down to make room for farms, or allowing them to be destroyed by fire or by plant diseases, until we now have only a small part of the original forests of the country. We have reached a time, however, when we realize their value not only as the source of supply of goods that we need but also as a

means of preventing floods and promoting the steady flow of streams for power purposes.

The amount of forest products that we use is enormous. While some substitutes have been found, such as cement, we are still largely dependent upon wood for building materials. More than twenty-three billion cubic feet of



Waste from forest fires

timber is taken every year from the forests. The larger part of this goes into fire-wood, timber, shingles, poles, posts, rails, cross-ties, and paper pulp.

The conservation of the forests consists in the prevention of waste in cutting and manufacture, in the prevention of loss from fires, and the reforestation of lands suitable for forest purposes. It is estimated that only three eighths of the original wood product goes into

the manufactured articles, the other five eighths being wasted in manufacture.

The cutting of young trees and the destruction of young growth cause some of the most serious losses at present. The loss from forest fires is enormous. More than fifty million dollars is lost every year, and many thousands of acres are burned over. Anyone who has seen the burned-over areas in the Adirondacks, the Maine woods, or the woods of northern Wisconsin, knows what the loss from forest fires means. This loss is not only in the destruction of timber, but also, in many cases, in the destruction of the soil itself, the humus of the soil being burned out.

The prevention of forest fires is a matter of individual care, and also of public action. The national government and the states have already passed laws to prevent forest fires, and to patrol the forest reserves to prevent the spread of fires.

### *Water Resources*

Water is one of our basic resources. Without it life is impossible. The problem of water conservation is one of supply and utilization. Water should be conserved to equalize the flow of streams, to furnish a steady flow of water for canals, irrigation, and water-power, and to provide the centers of population with a supply of water for domestic and industrial use.

The economic value of a pure water supply for individual use and a steady water supply for industrial purposes can not be overestimated. The control of a resource so vital to all interests should plainly rest with the people.

To a large degree the conservation of water must be carried out by public agencies.

### *Fish and Game Resources*

Closely related to the forest and water resources are the resources in fish and game. Originally in most forests there was an abundance of game, and in the streams an abundance of fish. People supplied from these resources a considerable part of their needs for food. The problem of to-day is to restore, so far as possible, these resources and keep them constant. Almost every state in the Union is taking steps to preserve fish and game. This is done by laws to prevent the taking of fish and game in certain seasons, and providing for the hatching of fish and the breeding of game to restock streams and forests. New York state alone has been spending more than seventy-five thousand dollars each year in the work of fish-hatching and distribution.

The federal government has taken action to preserve bird life through the passage of the Migratory Bird Act, which protects birds during their migration from one part of the country to another.

### *Human Resources*

The most valuable resource of any country is its human energy, or the working power of its people. This resource determines the production of a country. Human energy that is not used to produce is wasted. To the extent to which this energy is allowed to go to waste, the community suffers.

There are several forms of waste of human energy.

Professor Thomas Nixon Carver has given the principal causes as ignorance, idleness, illness, vice, and the production of goods having no social value. Ignorance is a form of wasted energy, and is found among those who are ineffectually employed. The misfits waste their energy



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Teaching safety first

because they are not doing work that they are capable of doing well. Vocational education and guidance enter here, and are of economic importance in fitting men to do their work better.

Idleness as a source of waste may be voluntary or involuntary. The involuntarily idle are those who are

unemployed because of illness, lack of training, or industrial conditions beyond the individual's control. The voluntarily idle are those who, of their own free will, cease to produce while they are physically able to do so.

Illness and accident, as a source of waste, are shown in the inability of the disabled to produce and in the cost of the care that must be given them.

Sickness and death can, in a considerable measure, be prevented by intelligence and by public action. It is estimated that proper health measures would increase the average life of each person by ten to fifteen years. At the present time over seven working days a year are lost by each worker on account of sickness. Thousands of workers are disabled partially or totally every year on account of accidents. Sickness and accidents represent a serious economic waste in production, and thereby cause loss to the individual and to society.

The other causes of wasted energy, namely, vice and the production of goods that are not useful, are important sources of waste. The user of drugs or of intoxicating liquors decreases and destroys his physical energy. The producers of liquor, tobacco, chewing gum, and many other products waste energy by producing things that have no social value. The producers of many luxuries waste energy that would be better directed in the production of necessities.

So important has the conservation of working power become that important steps have been taken to prevent accidents and disease and to promote efficiency in employment. Laws have been enacted and employers and employees have engaged in efforts to prevent disabilities from accidents and disease, and thereby to promote the con-

servation of human resources as well as to increase production.

### *Questions and Problems*

1. What is the significance of the conservation of un-replaceable goods? Of replaceable goods?
2. Bring together all of the information available about the destruction of soils in your community by erosion or poor cultivation.
3. What are the principal wastes of coal, natural gas, petroleum, etc.?
4. What are possible substitutes for coal, natural gas, and petroleum?
5. What are the uses of each of the metals mentioned in this chapter?
6. Which metals are most essential in modern industry?
7. What are some of the possibilities of these metals for the future?
8. What are the principal forms of waste of forest products?
9. What are the laws of your state for the protection of fish and game? Does your state have fish-hatcheries?
10. What are human resources?
11. Find out the extent to which the safety first movement is being carried out in your city.
12. What is the relationship between human welfare and industrial efficiency?
13. What are the forms of wasted human energy?
14. What is your community doing to promote health, prevent accidents, give vocational education, and help the disabled?
15. Why should we take interest in conservation of natural resources?

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## CHAPTER XXI

### STATISTICS

#### *Community Survey*

Secure examples of as many kinds of blanks as possible used by public officers in collecting information about births, deaths, marriages, contagious diseases, etc.

One can not study economics very long without noting the importance of statistics. Some people consider statistics theoretical, and yet business undertakings are based more or less upon the conclusions of statistics. All business men use statistical data in some form in conducting their business.

