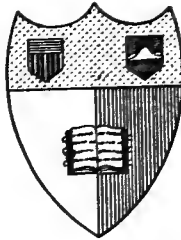


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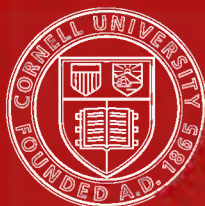
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ELEMENTS
OF
POLITICAL ECONOMY

•The  Co. •

E. LEVASSEUR

ELEMENTS
OF
POLITICAL ECONOMY

Translated by
THEODORE MARBURG, M.A.

Portions of the treatise were rewritten
by the author for the translator; other
additions and changes made by the
translator himself were approved by
the author

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PREFACE

Any one taking up the study of political economy may easily find himself a wanderer in the wilderness. Inviting by-paths lead him astray in a mass of literature, much of it irrelevant, or, if relevant, not important, and crowded with conflicting theories. In the field of the physical sciences a new discovery may cause a theory which to-day is in a compartment near the truth to be moved definitely to-morrow close to the "compartment of absolute error." But such definite reasoning is more difficult when we enter the field of a science which deals with the subtle and changing phenomena of human motive. In political economy the new theory comes in, frequently not as successor but as permanent and confusing rival of the old. For this reason there are few studies in which there exists the same need for the discriminating mind to separate the more valuable from the less valuable, and to help the student to choose aright among contending theories.

This small volume of three hundred pages by Emile Levasseur appealed to the translator as one of the books on economics which fulfill this need. We find in Levasseur an unusual balance. Moreover, the ripe knowledge resulting from his long and eminent career as a student and teacher of political economy, together with his familiar and constant contact with the best minds in France, and the clearness of presentation which characterizes his writings in common with so much of the work of French thinkers, combine to fit him for such a task. In a recent communication to the translator, he himself says of the little book: "I believe that it contains sound views of essential principles, and that the ideas are expressed in a clear and didactic form.

My lectures are not confined to this little volume; they change according to the times and the needs of the moment; I have never given the same course two years in succession. But I have remained true to the fundamental principles of economic science, and it is precisely these principles which form the basis of this book.”

TRANSLATOR.

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ELEMENTS OF POLITICAL ECONOMY

INTRODUCTION

Summary.—1. Object of Political Economy. 2. Purposes of Political Economy. 3. Definition. 4. Method of Political Economy and the Relation of Political Economy to Other Sciences. 5. Principal Divisions. 6. Economic Need and Its Satisfaction. 7. Utility and Wealth. 8. Productive Forces. 9. Definition of Other Terms.

1. *The Object of Political Economy.*—All over the world and in all times men have devoted themselves to certain occupations and have maintained with one another certain industrial relations with the object of either creating products or obtaining a remuneration, and of thereby satisfying, directly or indirectly, the needs of life. They have kept cattle, followed the chase, cultivated the soil, forged iron, practiced handicrafts, let their services, transported merchandise on land and sea, and sold to one man that which they bought from another. Nothing could be more varied than these occupations and relations. But beneath this diversity of phenomena one perceives something constant, namely, the intention to *create a utility*.

On closer inspection one perceives still other constants. The farmer does not produce wheat from his field by the same process that the smith employs in shaping a pruning knife on his anvil, nor by the process the weaver employs in order to cause his loom to yield a fabric. For the pro-

duction of wheat, a pruning knife or a fabric, however, there is required work, utensils, material, and almost always the assistance of others, as well as the exchange of certain products for other products.

We have here a group of phenomena of a particular order which repeat themselves constantly under like conditions; we have consequently material for a special science. That science is *political economy*.

We may say: political economy has for its object the study of phenomena relating to the production of utilities. These utilities are called *wealth*.

2. *The Purpose of Political Economy.*—By observing these phenomena, political economy attains to a knowledge of the general laws which govern the production, the movements, and the consumption of wealth: this, above all, is the purpose of the science. The first aim of every science is to lift the mind of man to the plane of truth and thus to assist it, through some one channel, to a perception of the order which reigns in the affairs of the world.

Like all sciences, however, political economy has a practical use. As man reaches a fuller understanding of the natural laws¹ which govern economic facts and relations, he comprehends more clearly the mechanism of social life; he is better equipped to direct his affairs no matter what career he may follow; he becomes broader, and, consequently, less likely to be swayed by the prejudices and passions which disturb the multitude and which

¹ So used, the word law means simply an effect following a cause. Thus, if you cast yourself from a height you are apt to be killed by the operation of the natural law of gravitation. Law in this sense is very different from human law, which enjoins a certain course of conduct upon men. The object of a study of natural laws, which includes economic laws, is to avoid bringing into play such of them as are harmful and to court the operation of such as are beneficial.—*Translator*.

at times prove troublesome to the state; he can see more clearly the ameliorations to be introduced in the institutions of his country, and, if he should at any time acquire a voice in public councils, can the more readily indicate reforms which are neither utopian nor suggested by private interest. Political economy does not produce infallibility any more than any other science; but it is eminently useful for the triple reason that it makes the judgment sounder upon economic questions, is helpful in the conduct of private affairs, and is necessary for a proper comprehension of public affairs.

3. *Definition.*—The expression “political economy” is from the Greek words *οἶκος νόμος πόλις*, which signify the art of administering wealth in social communities. It is a very different thing from economy, which, in its narrow sense, is a private virtue consisting in spending only what is strictly necessary—and a different thing from politics, which is the art of governing the state. The expression social economy is sometimes regarded as a variant of political economy, although it is a science somewhat more extended; the expression “economic science” would be more precise.

It has been justly said: Political economy is the philosophy of human industry; though this is a lofty view of economic science rather than a definition. Industry is only a branch of social life, and economic science is accordingly only a part of social science.

To say that political economy is the science of utility is too vague; and to say that it is the science of exchange or the science of value is to give it too narrow a definition. Political economy is the *science of wealth*: this constitutes a true definition. Adam Smith, by calling his work “An Inquiry Into The Nature and Causes of The Wealth

of Nations" has given a definition which is not less true, and which is more explicit. One might prefer the following definition, which, although somewhat long, is yet more complete: *Political Economy* is a *moral science* which has for its object the study of the natural laws under which man in the social state produces, partitions, exchanges and consumes wealth; and one might even add; the science which has likewise for its object the study of the institutions relating to wealth and of the effects of these institutions upon the national welfare, although this latter appertains to the art of government rather than to economic science.

4. *The Methods of Political Economy and the Relation of Political Economy to Other Sciences.* — Political economy is a science of observation. It is, moreover, a moral science, since wealth is the product of labor and of human will.

It occupies a peculiar rank among the moral sciences, because, having for its subject the wealth which man creates and consumes, it studies at the same time the product and the producer, material objects and man; it seems to have one foot on the domain of the natural sciences and the other on the domain of the moral sciences. It is to this last that it really belongs, because the workman is superior to the material which he fashions, and because man, creating and consuming wealth, is at the same time the active source and the end of economic activity. It is thus that jurisprudence, for example, becomes a moral science, although it concerns itself partly with the regulation of a material thing, property.

This mixed character has at times proven an injury to political economy. The natural sciences have reproached it with lacking the kind of precision to which they are

accustomed, and the moral sciences have hesitated to admit it to sisterhood because they found it too much steeped in the material. To avoid these errors it suffices to give a full account of its true nature.

Political economy proceeds by the observation of facts relating to wealth; it neglects that which is peculiar or accidental, and deduces the economic laws from general traits which it collects.

In this observation of general traits it is supported by *statistics*, which may be defined as the numeric study of social facts. All the facts which interest economic science are not of such a nature that they can be made the object of statistical enumeration, and, moreover, that enumeration is not necessary to the verification of the more general phenomena which it examines. Nevertheless, statistics constitute a study indispensable to a correct knowledge of the general mechanism of societies. Although it furnishes documents to other branches of knowledge as well, it is above all the auxiliary, and for many questions, the lamp of political economy. It may be considered in some measure as laying the foundation for the study, but it can itself be handled with profit and safety only by a person already conversant with economic science, just as a discourse on chemistry could be safely prepared only by a person familiar with chemistry.

Conjointly with other moral sciences, political economy borrows from philosophy the knowledge of the more powerful springs of human activity, and by its own results proves their efficacy; it seeks solely the useful, but it confirms the precepts of morality by showing experimentally that the useful, considered in the ensemble of the social relations, conforms to the just; it borrows examples and lessons from history, examining the long series of

experiences through which human society in its economic organization has passed, and it enlightens the historian as to the reasons for national prosperity or decay; it questions geography which tells it of the influences exercised by the soil and by climate on production and commerce, and helps it to trace wealth back to its causes.

Frequently it finds itself on common ground with jurisprudence, inasmuch as jurisprudence in determining contracts and the nature of property, steps in to regulate certain personal relations in the fields of production, distribution, exchange, and even the consumption of wealth. But political economy treats of the natural laws governing the economic relations of persons and things. It examines the influence which these positive laws exercise on wealth, and it may indicate to the legislator who prepares new laws, the true end to be attained and the course to pursue with respect to it.

5. *Principal Divisions.* — The main divisions of a treatise on political economy correspond to the three broad phases of the evolution of wealth.

The first thing is to create wealth; political economy studies the production of wealth: first phase of the evolution. In the social state it is very difficult, almost impossible, for men to create wealth without having recourse to their fellows either for material and tools, or for the direct coöperation of their labor; it is likewise but seldom that certain populations, particularly urban populations, themselves employ all the products they create.

Now those who have contributed to the creation of wealth share in the product: this is what political economy studies under the name of the *partition* or *distribution* of wealth. Distribution being a result of coöperation, and consequently one of the phenomena of production, is con-

fused with production and put under the same heading by certain economists.

It is under the name of *exchange* that political economy studies the movement of wealth which passes from proprietor to proprietor by exchange; this is the second phase of the evolution of wealth and the third division of the science.

At length, when wealth has reached its final destination, it is used up. The thing created by human industry is destroyed, or at least ceases to exist in commerce; following the economic expression, it is consumed. This is the aim and end of production. *Consumption* is the third phase in the evolution of wealth and the fourth division of the science.

As wealth is made by man for man, and is consumed by him, the question of population occupies an important place in the study of consumption, and in the whole field of economic science; so likewise does the question of the state, which is charged with the common interest and administers under the head of finance a portion of the national wealth. Next to the people considered as a whole, the state is the largest consumer.

We have then three phases of wealth, and a treatise on political economy may be divided into four parts:

1st phase (1st and 2nd parts): *Production, distribution.*

2nd phase (3rd part): *Exchange.*

3rd phase (4th part): *Consumption* (by the people and through public disbursements.)

In economic science, as in all sciences, it is by an effort at analysis and abstraction that we shape the principal divisions of the subject. In reality the phenomena are quite complex. Thus the manufacturer in creating a

product consumes several others; he distributes amongst those coöperating with him the wealth produced, and he at the same time causes wealth to be exchanged by his purchases and his sales.

6. *Economic Need and Its Satisfaction.*—Why does man produce? In order to satisfy his needs, of which the most pressing is the need to live.

If a man in good health should go without nourishment for a day he would suffer from hunger; if he continued without it, it would not be long before he perished: man must needs eat to live. If a man in our climate should go naked he would suffer cruelly in winter from cold, and would find himself uncomfortable in other seasons: man must needs clothe himself. In the same way he would suffer from heat, rain, and from the chill of night unless he had a shelter: he must needs be lodged. He requires it not only for protection against the elements, but as a place for the movables he uses, often as a place in which to follow his trade, and as a domestic hearth around which his family may assemble.

The need of nourishment, clothing and lodging are not the only needs which man in civilized society has to satisfy. He feels a longing for instruction and recreation, and this longing engenders needs.

Man thus experiences a great number of *needs* diverse in their nature and importance. Some of them, like the need of nourishment and lodging, must be satisfied under pain of death or suffering; others there are of which the satisfaction is simply useful or agreeable. The number of these latter needs, which is indefinite, varies according to the particular fortune of each individual and in a given society increases as a rule proportionately as the mass of wealth in that society becomes greater.

For example, a savage feels no need of instruction; he hardly feels the need of clothing and lodging. All civilized men, on the other hand, regard instruction as an absolute need, not for the material life, but for the life intellectual, and this need becomes the more pressing according as they understand more fully how good instruction adds to the dignity of man and to the general progress of society.

When man feels a need he desires to satisfy it. If he cannot, he suffers, and the suffering is the more lively according as the need is the more pressing.

The man who is hungry has his repast, and the need of nourishment he has experienced is satisfied. The man who experiences aches and pains summons his physician, who proceeds to apply his remedies and in a few days the need of medical aid he has felt is perhaps satisfied.

The *satisfaction* of economic needs is accordingly accomplished by consuming material wealth, or by receiving service from others.

We say "economic needs" because man experiences other needs, particularly those of a moral order such as the need for friendship or sociability which can be satisfied neither by the consumption of wealth nor by paid service. These purely moral needs and the sentiments which they inspire are far from unimportant to the economic life of the nation; but their study is properly the province of morals and philosophy.

To satisfy an economic need requires effort and sacrifice consisting of labor or outlay. Under what conditions will man make this effort?

The savage beholds a deer pass in the forest; he knows the habits of the animal, and he might follow it and perhaps overtake it after several hours' pursuit. If he is

impelled by hunger he will not hesitate, no matter how much trouble it involves, to seek to satisfy his imperious need of food. In yonder tree sits a fine bird whose plumage might serve to adorn his person; but the savage is fatigued, to approach he must cross a river and he lets the bird go. If he had been at the foot of the tree he might have taken the trouble to let fly an arrow and would have thus satisfied the unimportant need of personal adornment.

It is the same with civilized man. Many people like to own fine jewelry; but to procure it requires a large outlay, and those who are not rich enough arrive at the conclusion that the sacrifice of money, otherwise called effort, would be too great relatively to the satisfaction of a need which is not pressing; they let the jewels be, and they are right.

There are some people who do not know how to calculate the relation of effort to satisfaction; such people manage their affairs badly. Amongst them is the class of spendthrifts who squander their money on trivial needs and presently lack the means to satisfy urgent needs.

We might sum up what precedes by saying that in economic action there are three terms: two extreme terms, *need*, which torments, and *satisfaction*, which appeases, and the middle term, *effort*, which procures the satisfaction.

7. *Utility and Wealth*.—To procure the satisfaction of an economic need, we must either consume wealth or receive service from others, *i. e.*, consume utility. The latter expression cannot be understood without explanation.

A field is useful because it produces crops. The wheat which one harvests is useful because it nourishes us. A

house is useful because it serves as a lodging. A hat is useful because it covers the head. A steam-engine is useful because it furnishes motor force. A diamond is useful because it satisfies the taste for personal adornment. A book is useful because it instructs. The doctor's visit is useful because it procures for the invalid the counsels of science. Everything calculated to satisfy a need possesses utility; a thing's utility consists precisely in the capacity which it has to satisfy man's needs.

It is nearly always man who gives to things their utility by his work; for example, he digs ore from the bowels of the earth; with the ore he makes iron; with the iron, machines. Ore, iron, machines, are products created by his work: in other words by an intelligent effort.

In this case does man really create? No living being has the power to add or to subtract a single atom from existing matter nor one single particle from the world's physical force. But man produces, that is, by his labor, makes such a disposition of matter as to serve his ends and to satisfy his needs, and in such fashion that what was useless or even injurious to him becomes useful. Accordingly, although man does not create the substance of things, he creates *utility* which renders them capable of satisfying a need, and which, consequently, gives them a value.

In the same way, when we eat bread we do not destroy the matter of which the bread is composed, but we consume the utility of the bread, that is, the property possessed by flour, when baked with water, yeast and salt, to furnish a substantial food. When we wear a hat we consume the utility of the hat which consists in being a convenient or shapely covering for the head; when the hat be-

comes old it loses its utility little by little until we end by throwing it aside. When we cultivate a field, we consume the utility of the field; in other words, the vegetative force of the earth which produces crops. Although the field still exists, the utility which it is possible to draw from it in the form of a crop is impaired, though each year there is a new utility because each year the productive force of the field is renewed by the action of nature and by the farmer's care.

All material objects which possess the quality of being useful constitute *wealth*. The wealth of a nation is the sum of all the useful things the nation possesses.

In common parlance, we call a man rich when he has abundant possessions. In economic language there is no man so poor but that he possesses and consumes wealth. The beggar's rags are wealth, and the coarse food by which he is nourished is likewise wealth.

Natural wealth is that which nature itself furnishes. A country whose soil is fertile and where mines are found is richer than a country whose soil is not fertile and which contains no useful minerals.

Commercial wealth is that which man creates by his industry (*i. e.*, by his economic activity), or that to which he has given utility by appropriating it to his needs. As natural wealth is transformed into commercial wealth the moment it is appropriated by man and exploited by his labor, the latter, commercial wealth, constitutes in reality the whole of wealth which can be bought and sold, and which, consequently, figures in the national fortune.

Wealth comprises on the one hand, *land*, which by virtue of its soil, its raw materials and the forces of nature of which man has availed himself, constitutes an instrument of production; it comprises on the other hand the

products which are the result of human industry, such as the wheat stacked in the field, or the finished locomotive in the shop, and which may be employed either as objects to be consumed for the satisfaction of personal needs or as instruments of further production.

8. *The Productive Forces*.—The economic potentiality of an individual or of a nation is not made up solely of material objects. Compare, for example, the career of two young men, one of whom has received a legacy of elegant manners and some money, but who is stupid and lazy, the other of whom has received solid instruction and is energetic and intelligent; the chances are that the latter, thanks to his labor, will create wealth, and at the end of a few years will possess more than the former.

In reality the *productive forces* are the sources of wealth. They are of two kinds:

1. The *forces of nature*, which being closely identified with matter, may be classed as natural wealth when they are nobody's property, and as commercial wealth when they have been appropriated;

2. The *productive force of man* as it manifests itself in his work and intelligence, and which is above all things the efficient cause of wealth; it is man, who by his activity, makes use of the forces of nature and of natural and commercial wealth in order to create new wealth.

The economic potentiality of a nation is accordingly its wealth and productive forces. The latter preponderates over the former as the field preponderates over the wheat harvested from it, as the orchard over the apples gathered in it, as the artist over the picture he has painted.

9. *Definition of Certain Other Terms*.—We shall have occasion further on to refer to most of the definitions given in this introduction by way of preliminary concep-

tions; they are necessary to a proper comprehension of the subject we are about to treat. There still remain a few terms whose meaning it is useful to know before entering upon the subject proper.

Labor is the application of the productive force of man to the creation of some utility.

The useful resultant of labor is not always a product, *i. e.*, a material object; it may consist of a *service*. The doctor renders a service to the invalid by prescribing a régime and remedies to cure him; a servant renders a service to her employers when she cleans their clothes or prepares their dinner.

One may weld these two terms, production and service, into one general definition. When man creates for his own use a product which is useful he renders a service to himself; when he sells to another a product which he has created he renders a service to that other and receives from him in return an equivalent service in the shape of a payment for his merchandise. We are thus justified in saying that every creation of a utility, either in the form of a material product, or of a personal service is in reality a *service*, and that all economic activity has for its object the production and exchange of services.

Industry is the application of human activity to the production and circulation of wealth.

Exchange is the act by which a man sells to another a product or a personal service for an equivalent product or service.

The *value* of a product is the quantity of merchandise which one gives in order to obtain that product in exchange. The price is the value expressed in money.

Résumé

Political economy is the science of wealth, in other

words, a moral science which has for its object a study of the natural laws under which *man* in the social state produces, exchanges and consumes *wealth*.

Political economy is a science of observation. Statistics is its auxiliary.

There are three phases of wealth and four main divisions of political economy: 1st. phase: *production* and *distribution*; 2nd. phase: *exchange*; 3rd. phase: *consumption*.

There are three terms in the economic movement, two extreme terms, *economic needs*, which torment, and *satisfaction*, which appeases, and the middle term, *effort*, which procures the satisfaction.

Man, by production, creates neither matter nor force, he creates *utility*. Utility is the quality which renders things fit to satisfy a need.

Wealth consists of all material objects having utility, and is distinguished as natural wealth and commercial wealth.

The *productive forces*, the forces of nature and forces of man, are the sources of wealth.

Labor is the application of the productive force of man to the creation of some utility. The result of this effort may be either a service or a product.—At bottom all economic activity has for its object the production and exchange of *services*.

PART I

PRODUCTION OF WEALTH

PRODUCTION AND ITS CONDITIONS

10. Sources of Production. 11. General Conditions of Production.

10. *Sources of Production.* — The production of wealth demands the coöperation of several elements. For his work the laborer employs raw materials and tools, and brings into play the forces of nature; thus the farmer requires land to raise crops.

Land, raw material, and the physical forces belong to the domain of *nature*. Labor is the immediate result of *human activity*. The tool, the material, and the land that has been taken up, owe their existence at the same time to nature which has furnished the substance, and to man who has created or augmented their utility by his labor; they constitute a peculiar element of mixed origin which we call capital.

Man and *nature* are thus primary sources in the production of all commercial wealth.

11. *General Conditions of Production.* — We may likewise say that by comparison man and nature are the two poles of production: *nature*, the inexhaustible reservoir of the physical forces and of matter, is in a fashion the negative pole; *man*, an active and intelligent being, is the positive pole; for it is he who wills and acts and directs his activity either toward himself, to conserve and develop his

productive powers, or for the benefit of his fellows to whom he renders a service, or again, upon nature, whose forces and materials he employs.

Man makes a double contribution to production: by his work and by his capital. Capital is of mixed origin; it is formed of products saved up, that is, not consumed; it is in a fashion human labor embodied in material and preserved to us by saving.

We might likewise define industrial production as follows:

Man, by his *labor*, *i. e.*, muscular and intellectual effort, and by the aid of his capital (*i. e.*, the aid of products of labor saved up) invests matter with utility by the employment of *physical forces*; in other words, *man* utilizes *nature*.

The creation of utilities that consist of services may in turn be thus defined:

Man renders himself useful to *man* by his *labor*.

We may merge the definition of material production and of services into a more concise formula, but it will be dangerous to base any reasoning upon it unless we bear in mind at all times that labor here implies two distinct elements signifying at the same time labor properly so called and capital. Such a definition would be as follows:

Production is labor (labor and capital) creating a utility.

All labor is not necessarily production, since to produce does not mean simply to give one's self up to barren effort, but involves the creation of a utility. The result alone decides the question. Whilst at work man consumes products: 1st, his sustenance and personal maintenance; 2nd, raw materials and the tools he uses. Consequently,

he destroys utility and he has really produced nothing, unless, everything taken into account, the sum of the utilities created is greater than the sum of the utilities destroyed.

Under this hypothesis what is it he has produced? Precisely the excess of utility created over utility consumed. Utility created is called the gross product; the excess referred to is called the net product. But if the utility created is less than the utility consumed, there is loss of wealth and impoverishment. For example: 1st supposition: A man working on his own account, or for another, consumes more than he produces. In the final analysis this man cannot be reckoned as a producer; he diminishes his own wealth or that of his employer, though he is generally classed as such. 2nd supposition: he produces a sum of utilities exactly equivalent to that he consumes. There is here a transmutation but no increase of wealth. This transmutation is nevertheless significant because it counts in the gross product, resulting either in an increase of population or greater well-being. 3rd supposition: he produces more than he consumes. Here we have a net product which, if saved, increases the national wealth.

The failure to realize a net product may be due to the inefficiency of the workman, resulting in waste of time and material, or to bad management on the part of the employer who has selected poor material or directed the production of something unmarketable.

We propose to take up in the following order the three elements of production: *nature, labor, capital.*

Résumé

Products. Man, by his *labor*, and his *intelligence*, and by the aid of his *capital*, *i. e.*, the products of labor saved

up, invests matter with utility by employing the physical forces.

Sources. *Man*, the active principal, and *nature*, the passive principal.

The three elements of production are: *labor*, *capital*, *nature* (land and the physical forces not appropriated).

Production is labor (labor and capital) creating utility.

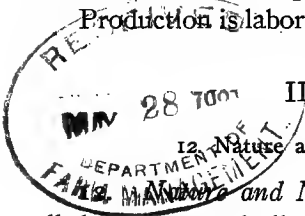
II. NATURE

12. *Nature* and Natural Agents. 13. Land.

Nature and Natural Agents.—*Nature* embraces all the matter and all the force which the world contains; it is the grand reservoir whence man draws the elements of production. It furnishes him matter such as air, water, land, plants and animals, and furnishes the forces inherent in that matter, such as heat, electricity, wind, river currents, vegetative power, muscular energy, and even the intelligence of animals.

In some instances nature furnishes man with this matter and these forces in unlimited or almost unlimited quantity; instance the air we breathe, the waters of the ocean, and even the water of rivers for those who have access to it. In other instances, as in the case of diamonds or land itself, it supplies this matter and these forces in limited quantity. This distinction is important because it gives rise to quite distinct economic phenomena.

However, these elements, this matter, or these forces, unlimited or limited in quantity, do not at first present themselves in such combination that man can derive the greatest utility from them. In the language of the Bible, "in the sweat of thy face shalt thou eat bread." In countries of which man has not yet taken possession, and



where nature reigns supreme, the most fertile lands no doubt become covered, in the course of the centuries with magnificent forests, but it is almost impossible to penetrate them except with the aid of an ax, and the great carnivora and venomous reptiles reign supreme in them. In valleys where alluvial soil has accumulated, the rivers overrun their banks and pestilential swamps cover soil which might otherwise yield rich harvests. Rivers abound in fish, but here their marshy banks are inaccessible and malicious animals render the approach to them dangerous. Torrents descend from the heights devastating the valleys. Mineral wealth is hidden in the bowels of the earth under various disguises and combinations, and is secreted ordinarily in the least accessible regions. There is nothing more wretched nor more precarious than the existence of savage peoples who rely upon nature to regulate the production of their means of subsistence.

From the standpoint of political economy the natural elements of production divide themselves into three classes :

1. The forces which cannot be appropriated for the reason that they are not found embodied in any one portion of matter, and are in unlimited quantity, such as air, light, and the heat of the sun. They do not acquire value save in exceptional cases which will be referred to later on ; but they are utilities of the first order, such as the air we breathe ; or are the most efficient agents in certain industries, such as the sunlight in photography. Their service is gratuitous since one procures it without being required to buy it. Generally speaking, one might say that the forces of nature, without whose coöperation man could produce nothing, are not themselves capable of being appropriated, but that most of them are nevertheless appro-

priated by the appropriation of matter in which they are inherent.

2. Matter which is capable of being appropriated, but which is not appropriated, remaining ordinarily the collective property of the state. Such are navigable rivers, the sea, which certain maritime nations have in former times sought in vain to appropriate, but which, for economic and political reasons, is nevertheless considered as state property along the coast.

3. In an advanced civilization, matter which is appropriated and which generally takes the form of private property.

The two latter classes of property are most frequently united in economic language under the name of *land*.

The forces of nature are of such importance in production that the formation of groups of population and the development of civilization are largely conditioned by them. The glacial zones are almost deserted. The torrid zone is inhabited, but the continued heat and the exuberance of vegetation in it take away man's energy save in certain locations favored with a milder climate. It is in the temperate zone that the great civilizations are formed. When we take up the history of the principal countries of that zone, we find in their climate, in the character of their soil and in their geographical situation some explanation of their wealth and the proof of the intimate connection that exists between the manner and the degree of national economic development on the one hand, and the physical conditions of the country on the other.

13. *Land*.—The expression *land*, in its economic sense, includes:

1. The sea, which belongs to the whole world and which serves for navigation and fishing, as well as that

portion of the sea near the coast which has been appropriated, and where we find natural fisheries and fish-culture, and which is reserved as national property for the fishermen of the nation ;

2. Certain bodies of fresh water which are public or private property, and which, besides supplying water for various public and private uses, serve for navigation, fishing and motive power ;

3. Surface of the land : that is to say, land properly so-called which serves for agriculture, building and roads, as well as the depth of the earth, where one finds quarries and mines.

Land properly so-called, farming land, constitutes by far the most important class.

It is easy to understand how much the farmer owes to the soil. It is the soil that is tilled, the soil in which the seed sprouts, the soil that nourishes and brings to perfection grain, trees and fruits. It is impossible to picture any plant cultivation, no matter what it may be, of which soil does not constitute the basis. The flowers we cultivate in a pot on the window sill could not thrive without soil and water, which latter is likewise indispensable to fertility, and is embraced in the economic expression land.

It is land which likewise sustains animal life, since animals live either on vegetables which grow on dry land or in water, or on other animals which themselves live on vegetables. Without fields, grass or vegetables, how could we maintain cattle and procure milk and meat? How could man exist, who lives almost solely on vegetables and animals, the only mineral substance of which he makes use ordinarily in his food being salt?

When we consider the subject further we see that land likewise furnishes the material for all industries, just as

it furnishes all the products of agriculture. Enter a great foundry. What is it that has supplied the site? What has furnished the material for the construction of the building, and for the tools and machinery with which the foundry is equipped? Whence has been drawn the raw material which is employed in the industry?

Land and its products are absolutely necessary to all production. It is, however, important to distinguish products, which constitute one kind of capital, from land, which constitutes another kind.

Land is always natural wealth, provided it is possessed of some fertility or contains useful minerals; but it is not always capital, for we have seen that capital signifies an instrument of production. Now land acquires this last quality only when human labor has exploited it with the object of creating wealth. There are vast regions which are not exploited: they are barren of inhabitants. Although this land is no man's property, and costs nothing, few men are tempted to settle there for the reason that under such conditions the land would simply furnish an instrument of production, and one not sufficiently prolific to permit the worker to live; he would die of hunger in his isolation.

Nevertheless, under certain conditions, a venturesome spirit who does not shrink from the prospect of hard work and privations through a period of years, if he can thereby create a capital, may find it advantageous to emigrate to a distant country to take up unoccupied land, or more frequently purchase it at a low price: it is thus that colonies begin. At the same time, we must not forget that they succeed only by virtue of hard and persevering labor, which in the end converts the virgin soil into capital.

It is a mistake to think that all lands when they are

appropriated and exploited by man possess the quality of capital to the same degree.

Some of them are naturally less fertile, others very fertile; the first are only moderate instruments of production, the second excellent instruments of production. These latter have a greater value than the former for the same reason that a steamboat is worth more than a canoe, and a sewing machine more than a needle, namely, because they render greater service.

Nevertheless, the importance of land considered as an instrument of production depends less upon its natural qualities than on the labor by which man has learned to render it fertile, on the utility which he has known how to give to its products, and on the use he can make of the ground. This is why some land yields 50 bushels of wheat per acre whilst other land yields only 15 bushels. It explains why the market gardener secures from small plots of land in the neighborhood of large cities a return altogether out of proportion to that of outlying regions. It explains the fact that desirable building sites in great cities command a price many thousand times greater than an equal area in the country.

As land is all appropriated in civilized countries it constitutes what is termed realty, or *landed property*. Being an instrument of production it might likewise be designated *landed capital*; these words embrace, it is true, not only the land itself, but all the improvements made and the buildings erected on the land.

In uncivilized countries land is natural wealth to which man contributes nothing by labor; he simply gathers the fruits and roots that grow spontaneously or captures the animals that live there. Land cannot be considered as

capital there, because it is not an instrument of production, and because it is not the result of labor saved up.

The moment man turns cattle into a field the land becomes an instrument of production; nevertheless it has, but vaguely as yet, the character of capital.

When he fences the field, tills it, sows it, and weeds it, it is evidently capital, because it has become an instrument of production whose yield is due principally to the amount of labor which man has in some fashion expended upon it. This is why certain economists have thought that there was no essential difference between landed capital and other forms of capital. They have observed that in some places land has little or no commercial value, that no one is in a hurry to take possession of the vast tracts which still remain unappropriated in desert or savage regions of the globe, that land in general acquires value only when man has worked it and that it acquires it almost in proportion to the labor expended either on the soil itself or expended in the immediate vicinity in such manner as to communicate utility to the land in question. Remarking these facts, they have deemed it sufficient for the purposes of political economy to distinguish between two elements of production as having a right to remuneration, namely, *labor* and *capital*, which, by their combined action, bring into play the gratuitous forces of nature.

There is much truth in this theory, but the conclusion is overdrawn. Appropriated land is undoubtedly capital, but capital of a special kind. It is necessary to distinguish it by scientific analysis from other kinds, whilst at the same time bearing in mind the close relationship of all kinds of capital.

Circulating capital is susceptible of indefinite increase, and consequently, it may happen that in this field prices

may fall in the face of a great increase in consumption. Land, or landed capital, exists only in limited quantity in each country; that quantity is not susceptible of increase, and as the demand for land increases its price goes up.

Land furnishes directly, in the form of vegetables and minerals, or indirectly, in the form of animals, the substance of all products of human industry. Other forms of capital are but products created from this substance; they furnish only the means of production.

Circulating capital is entirely the result of labor and saving or of the overplus of wealth already created. Land contains in itself either a productive power, which is inherent in it, such as the vegetative force which varies considerably in different soils and causes a great difference in their value, or it contains a motive force such as a waterfall, or again, it may contain natural wealth which man has only to exploit, such as the forest or the mine. This power, this force and this wealth are not derived from saving, and they make man's labor productive, at the same time that they are made productive by it.

These constitute so many differences which distinguish landed capital from other forms of capital.

The four principal economic uses for land are: agriculture, building sites, fisheries and mines. Agriculture, which is the principal source of man's nourishment, is the most important.

Résumé

In the work of production, *nature* furnishes: 1st, The forces which are not susceptible of being appropriated; 2nd, Matter which, although susceptible of appropriation, is not appropriated, or remains ordinarily the collective property of the state; 3rd, Matter which is

appropriated, and which in an advanced civilization, generally takes the form of private property. There exists an intimate connection between the method and the degree of national economic development and of the physical characteristics of the country which the nation occupies.

Land, in economic language, comprises the portion of the sea appropriated, bodies of fresh water, the surface of the soil, and the depth of the earth. This constitutes *landed capital*.

Labor and *capital*, bringing into play the gratuitous forces of nature, are the two elements of production; but it is necessary to bear in mind that land is a distinct kind of capital; it exists in limited quantity; it furnishes the substance of all the products of human industry; it contains within itself a productive power and motive force and natural wealth which is inherent in it.

III.—LABOR

14. Labor. 15. Physical Labor and Manual Labor. 16. Intellectual Labor. 17. Art and Science in Industry. 18. The Rôle of Science in Production. 19. Services of Intellect Cheap and often Gratuitous. 20. Intellectual Capital.

14. *Labor*.—We know that *labor* is the application of man's productive force to the creation of some utility, that it is the principal source of production, and that nature is the passive instrument, while labor is the active agent. It is because of having brought out clearly this fundamental truth that Adam Smith has earned the title of the father of political economy.

Man is at one and the same time a body and an intelligence. When he is at work his body is in motion, and his intelligence directs that motion. Accordingly we distinguish two kinds of labor: physical labor and intellectual labor.

In reality, all work, no matter what it may be, presupposes a coöperation of body and mind. On the one hand the most simple physical labor, that of the journeyman turning a crank, cannot be performed unless the brain issues its commands to the muscles of the arm, and regulates both the speed and direction of the movement; on the other hand, the teacher's lesson, or the writer's thought, which are classed amongst the most intellectual occupations, cannot manifest themselves unless the mouth pronounces the words, or the hand guides the pen.

Nevertheless, the distinction referred to is fundamental; it implies a preponderance of muscular action or of intellectual labor, as the case may be.

15. *Physical Labor and Manual Labor.*—We have said that no matter what labor man pursues he is obliged to use his muscles. We might add that no matter how much he is aided by machinery in shaping matter, the motion of the machinery must be controlled by his hands or feet.

Ordinarily we designate as *manual labor*, that is labor performed by the hands, all work in which muscular action is the predominant factor. Now there is no industrial product which does not call for more or less muscular action; manual labor is, therefore, one of the essential factors in production.

Under the head of distribution we shall speak of how manual labor is paid; it will suffice here to consider how it operates. It may be performed by different sorts of people, either by artisans working for their own account, or by operatives in the employ of others.

It may be more or less effective, according to the channel into which it is directed or the tools with which it is equipped. Nevertheless the question of the faculty for

work inherent in man is distinct from the question of tools; the question of management and tools we propose to take up later on.

The effectiveness of labor in itself depends principally on the following qualities in the laborer, namely, muscular force, intelligence and professional morality.

The first condition is physical. Sex and age often make a great difference in this particular in individuals. This is why the labor of women and that of children commands less as a rule than the labor of men. Race likewise exercises a marked influence. Thus it has been observed that the construction of roadbeds of railways in India costs as much as in England, although the Hindoo workman receives $4\frac{1}{2}$ d. to 6d. per day, whilst the English workman earns ten times that much; the phenomenon is explained by the greater effectiveness of English over Hindoo labor. Climatic conditions, such as heat, humidity and miasma, and economic conditions, such as food and well-being, exercise a marked influence in increasing or lessening the energies of a people. Again, among a number of persons of the same age and the same sex and living under the same conditions, there are differences of vigor which have an influence on the quantity of work produced.

Nevertheless, there is a limit to these differences; it is the limit of physical strength which in the most vigorous man is seldom double or triple that of the ordinary man.

Intellectual and moral qualities on the other hand are the cause of much greater differences in men than any physical qualities can possibly be. A people who enjoy good wages, who take the right nourishment, establish a proper standard of living, and contract habits of accumulating property, are capable of much more effective work

than a people who are wretched. Individuals who have learned their trade by a serious apprenticeship and by long experience, those who have their intelligence developed by general as well as professional instruction, those to whose organs nature and practice have given a special dexterity, necessarily have more skill and their work is more productive.

Strength and intelligence are not the only things needed for work: it is necessary likewise to have the will to work and to have control over one's self. The trifler whilst at work often permits his attention to be distracted; the idler who prefers pleasure to gainful occupations and loafs one or more days each week has not performed his quota of work at the end of the week. On the other hand, the man who has the proper sense of duty, who conscientiously employs his time at the shop and is always there, is a workman who surely renders more service than the trifler or the idler.

The social environment in which workmen live exercises an important influence on their moral character. If they are surrounded by the idle and the lazy, the weaker among them (and they are ordinarily the more numerous) end by acquiring bad habits. If, on the other hand, there exists a strict discipline in the industries of the country, if the working people are themselves alive to their obligations to work and to be steady, the children acquire the right bent at an early age and generally preserve it. This is seen in certain industrial centers of the United States where the young, properly brought up, and possessing a sense of personal dignity, are found at work principally in the textile factories. This is what likewise frequently takes place when the operatives have some personal interest in the success of the enterprise. Piecework,

when well organized, may likewise produce effects of this kind. An English economist has felt justified in remarking, "Whenever you find a rich country, you may be certain there exists a people submissive to the moral laws and obedient to the promptings of duty."

