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George Soule

Economics For Living

Illustrated by Bunji Tagawa



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FOREWORD

Some people enjoy earning money, spending it carefully, saving it, investing it, and keeping accurate accounts. Most of us, however, find these things a bother which causes us frequent trouble. Figures are hard to understand; accounts seldom come out even. Since economics is a subject that is concerned with such matters, it may seem a horrible bore. Yet economic troubles constantly thrust themselves on our attention, if not in our personal affairs, at least in the news about national and international events. We cannot avoid economic problems, no matter how much we resent them.

The author of this book is one of those who do not like to be bothered by economic difficulties. He would much rather go fishing, listen to music, read books or do hundreds of other things that seem to be more fun. For that very reason, he long ago decided to try to understand economics well enough so that he could simplify it for himself and perhaps learn to make economic problems less bothersome. In this book he has endeavored to pass on the results of some of his efforts in this direction to others who have felt the same way.

Economic problems really have a strong fascination of their own, as they begin to be understood.

G. S.

Economics Means Housekeeping

The word "economics" comes from an ancient Greek word meaning, roughly, "household management." The Greek "oikos" is "house," or "household." The subject studied in our schools used to be called "political economy." "Political" comes from the Greek "polis," meaning "city." In ancient Greece the chief units of government were the great cities, such as Athens. They are often called city-states. Political economy therefore means housekeeping of the state, or nation. Many still believe political economy is a better name for the subject than economics.

HOUSEKEEPERS ARE ECONOMISTS

Every housekeeper must be an economist. Any wife, mother or daughter who works in a home knows that the job requires careful planning, not merely keeping the house in order, cooking and washing dishes. The income-earners bring in a certain amount of money. There is never enough money to buy everything the family would like. It has to be apportioned among the needs, in the order of their importance. Wise shopping, in order to get one's money's worth,

making the purchases go as far as possible, balancing the budget, and even saving something, are tasks that require managerial skill.

Another duty of the household manager is to distribute the purchases fairly among the members of the family, according to the needs and desires of each of its members. Still another is to divide up and organize the work of the household so that it shall all be done, and done in time. Each person who helps should have a task suited to his skill and capacity.

A national economy, too, should produce as close to enough as possible. The right things should be produced, so that there is not too little of some necessities and too much of others. Its products should be well distributed. The work should be done by those best fitted for the various jobs. In all these respects it resembles a well managed household.

HOUSEHOLD ECONOMIES

In a modern household, much of the food is probably bought in packaged form at the supermarket, most of the clothing is ready-made, and the house is equipped with many mechanical devices to make work easy such as a vacuum cleaner, an electric refrigerator, and perhaps a washing machine or even a dish-washer.

The household of ancient Greece, as of colonial America, was not only a house, it was also a farm. The farm was not of the kind which sells most of its crops in order to buy goods for the family to consume. On it almost every necessity for the family was grown or

manufactured. Food was raised in the fields or in the garden; animals used for food could be found in the barnyard or the chicken house. The raw food was prepared, as well as cooked, at home. That which could not be eaten as soon as it was harvested or made into meat was stored or preserved. The hides of cattle were tanned and used for leather. Many farm families raised sheep, the wool from which was spun, carded and woven into cloth by the women and girls. Boys and men cut wood from the farm for use in building and as fuel. Fat from the pigs became tallow for candles and grease for the wagon wheels. Of course all washing and sewing were done at home. All members of the household, male and female, worked there; few families had outside wage-earners.

The early American household was self-sustaining. It may be that the family traded some of its products for salt, pepper or spices, which could not be grown at home. Perhaps its need for sweets could not be supplied by boiling down sap from the maple trees or by honey from the beehives, so that sugar made from imported cane had to be obtained. The grain might be taken for grinding to the local gristmill, where the grindstones were powered by a water wheel. A water-powered sawmill, serving a small community, might be used to saw the lumber.

As time went on, tanneries tanned the hides, carding mills carded the wool for the farm women to spin, fullers and dyers finished the homespun cloth before it was brought back to the house to be made up into clothing. A local blacksmith might fashion horseshoes,

kitchen utensils, andirons, nails and hinges. A traveling cobbler might make shoes. Few households were able to manufacture firearms and powder. The pioneer household had but little money. Almost everything it bought it paid for with its own produce. The basic problem was still to make enough to sustain the family with the family's own labor, and to put everything and everybody to the best possible use, in the interest of the family as a group. In these respects the economy of the family farm is like the economy of a great nation like the United States.

CHIEF NEEDS OF AN ECONOMY

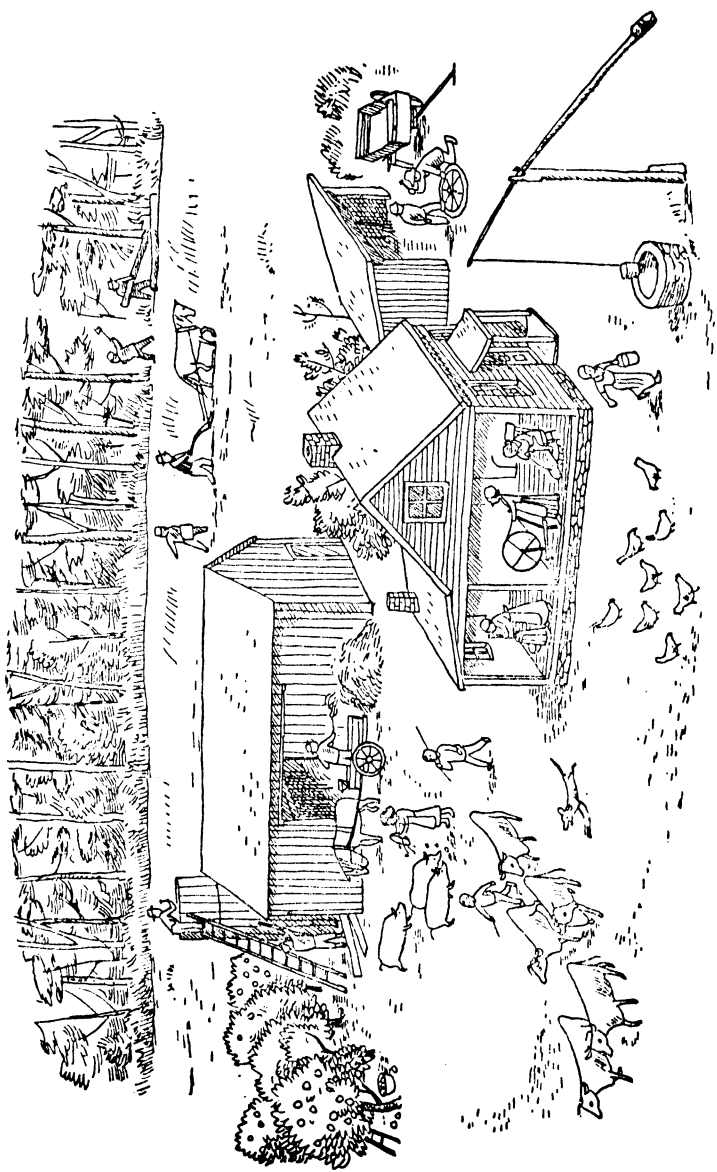
Let us see why the main economic problems of a national economy, however large and complex it may be, are similar to those of an ancient Greek—or an early American—household.

Any economy, large or small, has to solve the following problems if it is to be a well managed concern.

1. The best use of scarce resources.
2. Production of as much as possible with the least labor (efficient production).
3. Proper division of the product between consumption and savings.
4. Fair distribution to consumers.

1. RESOURCES AND THEIR USE

Land. A farm consists of a certain amount of land. Some of this land may be suitable for crops, some may be good for pasture, some may be better for trees.

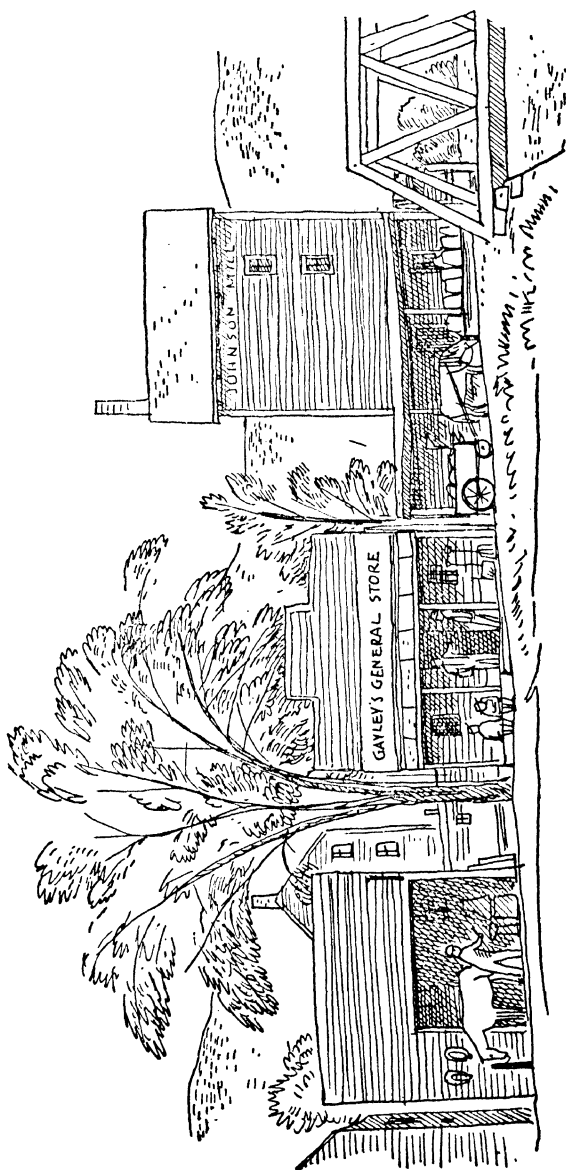


There may be stone on the farm usable for building. There must be water for drinking and washing, if not for watering the crops. A basic resource for production is therefore land, with everything on it or under it.

Labor. The land itself is of no use unless labor is expended on it. A primeval wilderness is worth little to man until human beings have done something with it or on it. Even a woodsman gathering berries and nuts, or killing game for food and fur, must exert himself if he is to make use of the natural resources. Labor is therefore a basic resource of production.

Capital. A man with his bare hands could not do much to sustain himself either in a forest or on a farm. He has to have at least a bow and arrow, a spear, or a blowgun, even to shoot game. He has to have tools to cultivate a field. A farm family has to have a house to live in, barns and other buildings. The sort of things that are not eaten, worn or put to other immediate personal use, but are employed as tools or instruments of production, are called "capital goods." Human groups are different from other types of animals in their possession and use of tools, weapons, and utensils. To men, capital is a necessity for production.

These three basic resources—land, labor and capital—are called by economists *scarce* resources. Why? Because there is seldom enough of them wholly to satisfy the wants of human beings for the goods that may be made by a combination of all three. Which of us has all he wants today, even in the richest



country in the world, now more productive than ever before in its history?

A few things necessary to us we do have in abundance, without working for them. Such a thing is air. Air is all about us; we breathe it and pay no one for it. There is more than enough for everyone. But a *free substance* like air is in this respect unlike the *scarce resources* necessary for production, like land, labor and capital.

Since land, labor and capital are scarce, it is desirable to put them to the best possible uses. A farm family would be foolish if it used most of its land and labor for making clothing and then found itself in mid-winter with more clothing than was necessary to keep warm, but not enough food to eat. It would be foolish if it piled up so much perishable food that much of the food supply spoiled, while it failed to cut enough wood to keep from freezing in cold weather. It is important, for families and for nations alike, to *allocate* their scarce resources so that the most urgent needs will be satisfied, and less urgent needs will be met in the order of their importance.

2. EFFICIENT PRODUCTION

The labor supply of any family or any nation is, like land, limited in amount. There are only a certain number of persons who can work. Each of the persons who can help to produce has but twenty-four hours a day for work, sleep, eating and recreation. Since human wants seem to be greater than can be satisfied

by all we can make, labor, like land, is regarded as scarce. Like land, it has to be economized.

Some people are more skillful at particular tasks than others. Mary perhaps can wash the dishes in less time than Susan, and do a better job of it. If Susan could learn to wash dishes as well as Mary, or if even Mary could improve her own good performance, dish-washing would take less time, and there would be more time left for other things. Since with more spare time, more can be accomplished, improvement in skill helps the whole family.

Perhaps Susan can iron better than Mary. Skills differ. To put each person to work at the things he can do best is to economize labor. This is a task for those who manage the household or industry.

People working in groups have often found that much more can be done if each member of the group learns to do one task particularly well, and specializes in that task. A baseball team is an example of specialization. Suppose all nine men in the field chased every batted ball and then the one who recaptured it had no one to throw it to and had to chase the runner! Instead, we have catcher, pitcher, basemen and fielders. When specialization is applied to the successive stages in making a single kind of article, it is called "division of labor."

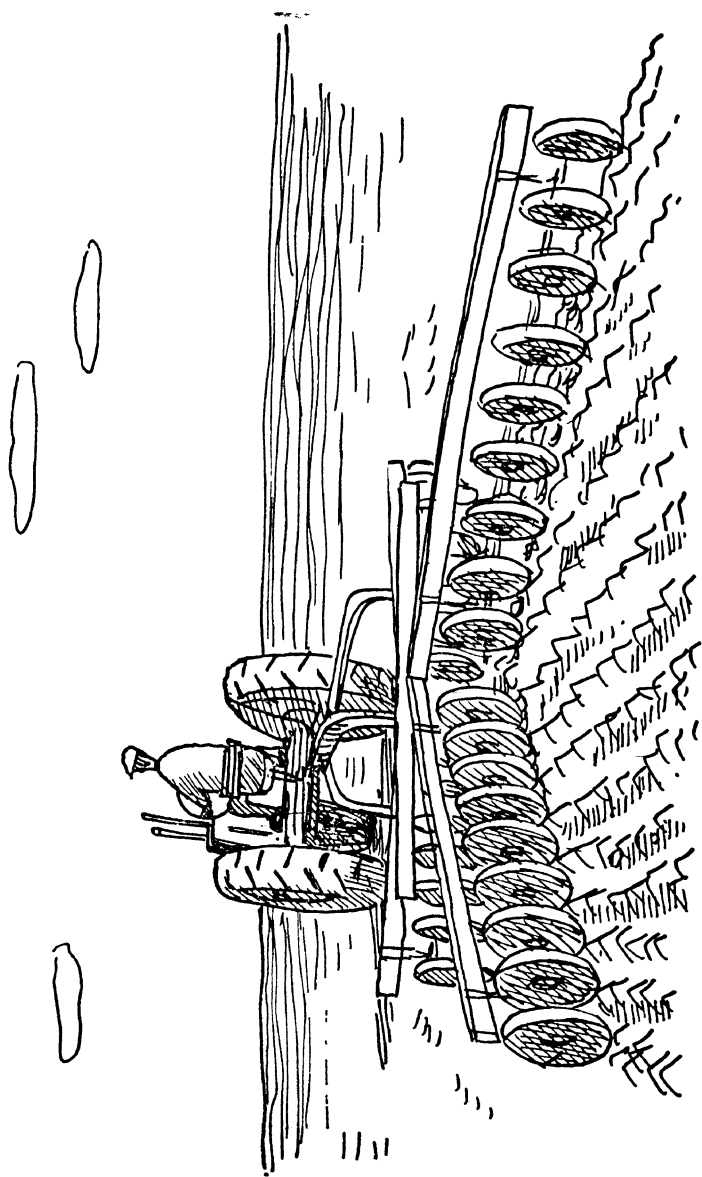
There is much more truth in the old saying "Many hands make light work" than the mere fact that a spirit of helpfulness makes jobs seem easier. Ten people, each of whom specializes in one part of a working process, can turn out much more than the

same ten people, each of whom does the whole job from beginning to end. Each specialist does his part of the work faster or better than any one of them could do the tasks at which he has not gained special skill. Devising the best means of division of labor is one of the most important means by which good management economizes work.

A worker can produce more when he is helped by a better tool or machine. Time-savers of this sort are familiar in every household and on every farm. Farmers used to have no way of cultivating the soil except by shovels and hoes. Now it is done by plows or harrows drawn by gasoline-powered tractors. A single tractor driver can now do the work of many manual farm workers, and do it faster. Making work more efficient has largely resulted from the use of better machinery and more mechanical power to replace the muscles of men and animals.

The more labor is economized, in either family or nation, the more things that family or nation has time to make, and the better off, materially, it can be. Some of the time saved can be used for leisure or recreation. Most people prefer to use a large part of their gained labor efficiency for shorter working hours, instead of working longer to have more things.

Slow, careful work sometimes makes for better quality. We must not overlook the quality of the product in judging the value of time-savers. But some fast workers do good work too. Is this not clear in every school classroom? Speed gained by sloppy,



inaccurate performance is not a real gain; but speed which is the result of true efficiency is a great benefit. It is less tiring to the worker, and helps those who use the product by making possible the production of more things people want.

3. CONSUMPTION AND SAVINGS

A farm household in early America which used all its land and labor to produce things to eat, wear and otherwise consume would seem to have had more enjoyment of life than one which devoted part of its resources to make fences, put up storage buildings, and increase its stock of tools. Yet every household learned that it would have more in the end if it sacrificed some present enjoyment in order to improve its means of production for the future. Such sacrifice of present enjoyment is called "saving." Use of the saved time and resources to make and repair tools, machinery and buildings is "investment." The equipment thus produced is "capital."

A nation, like a family, makes progress in satisfying wants only if some of its limited natural wealth and labor are employed to make machines, factories and other buildings, rather than to make articles for immediate consumption. The growth of capital is necessary for material progress.

Nobody would disagree that saving and investment are desirable; the problem comes when people try to decide *how much* to save or to invest. It is possible to save too much as well as too little, either for a family or for a nation. A self-sustaining house-

hold which devoted too large an amount of its effort to saving and too little to daily sustenance would weaken its labor power, and perhaps permanently damage the workers. If it produced more tools, machinery and buildings than the workers could use, it would even have wasted the effort required to make them.

In the case of a nation, other problems of saving are also involved. In a self-sustaining household, the same people who do the saving also do the investing—that is, they save some time from making goods for consumption in order to make tools. In a modern nation, the people who sacrifice an immediate want in order to lay aside money are usually not the ones who use the saved money to place orders for new machinery and factories. You and I may save money by putting it in a savings bank but if someone does not borrow it to put up a building or for some other productive use, the nation does not benefit from our failure to spend the money. If more money is laid aside than is actually spent for capital equipment, then the saving becomes useless—or worse. We shall learn more about this later.

4. FAIR DISTRIBUTION TO CONSUMERS

In a family, the food, household goods and clothes bought with the family's earnings are, so far as possible, distributed among the members of the family with some regard to the varying needs and tastes of the persons concerned. Everybody has ideas concerning the fairness of the distribution.

In a national economy, ideas of fairness in distribution of the national product have an important place also. But the problem of deciding what is fair, and of bringing about a distribution which will accord with such decisions, is much more difficult. Many modern social and political controversies revolve about this problem. It is largely because of such disagreements that we have labor unions, farmers' organizations, and political disputes about taxation and governmental spending.

Whole books could be written—and many have been written—about fair distribution. For the present, the point to see is that the problem exists alike in the household and in the nation, and that solving it in some acceptable way is an important part both of the duty of household management, and of the methods by which a national economy is carried on.

No early American household could make absolutely everything it needed. If it wanted farm animals, it could not begin all over again the age-old task of domesticating horses and cows. Its first animals had to be obtained from someone else. If it raised crops, it had to get seed of those farm plants which do not grow in the wild. If a man moved into a wilderness to carve out a new homestead, he could not wait to chop down the trees until he had dug iron ore from the earth, refined it in a furnace, hammered out and sharpened an axe. He had to buy the axe.

HOW TRADING BEGAN

Even in very early societies, swapping or, as it is more elegantly called, barter, naturally sprang up. The American Indians had had long experience in hunting. The early white settlers brought with them blankets, cloth, firearms and other things that the Indians wanted. The settlers themselves could, and did, hunt the wild animals for their skins and fur. But the Indians were usually better hunters and trappers than the whites. So the settlers traded blankets, cloth,



firearms and other things with Indians for the furs and skins which the Indians could supply.

Some of these furs the whites sent back to Europe for more blankets and muskets. In this way each party to the bargain gained. Each traded something of which he had more than enough for something of which he had less than enough. The Indians obtained blankets and guns that they could not get at all without swapping, the white settlers saved their time for farming and fishing, and in addition got enough skins and furs to obtain additional supplies from Europe; the Europeans got more furs than could be obtained in the forests of England or France, by exchanging for the furs goods which they could readily make.