Statistics are facts expressed in figures. Single facts need no interpretation, but when a number of facts are used, they need to be classified so that conclusions may be drawn from them. Facts are expressed in statistics by tables, charts, or graphs, so that they may be easily understood. The head of a small business may keep all of the facts of his business in his head, or at least he may not need to tabulate or chart them. He may know the wages of each employee, the price of each of the products he uses and of the products he sells. The head of a large concern must have these facts classified, tabulated, or charted, in order to be able to use them intelligently.

*Importance of Statistics*

The value of statistics is well expressed by Professor George C. Whipple in his book on "Vital Statistics," in which he says:

It is of the greatest importance to a nation that accurate records be kept of its vital capital, of its gains by birth and immigration, and of its losses by death and emigration; for a nation's true wealth lies not in its lands and waters, not in its forests and mines, not in its flocks and herds, not in its dollars, but in its healthy and happy men, women and children.

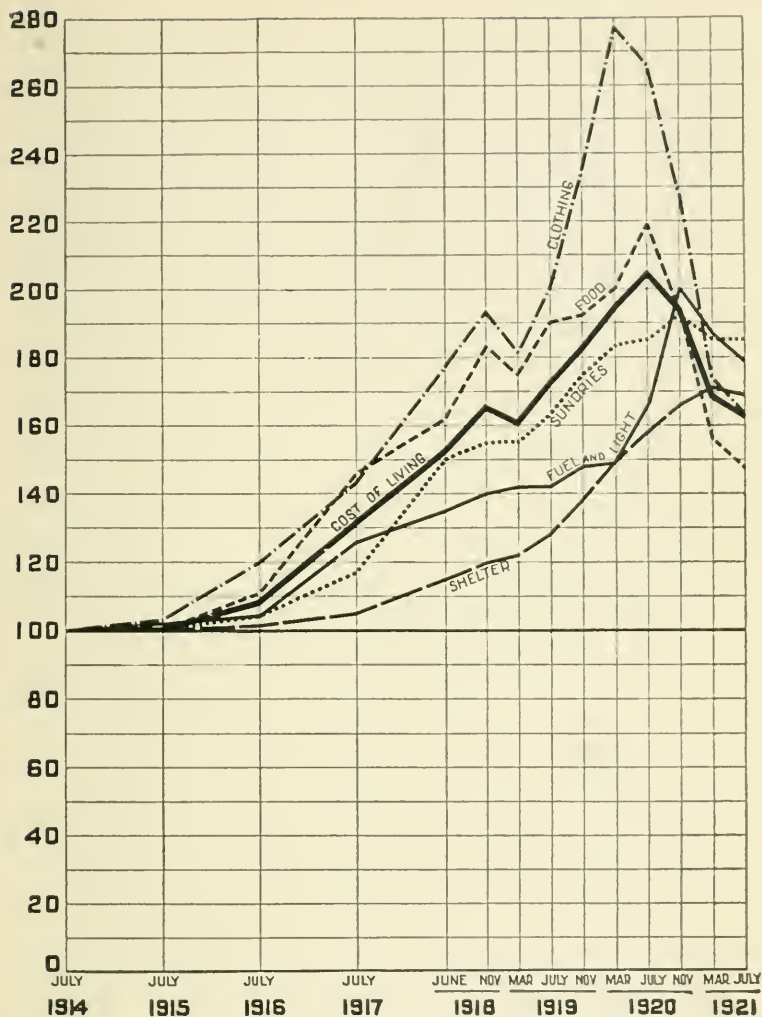
A well man is worth more to a nation than a sick man; a man in the prime of life is of more immediate worth than an old man or a child; a married man is potentially a greater asset than a single man. Hence, in a nation's vital book-keeping, the number of people, their age and sex and conjugal condition, their parentage, their health, the rate of births and deaths, are matters of great moment.

Their environment is also important: their concentration in cities and villages and congested areas, their mode of housing, their occupation, their state of intelligence, their economic condition, their knowledge of sanitation, all contribute to the sum total of their usefulness to themselves and to society.

Equally important are the figures of business activities that show the number and distribution of the producers and consumers, the amount of production and consumption, the wages and cost of living, the figures of domestic and foreign trade, banking, and insurance.

*Statistics of Consumption, Production,  
and Distribution*

It is important to know how much of each kind of goods is consumed every year. We can not measure



A GRAPHIC PRESENTATION  
Trend of the cost of living 1914-1921 by principal items

the satisfaction that comes with the use and consumption of goods, but the measure of satisfaction may be estimated by the amount of use. From a business standpoint it is necessary to know how much is being consumed in order to know how much to produce. From a social point of view it is desirable to know the kinds and amounts of goods that people use. Statistics fill an important place in showing the amount of goods consumed. The business of production and distribution waits upon the estimate of future needs, determined by statistical data.

Statistics point out also the extent of undesirable consumption. The wastefulness of consuming liquor, as shown by statistics, was probably the most forceful factor that brought prohibition. Statistics are a guide for wise consumption, as well as a warning against undesirable consumption.

The producer needs the statistics of consumption to measure what people want and the amount that they want. He needs also the statistics of production to see how those needs are met. He must estimate what he can expect to sell next year on the basis of consumption and production this year. He can measure needs more accurately still if he has the statistics of consumption and production for a number of years. By such means he can see the trend of supply and demand for his goods, without which production becomes guess-work and prices a gamble.

Statistics of consumption, production, and distribution of goods are of such importance to business that the federal government compiles detailed figures of farm production, manufactures, foreign trade, banking, trans-

portation, wages, and cost of living. It is known annually how much of each of the farm crops is produced, how much is exported, how much consumed, and how much is held on the farm or in storage. A census of manufactures of all kinds is taken regularly, which shows the kinds of manufactures, the number of employees in each, the amount of their product, the amount of raw material used, the amount added by production, and similar data. Many private business concerns maintain statistical bureaus of their own for the purpose of getting advance information on production.