That which has its seat within, conscientiousness and self-control on the part of the laborer, has a far more direct and powerful influence on the results obtained in industry, with respect to both quality and quantity of product than any influence upon them from the outside. It is much more effective than the surveillance of taskmasters and employers, more effective than any rules of the workshop, and more effective even than promised rewards for special activity. What we call the conscience of the workman may be considered one of the master qualities of the man, and especially of the salaried employee.

16. *Intellectual Labor*.—If all manual labor presupposes certain action on the part of the intelligence, it is only by muscular action, on the other hand, that intellectual labor can manifest itself externally, and it is necessary that it should so manifest itself if it is to create a product or render a service.

In order to determine whether work is intellectual, we must regard not only the question of degree, but the question of kind as well. The artisan in chiselling a statue may display skill and taste worthy of an artist, nevertheless he performs only manual labor. The artist himself, although he has shaped with his own hands the model used by the founder in casting the bronze and by the artisan in giving the finishing touches to it with his chisel, has nevertheless performed labor which is plainly intellectual, for the reason that in this latter case the element

of art preponderates over the element of labor performed by the hands.

In a great factory the *engineer* who is charged with the care of the machinery, and who, by his observations and his calculations, invents a new arrangement of shafts and pulleys which increases the power of the machinery, or economizes fuel or power, performs intellectual work which is very profitable to us; manual labor enters at the moment when the workman begins to carry out the engineer's plans. The *employer* who gives his attention to his correspondence and his accounts, who regulates his purchases and sales, and who moves about his shop exercising a supervision over foremen and workmen, performs intellectual labor of the utmost importance; it is upon him principally that depends the success or failure of the enterprise. It is according to the good or bad management of the entrepreneur that the sum total of the efforts expended and the capital paid out in the establishment result in the creation of a utility or in a loss.

Artist, engineer and employer all perform intellectual labor.

The qualities which are needed in manual labor are likewise important for intellectual labor; but in the latter there is one quality which incontestably dominates all others, and to a very marked degree—it is *intelligence*.

The part which intelligence plays in the work of production will be shown later on. We may say now, however, that whilst the differences in men, which arise from differences in physical strength, are quite limited, and whilst those arising from differences in manual skill are likewise limited, though not to the same extent, the difference which may exist between two individuals in the matter of intellectual work is unlimited, just as the im-

provement of industry through the instrumentality of science is unlimited. The principal applications of intelligence to production are: 1. With respect to matter: to discover matter or forces hitherto unknown; to find new uses for matter and forces already known, and thus to give them more utility; to prevent waste of matter or forces, and to improve tools.

2. With respect to man: to increase the skill of the individual worker; to direct manual labor or guide it into more profitable channels; to get larger results from the combined forces employed in production by a better division and organization of labor.

17. *Art and Science in Industry.*—In all countries and at all times, human industry has received its light from above; intelligence has sent down its warming rays upon manual labor, has quickened it with new life; through the instrumentality of *art* it has instilled into it the sentiment of the beautiful, and under the guise of *science*, pointed out to it how to produce the useful with the least waste.

Intelligence has not been able, however, to cause its beneficent influence to be felt always in the same manner and with equal power.

Art varies with the times. It becomes more perfect and refined, or it may degenerate like the societies of which it expresses certain tendencies and embodies the spirit; in its efforts to translate into sensible forms the idea of the beautiful as each age and civilization conceives it, it is more the product of instinct, or at least more spontaneous than science which calls for long reflection and an accumulation of experiments. This is why antiquity, which had not as yet accumulated any great treasures of science, was able nevertheless to shed such lustre in the

realm of art, and to bequeath to us models whose purity and simplicity have never been surpassed. This also explains why industry has had art for its first recognized master, and why it has placed itself cheerfully under the dominion of art from the earliest times down to our day, building its houses, fashioning its furniture and utensils conformably to the types which architecture, sculpture and painting have suggested for its imitation. Industry has thus given to its productions an imprint of particular distinction at epochs when art itself has flourished most, as in Greece in the age of Pericles, and in Italy and in France during the Renaissance.

The feeling or taste for art is one of the mediums through which intelligence is applied to labor, and the study of masterpieces in the various fields of art, and the practice of drawing, develop taste. Every nation desirous of preserving and giving to its productions the imprint of beauty should cultivate and perfect this taste with the greatest care.

Science long held itself aloof from labor, because formerly manual labor was generally looked down upon, because the laborer had little education, and because science itself did not have sufficient grasp of the secrets of nature to lay down practical rules for industry.

It must be understood that we are here speaking of science properly so called, that which is professed by the scientist himself; because, if we include under the name of science all reasoned knowledge of things, we might say that the influence of science has made itself felt throughout human experience since all tools are the product of scientific thought. It was in fact thought of this kind which taught the earliest savage to fasten with a fish bone the skin of the wild animal with which he covered his

nakedness, which taught the lake-dweller of Switzerland and mound-builder of America to drill a bone in order to shape a needle, and which taught civilized man to substitute for this bone a slender bit of steel. The sum of this knowledge constituted at each epoch the industrial art of that epoch. It is likewise important to distinguish art properly so called from industrial art, which consists of the processes employed in industry and is derived from science.

It was in the eighteenth century that science properly so called was first applied to manufactures: Watt and Arkwright, Scheele and Lavoisier introduced it. The offering of the former two was machinery, of the latter two chemistry. The steam-engine, by substituting for the arm of the workman or the horse gin, a force that was powerful and regular, little by little transformed the factories, all of whose machinery has been made to conform to mechanical laws. Chemistry by putting the elements of bodies at the disposition of industry, has contributed no less to the transformation of the factory. Mechanical and chemical action, *i. e.*, movement and combination of matter are accomplished to-day in the factory with the same regularity as in the laboratory of the scientist; industry, like the scientist, possesses the reasoned knowledge of cause and effect.

To-day there is no discovery in the domain of theory that does not almost immediately pass into the domain of practical application, that is not tried and that does not soon become, if it proves successful, one of the ordinary weapons in the arsenal of industry. Practice, enriched by speculative thought, furnishes in its turn to the latter an immense field for experiment, crowds questions upon it, and compels it to render its discoveries more definite and

complete. Thus there establishes itself between science and industry a continuous current which is profitable to both: this is one of the results of the methodical study of nature and one of the characteristics of the nineteenth century.

18. *The Rôle of Science in Production.*—It is important to bear in mind that the muscles of men serve much less to directly fashion products than to bring into play in a convenient manner the forces of nature which really do the fashioning. Ordinarily it is the tool that works: the muscles, brought into action by the intelligence, have but to direct the tool and obtain an effect measured by the perfection of the tool.

Example: The child who casts a stone from his hand himself expends a force equal to that communicated to the projectile. If he uses a sling, the centrifugal force of the sling performs part of the work. If he takes up a bow to shoot an arrow, the elasticity of the wood performs a greater part. If he uses a gun to discharge a bullet, the expansive force of the gas performs a still greater part of the work; with little effort, consisting simply of placing the cartridge and pressing the trigger, he projects a mass of lead to a distance and with a speed which the most violent effort of the strongest man could never have approximated.

Another example: A man carries on his back in a dorser, which is in itself an ingenious product of man's intelligence designed to aid him in carrying burdens, upwards of 150 pounds and covers a distance of 25 miles in the course of the day. The same man by the aid of a wheelbarrow, which is more ingenious than a dorser, easily carries 250 pounds. A horse equipped with a pack-saddle will carry 500 pounds; harnessed to a cart he will

draw 2,000 pounds. To attain this result, however, it was necessary that man should first domesticate the horse, that he should invent the cart, and construct roads which facilitate the movement of vehicles, so many acts of intelligence and labor each of which represents a step forward in civilization. These are, however, as nothing in comparison with the locomotive, which, directed by two persons, a fireman and engineer, can draw a train laden with several million pounds of freight, and with a speed many times that of a pedestrian. A few men thus perform, thanks to the invention of the railroad, a task which an army of thousands of porters could not accomplish, for whilst they might carry this burden they could not transport it an equal distance in one day.

The more perfect tools become, the more in general does the muscular action of the laborer tend to diminish, and the greater is the intellectual action called into play to further improve them.

Now that which perfects tools is *science*, and this time we mean by the word on the one hand the industrial art in all its degrees from the primitive art of the shoemaker who conceived the idea of making use of a strap called a stirrup to keep in position on his knee the shoe on which he is at work and to thus secure the use of both hands, down to the electric generator supplying light and power; and on the other hand pure science, from the science of observation practiced by the chemist who discovers in fermentation the secret of a healing power, down to the science of the mathematician who in determining methods of calculation brings potent aid to astronomy and consequently to navigation. All industrial inventions, great and small, can be traced back to pure science, which has

directly or indirectly given birth to them, and explains them.

We see how vast is this domain which in a fashion is civilization's arsenal and how great is the rôle which science and intelligence play in production. Man can do nothing with matter, not even transport a block of stone, without borrowing from this arsenal an idea and a tool.

19. *The Sources of Intelligence Cheap and Often Gratuitous.*—In order to grasp more clearly the importance of the services rendered by the intelligence as illustrated by the cheapening of commodities, we are compelled to anticipate somewhat a subject we propose to treat later on in connection with distribution and prices.

The requisites of production are capital and labor; likewise a certain amount of science or knowledge which directs labor and points out its most profitable use. Labor and capital must always be rewarded, and so much the more liberally in general according as production is more abundant. This is not true of this third element; science at the very start contributes its services at less than their value, and soon bestows them gratuitously.

Why is it that an invention, *i. e.*, a new creation of science, is adopted in a great industry? Manifestly because it makes it possible to create either a product that is new or to fabricate an old product at less cost, or a superior product at the same cost. In every way the adoption of the invention carries with it a diminution of the effort required to attain a given result. *Science economizes labor.* From this economy there at once results an advantage either to the vendor who realizes a larger profit, or to the purchaser who acquires the object at a lower price, often in a certain measure to both at a time.

However this may be, we may say that *science enables industry to produce cheaply*.

We have remarked, however, that often the services of intelligence are even gratuitous.

Capital is unceasingly used up and renewed, and in the course of a hundred or a thousand years, as the case may be, we must pay for the capital thus used and replaced. Probably we pay less for it the more abundant it is; nevertheless we must always give to it assurances of sufficient remuneration in order to induce men to save and thereby create capital. Moreover, a highly perfected industry employs a great deal of capital and has large sums to pay out as interest.

Labor must likewise be paid, because the workman who gives his time and his energies to an occupation is under the constant necessity of expending something on his living. It may be affirmed that the greater the progress of industry the better remuneration does labor receive. We may congratulate ourselves on this tendency; a more widespread well being is precisely one of the happiest consequences of the development of industry.

Can we then pay all the factors of production more and still have a cheaper product? This question was a source of embarrassment to the earlier economists, several declared that a general rise of wages was an absurdity. Truly, if the total product and the number of producers remain constant, how is it possible in human experience to give more to each, more interest to capital, more wages to labor, and to even witness an increase in the profits of the entrepreneur? If the precious metals become too abundant and lose half their value it would no doubt be possible to give everybody two dollars in place of one, but

each dollar would only purchase one-half as much as formerly: this would not be a solution of the problem.

The supposition recalls one of the cases which Sancho-Panza had to pass judgment upon as governor of the island of Barataria. A mistrustful peasant who had given to his tailor a quantity of cloth sufficient to make a hood wished to ascertain whether the tailor was not inclined to deceive him and keep part of the cloth. He accordingly asked him whether he could not make two hoods with the same amount of cloth. "Oh, yes, I can," responded the tailor. The peasant, astonished at his reply and still mistrustful, asked whether he could not make three. "Yes"; and at length five? "Yes, yes." Some days later the tailor, having used all the cloth conscientiously, presented to him five little hoods suitable for a doll.

It is evident that so long as the total product remains the same, we cannot augment the number of parts without making each smaller.

What the earlier economists did not see was that in industry the total product is not invariable; the stuff increases. The stuff is the national wealth, and there is no room for doubt that this wealth has greatly increased in modern communities during the past century, increased much more than the number of participants. This is true of such countries as France, where there has been great industrial progress with only a slight increase of the population, of England and Germany, where there has been a large increase of population, accompanied by an even larger development of industry, and of the United States, where the progress of the national wealth has greatly outstripped a truly phenomenal growth of population.

It is to intelligence and to the gratuitous service it

renders that this progress is in large measure due. We no longer pay for the intelligence expended fifty years ago, although it is a most potent collaborator.

Fifty years hence the world will no longer pay for the intelligence expended to-day. It will long since have fallen into the public domain, and will continue to assist gratuitously in the work of our grandchildren as the expenditure of intelligence on the part of our fathers now assists in ours.

It is thus when we make use of a crowbar, paying simply for the iron it contains and the labor of the workman who has made it, and without being compelled to pay anything to the inventor, whoever he may have been.

What would you think of a machinist who, computing the power of his machine, should say: "It will perform for you the work of 100 horses, it is proper that I ask you 100 times the price of a draught horse for it." You would laugh at him, and go to a neighboring machinist who, making a more reasonable calculation than his competitor, would say, "My machine has cost me so much in materials and so much in wages, I add so much for general expenses and as my own profit; the total is the price at which I will let you have the machine." You buy this machine from the latter and profit by the original idea of employing steam as a motive force without being compelled to pay for the idea. Nothing is more legitimate than this course, for the reason that this idea has fallen into the public domain, and the machinist has himself used it gratuitously in constructing the machine.

Thus the factor we call *intelligence* differs from the two other factors in production in that it tends to furnish its coöperation gratuitously and without the intrinsic value of the service it renders being thereby lessened.

The following example will perhaps serve to demonstrate this more clearly: Suppose a calico factory which formerly employed a small number of artisans at hand-work, to have been changed into a great establishment using steam and a large number of mechanics. In the latter, which calls for the use of much more capital, not only to establish the factory, but as working capital, the production has greatly increased. It is precisely these new tools placed by science at the disposition of the worker which permits him to produce more in a given time at less cost, and even compels him to produce more. It is this that has effected the saving realized. It is in a fashion the key to the mystery and furnishes the explanation of the *economic paradox* which follows.

Granted that the selling price of a product is composed of the wages of the laborer, of the cost of raw materials, of the interest on capital, and the entrepreneur's profit, it is possible, thanks to *science*, to create a *cheaper product* out of *more expensive materials*, paying *higher wages* and *higher interest* on capital, and to finally have left over a *larger profit* for the entrepreneur.

At first glance this apparent paradox would seem to prove that the more we add, the smaller the sum total, that which would be an arithmetical contradiction.

On reflection, however, it will be seen that there is no contradiction, that the paradox is explained by the increase in the product, which gives more to divide, and that what we have stated is simply an economic law. It is, moreover, a law of harmony and of progress, a law calculated to dissipate certain fears of a clash of interests between the industrial classes and the fear of impoverishment of the masses conceived by certain economists at the beginning of the nineteenth century.

Independently of the general law there is an accessory phenomenon which merits attention: the value of the product diminishing at the same time that wages increase; the workman thus derives a double benefit through the progress of science: he sells his labor dearer and buys certain merchandise cheaper.

20. *Intellectual Capital*.—The whole mass of scientific knowledge, industrial inventions, processes, and even improved ways of doing things in the factory, which transmit themselves from generation to generation and increase constantly in a civilized community, constitute an immense reservoir of productive forces. This is assuredly one of the most precious possessions of civilization, and as we shall see, one of the most efficient causes of the multiplication and cheapening of products; it is what constitutes *intellectual capital*.

There is another kind of capital which we shall discuss in the following chapter: it is material capital, that for which we ordinarily reserve the expression, capital.

In reality the social capital of man is composed of a material and an intellectual fund, *i. e.*, the sum of material capital, and of the whole of man's useful ideas and intelligence. It is on this double foundation that civilization reposes. Both are precious: the duty of each generation is to preserve them both, to increase them, and to transmit them augmented to the following generation.

The intellectual fund is the more valuable of the two, because it is the more prolific source of wealth, because it scatters its benefits with a more liberal hand, and because it is the one whose loss is repaired with the greatest difficulty. When a hostile army has ravaged the territory of a civilized nation, the nation returns to its work after the retreat of the destroyer, and a few years sometimes suffice

to erase every material trace of his passage: France experienced this in 1814, 1815 and in 1870. But when the barbarian comes and casts his grim shadow over a fair land, as was witnessed in the fifth century at the epoch of the Germanic invasion, centuries may be required to pull the country out of its condition of misery and to cause the light of intelligence to shine in it anew.

The writings of scientists and of the learned, and consequently our libraries, are reservoirs of intellectual capital. Such capital is transmitted by reading and by instruction. Scientists and inventors add to it; it enriches itself by discoveries in the field of theory as well as by the practical improvements which the incessant activity of the human mind produces. Teachers and useful publications of every kind, conversation, apprenticeship and the counsels of experienced men contribute in different ways to its spread. From the point of view of industrial production it functions through the instrumentality of all those who have received instruction and who work. With the facility for communication and the multiplicity of international relations existing to-day discoveries cannot long remain the secret of any one man, or the privileged possession of any one nation, but circulate and enter promptly into the general domain of humanity.¹

Résumé

Muscular labor differs according to the age, sex, race and vigor of the individual, and still more according to his or her intellectual qualities (skill, etc.) and moral qualities (steadiness, etc.). *Intellectual labor* has a productive power which is much greater than that of muscular labor and which is practically unlimited.

¹ See Chapter V, questions relating to the organization of labor.

Art and science are the two great leaders of industry.

The more tools are perfected by science, the more in general does the muscular action of the laborer tend to diminish and intellectual action tend to increase. Science at the very start contributes its services at less than their value and soon bestows them gratuitously.

Economic Paradox: Granted that the selling price of a product is composed of the wages of the laborer, of the cost of raw materials, of the interest on capital, and the entrepreneur's profit, it is possible, thanks to science, to create a cheaper product out of more expensive materials, paying higher wages and higher interest on capital and to finally have left over a larger profit for the entrepreneur.

Intellectual capital is thus one of the most precious possessions of humanity and one of the most efficient causes of the multiplication and cheapening of products.

IV.—CAPITAL

21. Saving. 22. Capital and the Fund for Consumption. 23. Renewal of Capital. 24. Importance of Capital to Production. 25. The Rôle of Capital in Relation to Labor. 26. Productive and Unproductive Capital. 27. Fixed Capital. 28. Machinery. 29. Influence of Machinery on the Intellectual Condition of the Laborer. 30. Machinery and the Displacement of Labor. 31. Circulating Capital.

21. *Saving.*—Labor is the first element in production. It is not the sole element, since civilized man in all his undertakings, and the savage in nearly all, are aided by tools, and employ materials prepared in various ways which invariably represent previous labor and wealth already created. Accordingly wealth thus employed is likewise an element of production: it is *capital*, and *capital* has its principal source in *saving*.

We have remarked that political economy is a moral science, finding its principles of action in the qualities inherent in the moral nature of man. We discovered at the outset an activity of body and mind which creates wealth. We now encounter a second quality equally indispensable, *viz.*: foresight giving rise to saving which may be defined as the practice of thrift, the careful management of expenditures and husbanding of resources, the act of preserving and amassing wealth.

To save is to refrain from expending all the products of one's labor, or all one's revenue for the satisfaction of immediate personal needs; he who reserves nothing is improvident. The man who has capital, and not only consumes such revenue as is derived from it, but goes further and consumes for his personal needs a part of the capital itself, is killing the hen that lays the golden egg. Such a man is more than improvident: he is prodigal.

To take a simple example of the influence of saving, let us consider the case of two men on an island, the one fishing, the other hunting, and both exchanging a part of their products in order to secure variety of food. Suppose the fisherman has the virtue of foresight which the hunter lacks.

Each day the hunter consumes the whole of the game he has killed or the fish he has secured by exchange, whether much or little. The months roll by without any amelioration in his condition, without providing any security against the horrors of starvation should sickness overtake him or persistent bad luck follow him. It is thus that average people often act, and it is one of the reasons why they stagnate in a condition of profound wretchedness.

Suppose that the fisherman, on the other hand, estab-

lishes a practice of dividing into two portions his fish or the game bought with fish. Each day he consumes one portion to nourish himself. By abstinence he manages to save another portion, large or small, as the case may be, which he salts or smokes. This supply first of all assures him of a subsistence should the fish happen to be lacking for a period, and in the next place, permits him to occupy whole days in making better nets or constructing a cabin. He accumulates material resources, such as the net, which is calculated to be serviceable for a long time, and the cabin, which will shelter its owner for the rest of his days. This man soon rises to a position quite superior to that of the hunter; he becomes relatively rich, and it is to his economy that he owes this advantage. Not only can he now enjoy more of the conveniences of life, but having more and better tools, the results of his day's efforts are henceforth much more lucrative than those of the hunter.

This is simply a representation of facts which repeat themselves constantly in man's social state in greater diversity.

The two cardinal virtues of political economy are *labor* and *saving*, which one may call respectively the creator and preserver of wealth.

From this point of view there are four possible economic states :

1. A man who possessed neither of these virtues, and no capital profitably employed by a producer so that he may live on the income, and had no family to care for him in his infirmity and old age, would be, from an economic standpoint, a useless being, one might say a harmful being, since his existence could only serve to diminish the mass of social wealth.

2. A man who possessed the virtue of labor and not

that of saving would be condemned, so to speak, to roll the rock of Sisyphus, *i. e.*, to continually commence his task anew without making any advance; nevertheless, thanks to the mechanism of exchange, a portion of the fruits of his toil might be saved by others and benefit society in this way.

3. A man who occupied himself solely in maintaining at their original level the savings previously made by him or his family, would be useful to society by reason of this very fact, which assures to it the continued enjoyment of a certain capital.

4. Under the ordinary conditions of economic life the man who is most useful to himself and fellows is he who unites in himself the double virtue of producing a great deal and consuming less than he produces; the man who works and saves. Every one ought to qualify himself at an early age to become one of such men by contracting habits of industry and economy.

This quality which is desirable for the individual is quite indispensable for society as a whole; every society which fails to unite in itself the virtues of industry and economy is inevitably condemned to merely vegetate and even to disappear in time.

22. *Capital and the Fund Destined for Consumption.*—Saving is but the first term in a complex evolution; it represents abstinence, the sacrifice of present enjoyment for future benefit; but it is not in itself a benefit. A miser who, throughout a long existence, piles up in his strong box piece upon piece of money, does not further his own well-being by these successive accumulations, and for the time-being deprives society of the wealth which is thus withdrawn from circulation. Saving once made may be employed in production, taking the form of instruction,

tools, raw materials, wages and instruments of production, the object being to develop men, to aid them in their labor or to pay for labor: this is what is called *capitalizing* in its most liberal sense.

However, the expression *capital*, when unqualified, is ordinarily reserved by economists to designate material capital and should be so reserved in order to avoid confusion. Sums expended for instruction do not belong to this category, because they are devoted to the increase of intellectual capital, which has its proper place in the category of productive forces.

Not all saving is immediately capitalized. In such a matter every one must judge for himself of the opportunity; political economy limits itself to laying down the principle that it is well that the largest possible proportion of savings should be capitalized, and this as promptly as possible.

In ordinary language the word capital is used to designate all kinds of wealth. Economic language does not give it this wide and vague meaning; it is best to designate distinct things by distinct expressions.

Accordingly, not all wealth is of necessity either capital, nor destined to become such. The income of stockholders is not capital. Wages, although paid by capital, are no longer capital when they become the property of the laborer and are expended by him for his support. There is thus a large proportion of the national income which forms a fund *destined for consumption, i. e.*, a portion of wealth expended for personal sustenance and for luxuries.

One may easily conceive a sum passing from the category of capital into that of consumption. Thus when an employer takes money from his till to pay his work-

men, it is capital he is parting with; but when the workman pays out this same money to his baker, he is drawing it from his consumption fund.

In certain relatively rare cases, capital may not be the product of human labor, but may have other origin. This is what happens when, by the right of accession, a strip of new land washed up by the water is added to the property of a riparian owner; or, again, when the first occupant of a hitherto uninhabited country cultivates a field.

For the creation of capital three conditions are required:

1. A product or a material thing appropriated by man;
2. The saving of some of that product;
3. Its employment with a view to production, or to use a common term, with a view to reproduction, since capital is itself a product, and is consumed in order to reproduce new wealth.

The first two conditions are indispensable: on them depends the abundance or scarcity of capital. If we produce but little, it is quite impossible to have any great amount of capital. On the other hand, if, whilst producing a great deal, we save but little, it is still impossible to have much capital, since production, consumption, saving and capital are phenomena closely allied.

The total capital of a nation is composed of all the saving hitherto accumulated, which is not yet destroyed by use or time, and is either being utilized or is at the present moment in a condition to be utilized. When the body social is in a healthy condition, *i. e.*, when society is not under the shadow of a passing crisis or in a state of decay, there is added each year to this total of existing capital, preserved and renewed, the sum of the capital

newly formed during the year. This last is derived from the year's savings, which are equivalent to the excess of production over consumption. If we have both produced and consumed a great deal the excess may be insignificant. If we have saved a great deal whilst producing a great deal the excess will be considerable.

It may happen that we save nothing whatever and consume more than was produced in the course of the year. In this case the body social is not in a healthy condition, and in order to exist the nation is obliged to consume a portion of the capital that has been previously accumulated.

23. *Renewal of Capital.*—The third condition, the employment of capital, is that which essentially characterizes capital. We know that all saving, whether in the form of a product or money, becomes capital by the very act of being applied to production. It may be so applied under very different forms. Nevertheless all capital has a common trait, it is that of being an advance or loan to production. Consequently, it has a just claim to be recuperated from the products it helps to create, recuperated either at once and in its totality, or little by little and in installments.

When we speak of accumulated capital, we must not picture it to ourselves as a board of riches heaped up and carefully set aside, safe against all danger of destruction and enlarged each year by new accessions as if it were an Egyptian pyramid, to which each generation should add a layer of stone. Whether old or new, capital is always in motion, and that by reason of its very nature, because saved up wealth becomes capital only in so far as it is actively employed in reproduction. Capital can be productive only on condition of being consumed.

What proportion of the capital we possess to-day has come down to us from the previous century? Little, indeed, if we except the great monuments which remain for ages, and works of public utility, such as jetties, harbors, roads, and certain constructions which likewise date back a long time, but which are in a serviceable condition only because of frequent repairs, *i. e.*, because of fresh capital contributed by each generation. The capital of the previous generation has been consumed in order to create products which, becoming capital in their turn, have themselves been consumed in the process of giving birth to new products. There is thus a process of perpetual renewal, an endless chain. A steam engine is capital. How has it been built? By the aid of capital which was used to pay wages, and to buy iron and other materials. This very capital so used, whence was it derived? Perhaps from a farmer who had collected it by savings realized from time to time from his crops and who loaned it to the machinist. How did the farmer manage to save anything on his crops? Undoubtedly by reason of being industrious and vigilant, but likewise because he had good implements bought with capital his fathers had bequeathed to him, and because his lands had been rendered salubrious and improved by the labors of previous generations, *i. e.*, the farmer was able to make his savings by the aid of capital incorporated in the soil.

The wheat harvested in the United States amounts to several hundred million bushels. Is this a pure creation from nothing, the result solely of a year's work on the part of the American farmer? Certainly not. This wheat is in existence only because there existed previously a capital, and because part of this capital was consumed in fertilizers, in seed, in the food and pay of the farm laborer, in imple-

ments, machinery and beasts of burden. The capital had itself been formed more or less recently by the transformation of capital previously existing. We may say the same of all the products of agriculture and industry in every country.

"If existing capital," says John Stuart Mill, "is transmitted from year to year, and from age to age, it is not by preservation but by its perpetual renewal. The growth of capital is like the growth of population. Every individual, who is born, dies, but in a given period the number that are born exceeds the number that die."

24. *Importance of Capital in Production.*—The important rôle played by capital in production is the more easily comprehended the richer the community in which the observer lives.

A savage who has only his bow, tires himself out in following, or stalking, for an entire day a bison which he perhaps never secures. A farmer in a civilized country has on his estate numerous cattle which he can either slaughter or sell to the butcher. What is it that enables the latter to possess rich pastures, a store of fodder, and buildings in which to shelter his cattle and fatten them?

A fisherman with only his net, no matter what his skill, makes a much smaller catch than the proprietor who opens the sluice-gate of his pond, empties the pond and fills his basket to overflowing with fish which have been allowed to multiply for several years. What is it that has enabled this proprietor to devote a portion of his land to this purpose, to carry out the necessary work of construction, to place the first fish in the pond and await the result?

Consider the case of the weaver off in the country who lacks the means to procure implements other than the

wooden loom placed in his cottage close by his bed. A manufacturer in the same valley has in his establishment a hundred looms propelled by water-power. In the course of the month the former finds it difficult to turn out three pieces of cloth of thirty yards each, and earns a bare living, while the manufacturer with his machines, which operate with greater regularity and speed, may content himself with half the profit and still succeed in accumulating a fortune. What is it that enabled him to erect the mill with its big water wheels, and extensive machinery, and metal instead of wooden looms? What is it that has allowed him to buy in advance the considerable stock of yarn, to pay out so much to labor, and to carry in his warehouse for months awaiting a market so many pieces of cloth?

The beneficial rôle of capital is not limited to the factory.

In the great centers to what do we owe the varied stocks of products of all kinds capable of satisfying all tastes and fancies? Surely to capital, which enabled the merchant to store them and wait for his return. To what do we owe the facilities for communication which the railway has given us, and of which preceding generations had no knowledge? Undoubtedly, first of all, to science, but we owe them to capital too because it has permitted science to realize its plans and has levelled the route, constructed viaducts, pierced the hills and laid metal rails at a great outlay. To what do we owe the multitude of buildings which go to make up our cities? To do what we owe our streets, sewers, roads, and all the monuments of civilization which are the common property of the community?

Let us penetrate still farther into a portion of that

vast domain which is often overlooked because it fails to present itself to our gaze in a material form. What is it that has conferred upon civilized man that great productive power we all admire and enjoy, and which is the very thing that offers a profitable employment to material capital? We have already said that it is science which does this; but science is not an entity endowed with an independent existence; it exists through man and in man. It is because there is such a thing as instruction amongst men that science is created, preserved and developed. Every day a large amount of capital is expended on the living generation, principally on the growing generation, in the form of teaching, apprenticeship and study. This results in maintaining society at the level of knowledge previously attained, and in raising this level. Accordingly, it is still to capital that is due the development of man as well as the creation of the instruments of production. Nevertheless it is not our intention to introduce this subject at greater length here since it is more properly treated in the chapter on labor, under the name of intellectual capital; but what it is well to note here is that the formation of intellectual capital entails a considerable expenditure of material capital.

25. *The Rôle of Capital in relation to Labor.*—An artisan could not live on the things on which he is at work at the moment because, as a rule, his labor has not yet turned them into consumable products. Manifestly the blacksmith or shoemaker, whilst fashioning the bar of iron or shoe, must maintain himself by the aid of former products—*i. e.*, by the aid of capital. The same is true of the baker or farmer: it is not the bread he is kneading at the moment, nor the wheat he is harvesting which nourishes him. Between the artisan working on

his own account, and the laborer who receives wages, there is in this respect no fundamental difference. Both live on capital, the one on his own capital, the other on the wages paid out of his employer's capital.

In a civilized country no matter what industry we inspect, we find capital in more or less abundance, making labor fruitful and paying the wages of labor. All buildings, all tools, all raw materials, all industrial plants, all wages form a part of capital.

Without capital, man is virtually naked on the earth; he has naught but his hands and feet with which to attack and subdue nature to his needs. The cultivator's hoe and the seamstress's needle are capital. What feeble capital, it is true, in comparison with the great factories of to-day, in which simple tools are replaced by gigantic machines which perform the heaviest and most unpleasant part of the task, multiplying a thousandfold the laborer's efficiency, and often requiring of him simply the exercise of intelligence to guide some natural force! It follows from all this,

1st. That in civilized society labor can accomplish nothing without capital, and capital nothing without the aid of labor; they are necessary allies.

2nd. That capital feeds labor, since it supplies wages and supports the producer, whilst the product of his labor is still unfinished and incapable of being exchanged for objects suitable for personal consumption.

3rd. That capital controls labor by reason of the fact that no work can be carried out in the actual condition of existing society without preëxisting capital.

5th. That finally the undertakings of labor, other things being equal, are limited by the amount of capital available. We may thus conclude by saying: *The more*

capital there is, the greater are the opportunities for employment.

26. *Productive and Unproductive Capital.*—Although it is the quality of capital to be employed in production, we often make use of the expressions, productive and unproductive capital.

In reality, when saving is once launched in industry, it has become capital; but capital may occasionally cease to function without losing its quality provided it is destined to be used again in the future.

Examples: A factory closes for repair or lack of work. The building and machinery do not cease to be capital, but for the moment they are unproductive capital. A tradesman is carrying a considerable sum of money derived from the sale of his wares; he refrains from using it to buy new material, either because he foresees a fall in the price of that material, or because he fears a reduction in the demand for his products: his money for the moment is unproductive. This is what happens during an industrial crisis. The capital is not necessarily destroyed; it simply ceases to be employed actively because it either lacks the courage or the opportunity to embark in new enterprises.

It is important to distinguish temporary unproductiveness from the actual destruction of capital. If the tradesman has spent in festivities and revelry the sum of money he was carrying, he has forever deprived his business and society of just that much power to command labor.

27. *Fixed Capital.*—It is important to distinguish between fixed capital and circulating capital. For example, the premises a printer occupies, if he own them, are part of his fixed capital. If he be but a tenant and pay the rental out of his circulating capital, he is still

subject to the expense of installing himself, or arranging the premises to meet the special needs of his business, and he must, of course, buy the proper machinery and the furniture of his trade. This cost of installation and industrial furniture are fixed capital which can only be recovered by gradual amortization.

By the side of material capital, but not to be confused with it, we find the intellectual and moral capital which does not figure in a commercial inventory, but which is nevertheless of great importance, and has a real commercial value; of such are the tradesman's talent, the reputation of the establishment which results from such talent, trademarks, and inventions and processes of which the tradesman has the exclusive legal enjoyment by reason of a patent, or because he has preserved its secret.

The *fixed capital* of an enterprise accordingly includes:

1st. The *land itself* and the *improvements* thereon for both the agriculturist and the tradesman.

2nd. The *improvements in the soil* itself for agricultural pursuits and mining industries, improvements which may be distinguished as permanent, such as drainage, and as temporary, such as the addition of elements the soil lacks.

3rd. The cost of installation and industrial furniture together constituting the *first cost of establishing the industry*.

4th. *Tools*, which include machines, and, for the agriculturist, the livestock of the farm.

5th. The *personal equipment* of the entrepreneur.

If we were to make an inventory of national capital, it would be necessary to further include all means of communication, edifices dedicated to the public service, etc.

28. *Machinery*.—Machines constitute an important sub-division of tools. In our day they form one of the most common and effective channels for the activity of capital. Properly speaking, they are nothing more than perfected tools. Nature armed man simply with his feet and hands. All that his intelligence had enabled him to add, from the simple fishing line whose hook and bait drop to the bottom of the water to entice and catch the fish, up to the engine which supplies the motive power to all the machinery of a great factory, or the telephone which transmits messages, all are *tools* or *machinery*, i. e., passive instruments which the will of the worker sets in motion.

So long as the instrument derives its motion from the hand of the worker, such as a file, saw, hammer or pincers, we call it a *tool*. When the worker merely directs the instrument which no longer gets its motion entirely from his hand, such instrument is classed as a *machine*.

A circular saw, which is impelled by steam, and at which it is only necessary for the operator to shove his plank, is a machine; whilst the handsaw is a tool. The oar is a tool; the propeller of a steamship is part of a machine. To some instruments which partake of the character of both tools and machines, such, for example, as the sewing machine, we have given the name of machine-tool. What is important is to comprehend clearly that, in the first place, for the fashioning of any product whatever, man cannot dispense with instruments, tools or machines, and that, in the second place, the more perfect his instruments, the greater are the results obtained by a given effort. In order to realize the full force of the second assertion, it is only necessary to recall what has

already been said regarding the cheap and gratuitous services of intelligence in production.

Machinery supplies delicacy and precision as well as power. A striking example is the machine made by Rowland to produce gratings used in determining the composition of the stars by means of the stellar spectra; the machine rules 15,000 lines to the inch.

Machinery observes in its movements a certain regularity which handwork never attains, and which forces the workman to incessant activity and attention. Furthermore, by calling for the investment of a large capital, which involves considerable loss if it remains unproductive, it frequently induces the entrepreneur to continue work, and consequently, to afford support to labor even when orders are lacking or the operations for the moment are unprofitable. We may now sum up the principal advantages of machinery by saying that :

1. Machinery economizes labor, and renders products cheap.
2. It spares the workman the heavier tasks and makes manual labor more agreeable.
3. It makes production more rapid and abundant, and consequently increases wealth.
4. It augments man's power over nature by increasing his strength, and by endowing him with qualities which his organs alone do not supply.
5. Up to a certain point it constitutes a safeguard against stoppage of work.
6. It serves to discipline the workman.
7. Finally (that which settles the question, if such question is still raised amongst serious people, of the influence of machinery in limiting or extending the opportunities of employment), when machinery exists, it soon

imposes itself as a necessity because competition would not permit a manufacturer to continue very long with imperfect tools whilst others are using perfected ones.

It is proper to add that all the increase of production due to a machine is not a clear gain. To obtain this increase of production, it is necessary to use a more costly machine: in other words, to employ more capital. The entrepreneur must make his calculation. If the interest on this additional capital and its amortization represent a sum greater than the saving in wages, the new machine will not be performing a service. If, on the other hand, a saving can be made, the machine must be used.

The higher the wages in the country, the more inducement is there to multiply machinery.

This is one of the two things which explains the advent of machinery in the second half of the 18th century.

The other explanation is found in the progress of the applied sciences, and especially in the invention of the steam engine.

29. *Influence of Machinery on the Intellectual Condition of the Workman.*—Machinery disciplines and gives character to the workman. It has been frequently reproached with the opposite effect, *i. e.*, of stupefying the workman by condemning him, for example, to devote his whole life to making pinheads whilst at the same time impoverishing him by partly destroying the value of manual skill.

The first reproach proceeds from an imperfect grasp of the subject. Undoubtedly, in certain industries, the long apprenticeships by which one learned to make all the diverse products of an industry are no longer necessary because division of labor has led to specialization; undoubtedly likewise, an ordinary workman aided by a

machine can fill the position which formerly required a strong and skillful workman. It follows that there are certain classes of workmen whose labor is no longer so much sought, and whose wages are no longer so high as formerly.

But all workmen who operate machines are forced to greater activity because in general a machine moves rapidly and it is necessary to be quick in operating it.