In local communities of settlers, trading sprang up among the settlers themselves. It was natural that one family should find itself with more crops of one kind than it needed and less of another. Its land might be suitable for corn, but not so good for potatoes. Luck and weather played a part; in the spring, when fields are sown, the farmer cannot predict exactly how much a particular acre of land will yield. Those who felt the need of more of one kind of food than they had would look about to see what they could spare in exchange for it, and try to arrange a deal.

SPECIALIZATION INCREASED TRADING

Special skills played a role too. As soon as iron tools were generally used, most farms of any size would have their own shops in which iron could be heated and hammered into the shape desired. But some

became more expert at blacksmithing than others; the neighbors would come to them to have unusually difficult jobs done, paying them perhaps with meal or skins. Almost every farm family had a member who could make and repair crude shoes, but those who became expert shoemakers often found it more rewarding to do cobbling for others than to spend much of their time working in the fields. Indeed, in New England many early towns were settled by groups of English people who brought with them blacksmiths, shoemakers and other craftsmen whose products were generally used.

Settlers who had land beside flowing streams would often build water wheels to run millstones. Farmers would bring their grain to be ground, paying the owner of the mill with part of the grist (ground meal). The miller in turn could sell the ground meal in nearby towns where merchants established themselves, taking in exchange articles he could use or trade with the farmers for more grain. Sawmills, too, became established, sawing lumber for farmers, taking payment in part of the sawn timber or boards, floating it down the streams, and selling it in towns or even back across the Atlantic.

As the population grew, more and more specialization in production arose. Each family tried to concentrate on those things it could best do, provided there was a demand for them. The self-sustaining farm households survived, but most of these also had something special to sell, or some service that could be performed for others in return for goods or services.

MARKETS

As soon as there were many kinds of goods to be exchanged, and trading became a habit, it was far more convenient to have all the goods from various sellers displayed in one place, where buyers could be attracted. The buyers, too, benefited from having a choice. Most people were both sellers and buyers. Such a place, where numerous buyers and sellers meet, is called a "market."

Sometimes there are markets for just one product, as for wheat, but in the early days market places for consumers usually showed a variety of articles. The country fair, still an institution held in the fall in many parts of the nation, where farmers display their best products and merchants show things for sale to the farmers, is a sort of glorified version of the early market places. These, however, usually displayed wares at least once a week instead of once a year, and, in the larger towns, every day during good weather. In many European and some American towns one can still see the markets where farmers bring their produce to sell direct to consumers. The push-cart vendors on the East Side of New York City continue something very like the old practice.

In the old days when the only means of land transportation were horses or oxen, dragging carts over the rough trails, no market could supply a very large variety of articles. The locality within reach of wagons and carts usually did not contain enough people, or a wide enough variety of natural resources, to make possible the existence of many specialized



producers. Nor did it pay to specialize too exclusively in the production of anything of which many more could be made than the local community could use. The means of transportation therefore limited the growth of markets, with their attendant specialization.

WATER TRANSPORTATION WIDENED MARKETS

The early settlements, and those that grew the most rapidly, were either on the coast or on navigable rivers. Ships that could cross the Atlantic Ocean connected the towns having good harbors with London, Liverpool, Plymouth and other trading centers of the Old World. Smaller craft plied the waters along the coast or up the rivers. Almost from the beginning, transportation by water connected the American settlements both with the more highly developed motherlands and with one another. The ships, and the coastwise and river craft, carried merchandise of many kinds to and from the towns. This trade broadened the market for such products as were not perishable. Perishable goods would spoil on long journeys, since water transportation was slow and refrigeration had not yet been perfected.

From the southern colonies came tobacco, rice, indigo, turpentine and tar. From the northern came timber, salted fish, woven goods, and eventually a variety of handmade manufactures, including notably boats and ships themselves. Timber, other forest products, and skins were carried to Europe from both South and North. The central states later began to specialize in wheat production.

Northern shipowners before long sallied forth to the West Indies and Africa, bringing back sugar and molasses and, unfortunately, Negro slaves. On the return journey they would take rum, fish, and manufactured goods. Water transportation aided the specialization of production among regions, just as road transportation aided specialization among families and small villages. Thus markets for many types of things became much larger.

TURNPIKES AND CANALS, TOO

All this time the population was growing, and people not already well established sought new land in the broad regions back from the seacoast, and beyond the reach of the navigable rivers. They could not live in these regions, however, except as traders with the Indians, or hunters and trappers, or hardy pioneers, unless they could trade their produce for the goods they wanted from larger eastern towns. Therefore it was desirable to build better roads, called turnpikes, permitting faster and safer travel, or to dig canals as a thoroughfare for boats where no natural watercourses existed. The construction of turnpikes and canals opened up many of the back regions during the early part of the nineteenth century and encouraged settlement west of the Appalachians. This movement again broadened markets and encouraged regional specialization. Many eastern towns, particularly in New England, became factory and mill centers; cotton became the biggest crop from the South, cattle and grain raising moved westward.

RAILROADS AND MOTOR VEHICLES

The building of railroads, beginning about 1835, eventually created a network of transportation where canals were not practical, and opened the country west of the Mississippi. The automobile and the motor truck, with modern highways, completed the process of converting the whole nation into one big market, at least for the most widely used products. Highly specialized producers had a chance to sell anywhere; buyers could, theoretically at least, buy what they wanted most from the makers who could offer it most cheaply.

HOW PRICES ARE DECIDED BY COMPETITION

How, in exchanging goods, do the prices of the various articles come to be what they are? Why is one thing worth more than another in the market place? Why do the prices of some things go up while the prices of others go down?

Let us imagine a conversation between two early American settlers, one having beaver skins to trade, and the other having sacks of meal. "I will give you two skins for ten bushels of meal," said the trapper. "Nonsense," replied the farmer. "It took me six months to raise that grain, while you just went out into the woods and set a few traps, and then the next morning found the stupid beavers had caught themselves." "But think of the time it took to make the traps, and the long, hard trips I had to make before I found the beaver pond," said the trapper. "Think of the skill of skinning the beavers, and the time it takes to cure the skins." So they went on discussing the amount of work each had done.

What it costs in labor to produce the article is an important element in what the seller asks. But this long argument did not settle the question.

"No matter what you think the skins are worth," said the farmer at length, "the trappers around here have a lot of skins, and Jo the Indian would be glad to let me have a couple for six or seven bushels of meal." The trapper then took up this line of argument. "But this was a good year for corn," he replied, "and the farmers have more than they know what to do with. I could easily get eleven or twelve bushels for two skins if I took the trouble." This statement outraged the farmer. "Let's see you try it," he said angrily. "If any farmer is fool enough to let his grain go for such a price, he'll soon find that there is no use growing grain at all. He might better save the meal and plant less next year, or go out in the woods and be a trapper himself. I can get along without beaver skins, but you have to eat." So the relative supply of and demand for the articles to be traded is an important influence on the price. But if an "oversupply" drives the price down so far that fewer will bother to produce the article, then the price will come up again.

Both trapper and farmer had a good idea what the supplies of skins and grain were, and what the demands for them were. They finally settled on three skins for ten bushels, though with a good deal of grumbling. Both told their friends what they had done, and this, combined with other trades of the same sort, brought about a widely accepted idea of what the

prices for that season ought to be. These prices were then paid without much discussion; they became the "market prices."

This imaginary conversation gives a rough idea of how prices are decided in a market where there is stiff competition among buyers and also among sellers. Though prices vary from time to time, they will not fall for long below the cost of production. Above that level, they will be influenced by relative demand and supply. High prices for one article as compared with another will encourage more production of the high-priced article; low prices will discourage production. At the same time, high prices will limit sales, while low prices will encourage them. Thus it happens that the price of any article tends to settle at a point where the amount people will buy at that price just about equals the amount people will sell at it—as long as competition prevails.

MONOPOLY PRICES

But suppose competition in the sale of any article does not prevail. If, for example, in an early American town, there was no source of salt except a salt mine discovered on the land of one farmer, everybody would have to pay what he asked or go without salt. Salt being a general necessity, he would undoubtedly charge more than if he had a number of competitors. He might even make the price so high that few would buy more than the amount barely necessary. In that case he would profit less than if he reduced the price somewhat, and sold a great

deal more. But still he would be likely to charge more than if there were other sellers of salt.

Sometimes there is only one buyer dealing with many sellers. Suppose, in a frontier region, there is just one big company to which skins and furs can be sold. In that event, the trappers would probably receive less for their skins than if there were a large number of buyers.

In the modern world, there are very few markets in which competition is not limited in one way or another. Some monopolies are granted by law. A company which holds a patent on an invention, for example, can prevent others from manufacturing it. It can do the same if it possesses a trade secret, or a monopoly of the necessary skill. Companies which own limited deposits of minerals have a sort of monopoly.

Many a company establishes something like a monopoly by creating a trade name for its product, and making that name familiar by widespread advertising. People rarely go into a store nowadays and ask simply for soap, cigarettes, perfume, or medicine. They usually ask for a particular brand. In this case the brand competes with other brands, but the number of brands is limited because few producers can raise the money for the necessary advertising. Soap used to be made in every household; the basic formulas are widely known. Tobacco can be grown in wide stretches of the country, and anyone can learn to roll a cigarette. Manufacturers of such goods could make little profit if they did not create the belief

that by buying a certain brand one could obtain a superior product, or get it more conveniently. They thus obtain a monopoly, not of *all* goods of the kind, but of goods to which a certain name is affixed.

Governments often grant monopolies for the convenience or economy of the buying public. This is the case with telephone systems, traction lines, gas and electric companies. It would be wasteful, and often a nuisance as well, to have a large number of companies offering telephone service, bus lines or electricity in the same community. In such cases governmental agencies regulate the price.

The tradition is that where competition prevails it can be counted on to serve the best interest of the consumer by offering him what he wants most at the lowest possible prices consistent with meeting the costs of production. Where monopoly is sanctioned in the public interest, the government usually exercises control over the price and service, or actually owns the utility. In the many cases in between complete competition and complete monopoly, prices are set in a great variety of ways, in which market competition plays a part, and the decisions of the producers about prices also play a part.

If a shopper went into a cash market for butter, eggs, and bacon, and then discovered she had forgotten to bring her purse, there would be no question in her mind about what money is. Surely it consists of the coins or bills she had left behind. But there are many curious and important facts about money that those who use it do not often stop to think about, and sometimes do not know at all.

Money is not just dimes, quarters, half dollars, or bills. These only happen to be the kinds of money with which most of us are familiar. In Germany, soon after World War II, nobody thought the German money was worth much. But American soldiers in the occupying army had plenty of cigarettes, which the Germans did not have, but wanted. So the troops bought from Germans by paying cigarettes, and the Germans themselves used the cigarettes as money. Many articles were regarded as worth so many cigarettes, or so many packs of them. Temporarily, Germany was in fact on a "cigarette standard" of money.

QUEER KINDS OF MONEY

An almost endless variety of things have been used for money in various times and places. In ancient days the Romans bought and sold goods with cattle. The early English settlers in Virginia for a time used leaves of tobacco as money. Beaver skins once served as money in the northern colonies. Some of the Indians did their buying with strings of beads called "wampum." From ancient times until the present, numerous peoples have employed as money metals of various kinds—iron, copper, silver, and gold. Sea shells, grindstones, coconuts, and feathers are among the queer kinds of money. And of course one of the most common types of money, especially since the art of printing was invented, has been a bit of paper with the right kind of printing on it.

Why is it that people have succeeded in buying what they wanted with such a strange assortment of articles? Why have the sellers accepted payment in such things? What is it that makes money money?

WHAT MAKES MONEY MONEY?

When trading began, each person directly exchanged goods of which he had more than enough for others of which he had too little. As in the story in Chapter 2 about the trading of beaver skins for meal, the value of each article that was traded was counted by the number of other articles of one kind that would be exchanged for it.

But this way of trading—barter—became incon-



Cowry shells



Ring

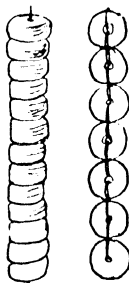
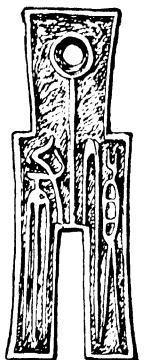


Shark teeth



Fish hook

Spade



Wampum

Chinese coin



Greek coin



Arrow heads



Nails

venient as soon as there were a great variety of things traded, and many traders. To take a modern illustration, suppose a school graduate who knew something about electronics set up a little store to repair television sets. Suppose that, feeling hungry, he went to the nearest meat market and asked for a pound of hamburger steak, offering to repair the store-owner's TV set in exchange. The owner might have no TV set, or he might have one in perfect working order. The young man would probably have to hunt a long time before he could find a meat store where he could strike a bargain. How much simpler it is for him to accept money from anybody who has a TV set that needs repair, and then to buy his food and other necessities with the money.

So we see that *money is a medium of exchange*. It is something that is useful largely because almost everybody will accept it in exchange for almost everything else. Anything whatsoever that serves this purpose anywhere, whether coins, paper, coconuts or feathers, is money.

Next, money is known to be money by the fact that it supplies a *common measure of value*. When beaver skins were used as money, the value of almost everything else was reckoned by the number of beaver skins it was worth; when tobacco was money in Virginia, values were reckoned in pounds of tobacco.

After silver became the common form of money in England, the government stamped coins out of it.

In order to assure their value, the mint used silver of a certain purity. The King's stamp told everybody that these coins were of standard purity and weight; therefore the recipient did not have to take his coins to a silversmith to have them weighed and tested in order to be sure how much they were worth.

The English penny, then made of silver, was called a "sterling"; hence the name "sterling silver" for nearly pure silver. The "pound sterling"—still the standard unit of value in Britain, was once simply a pound of sterlings, as weighed in a silversmith's scale.

The American colonists, who found it difficult to get enough English money to use in buying and selling, turned to a silver Spanish coin, sometimes called a "dollar." This coin was also called a "piece of eight," since it was often cut, like a pie, into eight pieces, which were used to buy things of less than a dollar's value. When the United States adopted money of its own, it took the name of its chief unit of money from the Spanish dollar. The reason a quarter is often called "two bits" is that its silver value corresponds to two of the slices into which the old Spanish "piece of eight" used to be cut.

People do not always spend money as soon as they get it. Some of it they often save, so that they can buy what they want in the future. Money is therefore called also a *store of value*—that is, value stored up for future use. For this purpose it is important that the value of money should not drop after it is laid aside.



What makes money money is that it is

1. A medium of exchange
2. A measure of value
3. A store of value.

WHY WE HAVE METAL AND PAPER MONEY

Precious metals like gold and silver have been used as money wherever buying and selling have

become the main ways of supplying wants. Reasons why the precious metals are specially suitable for use as money are:

1. They are a good *medium of exchange*, because they are regarded as valuable by almost everybody; they stand up well under use; a small amount has a relatively large value, so that they are easier to carry than most other forms of money. Compare them in these respects with beaver skins or cattle.

2. Metals are good as a *measure of value* because chemists can tell exactly how pure they are. If anyone told you an article you wanted to sell was worth ten skins, you might well ask, "How big are the skins, and how good are they?" And the answer might be, "They are above the average in size, and of very fine quality," which would be far from an exact statement.

3. Gold and silver are good as a *store of value* because they do not rapidly wear or spoil with time. Gold ornaments from ancient Egyptian tombs are almost as good as new. Other metals rust; few durable substances are so valuable, pound for pound, as gold or silver.

Paper money is more convenient than metal, however, for everything but small sums. A hundred-dollar bill is printed on a piece of paper no bigger than a dollar bill. Think of the inconvenience of carrying about 100 dollar bills or, even more inconvenient, 100 silver dollars! A dollar bill is easier on the pocket than a dollar's worth of silver coin. But why does

anybody think such a small piece of paper has any real value? The paper itself is not worth much, and it is just as easy to print a million on it as one or five.

Read the printing on a dollar bill. (Most people never do, but the printing does make a difference.) On the side bearing the picture of George Washington, you will find the following words, "This certifies that there is on deposit in the Treasury of the United States of America one dollar in silver payable to the bearer on demand." That means that you have the word of the United States Government that you can ask for, and get, a silver dollar for every dollar bill in your possession. Another sentence reads, "This certificate is legal tender for all debts, public and private." That means that if you owe a dollar to anyone, and give him the bill, that is all you have to do in order to pay the debt. The person to whom you owe the money cannot, under the law, demand anything else—for example, silver itself. Neither can the government, when you pay your taxes.

Every piece of paper money is a promise to pay to the bearer, on demand, the amount printed on it. People generally accept paper money mainly because the government says it is "legal tender." Because people also believe that the government will fulfill its promise to pay, they seldom ask that the paper be redeemed.

But not all paper money is a promise to pay silver—or any other coin made of precious metal.

BANK MONEY

The next time you see a ten-dollar bill, read what is printed on it. It is named, you will see, "Federal Reserve Note." On it is printed the promise: "The United States of America will pay to the bearer on demand ten dollars." Nothing is said here about any silver or gold deposited in the Treasury, or being paid out. This note is, like the dollar bill, legal tender, but the promise is merely to redeem it in "lawful money."

If you took a ten-dollar Federal Reserve Note to a bank and asked for "lawful money" in exchange for it, you might get ten dollars in silver, or in silver certificates. But the government does not have enough silver to redeem all of them. It also has some gold with which to back them up, but not enough to redeem even half of them. According to present law the bank could not give you any gold coin or certificates at all. The government does not expect persons who have Federal Reserve Notes to ask to have them redeemed, and in fact almost nobody does ask. Yet almost all the paper money used in the United States above five-dollar bills (and even many five-dollar bills) consists of Federal Reserve Notes.

People accept these notes as good money, not because they think they can get precious metals for them, but because they know everybody else will accept them at full value. This is an example of a kind of paper money which is "as good as gold" simply because a powerful and trusted government,

and a powerful and trusted banking system, say it is good.

There is still another kind of bank money. It consists of checks signed by persons who have deposits in banks. If Robert Roe receives a check in payment of wages, say from the National Stamp Album Company, the check will read something like this:

Chicago, Ill., Jan. 15, 1954

THE BANK OF SOUTH SHORE

Pay to the order of Robert Roe \$56.50

Fifty-six and 50/100 dollars

NATIONAL STAMP ALBUM COMPANY

Herbert Doe, Treasurer

This is an order to the bank, signed by the company, to pay Mr. Roe \$56.50. Mr. Roe can take the check over to the bank which he uses, let us say the Bank of North Shore, and deposit it. This bank now owes Mr. Roe \$56.50, and will pay it to him on demand. Mr. Roe may ask for some of the money in dollar bills or bank notes. Or he may simply draw a check ordering the Bank of North Shore to pay money to his grocer, or to others to whom he owes something. This process may continue indefinitely.

Bank deposits, used to pay debts by means of bank checks, are now by far the largest part of the money spent in the United States. The total supply of paper money is next largest. Only a very small part of the money supply consists of coins.

Banks can create money by lending it to their

customers. Any reader of this book may some day, if he has a regular job, go into a bank and borrow two-thirds or more of what he needs to buy an automobile. The bank, if it trusts him to repay, does not lend him coins or paper money, but simply gives him a check, which he gives to the car dealer. Banks must have some cash to back up these loans, but most people who receive checks do not ask for cash. They simply deposit the checks, and pay their bills by checks drawn by themselves. This permits the banking system to lend more money than it has cash to redeem.

If depositors should begin to doubt whether a bank could make the payments it has promised, they might all crowd into it to demand cash. Such "runs" on banks have often occurred in the past. When a run occurs the bank has to shut down unless it can borrow enough from other banks. But runs seldom occur on banks in which people have confidence, and today the banking system is so well regulated that few banks get into trouble.

If the total amount lent by banks to car buyers increases, the money in the nation is increased by that amount. Bank loans to individuals for other purposes, and bank loans to businesses, increase money in the same way.

CONTROLLING THE MONEY SUPPLY

If people will accept paper money, which the government can create just by printing it, is there any limit to the possible amount of money? Why could not the government make us all rich by print-

ing and distributing unlimited quantities of bills and notes? Why could not the government pay all its debts without collecting any taxes at all? And if people generally will accept checks as money, why could not the banks make everybody rich by lending unlimited amounts to depositors?

Unfortunately, getting rich is not that easy. The people of the United States cannot buy any more



\$ 1.7 BILLION



\$ 27 BILLION



\$ 108 BILLION

cars than the automobile manufacturers can make, no matter how much money they have. Nor can they wear any more clothes than the clothing workers can make, or occupy any more houses than the building

workers can erect. What limits the national wealth is the amount that all of us produce, not the amount of money.