The distribution of goods requires even more accurate statistics, because to a large degree, as we have seen, the distributors take the risk of measuring the probable market for goods. They need to know accurately the statistics of consumption and production, as well as of trade, to guide their buying and selling operations.

Statistics make the chart to guide the business of the distributor as well as of the original producer. Wholesale and retail prices for periods of years are important guides for the distributor. He must take such statistics into account, or he is to a great degree merely taking a gambling chance. The federal government collects and publishes regularly the statistics of wholesale and retail prices and of imports and exports. Private agencies also gather for their own use statistics of retail and wholesale trade and prices.

### *Insurance Statistics*

No business is so fully dependent upon statistics as insurance. The whole insurance business rests upon probabilities determined by experience. Statistics of

deaths measure the probabilities of life. From such statistics tables are constructed that show the expectancy of life for each age group. These tables tell how long people at certain ages may expect to live. They show accurately how many men at fifty will live to be sixty, seventy, or eighty years of age. With these statistics the insurance companies can determine how much to charge as a premium, in order to pay certain sums at death. The statistics of fire loss show the rates necessary to pay losses from fires. The statistics of accident and sickness show the amounts that must be charged in premiums to pay the losses from accident and sickness. Fidelity insurance is based upon statistics of loss from unfaithful employees. Automobile insurance is based upon the statistics of automobile losses and of damages caused by automobiles. By knowing the statistics of past experience, and allowing for special reserves to meet calamities, the insurance managers can fix the rates necessary to pay the losses.

### *Vital Statistics*

Vital statistics are sometimes called vital bookkeeping, since they measure for a country the gains and losses in population. Births and deaths are reported to the authorities, and the figures are compiled by the state departments of health or of vital statistics to show the average rates of births and deaths. All of these figures are combined by the United States Census Bureau, which compiles annually volumes of statistics of births and deaths. Not all of the states provide for registration of births and deaths, and so the figures given by the Census

Bureau relate only to a part of the country called the registration area. Estimates may be made from these figures for the rest of the country. The Census Bureau compiles these figures to show the deaths in each state and city by age, sex, color, causes of death, and the month in which deaths occur.

Sickness statistics have not been gathered by public officials. We have, however, a great deal of statistical data to show the average amount of sickness and the average length of each sickness. Some mutual benefit societies which pay sickness benefits keep complete data of the sickness rate. Statistics of sickness are sometimes kept by age, sex, color, and occupation.

Accident statistics are gathered in the same way by insurance companies and benefit societies. Since the passage of workmen's compensation acts complete data have been kept by some of the state commissions to show the extent of accidents by age and occupation, the length of disability, and other similar facts.

### *Agricultural Statistics*

Carefully prepared statistics of agricultural production are compiled by the government. These statistics show the acreage of each crop, the total production, and the average production per acre. Detailed figures are compiled month by month. The total acreage sowed or planted is compiled as soon as possible, and the condition of each crop is reported monthly by percentages, thus :

CONDITION OF THE CORN CROP IN THE UNITED STATES ON THE  
FIRST OF THE MONTHS NAMED, 1905-1918.<sup>1</sup>

| <i>Year</i> | <i>July<br/>Per Cent.</i> | <i>August<br/>Per Cent.</i> | <i>September<br/>Per Cent.</i> | <i>October<br/>Per Cent.</i> |
|-------------|---------------------------|-----------------------------|--------------------------------|------------------------------|
| 1905        | 87.3                      | 89.0                        | 89.5                           | 89.2                         |
| 1906        | 87.5                      | 88.0                        | 90.2                           | 90.1                         |
| 1907        | 80.2                      | 82.8                        | 80.2                           | 78.0                         |
| 1908        | 82.8                      | 82.5                        | 79.4                           | 77.8                         |
| 1909        | 89.3                      | 84.4                        | 74.6                           | 73.8                         |
| 1910        | 85.4                      | 79.3                        | 78.2                           | 80.3                         |
| 1911        | 80.1                      | 69.6                        | 70.3                           | 70.4                         |
| 1912        | 81.5                      | 80.0                        | 82.1                           | 82.2                         |
| 1913        | 86.9                      | 75.8                        | 65.1                           | 65.3                         |
| 1914        | 85.8                      | 74.8                        | 71.7                           | 72.9                         |
| 1915        | 81.2                      | 79.5                        | 78.8                           | 79.7                         |
| 1916        | 82.0                      | 75.3                        | 71.3                           | 71.5                         |
| 1917        | 81.1                      | 78.8                        | 76.7                           | 75.9                         |
| 1918        | 87.1                      | 78.5                        | 67.4                           | 68.6                         |

<sup>1</sup> Year book of the Department of Agriculture, 1918, page 457.

The reports of the Agricultural Department are watched with keen interest by business men. Upon the percentages each month an estimate of probable production is made. This estimate is revised each month until the harvest. Final statistics are compiled after the harvest is completed. Statistics of weather conditions are also kept, to show the effects upon total production of various weather conditions.

Why this detailed gathering of statistics of crops? Such labor is not undergone merely because the facts are interesting. These facts are gathered because of their value in preventing speculation in farm products. Farm products are principally sold on the exchanges, and prices are fixed for delivery months in advance. If full information were not available the market would be subject to wild rumors of crop shortage or abundance.

Even with the statistics of crops painstakingly gathered rumors of drought or of crop failures disturb the market from time to time. So important a part does the collection of such statistics play that the results are guarded with extreme care until completed and ready for delivery. A serious scandal arose a few years ago when, through the connivance of employees, information of the cotton crop leaked out to speculators in advance.