Machines are complicated and skillful tools. Their construction ordinarily implies an exercise of intelligence on the part of the workmen who have produced them greater than that required for the manufacture of the simple tools formerly used. Their use often demands more intelligence likewise. It is evident, for example, that the good woman who turns the distaff exhibits less activity and intelligence than the operator who has charge of a thousand spindles, and gathers up and ties the broken threads with such dexterity that one finds it difficult to perceive what she is doing.

Finally, we must not overlook the service which machinery has rendered in contributing to a diminution of the hours of work in many industries, thanks to an abundant production in a short space of time, and in contributing to a rise in wages; two results which offer to the workman the leisure and the means of developing his intelligence by instruction.

These results, so harmonious on the whole, do not necessarily imply that the use of machinery is free from all inconveniences. On the one hand, the close application it exacts sometimes produces considerable fatigue in the operative. On the other hand, the use of machinery, operating automatically, diminishes the demand for manual skill, so that in those industries it is rarer to-day

than formerly to encounter workmen capable of performing a diversity of tasks or giving to a piece of work its proper finish.

30. *Displacement of Labor by Machinery.*—Is it true that, whilst leading to cheaper products, and a benefit for the entrepreneur, machinery brings ruin upon the working class by causing the discharge of workmen, as alleged, and that the final result of its introduction is to make the rich richer and the poor poorer? Three-quarters of a century ago Sismondi brought this charge against it, and others since his day have repeated and emphasized it. In order to dissipate this notion it suffices to recall two elementary conceptions of political economy.

1. It is with products that products are bought. Accordingly, the more each worker produces in a day the greater is the quantity he can consume by way of remuneration for his work.

2. Capital is born of saving. It is capital which makes employment possible and feeds the wage-earner whilst the product of his labor is still unmarketable. It follows that the additional gain to the employer resulting from the use of a new machine (gains capable of being capitalized, at least in part) will procure work for the wage-earner either in the same industry, the cheapness of whose products will open for it new and wider markets, or in some other industry.

Bastiat has clearly explained this in the following example so often cited: "John Jones has \$2.00 which he can offer two workmen an opportunity to earn. He conceives a new device which lessens the necessary labor by one-half. He obtains the same satisfaction, saves a dollar and dismisses a workman. He dismisses a workman, that part of the operation is quite manifest; but this

is only half of the economic phenomenon. What one does not observe immediately is, that if the invention has produced an idle workman, it has likewise produced an idle dollar in the hands of the capitalist. These two elements meet and combine, and it becomes clear that between the offers and demand of labor, and between the offer and demand of capital, the relation has in nowise been changed. By the aid of the new invention one workman paid with the first dollar now performs the task which formerly required two workmen. The second workman paid with the second dollar undertakes some new task. What change has then taken place in the world? An additional want has been satisfied. In other words, the invention is a gain for humanity. Its definite result is an increase of satisfaction for an equal amount of work.

“Who gets the benefit of this? At the start it is the inventor, the capitalist, the first who uses the machine successfully, and this is the recompense of his genius and his courage. In this instance he realizes an economy in the cost of production, an economy which, no matter how it may be employed (and it always is employed), gives occupation to just as many hands as the machine has displaced. But soon competition forces him to lower the price of the product in the measure of the economy realized. From that moment it is no longer the inventor who receives the benefit of the invention; it is the purchaser, the consumer, the public, including the working class; in a word, humanity. What one does not at first see is that the saving thus effected for all consumers forms a new fund which employs the labor the machine has displaced.”

Very often in this field of inquiry the facts conform to the theory. Statistics show that the ranks of industry

are nowhere so large as in countries where machinery is used freely, and that at least in industry, if not in agriculture, the number of employees increases with the increased use of machinery. It is augmentation of the means of subsistence which conduces most to high salaries, and an increase of population. The use of new machinery in industry plays the same part in this respect as the opening up of new lands to agriculture. We find the most rapid increase of population and the highest wages in regions where these conditions prevail.

One may say that machines attract and multiply workmen.

It does not follow that the introduction of a new machine in an industry may not, like every modification of the social economy, bring temporary difficulty and even permanent injury to certain interests. Nevertheless, the economic revolution goes on ordinarily with a certain degree of slowness because new tools are expensive, because—mistakenly most often—one continues to make use of the old tools as long as he is able to withstand innovation, and because all employers do not make the change at the same time. Workmen thus have a period of warning. Old workmen have time in which to gradually enter other shops, and new workmen are estopped from engaging in the industry menaced. Unfortunately, all do not know how to profit by the warning, or are not in a position to do so.

It is a false notion that the injury, when there is one, affects only the wage-earner.

They who are the quickest to make the change and to enter new fields are the individuals who suffer least from a crisis of this kind. Circulating capital is favored in

this respect; it can detach itself promptly, though not always without injury, and seek other investment.

The entrepreneur and the workmen come next in point of vantage. Nevertheless it is true that representatives of both these classes, when they are old, or when they are not sufficiently active or intelligent, are condemned to see the source of their income diminished or completely dry up, and are often exposed to ruin.

Fixed capital is that which suffers most, particularly when new machinery is of such a kind as to revolutionize an industry.

Example: When railways displaced stage coaches, the employees of the latter suffered; nevertheless, to-day travel, being many times as active as it was fifty years ago, calls for the employment of many times as many persons as formerly, and gives the majority of them an opportunity to earn higher wages. The inns along the deserted highways have been ruined and new capital has been invested in large hotels in the towns.

31. *Circulating Capital*.—Capital which is used to meet the general expenses of an establishment, and for the payment of salaries and wages, is not fixed capital. It may be entirely consumed each month, or, for that matter, each day. If the operations of the establishment are successful, it follows that this capital must be found entire in the product obtained each day or each month; this is the distinctive character of circulating capital.

It is then as circulating capital that we should class all capital which is consumed entirely in a short space of time, and which must be recovered in its entirety from the several products of the establishment. It is well for the entrepreneur to likewise distinguish between outlays for raw material and the simple running expenses of the

establishment. The commercial ability of the entrepreneur consists largely in knowing how to regulate the double movement of receipts and expenditures. He is placed between two dangers. If the outgo is too large his cash is soon exhausted, and his operations are interrupted; perhaps he fails. If, on the other hand, he accumulates too much cash without embarking in new affairs his capital becomes unproductive, and his profits cease. To sum up, all the *circulating capital* of an enterprise embraces:

1. *A provision for running expenses* which is composed of money and bills receivable, and which includes the *wages and salary fund*, and a fund for the maintenance of the employer.

2. *Raw material*, which naturally divides itself into *raw material proper* and *accessory material*.

3. *Unfinished products* in process of manufacture. To these we may add *manufactured products* finished but still in the warehouse. These latter really form a class by themselves in the economic inventory of wealth, because they are not actually employed in production. The manufacturer, however, usually reckons them as capital.

4. That part of the *fund of consumption* which is not converted into money, but is directly consumed, such as household provisions, clothing, etc.

Fixed capital is not separated by any impassable barrier from circulating capital. One beholds capital passing frequently from one category to the other. This happens when the purchase money of a new machine is taken from the cash or circulating capital, and it is constantly going on through the amortization of the fixed capital of an enterprise. An object which is circulating capital in one place may be fixed capital in another. Thus

a steam engine, which may be circulating capital in the hands of its builder, becomes fixed capital in the hands of the manufacturer who buys it. One might even say that money which is circulating capital for individuals, who constantly consume it, is after a fashion fixed capital for the country in which it circulates without being consumed, at least not immediately.

The man who employs his money and seeks a disposal of it best calculated to yield interest is said to invest his money. We have here an instance of circulating capital which is perhaps transformed into fixed capital by the purchase of stocks and bonds, these representing a share or credit in an industrial enterprise. This capital the owner may immediately withdraw or restore to the condition of circulating capital by selling the securities.

Résumé

Saving consists in not paying out immediately for the satisfaction of personal needs the whole product of one's labor or the whole of one's income.

The two cardinal virtues of political economy are *labor* and *saving*, which may be termed respectively the creator and preserver of wealth.

To *capitalize* savings is to employ them in production.

Consumption capital is the portion of wealth applied to personal maintenance and luxury.

Capital being an advance or loan to production has a right to be recuperated either immediately and in its totality, or little by little, and in installments, from the products which it has helped to create. Capital cannot be made productive without being consumed. If existing capital is transmitted from year to year or from age to age it is not by conservation, but by perpetual renewal.

The formation of intellectual capital calls for a considerable expenditure of material capital.

Labor in civilized society can accomplish nothing without capital; capital can accomplish nothing without labor; they are necessary allies. Capital feeds labor, and helps render manual labor less arduous: it controls labor. The more capital there is, the greater are the opportunities for employment.

Machinery economizes labor and renders products cheaper; it spares the workman the hardest tasks, and like capital, of which it forms a part, lightens manual labor; it makes production more rapid and abundant, and consequently increases wealth; it augments man's power over nature by multiplying his physical strength and conferring upon him qualities which his organs do not possess. Up to a certain point it constitutes a safeguard against stoppage of work. It disciplines the workman. It exacts on the part of the workman more activity, and in certain cases more intelligence. It tends to raise wages.

Fixed capital embraces first, land and buildings; second, improvements in the land; third, the cost of installation; fourth, industrial furniture.

Circulating capital embraces first, the capital required to meet running expenses, such as wages, maintenance and general outlay; second, raw material; third, products, both finished and unfinished; fourth, consumption capital in kind.

V.—INDUSTRIAL ORGANIZATION

32. Coöperation and Division of Labor. 33. Classification of Industries. 34. The Rôle of the Entrepreneur and of the Wage-Earner. 35. Association. 36. Industrial Corporations. 37. Historic Review of Trades and Trade Regulations in Europe. 38. Estab-

ishment of Freedom of Contracts. 39. Advantages of Freedom of Contract. 40. Competition.

32. *Coöperation and Division of Labor.*—A solitary being on a desert island must produce utilities to sustain life, but however great his efforts, he will succeed in producing far less than the average man living in the social state. Why? Because he cannot practice *coöperation* and the *division of labor*, which is its corollary. Let us now suppose two men on an island, one a carpenter, the other a mason. They have each been at work independently trying to build a house. The work has proceeded slowly and the result has not been satisfactory. It is clear to them that it would be better to combine their efforts. This done, they construct more comfortable houses in a shorter space of time. *The faculty of coöperation is that it increases the productive power of the worker.*

In the constant practice of the kind of work which pleases him, each of these two men has become more skilled. By working together they have the double advantage of division of labor and coöperation. Division of labor renders work more productive, each performing better the task he has become accustomed to, and saving time through not being compelled to pass from one occupation to another. Coöperation, accomplished either by association in labor or by exchange, enables both to profit by the increase of productivity. This is what takes place daily in society without the need of any special understanding between the parties.

A cloth maker who at first had but two machines, one for himself and one for his wife, the two doing everything themselves, and losing considerable time at each change of occupation, has now a factory and numerous workmen.

He is careful to clearly define for each workman the special task which he is to accomplish. Children perform light tasks which demand but little attention and effort: women perform work which is light but more important, and that which demands the most skill and strength is left for the men. The foreman and his assistants direct the work without themselves operating a single machine. Bookkeepers keep the accounts, and a cashier receives and pays out the money. While the proprietor gives his attention to his business, his domestics spare him the thousand little cares of life which would absorb much of his time. Each has his work, and work which conforms as closely as possible to his capacity. No doubt exists as to the result: The sum of the products obtained by such coöperation will be far greater than any results the same workmen could accomplish in a like period of time if they were isolated and forced to perform by themselves all the operations connected with the manufacture of cloth.

Adam Smith was so struck with the importance of the division of labor that it was with its demonstration that he began his great work on the sources of wealth. The example he has chosen, that of a manufacturer of pins, in which ten workmen are performing a small number of operations, and always the same operations, succeeding in producing 48,000 pins a day, has remained classic, although the result he mentions is greatly surpassed in this industry to-day.

From these examples are drawn several conclusions:

1st. Coöperation may be either direct, as when several persons work together for the completion of the same product, causing new relations of employer and employed, or it may be indirect, as when several persons aid each other mutually by the exchange of useful things

which they produce separately. This last form of coöperation gives rise to the diversity of professions.

2nd. Division of labor, whether taking the form of separate tasks in the same workshop, or of a multiplication of industries, is the result of a state of wealth. It can arise only when there exist consumers in sufficient number, such, for example, as will give the baker enough customers to enable him to support himself by his calling, will render the manufacturer reasonably sure of placing the cloth he makes, and will afford the physician sufficient patients to permit him to earn a competence.

Thus the larger the community, the greater is the division of labor; in a village there exists but little. Nowhere in a given country does one encounter such a diversity of professions and so many specialists in each profession as in its metropolis. If a country village finds itself possessed of a large manufactory practicing extensive division of labor, it is because the manufacturer seeks his customers, not in the small community about him, but in the world's markets. The extent of the division of labor accordingly depends on the extent of the market *i. e.*, on the number and wealth of customers.

It depends likewise on the existing stage of development of science, and on the nature of the work.

Thus, for example, machinery renders possible a division of labor formerly impossible; and certain occupations, such as farming, do not lend themselves to a division of labor such as is possible in the manufacture of cloths or pins.

3rd. As has been stated, division of labor augments the productive capacity of the worker. It is a necessary condition to the creation of wealth just as it is a consequence of wealth. Without it there would be no ex-

change and little incentive to increase production. This is clearly perceived in regions which are exclusively agricultural. With it, the skill of the workman is increased, there is less loss of time, and the invention of tools and machinery calculated to shorten labor, or improve the product, is rendered easier by a concentration of intellectual effort on the part of a certain number of individuals upon the same object.

33. *Classification of Industries.*—Productive labor of all kinds is designated by the general term "*Industry*," which is human activity devoted to the production of utilities.

This activity may be employed, first in drawing from the earth and sea by extraction or cultivation nutritious substances and material of all kinds; second, in working over in different ways the material thus obtained and preparing it for use; third, in caring for, transporting and exchanging natural products and manufactured objects, choosing the place and time where they may be sold to most advantage.

The first class, in which the earth is the principal instrument, includes *agriculture, fisheries, the chase* and the *extractive industries*. The second, in which raw material is worked over by labor and capital, is called *manufacturing industry*, or industry proper. The third, in which labor and capital are applied to the exchange of products, is called *commerce*.

Man labors in order to satisfy needs, and his labors must conform to the nature and diversity of these needs. Accordingly, a proper classification of the numerous industries embraced in human activity should be based on a classification of man's needs. These needs are needs of body and of mind, or material and intellectual needs. We

must nourish, clothe and house the body and transport it; must instruct the mind, and afford it recreation. This gives rise to the industries devoted to the satisfaction of each of these needs. The need of nourishment is largely supplied directly by agriculture, certain of whose products, such as fruit, vegetables and meat, require no industrial manipulation to fit them for consumption.

In the manufacture of products suited to the satisfaction of our personal needs, it is often necessary to give to the material one or more preliminary forms; we must always employ tools, and nearly always machinery and chemical agents. The more industry is developed, the more numerous and complicated are the tools and machinery, and the greater is the rôle played by chemical agents. We have, then, a particular class of industries which seek to make production easy and which we may call preparatory industries; such are the mechanical and chemical industries.

34. *The Rôles of Entrepreneur and Wage-Earner.*—We have seen that the division of labor involves the establishment of shops in which a number of workers coöperate in the production of the same objects. Thence arise diverse responsibilities and the relations of subordinate and superior. Whoever undertakes on his own account to fashion a product or execute a bit of work is an *entrepreneur*. The entrepreneur who labors alone without a body of men under him, or with the sole assistance of his family, or possibly one or two assistants, is an artisan. The entrepreneur who makes use of workmen is an employer; he exercises authority over his subordinates whom he pays, and the products of whose labor belong to him according to agreement. There are employers of widely different means, some having but few

workmen, differing but little from artisans, others having hundreds, or even thousands of workmen and employees, and designated as entrepreneurs, captains of industry, manufacturers, managers, or merchants.

The *wage-earner* is he who works under the orders and for the account of another; he does not sell products, he sells his labor and time. There are different kinds of wage-earners: the laborer who hires his labor in order to practice his craft, coöperating under the orders of the employer, in the manufacture of certain definite products, or the execution of certain work, and who hires himself by the task, by the day, or by the month; the employee, who hires his time ordinarily by the month in order to accomplish under the administration and orders of the employer certain manual or intellectual labor, such as clerical duties, or the duties of salesmen; the domestic, who lets his time by the day or month in order to perform personal service in the house of the master.

Office holders, and those who follow the liberal professions, are likewise producers of a certain kind; the first are classed amongst wage-earners, the second are sometimes entrepreneurs, and sometimes wage-earners.

35. *Association*.—Several entrepreneurs may, without subordinating themselves one to another, unite their efforts and their capital in order to coöperate in the same industrial enterprise, and divide the profits: this is what is called *association*. Association, like the division of labor and coöperation, is one of the most important forms of industrial organizations. So long as industry is but little developed, and capital is scarce, association plays but a restricted part. Association, like so many forms of economic life, has been developed as a result of liberty and wealth. It has to-day become one of the most

powerful forces which human industry has at its disposal, and one may without exaggeration compare its beneficent action upon industrial organization to that of machinery on manual labor. By it, vast enterprises, such as railways, which surpass the measure of individual fortunes, have become possible. Association is the union of various entrepreneurs, or the union of capital furnished by various persons for the same enterprise; it is a mode of industrial organization whose object is to augment productive power and it may increase productive power to an indefinite degree.

Association may be formed between several persons who unite their labor and their capital in an industrial enterprise and who accept unreservedly the full responsibility of the success or failure of the enterprise. This is the ordinary partnership, the type of association most frequently employed.

It may be formed between various persons, some of whom furnish the capital and labor and accept the full responsibility of the enterprise, whilst others furnish only capital, and this to a determinate amount; this is what is known as a limited partnership.

It may be formed by simple association of capital without anyone being responsible to the whole extent of his fortune. In this case the capital is combined under the form of shares, and no one is responsible beyond the value of the share he holds. This is the association of capital, of nothing but capital and in a determinate quantity. Capital is the real employer; the managers, whether they have or have not an interest in the profits, are wage-earners. This is the ordinary stock company, the kind of association which in the present century has given birth to the largest enterprises.

The difference between these various kinds of association hinges rather upon the rights of persons than on the use of capital. In all of them the capital of the enterprise is an aggregation and once embarked it is entirely consumed, reproduced, and subject to the same chance of gain or loss or total destruction; except that in the first form (ordinary partnership) the responsibility extends to all those associated, and to all their property, even though not invested in the enterprise.

As we have remarked, it is the association, and particularly the stock company, which has rendered possible the greater part of the industrial enterprises of our day—mines, railways, insurance companies, banks and manufactories. No one individual had a personal fortune sufficient for these enterprises, or if he had it, did not care to venture the whole of it in a single enterprise. What a great capitalist could not accomplish, many little ones together have accomplished. No other form of industrial organization has thus far produced such a powerful union of productive forces; no other has such a democratic character so well adapted to our time. It furnishes an equally advantageous implement to modest savings and to great fortunes. Furthermore, this artificial person, the corporation, has a continuous existence and permits of length of productivity, an element requisite for many modern enterprises.

Economic activity is helped by other forms of association, educational, professional, religious, etc. Mutual-ity, which constitutes the underlying principle of all association, is one of the most powerful bonds between men.

36. *Trade Guilds of Europe.*—At Rome under the Republic, a portion of the artisans and small tradesmen were grouped in corporations called *Collegia*. These

Collegia eventually participated in political disturbances and the senate suppressed all whose formation it had not especially authorized. The Emperors likewise long held the Collegia in suspicion, regarding them as secret societies dangerous to public order. On the other hand from the beginning of the third century of our era, they regarded them as a means of keeping the tradesmen in proper bounds. Alexander Severus (A. D. 225-232) gave them a legal status in Rome, and from Rome they spread to the provinces. Later on, when the burden of taxation, weighing down the people, caused the cities and the fields to be deserted, imperial edicts bound artisans and shopmen more and more closely to their calling. The boatmen who brought supplies to Rome and particularly those who transported the grain destined to feed the people of Rome and Constantinople were subjected to numerous regulations, whilst at the same time favored with special privileges, honors and immunities, such as exemption from taxation. Not less strict were the regulations binding the tradesmen who sold food. Bakers, for example, could not forsake their shops without having followed their calling a sufficient time, and then only provided they furnished a successor. The Emperors had come to regard industrial labor not as the practice of a right which they sought to protect, but as the performance of a public service, which they were bound to exact. By the end of the first century, B. C., the Collegia had come to resemble prisons. The members were the slaves of their calling, and their slavery was the more rigorous according as their services were the more useful to the state, particularly in the matter of supplying foodstuff. After the invasion of the Roman Empire by the Germans, when many of the cities were

pillaged, industry languished or disappeared and with it the Roman *Collegia*, of which we find no revival until the beginning of the twelfth century, except perhaps in certain cities of Italy, during the first centuries of the Middle Ages. Under the feudal system rural life prevailed. Nevertheless during and even before the crusades industry gradually revived in the cities, the serfs securing their liberty either by purchase or revolt. The artisans, small handicraftsmen working alone or with one or two "companions," and an apprentice, felt the need of uniting for the purpose of resisting the demands of their masters, of protecting themselves against the competition of artisans coming from elsewhere, or of securing by rules and a system of inspection good workmanship. This last is the object ordinarily set forth in the charters of the trade guilds. As previously stated the Roman *Collegia* ended by becoming a kind of prison; the trade guilds began as a sort of fortress behind which the artisan and tradesman sheltered himself from violence and competition. Toward the beginning of the middle ages the Germans had guilds which appear to have been social organizations formed for mutual protection just as the trade guilds were formed for trade protection. In England merchant guilds and craft guilds appear only after the Norman Conquest; the guilds which existed before that period had apparently only a social or religious character, industry being but little developed. Members of the merchant guild regulated the exercise of the trade monopoly conferred on a borough by royal grant, and laid charges and restrictions upon others who desired to trade in the borough. With the appearance of the craft guild comprising men of a common occupation, and later of the various unions of dealers as distinguished from trad-

ing artisans, the merchant guild gradually decayed, the supervision of the trade monopoly passing into the hands of newer organizations. The craft guilds, enjoying a monopoly in the practice of their special calling, became very oppressive, surrounding the admission of new members with more and more restrictions and making the period of apprenticeship unreasonably long. These abuses gave rise, under the Tudors, to the guilds being brought more under public control, and before the reformation set in, the growth of industry and the expanding ideas of liberty had already begun to tell upon their prosperity.

Flanders in the Middle Ages, before England, had active industries and flourishing industrial organizations. Before the fourteenth century it was the merchant guilds that dominated in the cities; later, as in England, they were forced to share their power with the craft guilds. The craft guilds of Flanders were particularly jealous of their privileges which they defended against outside competition by interdicting the practice of the industries in the country, and against competition with the town by limiting the number of machines which each master could employ. The religious wars mark at the same time the decline of industry and industrial organizations.

In Germany the guilds of patricians and of the middle class dominated affairs in the imperial cities for several centuries. The organization of artisans which had begun to form quietly in other countries of western Europe during the twelfth century, and which in the fourteenth century had become powerful, conducted a long struggle in Germany as elsewhere against the guilds to free themselves from the latter's domination and share their privileges.

Toward the end of the fifteenth century three hundred German cities possessed craft guilds, called *Zunften*, the monopoly of the masters, as well as the religious character of its organization being emphasized in their statutes as time went on. By the side of the organizations of masters, the workmen of Germany had, to a greater extent perhaps than workmen elsewhere, brotherhoods and associations covering extensive regions.

In Northern Italy there were numerous and powerful industrial organizations at an early date, as industry was active. Their organization and aim differed according to locality. In Venice they were strong but had no voice in governing the republic, whilst at Milan and Florence they waged war upon the aristocracy and nobility, and upon the large merchants, and, especially in the fifteenth century, took part in the struggle for political power in the cities.

In France artisans began to organize in the twelfth century, and in the latter part of the thirteenth we have a record of one hundred organizations of artisans in Paris. In the fifteenth century there were but seventeen cities in the Royal dominion in which the workmen were not organized. During the economic revival which followed the one hundred years' war, their number increased, whilst at the same time the admission to membership became more difficult, the tendency to monopolize the privileges of masters, which we have noticed in other countries, repeating itself here. In the sixteenth and seventeenth centuries the crown itself seeking to augment its revenues, multiplied the craft guilds. At the same time with the lamentable object of furthering fraud in industry, to which the statute of the guilds opposed an insurmountable obstacle, it created by letters patent, royal

and privileged industries which it released from all subordination to the craft guilds. It even established rules for the manufacture of fabrics and a system of surveillance, which served to hinder progress rather than insure a good quality of product.

The corporative régime prevailed in industry in nearly the whole of civilized Europe from the Middle Ages down to the sixteenth century for England and in some countries to the nineteenth century.

It was long practiced in communities where industrial liberty was not sufficiently protected.

The organizations, whilst differing notably in different epochs and countries, had certain common characteristics: the statutes which conferred upon the members of the guild the exclusive privilege of practicing the craft, fixed the rights of the members and the processes of manufacture; elected officers who administered the affairs of the corporation and enforced its statutes; masters who constituted the body generally limited in number, and who had experienced more or less expense and difficulty in gaining admission, the sons of masters, ordinarily enjoying special advantages in respect to admission; companions or workmen attached to the body, but not participating, or participating but little, in its privileges, and permitted to present themselves for admission as masters only after a certain period; and finally apprentices learning the trade under a master and obliged to undergo a long service before being admitted to the second stage of companion. We have seen that in the course of time the guilds developed abuses which were the natural outcome of the principle of monopoly, on which they were founded, and which constituted an obstacle to industrial progress.

37. *Establishment of Freedom of Contract in the*

Principal European Countries.—England was the first country to free its industry from the bonds of guilds. Manufacture began in the sixteenth century, whilst Henry VIII. was confiscating the property of the guilds, and the religious reformation was leading to the suppression of the brotherhoods. It became important in the eighteenth century, when armed with the steam engine and machine tools; it was then that industry was born. As the guilds hampered it in the towns it sought by preference localities where labor was free, and these in turn became important centers of population, eclipsing the old industrial centers of the Middle Ages. Craft guilds were not actually suppressed, but with certain rare exceptions lost their former authorities, dwindling to mere friendly societies.

In Flanders the religious wars and the wars between France and Spain had greatly lessened the importance of the guilds. The final annexation of the Belgian provinces to France resulted in the guilds being suppressed, as had already been the case in France. The same thing happened in the German provinces on the left bank of the Rhine. When the Kingdom of Westphalia was established the guilds were suppressed (1808), as was likewise the case, at least for the time being, in the other states where French influence made itself felt, though it was much later that the freedom of contract was specifically recognized by law, *viz.*: 1861 and 1862 in Saxony and Wurtemberg, and 1869 in Prussia. In Northern Italy guilds had disappeared with the French conquest.

France, which set the example for the continent, broke away definitely from the régime of guilds at the beginning of the revolution. In the second half of the eighteenth century French writers and administrators had emphasized the inconveniences of the guilds and demanded free-

dom of contract. The most eminent of them, Turgot, having become minister, he suppressed the craft guilds by edict in 1776, but the opposition aroused caused the recall of the edict within a few months, and the guilds were re-established, but with modifications which rendered them less close.

38. *Trade Unions.*—The trade union, which is a form of association, is ordinarily a free grouping of individuals who unite for an express object, in contrast to the corporation, which is a legally constituted body, enjoying certain privileges. Most frequently it has been organized with the object of mutual protection, and has later secured legal recognition. In other instances it was directly created by the public authorities in the interest of public order. Trade unions being vested with no monopoly are in no sense industrial corporations like the old trade guilds.

39. *Advantages of Freedom of Contract.*—The right to a free disposition of one's labor is assuredly one of the most sacred rights of man. It means for the individual the unrestricted use of his time, of his hands, of his intelligence: it is an essential part of individual liberty. The exercise of this right is moreover profitable to society because it consists in serving one's self by serving others. A well organized society must protect it with its whole energy. Only a backward society will so trample it under foot as to make slavery possible, and that society is a feeble one, which being unable itself to defend its members, permits certain groups, formed, like the trade guilds, for mutual defense, to monopolize this right. A strong and well organized society respects and favors association as it respects and favors all proper manifestations of indi-

vidual activity. It is bound to guard the feeble as well as the strong, and to guarantee to each the free exercise of his social rights; it alone is sufficiently vigilant to accomplish that task. Freedom of contract can produce all its beneficent effects only in a well organized society.

The wisdom of maintaining freedom of contract is one of the most important conclusions of economic science, and is a forcible illustration of the high harmony existing between the laws of the useful and of the just. This is a highly important rôle of economic science. Wherever weighty questions of that science are in dispute, it will generally be found that their true solution lies on the side of right and justice. Economic science demonstrates that it is from the most complete respect for the rights of man that the greatest abundance of products results. The advantages of freedom of contract apply to agriculture and to commerce, as well as to industry.

Analyzing more in detail the advantages industry derives from it, we find that,

First: It fosters competition, a prolific source of industrial progress.

Second: By removing artificial barriers it permits of a more complete use of individual activities, a result of much importance, since, nothing being more precious than the productive force of man, nothing is more regrettable than to see that force inactive or misdirected.

Third: It conduces to a better use of capital which finds more entrepreneurs to employ it profitably, and entrepreneurs engaged in industries which they have themselves chosen. Manifestly, striking the balance of advantage and disadvantage, the total gains should be greater under a régime of freedom of contract, not only because under it operations are more numerous, but be-

cause they are conducted by those better qualified to conduct them.

Fourth: It leads to a saving in cost of production, conducing to abundance and cheapness, the supreme end of economic activity. Producers who are more numerous and more skilled, and who practice a more complete division of labor, and have at their disposal more capital, are naturally better fitted to realize this end.

Fifth: In an enlightened community it tends to diminish the causes of social discontent. It awakens ambition in the breast of those who believe themselves capable of independent undertakings, whilst lessening the number of those who can lay at the door of social institutions the charge of restraining them and keeping them, in spite of their talents, in an inferior position.

Sixth: It improves the relation of employer and employee. Such a proposition may appear paradoxical in an age more agitated than any previous period by questions relating to wages and to the organization of labor. But this agitation does not imply greater discontent. It means simply that owing to the practice of political liberty men can now give expression to discontent with a freedom and effectiveness which was formerly denied them. When a society is composed of citizens having equal political rights, and sufficiently enlightened to reflect upon the meaning of these rights, the relations of employer and employee would soon become impossible under any other régime than that of freedom of contract.

40. *Competition.*—To enumerate the consequences of freedom of contract is in reality to state the principle effects of competition which is its corollary. It is a mistake to magnify the evils of competition. Competition is generally useful when it is honest.

A merchant is established in a certain district. By what right does he complain of other merchants establishing themselves in the same district? His wares were perhaps dear, and so long as his was the only shop there he tried but little to satisfy his customers. In order to keep his customers he must now pay more attention to their wants, and perhaps lower his prices. The public will be better served, *i. e.*, obtain more or better service, for a given outlay. This is precisely the end sought by political economy.

A manufacturer sells his products at a certain price; another comes along who offers the same products cheaper, and the purchaser prefers him: an economic end is attained.

A great shop is established which offers an abundant and a varied assortment of wares, and, doing a large business, can accept smaller profits on each article. The ruin of the small tradesman who has not been strong enough financially, or not skillful enough, to resist the competition of the big shop is regrettable, but his case is like that of men who eke out an existence by hand labor after the introduction of machinery has transformed their industry. If no shop is invested with a legal monopoly, customers who abandon the small shops to patronize the large one do so because they find it to their advantage: an economic end is again attained.

Résumé

Coöperation and the division of labor increase the productive power of the worker. Division of labor is conditioned upon the stage of development of wealth and science, and upon the nature of the work. It is intimately bound up with freedom of contract.

Industry is human activity applied to the production of utilities. It embraces agriculture, together with hunting and fishing, industry proper, (itself divided into the extractive and manufacturing industries), and commerce.

The body of *producers* naturally divides itself into entrepreneurs (artisan and employer), wage earners (workmen, employees and domestics), clerks, office holders, and persons following the liberal professions.

Association or the union of various entrepreneurs or of capital furnished by various persons for the same enterprise, is a mode of industrial organization which aims to augment the productive power, and which can increase productive power to an indefinite degree. The principle kinds of association are, the ordinary partnership, the limited partnership, and the stock company. No other form of industrial organization has thus far given such power to productive forces as the stock company which supplies a medium for investment equally advantageous to moderate savings and to large fortunes.

Trade Guilds are legally constituted bodies embracing all the artisans of the same trade in the same locality and enjoying a monopoly of the industry. They may be useful for the mutual protection of artisans in a society where individual security is not sufficiently assured. They are injurious in a rich and active society where laws suffice for the guarantee of individual security. The *Collegia* in Ancient Rome were a form of Trade Guild. Guilds flourished in Central and Western Europe from the twelfth century down to: the seventeenth century in England, the period of the revolution in France, and the latter half of the nineteenth century elsewhere. They served as a protection to the small industries of the Middle

Ages, but proved a hindrance in the modern development of industry on a large scale.

Freedom of contract is an essential part of individual liberty. Its full effects can only be felt in a well organized society. It favors competition, the fuller use of individual activities, better employment of capital, cheaper production and diminution of social discontent.

Competition is a rivalry between various producers offering services of a like nature to consumers; it leads the producer to attract the consumer by more advantageous offers.

PART II

DISTRIBUTION OF WEALTH

I

PROPERTY

42. Property. 43. The right to Transmit it. 44. Communist Criticism of Property. 45. The Three Factors in Production Entitled to Remuneration.

42. *Property*.—The idea of property is intimately associated with the idea of saving, which we have treated in connection with capital. It is saving which commonly gives rise to property. The simplest manner of acquiring property is to appropriate by some special kind of work an object of nature which does not belong to any one. The hunter kills his game, the fisherman catches his fish. They can both say: "This is the result of my labor and the thing is mine." Each of the two may consume the thing, destroy it or preserve it. This character, which attaches to the thing to-day, it will still possess to-morrow.

In a civilized country where the land is occupied, simple appropriation is the exception. But the farmer may say: "This field which my father has left to me, or which I have rented, I have tilled, planted, harvested, and by my labor have obtained from it a crop of wheat; this wheat is mine." The weaver in the same fashion, says: "On the machine which I own, and with the thread my wife has spun, I have made this cloth; the cloth is mine." The workman will say: "With a portion of the money

received for my labor I have bought this clothing: the clothing is mine."

No matter what the object on which the labor is expended, whether yarn, cabin, wheat, cloth or precious metal, the fruit of that labor belongs properly to the laborer, provided the material on which the labor has been expended, or by the aid of which it was accomplished, was already his or was a natural object unappropriated: the thing is his own, his property.

He has the same right to use it as he has to use his personal faculties, his physical strength and his intelligence. It may give him an advantage over his neighbors, but he may be likewise superior to them in the qualities just mentioned, owing either to nature's gifts or to the foresight of his parents who took care of him in his infancy, and to his own wisdom, which has husbanded and developed these faculties by labor and reflection. The proprietor may say: "I might have idled away my time in pursuit of pleasure. I did nothing of the kind, but expended my physical strength or mental force to produce and save this thing which is useful; it very properly belongs to me."

We may define property as the right to use and dispose of things. We might have said the absolute right except for the fact that in the social state the right is very properly conditioned upon respect for the right of others and upon certain requisites of social order.

The imprint of man's personality stamped by his labor upon matter is then the fundamental source of property.

Having the right to use and dispose of property for one's self it naturally follows that one may dispose of it in favor of another. The right to property implies the

right to sell, give and bequeath it, and this transmission gives the new owner all the rights of the former owner.

It was the consciousness of this right of possession which led the fisherman of whom we have spoken above (see par. 21) to postpone the enjoyment of the fruits of his labor. If he had not possessed that consciousness or if he had believed that violence would prevent his exercising his right, he would perhaps have consumed immediately the whole product of his labor; or he may not have taken the trouble to preserve the surplus; or, again, he may not have worked longer than strictly necessary to satisfy his immediate needs, taking no thought of tomorrow, because such thought would be vain.

We may distinguish three kinds of property :

1. The property which each individual should enjoy in his own faculties, his ideas and personal activity, implying freedom of contract.

2. Personal property, which is the possession of material wealth capable of being moved, and frequently of being multiplied by labor with the aid of capital.

3. Real property, which is the possession of a portion of the soil, and which, consequently, is limited in quantity.

Property of all kinds is derived from the natural relations of a free and active being with his fellows and with passive nature and may exist independently of human laws.

Appropriation, at least appropriation of certain material objects such as foodstuffs, is a necessary factor in human existence; it is in a fashion property in embryo.

This embryo in developing becomes collective or individual property. Human laws, which recognize and protect property as they recognize the relations of labor and protect personal liberty, may vary according to the

degree of civilization and political conditions. Whilst submitting to the universal and necessary fact of the appropriation of nature by man, they may favor patriarchal property, collective property of tribe or state, or individual property. By an abuse of the principle, the right of possession has been extended even over man himself and slavery established, thus, so to speak, bringing two rights in conflict, placing the lower above the higher, property above liberty, whence property is derived.

Like liberty, and all the rights of man, property has its history. From that history are drawn the following conclusions:

1. Law everywhere consecrates property and defines its rights, thus exercising a grand influence on the distribution of wealth; but the right of property, derived naturally from the economic relations of man and matter, is logically anterior to law.

2. Respect for property is one of the conditions, and one of the most efficient causes, of wealth.

3. In a general way, the more a society is modified by wealth, by instruction, and by the consciousness of civil and political rights, in other words, the more the individual is valued in a society, the more completely does law protect the various manifestations of individual liberty and property. This is the course of civilization.

It has been said that property is founded upon utility. The proposition thus stated is not quite accurate, since the true philosophic foundation of property lies in the free activity of the individual who embodies himself in a fashion in the thing appropriated. It is quite exact, however, to say that the idea of property is intimately connected with the idea of utility. Without saving, individuals and societies would be plunged in hopeless misery

and without respect for property there would be little saving or none; the institution of property is then manifestly useful. When personal interest is excited in a lively manner by honorable motives, when the fruits of labor are secure in the hands of the laborer, when the security of possession is complete, man is most disposed to save; he produces and accumulates more, enriches himself, and helps to enrich those who have relations with him. Here again we behold one of the harmonies between the just and the useful such as the philosopher conceives in general, and such as the economist establishes by the study of social facts.

43. *The Right to Transmit Property.*—We have said that the right to dispose implies the right to give: gift is, like sale and consumption, one of the modes of using property. He who cannot give to the needy a piece of his bread, has he the free disposition of his property? Now in this respect there is no essential difference between a piece of bread and a château, between a penny and a fortune: the right is the same, no matter what the value of the object. There can be but few exceptions to this rule, exceptions determined by special laws in each country, such as that which abridges the rights of the prodigal, because he is incapable of reason, or that which forbids the husband to will away the whole of his property and leave the wife penniless.