If the people try to spend more money than there are goods enough to supply at the existing prices, what happens is simply that prices go up.

Suppose a group of girls had exactly ten dollars among them. Suppose they were buying from one another whatever these girls had to sell. If they suddenly obtained five dollars more by extra earnings or from their parents, they still could not buy from the members of their own group any more articles than they had before. If they tried to spend the extra money, they would soon be offering so much that their purchases would cost half as much again. But they would not get any more articles. When, in the nation as a whole, or in the world, prices rise because the spending of money is increased too rapidly, the process is called *inflation*.

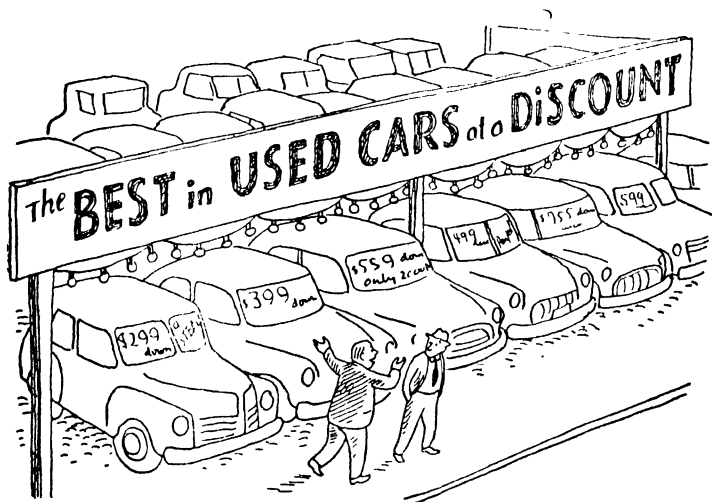
The opposite can happen, too. Prices may fall because the amount of money decreases—or does not increase as rapidly as the amount produced. This is called *deflation*. As buyers we are all glad when the prices of what we buy fall. But as sellers, we usually don't like a sharp drop in prices. It may wipe out business profits and cause layoffs and unemployment.

It is therefore important to try to keep the money supply at the right size to avoid both inflation and deflation. A complicated system of central control of banks has grown up by means of which this end is sought. It is called the *Federal Reserve System*. Even

if the banking system did the best it possibly could, alone it could not prevent rises and falls in prices due to variations in the use of money. All those who decide whether to spend or to save money have an important share in what happens to prices, too.

When we want to stop an inflationary price rise, we can help by spending less and saving more. But when we want to stop prices from falling and remedy unemployment, then is the time to spend freely, if we can.

This balancing policy is especially important for the government. Government increases the flow of money when it spends more than it takes from us in taxes; and decreases the flow when it spends less



than it collects. It is by far the largest spender in the world. If government could follow the best possible policy in spending and taxing, it could do much to prevent inflation on the one hand, or deflation on the other.

Note that the kinds of price changes which should usually be avoided are *not* the kind described in Chapter 2—that is, changes of the price of one thing in relation to the price of another. Individual prices frequently shift about, because of changes in supply of particular articles and demand for them. These are just the waves on the economic sea. What *is* of advantage to almost all is to moderate the great *tides* of prices which either raise the cost of living out of sight or bring distress because people do not have enough money to spend.

A farmer said to his five boys: "I have to go to the city for the next three days. We need a cord of firewood. Cut some logs, split them and stack them up. After you have cut a cord of wood, you can do anything you like—study, play ball, go fishing, read, or just loaf."

The boys started in with their handsaws and axes. Before they had been at it long, a neighbor drove by and saw them working hard. "Why don't you borrow my motor saw?" he asked. "Then two of you could do the job in half the time. The three younger kids could stack the firewood, or you could let them off altogether."

The boys thought this was a wonderful idea, and accepted the offer. Then they fell to discussing what they would do. John, the middle son, thought the two oldest should do all the work, and let him and his two younger brothers loaf. Harold, the second oldest, argued that they should all work, finish the job quicker, and all have more time for other things. Peter, next to the youngest, needed some pocket money, and so he suggested that they all work as

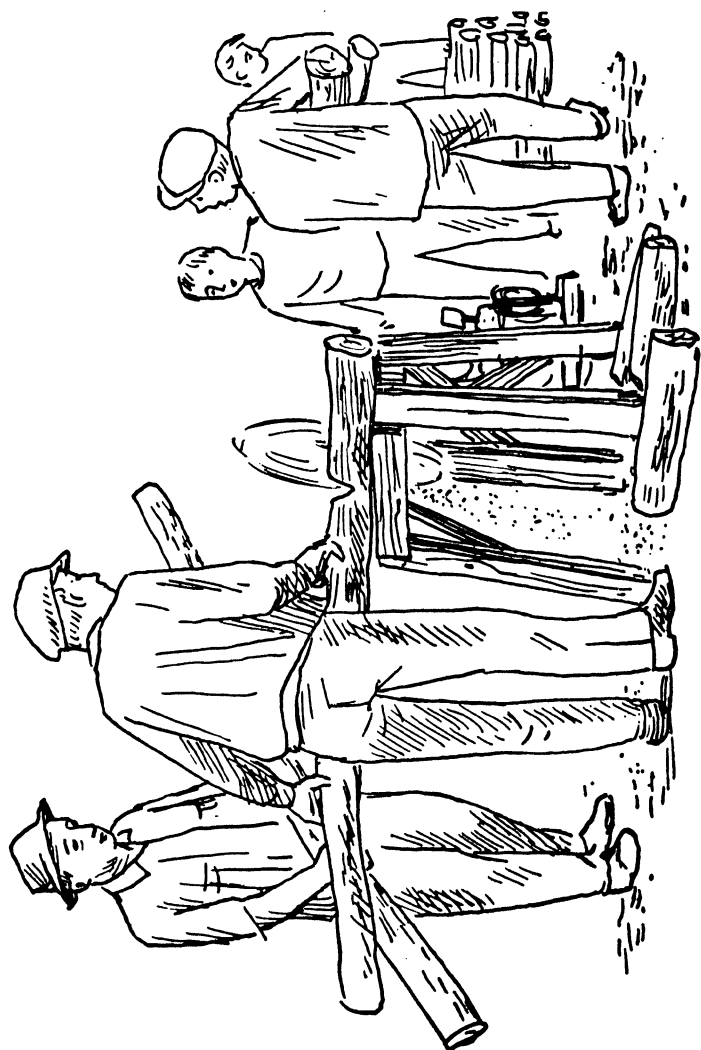
long as they had originally intended, sell the extra wood, and buy whatever they wanted.

All this time the oldest brother, Joseph, had been listening and thinking. Finally he said, "Let's combine all these ideas, add another suggestion of mine, and take our gain in several different ways. First, we'll tell Stephen (the smallest brother) to do anything he likes—but not until after he has done his homework. The rest of us will work a half day longer than necessary to get the cord of wood. That will still give us more time off than we would have had without the motor saw, and we shall have extra wood to sell, too. When we sell it, we will divide up half of the money so that each can do what he likes with it. The other half we will save so that in the course of time we can buy a motor saw of our own, and always cut the wood with less work." This suggestion was gladly accepted by all.

This story illustrates the benefits any nation can gain from mechanical improvements. Fewer people may be needed to work. Those who do work can have shorter hours. They can also produce more, so that they can have more of what they want. Finally, they can pay for the machines that made possible all these benefits. The process can be continued indefinitely, as more and more productive machinery is invented and used.

AN EXAMPLE FROM HISTORY

Every citizen of the United States learns in school that Eli Whitney became famous by inventing the

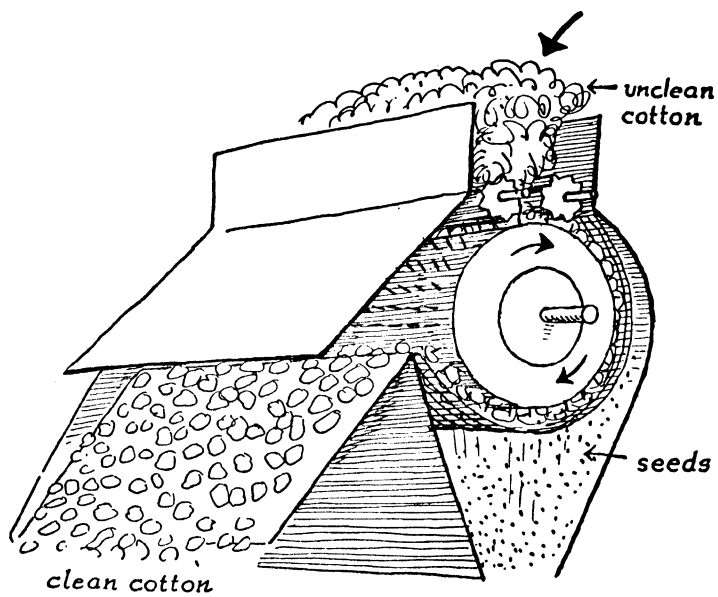


cotton gin. But does everyone know *why* it was a great invention? It was a simple device that somebody else would surely have thought of if Whitney had never lived. The reason for its importance is economic—it made cotton growing a profitable occupation in the South, and supplied the material for the great cotton textile industry in the United States and in England.

The cotton gin is a good example of the way in which labor-saving inventions affect our lives. Before it was used most clothing was made of wool; cotton cloth was a scarce luxury. Most cloth was hand-woven. A little cotton was grown in the southeastern part of the United States, but it was expensive.

Cotton is easy to raise, but the bolls contain seeds that stick tightly in the fiber. The seeds must be removed before the cotton can be spun. In colonial days the seeds had to be taken out by hand. This tedious job took so much time that the southern plantation owners did not put many slaves to work at it. Slaves were not paid wages, but they were costly to buy, and had to be fed and clothed. Their time was worth more if spent on other things. The expense of removing the seeds made the cotton so costly that little could be sold.

What Whitney did was to substitute a machine, driven by water or steam power, for the hand labor of picking out the seeds. The machine cost something, to be sure, but in a few hours it could turn out as much cotton lint as dozens of slaves could prepare in days of labor. A single gin could remove the seeds



from the cotton grown by many farmers. Before long a gin had paid for itself many times over.

The cotton from the fields could be made ready for the market more cheaply. This meant that there was more profit in growing it. The profit attracted many more farmers to cotton-raising. The larger supply offered for sale reduced the price of the cotton. The lower price made manufacturers think it would be profitable to spin and weave cotton fabrics by using the new machinery just then being invented for that purpose. The fabrics they made in this way were so cheap that many people bought cotton goods who had rarely used them before. More and more cotton was grown, manufactured, and sold to consumers.

The cotton gin began by saving labor time.

It resulted in supplying consumers with a large variety of desirable and inexpensive fabrics they never before had been able to afford.

In doing so it created a new means of livelihood for thousands of farmers, manufacturers and mill workers. In the end, many more persons were employed in growing and manufacturing cotton than the hand spinners and weavers who had been displaced by the original machinery.

INVENTIONS DO NOT COME SINGLY

The cotton gin is only one of thousands of inventions and technical improvements that have supplied us with more goods for each hour of time at work.

Even as late as the year 1900, which many now

living can still remember, there were no radios, airplanes, movies or safety razors. Rayon, nylon and other synthetic fabrics were still far in the future. The automobile was a rare curiosity, called the "horseless carriage." Few houses had telephones or electric lights. There were no electrical or gas refrigerators, no oil-burning furnaces, no thermostats to regulate the heat. The principal use of petroleum was for kerosene lamps. Rubber was used mainly to make erasers, elastic bands, overshoes, and tires for bicycles, then a recent invention.

If a boy or girl nowadays saves up to buy a bicycle, no doubt it seems that good bicycles cost a great deal of money. Yet when bicycles first came on the market they cost more than they do now, although then most prices were much lower than at present. Before 1890 no modern bicycles at all were made.

In the old days of the village blacksmith someone could have designed a vehicle to be pedalled with the feet, and could have ordered one at the blacksmith shop. A highly skilled smith might have been able to make one. But making it would have taken a long time and would have been costly. More important still, if it were strong enough to stand up under the strain, it would probably have been so heavy that it would have been almost impossible to ride up hill.

Behind the modern bicycle lie hundreds of advances in sciences like chemistry, physics, and metallurgy. In the making of the steel alone, years were needed to acquire the knowledge necessary to

produce a metal frame stiff enough to carry a man without bending, and at the same time light enough to be pedalled easily or carried over obstacles. The steel also had to be tough enough not to break. And the process of making the steel and putting together the frame had to be arranged, with the aid of modern machinery and engineering, so that each bicycle could be made in a short time. The less time it takes to make an article, the less has to be paid in wages to make each one, and the more cheaply it can be sold.

No one inventor can start from scratch, if he is to make a useful and practical product. He has to employ ideas and materials perfected by many others before him. Leonardo da Vinci, the famous Florentine of the fifteenth century, drew designs for an airplane which show that he had the idea. But no plane ever took to the air until more than 400 years later, because nobody solved the problems of providing light enough and strong enough materials for the wings, or a light enough motor with enough power to keep the plane aloft.

Great inventions are the result of small advances by many people. The greater the store of scientific and technical knowledge, the more improvements are possible. When the time is ripe, any important new invention may be made by several people at about the same time.

LOSSES FROM TECHNICAL PROGRESS

Substitution of mechanical power and machines for human muscle and skills marks the chief difference

between the age in which we live and those that went before it. This process has been so rapid that many have suffered from it, at least temporarily.

Slavery in the South of the United States was probably on its way out when Whitney invented the cotton gin. After that, cotton-growing became so profitable that many more workers were needed in the cotton fields, and slavery gained a new lease of life. In the North, people who practiced the pleasant and satisfying crafts of spinning and weaving by hand, often in the home, lost their customers when the new and cheaper fabrics made in mills by machinery came on the market. The cotton mills employed mostly women and children, worked them eleven to thirteen hours a day, and paid low wages.

Many bitter conflicts have occurred between employers and employees about wages, working hours, and the use of new machinery and methods of management. Some businessmen have suffered loss or have even been forced into bankruptcy by the competition from new products or cheaper prices. Like any other kind of change, technical change has often brought discomfort and hardship.

Nevertheless technical change brings benefits that eventually outweigh its disadvantages. Though some people may lose their jobs on account of new machines, in the end more will be employed. Though wages may for a time be low when new methods are introduced, in the end the workers' level of living will be higher because more is produced and consumed. Though long hours have been customary in

the past, the fact that more goods and services can now be turned out in less time has made possible a marked reduction in working hours, more vacations, more boys and girls in school.

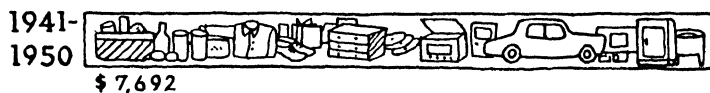
GAINS FROM TECHNICAL PROGRESS

If you take all the money spent by consumers to buy goods and services, and divide it by the number of people in the United States, you get the average amount spent per person. If you correct this amount so that changes in the cost of living are accounted for, you can compare consumption at one time with consumption at a later time.

Such a calculation, recently made by Professor Frederick C. Mills of Columbia University for the National Bureau of Economic Research, shows that consumption per person *much more than doubled* in the United States between the last decade of the nineteenth century (1891-1900) and the decade

Per capita consumption

(IN 1929 DOLLARS)



ending at the middle of the twentieth century (1941-1950). From 1891 to 1900, the expenditure per person for consumption in the ten years was \$3,157. From 1941 to 1950 the ten-year expenditure per person was \$7,692. Both figures are stated in dollars which could buy as much as dollars could buy in 1929. The average purchases of food, clothing, rent and everything else consumers buy increased about 144 per cent in fifty years.

During the same years, the usual working week was reduced from about sixty hours (six ten-hour days) to forty-eight or even forty hours.

And also during the same years, the legal school-leaving age was advanced from ten to fourteen or sixteen. In addition, a much larger proportion of boys and girls now go to high school or college after the law no longer requires them to attend school.

What made all this possible was the fact that men

Shrinking working hours



and women at work produced much more for each hour spent at their jobs. One worker spending one hour at work is called a man-hour. "Output" is the name for whatever a man makes—shoes, cloth, houses. The output per man-hour in the United States increased 181 per cent from 1891-1900 to 1941-1950. That is, in one hour the average worker can turn out nearly three times as much as he could fifty years ago.

You will notice that the increase in output per man-hour (181 per cent) was considerably greater than the increase in the amount consumed per person (144 per cent). What happened to the rest of the gain? Part of the difference is due to the shortening of the working week and the smaller proportion of the population at work. Part went for purchase of new machinery and equipment.

Another large part of the difference was due to World War II, which took place in the decade 1941-1950. In a big war many of the workers are needed in the armed forces, where they produce nothing (except, one hopes, speedy victory). Many have to spend their time making things which are not for sale to consumers, like aircraft carriers, guns, and atomic weapons. During the war, about half the output of the nation was for military uses.

In the ten years 1891-1900, the United States spent \$4 billion for war and defense. In 1941-1950, it spent for these purposes \$228 billion. The rise in prices between these two periods is taken into account in the figures. Each dollar in both of these sums could buy the same amount—as much as in 1929

—so that the terrific increase in expenditure is not an illusion.

Consumers' gains in goods and leisure could be much greater than they are if it were not for the necessity of using so much of our working time for military purposes. For then the time could be put in at making more things we want, or for holidays.

RIISING LEVELS OF LIVING

If any of us were able to walk into an industrial worker's dwelling of a hundred years ago, it would be like entering a different world. A large family might be occupying a hovel or tenement of two or three rooms. Cooking and heating would be done with a stove burning wood or coal, or perhaps even by an open fireplace. There would be no bathroom or plumbing; an outdoor privy would be used, and water for drinking or washing would probably be fetched by hand from a well, spring, or river. Occasionally this water would be likely to be infected with typhoid or other germs. There would be no refrigerator and probably no icebox to keep food fresh. Contagious diseases now rare, like smallpox, diphtheria, or even yellow fever, would carry off members of the family. They would have little or no access to a hospital. The chance of a child's growing to maturity would be far less than now.

This family would of course have no radio or television set, and little time to enjoy one if they had it. Probably they would possess few if any books. The father would be working eleven or twelve hours a

day, perhaps even seven days a week, unless he was unemployed. The children would be obliged to go to work at the age of ten or earlier.

Even with all this labor, the family would have to subsist on the simplest of food, and few changes of clothing. Other possessions would be meager.

If the father and mother had come from another country, very likely they would not know how to read and write.

Some skilled workers were of course better off than this, and there were many satisfactions or amusements that could be had for little or nothing. But insofar as the enjoyment of life depends upon security, leisure, or the products of industry, most people were far poorer than today. What has made possible the rise in living levels has been the continual advance in ability to produce more in less time.

Jim had graduated from high school and applied for a job. Because his standing in school was high, and the employer believed he was competent and responsible, he was given a job in which he earned \$40 a week. The work was steady, too, and under the union contract the employees were paid for legal holidays and vacations. Therefore we may say that Jim's yearly income was \$40 multiplied by the 52 weeks in a year, or \$2080. Out of this money Jim bought food and clothing, paid his rent and carfare, and spent what he thought best for numerous other purposes.

The next year Jim still received the same salary, but the prices of food and clothing were higher, and the transit company had raised its fares. What was his income now? In money, it was still \$2080. But really he was getting less of many of the things he bought. While his *money* income was \$2080 in both years, his *real* income was less because it consisted of the food, the suits, shirts, socks and shoes, and other articles he got for his money. His money income did not change

from the first year to the second, but his real income was reduced.

What was Jim's real expenditure? A real expenditure of a boy who swaps one thing for another is the article he gives up. Jim, let us suppose, was spending what he received—that was his expenditure in *money*. But his *real* expenditure was what he gave up to earn the money. It was the time, the effort, and the skill he devoted to the job. Very likely he spent the same amount of time in the second year as in the first. The effort he had to put into the job in the second year was not quite so great because he had learned the ropes, but the skill and competence devoted to his employer's business instead of to his own purposes had become greater. So, all things considered, his real expenditure in the second year was about the same as in the first.

MEASURING INCOME

Now suppose Jim himself or some other person interested in economic problems, like his employer or an official of his union, wanted to measure Jim's income. The best way, perhaps, would be to make a list of all the things Jim bought with his money.

Then one could know that in the first year Jim earned say, 100 hamburg sandwiches, 15 seats at the ball game, 3 pairs of pants, and so on. And it would be possible, by comparing the list for the second year with the list for the first, to know exactly what the decline in his income was, measured in hamburg sandwiches,

seats at the ball game, pants and everything else he bought.