### *Presentation of Statistics*

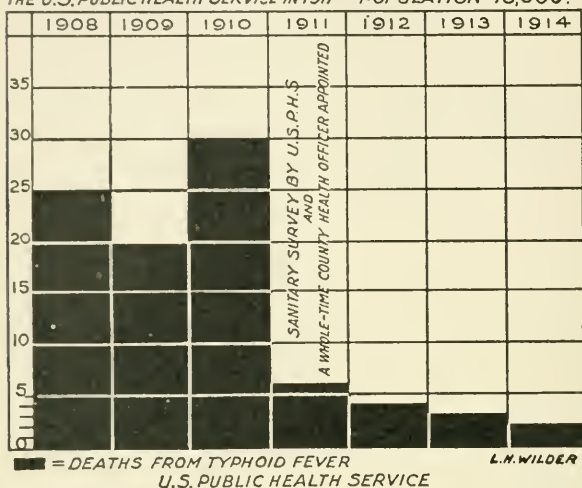
Statistics may be presented in the form of tables or graphs. The former is used as the simplest method for ordinary statistics, but graphs present the matter more clearly to the eye and are sometimes more easily understood. Presented in graphic fashion a story is more readily told than when merely expressed in tables of figures. The example following shows the same facts presented in a table and translated into a graph:

DEATHS FROM TYPHOID FEVER IN NORTH YAKIMA, WASHINGTON,  
BEFORE AND AFTER A SURVEY OF LOCAL SANITARY CONDITIONS  
BY THE UNITED STATES PUBLIC HEALTH SERVICE IN  
1911. POPULATION 15,000.<sup>1</sup>

| <i>Year</i> | <i>Number of Deaths</i> |
|-------------|-------------------------|
| 1908        | 25                      |
| 1909        | 20                      |
| 1910        | 30                      |
| 1911        | 6                       |
| 1912        | 4                       |
| 1913        | 3                       |
| 1914        | 2                       |

<sup>1</sup> Public Health Bulletin No. 94, page 19.

DEATHS FROM TYPHOID FEVER IN NORTH YAKIMA, WASHINGTON,  
BEFORE AND AFTER A SURVEY OF LOCAL SANITARY CONDITIONS BY  
THE U.S. PUBLIC HEALTH SERVICE IN 1911 POPULATION 15,000.



### *Interpretation of Statistics*

Since statistics are facts expressed in figures they should be interpreted as other facts. Assuming that the facts that go to make up the statistics have been correctly gathered and stated, then the conclusions drawn are similar to the conclusions from any other set of facts.

It is often said that one can prove anything by statistics. This would be equivalent to saying that one could prove anything by facts. Obviously, facts will not prove two opposite conclusions. The popular fallacy that anything can be proved by statistics arises from the false use of figures by ignorant or dishonest men to prove their own point.

The use of figures to prove different things is no proof that statistics can be used to prove anything. Clear thinking is necessary to determine whether figures are really statistics. Logical reasoning is necessary to determine the truth or falsity of tables of figures which sometimes pass for statistics, just the same as logical thinking is necessary to determine the truth or falsity of any statement.

### *Index Numbers*

Statistics are used to measure economic and social conditions. The question arises as to the correctness of any one set of figures in such measurements. A man might buy a suit of clothes, and find that suits had advanced five dollars in price. He might conclude from that that the cost of living had gone up, when, perhaps, if he had bought shoes, he would have found that the price of shoes had gone down. The producer might find that a particular brand of candy had gone up in price. His conclusion that the cost of living had risen would not be valid if it were found at the same time that the price of flour had gone down. Prices of goods fluctuate—some going up, some remaining constant, and some declining in price.

To get a fair idea of the increase or decrease of the cost of living it is necessary to bring together the prices of a number of articles to see what is the whole tendency. It is necessary in the group of articles we have selected to give proper weight to the most important articles. Food is more important than furs; therefore it should have a more important place in the group.

In using index numbers several commodities are grouped, giving due weight to each, and thereby the

changes that take place in price are shown. Index numbers are like the weights of subjects in a civil service examination, where subjects are given weights according to their importance in the particular position for which examinations are held.

### *Averages*

Statistics are generally expressed in averages. The average of the numbers 15, 17, and 28 is merely the sum of those numbers divided by 3. The average of 10, 12, 5, 9, and 14 equals the sum divided by 5. If a thousand men receive an aggregate of \$200,000, the average wage is \$2,000 per man. The average is found by dividing the sum of the items by the number of items.

Some confusion is observed when the attempt is made to average two or more groups. For instance, what is the average of the two groups of figures above? One might say that it would be 20 plus 10 divided by 2 or 15. Closer observation, however, shows that there are five items in the one group and only three in the other. The second group, being larger, should be given a greater weight. We give greater weight to each item, thus:

$$\begin{array}{rcl}
 20 \text{ (the average of the first group)} & \times 3 = & 60 \\
 10 \text{ (the average of the second group)} & \times 5 = & 50 \\
 \hline
 & & 110 \\
 50 + 60 \text{ is } 110; \text{ divide by the number of items, } 8, & & \\
 \text{and we have the correct average: } 13\frac{3}{4}. & & 
 \end{array}$$

Which is the same result we would have secured if we had added the eight items together and divided by eight. This is known as the weighted average.

The average should be used carefully, otherwise it may

be misleading. If one man receives \$100,000 income, and ten men receive \$2,000, and fifty men receive \$800, the average income would be \$2,623. This would be misleading, because the greater number of men received only \$800. One might conclude that the workers were very prosperous, when as a matter of fact the average wage for most of the workers would be extremely low. To give a more exact statement, items are grouped and the average is found for each group.