The right to property then implies the right to give away the thing possessed. The right to give away implies in turn the right to bequeath. It is vain to say that the dead have no longer any rights. The testator was alive when he made the disposition, and it is only the execution of his wish that is postponed until after his death. The proprietor transmits his rights by testament, and the

legatee finds himself invested with them. He has as full and legitimate enjoyment of them as the former owner.

If the deceased has left no will, his goods naturally pass to his family. The law, whilst differing in detail, prescribes this amongst all civilized peoples. Property must have an owner, and in default of special designation it is logical to vest it in those who are bound to the deceased by a close community of origin. It is only in default of family that possessions of the deceased become the property of the state.

44. *The Communist Criticism of Property.*—Property has its adversaries. Some pretend that all the riches which exist in nature, or which are produced by labor should always be at the disposition of the state to be distributed to each according to his needs for production or consumption. Others, admitting the fairness of personal property when it is the result of individual labor and saving, attack only landed property. They declare that the earth, not having been appropriated in the beginning, cannot in the course of time become the object of individual ownership without that appropriation constituting a fraud and a prejudice to the community which has thus been deprived of its right of enjoyment. These adversaries belong to the Socialist school, which maintains that wealth should be administered not by individuals, but by the body social, and especially to the school of collectivists or communists, who are thus called because they want all property to be held in common and to belong to the citizens collectively. Further on we shall discuss these doctrines in connection with the distribution of wealth; it suffices here to consider briefly their principal arguments against property.

In the matter of personal property, would it not be highly unjust to rob of his wealth him who has created it by his labor and saving, and likewise unjust to rob him to whom the former owner has transmitted the property? Such a violation of right would paralyze the productive energy of the people, who, being no longer able to count upon the fruits of their labor, would be no longer stimulated to work; and while aiming at the welfare of the needy, such a régime, if it could be adopted anywhere outside of a convent, where the religious faith enjoins self-denial, would cut away two of the most powerful elements in social life, *viz.* : Liberty and Responsibility, and its inevitable result would be to promptly pauperize the whole of society.

As regards real property, the inconveniences and consequences of such a régime would be the same.

The criticisms upon the fairness of real property will not bear serious examination.

It is true that land has not always been appropriated; but the right of property in land has grown with the progress of civilization, and it suffices to compare the state of wealth of primitive societies with that of modern societies to banish all desire to return to the former condition.

It is charged that the occupation of land has been an appropriation of the productive power of the earth, and that property of this sort must not be claimed as entirely the fruit of labor. This is true, but land without civilization is by itself of such little importance that few men dream of going out to appropriate it in uninhabited regions of the globe. In reality most land has absorbed in amelioration of all kinds a capital far greater than its

actual value, capital, it is true, of which much has been recovered from time to time in harvests.

It is claimed that land acquires by the presence of civilization added value of which the proprietor alone gets the benefit, although the community is the cause of it. This is true in certain cases. But how can we estimate the added value exactly, and separate it from the original value, and is it not just that he who must risk lower values should likewise get the benefit of added values? If the institution is to produce beneficial effects, social and economic, property must be clearly defined, and he who possesses it must be able to know what he possesses. This would not be the case if at each change of value arising from any cause whatsoever a piece of land should be subject to re-valuation and the possessor compelled to divide his possession with the state.

It is said that property was originally the result of conquest and usurpation. This is not true of new countries, such as the United States, nor of colonies generally. If it is true of lands elsewhere, we must bear in mind that these lands have long since changed hands by sale or contract of some kind, and the present owners hold them by the same right as all other property which they have purchased. If individuals are excluded from holding property on this account, what right can we invoke for the state which has gradually established itself in all countries by a series of wars and revolutions? It is the duty of society to enforce respect for the order and liberty which interest all its members. Its duty to maintain order gives it the right to tax property in order to pay the expenses of government, to, in certain cases, regulate the use and transmission of property, and to even take it forcibly after allowing a proper indemnity. The recognition of liberty

compels the government to respect individual property, to which in principle it has no right whatever.

45. *The Three Factors of Production Entitled to Remuneration.*—An analysis of production reveals the fact that wealth is created by the combined action of labor, capital and nature; that the forces of nature which are not appropriated render gratuitous service, and that land, by the very fact of being appropriated, belongs to the category of capital. Labor divides itself into two classes the labor of the wage-earner, which is in a fashion the renting of the productive force of a man, and the labor of the entrepreneur. There are thus three factors in production: the labor of the wage-earner, capital, and the labor of the entrepreneur.

If all three lend their aid in creating a product, if that aid is voluntary (*i. e.*, free to be given or withheld, or offered elsewhere), if it entails anxiety, effort or sacrifice, is it not proper that all three should share in the utility produced and that their respective share should be proportional to the aid given?

Unless they did share in the product they would abstain from coöperating, and production would cease.

Some men are lazy and pass their lives in mediocrity or misery; some owe their inferiority to their limited intelligence. There are nations and races who have but little energy and whose intelligence is but little cultivated; these are the poor races and nations. To each according to his works: this is the consequence of human responsibility and is the general principle on which is based the distribution of wealth produced under the régime of freedom of contract.

For that formula, certain writers have wished to substitute this: "To each according to his needs," and to

found upon this latter maxim an artificial distribution. They forget that frequently the only limit to the desires and needs of man is the impossibility of satisfying them and that if the state pretended to freely supply each according to his needs, each would be among the largest consumers, whilst very few would have the courage and generosity to range themselves amongst the greatest workers. The national wealth would rapidly decline. If, in order to obviate this inconvenience, the state should try to reduce each to a suitable allowance, it would only succeed in making malcontents and would commit a grave injustice in preventing active and intelligent men from procuring more enjoyments. In this field, no legal combination can take the place of a régime of liberty.

Résumé

Property in a thing is the right to use and dispose of it. It is saving which commonly gives rise to property. The imprint of man's personality stamped by his labor upon matter is the fundamental source of property. The fuller the recognition of the individual in society, the more completely do the laws protect individual liberty and property.

The right of property implies the right to give and to bequeath the thing possessed:

The objections advanced to property in land do not bear serious examination.

The three factors in production are the *labor* of the *wage-earner*, *capital*, and the *labor* of the *entrepreneur*.

To each according to his works; this is the grand law of the distribution of wealth under the régime of liberty.

II

THE ROLE OF CAPITAL

46. Systems Under Which Land Is Cultivated and the Rôle of Landed Capital. 47. The Size of Farms. 48. Small Holdings. 49. The Rent of Land. 50. The General Theory of Rent. 51. The Coöperation of Capital. 52. Gratuitous Credit Impossible. 53. The Rate of Interest. 54. The Conservation of Capital.

46. *Systems Under Which Land is Cultivated and the Rôle of Landed Capital.*—We know that land, with the buildings and betterments which have increased its value, is fixed capital.

When the proprietor cultivates the land by his own labor he unites in his person the triple quality of landed capitalist, laborer and entrepreneur, and if he realizes any gains he appropriates them without troubling to divide them and credit each of these three factors in production. Such a division would not take place unless the proprietor rented his land. The two principal modes of letting farming land are by metayage and lease.

Metayage is a contract by which the proprietor agrees to furnish the land and necessary materials to cultivate it, taking in payment a certain portion of the products. This is the ordinary method of letting land in countries whose inhabitants are poor. It may be practiced by a farmer having no capital of his own. What the metayer furnishes is labor; the proprietor furnishes not only the land and buildings, but agricultural implements, cattle, tools, etc. It is proper that they should divide the fruits of this association. The word "metayage" would indicate that each received one-half, though this rule is by no means invariable.

If agriculture is to flourish, the soil must be fertile, or, if only moderately fertile, must have been well prepared

by previous labor, and the cultivator must be intelligent and command sufficient capital. The soil is never properly prepared where capital is lacking, and where poverty reigns the people in general have but few means of developing their intelligence. It is in countries where such conditions prevail that we find metayage. The objections to the system are that it curtails the free action of the farmer and hampers the introduction of improved processes. On the other hand, where the nature of the land calls for a heavy outlay of capital, such, for example, as irrigation and drainage, or costly plantations, metayage may really become a means of progress, uniting the requisites—intelligence, capital and suitable land.

The most common mode of letting land in prosperous countries is by lease. A lease is for a definite time and sum and has distinct advantages over metayage. Under it the whole of the profit of operating the farm goes to the farmer, strengthening thereby the elements of personal interest. It is a system which can be practiced only by cultivators possessing a capital sufficient to stock the farm with tools and cattle, and to make the necessary advances for running the farm.

Whether through metayage or lease, whether the revenue is variable or fixed, whether the payment is in kind or in money, the proprietor receives annually a certain sum for the use of his land. This sum, when the proprietor has expended no capital in ameliorations, represents the share due to land in distribution; it is called rent. Agricultural exploitations must then be divided into four parts, of which the first two are subdivisions of capital, *viz.*:—rent for the land, interest for capital, wages for labor, and the profit of the enterprise.

47. *Size of Farms.*—When we examine the agri-

cultural systems of the various peoples who have occupied the globe we observe that the size of farms has always had an intimate connection with the stage of civilization.

Large domains are necessary to a life of hunting and a pastoral life. Savage peoples or nomads require great areas to pasture their flocks, and still larger areas if they derive their support from hunting. In that stage of society the land is seldom found to be individual property. It is more often the collective property of the tribe or family.

Agricultural life may accommodate itself to large or small holdings.

In the field of politics it may be said that there is an intimate connection between large holdings and an aristocratic organization of the state, and that the prevalence of small holdings is in harmony with democratic institutions.

Under the feudal system, in a period when the mind did not grasp the abstract idea of the state, to possess land meant not only to be a proprietor but frequently to be sovereign. Small holdings were not calculated to qualify a man to play this latter rôle; this is why almost everywhere large holdings prevailed. The latter even appeared indispensable to the maintenance of an aristocracy and the customs of the Middle Ages accordingly protected them against parcellation. This likewise explains why large holdings still prevail in England, where the social revolution was accomplished gradually without despoiling the upper classes.

Small holdings, which conduce more to the welfare and independence of a large number of individuals, attach individuals to the soil and interest them in the mainte-

nance of the established order ; they lend to the safety and stability of society.

Turning to the economic aspect, it may be said in general :

1. That large holdings procure a large revenue for a small number of persons.

2. That small holdings by yielding a larger gross product, support greater numbers.

Leaving out of consideration the industrial resources of the country, we find the greatest number of busy hands where small holdings prevail ; each must go back to his plow or hoe until he has made his small plot yield a subsistence for his family. When the small proprietor, with the aid of his family, cultivates his own field, the sentiment of personal interest fills the family with an energy which sometimes gives better results than the improved processes of extensive cultivation.

It is assuredly no life of leisure that small holdings offer. Sometimes it is a life of hard labor for petty results. It often happens that a man could take care of twice as large a plot, and, provided he had better animals and better tools, arrive at much greater results at the end of the year. Again the plot may not suffice to keep a family busy ; thence ensues a waste unless emigration re-establishes an equilibrium. Moreover, small cultivators have little money, insufficient instruction, and a feeble spirit of initiation. They vegetate in routine and poverty without the knowledge and ability to increase the product of their land by the adoption of improved processes.

But this unceasing attack upon nature compels the earth to yield its utmost taking into account the state of knowledge and the capital of the cultivator. The net product per head is perhaps feeble, sometimes even nil, *i. e.*,

each consumes all he produces, but nearly always the gross product under the régime of small holdings is much greater than under any other.

The proprietor of a large estate cultivates it with the idea not so much of forcing it to yield all it possibly can as to derive a handsome net profit from his operations. If he lacks capital he will fertilize the land but little and let certain fields lie fallow, waiting upon nature to restore what the crop has taken from the soil. Great proprietors who have ample capital with which to procure the latest implements and who follow the best methods may, of course, obtain both a large gross product and a handsome profit, but these are the exception.

In the above discussion we said: "Leaving out of consideration the industrial resources." In reality, industry creates centers of consumption whose influence upon the population and upon the agricultural production of a territory is quite superior to that of any system of holdings; thus regions of small holdings but of little industry are often less peopled and yield a smaller harvest than countries of moderate and large holdings which conduct manufactories.

Truck gardening, which is practiced around great centers of consumption, and which the railways enable men to carry on at a distance from the cities in suitable climates, is of all cultures that which calls for the greatest number of workers, and which yields the largest net as well as the largest gross product.

The size of holdings, which is an economic phenomenon, is determined by special conditions, economic as well as the political. Among such conditions are the configuration and nature of the soil, the demands of the market, and the capital required. In vast plains of uniformly good soil

we find large holdings prevailing, and in mountainous countries, or in the neighborhood of great cities where truck gardening is carried on, we find the land more divided.

48. *Small Holdings.*—In France, where the agricultural population still forms a majority of the inhabitants, small holdings prevail. In many provinces they already existed under the old régime. The revolution of 1789, which emancipated the small proprietor, was, so to speak, his day of triumph. The “Code Civile” by decreeing an equal division between the children in the absence of a will and by limiting the portion which the parent might dispose of even by will, has contributed to the maintenance of small holdings. It has been shown that the net product of small holdings in France is greater per acre than that of large holdings.

How is land made to yield a utility, *i. e.*, how is it made valuable? By labor and capital. The best economic system is accordingly that which opens the way most freely to these two instruments. The former is best supplied by a régime of small holdings, the latter by moderate or large holdings, when there is freely expended on them savings derived from other sources, such as industry. A régime of liberty whilst permitting the rich capitalist to gather small farms into a single estate, at the same time, tends to divide large estates when their yield is poor, and substitutes for them small proprietors who get more out of each plot. It likewise leads to small holdings in cases where the culture calls for considerable labor, as in vineyards and truck gardens. Large, moderate, and small holdings, have each their advantages and their inconveniences. The economy of agriculture demands that they should adapt themselves in each locality to the natural con-

ditions of soil and climate, and to social conditions, such as capital, state of knowledge, and the markets.

From the standpoint of political economy the best division of property and the best agricultural methods are those which result from an absence of legal restriction.

49. *The Rent of Land.*—Ricardo writing at the beginning of the nineteenth century has given his name to a theory of rent which earlier writers had however suggested. "Rent," says he, "is that portion of the product of land which one pays to the owner for the enjoyment of the right to use the productive and imperishable qualities of the soil."

The theory is this: Men commence by cultivating the most productive lands and so long as these are sufficient to produce what is needed for consumption, there is no rent. When the increase of population renders them insufficient, the cultivator must take up less productive lands and consumers will pay for wheat a price which corresponds to the price of production on these latter. This increase in the price of wheat is realized by the cultivators of the first lands who now enjoy an extra profit, which is rent. When further increase of population has brought about the cultivation of lands still less fertile, the price of wheat is further advanced. Rent has then commenced on lands of the second quality, and that of the first quality of land has increased.

This observation of Ricardo is true. The phenomenon of rent on the poorest quality of land cultivated is generally due to the coöperation of capital in the exploitation of the land and does not refute the theory. It was in vain that certain economists, such as Bastiat in France, and Carey in America, sought to overthrow this theory. The first tried to prove that land has no value except that which

man's labor and capital give it, and that like all natural agents, it offers its productive powers gratuitously. The second sought to show by examples taken from the settlement of his own country that the most fertile lands are not ordinarily the first that man cultivates because they are often situated in river bottoms, which call for considerable preparatory work and consequently a certain degree of civilization to make them habitable. These arguments were vain.

Undoubtedly capital improves the soil, and it is often impossible to disengage the two elements in valuing a piece of land. It is none the less true that land has a productive power of its own, that that power is not the same for all lands nor for all purposes, and that it is necessary to value it in the measure of the utility it yields. At a given time there are always lands, as Roscher has remarked, which with the same expenditure of capital and labor yield more than others. The difference existing between the yield of the best and that of the poorest land constitutes rent.

Bastiat sought to prove that land differs in nowise from other forms of capital, and that its value emanated entirely from man's labor. He thought by this theory to fortify the right to property. His proposition contains an element of truth but it is not exact. Although there is on the globe plenty of land which has no value because civilized man is not there to make it productive, it often happens that a plot of land acquires additional value without the expenditure of any capital or labor on the part of its owner. This takes place, for example, when land which has been inaccessible, is pierced by a railway, giving it access to an important market, or when a new street is cut through a city, giving new value to the land on it.

It is not only for the wheat field that rent is paid.

The wind blows for everybody but of two windmills constructed exactly in the same fashion and at an equal cost, one placed on an eminence and the other in a hollow, the first may command a rent and the second perhaps none.

It is clear likewise that rent does not necessarily add to the price of things; it is the consequence and not the cause of advance in price, as we have seen in the case of the second and third quality of land brought into cultivation. It cannot be charged with injuring the interests of the consumer. In certain cases it is even beneficial to the consumer.

Although Ricardo's theory is true, certain consequences which he has sought to deduce from it and which have alarmed other economists, are not strictly true, or are less formidable than he would lead us to believe.

Ricardo reasoned as follows: The rise in rent as population increases is due to the rise in wheat. If now wages remain stationary whilst the workman pays more for his bread, the poor will grow poorer and the rich richer. In order that this proposition should conform to the actual state of things it would be necessary to presume that during this evolution of rent no progress had been made either in agriculture or industry, because agricultural progress would have lowered the price of wheat and industrial progress would have increased wages. Experience since his day has not confirmed this theory of Ricardo. In most civilized countries there has been simultaneously agricultural progress resulting in more abundant harvests, commercial progress facilitating the exchange of products, and industrial progress rendering the workman's labor more productive. In short, what has happened is that the price of wheat has remained stationary while wages have increased.

At the same time, rent increased generally in Europe and in America during the first three-quarters of the nineteenth century.

Causes which lead to an increase of rent in one region sometimes produce a decrease in another; thus lands which enjoy the privilege of supporting great centers of population suffer from the advent of railways, which open the market and bring higher rents to new lands. These latter have in turn witnessed their rent reduced by new extensions of the railways, bringing the products of more distant lands into competition. This is the effect produced in Europe during the last quarter of a century by the competition of America and India.

50. *The General Theory of Rent.*—As we have said, it is not only the wheat field which alone enjoys the privilege of rent; building lots and mineral lands, likewise command it. This is still saying far too little, the phenomenon of rent being much more general.

Rent is really enjoyed by every instrument of production and every worker having any natural superiority whatever in production over other instruments or other workers. The occupant of a shop on a busy corner does more business than competitors located in adjoining streets. If he rents the shop he probably surrenders a portion of his advantage in a rent higher than that paid by others.

A farmer raises several horses which consume the same quantity of fodder. He discovers one which is stronger and possesses more endurance than others and uses it for heavy wagons and important work; here again is a phenomenon of rent.

A lawyer possesses a remarkable talent for pleading and an unusual acuteness of mind. He studies no harder

at school than others, and now spends no more time than others in preparing his brief; nevertheless business flows to his office although his fees are higher than those of his fellows, and he is in the way of building up a large fortune. This is rent.

The physical strength and stature which qualify a man for police duty and enable him to command better wages than others who have the same mental endowments or skill is likewise a rent. Advantage from superior natural endowments of any kind is rent.

None of these forms of rent weigh upon the consumer. The merchant does not sell his wares dearer, the price of the things produced by the clever workman are no higher, and the clients who have the liberty of choosing their lawyers no doubt see an advantage in selecting a particular lawyer notwithstanding his high charges.

On the contrary, all are in the nature of additional services rendered to society by the instrument or worker, and society is the gainer. Its interest is to have these qualities multiplied. What happens when their number is greatly increased? These superior qualities compete with one another, the price of their services is lowered, and as they produce more with a given effort, there results a distinct gain for society. This means lower prices and lower rent; that is, a result quite opposite to the hypothesis which alarmed Ricardo.

51 *The Coöperation of Capital.*—It is absolutely necessary for production that labor and capital be associated. This we have already demonstrated in treating of capital.

Under what conditions does this association take place? They differ according to circumstances, but they

all involve a division of the product, because both elements have participated in the work of production.

An elementary example is that of Capital and Labor united in the same person; here the worker labors with tools and upon raw material already his. But this is not the simplest example from the standpoint of scientific analysis. The two factors of production are here so intimately combined that one is not always careful to distinguish between them. The cobbler manages to support himself, pays a rent for his stall, and possesses a small industrial plant, *i. e.*, he works with a small capital. Does he think of allotting to capital a distinct part of his earnings? Hardly, he thinks only of earning a livelihood. Nevertheless if he cedes his material and his custom for a time to a comrade, he knows very well that all this has a value. He demands for it a certain amount of money. The element Capital emerges.

Two weavers off in the country pursue their labors, one with his own loom, the other with a loom belonging to a manufacturer in a neighboring town. The first receives the whole reward of making the cloth, the second receives a smaller reward, the manufacturer retaining something for the use of his capital. The influence of capital is here still more manifest.

It becomes quite clear when the manufacturer employs workmen and has an organized establishment. (See par. 18 and 24).

For this valuable coöperation which augments so largely the productive power of labor it is quite just to pay something. Like every partner it has its right to its share.

52. *Gratuitous Credit Utopian.*—We must reward capital just as we reward labor. A friend may lend money without interest, just as he might render us a service with-

out charge, or present us with some product of his labor. These are acts inspired by sympathy, and not such as regulate economic activity. In the ordinary relations of life, men exchange services. "I need your capital," says the worker; "with it I can produce more." "Here it is," answers the capitalist, "now what part of the product will you reserve for it?" Whether he himself imposes the conditions, or waits upon the borrower to suggest them, he will not surrender his money except in the hope of reasonable profit. If the borrower offers less than his neighbor, the capitalist will probably lend to the neighbor, provided there be equal security.

What would happen if all borrowers, imbued with the idea that the capitalists were abusing their position in claiming a part of the profit, should refuse to surrender any of the profit? Capitalists would keep their money. The more sensible among them would themselves embark in enterprises in order to use the instrument which they could not lend out profitably. Others would consume their capital in an unproductive manner, preferring present enjoyment to a self-denial which yielded nothing.

We must never forget that the source of capital is saving, and that saving is abstaining from enjoyment. Now the man of foresight denies himself at present only for the sake of future enjoyment, enjoyment either for himself or for his family. Suppress the right of future enjoyment, *i. e.*, the profit of capital loaned out, and you at the same time suppress saving.

In such matters men are governed by their interests. As the interest of workers to secure capital is not less patent and pressing than the interest of capitalists to find employment for their capital, an agreement necessarily follows, despite all barriers which unwise laws may erect.

53. *The Rate of Interest.*—Capital, like all values, is subject to the law of offer and demand. Its rate of remuneration is determined by the point of accord between the capitalist, who seeks the greatest possible profit, and the borrower, who seeks the least expense. To say that capital is scarce is to say that it is dear, *i. e.*, the rate of interest is high; vice versa, abundant capital means cheap capital, *i. e.*, low interest.

Interest is regulated principally: First, by the general state of social wealth which tends to lower the rate as that wealth becomes greater. Second, by the activity of enterprise and the productivity of capital which tend to raise interest according as they themselves are greater.

We may compare this play of the rate of interest to the movement of a balance. In the scale of offer place additional capital; immediately the beam descends. But place new borrowers or large profits in the scale of demand and it readjusts itself. Each oscillation marks not the absolute quantity of valuable capital but the relation between that quantity and demand.

This is why we see interest lower in periods of commercial depression. It is not because at such times there is more capital, but because it is less in demand. To-day, because of the abundance of capital, there is in nearly all civilized countries a tendency towards lower interest.

It follows from this reasoning that although low interest is desirable and possible, the actual estimation of interest is impossible. Reason and facts both contradict such a supposition. That which is desirable is that there should be a large amount of capital, and that it at the same time should be much in demand. This means many instruments of production at the disposition of human industry, and these instruments constantly employed. These two condi-

tions help to realize the end of economic effort. If too high, interest hampers production; if too low, it ceases to encourage the formation of capital. The proper amount can never be determined arbitrarily because it varies according to circumstances, place and time.

When capital is associated, or invested, there is opportunity of great profit and risk of serious loss. If the undertaking is successful, a very high profit may be realized. If unfortunate, not only is there no profit, but the capital itself may be partly or wholly destroyed and the capitalist loses both interest and principal.

The lender may in a measure guard against these risks. In place of a revenue proportional to the profits of the year, he may agree in advance upon a fixed revenue based on the approximate annual profits of the enterprise or fixed by the market value of capital. In this case the money he furnishes does not take the form of associated, or invested, capital, but of hired capital. Every year the lender will receive a stipulated interest, say, for example, 5 per cent. If the borrower has realized large profits so much the better for him; they are all his after he has once paid the interest agreed upon. If, on the other hand, his profit is only 4 per cent., he makes good the extra 1 per cent. from his own capital, and will suffer a loss. Capital which is loaned runs a risk of loss only in the event of the enterprise turning out so badly that the losses consume the whole capital of the borrower, and a part of the borrowed funds as well.

Accordingly loanable capital makes its own choice and lays down its conditions according to the risk.

Circulating capital may be loaned under different forms: in the form of cash ready to be employed at the pleasure of the borrower, in instruments of production, or

merchandise, or in the form of a credit at a bank, etc. Each of these forms influences the rate of interest and the conditions of the loan.

54. *The Conservation of Capital.*—The position of the capitalist is certainly one of greater ease and is more agreeable than that of the workman who must earn his bread from day to day. But the successful management of capital is by no means a sinecure; it presupposes a quality which is not so common as generally imagined. One economist thought that the function of the capitalist might be designated as “The Work of Saving,” but this is hardly a proper term because saving consists rather in an effort of abstention than in action.

The capitalist should first of all possess the virtue of saving. It is his effort of abstention which results in saving a portion of his revenue and conserving the capital which has been previously created by his own labor or which has been received as a heritage. Not all owners of capital know how to make this effort.

It is much not to waste one's substance in prodigality, but this is not all that is demanded; one should know how to administer his estate. If it is realty it is important not only to keep it up by necessary repairs, but to know how to increase its value by judicious improvements. If personalty, the important thing is not to be led into bad investments by the deceptive prospect of gain, and to estimate correctly the morality and capacity of people with whom we deal.

Whatever the cause of destruction of capital, prodigality or non-success, society suffers a loss by it, since abundance of capital is profitable to society. On the other hand it derives a benefit from the sole fact of the conservation of capital by its owner.

Résumé

Metayage is a contract by which the proprietor furnishes the land and the material for its exploitation in consideration of a definite share in the products. *Lease* is a contract under which the proprietor lets his land for a given time and sum. The price paid for the use of the land (when the proprietor has expended nothing for improvements) is the rent or the share due the land in distribution.

Relative advantages of large or small estates is a matter of epoch or place.

Large estates bring large revenue to a small number of persons. There is an intimate connection between large holdings and an aristocratic organization of the state.

Small holdings, yielding a larger gross profit, feed a greater number of men. The prevalence of small holdings is in harmony with democratic institutions.

From the standpoint of political economy the best division of property, like the best use of the soil, is that which results from absence of legal restrictions.

Rent is, in theory, that portion of the product of land which one pays to the owner for the right to use the productive and imperishable qualities of the soil. At a given time there are always some lands which, with a like expenditure of capital and labor, yield more than others; the difference between the yield of the most favored and the least favored constitutes rent. Rent is the consequence and not the cause of a rise of prices.

When instruments of production or workers have any natural superiority whatever in production they may be said to enjoy a rent. The origin of all phenomena of rent

lies in the additional service to society rendered by an instrument or worker. Capital is entitled to payment for its coöperation. Gratuitous credit is utopian.

Capital rare is synonymous with capital dear or a high rate of interest, capital abundant with capital cheap, or a low rate of interest.

The rate of interest is generally proportioned to the risk.

Society derives a benefit from the sole fact of the conservation of capital by its owner.

III

THE PROFIT OF THE ENTREPRENEUR

55. The Profit of Enterprise. 56. The Dividend.

55. *The Profit of Enterprise.*—The profit of enterprise is a topic quite distinct from the two other elements in distribution. Wages and the remuneration of capital, either as rent or interest, are a part of the expenses of the enterprise. Together with the raw material employed and a portion of the general expenses, they constitute the cost of production; the profit is the gain derived from the operation.

All except profit are necessary preliminary factors determined in advance; they are often paid before the sale, and frequently before the completion of the product, since labor and capital are consumed in its fabrication. Profit is contingent and uncertain and comes into existence, if at all, only at the moment when the product is sold, or rather when the purchaser pays for it. It is only then that the entrepreneur can calculate precisely the excess of selling price over cost, *i. e.*, over the total sum expended as wages, capital and interest. This excess is the profit of the enterprise.

When one reflects on the number of enterprises, large and small, which are constantly undertaken in a vigorous society, on the amount of capital involved, how easily it is impaired or quite lost, one realizes the responsibility that rests upon the entrepreneur. Large profits are but compensation for numerous inadequate profits and for losses.

Although the position of the entrepreneur brings greater opportunity than that of the wage-earner, it is at the same time surrounded with perils. Ordinarily he amasses sufficient to support him in his old age only after long, persevering labor, backed by proper economy. A stroke of luck may bring riches to an individual suddenly, but from the standpoint of morals and sound political economy, it is bad to count upon getting rich in such fashion. New countries likewise modify the rule by yielding a great gross product and making the accumulation of wealth easier.

What ordinarily keeps down profits is the fact that competition acts upon them just as it acts upon the rate of interest. If profits are high in a given industry large numbers immediately seek it, fighting for customers and securing them only by lowering prices; this process is apt to go on until the profit of this industry falls to the average profit of other industries.

Whatever the proper mean—an impossible thing to fix—of profits, it is proper that it should be superior to the average wage. There are two reasons for this: First, profit is the recompense of a responsibility which is heavy because of the penalties of non-success. Second, it is the remuneration of intellectual labor which exercises a preponderant action on the results obtained in production.

Profits are moreover subject in their variations to the same general laws as wages and capital. In industries

where competition is keen, profits are moderate because the entrepreneurs are obliged to sell cheap. In industries where they enjoy an absolute or approximate monopoly, profits may be higher. In industries which are carried on with a large capital the total profits may be considerable, although the profit on each article is small.

The total profit depends much on the personal qualities of the entrepreneur. One man grows rich in an industry in which his neighbor simply manages to exist.

56. *Dividend*.—In stock companies there is only associated capital. Those who have supplied this are the entrepreneurs. All the officers employed are but wage-earners. It is to capital that the profits belong. It receives them in the form of a dividend.

Dividend, being profit, is then variable and uncertain.

In thus becoming associated, capital renounces the advantage enjoyed by hired capital, *i. e.*, fixed interest. For it, interest and profit are merged in dividend, which may be large when the enterprise is successful and nil when not successful. A portion of the capital of a company may nevertheless be in the form of a bonded debt on which the interest is not variable and contingent but fixed. Capital in this form may be classed as hired capital.

It follows that if the enterprise, instead of showing a profit, has suffered a loss, and comes to be liquidated, it is the capital invested in shares, or the associated capital, which sustains this loss, whilst the capital in the form of a bonded debt which was regarded as borrowed capital, and consequently is a debt, is reimbursed first.

Ordinarily the whole profits are not paid out in dividends but a part is set aside as a reserve. This mode of distribution does not change the nature of the investment.

The reserve, being a part of the profits, remains the property of the stockholders.

Résumé

The profit of an enterprise is the excess of selling price over cost of production, *i. e.*, over the total sum expended as wages, capital, and interest.

Profit is essentially variable and uncertain. It is proper that on the average it should be superior to wages, because, first, it assumes heavy responsibilities and risk of loss; second, because it is the remuneration of intellectual labor. Profit is generally moderate where competition is keen. It may be large in the case of monopolies or where large capital is embarked. The profit of associated capital takes the form of a dividend.

IV

THE ROLE OF LABOR

57. The Wage System. 58. Rate of Wages. 59. Day Labor and Piece-Work, and the Hours of Labor. 60. Labor Unions. 61. Profit-Sharing. 62. Coöperative Societies. 63. Criticism of the Wage System. 64. Socialist Doctrines on the Distribution of Wealth.

57. *The Wage System.*—The wage system is a system of freedom of contract. Bastiat has explained the law of wages, and the advantages which result from this system of labor, by a striking example.

An old fisherman remarks one day to his comrade: “You have no boat and no nets, nothing but your hands with which to fish, and you run the risk of faring badly. You have no store of food and one can’t work long on an empty stomach. Come with me. It is to your interest and to mine. It is to your interest because I will surrender to you a part of our catch, and no matter how small this may be it will probably be greater than any you could

make alone. It is to my interest to have you with me because the additional catch I shall make, owing to your help, will be greater than what I give you. In short to unite your labor and my capital will give us a total catch much greater than if we each fished alone. If we divide this excess the association will be of advantage to both."

They carry out this plan, but later on the young fisherman prefers to receive each day a fixed quantity of fish. His uncertain profit is thus converted into wages without the advantages of association being destroyed, and without the association itself being dissolved. We have here the true origin of wages.

In this coöperation, what is it which essentially distinguishes the employer and the employee? It is capital and the responsibility for the enterprise. The employer is a worker who at his own risk and peril undertakes a certain task with capital which either belongs to him or which has been borrowed. The laborer is a worker who receives out of the capital of another a remuneration called wages, which is fixed in advance; this remuneration is received for executing certain work with the aid of that other's capital. Wages is often paid before the completion of the undertaking and nearly always before the sale of the product.

The employer sells his products, which are the result of labor and capital; the workman sells his labor. The wage system is then a system of contract for the hire of labor. Nevertheless there is an essential difference in the manner in which the price of products and the rate of wages are fixed. The tendency is to buy products at the cost of production, and competition causes the selling price to approach the cost of production. It is well, since consumption gains by it. On the other hand, the

workman bargains over the question of his wages, and labor tends to sell itself for what it is worth, *i. e.*, to obtain a remuneration equal to the utility it creates; that which is likewise just and for the general good.

58. *The Rate of Wages.*—The rate of wages, *i. e.*, the price of labor, is relatively much more stable than the price of products. This is a truth which every manufacturer learns by experience. The manufacturer makes a profit to-day and perhaps loses to-morrow. By the side of articles which he can sell to advantage are others on which he must reconcile himself to a loss, because the price has fallen or because fashion has changed. It would be impossible to make the wages of his employees follow these variations. The wage system, which represents a mean between these extremes of high and low prices, between these gains and losses, may be compared not only to an association but to an assurance against loss in the value of the product. The wage earner gets this assurance in exchange for renouncing all claims to high profits which the sale of the product may perhaps yield.

Though less variable than merchandise, wages are not absolutely fixed; they cannot be. Like everything of value, they are subject to the law of offer and demand.

The principal causes regulating wages are the following:

1. *The Degree of Productiveness of Labor.*—When the industry in which the wage earner is a co-worker yields large profits his share may be, and nearly always is, larger than in industries which yield small profits. The productivity of labor itself depends upon different causes: On the nature of the industry; on the effectiveness of the instruments of labor; on the skill of the workman, and, likewise, on the intelligent direction of the enterprise. It

is thus that in the United States and in new countries where profits are generally high, wages and the interest on capital are likewise high. This fact likewise explains why the young woman who operates an improved loom enjoys higher wages than one who works at home on her old-fashioned spinning-wheel; she produces more yarn. In general the laborer is paid not because he labors but because he produces, and in consideration of what he produces. Improved machinery tends to raise wages and high wages stimulate improvements in machinery.

2. *The Amount of Wealth in the Country.*—We may say that wages are high when capital is abundant, meaning here circulating capital from which the wages are paid, and which the economists of the first half of the nineteenth century designated as “the wage fund.” This explains the fact that in country districts where there is little money household help receive less than in richer districts and less than in the cities, though they do about the same amount of work and all receive their maintenance so that they are not compelled to regulate their wages by the cost of living. It likewise explains why the general level of wages is higher in rich countries than in poor countries, higher in manufacturing and commercial countries than in purely agricultural countries, and why in all civilized countries it has risen in the nineteenth century with the progress of wealth. The wages of domestics have almost doubled in the last half century. It is not because their labor has become any more productive nor because it costs them any more to live, but because their masters have more to spend.

3. *Offer and Demand*, depending upon the relation of the laboring population, which constitutes offer, to the volume of enterprise represented by the number of entre-

preneurs and by the sum total of their capital, which together constitute demand. Cobden has embodied this law in the picturesque expression: "When two employers run after one workman, wages rise; when two workmen run after one employer, wages fall." If we suppose that the total capital available and the number of entrepreneurs has not varied, and that other conditions of the market have not changed, an increase in the number of laborers who offer their services will bring about a fall in wages, whilst a decrease of their number will cause wages to rise. An increase or decrease of capital and of entrepreneurs, other factors being constant, will produce the opposite result.

4. *Cost of Living*.—The workman must live on his wages. There is then a minimum below which wages cannot fall, except for a short space of time, without causing the workman to emigrate or starve. This minimum is not determinate; it varies according to place and time. The minimum of a North American or an Englishman is much higher than the minimum of a Hindoo. In France the workman of to-day will no longer content himself with what sufficed for him in the eighteenth century. Nevertheless it may be said that, being given the minimum in a given time and place, the wages of all unskilled workmen tend to approach that minimum by reason of competition among themselves. On the other hand the progress of wealth tends to raise the level of needs, and, consequently, to raise the minimum, and the progress of instruction among the laboring class, and the use of machinery in industries tend to decrease the number of those who are subject to the law of the minimum. The maximum wages, on the other hand, is not limited in any way by the cost of living.

In this connection it is important to distinguish nominal wages, (*i. e.*, money wages,) from real wages, which is the quantity of merchandise money wages will buy. Nominal wages may rise while real wages are stationary; this is what happens when the price of necessities rise in the same proportion as wages. In the nineteenth century both kinds of wages have risen.

5. *Personal Qualities of the Wage-Earner.*—Skill, knowledge, intelligence, assiduity, all establish a considerable difference between wage-earners as regards efficiency, and, consequently, as regards wages.

In an industrial enterprise there are several kinds of wages:

a. The wage, or salary, of the manager, as in a stock company formed by associated capital. Such a salary is naturally very high because it is the remuneration for the numerous, diverse and rare qualities demanded in the head of an establishment.

b. The salary of clerks, which is likewise remuneration for diverse qualities, intelligence and knowledge of their calling. The scale extends from the salary of the beginner who does chores to that of the cashier of a large bank who must be liberally paid in compensation for his probity and heavy responsibilities.

c. Wages proper, or the wages of the laborer, including overseers.

The workmen engaged in a particular industry, even when paid by the day, are not all entitled to the same wages. It is, however, not uncommon to-day to see the workmen in the same trade demanding equal wages, and to see the employers apparently conceding the point. In this case, the best workmen are made to suffer by the fact of the mass of mediocre or poor workmen imposing

their will upon all. The mediocre and poor workmen are jealous of the superior qualities which they regard as prejudicial to their interests, and by such a course they likewise secure in the common tariff higher wages than they are really worth or could otherwise obtain. Employers likewise suffer by this system because it discourages good workmen from producing as much as they would if the hope of adequate remuneration was held out to them. Equality of wages is nothing other than the level of mediocrity imposed upon labor by the majority. It not only impairs the energies of the workmen, but cuts away from under the beginner the zeal and legitimate ambition which conduce to a superior knowledge and skill in his craft.