But the chances are that Jim had made no such list and could not remember what he had bought well enough to construct one. Even if the list existed, it would be a long and cumbersome way to measure Jim's income. Few would take the time to read it all. You could not measure it by a single figure. If you tried to add up hamburg sandwiches, ball game seats, pants and all the rest, the total would be meaningless. There is no shorter way to say ten jackknives and five apples than to say ten jackknives and five apples. What would anybody make of a statement like, "I have fifteen jackknives and apples"? You might have anything from fourteen jackknives and one apple to one jackknife and fourteen apples.

The only way Jim's income can be described by a single figure is to state it in dollars, and that is the way incomes are almost always stated.

MEASURING CHANGES IN INCOME

Here is a puzzle. We can easily measure changes in *dollar* income from one year to another. But how are we going to measure changes in *real* income, if we cannot state the real income of either year as a single total?

Those who have become experts in statistics have devised a way to do this. It is not a perfect way, but it is as good as there is, and it yields approximately correct results.

The United States Department of Labor helps to

do the job. It begins by finding out what families of average size buy in a year. It makes a detailed list of all the goods and services in a budget which represents all the purchases of a typical family. Then it sends trained shoppers to price all these articles in retail stores. Thus it comes up with a total of what the budget costs at the time of pricing. Later exactly the same articles are priced again, and a new total is obtained. By comparing the cost of the budget for any one month with that of any other, one can get a single figure showing how much the prices paid by consumers have changed, for a very long list of things that consumers buy.

The changes are published by the Department of Labor in the form of percentages. Thus, the Department might say that between the first year in which Jim worked and the second year, consumers' prices rose 10 per cent. Jim, and all the others interested, would then know that in order to have the same *real* income in the second year as in the first, his *money* income would also have to be increased 10 per cent. We can put this down in figures.

Jim Receives in Money

	FIRST YEAR	SECOND YEAR
If his <i>Money</i> Income is unchanged	\$2080	=\$2080
If his <i>Real</i> Income is unchanged	\$2080	=\$2288

This calculation would not be absolutely accurate for Jim, since the things he bought would not be

exactly the same as the things in the typical family budget, but it would be close enough for practical purposes.

Suppose Jim's money income in the second year were not increased, what would his real income be? Many people make the mistake of thinking that when prices rise, incomes which remain unchanged in dollars will buy as much less as the increase of prices. As a matter of fact, real incomes fall somewhat less than that. If, for example, prices doubled, the increase would be 100 per cent. But if Jim's real income were to fall 100 per cent, this would mean that after the price rise he had no income at all. Of course his real income would be cut in half, since he would be paying double for whatever he bought. That is, his real income would have fallen 50 per cent.

In the case we imagined, after prices rose 10 per cent and Jim's money income did not increase, he could buy $100/110$, or $10/11$, of what he bought before. His real income would have fallen a little less than 9.1 per cent.

MEASURING REAL EXPENDITURE

No accurate measure of the employee's real expenditure has ever been devised. How is one to represent by numbers such intangible things as effort and skill? Employers have tried to rank the various jobs in their establishments by giving scores to the required effort, skill, and responsibility, and have calculated on that basis what the corresponding

differences in pay ought to be. But measures of this kind are full of guesswork.

Nevertheless, real expenditure is important. If Jim thinks his present job takes too much out of him and he can find another from which he comes home less exhausted, he may shift to the new one, even though the pay is the same. If enough others doing Jim's kind of job feel the same way about it, his first employer may soon have to pay more in order to attract the workers he needs. In other words, the employer will have to recognize, by the compensation he offers, that the real expenditure of the workers on that job was greater than he realized.

Likewise if Jim's skill becomes so high compared to that of other workers that he can get a job with more pay, his earnings will then be a recognition of the greater skill he can contribute.

THE NATIONAL INCOME

Every little while the newspapers and magazines carry an announcement that the national income is a certain number of dollars—a large number, in the hundreds of billions. What does this mean? Does the whole nation earn any money, or receive any money as income from investments?

The “nation,” in the sense of the national income, refers simply to everybody in it. In order to get a figure for the national income, it is necessary to add together the incomes of all the people in the nation. That, roughly, is what the national income means.

The national income would of course include

Jim's income and the incomes of all other earners of wages and salaries. This sum is the largest single part of the national income, but not all of it. There are three other kinds of income besides wages and salaries.

One other kind is the profits received by owners of businesses. (Those who receive dividends are of course paid out of profits.) The income received by farmers and professional men is in part payment for their work, like wages, but part is profit on their investment in land or equipment.

When someone lends money, and charges interest for the loan, the interest is part of his income.

Rent received by owners of land, houses or other buildings is income.

All these kinds of income must be added together to get the national income.

Since the national income means the sum of all incomes, a growth in the national income shows that the people in the nation as a whole are receiving more money. If the national income shrinks, that shows that they are receiving less. One of the reasons why national income figures are collected and published is that we are interested in the fortunes of people generally.

But it is a mistake to suppose that the people in the United States are better off simply because the national income is growing. Before one can be sure of that, he must know about two other things also. In the first place, what has happened to the number of people? If the population has grown as fast as the

national income, then the total income must be shared among more people, and the average individual who receives income is no better off than before.

The second essential piece of information is what has happened to prices. A larger number of dollars in the national income may not be capable of buying any more than before if prices have risen.

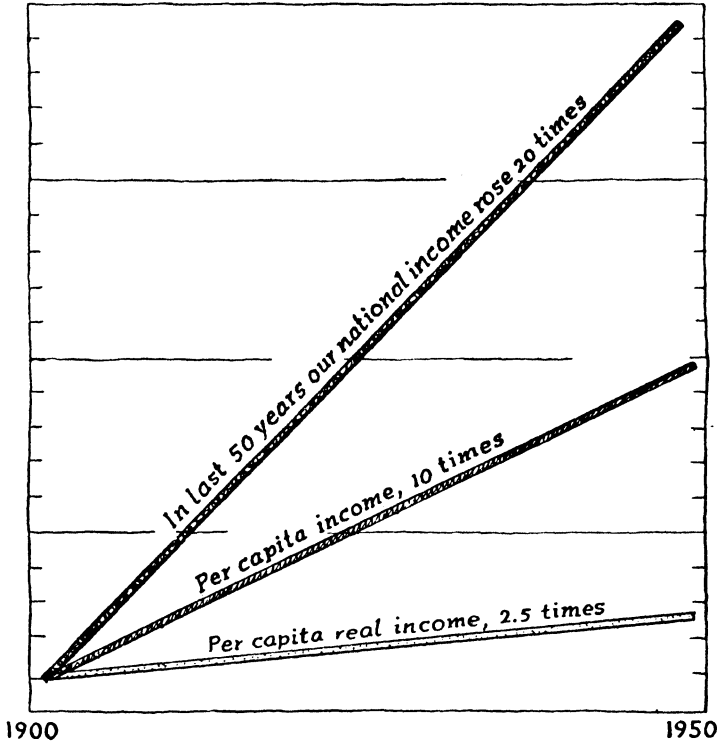
What interests us most of all is *real income per person*, which does show the real income received, divided by the number of people. Sometimes national income figures are stated in this form. A statistical term usually used instead of "per person" is "per capita." That is supposed to be Latin meaning "per head." It is bad Latin, but it has become sanctioned by usage, at least in the United States.

NATIONAL EXPENDITURE

If all the expenditures of everybody during a year were added together, the total would be the national expenditure, just as the total of all incomes is the national income. What kinds of spending are there?

Let us go back to Jim for a moment. Much of what he spends is for various kinds of goods, like food and clothing. For some spending he receives, not goods, but services. This is true when he goes to the barber, or the doctor, or pays his bus fare. He is paying for postal services when he buys stamps. The two big totals of *consumer spending* are therefore for (1) goods, (2) services.

Consumer spending for finished goods and serv-



ices is much larger in total than any other kinds in the country, but there are three other kinds.

First of all there is business spending. Businesses buy buildings and machinery. Most new houses are put up by business concerns. Businesses also from time to time enlarge the stocks of materials which they use in manufacture or keep on their shelves for sale. All these types of *business spending* are called *investment*. In general, investment is spending for something that is not immediately to be consumed, but is an addition to the stock of goods used in production.

More and more important, as the years pass, is *government spending*. Government provides many needed services like schools, the armed forces, conservation of natural resources, firemen and policemen. We could, if we liked, call government spending consumer spending, since consumers eventually receive the services and pay the bills through taxes. But consumers have no choice about paying the taxes (except when they vote for candidates and programs). And in national income bookkeeping it is more convenient to list government spending by itself.

Finally, there is spending abroad. Foreigners buy goods and services in the United States; Americans buy goods and services from other countries. If these two kinds of spending exactly balanced, we could cancel them out against each other. As far as the money spent is concerned, the result would be just the same as if all Americans spent all their money

in the United States. But usually foreign sales and purchases do not balance, and so a correction has to be made for foreign transactions. It is called *net foreign investment*.

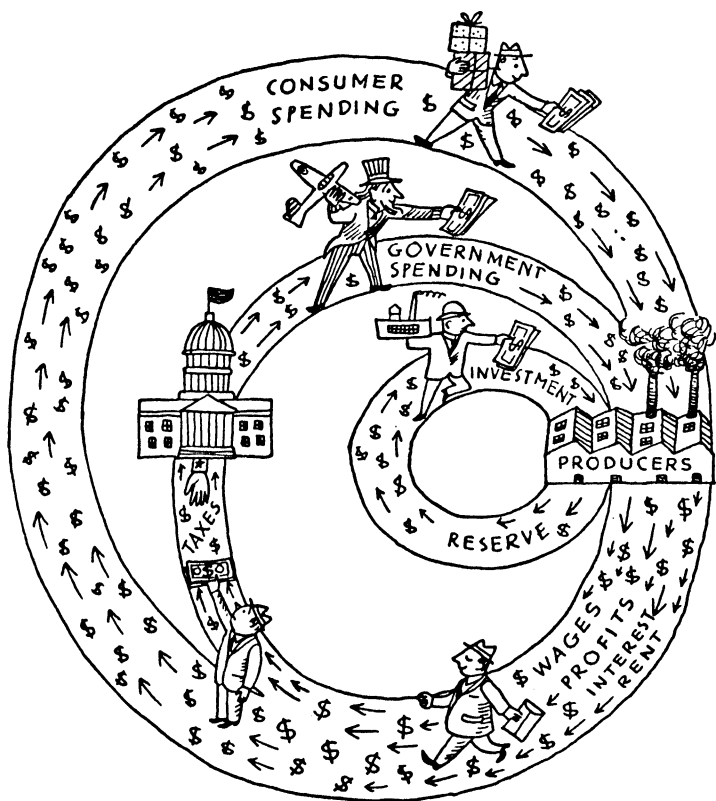
NATIONAL INCOME EQUALS NATIONAL EXPENDITURE

It is an interesting and important fact that if you add together all the incomes of the people for a year, and then add together all their expenditures for the same year, the two sums are equal. (Of course in doing this you have to make sure that no item of income or spending is included twice, for if it is, one sum will be bigger than the other.)

Why is it that national income equals national spending? This is rarely true for any one of us. Most of us spend more than we earn by borrowing the extra money, or less than we earn by saving something. But if everybody is included, *every dollar received by any one person must have been spent by someone else*.

Income and spending for everybody together are just two ways of looking at the same process. Payments flow around and around. When we receive them they are income; when we pay them they are spending. Each person or business receives money that it spends, and spends money that it receives.

The important fact about this process is that if anywhere around the circle somebody spends less than he did before, his action tends to reduce other people's incomes. And if somebody else spends more than he did, that tends to increase other people's incomes. All these changes taken together determine



whether national income (and national spending) will grow from one year to another, or will diminish.

Suppose someone spends less simply because he is saving more. If he puts his savings in a bank or elsewhere so that they are lent to someone else who spends the money, his action does not reduce the income of anyone else. But if either he or the bank hoards the money—that is, does not use it—then it is not paid out and someone else has less income as a result.

If nearly everybody is employed, and there is a shortage of goods for sale, then we don't want more spending, because that will only raise prices. But if there is serious unemployment and prices are falling, then more spending will increase the demand for goods and men, and the national *real* income will grow as a result.

6 | *Ways of Saving*

Money not spent is money saved. Most of us are likely to spend all we earn unless we adopt careful plans for saving, and carry them through as a matter of habit. A plan for saving must begin with a budget. It need not be complicated, but it must be a workable plan showing you what you can count on doing.

In order to draw up a budget, estimate carefully what you spend now on all the necessities and luxuries. If you spend all you make, but want to save something, see what expenditures can be shaved down. Decide how much you want to save. Then each time you receive money, whether from wages, allowance or any other regular source, take out *first* the money to be saved, and act as if the remainder were all you have to live on.

Robert made up a simple budget of this sort. He earned \$35 a week. Calculating his expenses, he found that he spent his money about as follows:

(Average expenses per week)

Food	\$15.00
Rent	8.00
Carfare, etc.	2.00
Clothing	3.00
Amusements & miscellaneous	7.00
	\$35.00

How much could he save? He might economize on his food, he thought, mainly by cutting down on ice-cream sodas and fancy desserts, and at the same time benefit his health. In this way he planned to save \$3 a week. Another \$2 he might shave off the amusement and miscellaneous item, if he simply did not have it in his pocket. Thus he could get \$5 weekly to lay aside, or about \$250 a year.

Suppose you are strong-minded enough, or lucky enough, to keep some money unspent. What can you do with it?

One way is just to have it about you until you want it. This is a common practice, but to find a really safe place is not easy. Pocketbooks may be lost or stolen; fires may burn down houses; people sometimes hide money and then forget where they have put it.

Pirates, according to legend, used to hide their loot in caves or in the sand. Misers sometimes stuff their treasure under newspapers in closets, or behind the plaster, where it may be found years later when an old house is torn down. Yet burying treasure is not a promising way to get rich. A far more

certain way is to put extra money regularly in a place where it may be of some use until you have need of it.

SAVING IN BANKS

Martha received a present of \$100 on her fifteenth birthday. Instead of spending it for clothes, jewelry or good times, she decided to put it in a savings bank. Since the bank was offering 2 per cent interest on deposits, \$2 would be added to her \$100 for each year she left it there. A little higher interest is being paid as this book is written, but 2 per cent is used as an example for convenience in figuring. At the end of the first year she would thus have \$102.

Would not the pleasure Martha would have obtained from spending the \$100 have been worth the sacrifice of that \$2 of interest? Possibly; people would save much more money than they do if they did not usually value present satisfaction more than future gain.

Yet Martha decided to leave her money untouched in the bank. At the end of the second year, she found that the bank had put down to her credit, not \$104, but \$104.04. The original \$100 had now earned two years' interest, or \$4, and in addition the first year's interest of \$2 had earned interest also—or four cents. This practice of adding interest to interest is called "compound interest."

Surely the extra four cents hardly amounted to anything. It would barely buy a postage stamp. Yet it was the beginning of a process that could pile up

like a rolling snowball as it went along. Suppose Martha had left her original \$100 in the bank, without putting any more in or drawing any out, until she was fifty years old. She would then have been able to draw out of the bank \$200, or twice as much as she had deposited. The \$200 would have included her original \$100, plus \$70 for interest on it at \$2 a year, plus \$30 for interest on the interest.

Martha, in fact, not only left her original \$100 in the bank, but was enough impressed by the advantage of saving so that she began to put aside regularly about \$2 a week, and so every year added \$100 to her savings account. How much would she then have to help out after she had passed the half-century mark? Clearly, enough so that, beginning at 50, she could draw out of the bank \$200 each year until she was 85. If she wished to take it all out at once, she would find that by saving during the 35 years a total of \$3500, she had accumulated about \$5000. The additional money would have come from compound interest.

How can savings banks afford to pay out to depositors so much more than the depositors put in? Merely by lending the money, at interest, to borrowers. John and Sally, when they married, borrowed \$5000 from the bank in order to help them buy a house. They paid about 4 per cent interest, by the terms of the mortgage which they signed in order to obtain the loan. If for any reason they had failed to pay what they owed, the bank could have taken their house and sold it in order to make sure that the loan

was repaid. Thus Martha's money was reasonably safe. She was receiving part of the interest paid by John and Sally. The rest was helping to pay the expenses of the bank and any losses it might suffer.

Banks also lend money to big companies, to the United States government, and to states, cities and towns. Martha's money, and the money of other savings depositors, is being used by those who need it and can offer good assurance that they are able to repay what they borrow. Martha's money is far more useful than if she had kept it in a box at home, and had not received any interest on it at all.

SAVING BY INSURANCE

When John married Sally, he wanted to make sure that she would not be left penniless if anything should happen to him. So he talked to a responsible life insurance representative, and by agreeing to pay a fixed amount every year made certain that if he should die she would receive \$10,000.

Suppose John should be killed in an accident after he had paid the insurance company only \$100. The company would nevertheless have to pay Sally \$10,000. How could it possibly afford to do this? Where would it get the \$9,900 which John had not paid in? It would get it mainly from the yearly payments of those who did not die so early. Anyone who lives a long time gets less benefit from an insurance policy than one who dies early. The insured person merely safeguards his family against the *chance* that the money will be needed before he has lived long

enough to save the amount for which he insures his life.

The insurance part of a life-insurance policy is much like fire insurance. Those whose houses are burned down receive something to cover the loss, at the expense of those whose houses never catch fire. Since it is uncertain who may suffer from fire, everybody concerned is willing to pay something to safeguard himself against the chance. The company comes out even because experience shows about how much it will have to pay out yearly to cover all the losses, and consequently about how much it must charge each insured person.

There are many kinds of life insurance policies; some of them include savings plans as well as insurance pure and simple. With such a policy, the insured person pays something besides the cost of the actual insurance. This extra amount is credited to him by the company, and interest is added to it as the years pass. His policy in this case has a "cash value." He can borrow from the company if he needs to do so. If he decides at some future time that he does not need the insurance, and wants to stop making the regular payments, called "premiums," the company will pay back to him the amount he has saved including whatever the investment has earned.

The most common kind of life insurance is called "ordinary life." This includes both insurance and saving. Another prevalent kind of insurance is the "endowment" policy. This is like the ordinary life policy because it covers both insurance and savings.

The company also agrees in advance to pay back to the insured person a certain sum of money at a certain age, the sum depending on how much he has paid in.

In some states, life insurance can be obtained from savings banks. The cost of this insurance is often lower than that sold by regular insurance companies, since the banks do not use an expensive sales force to persuade people to take out insurance.

Almost all insurance companies are privately owned, in the sense that they are not the property of the citizens through their government. Veterans' insurance, however, is handled by a governmental agency; it is unusually cheap. Of the privately owned companies, some use their profit to pay dividends to their stockholders, just like any business concern. Others, called "mutual" companies, pay dividends to all those who insure with them. The insured person may choose whether to apply these dividends to reduce the cost of the insurance or to increase the cash value of the policy. In most states all private insurance companies, whether mutual or not, are strictly regulated by public officials in order to protect those who are insured.

DIRECT PERSONAL INVESTMENT

Instead of leaving his extra money with a savings bank or a life insurance company, the saver may himself buy bonds or stocks, a piece of land, a house or building, or other lasting property. In this way he may be able to accumulate gain faster. But he also may take a greater risk of loss.

By far the safest form of investment for a person with small means consists of United States Savings Bonds. These can be bought at any bank or post office. Employees frequently authorize their employers to buy these bonds for them, deducting the money regularly from their wages or salaries.

Only individuals can buy the usual form of United States Savings Bonds (Series E); the government does not sell them to companies. If you paid \$75 for a bond in 1953, you can turn it in near the end of 10 years, or in 1963, for \$100. It becomes worth that much more, as the years pass, because the government pays compound interest on it. This is a higher rate of interest than is paid on savings by most savings banks or insurance companies. Your risk of losing your money is no greater than the risk that the United States government will not be able to raise the money to repay you. Since the United States is the richest nation in the world, and its government has survived for more than 160 years, this risk is smaller than you would incur on any other kind of investment.

If you buy United States Savings Bonds, the government hopes that you will keep them until they mature, that is, for ten years. But if you need the money in the meantime, you can always cash the bonds, not for as much as they will become worth if you keep them, but for more than you paid for them.

BONDS OR STOCKS?

To accumulate money in savings gives one a comfortable feeling that in case of need there is

something to rely on. This feeling is well justified. Nevertheless there is no certainty that even the safest form of saving is a way of getting back as much as you put in, or, with compound interest, even more. A government bond or a savings bank will almost surely pay you back exactly the number of *dollars* it promises to pay. But will these dollars buy the same amount when you draw them out as when you put them in? Nobody can be sure of that.