### *Questions and Problems*

1. Describe the importance of statistics to the manufacturer, the importer, the statesman.
2. How do agricultural statistics help to prevent speculation?
3. Of what value is it to know how much raw material and how much labor go into manufactured products?
4. Work out some original examples of averages, such as the average production of crops, the average wages, or average school attendance, for all or part of your community.
5. Examine the newspapers and the farm papers for estimates of production of crops or other goods, and compare from time to time.
6. What is the value of index numbers in figuring the cost of living?
7. Prepare a table of prices of the things used in the home, giving your estimate of the weight that should be given to each article.
8. Show how the average in statistics may be misleading.
9. Examine the reports of statistics of manufacturers compiled by the United States Census Bureau to see the kind of facts reported. Also the agricultural growth, compiled by the United States Department of Agriculture. Also the volumes on mortality and birth statistics, compiled by the United States Census Bureau.

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## CHAPTER XXII

### SOCIAL CONTROL

#### *Community Survey*

1. Make a list of the things which your community is doing for the citizen.
2. Make a list of the things it is not doing which it might do with advantage.

It is clear from the discussion in the foregoing chapters that the processes of production and distribution, by which the essential needs are supplied, should be made to work as smoothly and effectively as possible.

The object of production and distribution is to supply human wants. Goods are manufactured, transported, and distributed because human beings have wants that they seek to satisfy. Production and distribution do not exist for the special profit of any group, but for the welfare of all. The highest aim of a people should be to make the processes of trade as direct and simple as possible in order that the consumer may be supplied more readily with the necessities and the comforts of life. Democratic principles demand the greatest good to the greatest number.

Some people believe in the doctrine that the government should keep its hands off of the processes of production and distribution. The governments of many countries acted almost entirely on that principle for many years.

This doctrine is known as the *laissez-faire* doctrine, or the "let-alone" doctrine. Under it the government would leave business and trade alone, and confine itself to the preservation of peace and order, defending the country against invasion and punishing criminals.

Opposed to this doctrine is the idea that government, as



How the state serves industry. New York State School of clay working and ceramics at Alfred University

the agent of the people, should take counsel for the welfare of all, and should not only preserve peace and order but should see that the rules of the game are so made and interpreted that the greatest good will be secured for the greatest number. Those who follow this doctrine believe that in the complex business relations, without the enforcement of protective measures by the community, the strong and crafty will oppress the weak in many ways.

An illustration will show the different points of view. There used to be an old doctrine of trade which declared that the buyer must look out for himself. "Let the buyer beware," was the statement of this doctrine. Fraud on the part of the seller was no concern of the community. The buyer must stand the loss if he allowed himself to be cheated.

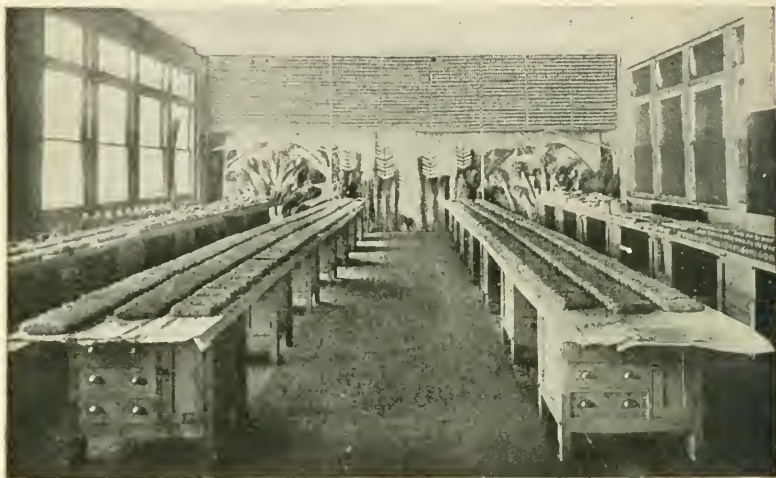
When commodities were few and business transactions simple, this doctrine did not bring serious hardships, but it did give the crafty and clever advantages over the average man. Even yet we see examples of the doctrine in transactions such as horse-trades. The buyer must beware. He is responsible if he buys a horse suffering from visible defects.

In these times, however, conditions are changed. Not all goods are simple commodities. Many are made up of varieties of products and qualities. Such products as wheat, potatoes, corn, and vegetables can still be judged by the eye as to their quality. Not so with manufactured foods, fabrics, and furniture, and the thousands of products of modern skill and science. The purchaser stands helpless when purchasing adulterated foods, drink, drugs, fertilizer, cattle feed, petroleum, gas, and other products. He can not analyze these products; that must be done by scientists in laboratories. So comes the need for government interference to protect the purchaser against cheating in quality and quantity of goods. Laws are passed regulating weights, measures, and qualities, and testing laboratories are maintained to enforce the laws.

The old idea of economics was that there were fixed laws of business and trade, which could not be changed.

Hardships might come to some, but that was inevitable. This idea gave the name of the "dismal science" to economics. It was a creed of hopelessness. "Things are as they are, and bad results cannot be helped," was the bald statement of it.

Modern economics, while recognizing certain natural laws which are fixed and unchangeable, champions the



Pure-bred corn, symbol of scientific agriculture

doctrine that the instruments of business may be so regulated as to prevent the oppression of the weak by the strong and the exploiting of the many by the few. It extends the doctrine so far as to interfere with such time-honored ideas as the working of supply and demand. During the great war the United States deliberately suppressed the production of non-essential goods and promoted the production of essentials on a large scale.

Price-fixing was common. In many ways governments are doing the same thing with different products—fixing prices, stimulating, curtailing, or regulating production.

### *Stability of Conditions*

The first essential to the harmonious workings of the processes of production and distribution is that order shall prevail. Processes of trade can not be conducted where disorder reigns. Countries in which revolutions occur are notoriously backward in economic development. Men will not strive to build up industries or commerce unless they are reasonably secure in the possession of their property and their lives. Men will not strive to acquire property or be willing to risk investment where there is danger of destruction by bandits or confiscation by corrupt governments. In the present state of the world there are many illustrations to prove that a stable government, honestly administered for the protection of lives and property, is the first essential of economic progress.