6. *Political Institutions and Customs.*

Some of the causes indicated above may merge in each other, as for example personal qualities and productivity, the state of wealth and demand, the cost of living and offer; nevertheless it is well to enumerate them separately in order to emphasize them.

In a certain measure their action is counterbalanced; first, by political institutions which may falsify the natural play of economic forces by curtailing liberty, or by special privileges such as the trade guilds formerly enjoyed; or again by limiting the hours of labor, or placing obstacles to emigration; second, by custom which maintains wages in a certain profession or locality at a level different from that which obtains in the same profession in another locality. Sometimes, as for example, after a period of rising wages followed by depression, custom may constitute a stubborn obstacle to the fall of wages.

59. *Day Labor, Piece-work, and the Hours of Labor.*
—The principal modes of hiring labor are by the day and

by the piece. The former provides for a fixed sum per hour or day, this sum varying according to place and profession. The second provides for payment by the piece for the work accomplished.

Both have their advantages. For work which haste might mar, such as art work in metal, or for work in which the laborer frequently passes from one operation to another, day labor is desirable and even necessary. On the other hand, for work which is always the same and which can be easily reckoned, piece-work is often preferable. In the latter the workman is stimulated by personal interest, produces more, and is surer of obtaining remuneration in proportion to his work.

Day labor and even piece-work generally call for a determinate number of hours of labor each day. In many industries the hours of work are less to-day than they were 50 years ago. The diminution of the hours of labor, like the rise of wages, is a consequence of the greater productivity of labor.

60. *Labor Unions.*—The rate of wages is not an arbitrary thing. Labor like products has its value. We have said that this value like that of products cannot be fixed except by a free discussion between him who offers and him who demands it, unless we are to suffer constraint and monopoly. Nevertheless the absolute freedom of contract on both sides is an ideal which economic facts reproduce but imperfectly even in the absence of legally constituted monopolies.

Employers enjoy two advantages. They have a capital on which they can live for a time during a crisis; they are relatively less numerous because, especially in this day of large enterprises, there are more workmen than employers; secondly, whether there be among employers a direct un-

derstanding, or whether there be simply a common desire to avoid raising wages, their action on the price of labor comes under the heading of cases where the number of buyers is limited and the number of sellers unlimited.

Isolated, the workman who possesses no exceptional talents, or who is not unique in his trade, has, in general, no alternative than to accept the market rate as established by usage. He can enforce his demands for additional wages only in certain moments when labor in his trade is greatly in demand.

On the other hand, when united and coöperating in the demand for an increase, in a refusal to continue work unless the increase is granted, labor has at command a great power capable of counterbalancing the advantages of the employer.

Both in France and in England the Legislature for a long time feared to place this power in the hands of the working class. In France it was by the law of 1864 that labor unions ceased to be illegal. In England they were legalized in 1824. The right to form Labor Unions is derived logically from the principle of freedom of contract, *i. e.*, from the liberty to offer one's work at such and such a price, to work or not to work, to confer with a comrade in mutual interest, to quit work and to resume it only on certain conditions. Thus practiced, Unionism is but a phase of individual liberty. In certain cases it may help, and it has helped, more than once, to raise wages.

But Unionism means war, and civil war at that. When united labor lays down its conditions, and failing to have them accepted, persists in its demands, its weapon is the strike, which is the simultaneous abandonment of work. Now when workshops are deserted the world grows poorer. The workman consumes his savings and goes into

debt; the entrepreneur finds his activity paralyzed. Capital stagnates and dwindles away, and material suffers deterioration. Impoverishment of labor and industry; these are the immediate consequences of strikes.

Again, when war is once on, passion often takes the place of reason, men are blinded to their own true interests and lose respect for the rights of others. Workmen are more exposed than employers to faults of this kind. They deliberate, but if some among them are not disposed to follow the majority in the project of declaring war, that majority tries to impose its decision upon them by intimidation.

Moreover, when politics enter into the question, social order is exposed to danger particularly where the working population is numerous; the strike then becomes a public menace.

To subject the liberty of some to the will of others, and to violate the rights of property is to misconceive the principle of Unionism which is based upon individual liberty. In the face of a public peril the government has a right to take repressive measures in order to guard the safety of the state which is more vital to individual liberty than the right of Unionism.

Unionism is then a right, but like the right of the nation to resort to war, it must be used only in the last extremity, after all methods of conciliation in the interest of both parties have been exhausted.

61. *Profit Sharing*.—Profit Sharing is a free contract between the employer and the wage-earner by which the latter in addition to his ordinary salary receives a part of the profits of the enterprise; he does not share in the losses. It rests upon a double principle; namely, that per-

sonal interest is the best stimulus to human activity, and to each according to his works.

A fixed percentage of the profits is allotted to the workman and is generally distributed as a dividend after the inventory is taken. The share of each workman is proportional to the profits realized, and there is no share when there is no profit. The participants then know that if they are industrious, if they economize their time, if they are careful of the raw material and tools, if the customers are satisfied, and orders flow in, the profit which will result from good management will be partly theirs. It is to their personal interest to do conscientious work and watch each other. This method is, of course, efficacious only when the share in the profits is sufficiently large to really awaken personal interest.

Profit sharing is not an association. The employer generally remains the master of the enterprise. Ordinarily he does not even include all the employees in the plan, and himself fixes certain conditions, such as preliminary period of service and average wage. Nevertheless it is a contract, and the promised share in the profits is an obligation. It differs essentially from the bonus which certain employers give to their employees at the end of the year.

Large commercial houses and great factories have long practiced it in the case of the higher employees. Many of the great shops give to their employees a certain percentage on their sales, and to the foremen an interest in the total business of their departments. The application of this system to the mass of workmen or employees of an establishment is more recent; it hardly goes back further than the second half of the nineteenth century.

Undoubtedly this plan is not adapted to all enterprises, and where so adapted cannot always be applied under the

same rules. It is nevertheless an important economic institution; although little practiced as yet, it is one of the best means of interesting the wage-earner in the success of the enterprise. Properly applied, it is profitable to both parties; first, to the wage-earner, who finds in it an addition to his income, and a motive for long service in the same establishment, and who by means of it conceives a more correct idea of profits in general; next, to the employer who is not performing an act of charity but of intelligent administration and who finds in it ample compensation for the apparent pecuniary sacrifice he makes.

62. *Coöperative Societies.*—Profit sharing may ameliorate the condition of the wage-earner. Coöperative societies aim higher; they seek to emancipate the workman and make him an entrepreneur. The first coöperative societies in France were founded in 1830. They did not find favor, however, until after the success of the Rochdale Association in England, and that of the Schultze-Delitsch which spread the idea of coöperation in Germany.

At bottom a coöperative society is nothing but an association of owners of capital and of laborers. In principle it appears to introduce nothing new in the organization of labor, but in reality it produces effects quite different from the ordinary associations of capitalists and entrepreneurs.

Associations of Consumers or Coöperative Distribution.—This takes the form of the coöperative store which offers to its members, through the joint purchase of supplies, the benefit resulting from wholesale operations and the guarantee of good quality. Members receive a certificate for each purchase at the store and at the end of the year the profits of the store are divided back amongst the members according to these records of their purchases.

Coöperative Production.—This latter associates its members for the purpose of carrying on an industry by their common labor. A social capital is formed from their savings or borrowed money. If the capital is insufficient at the start this fact incites them to increase it little by little by extra effort and privation.

Of these two forms the first, coöperative distribution, has in many places met with marked success; less in France than in England. In great cities it has to contend with the fact that its members are greatly scattered and may find the coöperative store too distant.

The second form is the supreme aim of the advocates of coöperation who seek to free the workmen from the employer and to suppress the wage system. The wage system cannot be suppressed because there will always be many industries whose exploitation by associated labor will be impossible or disastrous, and for many laborers, on account of their tastes or aptitude, the wage system will remain the most convenient form of remuneration. We may even add that coöperative production, the practice of which has hitherto been quite limited, does not appear destined to replace the wage system in a single industry, and that recent experience points rather to the concentration of a great number of workmen under the authority of a single employer or company than to the multiplication and success of coöperative societies.

The coöperative idea then is not likely to transform the economic world. If, however, it succeeds, it will in certain respects assume a useful place among the different modes of organization to which freedom of contract gives rise. The following are some of its advantages: First, men work so much harder and so much better when they are stimulated by personal interest and by the sense of re-

sponsibility, which conditions exist to a much greater degree in coöperation than in the wage system.

Second, a member of a coöperative society soon perceives that in order to pursue his labor neither his hands nor his intelligence alone suffice; he needs capital, often much capital. If he has a firm determination to succeed he will redouble his efforts and privations in order to create and enjoy this fertile thing, capital; and what this experience will teach him better than any economic reasoning is that capital is entitled to remuneration and to its share in the product. The increase of wealth and well being which flows from greater activity and saving on the part of the ordinary producer may then be realized by the members of the coöperative society.

How about the workmen who remain wage-earners? If the wage-earners see that more is made by coöperation they will have an excellent argument in demanding higher wages from their employers with the alternative of themselves entering such an association in case the employers refuse. If, on the other hand, they see that with the greatest care these associates do not realize much more from their day's labor than they themselves do, it will be with bad grace that they complain of their condition and accuse their employers. A coöperative society may in certain cases serve as a thermometer of wages, and perhaps prevent some of the internal wars we call strikes. But certain difficulties present themselves in coöperative production. In a small enterprise of two or three individuals the associates can easily reach an understanding in allotting the work; but 15 or 20 working together experience more difficulty; there are 15 or 20 separate wills which must agree upon a common course and 15 or 20 units of energy which must always be equal.

A coöperative society like every other enterprise needs to be directed. Whilst maintaining equality, it is correspondingly important to respect the authority of the manager, a thing which appears difficult for certain natures.

There are in industry certain disappointments which must be heroically endured even when one is innocent of the evil which has befallen, and certain crises which must be bridged by privation. All natures are not tempered in a fashion to stand the test.

As a coöperative society generally commences with a small capital it is condemned to at first experience many difficulties; it must labor and wait.

This lack of initial capital seems thus far to have prevented coöperation from supplanting other forms of association in the great modern industries. Moreover, the superior intelligence and knowledge necessary to the safe conduct of certain enterprises present a no less insurmountable obstacle to coöperation.

Accordingly, coöperation, particularly productive coöperation, encounters serious difficulties both of an economic and moral character which necessarily limit its extent and importance.

Coöperative production and coöperative distribution will probably not supplant the wage system and the shopkeeper; but such as succeed in surmounting inherent difficulties will prove useful both to the workingman and the consumer.

63. *Criticism of the Wage System.*—The wage system has been bitterly criticised as an iniquitous exploitation of labor on the part of capital. In reality it is but an association of labor and capital. Without labor capital can accomplish nothing; without capital labor is power-

less, and labor is the more productive and remunerative according as capital is more abundant. (See par. 25).

The wage system is neither exploitation nor slavery but free contract. Man exploits matter, and as individual liberty has been secured from time to time in various countries by the abolition of slavery, men have had no other slaves than the forces of nature appropriated by their industry. They live with others who are their equals and with them go into the market where the contracting parties each defend their own interests. The workman can no more say that he is exploited by the employer than the employer can say this of his banker, the retail merchant of the wholesale merchant, or the consumer of the tradesman.

No doubt the capitalist often finds himself in a position of advantage in a dispute with his workmen over wages. This advantage is natural, since capital is a power capable of increasing the productive force and revenue of the individual; it is the result of a virtue, saving. By an increase of well-being it justly recompenses him who has made the saving or those for whose benefit it has been made. The wage-earner by saving may often himself become a capitalist.

Frequently he does. A great number of employees, foremen and domestics have savings which are invested in interest-bearing securities and though remaining wage-earners, are in a position to understand that they are neither exploiters nor exploited.

Nevertheless, like all modes of human activity, the wage system has its inconveniences. One of the gravest of these is the feeble extent to which it stimulates sentiments of responsibility and self-interest. One workman performs his task slowly, and handles badly the material

confided to him; another believes he has performed his duty if he spends the necessary number of hours at the shop. Each thinks that his negligence will not prevent his receiving the daily or monthly pay.

Piece-work, which rewards the laborer in proportion to the task performed, partly remedies this defect. But not all kinds of work can be exactly measured. Moreover, in making use of this kind of remuneration which is ordinarily preferable, another danger must be guarded against, that of haste and resultant bad workmanship.

Despite the criticisms upon it and despite its inconveniences, the wage system remains a legitimate form of industrial organization and an equitable mode of distribution.

64. *Socialism and Its Doctrines Relative to the Distribution of Wealth.*—The problems which the distribution of wealth raises have led to criticism not only of the wage system but of the entire present organization of society. They have inspired certain theorists with the thought of reconstructing society on a plan which would banish misery and solve all economic difficulties. In order to attain this end they propose to substitute for natural distribution under a system of freedom of contract, artificial distribution, by authority, of either the whole or a part of wealth. Most of them confide this distribution to the state, investing it with the right to intervene, in a more or less absolute manner, in the production, in the exchange, and even in the consumption of wealth. These doctrines, quite diverse and even contradictory, constitute what we call Socialism. In its etymology, the word socialism indicates simply the existence of a social state, but it has acquired a particular meaning which we shall endeavor to define. Like political economy, socialism treats of the

science of economics. But by an imperfect examination of the data of the problem, it generally arrives at conclusions hostile to liberty, and if it were practiced would prevent progress and the growth of wealth. Two famous schools of socialism were founded in France by Saint Simon and Fourier, whose principal writings date from a period when the development of industry was commencing to fix attention on the problems relating to wealth.

Saint-Simonism demanded that all capital, circulating and fixed, should cease to be the property of individuals, and should be placed in the hands of a head of the state called "The Social Priest." The priest either himself or through his agents distributed this capital to those whom he thought most capable of using it profitably. Rank and function in society were fixed by his authority. Finally, as products were created and sent to him, he would distribute them to consumers whom he judged most worthy to receive them. In this way Saint-Simonism hoped to draw from existing capital much greater revenue and to destroy the inequality due to birth.

He failed to perceive that his system would substitute the odious inequalities of favoritism; that it would weaken the personal incentive which under a régime of liberty, each individual has to accumulate, preserve and increase his own capital, and would soon effect an annihilation of capital, which no individual would any longer be interested in husbanding, but which, on the contrary, each would be disposed to squander or consume unprofitably; that there would, furthermore, be fraud with respect to the product, part of which some would seek to hide in order not to be compelled to surrender it to the social priest, and that finally Saint-Simonism, suppressing freedom of contract, would have created a society composed entirely of wage-

earners, but of wage-earners remunerated arbitrarily at the mercy of the despot and his agents.

Saint-Simonism, with all its errors, had the merit of placing in bold relief the influence of science in industry, and more particularly the power of association at an epoch when that influence and that power were only beginning.

Fourierism proposed to banish all moral obligations, even that of working for a livelihood, and to associate all men into groups called Phalanxes, giving free play to all the human passions, and trusting to the natural play of these passions for the protection of wealth and the accomplishment of all social functions. Each Phalanstere, where a phalanx of 1,800 persons was to be installed, was to be composed of symmetrical buildings, palaces in point of elegance, and to have around it vast fields of cultivated land. Everyone would be entitled to a minimum of subsistence; but in an annual distribution of products, agricultural and industrial, that minimum would be added to, according to the labor, talent and capital of each individual. Under the pretext of not curtailing liberty, the author of this system rejected all ideas of duty and constraint. He did not even wish to impose on children the necessity of instruction. By the sole attraction of voluntary labor continually varied, he hoped to render men much more laborious than they are in actual society.

In reality, Fourierism only organized license, and authorized laziness, two vices which are fatal to wealth, and the first of which is destructive of society itself.

Saint-Simonism conceived a theocratic despotism; Fourierism, complete anarchy.

Louis Blanc and other theorists, after the revolution of 1848, proclaimed the right to labor, *i. e.*, the right of each man to an opportunity to earn a livelihood. This right

has as a corollary the duty of the state "to furnish work to worthy men who could not procure it otherwise." They thus thought to suppress the misery arising from enforced idleness.

How could the state as sole entrepreneur ascertain and satisfy the infinitely varied needs of consumers any better than individual entrepreneurs under the present régime of competition? If the state did not succeed so well in accomplishing this, the system would be condemned by that fact alone. Supposing that it did succeed as well in ascertaining the needs of the community, it would then make exactly the same things as now, and how could it insure to the laborer more work? If it attempted to produce more in certain industries which it exploited, it would be compelled, in order to find a market for its products, to force the consumer to buy more than he wanted; how could he pay for it? If the state undertook to provide work for all who could not find it elsewhere, it would soon witness flowing to its shops the mass of incapable and lazy.¹

¹ It is only the stern necessity of earning a livelihood that keeps most men going. If the doors of state employment were always open, the workman in private industry would be more careless of his place, less industrious and conscientious, and more ready to find fault and leave his employer; the result would soon be the absorption of all labor by the state. When this had occurred, the only way the man who refused to work could be made to work would be by imprisonment and compulsion, involving a virtual return to slavery. Private property, and private enterprise, a necessary corollary, are the institutions which save society from the slave system.

The existence of a body of unemployed is a sad feature of society. It is an evil which can be reduced by intelligent handling, but which we can never hope to remove entirely. It is to the inequalities of men that it is due. No matter how high a stage of civilization we may reach, these inequalities remain. The man whose incapacity, either moral or intellectual, has left him behind in the race, is still a much superior being to the average individual in the lower stages of

The doctrine of the right to employment is unrealizable, utopian and dangerous. Another conception no less unrealizable in its entirety, although partially applied in certain trades, is the equality of wages.

Proudhon toward the same epoch, reflecting upon the mutuality of services and the gratuitous nature of credit, thought to better the lot of the worker by taking away from capital and the entrepreneur their share in the distribution. We know what to think of the gratuitous nature of credit. (See par. 52). It is easy to say that capital has no right to a share in the production, but it is impossible to secure its coöperation without offering it something.

In Germany, Karl Marx contended for a similar theory in demanding that the instruments of labor should be placed freely at the disposition of the laborer, and claiming for the laborer the right to the whole of the product he had fashioned. He thought that the portion appropriated under the terms rent, interest and profit, operated to the injury of labor. To pretend as he did that capital is helpless or that it has only social value and has no value as private property, that labor is the sole creator of the whole value of the product, is to entirely ignore the nature of the phenomenon of production and the rôle the different elements play in it. That doctrine,—which by the way Marx himself finally refuted—is the one most generally adopted by the Socialists to-day.

All these doctrines are not communistic, properly so social development; infinitely superior, for example, to the American Indian, or to the savage in the interior of Africa. The important thing is his relative inferiority to those about him. If the state were to care for him it would mean that the penalties of inferiority would in a measure be removed and the number of the inferior would in consequence be multiplied.—*Translator.*

called, but they tend in that direction. Communism denounces outright all individual property and appropriation, and recognizes only in the community, (*i. e.*, in the state) the right to possess and to distribute the wealth produced by all. One of the favorite maxims of communism, which is itself divided into several sects, is "to each according to his needs." We have indicated to what the practice of that maxim would lead.

These doctrines are the more erroneous according as they violate the more markedly the right to liberty, and reject its results, namely:—individual property, competition, and the remuneration of each according to his works and by his works. All systems other than that of individual liberty, protected in its diverse manifestations by the power of the state, impair the productive forces of society.

The Socialist doctrines which have appeared in our time with the development of wealth have had this merit, that they have caused political economy to search more profoundly than it had hitherto done the abysses of misery in the lower ranks of society, and that they have drawn attention to grave problems calling for solution.

On the other hand, they have exaggerated the extent of this wretchedness, ignored the true harmony of social progress, and planted in many minds the seed of unrest, leading them to condemn the present and dream of a perfect social condition of the future.

Now man, who is born into the world to suffer (and who is it that is without care?) likes to believe that the fault is in a defective organization of society, or in fate, rather than in himself, and eagerly resorts to the contemplation of a happier ideal. This ideal, which religion places on high, the socialist doctrines locate here.

Résumé

The wage is a system of free contract for the hire of labor.

The laborer is a worker who receives out of another's capital a remuneration for executing a certain task with the aid of that other's capital; this remuneration, which is fixed in advance, is called wages.

Like everything that has value, wages are subject to the law of offer and demand. The principal elements in fixing the rate of wages are: Productivity of labor, the general state of wealth in the country, offer and demand of labor, cost of living, personal qualities of the wage-earner, the political institutions, and custom.

The right to form Labor Unions is logically derived from the principles of individual liberty; but like the right to resort to war, it must be used only in the last extremity.

Profit sharing, which consists in dividing a fixed portion of profit amongst the laborers, constitutes one of the best modes of interesting the wage-earner in the success of the enterprise.

Coöperative distribution and coöperative production can never supplant the wage system, but in cases where they succeed in surmounting the difficulties inherent in the system, they may be most useful.

It is false to say that the wage system is an exploitation of labor on the part of capital. The wage system is really an association of labor and capital. Although it is open to the reproach of stimulating too feebly the sentiments of responsibility and personal interest, it is nevertheless a legitimate form of industrial organization and an equitable mode of distribution.

Socialist doctrines substitute for natural distribution

under a régime of liberty an artificial distribution by authority, which, like all systems inconsistent with freedom of contract, would result in impairing the productive forces of society.

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DEPARTMENT OF AGRICULTURE

POPULATION AND PAUPERISM

65. Population, Production and Consumption. 66. The Causes of Density of Population. 67. Malthus and the Equilibrium of Population and Wealth. 68. Emigration and Colonization. 69. Poverty and Pauperism. 70. Assistance.

65. *Population, Production and Consumption.*—The question of population interests all students of political economy because man is really the sole agent in every economic movement. It is he who produces and consumes. Where there are many active men supplying labor, much wealth is created. On the other hand, the presence of a large population means that much is consumed. Between these three terms, population, production and consumption, there exists an intimate relation.

If this relation were constant, and if the distribution of wealth remained the same, *i. e.*, if each man always produced, received and consumed in the same space of time a like quantity of goods, there would be no population question. The equilibrium would remain the same, and the condition of humanity would be uniform and unchanged.

But we know that these factors are not constant, that men in each social group produce more or less according to their personal qualities, according to the capital available, and according to the state of knowledge.

Foremost among the products necessary to sustain life are the foodstuffs. They are produced from land, which

exists in limited quantity. Land is then the fourth term which we must take into account in considering the problem of population.

The population question is a complex question and one of the gravest with which political economy has to deal, for the reason that wealth, being created in order to sustain life, and to procure human well-being, the condition of the population may be considered as the criterion of the economic organization of a given society. It is likewise one of the most difficult of questions and has become the subject of a special science called "Demography," which borrows almost all its data from statistics.

Before proceeding to point out some of the conclusions of this science, we may lay down the general conditions of equilibrium between population and wealth.

When the production of wealth and the accumulated capital in a given society increase, the population has a tendency to increase. When the average of individual consumption increases, the population, despite an increase of wealth, has a tendency to remain stationary.

These laws, like all economic laws, have their exceptions. Secondary causes often modify their effect and moral conditions produce great differences between nations in the matter of increase and density of population.

66. *Causes of Density of Population.*—Populations are grouped in different regions of the globe, proportionally to the means of subsistence they find there.

This is a general truth but there are several reasons why we must not regard it as an absolute rule. The principal of these is that the expression, "Means of Subsistence," is a vague term which differs in different countries and times. For example, the Hindoos live 256 to the

square mile, producing and consuming less than the French who live only 184 to the square mile.

Nevertheless, it must be observed in conformance with the rule that the glacial zone has almost no inhabitants because it offers little means of subsistence and well-being. The same is true of deserts and mountains little adapted to agriculture, and the steppes, which are likewise ill adapted to cultivation, have, with certain exceptions, a sparse population. On the other hand, population is generally dense in arable plains, and especially in the valleys where the soil is as a rule fertile, and through which pass the navigable rivers, on the coast where fisheries supply food, and where commerce erects ports, along the highways of commerce, natural or artificial, near mines, and in the vicinity of water-power which attracts factories and in great cities where capital is abundant and where there is a great demand for labor.

There is a considerable difference in the number of inhabitants which a like extent of territory supports. Thus, whilst the province of Archangel, a frigid region, has a density of 1 inhabitant, and the province of Astrachan, a region of steppes, a density of 7.4, Lancashire, a manufacturing region of England, has 1,800 inhabitants to the square mile.

Man is attracted to regions where natural wealth, advantageous conditions of soil, and the resources of civilization lead him to believe that his labor will be remunerative. He locates there and multiplies. In general these regions are not only the most densely populated but they are the regions where the density of population increases most rapidly. It would seem that in the same country a region which had 50 inhabitants to the square mile would be more capable of receiving recruits than a region which

had 150. What happens is often quite the opposite and for the very reason that the density already existing in the latter region was due to the superior opportunities it offered and still offers for the creation of wealth.

The attraction of population in the direction of wealth may be so pronounced that in a country whose total population increases but little, the concentration in great centers of industry and commerce results in a falling off of the number of inhabitants in less favored sections of the country. This has been the case in France during the last half of the nineteenth century, and in America is observable in New England.

When a region newly acquires some one of the qualities which determine density, as, for example, the discovery of mines, establishment of a port, or the opening of channels of commerce, or, again, the creation of an administrative center, the inhabitants flow to that section and its population increases.

67. *Malthus and the Equilibrium of Population and Wealth.*—Facts accordingly show the existence of an intimate relation between the number of inhabitants and the amount of wealth produced in a country.

One of the first economists who sought to determine this relation precisely was Malthus. He was struck "with the constant tendency which manifests itself in all living beings to multiply their species faster than the means of subsistence." He arrived at the conclusion that the tendency of population was to increase in geometrical ratio whilst often under the most favorable conditions for industry the means of subsistence increased only in arithmetical ratio.

This he expressed by the following formula, which is known as the law of Malthus :

Increase of population, 1, 2, 4, 8, 16, 32.....	4096
Increase of means of subsistence, 1, 2, 3, 4, 5, 6.....	13

His deduction was that unless man has the foresight and will to voluntarily restrain the growth of population, the destruction of the equilibrium between the number of consumers and the quantity of things to be consumed would entail social misery and a reduction of the excess by death.

In this theory of Malthus there is one observation which is correct, *i. e.*, population has a natural tendency to increase; its increase is conditioned by its means of subsistence and the sum of its needs.

But, first: it is rash to express by any mathematical formula a relation which has no numerical precision. Second, the formula is not exact and the observation of facts without which every theory of this kind must lack foundation, did not warrant then, and does not to-day warrant, the affirmation that there exist any such fatal diverse tendencies.

There are but few countries where the progression of population is such as Malthus supposes. We may find it in certain new countries colonized by a race of civilized men; for example, in the United States the population has thus far doubled every thirty years, *i. e.*, approximately in each generation. It must be observed, however, that a notable part of this increase is due to immigration.

A remarkable increase appears likewise in Canada and in Australia. Nevertheless the means of subsistence and general wealth have increased in these countries even more rapidly than the population.

Even among savage people where wealth is lightly regarded and remains stationary, because there is no progress in industrial knowledge, death is not called upon, as

Malthus supposed, to cut down an excess in each generation, although its harvest no doubt is a large one. Institutions and customs in such regions provide an unconscious preventative: the birth rate is low. There are no statistics available on this subject, but this is the accepted view, being the result of observation on the part of a French traveler who lived seventeen years amongst the rude savages of Northern Australia, and who assures us that the married women nurse their children for five years, and seldom have more than three or four children in the course of their married lives. In Thibet polyandry serves the same object.

It is accordingly in formulæ other than that of Malthus that we must seek the true experimental laws of population. Without entering into details which belong to the province of Demography, we may borrow from the conclusions of that science the following: the number of inhabitants which a territory will support depends:

1. On the climate and soil which human labor can exploit, *i. e.*, on the forces of nature.
2. On the quantity of capital and the state of industrial knowledge which increase the productivity of labor.
3. On the extent of the markets which permit the population to procure its food supplies in exchange for the products of its industry.
4. On the average of individual consumption which in a given state of wealth permits more people to exist according as this average is the more feeble.
5. On the equality of individual consumption, which, whilst again supposing a fixed state of wealth, permits the larger number of small consumers to live according as the number of unproductive heavy consumers is diminished.

Over the first of these conditions, that which relates to soil and climate, man can generally exercise but a feeble influence.

He exercises a sovereign influence over the second and third, which in their turn exercise a preponderating influence on population. They are the principal causes of density, although in certain cases the progress of industrial science may actually diminish the population, as for example in agricultural districts when agricultural machinery and extensive farming is introduced. In this connection it is well to remember that there are different stages or periods of civilization, and that these periods, corresponding to the different stages of knowledge and capital, allow of considerable differences in density of population.

a. The savage stage in which the chase and fishing support a small number of inhabitants per square mile.

b. The pastoral stage where the raising of flocks support scarcely more than eight to ten inhabitants to the square mile.

c. The agricultural stage where the cultivation of land with a small capital supports, at least in Europe, from eighty to one hundred and thirty inhabitants per square mile.

d. The industrial or commercial stage, where, thanks to intensive farming calling for large capital, and to the importation of additional food supplies, paid for by wealth produced at home, there may be many hundred inhabitants to the square mile.

The growth of population due to the fourth condition mentioned above, *viz.*: low average of consumption, is not desirable for the reason that a population which is very numerous because it consumes little is a wretched

population. To increase the average consumption (provided always that it is not in the direction of vice), and to raise the standard of living for the masses is one of the happiest results of a healthy social economy.

The fifth condition implies that institutions which create or maintain social inequalities impair economic activity and must be avoided; but we must guard equally against all institutions which in seeking to level down, hinder the exercise of superior qualities and arrest and impair the sources of national wealth. They would defeat their own object.

To the five conditions enumerated above we must add :

6. By virtue of physiological, economic and social laws, the population of civilized countries has to-day a general tendency to augment by an excess of births over deaths.

7. Besides, in the centers of industries where the exploitation of mines, manufactories and commerce is active, the population is increased by immigration.

8. As a rule in the present state of civilization, owing to modern progress in industrial knowledge, wealth increases more rapidly than population.

It has not always been thus. In the past wealth and population have frequently been stationary, or even retrograde, and there are countries where this is still the case to-day.

9. As a population becomes rich, it may happen that the number of births diminish and that in spite of a diminution in the death rate the increase of population is slower. In a given population, the richer classes, for various reasons, manifest this tendency. The upper ranks of society are nearly always recruited by the accession of those who have risen in the social scale.

68. *Emigration and Colonization.*—Various causes may determine emigration.

1. An excess of population resulting from a high birth rate.

2. Insufficient means of subsistence, which is frequently the result of an excess of population, and which impels a portion of the inhabitants to seek a livelihood beyond the borders of their native land.

3. The prospect of a better future in a foreign land.

4. Political conditions which render life intolerable to certain classes in their native land.

5. Facilities of communication and multiplicity of relations between the home country and a foreign country, and the influence of public institutions on private enterprise which in the home country fosters emigration, and in the foreign country attracts immigration.

The first two causes impel especially the poorest to emigrate, and ordinarily they operate with more energy in times of crisis and want than in prosperous times.

The prospect of a better future draws individuals from different classes, especially from the middle class. It involves no element of suffering; but it operates upon a relatively restricted number of individuals because those who already have a certain position in their own land are less ready to quit it.

The fourth condition is accompanied by violence and moral suffering; nevertheless it has been the origin of more than one flourishing colony when it has led to the transfer to a new country of men having moral and intellectual qualities suited to form a stable society.

The fifth, which is to-day one of the most powerful, has done much to increase and regulate the current of

emigration, and one might even say, to give it a moral character.

We may distinguish countries towards which emigration flows as old and new.

The old countries are those where the land being entirely appropriated and cultivated, the immigrant is attracted by something other than the prospect of landed property. Between the old countries there exist particular currents determined by private interests, and which take to most every country men of almost every other country.

There are likewise currents of immigration which may be called general currents. One of these is from countries advanced in civilization to newer countries. It consists of emigrants seeking a better future; men who devote themselves principally to commerce and to the liberal professions. Another sets in from countries where the population is dense and capital inadequate to countries where capital is more abundant than labor; these latter emigrants are largely wage earners.

To obstruct these currents by laws is to hinder economic progress because it is always of advantage that capital and labor, which constantly seek each other, should meet.

A state which arrests emigration attacks individual liberty and condemns a portion of its citizens to a life of wretchedness.

A state which hampers immigration is curtailing freedom of contract and hindering the growth of the nation's capital. From a high political standpoint it is better that a nation should be able to satisfy the new demands for labor which an increase of its capital calls for by a natural increase of its own population; but if that condition is

not realizable the blame for immigration must be laid at the door of an inadequate birth rate.¹

Immigration into new countries is closely connected with the question of colonization. Most frequently it is really the hope of acquiring land and a new home that attracts immigrants. This is true even of those who at first have only the prospect of wage-earners. The emigrant's preference is, consequently, for countries of the greatest natural wealth (mines and rich lands not as yet wholly appropriated).

This tendency is on the whole a gain for humanity for the reason that it results in the utilization of a greater quantity of natural wealth and leads civilized men to take more complete possession of the earth. It is good for the emigrants. They do not all succeed, but many of them establish households, living in more comfort than they enjoyed in their native land.

From both a political and economic standpoint it is a gain for the new country which lacked the labor and capital to develop its natural resources.

It is likewise a gain for the state whence the emigrants depart. If the new country is one of its own colonies, the gain for the state is direct; if not there is still an indirect gain, for the reason that the sole fact of a new colonization enlarges commerce, and the spread of a people carrying with them the language and customs of a particular nation benefit in a special manner the commerce of that nation. The influence, both political and economic, of the

¹ The juxtaposition in the same country of races which it is generally difficult to mix, is not desirable because it leads to race conflicts, and when a mixture does occur, the result as a rule is degeneracy. On the other hand, a mixture of different nationalities belonging to the same race is generally regarded as beneficial.—*Translator.*

home country is thus extended by the multitude who go out from it.

It is by colonization that the races of Europe have spread since the discovery of America. Nearly the whole of North America between the 52d and 22d parallels has been occupied by them. They have mixed with, or partly supplanted the indigenous race in the tropical and sub-tropical zone of both North and South America. They have peopled Southern Africa and a portion of the region bordering on the Mediterranean, they have established dominion over India, over a portion of Indo-China, Malasia and Siberia, and in the nineteenth century have created a new center of civilization in Australia. To-day we may estimate at more than 100 millions the representatives of European races, pure or mixed, living outside of Europe. It is easy to realize what a grand influence this diffusion of European blood has had on the wealth of Europe itself, on that of the world generally, and what changes it has brought about in the political power of races and states.

69. *Poverty and Pauperism.*—In all societies there are some individuals who are needy, *i. e.*, unable to procure by their labor, income or family aid, the necessaries of life—food, clothing and lodging. These are the indigent.

We must not confuse the poor and the indigent, poverty and pauperism. The first have little, and the second are in actual need. The condition of poverty is bearable, and there are human societies nearly all of whose members are poor, such as savages. Indigence, or want, on the other hand, means suffering, because it is the denial of things necessary to existence, and it may become intolerable. Want is quite the exception in society; nevertheless

a large portion of the population may sometimes sink into it. This is witnessed in times of famine such as still occur in India, and in Europe has sometimes followed as a consequence of long wars.

When want is not the exception, but the permanent condition of a large portion of the population whom it fastens upon as a plague, it constitutes pauperism. The evil is an old one, but it has assumed a character of peculiar intensity in the industrial societies of the present epoch. It has stimulated scientific research and charity to such a point that one is apt to believe it is something new, like the word that designates it. The fact is, however, that in previous centuries the numerous alms-houses and hospitals created by Christian charity were by no means empty. Medicants swarmed in the country, and the towns were infested with vagrants whom the police ran down without succeeding in destroying the species. In proportion to the inhabitants there were more needy and many more beggars in London and Paris in the eighteenth century than there are to-day.

Pauperism sometimes appears amongst the rural populations; Ireland affords an example of this. More frequently, though, it attacks the populations of cities, and especially of manufacturing cities where the working class is massed, and where the conditions of life are made more difficult by the high price of food, by crowding, and the unsanitary conditions of lodgings; by occasional depression in certain industries, by the temptation to spend money, and finally by the proximity and the contrast of wretchedness and luxury. Want is really a relative thing. In a country where everybody is poor, one resigns himself to live on very little, and does not complain. Where there is a display of wealth this little appears entirely too little,

and charity assumes the duty of adding something. Most of the needy in London, Paris or New York would not consent to live on the average rations of a Hindoo or Chinese.

Now that society produces more wealth than formerly, a state of well-being is more general and there is less wretchedness. What has come about is that pauperism is more apparent and more concentrated, like industry itself. It resembles certain corporal ills whose danger has been lessened by progress in the science of medicine, but which cannot be suppressed any more than religion and morality can entirely suppress vice.

There are different classes of the needy.

First, those who having but limited resources, and being dependent upon their labor, sink accidentally into want when work is lacking.

Second, those who have too small an income, and too numerous a family; whilst having constant employment they are nevertheless in a continued state of half-want, and obliged to resort to charity.

Third, those who are in a state of absolute need, being incapable of work; such are abandoned children and the infirm and aged who are without resources.

Fourth, those, who whilst of sound health, are too lazy or too vicious to earn a livelihood and who prefer to beg or steal.

We expect to find the first two classes numerous in great centers of population and industry because these embrace many who live on wages. Those of the third class most frequently come from families of the second class, and are consequently found in the same localities. From all classes of society, and especially from classes exposed to want, vice constantly gathers its victims, and

plunges perverse individuals into the social depths. The wretched whom the great city itself has produced and those who come to it from every direction that they may be lost in its crowds, and find there a greater opportunity to satisfy their bad instincts, wallow in this mire of evil.

Those who are in a state of wretchedness through no fault of vice sometimes obey the same law of attraction, and quit their firesides for large centers of population where they hope to obtain more assistance—assistance attracts the indigent. It is this situation that imposes on the great cities especial obligations of charity and police.

70. *Assistance*.—With respect to pauperism, that which above all distinguishes civilized and rich societies from backward and poor societies is that they study the evil and having greater resources, can better apply remedies. The historian, Macaulay, has justly remarked: "The truth is that misery is ancient; that which is new is the intelligence which discovers it, and the humanity which relieves it."

It may be remarked, however, that in all times and in all states, a portion of the national revenue has been consumed in works of charity. But this charity consumption, or consumption with a view to assistance, is naturally much larger in rich societies because they can afford it.