If prices are higher when the money is drawn out of the bank than when it was put in, the dollars saved will not buy so much as when they were laid aside. A person who paid \$75 for a United States Savings Bond in 1942 got back \$100 in 1952. Meanwhile the cost of living had gone up so much that the \$100 would buy no more in 1952 than \$63.67 would have bought in 1942, when the money was saved. In other words, the saver got back, *in real value*, \$11.43 less than he put in. Of course prices sometimes go down, too, and in that case the saver receives back, *in real value*, more than he bargained for.

Anyone who saves cash or buys a bond or takes out an insurance policy is really taking a chance. Whether he knows it or not, he is betting that the cost of living will be steady or go down.

For this reason many people believe in using savings to buy something that will be worth more in the future than now, if prices go up. Shares of stock in successful corporations usually rise in price during periods of prosperity, and it is in such periods that other prices rise, too. A share of stock is a share in

the ownership of a corporation; it increases in dollar value as the profits of the corporation rise. When you buy a bond, you *lend* money; the bond is a promise to pay back to you the same number of dollars you lent, plus interest. When you buy stock, you buy part of the ownership of a business, and share correspondingly in its good fortune, if it is successful.

But stocks can go down, too, if prices fall or business is poor. When you buy a share of stock you are, whether you know it or not, betting that prices will not fall, or will rise. You are also betting that the concern in which you buy a share of the ownership will do well. The value of stocks may fall very low and very fast in bad times; they may even become worthless.

The best policy for the person who saves a small amount of money is to make sure that he will get back at least the same number of dollars he saves, even if those dollars may be worth less when he withdraws them than when he saves them.

After he has saved a substantial amount in this way—as in a savings bank or in government savings bonds or in an insurance company—he may then put additional savings into shares of stock of strong and reliable corporations. Then he is safeguarded to some extent, no matter what the cost of living may do. If it goes up, he is likely to get more dollars from his stock, to make up for the loss of real value in the money he has invested in bonds. If the cost of living goes down, he will lose something on his stock, but the dollars from the bonds will buy more.

When Jim got his job (Chapter 5), it was easy to find one, and at good pay, too. The only trouble was that prices were rising, so that in his second year of employment he could not buy so much, unless his wages were increased. But at the end of that year prices started to fall again. To Jim this seemed an unexpected bit of good luck. His money would go further than before in buying food and other day-to-day purchases; department stores and specialty shops even put on big sales at which extraordinary bargains could be found. Jim wished he had saved some money to take more advantage of these opportunities.

A SLUMP ARRIVES

In June of this third year Jim's younger brother, Henry, was graduated from high school and applied for a job where Jim was working. "I'm sorry," said the employment manager, "but we're not taking on anyone. Business has fallen off. As a matter of fact we shall have to go on short time next week." Henry then made the rounds of all the establishments in

his locality where he thought his training might be useful, but was told the same story everywhere. Finally he decided that he would take almost any job while he waited for the situation to improve, but the lower down in the scale he looked, the less chance there seemed to be. There was already a good deal of unemployment among the unskilled.

Meanwhile Jim was working only part time and making correspondingly less money. Nobody had yet been discharged from his plant, because the union had an agreement with the management that when there was less work to do, the management would allow it to be shared equally among the existing employees instead of laying off anyone. Eventually, however, Jim found a slip in his pay envelope notifying him not to report for work the following week. He sought out his union representative and asked for an explanation.

"Well," said the official, "the work to be done has now fallen off so much that if we cut working time any further, the people in the plant would make less than if they had no jobs at all and received unemployment compensation. Our agreement with the company provides that when that point is reached, workers will be laid off, beginning at the bottom of the seniority list. Since you are a newcomer, your seniority is less than that of most of the others."

UNEMPLOYMENT INSURANCE

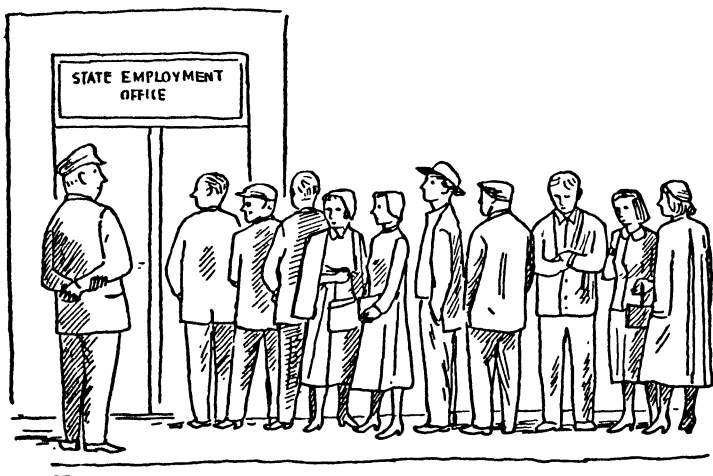
"What about this unemployment compensation?" asked Jim. "What can I do about that?"

"Go over to the state employment office," answered the union leader, "and register. They will find a job suitable for you if they can. If no such job turns up, after two weeks you will begin to receive every week a sum which is about 60 per cent of your earnings while you were at work."

"Who pays for all that?" asked Jim.

"It is paid out of a fund collected by the government from employers when times are good. Each employer has to pay a certain percentage of his payroll. That is part of his expense of production. During prosperous periods he probably gets it back by raising his prices enough so that the buying public pays the cost."

Because Jim received unemployment compensation, he was able to continue buying barely enough



to live on, without asking for charity. And because Jim and hundreds of thousands of other unemployed workers did continue to buy, the slump did not get so serious as it might otherwise have been.

Henry also tried to draw compensation by registering at the state employment office. The office was glad to try to find him a job, but told him he was not entitled to compensation since he had never held a job and no employer had paid in money on his account.

In any serious depression people under twenty usually find it harder than others to get jobs, to hold them, or to qualify for unemployment benefits. This may be fair, since fewer of them have to support families of their own. But it should make young people even more alert than others to learn about depressions so that they can be avoided if possible.

WHY DEPRESSION?

Everywhere Jim and Henry went, people were talking about what caused unemployment and how to prevent it. Some oldsters said it had always come every few years, that it just occurred in the nature of things, and there was nothing to do about it.

Some, including a good many employers, thought it was because too much of everything had been manufactured, so that the markets were flooded. The local labor leader answered that point by saying that the working people would buy everything industry could make if they only had enough money; the real trouble was that wages had not been high enough.

Jim believed this was a good argument, and the next time he saw his former employer, with whom he was on good terms, asked him what he thought about it.

The employer answered, "Well, Jim, if employers paid such high wages that they did not make any profit, they would not continue long in business, and there would be even fewer jobs than there are now."

"But don't employers sometimes make more profit than they need to?"

"Undoubtedly, but wherever competition is keen, high profits will attract new people into the business and either increase wages or force down prices. That will raise *real* wages until profits are about as small as they could be and still keep business alive."

Jim thought a minute, and then said, "I heard a speaker on the street corner say that the whole trouble was the profit system. If the government owned all business, he said, it could keep it going without making any profit. How about that?"

"Maybe so, but don't forget that most of the new investment which enlarges factories, builds houses, and buys machinery comes out of profits. If the government owned industry and did not keep back something for investment, we should never make any progress."

Another group of persons said the trouble was that *neither* workers nor employers had enough money. The banks, they said, ought to lend more in time of depression. Banks should restrict their lending of money only at times when people try to

spend so much that they drive prices up. Jim asked his employer about that.

"It's all right as a theory," answered the employer, "and I believe the banks ought to act on it as much as they can. But it's far from the whole story. If you should go to a bank now and try to borrow money, they would not lend it to you because you have no assurance of a job and the bank could not be sure of being repaid. If I should try to borrow from banks more than I already owe them, they would not lend it to me because my business is not expanding and the loan would be unsafe. No one bank can afford to take such risks."

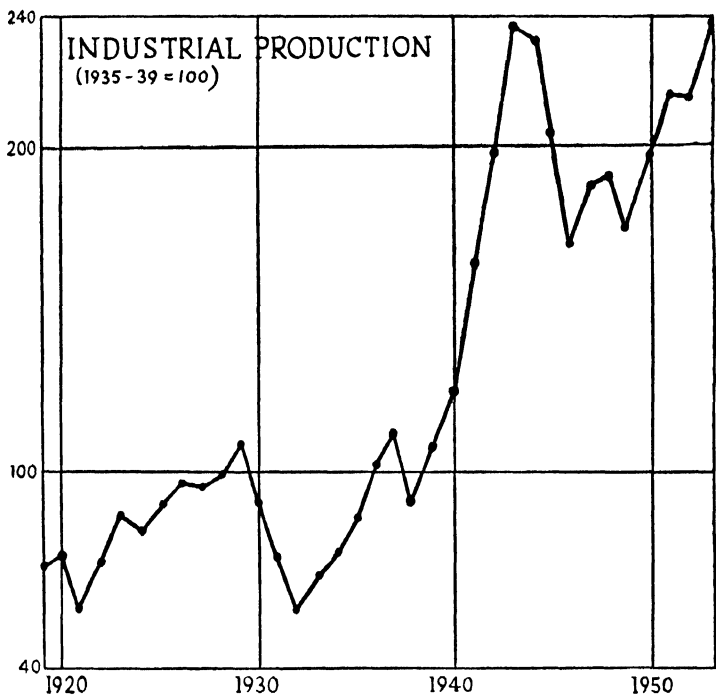
The more Jim and Henry tried to figure it out, the more confused they became. There were too many theories, and there seemed to be a good argument to answer each of them.

SCIENCE AND BUSINESS CYCLES

Economists themselves have in the past offered a large variety of explanations for depression, and have thus produced almost as much confusion as the people with whom Jim and Henry talked. In recent years, however, more and more economists have turned to studying carefully what actually has happened, much as a chemist or a biologist or a medical researcher studies any scientific problem.

Among the conclusions which have come from such careful study, the following are fairly certain.

A succession of ups and downs in business and employment has gone on in every civilization depend-



ing on markets and money, as far back as there is any record.

We have to account not merely for the downward movements, but for the upward movements as well, if we are to find out much about the subject. Upward and downward movements together make a continuous repetition of *cycles*. Hence study of the subject is called study of the "business cycle" or "trade cycle."

The average length of the cycle in the United States (each cycle including both an upward and a downward movement) has been, for half a century, about $3\frac{1}{2}$ years. But this is just an *average*. Any particular cycle may be much longer or much shorter than the average.

Some cycles have been very severe, others so mild as to be hardly noticeable, some in between. There is no certain way of telling in advance how severe a depression will be, or how long it will last.

It is easy to account for the continuation of a downward movement, once it begins, if one thinks in very broad, simple terms. Some individuals or businesses start to spend less. If the number of dollars cut from spending is greater than the number added by those who are spending more, the incomes of spenders are reduced; they in turn spend less, and so on. Soon there is not enough market demand to buy all the goods or employ all the workers.

The continuation of an upward movement can be accounted for in much the same way. Spending begins to increase somewhere, this in turn increases others'

spending. Businessmen, finding it easier to sell, increase production and take on unemployed workers.

What is difficult is to discover why a downward movement stops and an upturn begins, or why an upward movement stops and a downward one begins.

It has been discovered, however, what kinds of spending are most irregular. The two most changeable kinds are (1) business spending for new investment and (2) consumers' spending for durable goods like automobiles and furniture.

CAN WE GET RID OF THE CYCLE?

No calamity except a major war is so devastating to a nation as a severe depression. If such depressions could be prevented, the chief fault of our economic system would be remedied. Mild slumps are not so serious.

Economists are almost unanimously agreed that we can do a good deal to prevent severe depressions even if we never find a single "cause" of the cycle that could be expressed in words like the arguments heard by Jim and Henry.

The business cycle is like a vibration in a rapidly moving object or piece of machinery. It may result from a great many irregularities in the structure of the object or in the forces applied to it. But no matter what causes the vibration, it can be greatly diminished by the use of devices which counter-balance or *compensate* for the irregular movement.

A steam engine has a governor which maintains an even speed of the engine. When the engine

starts to go faster, the governor partly closes the valve through which the steam reaches the cylinders. When the engine falls below the desired speed, the governor opens the steam valve wider.

Did you ever see an automobile mechanic balance the wheel of a car? A wheel, with its tire, may be heavier at one point of the circumference than at others. If it is out of balance, it will wobble when it rotates at high speed. This wobble will make the car "shimmy," and cause driving to be uncomfortable or even dangerous. To balance such a wheel, the mechanic does not build it all over again. He simply attaches a few lead weights at the proper places so that it will rotate more smoothly.

Unemployment insurance is one such balancing device or governor for the business cycle. It takes money away from business and the public when prices are high and jobs are easy to find. This money is stored in a fund until the unemployed need it. Then it is passed out and helps to keep spending up.

Unemployment insurance will not do the job alone. A number of other such devices have been built into our economic system in recent years. One aims to keep the farmers' income up when depression hits them. Another works through the banking system to limit bank loans when prices are high and to make more money available when employment is falling.

If government, which is a very large spender indeed, would take in more taxes than it spends when the upward movement of the cycle needs to be

curbed, and would spend more than it takes in when we are on the downgrade, an important compensating force would be applied.

Whatever might be done to make more regular the two most wobbly kinds of spending—business investment and consumers' purchase of durable goods—would help tremendously.

There is still much to be learned about the business cycle and ways of controlling it. But already enough is known so that some progress can be made.

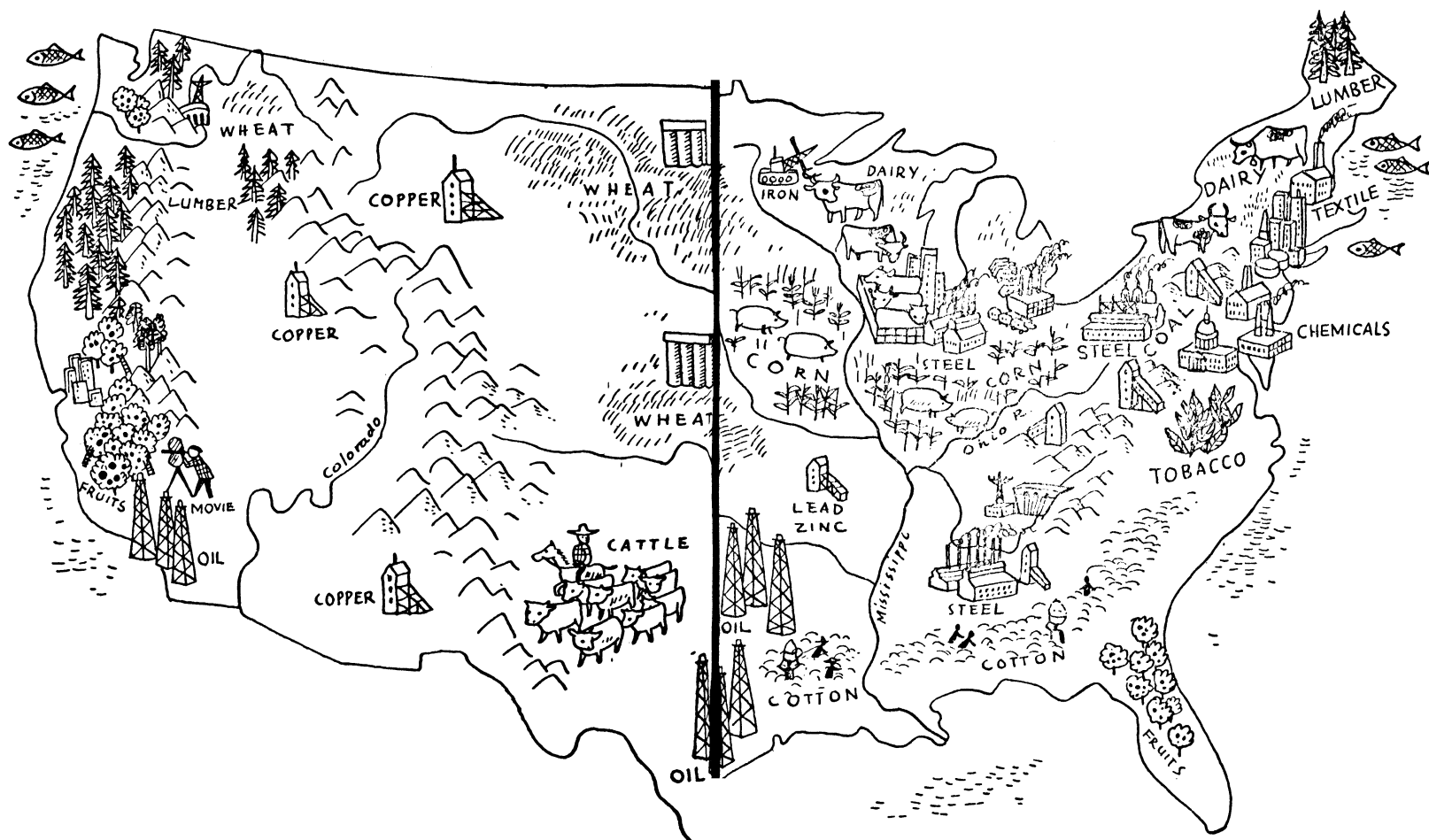
At least one simple maxim could certainly be applied by many businessmen and individual consumers. When prices are rising and people are on a spending spree—that is the time to save as much money as you can. Postpone purchases of all the things you can temporarily do without until prices fall and people are unemployed. Then you can get your purchases cheaper, and your spending will help us all out of the slump.

The United States is by far the richest nation in the world, not just in money, but in goods and services. The average consumption of the things people want is greater than elsewhere. There are other countries that contain very wealthy individuals, but none where necessities and comforts are so widely enjoyed by people in general. Why is this true?

NATURAL RESOURCES

The part of the North American continent occupied by the United States is specially favored by nature. On the coastal plain east of the Appalachians, in the great Mississippi Basin, and on the West Coast, there are vast stretches of good farming land, for the most part well watered by ample rainfall. Cattle-grazing and wheat farming are pursued in drier regions. Originally about half the nation was covered by virgin forests, and though most of these have been cleared to make way for farming, there are still large tracts of valuable trees.

Under the ground have been discovered rich deposits of coal, iron, copper, petroleum and other



minerals useful to man. Though the United States has little nickel or tin, almost every other valuable metal or rock has been found. In particular, the coal and iron have made possible the largest steel industry in the world, and steel has been the basis of mechanical civilization.

The climate is that of the temperate zone, which is favorable to agriculture. At the same time there are enough differences in climate between the cool North and the warm South so that a large variety of crops can be profitably grown. Only a few important agricultural products raised in tropical regions, like coffee, rubber, sugar, cocoa and bananas, must be imported.

Specially necessary to an industrial civilization are sources of mechanical power, which is substituted for the muscles of men and animals as technology advances. The two most important sources of power in recent times have been coal and petroleum. Of both of these the United States has an abundance. Oil was, indeed, first discovered in this country, which has long produced and used much more of it than any other nation. In addition, the many streams and rivers have from the beginning supplied water power in many regions.

PEOPLE

The most plentiful resources would be of no use unless there were competent people to discover them and work at them. When European settlement of North America began, the continent was populated

by less than ten million widely scattered red men. People who crossed the Atlantic to find homes in the new country had to depend on their own efforts to feed, clothe, and house themselves. Those who survived the hardships of pioneering had to be energetic and self-reliant. Many of them developed great ingenuity in dealing with new problems. At the same time the pioneers learned the necessity of cooperating with one another. These traits and habits were passed on to their descendants, so that enterprise, invention, and helpfulness have become outstanding characteristics of Americans. Another unique American habit is readiness to move from place to place in search of better opportunity. Americans have been more ready than most peoples to make use of new methods and new inventions.

Since there was plenty of land for all, there never thrived, except in the slave states, the aristocratic system common in Europe. At the top, in the older countries, a hereditary nobility owning great tracts of land ruled propertyless classes who had to work for them. In America personal independence and the democratic tradition favored ambition to rise in the world. Free labor was unusually well paid because it was relatively scarce. Americans never fell into the habit of regarding poverty as an inevitable condition of the masses of the people, and were ready to accept change and improvements which might increase the general well-being.

Even now, though the population has grown tremendously, there are still not too many people to

live well on the land and resources of the United States. It has become vitally necessary, however, to conserve natural resources instead of wasting them as former generations often did.