### *Enforcement of Contracts*

Business is built on confidence that men will keep their word and fulfil their agreements. Although reliance must be placed in the honor of men, yet an essential to economic progress is the impartial enforcement of contracts and other obligations by legal action. If men could not enforce their personal and property rights, chaos would reign. No one would undertake business enterprises unless he could lawfully enforce the collection of debts and the fulfilment of agreements. Credit could not be secured if the laws and the courts did not offer a way

to enforce collection. The cornerstone of business is built on the assurance that the laws, courts, and public officers will compel men to meet their honest obligations where they fail or refuse to do so.



The Gatun locks of the Panama Canal

### *Facilitating Business*

There are many acts of government performed to aid business which are pretty generally accepted as good policy. The coinage and regulation of money as a medium of exchange and standard of value is everywhere recognized as a governmental function. Money is used primarily to promote business transactions by enabling every man to supply his needs. Any private system of money would be considered intolerable. Anything but a uniform na-

tional system of money would be a nuisance to the people and to business.

The fixing of standards of weights and measures by the government is also a long recognized principle. Lately it is being recognized that standards of quality of many kinds of goods must also be fixed by the government for the protection of the consumer against subtle forms of fraud.

Provision for transportation and storage where such facilities are lacking, and the regulation of all private systems of transportation and storage, are pretty generally supported at this time. The states built the canals to develop and assist trade. The national government gave large grants of land to the builders of the transcontinental railroads to open up the trade of the continent. The national government built the Panama Canal and is building the Alaskan Railway to promote trade. The national government has dredged and built harbors, made rivers navigable, supported lighthouses and coast guard service, and built merchant-ships, primarily to promote and protect trade. The post-office is the most important of all the government agencies conducted to aid business.

State and local governments have built roads and bridges. Cities have developed transportation, lighting and power systems, water supplies, housing, and railroads, in order to further industrial development. These are merely examples of the way in which aid is given to facilitate the processes of production and distribution to meet the needs of the consumer and make it possible for him to enjoy more and more of the satisfaction of life.

*Regulating Private Business*

The great majority of the agencies that facilitate the transaction of business, including railroads, steamship lines, telegraph and telephone systems, terminal elevators, and warehouses, are in private hands, and the consumers are dependent upon private owners for the carrying on of business upon which the satisfaction of their needs and wants depend.

It was recognized long ago that the systems of transportation and distribution of people's necessities were too important to be left entirely to private owners. Greed and injustice were too prevalent. It was conceived that the mass of the people ought not to be compelled to pay unnecessary tribute to those who held control of the arteries of business life.

Beginning in the decade of the seventies a movement for the regulation of railroads and grain warehouses spread rapidly over the country. The Supreme Court of the United States upheld the idea that when private owners engage in the business of supplying a public necessity they are subject to regulation. The court said: "When one devotes his property to a use in which the public has an interest, he in effect grants to the public an interest in that use, and must submit to be controlled by the public for common good."

That principle has been followed ever since. To-day there are innumerable laws regulating railways and warehouses, and there are commissions in every state, besides the Interstate Commerce Commission, to regulate the charges and service of the railways.

Shortly after 1900 an era of regulation of rates and

service of street railways, gas, electric-light, water, and power companies by state public utilities commissions began. Nearly all of the states now have such commissions.

In every case the beginnings of regulation of railroads, public utilities, and similar business has resulted in the necessity for extension. One regulation led to another. It was first thought that the fixing of rates would protect the consumer. But when the rate was fixed the quality or service was reduced, or wages of men were lowered. It became necessary to fix standards of service as well as rates, and to struggle with the problem of protecting labor against unfair wage cuts. These problems carried regulation into the intricacies of the business, including the capitalization, valuation, and accounting. The whole range of the business became of necessity subject to supervision. Many people have come to believe that the only escape from the difficulties of regulation is public ownership. Others believe that when regulation becomes fully effective the benefits of private management will be retained and the advantages of public ownership will be secured.

No one doubts the necessity for such government regulation or ownership as will prevent the monopoly of any necessary product or service. The day has long passed when the people will tolerate silently the enrichment of a few who control a necessity or comfort of life. While such control is sometimes grasped by private interests, it is soon destroyed by regulation or public ownership. Difficulties are encountered, and it sometimes takes time to overcome a private monopoly, but the spirit of a demo-

cratic people will not tolerate private monopoly, and their genius can be depended upon to eradicate it wherever it shows itself.

Likewise it is clearly recognized that unfair practices, which give advantages to some that are not enjoyed by all, are intolerable. It is the clear purpose of the people to see that all are treated alike and that special privileges are given to none.

Not long ago railroads gave lower rates to some shippers than to others. Then they covered up such practices by charging the same rate and rebating a part to favorites. Some monopolies were given their power through the advantage they received in rebates from the railroads. The people were thus cheated for the advantage of a few. The practice could not be tolerated, and it was stopped when the facts became known and the successful method of control was made clear.

There is developing an idea that all price discriminations are wrong and that free passes and services are socially unfair. The uniform price idea appears more democratic. It also encourages honest business. When one consumer or dealer is charged more than another for the same goods he is being so charged for the benefit of the other. If a dealer makes a rebate to one customer he generally overcharges others. When a free pass is given to the theater it must in the long run be paid by those who pay for their seats. People find it hard to see the justice of being charged an excess amount for the purpose of giving free service to others.

The people, acting through their governments, will undoubtedly take an increasingly large part in keeping the

processes and channels of production and distribution free from unfair practices, discriminations, and excessive tolls and profits.

The channels for the stream of goods from producer to consumer should be kept clear of all unnecessary obstructions. The promotion of this ideal is recognized as a public function.