Most consumption of this kind must be grouped under unproductive consumption.

Is it a good or an evil? The question has been asked, it must be answered.

The first answer that rises to one's lips is that in a general manner it imposes itself as a moral and social necessity. By a natural sentiment of sympathy the man who has something is led to relieve the wretchedness of the man who has nothing. Furthermore, a consideration

for public order leads society to lessen the suffering of its members.

Morality proclaims it to be man's duty to assist his fellows.

Political economy adds :

First—Indigence has no positive right to assistance because no one has a right to claim for himself, or to consume without permission, the property of another ; this is a corollary to the right of property. It is wrong to say that the state is obliged to support the needy because of the injury which it inflicts in not permitting them to gather the natural fruits of the earth. The social state is not detrimental to wealth. On the contrary, it facilitates its increase, and consequently, helps anyone who wishes to work, and can work, to acquire a portion of it.

Second—Individuals and society make a generous use of wealth in employing a part of it unproductively to assist the indigent ; in so doing they at the same time serve the public interest.

Some economists have reproached charity with encouraging and spreading the plague of pauperism instead of correcting it. It is certain that indiscriminate alms-giving encourages laziness and vice and diminishes the incentive to work on the part of the poor, *i. e.*, impairs their vigor by the prospect of a life of ease and idleness. The poor law of England as formerly framed, and similar regulations still existing in France, are open to this charge.

In England the chief harm was done by the enactment of 1796, legalizing a practice, which had sprung up in previous years, of permitting justices to order relief from the rates to the industrious poor whose wages were deemed inadequate ; *i. e.*, wages were supplemented by public aid. The practice continued through a period of forty years.

As a minimum income was assured the laborer adjusted to the size of his family, it mattered little what his wages were, and in consequence employers were able to secure labor at lower and lower wages, suffering the parish allowance to continually increase. Industry and thrift were impaired, lawlessness increased, the rates rose until land went out of cultivation, production fell off and whole communities became impoverished.

For example, in 1831, under the old law, "out of 98 who had a settlement in the parish of Cholesbury, Bucks (the total population being 127) there were 64 in receipt of relief, and the poor rates alone exceeded 24s. in the pound" (*i. e.*, swallowed up the rental). "As a result the glebe (church lands) as well as all the land in the parish save some sixteen acres, was thrown out of cultivation and the parish had to exist for some time by means of rates in aid levied on other parishes in the hundred." After the reform of the poor law the condition of the parish improved until by 1889 it was in a fairly prosperous condition, not one of the parishioners "being in receipt of relief from the rates."

Generally speaking, constant aid to able men and women which is in the nature of a tax on the possessions of others is an evil. We must not be led by the abuse of charity, however, to condemn all charity. Exercised intelligently, it is a legitimate and useful sort of distribution. It modifies for some the extreme inequalities of fortune; it lessens the hardships which fate often imposes even upon the worthy, and may even preserve to society some of its productive force. This is the pronouncement of political economy.

The most effective charity is that which takes the form of prevention. It may either assist the young by with-

drawing them from destitution or vice and rearing them in happier surroundings, or assist adults by saving them from threatened wretchedness. Such charity actually diminishes pauperism.

Assistance is given :

First, by individuals in their own name, impelled by sentiments of religion or sympathy; much assistance is given in this way which never figures in statistics.

Second, by charitable associations depending for their support on voluntary contributions or private endowment.

Third, by public bodies such as the state or local government, whose fund for this purpose is derived either from private benevolence or from taxation.

Public assistance represents the part society plays in relieving want; its action is more general and more regular, but less delicate, than that of private charity. It is in connection with this form of charity that questions of the right and extent of charity arise. Although the needy have no established right to assistance, it must be admitted that the state, charged with the care of the public interest, simply fulfills a social duty in coming to the relief of certain unfortunates when its resources permit it to do so. In England the state undertakes the relief of the destitute, leaving relief of poverty to voluntary effort.

Private and public assistance may be given under different forms and circumstances.

First, in hard times, in the form of work in public workhouses where the unemployed are received. This may produce good or bad results according to the way in which the shops are managed; its results have been only moderately good in the English workhouses, and in the national workshops of 1848 in France they were unmistakably bad.

Second, assistance may be in the form of money or supplies. It may be temporary and accidental, as in the case of men deprived of employment by hard times, or in the case of the poor suffering momentarily from famine or a severe winter, or it may be regular and permanent, as in the case of individuals and families incapable of supplying their ordinary wants. Generally it constitutes only a small portion of the needs of the indigent. Outdoor relief should be given only at the home of the recipient where his true needs can be more correctly ascertained.

Third, in asylums and hospitals where the sick and helpless are cared for. This is one of the most necessary forms of assistance, and a form of consumption which may become productive especially when it concerns children whom it aims to save from death and vice.

Fourth, under the form of procuring the privileges of asylums, schools, or benefit societies. This is another kind of charity consumption which may be productive.

The chief aims of charity work should be to strengthen character, inspire hope and resolution, encourage good habits, and seek to enlarge opportunity. Amongst the means resorted to to accomplish these ends none are more effective than friendly visiting which keeps the charity worker in close touch with the subject.

Indiscriminate alms-giving is an admitted evil. The person who practices it is a public enemy who in the long run distinctly adds to the sum of human misery.¹

¹ A most useful modern development of charity administration is the central society, called a charity organization society, which regulates relief. The society itself dispenses little material assistance, but confines its efforts to furnishing information to societies that do, to ascertaining the true needs of the poor, to devising ways of meeting these needs, to discovering fraud and duplication of aid, and above all, to making friendly visits. The

Résumé

There is a close relation between the three terms, Population, Production and Consumption.

General laws of the equilibrium of wealth and population: when production and capital increase, population has a tendency to increase; when the average of individual consumption increases population has a tendency to become stationary; when all the land in a country is occupied and cultivated, an increase of population becomes more difficult.

The density of population in different parts of the world is proportional to the means of subsistence found there. Valleys, arable plains, seacoasts, highways of commerce, mines, and the motor forces of nature favor the formation of dense populations. Big cities offer opportunities of livelihood which make them special centers of attraction.

Population has a natural tendency to increase. Its increase is conditioned by the means of subsistence and the sum of its needs.

The experimental laws of population: The number of inhabitants a territory will support depends upon the physical conditions of soil and climate, on capital and industrial knowledge, on the average of individual consumption, and on the degree of equality in this consumption. With respect to density we may distinguish between the savage stage, pastoral stage, agricultural stage, and the industrial and commercial stage. Population has a

value of such a society in large centers of population cannot be overestimated. Its existence means coöperation in the relief work of the community. The attack on poverty becomes an organized attack. The local problem of relief comes to be regarded as a whole, and in the solution of this problem the experience of other communities is more likely to be brought to

bear.—*Translator.*

natural tendency to increase by an excess of births over deaths. In industrial centers it is further increased by immigration. In civilized countries to-day wealth is increasing faster than population. The acquisition of wealth by a people often lessens the people's rate of increase.

The principal causes of emigration are, excess of population, deficient means of subsistence, the prospects of a better future, certain political conditions, and facilities of communication.

The currents of immigration are from countries more advanced in civilization to those less advanced, or from countries having relatively more inhabitants than capital to countries having more capital than labor.

Immigration into new countries and colonization are a gain for the immigrants themselves, for the new country which receives them, for the old country which they have left, and for humanity.

There is less misery in modern societies than in former societies, but pauperism is more conspicuous and more concentrated.

The indigent are those who find it impossible to procure the necessaries of life. In this class are included those who plunge momentarily into want, those who are in a permanent state of half-want, and those whom vice or physical defects keep from work and who are in complete want.

Charity consumption relieves want. Although the needy have no established right to assistance, intelligent charity is a legitimate and useful sort of distribution in society. Charitable assistance is given by individuals, by associations, and by public bodies. The state which is charged with the public interest fulfills a duty in assisting certain unfortunates when its resources permit.

Assistance is given through the agency of workhouses, asylums and hospitals, or may take the form of outdoor relief. Another form is that which procures certain privileges for the needy in asylums, schools or benefit societies.

PART III

THE CIRCULATION OF WEALTH

I

EXCHANGE AND VALUE

71. Exchange. 72. Offer and Demand, Competition and Monopoly. 73. Fundamental Conditions of Value. 74. Causes of Variation of Value. 75. Distinction Between Value and Wealth. 76. Prices.

71. *Exchange*.—In civilized society there is scarcely any production which is not accompanied by exchange. The simple phenomenon of wages involves an exchange of labor for capital. We can conceive of production without exchange but it is only a Robinson Crusoe, isolated from the rest of mankind, who produces and does not exchange products. Production and consumption are nevertheless the two sole economic phenomena absolutely necessary to human life. They constitute the principle and the end of economic evolution. Exchange is an intermediate phase.

Let us seek to define the different kinds of exchange.

I. Paul is a hunter, Peter a fisherman. Isolated, they are reduced to one kind of food, which may become monotonous. If they were guided by reciprocal interests and traded with each other, they might both procure more varied food without additional labor. "I have spent my morning in catching a string of fish," says Peter; "you have spent yours in killing a hare—I have other fish, you have other game, let us exchange; give me a hare for my

dozen fish, and each of us will have on his table both fish and meat."

The elementary form of exchange is to surrender a product in order to procure an equivalent product. If by the side of Peter and Paul there lived John the carpenter, and Simon the potter, the nature of their relations would not have changed although these relations would have become a little more complex. John cannot eat his stock of wood any more than Simon can consume what he produces; but John would build and keep in repair Peter's and Paul's cabins since he is more skillful in the use of carpenter's tools. Peter and Paul would surrender to him in exchange a portion of their fish and game. The amount they surrendered would depend upon the work he supplied, and would be governed by an agreement previously entered into between them. In the same way Simon would furnish household utensils to his neighbors, who would in turn build his hut and supply him with food.

If there were only four of them the transactions would not be numerous enough for each to live on a special industry, particularly John and Simon. They would be under the necessity of giving to their special callings only a portion of their time, and use the rest directly in procuring other necessaries. This is what we still see amongst civilized peoples in connection with a large number of industries in the country which certain individuals practice concurrently with the cultivation of the land. If there were 100,000 people, John and Simon would always be occupied at carpentry and pottery, and could supply all their needs by exchange.

When products are exchanged for money the transac-

tion is a sale; when exchanged for other products, the payment is said to be "in kind."

2. Another person arrives on the scene, Charles, who establishes a carpentry opposite that of John; but Charles is young, he has less experience and less capital than his competitor. He lacks tools, and wood, and his work has not the same finish. In consequence of this he runs the risk of being idle a large part of his time and of starving. "Will you exchange your day's labor for an assured living?" says John. "If so we will work together. I will lend you a portion of my tools, will guide you in your inexperience, and let you execute under my direction work which has been confided entirely to me and which would probably not come to you. So long as the conditions we lay down are reciprocally agreeable, your labor will belong to me for a certain number of hours. In exchange, you will receive from me a certain quantity of products either in kind or in money." This arrangement proves mutually beneficial, affording Charles regular work and a livelihood, and John an ability to undertake more and earn more himself, whilst at the same time remunerating his companion. This is an exchange of labor for product, a subject already discussed in connection with the wage system.

3. The above are the two most salient forms of exchange, but they are not the only ones.

If John has built for himself a larger house than his personal needs require, he may surrender a portion of it to Simon, saying to him: "It will cost you too much to build a separate house; you can easily find lodging here in mine. I have no intention of dispossessing myself of that which is mine, nor of giving you any portion of my property; but I will cede to you for a given time the use

of a portion of the property if you are willing to pay me a just price for it. You will be exchanging your product, whether pottery or money, for the temporary enjoyment of what is mine." That which results is a contract to rent; *i. e.*, the exchange of a product for the temporary enjoyment of another product.

4. John has lots of work and no time to devote to the details of living and personal comfort; he accordingly takes a servant and agrees to give him his maintenance and certain wages per month in exchange for personal services. This is the exchange of products for regular services.

If John is taken sick he calls for a physician. For the instruction of his boy he summons a teacher. This physician and this teacher he pays by exchanging products against services. If, however, the physician builds a house and makes use of John's architectural knowledge, it may be paid by the exchange of one service against another service.

Men accordingly exchange products against products, products against services, or one service against another service. Now what is a product? It is the result of labor, and the product itself is worth only the quantity of utility that resides in it. We are led to procure it by exchange only because of its supposed utility. Going to the root of the matter, this is nothing less than the service which the creator of the product renders us through the instrumentality of the product. In reality, we then buy a certain service whose principal source is in the labor of one or more men. Thus the employer buys the service of the workman, and the master that of his servants. Thus it is, likewise, that every man who secures any product whatsoever really secures the services of another. All modes of

exchange can accordingly be summed up in the formula, services are exchanged against services.

72. *The Law of Offer and Demand, Competition and Monopoly.*—By what rules does exchange take place? This question can only be answered by an observation of social facts, but the answer differs in different cases.

Exchange results from freedom of contract. Without freedom of contract we might have a distribution of wealth, but could not have exchange. Thus a master formerly gave to his slaves food and clothing, *i. e.*, wealth to be consumed, and he set them certain tasks. This was distribution by authority; it was not exchange. On the other hand, the slave who, with his master's money, or with his own money, bought vegetables in the market performed an act of exchange. In the same way a father who supports his children and makes them work is not performing an act of exchange unless he has entered into a special agreement to compensate them for their labor. He is simply distributing wealth by an act of authority. If a free system of exchange is to exist the parties must be privileged to discuss the terms of the contract.

If this discussion of the terms is to be serious and the conditions arrived at are not to be prejudicial to either party it is necessary that there should be competition. (See par. 44). This means that the market must be sufficiently wide to permit of several persons offering and several demanding the same product of labor at the same time and in the same place. It is only then that conflicting interests find their equilibrium, and that the law of offer and demand produces its important results.

1. Let us first take an example of a transaction where competition has not yet appeared. Ten men are shipwrecked on a rock a sufficient distance from the coast

to preclude all hope of succor so long as the storm continues. They are cold and hungry. One of them has a supply of biscuits and a bottle of liquor; he is willing to surrender a part of them. But at what price? All his unfortunate companions compete for the food which can keep them alive until help arrives, and, if necessary, they will give all they possess in exchange for it.

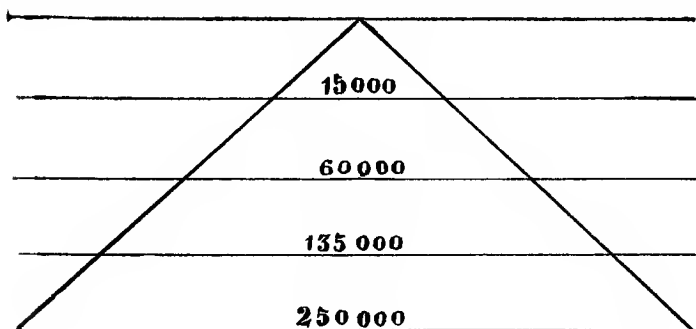
A short distance from this spot appear some countrymen who have brought to the village market a considerable quantity of ripe fruit which would soon spoil if they carried it home again. There are but few purchasers, perhaps only one. This man can obtain the quantity of fruit he desires at a very low price because each vendor is offering fruit, and probably prefers to realize from his product a small remuneration rather than lose the whole product.

In each of these cases one of the parties is injured. In the first it is the purchasers who suffer, and in the second the sellers, because of having been compelled to submit to the conditions imposed. This is what happens under a monopoly where restricted offer causes an elevation in price and this latter in turn serves to lessen demand. Uncontrolled monopolies are accordingly to be avoided.

2. Turn now to the case where competition is approximately complete and unlimited. Nothing is more easy to picture than unlimited competition amongst buyers, provided the population is sufficiently numerous. Most men seek to procure the greatest possible number of satisfactions, and their consumption is limited only by their resources. This limit is the more quickly attained as the products sought become dearer.

In this case the market for the goods depends on their price; otherwise stated, on the opportunity the seller gives to the buyer to acquire the goods.

Let us picture a population built up after the fashion of a pyramid, each layer of the pyramid being formed of persons having uniform revenue, the richest at the top,



the poorest at the base. The poorest are naturally the most numerous, and the pyramid necessarily has a very large base, much larger in fact than pictured here. Now let the height of a body of water surrounding this pyramid represent the obstacle to consumption, *i. e.*, the price, which forbids the purchase of the object on the part of those who are not rich enough. Suppose the price is so high that the level of the water will reach the summit of the pyramid; there will be but one purchaser whose fortune will place him above this level and in the zone of consumption; all the others will be submerged and will not figure as competitors for the possession of the object.

Suppose now that the price which we placed at the level 4, falls to the level 3, either because the home production has become less costly or because the market is better supplied from abroad and in consequence the competition of sellers has become keener. The obstacle represented by the level of the water has lowered, and the lower layers emerge to the point where 15,000 persons are found

in the zone of consumption. If the price falls to the level of 2 and 1, *i. e.*, to the points where first 60,000 and then 135,000 persons emerge into the zone of consumption, the market will become progressively larger.

Descend to zero: imagine the whole obstacle of price suppressed, *i. e.*, product to be free. To realize this condition, the quantity of products would have to be sufficient to meet the unrestricted demand of the 250,000 persons at the base of our pyramid. All of them might now entertain pretensions to enjoyments which no longer involve trouble nor outlay. There would then be as many possible consumers as inhabitants.

It follows that offer enlarges demand accordingly as it lowers the price. Demand is practically greater accordingly as the product is cheaper. Its growth is out of all proportion to the fall in price; it becomes a question of progression rather than of proportion. This means that the extent of the market is often determined by the price of a utility, *i. e.*, that *demand* is determined by *offer*.

To produce its effects it is not necessary that competition should always be real, *i. e.*, materially present; it suffices if it is virtual or possible. Take the case of a grain market. Suppose it to be supplied by fields in the vicinity. Suppose likewise that the farmers of the neighborhood are forbidden to send their wheat elsewhere, and that farmers elsewhere are forbidden to ship theirs to this market. On a market thus isolated, the price of wheat would rise and fall without any connection with prices in neighboring towns, and these variations, susceptible of being very sharp and sudden, would depend entirely upon the condition of the harvest in the neighborhood and the speculations of its farmers.

Suppress the prohibition: let wheat enter and leave

freely; let good roads be constructed, and a change would come over this market without our encountering any new faces. What would take place is this: the farmers would still like to sell their grain as formerly at a high price, but they know that if their price is above that of neighboring towns, sellers will come from 20 different markets to profit by it. They are accordingly obliged to observe the common level, *i. e.*, current price, in order to hold a market which is now open to all. In this case the competition is simply virtual or possible, but its effects are none the less real.

In place of a restricted locality we may take as an example an entire country and consider its commercial relations with all other countries; the phenomena here obey exactly the same law.

73. *Fundamental Conditions of Value.*—The law of offer and demand leads directly to the idea of value which is a fundamental idea in political economy. It is so important that several authors have defined economic science as “the science of values.”

I. We must not confuse value and utility. Is any value placed upon that which is not useful? Evidently not. Utility is the first and indispensable condition of value. But is an object valuable in exact proportion to its utility? It is necessary here to resort to examples.

What is more useful than air? If it should fail us even for a few minutes we could not continue to exist. Nevertheless air surrounds us in such abundance that we experience no effort in filling our lungs incessantly. Accordingly, as a rule, it has no value. In certain conditions it may acquire value, as for example, in diving bells, and in mines where it is artificially supplied, the cost of which supply appears in the general expenses of operation.

Again, water is almost as necessary as air to human life. It is likewise abundant, although, unlike air, it is not always directly at hand. It must be brought into our houses and this service costs something. Accordingly it generally has a small value which varies with the effort necessary to procure it.

Consider the article wheat, which is our principal vegetable food; wheat sells at a lower price per pound than copper, a metal which is no doubt useful, but which is not indispensable to human existence. Copper in turn has infinitely less value than the diamond, which is ordinarily employed only for adornment.

Value then is not measured exclusively by utility, if by the word utility we mean the importance of things to man's support. To give to the word utility the subjective meaning which certain economists give it, *i. e.*, to define it as our estimate of things and the price we are willing to give for them, is to largely confound the expression utility with that of value.

The earlier economists marked this distinction by saying that things have two kinds of value: value in use, *i. e.*, utility considered in relation to personal use, and value in exchange, or commercial value, *i. e.*, the power of acquisition, or capacity for being exchanged against a certain quantity of other products. It is in the latter sense that we use the word value; the former idea we express by the word utility.

2. Does value depend upon rarity? There is certainly a close connection. Air has no value because it is so abundant. Water has so little value because it, too, is abundant; the diamond has such a great value because it is rare. Why is wheat worth less when there is a good harvest, without there being any change in its quality or

nutritive power? Solely because it is more abundant.¹ It is thus with all merchandise which has a price. Rarity signifies deficient offer.

In order that rarity should exercise any influence on value, however, there must be demand.

Suppose a gardener succeeded in producing the famous Blue Dahlia which amateurs have so long sought in vain; it would have considerable value because it would be unique, and horticulturists would be interested in it. If he had produced a Blue Poppy which would be quite as rare, but about which no one concerns himself, it would be of comparatively little value. It is not the absolute rarity of the thing which determines its value; it must be a thing which is sought for. In other words, we must take into account not only the offer but likewise the demand. Nevertheless it may be said that without rarity there would be no value, and that when an article is in demand its value increases with its rarity.

3. Does value depend upon the labor expended? We have seen that the only reason water has a value is because certain labor is required to procure it. It is because a great deal of labor is expended in finding diamonds that they have such a great value. Value has numerous points of contact with labor; nevertheless the two do not merge. The idea of labor is itself not simple enough to furnish a sufficiently fixed base for the idea of value. We have already explained that labor has its value not because of the effort expended, but because of the result obtained and the utility created (see par. 11

¹ A failure of one-half in the wheat crop may conceivably cause a fourfold advance in price. Statistics based upon value would in such a case show a marked increase in social wealth while people were on the verge of starvation.—*Translator*.

and 58). If a miner in California finds a big nugget of gold at the first stroke of his pick, is it worth any less than the same weight of gold obtained by months of labor?

If gold was continually found in such quantity and with such ease, it would have much less value.

Air has no value because no labor is needed to supply it. We may then safely say: no labor, no value.

Under the régime of free competition each man seeks to attract customers by offering his product cheap; thence arises a tendency to reduce prices to their lowest level. What will be this lowest level of prices? It must be the cost of reproduction, which cost is made up of the labor and capital it is necessary to expend. If the value should fall below this level, the producer would suffer a loss and soon production would cease.

Utility, rarity and labor are the three fundamental conditions of value; but none of them completely explains value. This is because value has a nature of its own. It comes into being at the very moment of exchange, and is the result of the conditions of each exchange. When Peter and Paul reached an agreement for the exchange of a dozen fish for one hare, it gave a definite value to each article; but on the following day, the hunter, more fortunate in the chase, may have been willing to surrender a hare for a smaller number of fish, and a change of value would have occurred. Every exchange presupposes a bargain; each of the contractants desires to have more and to give less. The point of accord between these two conflicting elements is the value of the merchandise. This point is essentially mobile, rising and falling with time and circumstance. Value must

then be defined as a relation of quantity, established by exchange, between two products and services.

74. *Causes of variation in value.* Although essentially variable, value nevertheless obeys certain laws. We have already seen how it is affected by the elements of utility, rarity and labor; it is even more narrowly circumscribed by the law of offer and demand which chiefly regulates it.

1. Let us first examine, as Mill has done so clearly, the case of monopolies. What value had the single biscuit which the shipwrecked sailor consented to surrender to his nine companions? Life being at stake, the sacrifice which the purchasers would be willing to make would be without limit; the poorest could not entertain any pretensions to it, since the rich would offer more, and one of them, the richest of all, must necessarily obtain it, paying for it a little more than he who was second in point of wealth.

This is what actually takes place at auctions. A picture of Reubens is on sale; it is a unique work of its kind; who will have it? All the world wants it, but those who are not rich know that they cannot aspire to it, and they do not even enter the competition. Ten persons begin by a bid of 20,000 dollars for it. The price is carried to 30,000 dollars. Eight persons are still in the competition at 40,000 dollars, and five are still in at 60,000 dollars. Presently there are only two bidders, but one of them is at the limit of the sacrifice he is willing to make; an additional bid of 1,000 dollars suffices to give the picture to the last bidder who remains alone in the field, or, to employ a figure already used, alone in the zone of consumption above the rising sea of prices.

The value of a unique object is fixed at a point where all bidders except one have been eliminated.

In the case of the shipwrecked sailors where the food was necessary to sustain life, the sacrifice was without limit; in the case of the picture there is a limit. It is found in the number of contestants, which is less according as the object is less useful to existence or less sought for; this is shown by the facts of daily life.

If the harvest of nuts is short, many people do without them that year, and the value of those which are sold is not greatly increased. But let the wheat crop be short and matters are different. Suppose a given population requires 100,000 bushels and the harvest yields only 75,000 bushels. If none can be imported from abroad one-quarter of the inhabitants will starve, or a large number of them must live during the year on half rations. One does not easily resign himself to either of these alternatives. A competition takes place for the precious and rare article whose value rises not in proportion to the quantity lacking but in much greater ratio owing to the fears and haste of the buyers.

2. The second case is that of unlimited competition. Under this régime the product may be multiplied almost indefinitely without the last of 100,000 units costing any more than the first. Cotton fabrics and common pottery, the material for which is so abundant, are in this category. When an article can be multiplied without increasing the cost of production (that which is true of many manufactured products), offer, *i. e.*, production, seeks to estimate demand and solicits it. In this case demand itself largely depends on value, value being fixed by the average cost of production.

3. There is a third case, that in which production can

be increased only by an increase in cost; this applies to most natural products. If demand increases, it may be possible to make a plot of land yield $1\frac{1}{2}$ times as much, but in the absence of any change in scientific processes, it will be necessary to employ in labor and fertilizer twice as much capital. Naturally not all the fields will require so much as this, but will the products of different fields differ in value because of the difference in productiveness? Surely not. Once on the market it is the quality of the product alone that is considered; one does not concern himself about the manner of its production. If there is need for 100 million bushels of wheat, the last million is demanded and taken as well as the first, in the course of the year. This last million bushels must at least yield its cost of production, say for example a dollar per bushel, if regular production is to continue. Now the other producers who have raised their wheat at less expense are careful not to sell it any cheaper, and a dollar per bushel becomes the normal market price. It is the cost of production of the last million bushels demanded that fixes the market price. When an article greatly in demand can be produced in increasing quantity only at greater expense, it is the highest cost of production that fixes its market value; thence arises the phenomenon of rent already explained (see par. 49).

We have seen then that two conditions are requisite to produce value, the desirability of the object (utility) and the impossibility of procuring that object without effort (rarity and labor). It is for each to decide whether he prefers to satisfy his desire or to abstain from effort, to spare himself the inconvenience of privation, or the inconvenience of labor.

75. *Distinction between Value and Wealth.*—There

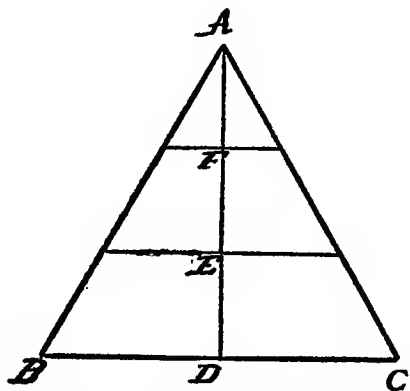
is a serious inconvenience in making value the pivot of political economy. It may lead us to the conclusion that the wealth of a country is made up of the sum of values the country possesses, and to extol value. This is only a half-truth against which we must guard. Objective utility is a positive quality eminently desirable; we can never have too many useful things. Rarity, on the other hand, is a negative quality and is an evil which the efforts of labor tend to combat. Value has some of the defects of rarity, with which it is connected. A shortage of the wheat crop by one-quarter of its normal yield may cause the total value of the crop to rise 50% above its normal total value. Is this a gain, and is the world any richer for it? Evidently not. When, as the result of an invention, a manufactured product can be obtained with less labor and less waste of material, competition, which tends to cause everything to approach the cost of production, soon reduces the value of the product. Is not this a good? When commerce supplies the market with certain products in such quantity that the price falls, must this additional supply be regarded as an affliction?

The progress of science applied to manufactures or transportation tends to incessantly reduce the cost of production, and consequently, the value of merchandise. The reason the reduction is not more apparent is because it is so general. If it operated on one kind of merchandise two units of that would soon be worth but one unit of other kinds. But if it operates on the other kinds at the same time, and to the same degree, one unit of the merchandise under consideration will continue to exchange against one unit of another merchandise. The value, *i. e.*, the relation resulting from exchange is not modified, but the inhabitants of the country, being able to procure more

enjoyments by an equal expenditure of labor are richer.

Carey has ingeniously portrayed industrial progress by the adjoining figure.

The line AB represents nature, *i. e.*, natural forces and matter; the line AC represents the product fashioned by human industry, ready for consumption, and brought to market through the channels of commerce. The divergence of these two lines measures the effort necessary to



put nature at the service of consumption. In barbarous times, which may be represented by the line D, the space between them was very great. This means that much effort and labor were then required to transform nature into products suitable for man's consumption. When such effort is necessary for the whole of production it implies that economic civilization is but little advanced. When it applies only to a particular product, that product, in the manufacture of which much effort has been expended, has a greater market value than products which require less effort, although the latter may represent more utility.

As man rises in the scale of civilization and industrial processes are perfected, it requires less effort to arrive at a given result whether for the whole of production or for a particular product; the distance between the sides of the angle then diminishes (line E). A further advance

in civilization shortens this line still more as at F. If civilization should reach the point A, the apex of the angle, it would mean that effort had been reduced to zero, *i. e.*, nature would lend itself to the satisfaction of our needs without effort on our part.

Such a condition can never be realized. Progress, however, consists in approaching it, as we have shown in treating of the rôles of intelligence and capital (see par. 19). Such progress tends to diminish the value of each particular object. It would not prevent the total of values contained in a general inventory of the national wealth from increasing by a multiplication of objects at the same time that the price of each product diminished.

Where a fall in prices is due to improved processes, it generally indicates a progressive condition of the nation, and is accompanied by an increase of national well-being.

76. *Price.*—Price is simply the value of an article expressed in money.

Since value is the relation established by exchange between two or more articles, we may express it as we like. We may say, for example, the hare is worth a dozen fish; the hare is worth a peck of wheat. But such a diversity in the measure of value would cause hopeless confusion. In order to understand each other, it was necessary that men residing in the same country should employ the same term of comparison, as for example, an ox or a measure of wheat. The superiority which the precious metals enjoy for serving as a common term of comparison was recognized at an early date in most countries and money was created.

Men shaped disks of metal to which they gave certain names. These constituted money, which is a product, obeying, like other products, the general laws of exchange.

It can be secured only by surrendering another product which is its equivalent. The hare is for sale in the market; how much? 25 cents. This is expressed by saying the hare is worth 25 cents, or 25 cents is the price of the hare. It would be equally correct to say that the sum of 25 cents is worth a hare, as they exchange for each other. How much are the fish? 25 cents a dozen. How much is the wheat? \$1.00 per bushel. We now have a term of comparison called a common denominator of value; this is money, which effectually serves to express the value of things.

Résumé

Production and consumption constitute the source and the end of economic evolution; exchange is the intermediate phase.

Exchange is of different kinds: product against product; labor against product; possession of a product against the temporary enjoyment of another product; and products against services. In all of these what really happens is that services are exchanged against services.

Wealth may be distributed by virtue of authority.

In exchange it is distributed under a régime of freedom of contract conformably to the law of offer and demand.

Offer determines demand. In the case of monopolies offer restricts demand by raising prices. In case of competition, actual or virtual, offer enlarges demand by lowering prices. The increase in demand brought about by a fall in prices is proportionally much greater than the fall in prices.

Utility, rarity and labor are the three fundamental conditions of value. Value is a relation of quantity es-

tablished between two products or services by exchange. It is regulated principally by the law of offer and demand.

The value of a unique object is fixed at a point where all competitors except one have been eliminated by successive bids.

The value of an article which has become rare rises, not in proportion to the shortage, but to a much greater degree: this is what happens in the case of monopolies. When the article may be multiplied without any increase in the cost of production its value is regulated by the average cost of production: this occurs under unlimited competition.

When production can be increased only by increasing cost, value is regulated by the highest cost of production. This is what gives rise to rent. Rarity is an evil; we can never have too many useful things.

If products of all kinds increase at the same time and in like quantity, and at no extra expenditure of effort, their value will not be changed; nevertheless the people of the country will be richer. Price is the value of merchandise expressed in money.

II

MONEY

77. The Nature and Rôle of Money. 78. The Advantages of Precious Metals as Money. 79. The So-called "Double Standard." 80. Subsidiary Money. 81. Monetary Systems. 82. The Value of the Precious Metals.

77. *The Nature and Rôle of Money.*—Money is, above everything else, the instrument of exchange; it is through its instrumentality that exchange is most frequently effected.

What is *money*? It is a *commodity*. Like other

commodities it is subject to the common law of exchange and is sold and bought for what it is worth. But it is a commodity clothed with a legal quality. By virtue of this quality, it serves as the general instrument of exchange, as a measure and medium in the sale and purchase of other commodities, and as a common denominator in comparing values.

Under this definition, representative money is not included. The terms of the definition need explanation.

First: Money is a commodity. It cannot be a simple sign, a thing of pure convention. It must be a real thing, a product obtained by human effort, combining the triple quality of utility, rarity and labor—without which qualities value does not exist—and in the determination of its value, subject, like all other commodities, to the law of supply and demand.

Accordingly *money is an equivalent, i. e.*, it is worth in itself as much as the object against which it is exchanged. Otherwise stated, money is sold and bought for what it is worth.

2. *Money as a General Instrument of Exchange, Measure and Medium.* In a civilized society money is everywhere present (actually or nominally) in all exchanges, but it is neither the first nor the final term of exchanges: it is the middle term. It is not with the final object of having the money that one buys money—for it is thus that one may define the act of exchanging merchandise against money, *i. e.*, a sale—but one does it with the object of having in his possession *the instrument with which he can procure any other commodity.*

A trunk-maker sells a trunk. That evening he pays for his dinner, the following day he buys a hat and a fresh supply of lumber. What rôle has the money played?

The trunk-maker who works for a living, or in other words, produces in order to consume, has received money in exchange for his trunk, which is the result of his labor, and has paid it out in exchange for his dinner, his hat (personal needs) and for a fresh supply of lumber (trade needs): services for services. These exchanges could not have been made except through the instrumentality of money; because the lumber merchants had no use for a trunk and the traveller who bought the trunk was neither a restaurateur, a hatter nor a lumber merchant.

3. Money is the *common denominator of values*. Things equal to the same thing are equal to each other. If a hat is worth 20 francs and if four chickens are worth 20 francs, a hat is worth four chickens or a chicken is worth a quarter of a hat.

How do we establish a relation of value between a voyage in a steamboat from London to New York and an overcoat? Here are two things between which there is at first blush no relation whatever. But money steps in as a term of comparison or as a measure. The moment we say that the passage costs 100 dollars and the overcoat 20 dollars, there is no difficulty in arriving at the conclusion that it costs five times as much to travel from London to New York as to buy an overcoat. *Money is to the exchange of products what language is to the exchange of thought.*

4. Money has a legal quality. It is to this quality that it owes the fact that it is really a common denominator. It is true that it is out of gold and silver that we make money. But bullion is not on that account money; it is only a commodity. In order to facilitate exchange, each state gives a legal tender quality to moneys struck conformably to the rules it has established; these rules

fix the pattern, weight and denomination of the piece but do not fix its value. The state may decide that a dollar piece shall contain 25.8 grains of gold nine-tenths fine and that everyone to whom a dollar is owing shall accept it in discharge of the debt if the debtor offers it; but it cannot decree that anyone shall be forced to give in exchange for the dollar piece a determinate quantity of wheat or cloth.

If the unrestricted legal tender of a given country is to be honest, the metal contained in the piece must have the same intrinsic value as an ingot of the same metal and weight, less perhaps, the cost of coinage. Were it otherwise, the piece would be simply conventional or representative money, a sign and not an equivalent. When subsidiary coins are struck as simple representative money, it involves no inconvenience and may be of decided advantage provided the legal tender quality is limited by law to a small sum. But when the chief money of a country is debased—as has frequently happened in the past—it always involves grave inconvenience for commerce: the measure of value is falsified.

78. *The Advantages of the Precious Metals as Money.*—Why have the precious metals been chosen as the materials for money? Because they possess to the highest degree the qualities requisite for that use.

First: It is well that money should be a thing which is rare and costly, embodying great value in small volume so that it can be carried and transported without too much expense. The Spartans had iron money; but the Spartans were poor and had but little commerce. Imagine a man who wanted to make a hundred dollars' worth of purchases in the course of his journey and who had to carry

with him from eight to ten thousand pounds of iron with which to do it!

Silver and gold, extracted from the mines by laborious processes, prized for purposes of adornment and sought for because of their beauty and brilliancy, have a value superior to that of all other metals with one or two unimportant exceptions.

Second: It is necessary that money should be made of a substance perfectly homogeneous and unalterable. If the quality of the monetary metal varied, or if it deteriorated with time, a given quantity of the metal could not be a common denominator. This is what would happen if a pound of beef were taken as the monetary unit. Certain cuts are worth more than others and what would a pound of meat be worth eight days after one had bought it? The deterioration is such that the value is reduced to nil. The same inconvenience would obtain if we took as unit a quart of wine because there are wines of all qualities and all prices. On the contrary, in the case of gold and silver this uniformity is complete. Between an ounce of gold taken from the Mexican mines two centuries ago and an ounce of gold extracted last year in the Transvaal, there is no difference either in weight, molecular condition, appearance or value.

3. It is important that *commodity-money* should be divisible without loss of value. This quality is found in some of the primitive moneys, such as tobacco which served the purposes of exchange in Virginia until the middle of the 18th century. It is not found in furs which formerly served as money in America as well as Russia. Neither is it found in the precious stones which possess the quality of great value in small volume. Cut up the precious metals in as many pieces as you like and the value

of the pieces taken together will equal the value of the original ingot. Fuse them and you will recover the ingot in its original value.

4. It is important that the value of the material from which commodity-money is struck should be as stable as possible. To have that value absolutely unchangeable is impossible; it is a contradiction of the very sense of the word "value," which implies a variable relation. On the other hand, if it be too variable this fact nullifies one of the essential functions of money, that of a common denominator of value. A measure which incessantly varies does not offer a medium for consistent comparison. This is what would happen if we were to select as money such an article as wheat, a commodity for which there is a general demand. The harvests vary greatly from year to year. As the bulk of the wheat produced is consumed from one season to another, the supply being never equal to two harvests, bad harvests might immediately cause a shortage say of 5% or 10%, and a good harvest the reverse. Sharp variations in price follow variations in the supply of wheat; the price may be even doubled in a period of six months.