A BROAD TRADING AREA

Europe has had about as rich natural resources as the United States, and enjoys as great an area and as large a range of favorable climates. A widely scattered variety of soils and resources always favors the growth of trade. Each region tends to specialize in what it can do best, exchanging its products for those of other regions. This helps to enrich all. Next to the United States and some of the Dominions of the British Commonwealth, the more advanced European countries have the highest levels of living in the world. Yet Europe has suffered from one grave disadvantage that the United States has avoided. The European continent is divided among a number of nations with different languages, traditions and governments. These nations use different kinds of money. They have erected barriers to trade along their frontiers, such as tariffs (taxes on foreign products brought into the country).

The United States, extending across the American continent, is one nation. Within the United States anyone can trade freely and easily with anyone else. There are no customs houses or armed guards along the frontiers of the forty-eight states. The same language is spoken everywhere within the country. All use the same kind of money. All this has encouraged specialization and a large flow of trade. It has added immensely to the welfare of all United States citizens

because they can as a rule obtain their supplies from the best and cheapest sources within the country.

THE PRODUCERS OF GOODS: I. AGRICULTURE

Since everybody must eat and at the beginning almost every family made its own necessities, an overwhelming majority of the population was engaged in farming. Even at the time of the foundation of the Republic, probably 80 per cent were farmers. But as specialization took hold, as the country became settled, and as technical progress in agriculture made it possible to grow more with less labor, the proportion of farmers shrank. Today less than 20 per cent of the workers of the nation are engaged in farming. They produce not only all the food and fibers necessary for the population (with the exception of tropical imports) but a surplus for export as well.

In the northeastern states, where industrial cities and towns predominate, the principal crops are those which it is advantageous to deliver fresh to city markets. Among these are milk, green vegetables, poultry and fruit. Potatoes are grown in the favorable soils of northern Maine and Long Island.

In the central states of the Mississippi Valley lies the great Corn Belt. There corn is raised, principally to feed hogs and fatten beef cattle brought in from the western cattle ranches. The deep, rich soils and hot summers, combined with ample rainfall, are extremely favorable for corn. The "finished" hogs and beef cattle are bought largely by the great meat-packing companies of Chicago, Kansas City and St.

Louis. Dairying is also prevalent near the cities, and in Wisconsin, which specializes in cheese-making.

West of the Corn Belt, wheat is a principal crop. Winter wheat—planted in the fall—is the specialty of the more southerly of these states. Spring wheat—planted in the spring and maturing in the fall—is grown in the more northerly, such as Minnesota, and in the Great Plains just east of the Rocky Mountains, where the rainfall is not adequate for most other crops. In specially dry years there is not even enough rain for wheat.

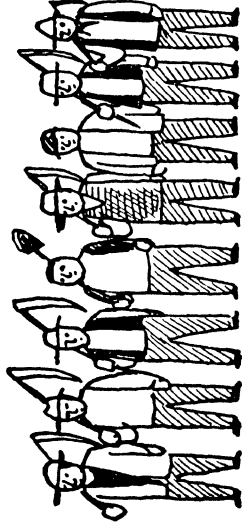
Beef cattle are bred and raised in Texas and the high plateaus near the Rockies where wheat is not grown. Ranch cattle are usually sold at the proper age to midwestern farmers to be fattened for the market.

The southern states raise cotton, tobacco, peanuts, pecans, vegetables, sugar cane and rice, besides a variety of other crops for home consumption. Oranges, lemons and grapefruit are grown in Florida.

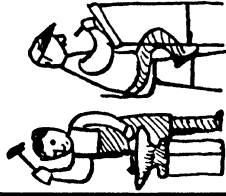
On the West Coast, California is famous for its citrus fruit, its grapes, raisins, and nuts. Cotton growing has also become well established there. In the more northerly West Coast states apples and many other crops suitable to the climate are raised.

Many other specialized crops are grown where conditions favorable to them exist. In addition to the specialized farmers dependent on selling their produce, there are still a large number of farm families who grow food mainly for their own consumption. These exist chiefly in the more mountainous regions

IN
1800

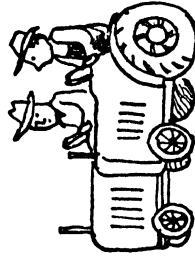


FARMERS

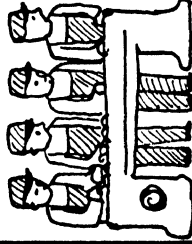


OTHER WORKERS

TODAY



FARMERS



WORKERS IN FACTORIES AND
OFFICES

Each man stands for 10% of workers

of the East, where the soil is poor and families can barely eke out a living.

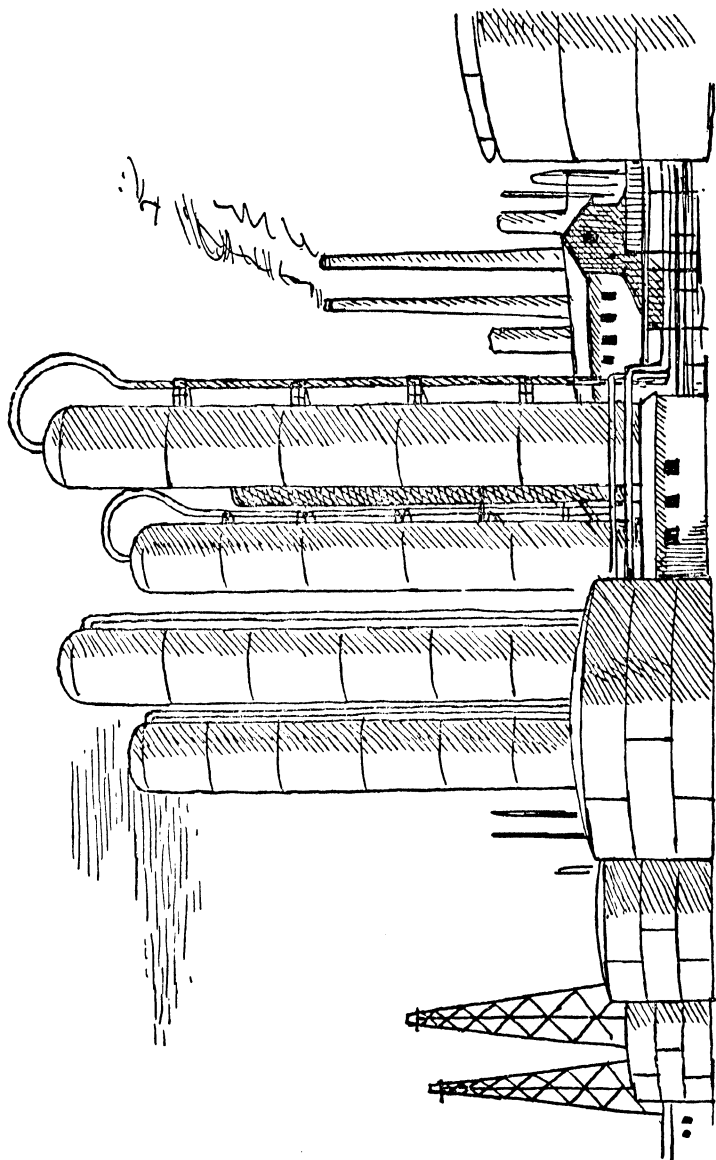
THE PRODUCERS OF GOODS: 2. MINING

Mining is important to procure the minerals necessary for industrial materials and power—iron and other metals, coal and oil. Yet it employs only a small percentage of the population.

By far the largest number of miners are engaged in extracting coal—anthracite or hard coal in eastern Pennsylvania; bituminous or soft coal in Western Pennsylvania, West Virginia, Alabama, several midwestern states, Colorado and other scattered localities.

Oil was first discovered in Pennsylvania and later in neighboring states—a region called the mid-continent field. New sources of oil have periodically been found—in Texas and Oklahoma, in California, and numerous other places, including land under the waters of the Gulf of Mexico. Because of the highly mechanized means of bringing oil to the surface, the number of men engaged in this form of mining is extremely small.

Metal mining is carried on in the Rocky Mountain regions, where many mineral deposits lie, and in other widely scattered localities. Iron is mined in Alabama, Minnesota—where the richest deposits have been uncovered—and elsewhere. Lead and zinc are obtained in Missouri. Because of the enormous amounts of mining products used by American industry, the United States is importing and will in future import more iron, copper and other metals.



THE PRODUCERS OF GOODS: 3. MANUFACTURE

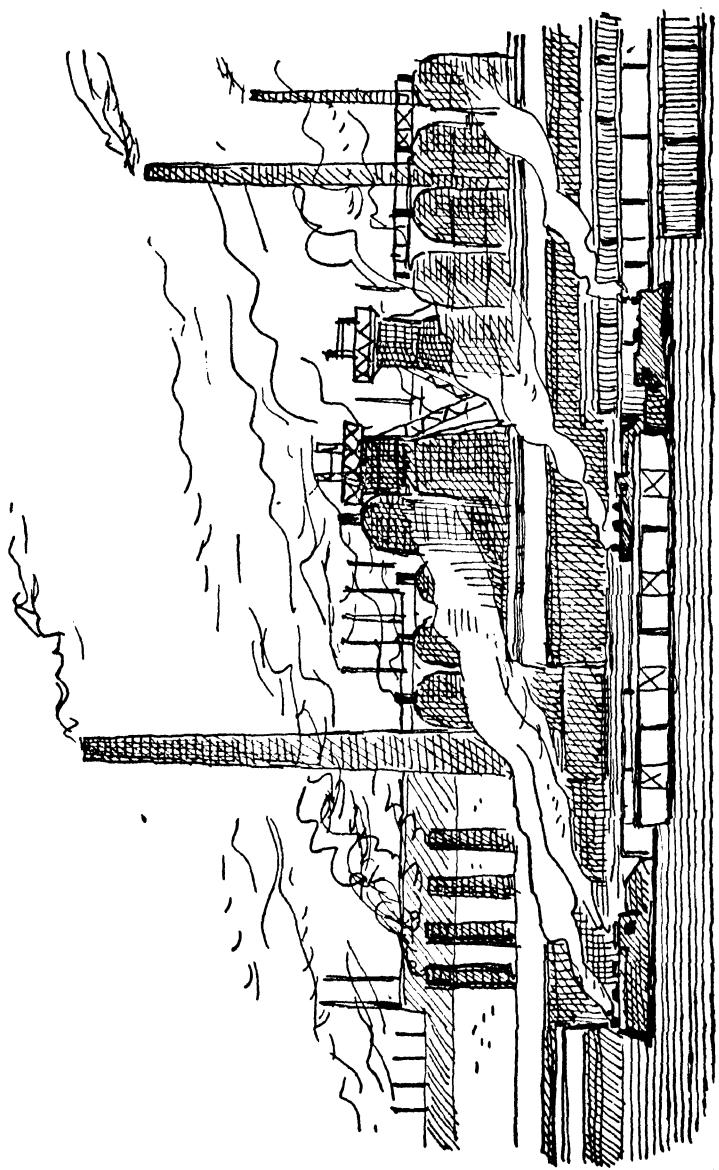
Materials supplied by agriculture and mining are fabricated into finished products by mills and factories in many parts of the nation.

Among the earliest manufacturing establishments to become important were the textile mills, which spin, weave and dye fabrics out of wool, cotton, silk, and in recent years, synthetic fibers like rayon and nylon. States in New England and other parts of the Northeast were long the stronghold of the textile industry, but cotton mills have lately been growing much more rapidly in the South.

The cloth produced by the mills is made into clothing by the men's and women's clothing industries, located chiefly in cities like New York, Chicago, Rochester, Philadelphia, Baltimore and other industrial centers. Shoes used to be made largely in New England, but the industry has now become firmly established in the Midwest.

One of the largest groups of industries is that engaged in the processing of food. Flour milling is carried on extensively in Minnesota, Buffalo, Kansas City and Omaha. The largest meat packers are near the cattle-growing regions in Chicago and other midwestern cities. Canning, preserving, baking, and other food industries may be found wherever proximity to raw materials or markets creates favorable conditions.

Clothing and food are the principal industries making "non-durable" goods for individual consumers. Other great branches of manufacture are engaged in



producing "durable" goods for both industry and consumers. Iron and steel is the industry basic to these. It is centered largely in Pennsylvania, Ohio, Indiana, Illinois and Alabama because of the proximity of its chief materials—coal and iron—but there are other centers in Colorado and on the Atlantic Coast.

The manufacture of motor vehicles and parts for them is of course mainly in the neighborhood of Detroit. Electrical equipment is made in New York, Pennsylvania, New England and other states. Brass and copper and a large variety of manufactures dependent on them are fabricated in Connecticut.

A young giant among industries is chemicals, which experienced its greatest growth after 1920. An important center is in Delaware, but chemical plants of many varieties may be found in numerous other localities.

Industries making building materials are located where they can reach both markets and raw products that they need. Such industries include pottery, brick, glass, woodwork, hardware, heating equipment, electrical equipment, paint, roofing and others.

Oil refineries are mainly in populous states near their chief markets; the oil from the wells is carried to them in pipelines. Motion pictures are made largely in southern California because of the climate. Paper mills are close to sources of pulpwood; printing is carried on in every city, though New York and Chicago are probably the greatest printing centers. The publishing of magazines and books is also centralized, chiefly in New York, Boston and Philadelphia.

No short list could begin to include all the many manufacturing industries. There is some manufacturing in almost every section of the nation, but the heaviest concentration is in the Northeast and North Central states.

Building construction, though not strictly a factory industry, is one of the largest and most important producers of goods.

TRANSPORTERS AND SELLERS OF GOODS

It is natural to suppose that our industrial civilization is composed mainly of those who extract goods from the earth and fabricate them. Yet all the people engaged in farming, mining and manufacture put together make up less than half the working population of the United States and do not earn as much as 40 per cent of the national income. Our highly specialized production could not exist without a fully developed system of transportation to carry the materials from fields and mines to factories, from one factory to another, and from producing centers to consumers. Nor could it exist without the millions engaged in commerce or trade, who specialize in selling the goods.

It was the building first of waterways and then of railroads that made possible the wide markets and the gathering of scattered resources on which modern agriculture and industry depend. The great railway systems, spanning the country from coast to coast, and from northern to southern boundaries, with their network of feeder lines, made possible the rapid

growth of the producers of goods in the last half of the nineteenth century. Railways not only carried the goods, but stimulated many of the important industries like coal, iron and steel by buying large quantities of their products.

The railroads reached the top of their growth about 1920. Then came the great era of motor vehicle transportation, using improved highways, which has supplemented the railways and indeed has competed successfully with them for much freight and passenger traffic. Finally, the airplane has come to supplement both, especially for rapid long-distance passenger and express traffic.

Along with transportation came long-distance, rapid communication—first the mail, then the telegraph, then the telephone, and finally radio and television. The radio has become a great industry in its own right, not merely for communication but for entertainment. Communication and transportation made our present far-flung commerce possible.

Wholesale and retail trade employ more people even than transportation. They extend into every part of the nation and cover a wide range of institutions, from great warehouses, grain elevators, wholesale food merchants, department stores, mail-order houses, chain stores and cooperative associations to the small retail shop with a single owner and few or no employees.

SERVICES

Other services than transportation and trade have become increasingly important and have in recent

years employed a rapidly growing part of the population. They, too, are essential to the vast and intricate economic system of the United States.

The largest single group engaged in providing services consists of government employees (aside from those in the military establishment). They work for federal, state and local governments. Among the largest bodies of public servants are postal employees and teachers. Almost every conceivable calling and profession is included in the ranks—for example, foresters, scientists, economists, statisticians, bankers, doctors, lawyers, policemen, firemen, engineers, and an army of bookkeepers, stenographers and clerks.

In private occupations are bankers, employees of insurance companies and other financial concerns, professional persons like doctors, nurses, lawyers and clergymen, those employed in automobile service stations and garages, advertisers, barbers and hair-dressers, restaurant and hotel employees, and hundreds of other specialists in the provision of services.

As it becomes possible, through the advance of science and technology, to produce more goods with less labor, more and more of the people's wants turn to the demand for services, and a larger and larger part of the population is engaged in providing them.

At the beginning of this book, economics was described as household management. In colonial days, when the members of a farm family made needed goods and services for themselves, those who managed the household, we saw, had certain important duties, if the family was to fare well. Enough had to be provided. But since the natural resources and labor of the farm were limited, choices had to be made so that there would not be too little of one thing and too much of another. The labor had to be used efficiently, too, so that as much as possible might be done in as short a time as possible. The family had to deny itself something in order to obtain useful buildings and tools—but not too many. Finally, what all together produced had to be fairly divided among the family members.

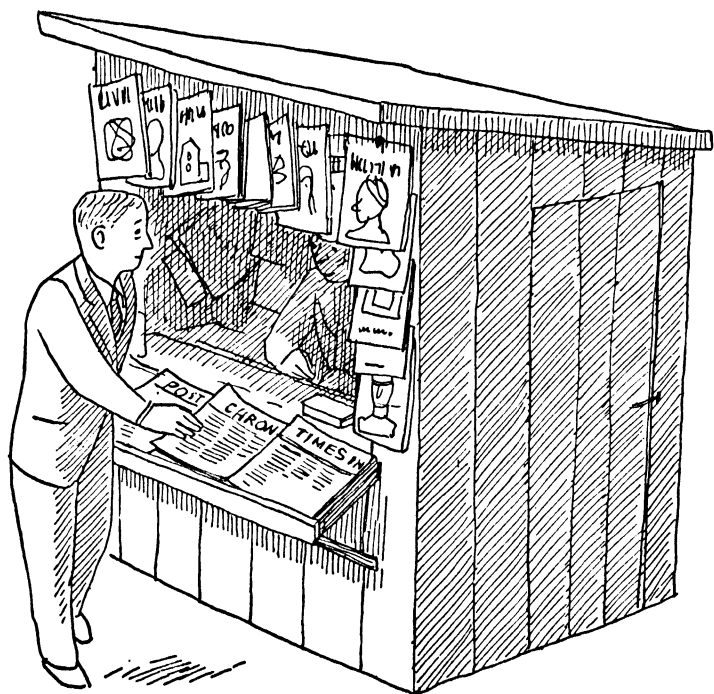
Nowadays there are few if any families who make everything they require, or indeed make in the household much of anything. The tasks of production and distribution are scattered far and wide over the whole nation, among specialists. Who plans and manages for this great national family? Who sees that

there is enough, that resources are well apportioned, that labor is efficiently used, that enough but not too much is saved and invested, that the product is fairly shared?

THE CONSUMER AS MANAGER

Clearly the job of managing the whole national economy is too big for any man or any woman or even for a group of experts. So vast and complex a system cannot be run in detail by orders from Washington or any other center. Even if a democratic system permitted it, no mind is big enough to be able to tell every individual of our 160 million people what to do, or to say what share he must have in the national income.

Each one of us wields some power about what shall be produced every time he spends money. If Jim buys a newspaper, that is like a vote by Jim that one newspaper shall be produced. The proprietor of the newspaper soon finds out how many such votes there are, and regulates his production accordingly. His printing order decides how many printers he must employ, how much paper he has to buy, and in the long run, how many printing presses he needs. These decisions in turn are passed on by the newspaper owner's purchases to the paper manufacturers, the printing press manufacturers, and all the rest. In the end, the newspaper consumers are the decisive force in saying how many trees shall be cut down for wood pulp, out of which newsprint paper is made, how much steel shall be used for printing presses,



and everything else that goes into preparing to make a newspaper.

Jim's dollars are all votes, no matter what he buys with them. Combined with all the other dollars spent by all the other consumers, they help to decide how the resources of the nation—the land, labor and capital—shall be apportioned or allocated. Every businessman who has anything for sale is, in a large sense, competing with all other businessmen for the consumers' dollars. Those who succeed in meeting consumers' favor grow bigger; those who fail to do so soon have to shut up shop.

Suppose some resource needed to make what Jim and others would like to have becomes so scarce that there is not enough for all the consumers who want these products. Somebody has to go without. Who decides which buyers shall have the preference? Sometimes it is a case of first come, first served. But usually not for long. The fact that demand is greater than supply allows the producers to charge more. The price goes up. Then the order of preference is decided by willingness—or ability—to pay the higher price. If Jim's newspaper goes up to a dime, he may go without it and spend the money for something else.