### *Regulation of Special Business Activities*

The regulation of corporations, banks, and insurance by the government is completely accepted by all thinking men. These businesses bear so close a relation to the people as to require the closest supervision in order that the benefits of these institutions shall reach all of the people.

### *Corporations*

The corporation is the form of organization under which the bulk of business is carried on. The state creates the corporation and gives it power. The state must, therefore, control it, so that its power shall not be used to the public detriment.

The corporation is necessary in modern business as a means of securing capital for large enterprises and of organizing the processes of production and distribution. Unfortunately, corporate organization offers opportunities for adventurers and manipulators to collect money by the sale of stock, issue watered stock, grant excessive amounts of stock to themselves as a bonus for promotion, and finally leave the innocent purchasers to stand the loss while the manipulators escape.

Public control of corporations should extend from their

organization to their dissolution. Safeguards should be provided to lessen the evils in the organization of corporations; to prevent the issue of watered stock and of excessive bonuses to promoters; to protect the innocent investor; to see that corporations are democratically managed; and to protect the rights of creditors and investors if the corporation fails and goes into the hands of a receiver.

### *Banking*

The supervision of banking by the government has been accepted as good policy for many years. The bank holds a special position of trust and responsibility in the community. The people deposit their money in it for safe-keeping, and are entitled to draw it out when needed. The bank creates credit upon the basis of the money of the depositors, and makes loans for business purposes. It is important that banks create credit and make loans carefully, and that they conduct their business so as to be able to meet all of the withdrawals of depositors.

The temptation to manipulate the money of depositors by creating excessive credits, making loans to favorites or for personal purposes or on unsound security, is too great to be left entirely in the hands of men without public control. Banks do not exist to aid a favored few. They are public institutions for the benefit of all. Their safety must be safeguarded, and fair treatment of all without favoritism must be assured. Otherwise this very essential business might be used to benefit and strengthen the few to the detriment of the many. The bankers hold control of the life blood of business of any community.

No one can be permitted to use that power to oppress some or give special benefit to others.

The need for public control of banking is especially necessary to prevent too great an extension of credit, and also to prevent the concentration of money and credit at money centers. When such concentration occurs money becomes monopolized by the bankers of those centers. They thereby hold a large degree of control of the activities of the rest of the country. To offset the danger of concentration the Federal Reserve Banking Act divided the country into twelve districts, with a central reserve bank in each. This tends to break up the control by one city, and makes bank credit more readily available over the country at all times.

Again, as in all public control, the banks are regulated to facilitate business and trade and to see that the life blood of business and trade flows freely.

### *Insurance*

The business of insurance is conducted on a promise by the insurer of future fulfilment of agreement with the insured. In return for a premium the insurance company guarantees that if in the future certain contingencies happen to the insured in the way of losses, the insurance company will pay certain sums to the insured. Permanent stability is essential on the part of an insurance company to protect the policy-holder. Not only must the present interest of the policy-holder be protected, but also his future interests when the obligation of the insurance company shall mature. The man who insures his life at twenty years of age must be assured that at his death

fifty years or more later the insurance company will be able to meet its obligation to his dependents.

Sound business principles and practices are prime essentials in the insurance business. No other business is projected so far into the future as the life insurance business. Contracts entered into by life insurance companies may not mature for three-quarters of a century or more. This fact alone would be sufficient to prove the necessity of public control. The public has a special interest in such a matter, aside from the promotion of business stability. Life insurance is primarily for the protection of dependents, and in this the public has a particular interest to see that the protection which was designed and paid for shall be assured.

Insurance control by the state extends properly to the prevention of unsound insurance schemes; the regulation of incorporation of insurance companies; the establishment of fair but adequate rates of premium; the prevention of unsound practices; the safe investment of funds; and the prevention of manipulation of the vast funds held to redeem obligations in the future. Insurance is of such importance as an aid in the promotion of economic and social stability as to warrant social action in its promotion either as a private or public function.

### *Conservation of Resources*

The conservation of resources is a public function the performance of which has long been neglected. Great waste of natural stores of goods has taken place, and we are approaching the time when some of the resources upon which we now depend will be exhausted. The waste

that has taken place can not be repaired, but what is left may be safeguarded, and the substitutes and new resources discovered by science may be kept from the shameless waste of other resources in the past.

Individual action can not be relied upon to prevent waste of natural resources. The lure of profits inevitably causes the individual to take the largest immediate return, without regard to future supplies. Social control is necessary to prevent waste and to safeguard the rights of the present and future generations.

Not only is this true with respect to the resources of field, forest, and mine, but also to the resources of manpower. It is of small consequence that wealth increases if men decay. An organized society will, therefore, place safeguards around its children to promote strong bodies and minds, and safeguard the adults throughout life by proper provisions for health and safety, and by provisions for the fullest development of human capacity through education suited to the needs of all.

### *Essential and Non-Essential Production*

One of the lessons that the war taught to all countries was the need for special promotion of production of essential goods. Left to itself, industry will develop in those fields that offer the largest profits. When the largest profits are to be had in the production of non-essential goods, capital, labor, and raw materials will be drawn into the production of non-essential goods and away from the production of essential goods. If it were easy for industry to shift from the one to the other we would expect that, as industry withdrew from the production of essential

goods, prices would rise and industry would be thereby invited back into the field of the production of essential goods.

But industry can not shift readily. The automobile factory can not be turned into a clothing or food factory. Capital invested in the manufacture of chewing gum can not be readily transferred to the promotion of agriculture. Men drawn from the farms, forests, and mines into non-essential industries do not readily go back to their former occupations.

There has been a great shift of workers and capital from essential into non-essential industries in the last few years. The situation has grown so serious that public action has been deemed necessary to turn the productive agents back into the production of essential goods. Special efforts have been made to promote certain industries, and special restrictions have been placed upon industries that provide luxuries. Heavy taxes have been levied upon luxuries to discourage their production, and during the year 1920 the banks entered into a plan, approved by the Federal Reserve Board, to discourage loans in aid of non-essential industries, in order to turn the money of the country toward the production of essential goods.