In the case of the precious metals, this inconvenience is greatly reduced. They of course vary in value and if we embrace a long lapse of time, a very considerable variation may be perceived. But the phenomenon is not produced suddenly and for this reason: if one has been so fortunate as to discover new mines or exploit old ones to more advantage, the increased production of the year never constitutes more than a small portion of the world's supply, composed as it is of the production of so many previous years. Usage does not destroy the precious metals; they are employed, they are transformed, but the

material remains, diminished only to the extent of the impalpable powder which polishing produces and by losses arising from hoarding and shipwrecks. There are no other commodities which possess this quality to the same degree as the precious metals because few of them are so little liable to alteration. A peculiar combination of circumstances was required to produce the fall in the value of silver which has taken place since 1870.

The precious metals are then the very thing of which commerce is in search; a precious commodity (*great value*), always the same (*homogeneity* and *divisibility*), easily preserved (*unalterability*), easily stored (*great value in small volume*), adapted to serve as a common measure (*relative stability of value*).

Accordingly the precious metals are the material of which we make money, but they are not strictly money itself. And why? We have before us an ingot of gold but we do not know its weight nor its fineness. To ascertain the weight is not a difficult process but to establish the degree of fineness involves a painstaking chemical analysis calling for special knowledge. These are so many obstacles to exchange. In China they use ingots bearing impressions of the weight, denomination and often the marks of the principal merchants through whose hands they have passed. This is troublesome and besides there is too much opportunity under this system to chip the ingots. In the ancient world men had already devised a better system than this, a system which is to-day practiced by all civilized people, the Chinese excepted. It consists in striking with the imprint of the state and under the state's guarantee, certain disks of gold and silver of which the pattern, weight and denomination are definitely determined by law, of which the distinguishing features

can be easily recognized, and which one must accept as money in all payments because they are legal tender.

79. *The So-called "Double Standard."*—Two things are to be considered in coining money: first, the question of the metal or metals adopted by law as the fundamental measure or regulator of value; second, the question of the weight and denomination of the coin. The first consideration introduces the question of the *monetary standard*. We understand by the word *standard* the unit of measure of values fixed by the law of a given country. When the law has established the yard or quart it has attributed to them a certain length or a certain capacity which are identical in all times, in all places, no matter how long or voluminous the object to be measured: being independent of that object, they measure it without being measured by it.

When the law establishes a monetary unit it does not fix its value since the value of money is measured in each act of exchange by the object which it purchases whilst it itself measures the value of that object. The law in reality fixes but one thing: the nature of the piece of money serving as a unit, *i. e.*, its pattern, weight and denomination. Shall the piece be gold? Shall it be silver? Shall it be indifferently gold or silver? Here is an important question, for the precious metals are two in number; and since all value is variable the ratio between them is not unchangeable. Let the ounce of gold exchange for the moment against fifteen and a half ounces of silver. That does not imply that fifteen and a half ounces of silver will always be worth an ounce of gold (in 1898 it required more than thirty ounces of silver to buy an ounce of gold). Let us suppose a borrower receives 95,000 dollars, which he engages to pay back in twenty years and he

receives that sum in gold. What ought he to pay back, 5,000 ounces of gold or 77,500 ounces of silver?

We may solve this question in three different ways.

First: By the adoption of the gold standard—English system.

Second: By the adoption of the silver standard—Mexican system.

Third: By the adoption of the so-called "Double Standard," with or without restrictions—French system.

The system of the so-called Double Standard or Bi-metallism if generally practiced would have the advantage of enlarging the monetary supply because it admits of the use of both metals indifferently and consequently of rendering the oscillations in the real value of the money metals less violent. Let the existing quantity of gold be represented by 100 and suppose that gold is the standard. If, by reason of discovery, you add in a certain number of years ten to that quantity, the increase would be one-tenth. Now represent by 100 the quantity of silver and establish the so-called Double Standard. The sum of the money metals would be equal to 200. Consequently an addition of ten in gold would augment the stock by only one-twentieth and the depreciation would be less.

The advocates of bi-metallism believe that if the important countries should reach an understanding in the matter of a ratio between gold and silver somewhere near the existing market ratio (say 30 to 1), that understanding would suffice to fix approximately the relative value of the two metals and would thus provide, without any inconvenience, a larger monetary basis.¹

¹ The theory of compensation or substitution on which International Bimetallism is founded presumes that if one can pay his debts in either gold or silver, any fluctuation in the ratio of the metals is

Such a measure, even if the equilibrium were not maintained, would tend to sustain somewhat the metal overvalued by the ratio because their employment as money being the principal use of the precious metals, both would have an assured use at a fixed price. But it is never wise to try to substitute an artificial and conventional equilibrium for a natural equilibrium of value; nor is it possible to maintain it long.

Monometallism or the system of a single standard, either gold or silver, is preferable because more practicable, more logical, more conformable to the purpose of money, which is to be a fixed measure, if not as to value—that which is impossible—at least as to the substance. A man borrows 5,000 ounces of gold expressed by 95,000 dollars. Under this system he will pay back 5,000 ounces of gold. It is important that the contract should be clear: this one is perfectly so. These 5,000 ounces of gold, are they worth more or less? That is of minor importance. What the borrower has received he is paying back.

Amongst the metals upon which the state can confer the legal tender quality gold is in general preferable. It is, as has been truly said, *the money of rich nations*, and it is to-day sufficiently abundant to fulfill that office. It possesses to a greater degree than silver two conditions requisite for money: It has more value for a given volume, consequently is more easily carried; it is less liable to alteration and consequently less subject to wear. Finally, the adoption of the Gold Standard does not preclude immediately corrected by everyone seeking the lower metal in which to pay his debts. No one will pay his debts in the higher of two legal tenders. Under such an agreement, therefore, if silver should fall below the legal ratio the demand for silver would cause it to rise, and the neglect of gold would cause it to fall, thus at once restoring the parity.—*Translator.*

the use of silver as subsidiary money whilst the adoption of the Silver Standard renders inconvenient the use of gold, which then becomes a simple commodity.

80. *Subsidiary Money*.—The single standard does not necessarily preclude the use of other metals for money. The metal adopted for the standard serves for the manufacture of the chief money with which every debtor has the right to discharge his debts and which no creditor may refuse. But by the side of the chief money we must have subsidiary money, having a limited legal tender. It is not possible to strike gold pieces of very small value and we must accordingly use for this purpose silver, copper or nickel. In this case the state fixes by law the maximum amount beyond which no one will be compelled to receive this money in discharge of a debt. These pieces are called “subsidiary” coins.

We can give them a nominal value superior to their intrinsic value without violating the fundamental rule of money because these coins are only change. This is the practice which has always prevailed with respect to the base coins, nickel or copper. Owing to the decided fall in the value of silver since 1870 and the fact that silver coins have not been correspondingly increased in weight, the silver coins of all countries except those which have a Silver Standard, are likewise only subsidiary coins, *i. e.*, nominally worth much more than they are worth intrinsically. The moment the coins cease to be an equivalent and become simply representative money, it is of course necessary to limit the quantity which a creditor may be forced to accept.

81. *Monetary Systems*.—An examination of the weights and denominations of coins leads to a study of the monetary systems of different nations. Up to 1873 the

United States practiced free coinage of gold and silver at a fixed ratio. It began with "a ratio of 15 to 1 which undervalued gold and rapidly put the country on a silver basis. In 1834 it virtually went over to a gold basis for the reason that the ratio was changed to 16 to 1 and silver was under-valued. The value of silver was approximately fixed by the practice of the Latin countries in Europe and no one in America would take what at one period (in 1859) amounted to \$1.05 worth of silver to the mint to have it coined and receive in exchange \$1.00."

Since 1873, when the free coinage of silver at a fixed ratio was abandoned, the United States has practically been on a gold basis. The government has been ready in practice to redeem in gold all the various forms of money, National Bank notes, greenbacks, silver or silver certificates.

The monetary convention known as the Latin Union has played an important part in the history of money in Europe. It was formed December 23d, 1865, between France, Belgium, Switzerland and Italy, Greece acceding to the convention in 1867. "The object of the Union was the inter-circulation of the money of the several countries, a regulation which it was hoped, would quicken commerce," and the maintenance of the precious metals at a parity. The franc weighing five grammes of silver nine-tenths fine was fixed as the monetary unit of France by laws enacted in 1795 and 1803. The same laws provided that gold pieces be struck, of which the weight should be one of gold to fifteen and a half of silver. Silver money remained the principal instrument of exchanges in France up to 1849.

Heavy production of gold then depreciated that metal and caused silver to be exported so that gold became the

principal instrument of exchange. Finally, to prevent the exportation of the subsidiary silver coins, which are necessary for small payments, there were enacted two laws (1864 and 1866) confirmed by the International Convention of 1865, providing that the 2 franc and smaller silver pieces instead of being made 900-1,000 should be 835-1,000 fine, *i. e.*, that they should contain less silver whilst preserving the same appearance. These pieces having a real value less than their nominal value could not thenceforth be exported without loss. But the law decided at the same time that one could not be forced to accept more than 50 francs in this money. The 5 franc pieces retained their denomination and weight and consequently their full legal tender quality.

Continued depreciation of silver led the Latin Union to completely suspend the coinage of 5 franc pieces after 1878.

The copper pieces, of which the real value is only a fraction of the nominal value, have a legal tender quality up to 5 francs only.

82. *Value of the Precious Metals*—Ingots and money are but one and the same as merchandise. The difference between their values cannot for any length of time exceed the cost of coinage. In countries like the United States and England where the cost of coinage is borne by the state, a piece of money can be worth neither more nor less than an ingot of the same weight. In France there is a charge for coinage amounting to 6 fr. 70 per kilogram of gold. As the kilogram yields 155 pieces of 20 francs each, the value of the kilogram can never fall below 3,093 fr. 30. It is easy to understand why. If the value of the ingot tended to rise above the value of the coin, people would melt down coins into ingots; if on the other hand,

ingots tended to fall below the value of the coin, people would not be slow to take the ingot to the mint to have it coined.

We express the value of any commodity whatsoever by its price; it is worth ten dollars. If to-morrow we say it is worth eleven or nine dollars, we know definitely that the merchandise in question has risen or fallen in price. We do not know this in the case of the precious metal adopted as the money standard for the reason that the money and the metal have a value which is almost identical. We must reverse the case. If money is the measure of all commodities, all commodities taken together may measure money. To take all commodities is impracticable and we ordinarily content ourselves with a large number. If we took but one our conclusion would be of no value. Example: Wheat which was worth $59\frac{1}{2}$ cents a bushel in 1896 was worth $1.37\frac{1}{2}$ in 1898. Is this an instance of a rise in wheat or a fall in money?

But if the price of the majority of commodities has risen a tenth, it does not follow that their value has risen in this proportion because value being only a relation, a rise or fall of all values together is a contradiction. What we may legitimately conclude from such a phenomenon is that the value of the precious metal, *i. e.*, the relation of the commodity used as the money standard, has fallen a tenth. Accordingly we measure the value of the standard metal in an apparently opposite manner from that in which we measure the value of other commodities—the higher the price of commodities (*i. e.*, the more gold required to procure them) the less value has gold; reciprocally, the lower the price of commodities, the greater is the value of gold.

What is it that determines that value and what is it which causes it to vary? Supply and demand.

Supply first, which determines demand and which is itself determined by the existing quantity in circulation and limited by the cost of production of new supplies of the metal. If the quantity of the metal in circulation doubles (supposing that commercial activity remains stationary) the metal will lose half of its value. If the discovery of cheaper processes or richer mines makes it possible to produce gold at two-thirds of its market value, capital and miners will hurry to this profitable field and there will result an abundance of production which, after a certain time, will probably lower the value of gold. But commercial activity is not a fixed quantity: there are, according to the times, more or less wages to pay and more or less products to exchange. These products may pass through a greater or less number of hands and their movement may be more or less rapid. These are all elements which go to make up demand. Now it is evident that if demand had doubled whilst the supply had doubled, the value of the metal would be stationary; but if the demand had tripled whilst the supply had doubled, the metal would rise in value.

Variations of both kinds have manifested themselves.

In antiquity and during the Middle Ages the market was supplied only by European mines. The precious metals were much less abundant than in modern times but commerce was likewise restricted and as communication between countries was difficult, the level of the value of the precious metals remained very different in different countries.

It fell during the first century of the Roman Empire, which owned all the mines in the basin of the Mediter-

anean. It rose in the fourth century, especially during the period of the invasions because the fear of barbarians caused men to bury their treasures and arrested mining. It had a tendency to fall as a result of the Crusades because, although commerce took on new life, the renewal of mining in Spain, Germany and Hungary increased the supply.

It rose in the fifteenth century by reason of the greater activity in commerce conjoined with a stationary output from the mines, at which epoch Columbus discovered America.

The Spaniards found in Mexico and Peru mines whose wealth far surpassed anything known in antiquity or during the Middle Ages. There followed, and it was a cause of complaint at the time, "an excessive dearness of everything," *i. e.*, a marked and rapid depreciation of the precious metals. In Paris, a given measure of wheat which cost in the neighborhood of ten grammes of fine silver at the end of the fifteenth century brought eighty grammes in the first half of the seventeenth century. At the same time the ratio of gold to silver was modified. It had been about 1 to 12, but as the American mines were largely silver mines, it was not long before it became 1 to 15.

The difficulty of communication between distant markets in the Middle Ages made possible a considerable difference in the value of the precious metals in different places.

Toward 1848 the annual production of the precious metals was a little more than 40 million dollars, of which three-fourths was silver and one-fourth gold. The discoveries in California and Australia and the development of gold mining in the Ural and Siberia raised this produc-

tion to nearly 400 million dollars, of which five-sixths was gold. As a consequence the value of the precious metals fell sensibly for a number of years following 1848. It would have fallen more but for the concurrent development of commerce which was stimulated by various causes.

As the new mines produced principally gold, it was gold whose value fell first. Nevertheless since 1870, certain countries, such as Germany, and practically France also, having adopted the gold standard, and the silver mines in the United States having become more productive, silver in its turn became abundant and its value fell far below the proportion of $15\frac{1}{2}$ of silver to 1 of gold (in 1898 it was 32 to 1). This history of the precious metals illustrates that: First, the variations of value between the two metals has been continual, the ratio of silver to gold in the civilized world having oscillated between 10 to 1 and 32 to 1.

2nd. Variations of price, *i. e.*, the value of money, have likewise been continual and have been much more considerable than the variation in the ratio of the metals. At the end of the fifteenth century a kilogram of silver brought from eight to ten times as much wheat as it will to-day.

3rd. The variations of price have been most frequently in the direction of a fall of the precious metals.

4th. For a short period (and most exchanges of commerce are completed in a short period) money is the most exact measure of value.

5th. A day's labor or the price of wheat have at times been taken as a comparative measure of value: they are not just measures. The only way to compare the commercial value of money, *i. e.*, its purchasing power in two

given epochs or regions of the world is to ascertain in each the price in gold of a great number of different articles and to establish the relation of the two series of prices.

Résumé

Money is above all things the instrument of exchange. It is a merchandise, which, following the common law of exchange, is sold or bought for what it is worth, but which being clothed with a legal quality serves as the general instrument of exchange, as a measure and medium, and as the common denominator in the comparison of values.

The precious metals have qualities which fit them for use as money: great value in small volume, homogeneity and divisibility, unalterability, density, relative stability of value.

The monetary system may be founded on either the so-called "double" or the "single" standard—the double standard furnishes a larger monetary basis. It lessens the violence of fluctuations in the value of money but renders these fluctuations more frequent and tends on the whole to depreciate money. The single standard is a more logical system because it furnishes a measure which is fixed—if not as to value at least as to substance. The gold standard is suitable for rich nations.

Subsidiary money may have a nominal value greater than its real value provided its legal tender quality is limited.

Ingots and money are one and the same commodity: there can exist between them no greater difference than the cost of coinage.

The higher the price of commodities, the lower the

value of the precious metals; the lower the price of commodities, the higher the precious metals.

History shows that the real value of gold and silver has been subject to continual change; that there has been even a greater and no less continual variation in the price of commodities; that the changes have been most frequently in the direction of a fall in the value of the precious metals; that, for a short period, money is the most exact measure of value but that, for a long period, it becomes an inadequate measure.

III

CREDIT

83. Nature of Credit. 84. Influence of Credit. 85. Principal Kinds of Credit. 86. Commercial Paper. 87. The Rôle of Banks. 88. The Mechanism of Banks. 89. Bank Notes. 90. Deposits, Discounts and Circulation. 91. Paper Money. 92. Manner of Issuing Bank Notes. 93. American and Leading European Banking Systems.

83. *The Nature of Credit.*—Although money is the sole common denominator it is not the sole instrument of exchange. It has a powerful ally in *credit*. We have already stated in a general manner that credit consists in the exchange of a *real thing against a future probability, i. e.*, of actually existing wealth in the form of money, merchandise or any value whatsoever against the repayment, at a future day and provided the debtor be solvent, of the capital loaned and of interest on the loan. Let us examine the nature of this instrument, credit, taking a simple case. The discoverer of a gold mine needs machinery with which to equip the mine. He goes to a manufacturer who agrees to supply him with the machinery on the understanding that he is to pay for it in six months. We have here a contract which is advantageous to both because it per-

mits the miner to operate his mine and the machinist to manufacture machines which would not otherwise have been produced. The operation is called "giving credit" and "buying on credit": our ordinary language is here quite in accord with the language of science.

What has here taken place? The machinist has displayed confidence in the honesty and solvency of the purchaser: he will deliver a commodity to him without exacting immediate payment therefor, *i. e.*, he advances the value of the commodity. The commodity which the miner would not have been able to buy immediately or perhaps ever, has entered at once into *circulation*.

If the machinist had regarded the miner as not sufficiently honest or solvent to pay for the machinery, if he had not himself seen some advantage in selling the machinery promptly, he would not have acted thus; confidence and circulation are then important factors in credit. Nevertheless, credit considered in itself is a kind of *loan*, *a faculty of consuming or utilizing a certain value belonging to another without giving immediate value therefor*. If he had given immediate value, the exchange would have been complete: the act of credit is exchange uncompleted. It is in this very uncertainty of one of the two factors of this relationship that credit differs essentially from ordinary exchange. In ordinary exchange, where product is surrendered against product, the operation is at once complete. In the case of credit, the exchange remains suspended until the debtor has discharged the debt. Accordingly the debtor has, for a certain time, the use of a product for which he has given no equivalent; it is certain that he has received something, whilst it is only probable that he will surrender anything. Thence the equity of interest, which he pays the creditor as compensa-

tion for the use of the commodity. The rate of interest is proportionately higher according as the risk is greater, *i. e.*, according as the character and resources of the borrower render more or less certain the future payment of the debt. All other forms of credit are but more or less complicated variations of this phenomenon. In all credit operations there is then on the one hand the seller, who is the lender or creditor, and on the other the buyer, who is the borrower or debtor; between these two is the commodity which the former advances to the latter because of his confidence in him.

At the bottom of every act of credit there is an advance, and it is this very advance which constitutes the phenomenon of credit: advance upon an implied promise to pay, such as in the ordinary relations of a tailor with his customers, or an advance on an explicit or written promise. When the workman receives the price of his labor at the end of the week, when the landlord collects a month's rent from his tenant, is there not still involved this element of an advance of services and an act of credit? In short, as all products and labor are but services, we may say in a general manner: *credit is an advance of services.*

We employ the word credit in a somewhat different sense, when we speak of "public credit" or of a man as "having credit." Here we no longer wish to designate the actual advance of services but only the faculty which the state or the individual possesses of procuring this advance of services.

In order that there should be an advance of services, there must needs be created products, real wealth, *i. e.*, a saving which has become capital; one cannot lend nothing. If the tailor has no stock he cannot give a credit. The same is true of any other merchant or of a banker or

of a laborer; if he did not possess, the one his merchandise, the other his money, and the third his labor, all of them in short some real and exchangeable value, it would be just as impossible for them to sell on credit as for cash. This is a very simple observation but it leads to a most important truth, a truth which is often ignored; that is, that *credit must always be based upon a real value*; and, as a logical consequence of this, to another important truth: *credit is in itself simply a change of ownership and not a creation of capital.*

The quantity of valuable things which anyone possesses, either in the capacity of a proprietor or as a borrower, is accordingly the limit of the credit which he is able to accord at a given moment. Moreover, one extends a credit only to those who have a moral standing sufficient to inspire confidence or who themselves have sufficient property to serve as a guarantee for repayment of the debt. It is for these reasons that there is so little credit in a poor nation; in such a nation there are few capable of extending a credit and few who are regarded as worthy of credit. On the other hand, in a rich nation, credit is more common and becomes one of the great factors in economic activity. But no matter how rich the nation, the credit given can never be greater than the sum of the nation's wealth—unless foreign nations step in—and it can never grow except in consequence of a proportional growth of production, for the simple reason that wealth must be created in order that it may change ownership and be loaned.

84. *The Influence of Credit on Wealth.*—None the less, credit exercises a very great influence on the creation of wealth and consequently on the formation of capital. Take a blacksmith who is active, intelligent and in-

dustrious, but who for lack of money, has long remained a day laborer, earning with difficulty sufficient for his daily maintenance. A capitalist lends him \$1,000 with which he is able to rent a small shop, construct a forge, buy tools, fuel and raw material and set up for himself. Out of the 1,000 dollars only 600 dollars have been spent in installing himself, the remaining 400 dollars having been laid out on raw material, which under his hammer is changed into various objects and increases in value threefold. The sale of these objects brings ready money with which he buys additional raw material and after a certain time he is able to pay back the 1,000 dollars which he has borrowed and has remaining to him his shop and a small working capital. It is the original loan of 1,000 dollars which has wrought this change, raising a man from an inferior position and enriching society by the value of his product; such is the power of credit.

Land has been allowed to lie waste in the hands of an incapable or thriftless owner. Some one purchases it through the aid of borrowed capital and in a few years makes it yield sufficient to pay off the debt. Society is enriched through the successful management of the farm and this result was made possible by credit.

Examples of this kind are innumerable. Question the manufacturer and the merchant you meet. Most of them will tell you that at the beginning of their career they had recourse to loans and that it was credit which enabled them to make their first ventures.

Without credit hardly anyone would be capable of practicing an industry or conducting a mercantile business except those who had inherited the means and the small majority, who, as wage earners, had accumulated a capital which would enable them to set up for themselves. What

intelligence and what diverse and precious faculties would remain unproductive and how much poorer would society be as a whole without the beneficent influence of credit, *i. e.*, without the change of ownership of capital which goes to associate itself with labor.

Moreover, it is not only in the initial stages of industrial activity, but in all stages and branches of it, that credit exercises its salutary influence.

A tradesman, already well-to-do, has a capital of 20,000 dollars invested in merchandise.

Suppose there be no such institution as credit. The tradesman is able to procure new goods only as he sells the old, and since all sales are for cash only, many would-be customers are themselves obliged to suspend their purchases five or six months until the things they have produced are sold and paid for and they themselves have ready money. It may be a year before the tradesman's sales amount to 20,000 dollars, and before new merchandise, purchased in proportion to his sales, replaces entirely the old stock. He runs the risk of having his goods deteriorate through age. If he bases his transactions upon a profit of 15% his total gains are but 3,000 dollars.

Now suppose credit does exist. The same tradesman finds immediate customers to whom he surrenders his goods under the simple promise to pay in three months. By himself engaging to pay for goods in three months he renews his stock without exhausting his cash. In fact, his payments are made with the money his customers pay him at maturity of their credit. Accordingly in three months he sells as much as without the institution of credit it would have been possible for him to sell in a year. His turnover is 20,000 dollars every three months and his stock is not so apt to lose in value through change

of fashion or deterioration. With benefit to his customers he contents himself with a profit of 10% on each article instead of 15%, and his annual profits are 8,000 dollars instead of 3,000 dollars.

Applied to all engaged in production and commerce who in some such manner give and receive credit, the system stimulates production and increases considerably the effectiveness of economic activity. Accordingly it should be fostered not only for the well-being of those who may for the moment be without resources, but in order to give added efficiency to those who have already acquired property.

Admit, in summing up this analysis, that credit strictly speaking creates nothing, that it is a simple displacement of capital; nevertheless in transporting capital to a place where it can be employed most profitably, in furnishing tools to labor, in rendering active that which was inactive, and fertilizing that which was sterile, this simple displacement introduces a profound modification into the economy of society; it renders production more active and increases wealth.

We must never lose sight of either of these two aspects of the question. In viewing it as a whole, one is forced to conclude that *credit*, which is determined by confidence, is an advance of services, *made either in the form of actual labor or of products previously created, that it makes circulation more rapid and consequently increases wealth.*

85. *The Principal Kinds of Credit.*—Credit appears quite as often in the form of an advance of labor as in the form of an advance of merchandise. In fact, all the goods which are surrendered on credit by the merchant have been produced on credit by the workman who has been paid neither each hour nor each day for his services.

Take the accounts some Friday evening in the whole field of production in the United States. The five and a third million men, women and children which the manufacturing industry employs have made to their employers an advance of five days of labor, let us say, at \$1.40 per day, more than 37 million dollars. Add to this the earnings of clerks, agricultural laborers, employees of transportation companies, and domestic servants, and we arrive at a vast sum. Nevertheless, as it does not appear ordinarily in the form of a written contract it passes almost unnoticed.

When we speak of credit we generally mean an advance of merchandise or things; furthermore, as merchandise is valued in terms of money, it is generally in money or specie that the contract is closed and payment made for the service advanced. The transaction, thus far in a condition of suspense or imperfection, is completed by the delivery of the specie or its equivalent which the debtor has promised.

Accordingly credits are distinguished less by the character of the merchandise furnished than by the character of the guarantees given by the borrower. They may be separated into four classes:

1. Simple or direct credit is the primitive form of advances which men make to each other. The savage who has been more fortunate in the chase than his companion lends him some of his game for food, a loan which the latter engages to return on the next hunt. The farmer who fails to use all his corn lends some of it to a poor neighbor to plant, the latter promising to return its value with interest at harvest time. Nothing could be simpler than such a contract. It is a form of credit still found in common daily practice. The advance of services which

the workman makes to his employer, the merchandise which the butcher and baker and grocer furnish their customers on credit, the clothes which the tailor and dress-maker deliver without exacting payment in cash, are all forms of direct loans. No written contract binds the two parties; the books of the vendor are often the sole evidence of the credit; it is based exclusively on confidence. Such a credit must be classed as *personal credit*, because its basis is the opinion which we entertain of a person who borrows, much more than the value of the things which he is able to offer as guarantee.

Merchandise thus surrendered is often consumed without producing directly any new merchandise which would serve for payment. When coal is sold to a dealer or manufacturer, the vendor has reason to suppose that the value of the coal will be found eventually in the cash box of his customer who has either resold it or consumed it in manufacturing articles which have a market value. But when it is sold to an individual for use in his private kitchen the vendor may well ask what is to become of his merchandise, particularly if he is not to expect payment until the end of several months, when the coal will have been consumed. Here there is no other guarantee than the honesty and resources of the buyer: the credit is purely personal. Despite the risks connected with it, credit offers so many conveniences that it is constantly practiced and it would be impossible to abolish it in a civilized community. How could we get along if we were compelled to have our purse constantly at hand, to pay each service the moment it is rendered, to settle hour by hour and minute by minute the wages of workmen and servants?

Nevertheless, there are certain practices in connection with this form of simple credit which forces us to conclude

that it is not without its dangers. "Little credits ruin little people," says the proverb, and it is true. The poor are tempted to procure the pleasures which their means do not afford. When credit is offered them it is generally accepted without a thought of the morrow. But to-morrow comes and the bill must be paid. If not, one falls into debt; and when the possibility of procuring enjoyments without paying for them has presented itself, it is difficult to discharge a debt without contracting another, and the victim is caught in the fatal mesh. Some dealers or money lenders speculate on this weakness. In certain countries in America such credits have the effect of subjecting the workman to a kind of bondage. For the man of small means cash payments are the surest method of accommodating outlay to income. Although it subjects one for the moment to inconveniences, it will avoid, in the long run, more serious inconveniences and perhaps even privation.

2. The chattel loan is the second kind of credit. This differs radically from the preceding. In the former case the credit was personal, in the latter it is real, *i. e.*, it has for security a thing, a real value. A merchant has fifty pieces of cloth. Owing to circumstances which he failed to foresee, the cloth does not sell and he needs money to pay his rent. He goes to a capitalist who agrees to lend him 200 dollars on condition that he place with him as a pledge twenty pieces of cloth, worth perhaps double the loan, to be surrendered on payment of the debt. This is a chattel loan. That which distinguishes it from the credit previously discussed is that the lender holds in his own hands as security a value at least equal to that with which he has parted. This form of loan appears not to expose the lender to any risk; but it is far from stimulating

commerce as much as simple credit for the reason that it puts in circulation the sum borrowed only by locking up the merchandise given as security.

It is accordingly an imperfect form of credit. It is born of mistrust and one frequently finds it used in uncertain times and under conditions where confidence is lacking. The Jews, whose commercial transactions were hindered rather than protected by the laws of the Middle Ages, made chattel loans almost exclusively. Usurers often make chattel loans. To-day still, during industrial crises, chattel loans increase. On the other hand, when commerce prospers and confidence reigns, merchants find it easy to sell their wares and seldom think of depositing them to obtain a loan smaller than the selling price of the goods.

There are, however, certain forms of loans on pledge which are not open to the above objections; such are advances on warrants. Warrants are certificates of deposit for merchandise in depots or public warehouses. This merchandise cannot be withdrawn except on presentation of the certificates which may circulate by endorsement from one owner to another. The owner may not only sell on the warrant, but may borrow on it by depositing it with the lender. This surrender of the warrant constitutes a veritable pledge, but a form of pledge which does not prevent the owner from showing his merchandise and offering it to his customers.

Chattel loans are still much used and the system has its uses, particularly for the poor.

3. The mortgage is another form of loan on pledge. It belongs to this same class of real credits. But it differs from the foregoing; first, in that the pledge is not merchandise, nor an article, but real estate, land or houses or

fixtures; second, in that the pledge instead of being withdrawn from use in the hands of the lender remains in possession of the borrower and may be made productive. The reason for this discrimination is plain. When the pledge is an article which can be transported, the borrower might sell or destroy it if left in his possession. With real property this is impossible: the lender in the latter instance is always sure of finding the property which has been pledged. Some countries, such as France, have banking institutions organized for the purpose of lending upon real property. These institutions make loans in the form of negotiable obligations which they pay out to borrowers; they are reimbursed by annual payments which the borrower agrees to make, and which include provision for interest and generally discharge of the principal.

The advantages of the mortgage loan over the chattel loan are manifest. The latter, by locking up merchandise, renders it in a measure sterile; the former promotes the circulation of wealth by furnishing needed capital to the borrower without taking the land out of cultivation, since the owner continues to occupy it or may even sell it subject to the mortgage which then becomes a debt of the new owner.

4. The direct loan is a personal credit; the chattel loan and the mortgage loan are material credits. Commercial credits partake of the nature of both and are superior to all other forms of credit. Commercial credit is the result of a business transaction, sale of goods or advance of capital, made by one business man to another; consequently not with a view to its unproductive consumption, but with a view to the resale of the goods, or its consumption in some productive industry, like the coal we instanced above.

This form of credit offers more security to the lender than simple credit, since it reposes upon a value which ought to become productive in the hands of the borrower. It procures for the borrower more advantages than the chattel loan, since it does not tie up a portion of his possessions. The terms of repayment are not so easy as in the case of mortgage loans. If payment is not made at maturity, the creditor is authorized to seize the goods of the debtor, who knows the prompt rigor of the law and is loath to run this risk. Hence promptness on the part of one and confidence on the part of the other. It is in this form especially that credit becomes an *instrument of exchange* and vies with money in promoting the circulation of wealth.

5. A person may be capable of employing borrowed capital profitably and fail, nevertheless, to inspire sufficient confidence to procure it; as for example in the case of an artisan who needs tools, a seamstress who wants a sewing machine, a shopman pressed for his rent, a small manufacturer who lacks means to procure sufficient raw material for his business. This difficulty is sometimes overcome by such persons joining a society in which all the members hold themselves collectively responsible for loans made through the society to any of its members. Wise combinations may thus supply confidence which would not be extended to the individual, and succeed in procuring for him a commercial credit.

6. Public credit proceeds from the confidence which private capital reposes in the state. That confidence has, as its foundation, wealth and solvency just as in the case of an individual. It displays itself in the ease with which governments and public administrative bodies borrow, and

in the quotations for the various certificates of debt they issue.

With public credit may be classed the credit of great corporations, such as railways, which issue stocks and bonds.

Public and private credit give rise to a quantity of stocks and bonds which are sold and bought like merchandise.

86. *Commercial Paper*.—Commercial credit takes several forms :

1. A cotton manufacturer sells 200 dollars worth of cloth to a merchant who is not prepared to pay cash, and who accordingly gives a simple note couched somewhat as follows :

“Sixty days after date I promise to pay John Smith the sum of 200 dollars, for value received.”

This is the first form of commercial credit. It has one inconvenience which causes it to be but little used, *viz.* : It ties up one of the two terms of the transaction. The cloth is resold and sold again ; but the promise to pay cannot circulate because it is payable only to John Smith, and the creditor must carry the note until it matures.

2. “Sixty days after date I promise to pay to bearer the sum of 200 dollars, for value received.”

This second form is the note payable to bearer, the use of which is likewise restricted because of certain other inconveniences. It may circulate, but if lost or stolen the possessor may collect the sum at maturity as if he were the legitimate owner. The seller has accepted the note because he has confidence in his customer, but a third person to whom he desires to pass it may not know the maker of the note ; a fourth and fifth person is still less apt to know him and will refuse it if offered in payment of a debt. Ac-

cordingly, though such a note pass from the hands of its first recipient it will not circulate far.

3. It is necessary to find a form of note which may circulate and at the same time inspire confidence in those to whom it is offered in payment of a debt. This is accomplished by the following :

“Sixty days after date I promise to pay to the order of John Smith the sum of 200 dollars, for value received.”

The addition of the words “to the order of” solves the problem. When the recipient John Smith desires to pass the note in payment of his own debts he endorses it to the order of the new payee. Here there is no danger of the note going astray because it is now payable only to the last person to whom it has been endorsed. Nor is there much danger of its being dishonored, because each endorser is made responsible for the payment of the note under the law in the order of his endorsement. And the law is quite just, for we must not lose sight of the fact that the paper is not a payment, but a promise to pay. If the promise is not fulfilled those who have passed the note to their creditors are none the less obligated to discharge the debt. It follows that no matter who the maker of the note may be, recipients, as the note circulates, need concern themselves only with the last endorser with whom they, as a rule, have transactions and whom they know.

In the case of the note made payable to bearer the further it circulates from the place of its origin the less confidence it inspires; whilst with a note payable to the order of specific persons, the more it circulates, *i. e.*, the more endorsements it receives, the more secure it becomes. This third form of commercial credit which permits both terms of the transaction to circulate before the transaction is really completed by a definite payment clearly attains the

ends which all credit proposes, and for this reason it is the most commonly used.

4. There is still another form of credit much used in commerce, especially in foreign commerce. As a rule a debtor is never in a hurry to pay his debts nor to substitute for simple credit the commercial credit, or note, to which he affixes his signature, and by which he exposes his goods to the danger of seizure if the note is not honored at maturity. Moreover it often happens that seller and buyer do not live in the same place. The note under such conditions is not the most convenient form of credit. If the seller has need of money he may draw a bill on his customer as follows :

“Sixty days after sight please pay to the order of John Jones the sum of 200 dollars, for value received.” Signed and dated, and at the bottom the words “To John Smith, New Orleans.”

This fourth form is termed a draft or bill of exchange. The draft is the reverse of the note. In the latter it is the debtor who promises to pay ; in the former it is the creditor who orders him to pay.

It is always wise and often indispensable to notify the debtor that one is about to draw upon him, and furthermore to present the draft to him for acceptance, which is a formal acknowledgment of the draft. Failing such acceptance, the drawee is not bound to anything and may refuse to pay the draft when presented at maturity.

Even before it has circulated, the bill of exchange which has been accepted has already considerable security. The bearer of the bill, which carries two signatures, that of the drawer and drawee who has accepted it, can look to both for payment. If he himself negotiates it, it is strengthened by a third signature, etc.

87. *The Rôle of the Banks.*—We know that credit is not gratuitous: every service must be compensated.

When a merchant extends credit the advantage to him resides in the sale of merchandise it enables him to effect; better accept a good note at sixty or ninety days with which new stock may be purchased than keep merchandise sixty or ninety days longer in the hope of making a cash sale. Ordinarily when the purchaser does pay cash he is allowed a small discount, or diminution of the bill: to accept his note is but another manner of granting a diminution of the price. The desire to make sales is the reason why credits are granted, and it is natural that some payment should be made for the satisfaction of such desire.

If the same merchant should wish to give his note, not in exchange for merchandise, but for the exact sum of money for which the note calls, he could not do so, because in ordinary times no one wants to exchange a real value for a promise to pay; *i. e.*, to exchange more for less.

To cash a note or draft is to lend money until the note or draft matures, and such loan, like every other, should yield interest. This interest, which is no less just in this case than in others, takes the name of *discount*.

John Jones, to whom the draft for 200 dollars on John Smith has been sent, has need of money to pay his employees. According to the terms of the draft he must wait sixty days before he can demand the money of John Smith. He accordingly proceeds to find some one who has money; he endorses the draft to such person and receives from him the sum of 200 dollars less the interest on that amount for sixty days, say 198 dollars, the rate of interest being 6%.

This is the transaction known as discounting paper. But the merchant and manufacturer can, as a rule, make

their money yield them a greater return than 6% and are little disposed to discount paper for others. This fact gives rise to the need of establishments which make a business of discounting commercial paper.

Again, a manufacturer in Boston has a payment to make in New Orleans. As it is costly and difficult to send actual money, which might be lost or stolen in transit, he seeks at home an institution which will give him in exchange for his money a bill of exchange payable at New Orleans, the very bill perhaps which John Jones has just had discounted, *i. e.*, taken cash for.

There are persons who in one form or another desire to borrow money. Others desire to lend it, but do not know any borrowers, or are not ready to trust such as come to them. The needs of both parties call for a common institution which shall put them in touch with each other.

These institutions are the banks, which in a manner are centers of credit. They receive and amass the capital of such persons as desire to lend money, and disperse it to persons who desire to borrow it. The bank, which is an indispensable instrument of credit, may be called a reservoir of capital, which flows to and from it. As the merchant trades in wares, so the banker trades in capital and credit. Such as have money to lend bring it to him and he buys the use of it by paying them interest; it is after all credit which he buys, since these deposits which his clients make are but advances of merchandise.