Consumers also have a good deal of power to decide how much shall be saved. If they think prices are too high for things they do not absolutely need, day by day, they can—and sometimes do—cut down their purchases as a whole. In other words, they can save more. On the other hand, they may decide that they would rather have the enjoyment of goods than

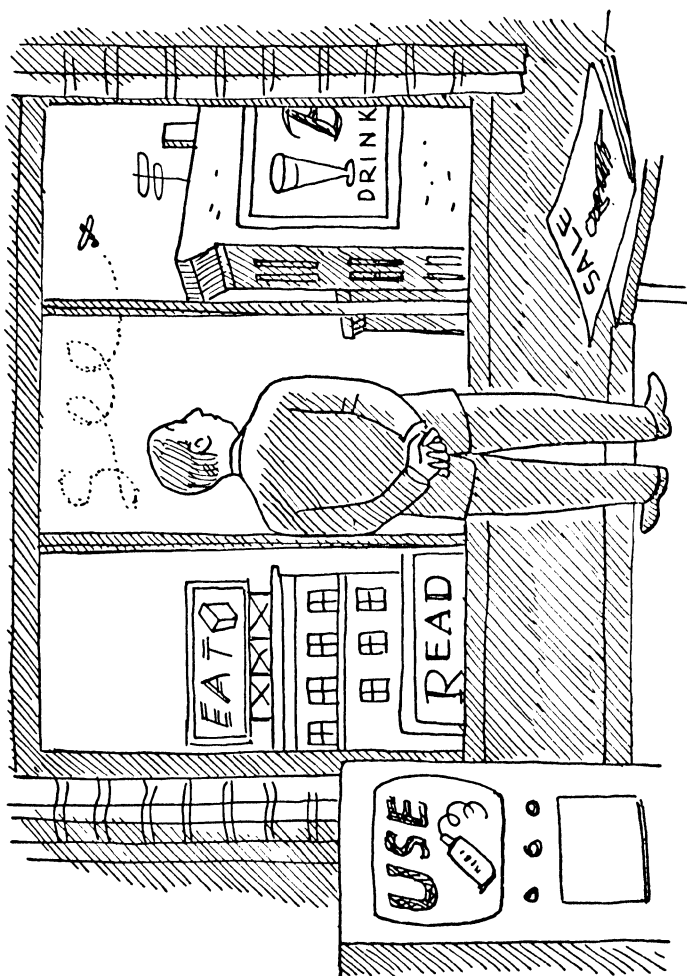
to save and so supply the money to build more factories and machinery. In that case, those who want to build factories and machinery may be somewhat restrained by difficulty in obtaining the necessary money.

IS THE CONSUMER KING?

Though the consumer by his spending gives the orders as to how the resources of the nation shall be used, he is, like many kings, a victim of flattery and deceit, and a limited monarch.

The consumer is assailed on every hand by advertisements and publicity telling him in no uncertain terms what he has to have in order to keep his health, his sweetheart, his happiness, his friends, his social position. Many of those who have goods to sell play on every human weakness in order to create a demand for their products. Each seller asserts that his product is the best. One of them may be right, but all cannot be. No doubt sellers always did this, but in simpler days when there were fewer products it was easier for the purchaser to judge the quality and usefulness of the article without an exhaustive knowledge of all the sciences and the reports from testing laboratories.

Today's consumer cannot ordinarily dicker with the salesman as the farmer in Chapter 2 of this book haggled with the trapper about the price of furs. If you go into a drugstore and ask for a tube of toothpaste, you will pay the price asked by the clerk or go without it. Most prices of industrial products are



fixed by the seller; in many cases the manufacturer can tell the retailers what to charge for it, and is permitted by law to do so.

The result is that in too many cases the consumer, through ignorance, pays an exorbitant price for an inferior product, and sometimes is induced to buy even worthless or harmful ones. To be sure, he gets what he asks for; nobody compels him to buy it. By taking pains to avoid being pushed around or cheated in his purchases the consumer may bring about an improvement in the quality of what he buys and in the honesty of salesmanship. We shall see later how he is being helped in doing so.

The royal power of consumers is limited not only by their ignorance but by their purchasing power. Those of small or medium income cannot choose whether to buy very expensive products; if they continue to eat, clothe themselves and pay the rent there are many things they cannot afford. Scarce necessities are sometimes rationed in times of war, so that everyone gets a fair share, but ordinarily they are rationed only by an increase in price which permits only those who can pay the most to have them.

Many things needed by consumers as a whole cannot be bought by individuals at any price because no business can make profit by supplying them to individual purchasers. For example, you cannot go to the store and buy fire departments, police protection, armies and navies with their weapons, conservation of soil and forests. There are private schools where parents can buy education for their children, and

once this was the only way education could be obtained. But the nation could not make sure that it had the educated population necessary for a democracy until free public schools were established. We need clean air to breathe, but factories do not make any profit by keeping their own smoke and chemical fumes from polluting the atmosphere. Government has to compel them to do it, if it is to be done. Many of the most important needs of consumers thus have to be supplied, not by purchases of individuals, but by use of our rights as citizens to bring about governmental action, and by payment of the costs through taxation.

PROTECTION OF CONSUMERS

The consumer can do himself a service by making sure he is a prudent buyer and gets his money's worth. If enough consumers do this, they can contribute much to good management of the national economy.

The first and simplest thing to do is to plan expenditures ahead as far as possible. First keep an account—a rough and simple one will do—of what you *do* spend. Classify your expenditures under headings like food, rent, clothing, amusements, and so on. Then decide whether you are really buying what you want most, where to economize, and how much you want to save. Try to guide your future spending by this plan. Such a plan is called a *budget*.

When you do your buying, try to see that you patronize reliable merchants. Remember that higher

price does not always mean higher quality, though sometimes it does.

There are several cooperative consumers' services which help you to know what the best buys are in many types of merchandise. You may subscribe to one of them and learn a great deal about intelligent buying.

In some localities there are cooperative stores, owned by consumers. These stores are run without private profit. As a rule they sell their goods at the price usually charged by other retailers, but at the end of the year members get back a dividend, depending on how much they have spent at the store. Cooperatives are most useful when, as they often do, they take pains to offer only tested goods of high quality.

The government does much for protection of consumers. The Bureau of Standards in the United States Department of Commerce standardizes weights and measures of all kinds, and makes careful scientific tests for both government and industry. The Department of Agriculture grades and inspects many kinds of food. According to law, those who sell packaged foods and drugs must print on the label what they contain. Unfortunately the authority of the government does not prevent misleading advertising, though something is done to curb it when a misstatement injures a competitor.

If you should buy anything on the installment plan, remember that it will cost you more that way than if you can save up the money in advance. The

interest and finance charges often are as much as 10 or 15 per cent added to the cost of the article. On the contrary, any money you put into a savings bank or government savings bond will earn interest until you are ready to spend it. Decide carefully whether it is worth the extra cost to have the use of the article while you are putting aside the money. And of course it is extremely foolish to promise to pay more than you can, for in that case the seller will take back what you have bought when you fail to pay, and your credit will be injured in the future.

THE BUSINESSMAN AS MANAGER

The executive of a business concern has to decide how many people are needed for the jobs to be done, which people shall be hired and what jobs shall be assigned to them. He has to decide what buildings shall be erected, bought or rented, what machinery shall be ordered, and when these things shall be done. In other words, he is in charge of investment. He has to organize his establishment to make or distribute goods of the requisite quality, and with as low a cost as possible in materials and labor.

The skill with which our experts in business management do these things determines how well consumers' wants are satisfied. The consumer may offer the demand and so in the end decide what things shall be made, but he is powerless to influence the detailed organization of production except indirectly by choosing the product of one competitor

which seems to him better or more worth the money than that of another.

It used to be thought that competition among businessmen in seeking the favor of consumers would be enough to bring to the top the most skillful and efficient managers—those who could sell the best products at the lowest prices. This influence is still strong, but competition does not play so large a part as formerly.

Big businesses are now prevalent in steel, aluminum, chemicals, automobiles, and many other industries. Big businesses compete with one another, but are not so much at the mercy of competition as little ones. A big business is more cautious in cutting prices than a little one. If demand for a product falls off, the big concern can survive a long time even though it sells less; therefore it may not have so much incentive to reduce prices or to find a different product to make.

If profits are so high as to entice others into the business, it is extremely difficult for a newcomer to get together the necessary money to build the great mills or factories necessary, and then compete successfully with a giant corporation which has an established market and strong business connections. Not many even try it.

Therefore it is more important than ever that the managers of business be skillful and alert, and that their policies serve the best interests of the whole national family. In the United States, tradition favors continual improvement in products and in the tech-

nology of production. In some other countries the satisfaction of business owners with old ways has led them to combine in order to restrict production, and they have failed to introduce modern methods which would enable them to turn out more for each man-hour of work. The welfare of the people of their nations has correspondingly suffered. Some businesses in the United States do not live up to the best business traditions of this country.

Even in the United States there is much to be learned about how business management may best serve the interest of all. Is there any way, for instance, in which business might learn to combat the business cycle by making larger investment during depressions, instead of cutting down investment as soon as economic storm clouds begin to gather, as most business concerns have done in the past?

LABOR AS MANAGER

Most of us think of the employee not as a manager but as one who is managed by the boss. Yet what the wage or salary worker does and how he does it has a great effect on the good management of the national economic family. Of course, like everyone else, he is a consumer, and is important in that respect. Here, however, let us consider his role as a producer.

A nation with intelligent, well educated, skillful and industrious workers has an advantage which it can gain from no other source. No amount of natural wealth or good management by employers can make

up for lack of an able working force. Good training, good work habits, initiative, capacity to get along well with others, and adaptability to new situations not only make for personal success; these qualities also strengthen every business establishment, city or nation where they prevail.

A majority of wage-earners belong to unions, which represent them in dealings with employers, and also play an important part in presenting labor's views to government and the general public.

Long ago some workers found out that they could obtain much better wages and hours when they dealt with an employer as a group than when each accepted only what he could get as an individual. The attempt to organize for collective bargaining was bitterly resisted by many employers, but as the years passed it gradually became more successful. Today the right to bargain collectively is recognized in law, and the federal government has declared that the exercise of this right, where employees desire it, is in the public interest and must be respected by employers. It is even more necessary than it used to be, since so many important employers are large corporations. Dickering about wages, hours of work and other disputed matters now takes place between unions and employers or groups of employers. This is collective bargaining.

The decisions of employers and unions, made in their bargaining agreements, have an important role in the sharing of the gains from production. Labor, through its unions, also has great influence in decid-

ing whether a gain from the general ability to produce more in less time shall take the form of more pay or shorter hours of work, or some of each.

Of fully as great importance to workers in their daily lives is the part unions play in protecting the individual employee against unfair discrimination in discharges, discipline or promotion, in establishing seniority rights, and in installing various forms of social insurance, including health insurance and old-age pensions. Some unions have also benefited all concerned by helping the employer to detect and eliminate wasteful practices.

When unions and employers cannot agree, strikes sometimes occur. Without the right to strike, a union would lose much of its bargaining power. Yet strikes bring losses to both sides and inconvenience to the public. Well led unions use them only as a last resort. Strikes are, in fact, much more infrequent than most newspaper readers are led to believe, and cause the loss of only a tiny percentage of working time. A strike is news, whereas peaceful relationships do not make headlines.

FARMERS AS MANAGERS

From one point of view every farmer is a businessman and has much the same power as an industrial executive to run his business well or badly. His performance in this respect affects the national welfare. There are, however, important differences between agriculture and other industries.

Most farms are not owned or run by big corpora-

tions. They have, as a rule, few employees. They are homes for the families who live on them, as well as producing establishments. The number of farmers who grow any one kind of crop is usually far larger than the number of manufacturers who make any one kind of factory product.

One result of this difference is that farmers compete with one another in a way that most industrial companies do not. No farmer has the power to set in advance the price he will take for his product, even for a single season. He decides what to raise, but he has to accept the market price whenever he sells it, or not sell it at all. If his product is perishable and cannot be stored, he cannot even hold it back until prices rise. And since his working force consists mainly of himself and his family rather than of wage-earners who can be laid off, he has to continue producing as long as he wants to keep his farm, and he has to sell what he produces, no matter how low the price. He cannot shut down or go on half time when prices are low, as factories frequently do.

When cities are hit by unemployment, and the production of factories drops, farm output falls very little. But since unemployed persons in the cities cannot spend so much, the demand for farm products is reduced. The result is that the farmer is much harder hit in slumps by a decline in the price of what he sells than is the businessman. During slumps the prices he gets for what he sells fall much more than the prices he pays for what he buys.

Great national organizations of farmers have

grown up to protect the farmers' interests, just as great unions have grown to protect the city workers. These organizations do not, like unions, engage in collective bargaining, since most farmers have no employers but are independent businessmen. Some of the farm organizations support laws to protect farmers against unduly low prices for what they sell. Others, known as marketing cooperatives, enable farmers to get better prices by combining their sales. Marketing cooperatives have been particularly successful in milk and dairy products, citrus fruit, raisins and other specialty products. They have not done well in the great staples like wheat, corn, cattle and cotton.

Farmers, like some other groups of consumers, have also combined to do cooperative buying. Their consumer cooperatives have become particularly successful.

GOVERNMENT AS MANAGER

The government, like consumers, business, labor and farmers, has its own work to do, and can do it well or badly. As the representative of all of us, it is instructed to do two kinds of things—(1) provide services and (2) regulate what others do.

Among the services it provides are the building and maintenance of roads, schools, and public works of many kinds, and the carrying of mail. It supplements the private banking system in supplying loans for agriculture, home owners, business and foreign trade. It has charge of old-age pensions, unemploy-

ment compensation and other social insurance. It collects vast amounts of statistical information, puts it in order and publishes it. It carries on scientific research of many kinds and makes the results available. It has special care of the money supply. The arms of government that offer services to the public are far more numerous, employ more people, and cost more than the governmental agencies that make laws and administer justice.

As an economic regulator government supervises the practices of banks and other financial institutions, the railroads, telephone systems, radio, air traffic, water, gas and electricity companies, traction systems and many other privately owned "public utilities." In many of these cases it has authority over the prices charged.

In war or emergency the government can and does plan and regulate the operation of the whole economy, including the allocation of scarce materials and the fixing of ceilings for wages and prices.

Good government is the business of all of us, but our elected representatives would be powerless to carry out our wishes effectively without a well-trained and conscientious staff of permanent, non-partisan government employees. The tasks of government are now highly varied and require many different skills. In no other part of our economic family is it so important to attract and reward able service, and there is no career which is more honorable and useful.

THE MANAGEMENT PARTNERSHIP

In the management of the economic family which

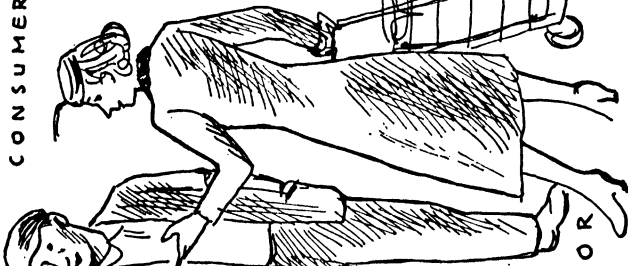
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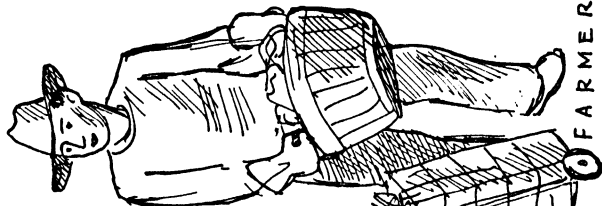
GOVERNMENT



LABOR



CONSUMER



FARMER

is the nation, each of us has his own part to play, and what each of us does in his own station influences the success of the whole endeavor.

In addition, it is necessary for the leaders of the powerful groups which represent us to understand the problems and cooperate in solving them. Unions, business organizations, farmers' organizations, consumer representatives and government must work together effectively if success is to be achieved. Each of us in turn can exert some influence to see that they do so.

As in any family, there are differences of interest and opinion; there are arguments and sometimes bitter quarrels among these groups. It is desirable that the interests of each be fully expressed and carefully considered. But there is also the common interest of all. The national family must be able to compromise, and it must spend more of its time working for common goals than quarreling about separate ones, if its affairs are to be well managed. Success in this endeavor is nothing more, and nothing less, than the success of democracy and liberty.

If this morning you had bananas and cream for breakfast, with a cup of coffee, only the cream came from within the United States. The bananas may have been brought from a Central American country like Nicaragua, the coffee from Brazil or Costa Rica. If you used sugar, the sugar cane may have been raised in Cuba. Of these foods, only sugar is grown in the continental United States at all; the cost of raising it here is higher than in other regions, and much has to be imported.

If you put on socks or a suit containing wool, the chances are that the wool was from Australian sheep. If you walked on a carpet or a rug, you stepped on wool that surely was not grown in the United States; this country produces no carpet wool. The rug itself may have been woven in Turkey, or just possibly in China or Iran.

Suppose you took a can of sardines with you for lunch; it may have been brought from Norway or Portugal. Even if the fish were canned in the United States, the tin with which the can was coated undoubtedly was mined in either Bolivia or Malaya;

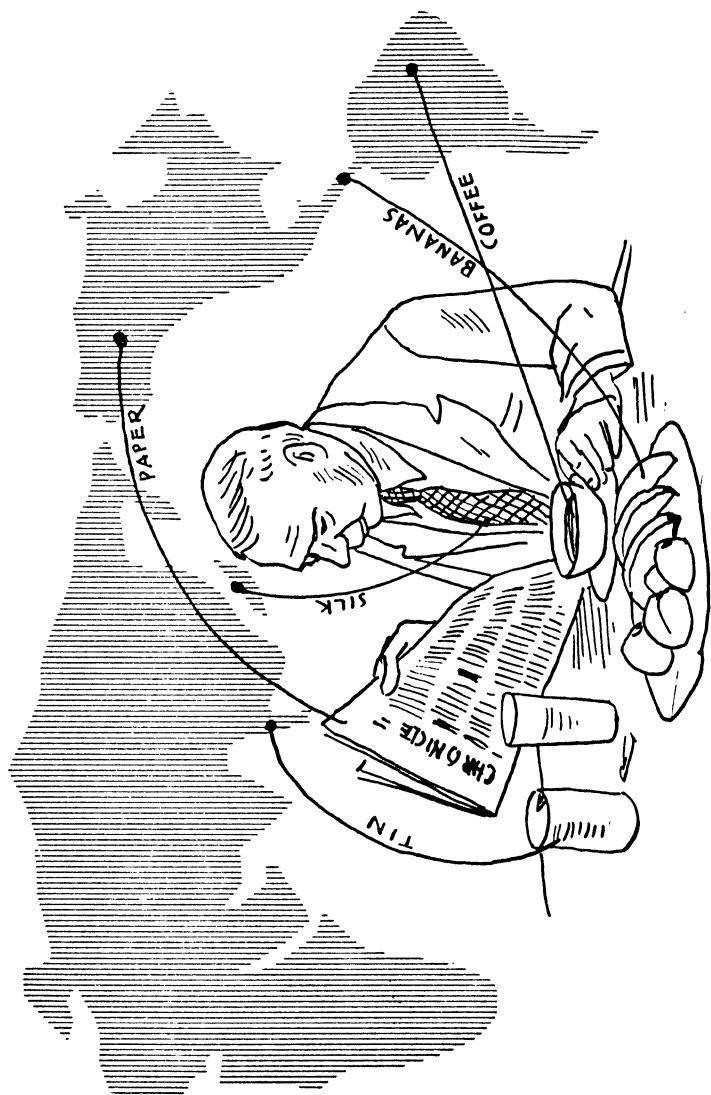
there are no deposits of tin in the United States. The nickel with which you paid for your newspaper was made of imported metal, probably from Canada. The paper in the newspaper itself was from wood-pulp that may have been prepared in Canada, Sweden or Finland.

Not only materials and foods scarce in this country are imported. You may have an English bicycle, a Swiss watch, or a German camera. Some men wear British shoes, or coats of tweed woven by hand on the Isle of Harris in Scotland, or hats from Italy. English cars, for sport or utility, are becoming more common, though the American automobile industry is the largest in the world and has the reputation of being the most efficient.

Foreigners buy many goods on this side of the Atlantic. The British cotton mills depend to a great extent on cotton grown in the southern states, and Englishmen smoke tobacco imported from Virginia. Europeans use large amounts of American gasoline; they eat bread made from Canadian or United States wheat, buy typewriters and many other kinds of machines from this country. Products manufactured in the United States are sold all over the world. Indeed, so great is the foreign demand for United States and Canadian goods that foreigners have difficulty in paying for them.

WHY FOREIGN TRADE?

Why should Americans buy things abroad instead of spending all their money within the United



States? People sometimes argue that by doing so they hurt business in their own country, deprive American workers of employment, and drive down American wages.

The question is as foolish as it would be to ask: why do inhabitants of New York, Philadelphia or Atlanta buy automobiles made in Detroit, or wheat grown in North Dakota? Northerners in the United States might, if they put their minds to it, grow oranges and lemons in hothouses instead of buying them from farmers in Florida and California. Inhabitants of Florida and California might make their own shoes and cars instead of buying them from the North and East. In that case nothing would be gained and much would be lost.