The problem of encouraging production of the necessities of life will doubtless continue for some time in our economic and political life.

### *Stabilizing Industry*

The serious losses and hardships that come to all classes when there is a suspension of industrial activities calls for the careful thought of those who guide our communities.

When production is uncertain, now running overtime and again suspending entirely because of overproduction, the individual who depends upon regular employment for his living suffers untold miseries. The uncertainties of employment cast a cloud over the life of every honest wage-earner and his family. The community should find safeguards against the calamities of suspension of industry and unemployment. This can be done, to some extent at least, by obtaining accurate statistics of production for the guidance of producers, and by providing a program of public work for several years in advance, so that as private industry slackens the public work may absorb the workers, and as private industry increases the public demands may decrease. By holding great projects of public work in reserve, industry may be kept going and unemployment be prevented.

The stability of agricultural production should also be specially promoted by the community. The uncertainties in agriculture are depressing. The farmer can not tell whether his crop is to be large or small, or whether the price is to be above or below the cost of production. Farm products are thrown on the market for what they will bring; the farmer has been practically dependent upon produce speculators for the disposal of his crop.

Many measures have been suggested to remedy the present evils. Any remedy that tends to stabilize production and equalize the flow of products to market will improve the present conditions. Increased storage facilities and financial credit based upon warehouse receipts; public and coöperative industries to utilize or preserve surplus products; close regulation of grain and produce

exchanges; coöperative marketing, including foreign export provisions; and accurate farm and crop statistics—all will aid in stabilizing agriculture. Uniformly fair prices year after year are to be preferred to the fluctuations that are the bane of the present system.

### *Research and Statistics*

One of the most effective ways to stimulate business and trade is to provide all of the knowledge and facts available for their guidance. A few large and powerful

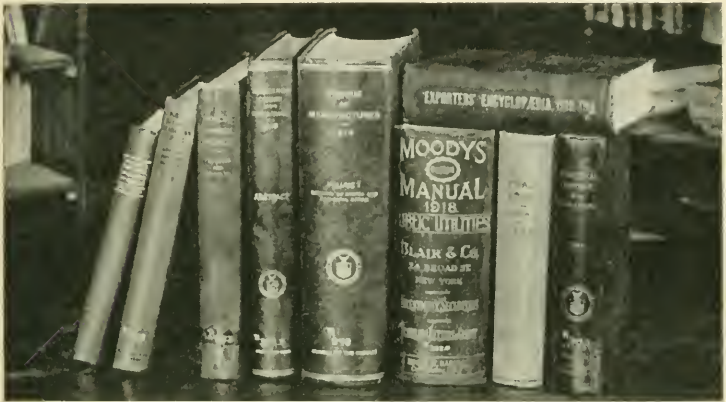


Determining the best clayworking practice in the laboratory and workshop. New York State School of Ceramics, Alfred University

concerns can do this for themselves; the small ones can not, and are thus handicapped in competition. Laboratories for research in methods and materials are essentials in all industries, based upon scientific principles. Research into the scientific literature of all countries is needed to

bring to our managers the best experience on given problems. Public support of such laboratories and research brings to all the benefits of the scientific knowledge of the world.

We do not have as extensive a development of such scientific bureaus in this country as the European countries



Books to aid business

formerly provided; but the idea is approved, and manufacturers in many lines can call into their service the facilities of public laboratories in solving difficult problems. The state universities particularly supply many kinds of testing and experimental laboratories, while the Bureau of Standards at Washington is serving broadly the purposes of business by its scientific investigations and conclusions. Many cities are supporting libraries of business literature to help solve business problems.

The collection of statistics is also regarded as a public function necessary to guide business activities. Millions



A corner in the business branch of the Indianapolis Public Library of dollars are spent in such work by state and national governments. Statistics provide a compass without which business would be groping in the dark. Statistics constitute an inventory as important in the business life of the nation as the inventory of the business man is to him.

### *Clear Economic Vision*

There is need for the study of economic questions by every citizen of the country. Many economic problems

come up for discussion and action in political campaigns, in legislative halls, and governmental departments. In the long run, many of the most delicate economic questions are settled by the voice of the people, either through the election of officers committed to one policy or another, or by direct vote on questions submitted to the voters in the form of constitutional amendments, or laws submitted under the initiative or the referendum. The local community, the state, and the nation, all have economic problems that are decided by the vote of the people. The citizens of the country are thus called upon to express a definite opinion by their ballots upon many difficult and delicate questions of economics.

No one can doubt the necessity, therefore, of widespread information and knowledge of the fundamental principles of economics as they apply in everyday affairs of the individual and the community.

### *Questions and Problems*

1. Show fully why it is necessary to maintain order in a community if economic activities are to be carried on.
2. Show why it is necessary to enforce contracts by law. What would be the effect if contracts could not be enforced?
3. What is the meaning of the doctrine of *laissez-faire*? Give local examples.
4. What are the advantages and disadvantages of government interference in regulating business activities?
5. In what ways can the community facilitate economic activities?
6. In what ways should the community restrict economic activities?
7. What are the limits of community help or restriction of economic activities?

8. Why is it necessary to regulate corporations, banking, insurance? What are the limits of such regulation?
9. What is the community's interest in conservation of resources?
10. Has a mine-owner the moral right to waste coal in his mine? Has the farmer a moral right to exhaust the fertility of his soil?
11. What measures should be taken to protect human beings? Give reasons in each case.
12. Why should not the individual be left to look out for himself?
13. Why should the production of essential products be promoted?
14. Should non-essential production be prohibited?
15. Show why the community should provide research laboratories and collect statistics for industrial use.
16. Summarize what the state should and should not do for the citizen.

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