Long ago we learned that it would be wasteful for each family, or each city, to try to make everything for itself, since everybody gains through specializing in what he can do best. If this is true within a nation, it is also true for the world as a whole. Climates, soils, mineral deposits and skills differ in different places. If each thing is obtained where it is best and cheapest, all can have more and better things.

Some goods we cannot get at all without buying them abroad. Other foreign goods are better or cheaper than those at home. We do give employment to foreign workers and profits to foreign business by buying their products. At the same time they give employment to American workers and profits to American business by buying our products. It is bet-



ter for consumers in both places to make the exchange. It is also better for the workers and employers in both places to be busy at occupations in which they can produce the most, and so can get the most for what they have for sale.

PAYING FOR FOREIGN PURCHASES

As a rule, each nation has its own kind of money. That somewhat complicates foreign trade. If an American businessman wants to buy goods in England, he has to pay the seller not with dollars but with pounds sterling. But American businessmen do not have any British money. How do they pay?

British businessmen are buying goods in the United States, where they have to pay in dollars. In New York and London, as in every financial capital, there are banks that buy and sell foreign money. Orders for pounds are received from Americans; orders for dollars from Britishers. Naturally the Americans pay for their pounds with dollars and the Britishers pay for their dollars with pounds. The dealers in foreign exchange match up the orders from one side with the orders from the other; the dollars are exchanged for pounds, and both parties are paid.

How does anyone know how many dollars a pound is worth? Both units of money are fixed by their respective governments in terms of gold. A dollar is, by law, equal to a certain weight of gold; the pound is also equal to a certain (but larger) weight of gold. Therefore it is easy to tell how many dollars it should take to buy a pound.

Now, the demand for dollars at the official exchange rate may be larger than the demand for pounds, because Englishmen may happen to be buying a greater value of American goods and services than Americans are buying of British goods and services. In that case, any difference not accounted for by an increase of British debt to the United States, or by American gifts to Britain, has to be made up by payments of gold from London. If Britain does not have enough gold, or will not allow its export, then the exchange value of the pound will fall, just like the price of anything else when the demand for it is smaller than the supply.

Whenever a change in exchange rates happens, it upsets trade. An American businessman buying in a foreign country suddenly finds that he is going to have to pay a different amount, in dollars, than he expected. This is all very well for him if the price of his order in dollars falls, but it may be ruinous if (in dollars) the price rises. Just the opposite risks bother the American exporter. In order to avoid such uncertainties and to prevent speculation, most governments try to keep exchange rates steady. An International Monetary Fund, founded by the Allied Nations just before the end of World War II, is intended to help the nations do this.

THE BALANCE OF PAYMENTS

Not all payments between nations are made for purchases of goods. Some of the other payments are important. Americans travelling abroad need foreign

money and buy it with their dollars. Americans shipping goods in foreign vessels pay the freight. If Englishmen or Frenchmen own stocks, bonds, land or buildings in the United States, the dividends, interest or rent due them increase the flow of payments out of the United States. American investors who buy property abroad or lend money to foreigners must, in order to pay the seller or the borrower, buy the necessary foreign money with dollars or gold.

If anyone draws up an account of all the payments going out of any one nation (the United States for instance), and of all the payments coming into it, the outgoing payments are equal to the incoming ones, when the gain or loss in gold or foreign money is included in the account. If, for example, the United States sells abroad more than it buys there, and in all other loans and business transactions put together receives more money from abroad than it pays out, the difference must be made up either by actual receipt of gold from abroad or by accumulation of foreign money not yet spent or cashed for gold. (Gold received by any individual must be deposited in a bank, and cannot legally be paid out again, except to settle foreign balances.) Such an account is called the "International Balance of Payments" of the nation in question.

It used to be thought that a nation gets rich by selling more than it buys and so increasing its hoards of gold or foreign money, just as a business prospers by taking in more than it spends. Now we know that this is not true. As far as the inhabitants of a nation

are concerned, when they sell abroad more than they buy there, they are in reality producing and shipping out of the country more goods and services than they get from foreigners. Their level of living is just that much lower than it might be. The gold they receive in return is of no use to them unless it is actually spent for foreign goods: they cannot eat it, wear it or live in houses made of it. Every nation must have a moderate reserve of gold as a cushion for emergencies, but beyond that there is no benefit in piling up metallic wealth, or paper money representing it.

The effort to receive more money from abroad than is spent there is not only wasteful and useless, it is actually injurious to everybody concerned. No nation has or can get enough gold to keep on spending it in large quantities for very long. If its gold reserves run too low, it has to cut down on buying abroad. That is bad for its consumers, and it is also bad for the exporters from other nations who sell to them.

The situation is similar to that of a group of five or six boys who start buying and selling among themselves. If one of them is so shrewd or so lucky that he gets all the money from the rest, trading for money has to stop, since the others have no more money with which to buy. Of course in this case the winning boy might spend his money outside the group, as by going to a department store, but unfortunately no nation can yet buy anything from inhabitants of Mars, Venus or the Moon. If the nations of the earth do not trade with each other, trading will stop.

RESTRICTIONS ON FOREIGN TRADE

Early in its career the United States deliberately restricted some imports by placing high taxes on goods before allowing them to enter the country. This of course permitted mills and factories inside the nation to charge higher prices than they could have asked if they had had to meet foreign competition. Such taxes are called "protective tariffs." Their purpose was to encourage the growth of manufacture in the new country.

Political controversy about tariffs has continued ever since. Tariffs have from time to time been raised and lowered, but on the whole the United States has been a high-tariff nation, at least between the time of the Civil War and the 1930's. Since then a gradual reduction of tariffs has taken place.

Many other nations as well have installed tariffs to protect home industry. In addition, during recent depressions and wars many nations have had to restrict imports by other means, in order to save a big enough reserve of gold and foreign exchange.

Trade barriers, once set up, are hard to remove. Those special groups who benefit from tariffs are afraid to let in the foreign goods which might compete with their products. Nations which do not have enough gold are afraid their gold would disappear if they allowed their citizens to buy all they wanted from other nations.

Ever since 1933, it has been the official policy of the United States government to encourage a worldwide reduction of tariffs and an abandonment of

other trade barriers in order to bring about internationally the benefits that the absence of such barriers within the United States has apparently conferred on this country. The progress in reducing international obstacles to trade has been slow and difficult; it has met opposition from within the United States as well as from the outside. Nevertheless, much has been accomplished, especially since World War II.

MARSHALL PLAN AND DEFENSE AID

One of the most unusual acts ever undertaken by any nation was the adoption by the United States of the Marshall Plan in 1947. This act offered European nations gifts of billions of dollars each year for five years, so that they could buy the American products they needed until they could get on their feet again after the war. The aim was to enable them to produce more and so increase their exports enough so that they would not need aid in the future. Success was in sight when the necessity for new military defense again placed a heavy burden on Europe, and new gifts from the United States were voted for this purpose.

All this the citizens of the United States did, not out of pure generosity, but for their own sake as well, because their future is closely linked with that of the rest of the free world. Both Europe and the United States, however, wanted to get rid of such giving as soon as it could safely be ended. "Trade, not aid" became the slogan on both sides of the ocean.

This means that if Europe sells more, and the United States buys more, there will be less need for gifts.

It is better for Europe to earn the dollars to buy what she needs than to have to depend on charity. It is also better for United States citizens, instead of having to pay the taxes for government gifts of dollars, to get foreign goods and services for their money.

TECHNICAL AID TO UNDEVELOPED REGIONS

Two-thirds of the people in the world do not have enough to eat. They do not have enough good houses, doctors, hospitals or other necessities of life familiar in the United States and Europe. Their level of living in many cases is below that of the people of the United States a hundred years ago. That is largely because they have not built up the modern, technically efficient agriculture and industry that Europeans and Americans have developed.

The United States, through ex-President Truman's "Point Four" program; the United Nations, through its technical aid program; and Great Britain and other European nations, by means of aid to their dependencies, have undertaken to help these underdeveloped countries learn how to produce more per man-hour, and thus gain a better livelihood. This is a difficult task. It is likely to be a long time before Asia, Africa and the less developed parts of Latin America catch up with the technically more advanced nations. Yet in many places striking progress has already been gained.

The cost of these programs is large, but so far not nearly so large as that of the Marshall Plan, which was easily carried by the United States. The aim is not charity, but to enable other peoples to produce more for themselves.

How well will Americans be able to manage their complex economic system? Shall we ever have another great depression like that of the early 1930's, when for a time one-quarter of the working force had no jobs and billions of dollars' worth of wealth was lost? Nobody can be sure. Or shall we suffer from another world war, even more destructive than those of the past? Again, no one can tell. Each of us has learned in his own life that the unexpected sometimes happens. To attempt to predict the future of a whole nation is foolhardy indeed.

There is one valuable lesson we can learn from this very uncertainty. One of the very best ways of preparing for life, either by the individual or by the nation, is to be ready to deal with changed circumstances, whether the change be pleasant or unpleasant. Adaptability is the chief requirement for survival. A person, a nation or a species that can do well only in one routine of living is in peril. The crust of the earth contains fossils of many extinct forms of life which did not survive because they could not adjust themselves to change. Mankind has survived so far,

probably because it came to rely on its wits rather than any particular kind of protection, such as claws or armor.

Our economic order now is not the same as that with which the nation began; it is even quite different from that with which our fathers and mothers became familiar when they went to school. It is not going to stop changing now. If it should become stiff in its present form, it would be that much less able to endure or to serve our needs.

If we are to be good economic citizens, we shall have to keep alive to what is going on, do our best to understand it, and be prepared to assist in whatever policies or projects seem necessary for the good of all. If we should settle down into grooves and expect the rest of the world to offer us security as long as we live, we are likely to be sadly disappointed.

TECHNICAL ADVANCE WILL PROBABLY CONTINUE

One prediction that seems as well founded as any human forecast can be is that technical change has not reached its limit but will go on in the future, perhaps more rapidly than in the past. Scientific knowledge, on which technical change is based, will never be complete; there is always more to know. And much more practical use of scientific knowledge can be made than has been possible so far.

Even if all the scientists should stop working tomorrow and their research laboratories should be closed, the existing knowledge is far greater than has been put to use. New products are already known

which have not yet come on the market, new ways of doing things have been tested or tried in a few places, though they have not yet become general.

Any scientific or technical publication is full of hints concerning what is to come. Even the comics are full of "space ships," but many new devices or products that seem far less startling and do not offer such good material for the comic books may in the end be just as important. For instance, it is difficult to exaggerate the effect, over a long period, of those improvements in machinery and methods of production, many of them small in themselves, which enable more to be done in fewer working hours.

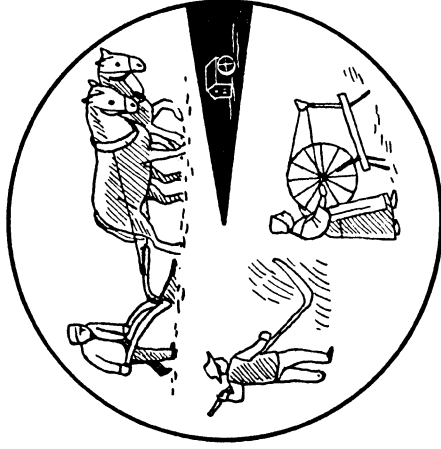
MACHINES FOR MUSCLE AND FOR BRAINS

Ever since the use of water power or steam began in transportation and manufacture, there has been a steady increase in the substitution of the power of inanimate nature for the muscular exertion of men and animals. This has already brought about the ability to do with ease what formerly could have been done only with superhuman effort.

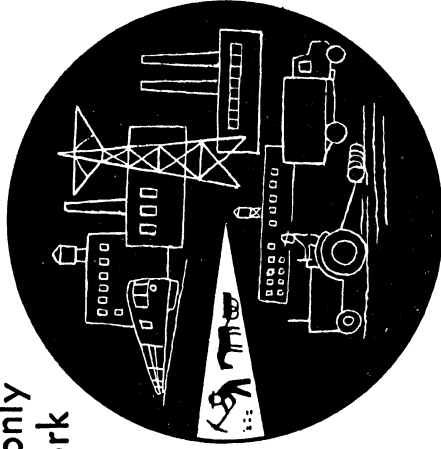
Horses, oxen, and mules have been gradually displaced as work animals. The world requires many fewer laborers than formerly to exert strong muscles in their daily tasks. The "pick-and-shovel men" are rapidly disappearing from industry, farming and construction. This means not only that work has become physically easier for millions; it means also that fewer can accomplish much more in a given time.

As the substitution of mechanical power for mus-

In 1800
machines did only
4% of our work



Today
machines do
95%



cles continued, a larger and larger proportion of the workers were required to run the machines. The majority of industrial workers became "operatives"—that is, people who adjust and tend the machines. Another large number were needed to handle the office routine connected with the management of an industrial civilization.

Now a new development is rapidly taking place. Devices have been invented and are being put into use which do the work of the machine tenders and office workers themselves. Electronic and other machinery—"calculating and control machinery"—can now in many instances be substituted for the guiding hand at the controls, the human eye, the brain doing arithmetic, or even higher mathematics. Factories are becoming more nearly automatic. Banks and bookkeeping offices no longer need so many people to add up columns of figures or keep records. Some see in the future a time when our farms, factories, railroads, stores and offices not only will not need many unskilled laborers, but will not need many workers of other kinds, except to make plans and to design, build and repair the machinery. If we even approach this goal, it will constitute an immense gain in the ability of man to produce and distribute more in less working time. To what good use could we put such a gain in ability to enlarge real income?

SOME POSSIBLE GAINS

The Economic Report of the President—a report made every year to Congress—considered this pos-

sibility in January, 1953. For a long time in the past, the United States has registered an average yearly gain of slightly over 3 per cent in real output of goods and services. The Economic Report reckoned what this would mean if it continued for ten more years. These are some of the conclusions:

1. In 1962 consumers' goods and services would be abundant enough so that if they were evenly divided among all the men, women and children in the nation, each could have as much as \$2,000 would buy in 1952. In other words, a family of father, mother, and three children, if its income were as high as the average, would be able to spend on itself as much as could be bought in 1952 for \$10,000. That is 40 per cent higher than the present average. This amount is in *addition* to whatever has to be paid in taxes, and in addition to what is saved.

2. Besides this 40 per cent growth of consumers' real income, the nation would have \$40 billion to invest in new factories, machinery, and buildings, \$15 billion for new houses, \$15 billion for new schools, hospitals, roads and other public works, and more than \$5.5 billion for improvement in agriculture.

Of course income is not now evenly divided, and will not be evenly divided in the future. In 1951, one-quarter of the families in the nation had less than \$2,000 to spend, and 40 per cent of them had less than \$3,000. The President suggested that, with so much larger a total income ten years later, we could well afford to share more of it with the families that do not have enough before adding to the incomes

of those higher in the scale. What would it be possible to do in this direction?

There would be enough so that every family with less than \$4,000 to spend could be brought up to that level, and still leave more than half the gain in real income for those who would have more than \$4,000.

The President's report suggests that we set this goal as a basic aim for our economy in the next ten years. To achieve it would be far less simple and easy than to distribute spending-money equally among the members of a single family. Nobody wants to equalize income in the national economy by taking money from those who are better situated and giving it to those who have less. The low incomes are caused mainly by special misfortunes or handicaps that prevent people from earning more. Intelligent action may alleviate these misfortunes or remove the handicaps.

Racial minorities (such as Negroes) have not in the past had a fair chance in more remunerative kinds of employment. Much can be done to remove this discrimination.

Some families have suffered economically from serious illness, which adds to medical bills and interferes with the earning power of the breadwinners. Better compensation for these misfortunes may be applied; more preventive medicine can diminish the number of those who suffer from illness.

Some low earnings are caused by lack of enough education and training; that can be remedied by im-

provement of the educational system and broadening the opportunity to take advantage of it.

There are many farm families who have low incomes because they are working farms with poor soil, and doing so by inefficient methods. Much can be done either to find better-paying occupations for those with farms below the standard, or to help them to put their resources to better use.

There is great opportunity for the national economic family to improve the situation of its less fortunate members, if the problem is carefully studied and the right measures are applied. This will require far-sighted planning.

INDIVIDUAL OPPORTUNITIES IN THE FUTURE

Those who are still in school and have not yet chosen what their life work will be need guidance concerning the opportunities that are likely to be open. This guidance must take into account personal aptitudes or preferences, and the situation in the particular locality or region concerned. Yet there are certain broad tendencies in the demand for various kinds of workers that should interest us all. These tendencies may be rather simply stated.

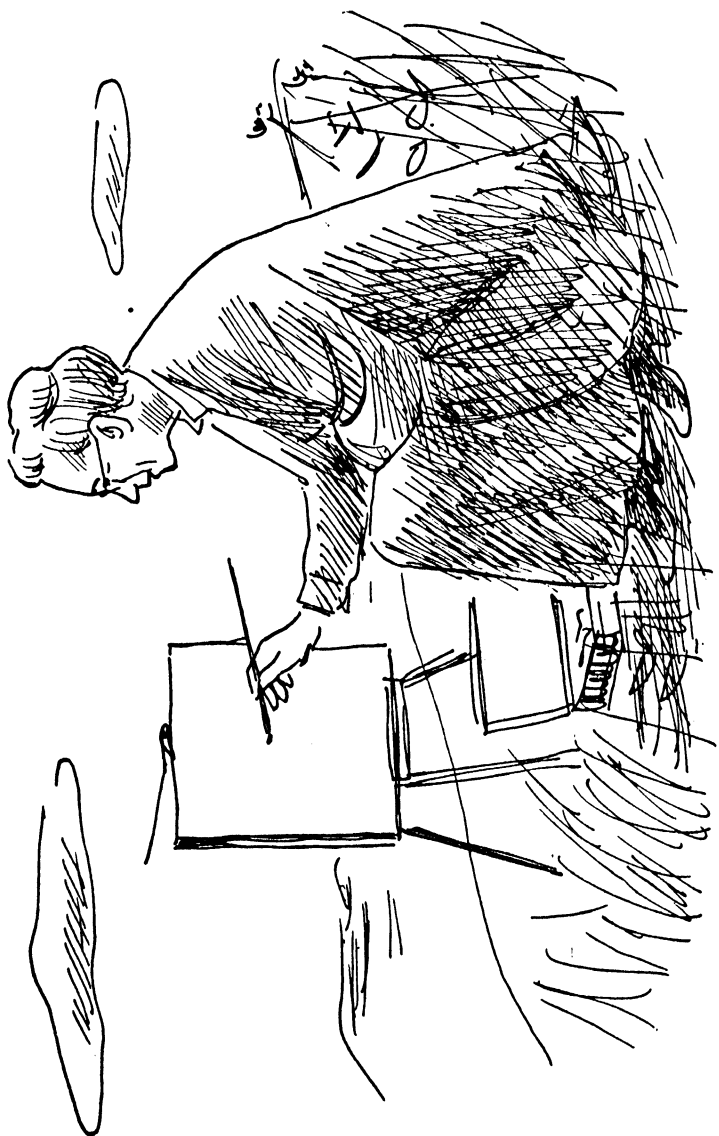
1. As the years pass, there is greater demand for men and women with good education, less demand for those with poor or little education. This is the natural result of the growth of a complex and technical civilization.

2. Highly trained specialists usually can obtain

better and more secure jobs than those who have only a smattering of knowledge but cannot do any one thing supremely well. Yet even the most expert specialist usually cannot rise very far unless he also has a broad range of interests and some understanding of the many-sided treasures of our cultural heritage. We need good citizens and well-rounded persons to make a good nation. This is important in order to preserve our American way of living. These qualities are valuable in any important job. They also contribute to the happiness of the individual, whatever his job.

3. As we learn how to produce more goods in less time, a smaller and smaller proportion of the working population is employed in producing the goods. The number of farmers has had a declining tendency for many years. Those engaged in manufacturing or mining form a smaller percentage of the workers than fifty years ago. But more and more are needed in providing *services*. This is particularly true of those who provide services that demand higher education. We have frequent shortages of teachers, scientists, engineers, doctors and those trained for comparatively new professions.

4. In the past hundred years, the average working week has declined from 60 or even 72 hours to 40 or less. This tendency is likely to continue. A larger and larger part of time is spent away from the places where we earn our livings. Therefore a more and more important part of our preparation for life must be concerned with making good use of our own time.



What is a good use of time? Shall we look back after 75 years of living and feel that we have obtained solid satisfactions from the precious but limited hours during which no superior can tell us what we must do? This is a question which each of us must ask—and answer—for himself. But on the answers may depend the judgment of history on the real value of our civilization.

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