Such as need money come to him to buy it, in the form of a direct loan, a loan on security, a discount, or sale of commercial paper. It is credit which he sells when he advances a value which will be reimbursed but slowly, and

like every business man he aims to sell his wares (*i. e.*, his capital or credit) higher than he buys it.

It is accordingly easy to grasp the importance of the rôle which the bank plays in the circulation of capital.

88. *The Mechanism of Banks.*—When a bank is founded it possesses a certain capital. But no matter what this be, it constitutes ordinarily but a fraction of the total operations of the bank. One portion of the capital, that invested in the expense of establishing the institution, becomes fixed. Another portion may be invested in stocks or bonds or real estate in order to give a certain stability to the bank. Only the remainder of the capital is therefore in a form to be employed directly in the operations of commerce; but the profits from this may increase each year.

1. Many people, as we have said, carry to the bank the money for which they have no immediate need; individuals to-day are not disposed to leave their money idle in their cash drawers. The bank thus collects the savings of the capitalist and the workman, money not needed by the business man, and funds which, finding no immediate employment, seek a place of deposit which is safe, and from which they may be easily withdrawn. It attracts and retains this capital, generally paying interest upon it. Thus it is that it buys the use of capital, otherwise called the instrument of credit. Capital thus loaned is called *deposits*. The depositor, according to usage, may withdraw the deposit at sight, or by giving a certain notice; he may withdraw all or part of it, directly in person, or by giving those to whom he owes money, checks or orders on the banks.

In thus making small as well as large savings productive, the bank stimulates saving, which is the mother of

capital and of wealth, and renders thereby a double service, a service in connection with the capital it utilizes and in connection with the capital of which it stimulates the formation.

2. Banks receive capital otherwise than by borrowing and by time deposits. A business man is required to receive and pay out moneys every day. To rid himself of the trouble of handling cash he may send his money to the bank. Henceforth it is the bank that receives and pays out for him; he need only issue his orders. In this case it limits itself nearly always to the rôle of cashier; *i. e.*, it pays out only so much as it has on hand belonging to the depositor, a fact which is expressed by stating that the balance must always be in favor of the depositor. Here it manifestly makes no advances to the merchant; on the contrary, it is the merchant who extends a credit to the bank by sending to it in advance sums which he will check out later. Of course he does this only because he finds it advantageous, though some banks now allow interest on daily balances.

In many large cities there exists what is known as the Clearing House, an institution through which the local banks regulate their debts to each other by a simple exchange of checks and paper.

3. Business men send not only cash and checks to the bank for deposit, but use the bank likewise for the collection of commercial paper. For this service the bank charges a small commission, the sum realized on the note or draft being credited to the depositor's account. Until such collection is made the bank is the mere agent.

Thus far we have examined but two aspects of the bank, that in which it figures as a buyer of credit, and that in which it figures as agent for the collection of notes and

drafts when it does not endorse these latter and put them in circulation. Let us see what it does with the credit it buys and how it launches it again upon the sea of commerce.

4. Not all business men have a bank account, and such as have are not always disposed to keep the commercial paper that comes to them until maturity. They may need money. To procure it they take such paper to a bank for discount. The bank by virtue of its cash reserve can give them cash, retaining, as we have said, an amount equivalent to the interest on the sum to maturity as its profit.

In general the bank accepts bills of exchange and notes of which the payment is not too distant and which are guaranteed by at least two signatures, two signatures giving to the bank recourse to two persons for payment. A single signature which can be no other than that of the person demanding the credit, would change the discount into a direct loan.

The paper discounted by the bank constitutes its *discounts*. The bank is the owner of them because it has bought them with cash; it collects them at maturity for its own account and in this way replenishes the void in its reserve which has been caused by discounting the paper. There remains to it, moreover, as profit the discount, or at least the difference between the rate of discount and the interest it may be paying depositors. This is one of the most important operations of the bank, that by which it ordinarily extends its credits to commerce.

5. A bank does not necessarily itself collect at maturity the paper it discounts; nor even that which it is charged with collecting. We know how drafts are preferred to cash for making distant payments. The banks

supply these drafts. They always have for sale a supply of notes or drafts at the current rate of exchange, in this case acting simply as intermediaries of exchange. Should they be without such supply they can provide them by themselves drawing a bill of exchange on their correspondents. It is seldom that an important bank cannot provide a remittance upon any center of commerce whatsoever.

Bills which they supply carry the bank's endorsement and by that fact alone acquire great security. Thanks to this security, the banks may put in circulation a portion of the bills they have discounted. And paper, thus strengthened by their endorsement, is accepted about as readily as money itself. This function of the bank has been compared to insurance. In fact the bank, by lending its own credit in this manner, does guarantee the paper and insure successive endorsers and possessors of it against loss.

7. Discounting paper constitutes one of the best operations for the bank since credits of this nature are generally good, are short and frequently renewed.

The same may be said of dealings in exchange which consists in giving out bills in exchange for money or money for bills from one country to another.

8. But a bank may not always succeed in using all its money in discounts and exchange. It strives to prevent its funds lying idle, and accordingly resorts to operations of various kinds, such as advances to commerce in the form of direct loans or loans on security, or extending a credit by opening an account. It may make long term loans under limited liability, underwrite the securities of a new enterprise, or lend money on mortgage.

The development of stock companies of all kinds, industrial and quasi-public enterprises, as well as municipal and government debts has given a special stimulus to un-

derwriting, which consists in agreeing to provide the money for a new enterprise or public loan and take over the securities with a view to their being sold later on. This is done in America by private bankers, and by a special class of banks known as trust companies (financial).

Such operations are not free from risk. However secure the mortgage loans or other long term loans, they present the inconvenience of tying up capital, of curtailing therefore the number of operations and of exposing the bank to the danger of being unable to respond promptly to unusual demands which a financial disturbance may lead its depositors to make upon it.

Investment in stocks and speculations for a rise or fall of values is still more dangerous for banks. However advantageous discounts may be, they also may involve loss. Persons may give a note without having assets which would justify it; and by getting a new discount at maturity of the old, in reality pay the bank with its own credit. Once launched in such transactions, a bank, which may feel forced to renew loans in order to avoid losing the money already advanced, may end by finding a large part of its discounts fictitious; this is the direct road to bankruptcy. The art of the banker consists in avoiding such consequences and in regulating his discounts and loans so as to conform to the volume and continuance of his deposits.

89. *Bank Bills.*—For the completion of the mechanism of banks there remains but one device, namely, bank bills, the emission of which, regulated by law in most countries, characterizes what we term *banks of issue*.

When a note is presented for discount at the ordinary bank, the latter pays out specie or currency which circu-

lates in the country in question, and which it has itself previously received as cash. On the other hand, when such note is presented for discount at a bank of issue, the latter pays out its own bank bills, *i. e.*, fiduciary money which the bank itself has issued. It does not exchange a real value for a promise, but gives for the promise simply a different promise. One can no longer say exactly that it makes an advance of capital to him who presents the note. It simply lends him its credit, which it substitutes, as it were, for his, since it gives him the means of procuring credit immediately, not in his own private name, but in the name of the bank.

There is a great difference between commercial paper and a bank-note; the public knows this difference very well.

The former is payable only at maturity, more or less distant; it can be circulated only by endorsement. It is signed by a person of whom most of the people to whom one would offer it have never heard, and though the present bearer knows the last endorser, whose guarantee perhaps satisfies him, he can only force payment from him by formally protesting the note. Accordingly commercial paper cannot circulate as freely as money.

It is quite otherwise with banknotes. They are payable at sight and to bearer. One may therefore present them at any moment for payment and the bank is obliged to redeem them immediately in lawful money. They pass freely without signature or endorsement. Whosoever possesses them has the right to present them for payment. The very facility of circulation that renders commercial paper which is payable to bearer impracticable, makes the fortune of banknotes made payable to bearer. The former are refused because after they shall have passed through

the hands of two or three persons, there is complete ignorance of the financial standing or responsibility of the person who signed them. But everybody knows the bank and reposes confidence in it; its single signature is worth more than the signatures of twenty private endorsers. Its bills are accepted as freely as money. Again, he who has paid his debt with a piece of commercial paper which he has endorsed may be called upon to pay the note if protested, and this liability continues until the note matures. He who has paid his debt with banknotes is free. Banknotes, like other paper money, may be counted rapidly, and carried and transported easily in large sums. These advantages often cause them to be preferred to specie.

In principle the banknote does not differ from commercial paper. In practice, it performs the function of money, and often displaces metallic money. It may or may not have the quality of legal tender. In the latter case everybody is free to accept or reject it when tendered. But when the law authorizes the debtor to make his payments in it, as is the case with notes of the national banks in the United States, it becomes true fiduciary money.

The public benefits by the use of banknotes because of their convenience; the bank benefits because to the ordinary profits of discounts it adds the advantage of paying out money which practically costs it nothing. Nevertheless, despite the useful place it occupies in circulation, we must not forget that the banknote is, after all, only a promise to pay.

90. *Reserve, Discounts and Circulation.*—May a bank of issue safely regard its power of issuing notes as an inexhaustible fund and open its window to discounts without limit? Certainly not. It ought not, and, in fact, cannot. Like other banks, though in a different manner, its

operations must depend upon its metallic reserve. To simplify the matter, let us suppose an institution to have no deposits and to issue no notes, but to confine itself simply to discounts. If it starts with twelve million dollars in specie, and if the average maturity of the notes which are offered for discount are sixty days, it cannot discount more than two hundred thousand per day, as this would exactly exhaust twelve million in sixty days. Now add to this single office the function of issuing banknotes. The bank may now expand its discounts, but here, too, there is a limit. Suppose experience has shown it that it cannot issue, say thirty-six million, without having a third of the issue presented for redemption, *i. e.*, that it cannot keep in circulation more than twenty-four million. Add the twelve million specie with which it started and we have a total of thirty-six million available for discounts, or a limit of six hundred thousand per day for sixty days.

An ordinary bank may cease discounting when it perceives that its reserve is exhausted; a bank of issue which ceased to discount only at such a signal would be bankrupt, because it could not redeem its notes.

The *circulation* of the bank is the amount of banknotes it has out, its reserve is the specie in money and ingots it has in its vaults, its *discounts* the sum of the paper discounted by it. It would seem that a fixed relation existed between these three terms, because banknotes go out only when commercial paper enters, and because the reserve is enlarged principally by the payment of this paper at maturity, and diminishes by the re-entrance of the banknotes into circulation. This is, however, not the case.

1. First supposition: the bank discounts two hundred thousand of paper per day, all at thirty days. It has thus continually in its portfolio six million. Is that a rea-

son why the circulation of the bank's notes should remain fixed at a like figure? No. The first six million paper was discounted with the banknotes, but when the bank collected this sum at maturity of the discounts, the debtors may have made their payments largely in specie, and of the six million banknotes issued perhaps but one million have in this way come back to the bank. At the end of another thirty days the bank has given six million more notes in exchange for discounts. If payment of these discounts at maturity should bring back again but one million notes, the bank would have in circulation ten million. A month later, under the same conditions, the circulation will have increased to fifteen million, which, together with the six million addition given out in discounting paper for the current month, will make twenty-one million. In this case it has not been the discounts, but principally the reserve, which has responded to the circulation. In reality, if at each of the three periods of maturity there has come back only one million notes, it is because the remaining fifteen million paid into the bank has been in specie, which, with the six million commercial paper held in the form of discounts, represents the total value of twenty-one million notes in circulation.

2. The *movement* may be an opposite one. Take the bank at the moment when its circulation is twenty-one million, its discounts six and its specie reserve fifteen. Suppose now that at maturity of the discounts all payments are made in banknotes; the circulation is reduced by six million. The bank, it is true, reissues this six million in exchange for discounts the following month, but as soon as each client whose paper is discounted has received the banknotes he passes to another window and changes them for specie; you have here a reduction of six million

in the circulation and in the cash reserve. At maturity all receipts are again in banknotes, which once more the bank tries in vain to put back into circulation by paying them out in exchange for discounts the following month. But it pays out only six million banknotes and receives twelve. Every note which it discounts and later collects causes double the amount of banknotes to come back into the bank; the specie reserve supplies the difference. Every thirty days the specie reserve and the circulation thus diminish by six million. At the end of three months the discounts remaining at the same figure, six million, the reserve is but three million, and the circulation nine.

If the bank is so imprudent as to continue its operations it ends in bankruptcy, *i. e.*, it can no longer redeem its notes at sight, because its holdings consist of paper which can be turned into cash only at maturity, whilst the demand for money in exchange for banknotes is immediate.

The danger of a circulation out of proportion to the specie reserve is all the greater from the fact that when the depletion of the reserve becomes apparent, panic ensues and the holders of the banknotes crowd to the bank to have them redeemed.

3. Each country needs but a certain quantity of money proportioned to the importance of its productions and its commercial wages. If too much is supplied that portion which is forced circulation depreciates and the good money leaves the country.

Now, as banknotes cannot be exported, it follows that when there is an excessive issue they are presented for redemption and the specie thus secured is exported. The bank must study the situation and endeavor to keep its issues within a proper limit. If it surpasses such limit it is sure to be brought back to it.

Let us take the figure of twenty-one millions as the extreme limit of circulation for a given country and take the moment when the bank has that sum of banknotes out, represented by six millions discounts and fifteen millions specie reserve. What will it do the following month? Discount in specie. The six millions specie which it pays out will then re-enter its vaults at the end of the month, and the balance will be maintained.

4. Another supposition. The bank may increase its profits by allowing none of its capital to be idle, and to this end it may increase its discounts. It discounts twelve or eighteen millions per month, and proportionally to the growth of its discounts, its reserve diminishes. The money paid out is partly exported in payment of merchandise imported. The bank thus finds itself with a circulation of twenty-one millions, discounts of sixteen millions and a specie reserve of five millions. The equilibrium still exists, but in this case the commercial paper is become the principal guarantee of the banknotes. This is undoubtedly the most advantageous condition for the bank, that in which it renders the greatest service to commerce and at the same time realizes the greatest profits for itself. But it must stop this expansion of its credits soon enough not to endanger the redemption of its notes by the exhaustion of its reserve.

Such are the operations of a bank of issue disconnected from the complexity introduced by its deposits and other features of its business. As a rule, when the reserve and circulation grow, it indicates a condition of public confidence; when the reserve and circulation both diminish, it indicates a lack of confidence; while when the discounts grow and become the principal guarantee of the circulation, it betokens commercial activity. In a country where,

as in France, there is but a single bank of issue, the reserve, circulation and discounts may be consulted as an indicator of the condition of commerce.

91. *Paper Money.* One of the two essential qualities of a banknote is that it should be redeemable at sight in lawful money. This conviction, which every bearer of the note has, of being able at his pleasure to convert this promise of the bank into real money gives to it a character which permits it to circulate as freely as money and side by side, and at parity, with money. Fail to so redeem it and confidence in it ceases. The banknote is then nothing other than a note which has not been honored at maturity. In such event it may have a price varying with the probability of its being eventually redeemed.

If the state gives to a note, not redeemable at sight, a legal tender quality, *i. e.*, institutes a forced circulation, such note, whether issued by a bank or by the government itself, is *fiat money*.

There is a profound difference between a banknote proper and fiat money. The former, whether possessing legal tender quality or not, is always and immediately redeemable at sight in specie, whilst the latter, though a legal tender, is not redeemable. The consequences are quite different. The one, if restrained within its proper limits, is without danger, and the very fact that it circulates indicates that it performs a service: the other cannot circulate without raising a certain prejudice against the nation which resorts to it.

And for this reason. As provision is lacking for redeeming the notes at sight, which provision regulates the amount of the circulation, it is difficult to determine the moment when there is an excess of notes, and when they commence to have an exchange value less than their nomi-

nal value, *i. e.*, less than specie. Now that moment is coincident generally with the first issue of such fiat money. Specie will serve to make all purchases which paper money can make; moreover it is accepted within the country by the most cautious (that which cannot be said of fiat money), and is received everywhere abroad (fiat money is not). Can parity of value exist between things so different?

Payments abroad are accordingly made in specie; first point. To restore the home circulation which has been depleted by such exportation of specie and by the very depreciation of the fiat money, fresh issues are resorted to; for there is little chance of the precious metals being imported into a country which cannot keep them; second point.

Successive emissions of fiat money hasten its depreciation and increase the disparity between it and metallic money, forcing the latter the more rapidly out of the country. Fiat money accordingly expels specie and reduces the nation which uses it to content itself principally with paper money and with subsidiary coin which has a real value inferior to its nominal value; in other words, to have as a common measure of values simply a fluctuating token, and not a real equivalent of value, *i. e.*, to have no true money. Now when a token represents something which is not at hand, and when measures cannot be constantly verified by a standard, tokens and measures no longer offer anything definite to the mind. In some way they constantly shrink without one being able to determine what they really were formerly.

Home commerce is disturbed and in foreign commerce the merchants of the country in question are at a disadvantage as against foreign merchants, for the reason that

the home merchants make their foreign payments in the precious metals, which are at a premium, and are themselves paid in paper money, which is at a discount. Suppose a merchant to have imported goods worth \$1,000 which he resells, nominally at 10% advance, for \$1,100, being given ninety days in which to pay, and granting a like credit to his customers. At the end of the ninety days \$1,100 are paid to him in paper money; but when he applies to the bank for \$1,000 gold to ship to his foreign creditor he finds that the paper money has depreciated 10%, *i. e.*, that his \$1,100 are worth only \$990 in gold.

The emission of fiat money is a kind of forced loan to which a state may be obliged to resort in times of extreme distress; necessity is then the excuse for it. The loss resulting from the introduction of fiat money in the circulation varies according to the degree of credit which the state enjoys. But there is nearly always a loss; *a direct loss in exchange and foreign commerce, an indirect loss through the disturbance of the circulation at home.*

A state which contracts a loan in order to redeem its fiat money, as a rule, performs a profitable and a wise transaction.

92. *The Emission of Banknotes.* The serious consequences for the circulation and national wealth which follow a failure to redeem banknotes at sight is the principal reason why most governments supervise the emission of such notes. Banknotes may be issued under four different systems, *viz.*: *Absolute freedom of emission, general emission under restrictions, privileged emissions and sole emission.*

Absolute freedom of emission conforms to the theory of some economists who see in the banknote simply a bit of commercial paper analogous to other kinds of commer-

cial paper, and who pay no attention to its quality as an instrument of circulation performing the function of money. According to this theory, the emission of bank-notes is classed among the ordinary acts of commerce, which, following the principle of non-interference, should be free. This theory is not practiced in any of the large states which have an important commerce.

General emission under restrictions is the system under which any bank may at its risk and peril, as at the risk and peril of those who accept them, issue notes payable at sight and to bearer, quite as freely as notes of other kinds, subject to certain general conditions fixed by law, such as a maximum of emission, the maintenance of a fixed proportion between the circulation and the specie reserve, a deposit of securities representing part of the capital, etc.

Privileged emission is a system under which the right of emitting banknotes is conferred only on a restricted number of banks which therefore enjoy a monopoly. The amount of issues and the conditions to which they must conform are fixed by law.

Sole emission is the system under which the state itself emits bills through the instrumentality of a public bank, or confers the privilege upon a single bank, which may be a private establishment, but which must provide certain guarantees stipulated in its charter.

Under the last two systems the ordinary banks of the country may borrow, lend, discount, receive deposits, and, like other business houses, undertake any operations they choose, except one: the emission of notes payable at sight and to bearer. Now, non-interference with the ordinary business of banks and the regulation of emissions are two things quite distinct in principle and reconcilable in practice. Theoretically, such regulation is within the rights of

the state because *the state, in the general interest, is charged with the duty of protecting the soundness and genuineness of money*, which is the indispensable agent in the circulation of values, just as it must police the roads which are channels for the circulation of goods. Practically, each of these systems may pride itself upon certain advantages. With or without regulation, freedom of emissions conduces to a multiplicity of banks, to which it offers the inducement of the profits to be derived from the issue of banknotes, and a multiplicity of banks in its turn favors the diffusion of credit through all the many branches of commerce and industry.

The system of the sole emission, when the transactions of the bank are broad and general, favors the circulation of representative money, because the issues are uniform and their soundness recognized everywhere. In this respect it is to be preferred to the former.

93. *American and Leading European Banking Systems.*—Under the national banking system of the United States of America, the notes issued by the banks are secured by a deposit of government bonds at the Federal treasury so that the promise of the bank is fortified by the promise of the government. If the bank fails, the government sells the bonds and pays the holders of the banknotes out of the proceeds. Whether the note is promptly redeemed, therefore, depends in the last resort upon the value of the government bonds, or in other words, upon government credit. This is a system of general emission under restrictions.

The national banks are required to keep a reserve in lawful money ranging from 15 to 25 per cent. of their deposits, and to redeem their notes at sight. Side by side

with the national banknotes, three other forms of representative money circulate in the United States, viz :

a. Greenbacks, or treasury notes, which are paper money issued directly by the government and based solely upon government credit.

b. Silver certificates, which represent silver in coin or bullion in the vaults of the government, but not to the full value of the note.

c. Gold certificates which are based dollar for dollar on deposits of gold at the United States Treasury, and are, therefore, the only form of representative money in the United States which would weather all political storms and impairment of government credit without itself suffering a fall in value.

Gold is at present the standard of value among civilized nations and is accordingly desirable as the basis of credit for every country. The only way to attract and keep gold within a given country is to make it wanted by having a place for it in the currency system of the country. As notes are more convenient than specie for the mass of transactions it follows that representative money based dollar for dollar on gold, either in the vaults of the government or of banks, is one of the most desirable forms of money a people can adopt.

The English system is a system of privileged emission but notes are issued principally by one institution, the Bank of England. Issues of the Bank of England, with certain exceptions, are based pound for pound upon a reserve of gold. A notable exception is an issue of 16 million pounds sterling based upon a debt of the government to the bank. Furthermore a few other banks still enjoy an old privilege of issuing a limited amount of notes based upon assets, and whenever these banks for any reason

whatsoever go out of existence the Bank of England as heir to this privilege may add such amount to its unsecured issues. These unsecured issues of all the privileged banks, including the Bank of England, together constitute so small a portion of the total issues that the banknotes of Great Britain may be said to repose practically upon a full reserve of gold.

In certain crises the limit of 16 million pounds sterling placed upon issues not covered by gold, *i. e.*, secured by government bonds, has proven a hardship, and in such emergencies the government has come to the relief of the bank by temporarily increasing this amount, thereby virtually suspending the bank act. Such action does not amount to a suspension of specie payment for the reason that it does not relieve the bank of the necessity of redeeming its notes in gold on demand. This limited issue of Bank of England notes based upon government credit may be compared to the issues of the national banknotes in the United States, as these are similarly based.

The system in use in France is the sole emission. It is more complicated and must therefore be described more at length. To the Bank of France has been given the exclusive privilege of issuing banknotes in France. Its capital is fixed by law and the bank is obliged to maintain a branch in each of the departments of France. The present charter of the bank, which expires in 1926, permits the bank to issue notes up to 5,000 million francs, but the advisability of a smaller issue may be dictated by its own prudence and by the necessity of redeeming the notes at sight in specie. As the leading officers of the bank are named by the government, the latter, moreover, retains a substantial control over the affairs of the bank. In practice its issues do not greatly exceed its metallic reserve; at

times, though very rarely, they are even inferior to it, the notes simply taking the place of specie in the circulation of the country without making any addition to that circulation; the convenience of the banknotes causes them to be preferred. In political crises the government has found it necessary to relieve the bank of the obligation to redeem its notes at sight whilst making them legal tender, *i. e.*, to inaugurate forced circulation. This is what happened during the revolution of 1848; but such was the confidence in the bank that notes fell in value less than one-fifth of one per cent. On the second occasion of suspension of specie payment, 1870-1878, the fall was even less. The principal operations of the Bank of France are discounts, collections, current accounts, dealings in specie and in public obligations, and loans to the public treasury. The commercial paper which it discounts must mature in not more than ninety days, and must bear not less than three signatures, it being allowed to substitute for the third signature a deposit of securities, either those of the government or of the city of Paris, or railroad shares, or shares of the bank itself. The committee of discount does not know the innumerable signatures of the notes it receives; it does know, however, the bankers from whom it has received them and who deal directly with the merchants, discounting their paper of two signatures, and after endorsing it themselves, rediscounting it at the Bank of France in order to liberate their capital. The Bank of France does not allow interest on deposits.

In the German Empire, as in Great Britain, we find the bulk of the banknotes issued by one bank. A few other banks issue banknotes, but the total of all such issues is insignificant in comparison with the issues of the Reichsbank, or Imperial Bank of Germany. Each bank is

obliged to redeem its notes at sight, and the notes are not legal tender; *i. e.*, no one is forced to accept them in payment of a debt. The Reichsbank operates under a special charter granted for a term of years. In no case can its issues exceed three times the bank reserve, which reserve must be made up of legal tender, consisting of imperial treasury notes and domestic or foreign specie. In order to provide an element of elasticity in the currency of the empire, the bank is subject to a tax of 5% on all issues above a certain limit, which limit is fixed at present at 450 million marks in excess of the cash reserve of the bank. This element of elasticity is one of the important features of the German system. In times of financial stress the bank finds it expedient or profitable to pay the tax of 5% and thus exercise the privilege of issuing notes in excess of the ordinary requirements of the country. The moment conditions become easier the burden of this tax makes such excess issues unprofitable, and we thus have an automatic contraction of the currency. All issues of banknotes in excess of the actual cash reserve must be covered by discounts bearing at least two signatures and maturing in not more than three months. From time to time the other banks find it expedient to surrender the privilege of issuing banknotes, and the privilege they surrender is then transferred to the imperial bank, serving to swell the volume of its tax-free issues. Of the thirty-three banks which enjoyed the privilege of issuing notes when the Reichsbank was founded in 1875 only some half dozen retain this privilege to-day. The capital of the imperial bank is private capital. But its management is in the hands of imperial officials and the state shares in the profits of the bank. The demand from certain quarters that the state take over the bank completely so as to

monopolize its profits has been resisted on the grounds that the voice which the shareholders have in the management prevents the extension of credit to persons unworthy of credit, as well as giving to the bank the benefit of business experience and enterprise. The Reichsbank has several hundred branches throughout Germany. A system of transfers amongst these various branches, known as "giro transfers," under which a payment made at one branch is credited at another, is a substitute for the use of drafts in other countries.

The Reichsbank is obliged to purchase, at the price of 1,392 marks per pound, all gold offered to it. It can likewise encourage in various ways the importation of gold, and it has greatly helped the substitution of gold for silver as the substantial basis of German currency. The note-issuing banks are bound by the rate of discount of the Imperial Bank when such rate is 4% or over.

The Imperial treasury likewise issues notes against the metallic reserve in the war chest, the amount outstanding varying with this reserve.

The privilege enjoyed by the Reichsbank in common with the Bank of France of issuing banknotes against its discounts or commercial paper is perhaps a less dangerous privilege when thus conferred upon only one institution in the country than it would be if a similar privilege were extended for example to the national banks in the United States. In the latter event the safety of an important element of the national currency would depend upon the watchfulness of the government in dealing with several thousand institutions instead of one. To provide for a joint responsibility of all the national banks in the United States with respect to their issues could serve only

to shift the danger from individual over-issues to a general over-issue, which would mean inflation.

Résumé

Credit consists in the exchange of a present reality against a future probability. It is an *advance of services*. Credit in itself is a transfer of capital, and does not *create* capital.

Credit, whether an advance of services under the form of labor or things previously produced by labor, is determined by confidence. It conduces to a more rapid circulation, and therefore to an increase of wealth.

We may distinguish between simple credit, such as personal loans on collateral; real credits, such as mortgage loans; and commercial credit, which is mixed. The principal kinds of commercial paper are the simple note, the note payable to order, and the draft.

To give money in exchange for a note is to lend the money till the note matures: such loan like every other should yield interest: this is discount.

A banker is a trader in capital and credit. The function of a bank is, on the one hand, to receive and gather together the capital of such as desire to lend, and on the other hand, to place this capital with those persons who desire to borrow.

The business of a bank consists principally in accepting deposits subject to check, cashing checks, arranging debits and credits with other banks through the clearing house, discounting commercial paper, issuing bills of exchange, lending money, promoting enterprises by supplying the initial capital and by underwriting, and lending on mortgage. A bank performs one or more of these functions according to the objects for which the bank is organized and chartered.

The banknote is a promise to pay given out by banks of issue; it is payable at sight and to bearer, and performs the function of money.

In a bank of issue, the discounts, the reserve, and the circulation are interdependent. The simultaneous increase of the reserve and of the circulation indicates general confidence; their simultaneous decrease indicates lack of confidence; the increase of discounts indicates commercial prosperity.

The difference between the banknote and fiat money is that the one is payable at sight and to bearer, the other, although legal tender, is not redeemable at sight.

The emission of fiat money is a kind of forced loan which, with rare exceptions, is injurious both to foreign trade and to domestic trade.

Banknotes may be issued under various systems, *viz.*: entire absence of control, issue general but controlled by special laws, issue confined to a limited number, or issue confined to a single institution.

IV

COMMERCE

94. Commerce. 95. Domestic Commerce and Foreign Commerce. 96. Imports and Exports. 97. Duties, Protection and Free Trade. 98. General and Special Trade, and Transit. 99. Exchange, 100. Commercial Crises. 101. Commercial Geography and Foreign Competition. 102. The Rôle of Commerce in Civilization.

94. Commerce consists in *sale* and *purchase*, *i. e.*, in the exchange of merchandise for other merchandise, or, more generally, for money.

Division of labor makes of society a great co-partnership of which each member produces only certain objects adapted to satisfy the needs of many other members, and

in return receives at the hands of many others the things proper to his personal use. The further this division is pushed, the broader does trade become. In fact, every individual, unless he be supported by his family or lives by begging, performs acts of trade, since he is constantly exchanging services. Even he who lives on his income cannot escape this law. Every day he exchanges money derived from his income against merchandise supplied for his use. The landed proprietor who lives on his rents performs a double exchange, an exchange of the use of his land for money, and exchange of the money for the things he consumes. But, ordinarily, we confine the term to those who make a calling of buying and selling.

Although they do not create a product, merchants are producers after their fashion. To produce is really to create a utility, to render a service. Do they not render a service, do they not incontestably create a utility, when they bring a product which is wanted, within the reach of the consumer who would otherwise be deprived of it? Of what use to him is the coffee on the plantation in Brazil? How procure it unless commerce brings it to New York? How could one be sure of getting bread at all seasons of the year unless commerce had procured and stored the wheat for the demand? To *transport*, *store* and *exchange* products, these are the three services rendered by commerce. The object of commerce is to carry products, often from one place to another, or from one season or period to another, always from one owner to another.

It must be added that the transfer from one owner to another, *i. e.*, *exchange*, is the sole essential element, since merchants constantly buy and sell without transporting or storing merchandise, whilst transporting and storing alone do not constitute a commercial transaction.

We may add that commerce is a form of work which, like all useful work, adds to the value of products.

95. *Domestic and Foreign Commerce.*—Commerce is the exchange of products: it proceeds from division of labor and fosters such division.

We may of course imagine a primitive state of industry where there was no division of labor but where trade was not entirely unknown. The hunter may have found himself without food and exchanged arrows for it. Nevertheless, we may say that, as a rule, trade founded on the division of labor and diversity of products, tends to increase and extend accordingly as a people become richer. At first the great mass of daily transactions are within small isolated groups which have but limited communication with each other. Presently the group grows and several groups begin to communicate or unite for purposes of security or intercourse. Relations, followed by trade, are thus gradually established between all parts of the land which have anything to sell or buy.

We may thus distinguish in theory, three epochs in the growth of commerce:

First, the purely agricultural, in which each man lived solely upon the things he himself procured by hunting or from his land, and where division of labor was only rudimentary and accidental.

Second, that in which the craftsmen of a given locality organized, one confining himself to making shoes, another to building houses, etc., but where ordinarily trade was limited to the district, and the division of *labor was purely individual.*

Third, that in which districts and states trade together, each bringing to the markets that are open to it the thing which it produces best or cheapest; one food products,

another raw material, a third manufactures, just as in the previous epoch each man performed in his own district the work for which he was best qualified. In this last stage appears the territorial division of labor.

Where fix a limit to this extension of trade relations? Logically it cannot have any other limit than that of the round earth. Wherever wealth exists, either natural or produced by human effort, it is useful to transport it to all places where it may find purchasers, *i. e.*, to give rise to an exchange of services between two individuals. Nevertheless, statecraft and political economy unite in setting up a difference between the exchanges which take place within a state, termed *domestic commerce*, and exchanges from one state to another termed *foreign commerce*.

In all epochs and countries, domestic commerce, although often less imposing, has been much more important than foreign commerce in the total of the exchanges to which it has given rise. To-day in most civilized states, domestic commerce is free and we know that the results are accepted without a murmur; they are beneficial. For example, we do not complain that wheat growing on the western prairies constitutes a damaging competition to wheat growing in New England, or that the competition of New England factories makes it more difficult to establish manufactories in Minnesota.

96. *Imports and Exports.* — Foreign commerce, which in its nature differs in nowise from domestic commerce, is almost universally subject to legal regulations. It consists, like all exchange, in a double movement, that of the thing sold and of the thing bought. That which a nation transports beyond its borders as merchandise which it has sold or intends to sell to foreign nations is

termed *exports*. That which enters from abroad is termed *imports*. For a given nation, imports accordingly signify for the most part purchases, and exports sales.

It would seem that, in principle, a nation conducts an exchange exactly like an individual. Exchanging value for value, it exports the equivalent of that which it imports. There is but one situation, a sufficiently rare one, where the analogy does not hold; it is when the commodity exported perishes en route by shipwreck or otherwise. But in practice a nation acts quite differently from an individual.

Merchants nearly always buy with money or that which represents money; when they sell they receive money or that which represents money. The balance goes into their coffers and at the end of the year they see the profit derived from increasing the number of exchanges.

Although the commerce of a nation is composed of the sum of the exchanges of individuals, the process is not the same as in the case of domestic exchange. The money which has served as a measure of value in each exchange is in fact relegated to the rear and rarely serves for actual payment. Nearly all the debtors of a given nation make their payments by means of drafts drawn on the debtors of the other nation, and the debts are thus balanced. The balance is not necessarily established in the course of a single year. Nor is the settlement necessarily made directly between the two nations trading. Thanks to the agency of banks, the credits and debts of several nations may contribute to the settlement. Nor again need it be made entirely in the value of merchandise sold; securities, mortgages on real estate, ocean freights, or outlays in foreign travel, may all contribute to it.

For a long time the erroneous belief obtained—in fact it has not yet been entirely destroyed—that a nation is enriched only by that which it sells abroad, and is impoverished to the extent of its purchases abroad; that consequently:

1. The exportations should be as large as possible and the importations as small as possible.

2. The difference between exports and imports is paid in the precious metals and constitutes a gain or loss as the case may be. This idea is expressed by saying that the balance of trade is favorable or unfavorable.

This doctrine which has exercised a baneful influence upon tariff regulations supposes: 1. That a nation may export without importing, sell without buying: a false supposition. 2. That the precious metals constitute the only desirable wealth: also false. 3. That the official figures of imports and exports exactly represent the value of the commerce, and that the account must be settled annually with a sum of gold or silver corresponding exactly to the balance: false again.

Bastiat, the French economist, has supplied a lively criticism of this pretence of calculating national gain or loss by the balance of trade. "I found myself at Bordeaux," says he, "with a cask of wine worth 50 francs. This I shipped to Liverpool and the French customs recorded an export of 50 francs. On its arrival at Liverpool the wine was sold by my correspondent for 70 francs. My correspondent invested the proceeds in coal which delivered at Bordeaux was worth 90 francs. The French customs hasten to record an importation of 90 francs. The balance of trade in this instance is against France by 40 francs. These 40 francs I always believed on the testimony of my accounts were a gain to me. The advo-

cates of the balance of trade theory inform me that I have lost 40 francs and that France has lost that sum through me. Again I had sent to me from the country a lot of truffles worth 100 francs. They were bought for two celebrated English ministers whose liberal price for them I invested in books in England. Alas! according to the theorist, it would have been better to have eaten them myself (I mean the truffles and not the books nor the Tories). But, as it happened, not everything was lost, since the ship which carried the books foundered on leaving port and the French customs which had recorded an export of 100 francs was not called upon to record any imports in return. Once more, according to the balance of trade theory, France has gained 100 francs since it is by that sum, thanks to the shipwreck, that the exports exceed the imports."

97. *Duties, Protection and Free-trade.*—To record the movements of foreign commerce to collect taxes upon the merchandise which enters or leaves, governments have established customs houses on their borders. Customs embrace taxes both on imports and on exports.

Export duties are rare because as a rule governments regard it as good politics to encourage the sale of natural products abroad. And here they are right. An exception to the rule is where a given country practically enjoys a monopoly of an agricultural or mineral product, and under the form of an export duty levies a tax on it which is paid principally by the foreign purchaser.

Taxes on imports are numerous and figure as one of the important sources of revenue in nearly all civilized countries. They are determined under different customs systems: the *restrictive system* which includes prohibition and protection: the *liberal system* which is based

upon the principle of free trade and tariff for revenue only. The restrictive system imposes actual prohibition or heavy taxes on the products of certain foreign industries, less with a view to public revenue than to impede or discourage the importation of such products. Its declared object is the protection of home industry, hence the name protective system. The *mercantile system* which aims to regulate duties with a view to having exports exceed imports and of receiving the difference in precious metals, is a kind of protective system. Prohibition or the prohibitive system is the protective system carried to its extreme limit. The compensatory system which aims by means of import duties to compensate the home producer for the internal revenue tax imposed upon him, is an attenuated form of the protective system.

Protection is based upon the following reasoning. It is well for a rich nation to engage in all the great industries, agricultural or manufacturing, which its resources, or ability to procure raw material, permit; and it is proper that its government, the guardian of the national welfare, should favor the development of such industries. If a foreign nation produces certain foodstuffs, or manufactures a certain article cheaper than it, the government must place upon such foodstuffs or article a duty sufficient to cause it to sell higher than the home product so that the latter may have an advantage in the home market. In this way a competition is avoided, which, in the opinion of the protectionists, would prove ruinous to the home industry. They hope that in this way home production may be sustained or even developed because protection gives it a kind of home monopoly. Several considerations are advanced in favor of this system: to give to the country necessary or lucrative industries which foreign

competition might have stifled in their infancy; to assure to the farmer and manufacturer a certain revenue, and to the working class employment and well-being; to render the country independent by freeing it from the necessity of buying from the foreigner products of which he is presumed to have acquired a monopoly after having ruined the home industry.

Undoubtedly it is the duty of the government to develop the productive forces of the nation: it does it for example when it supports schools. In principle we cannot deny it the right to encourage industry. But is resort to a protective tariff a wise method of encouraging industry?

1. It imposes a tax of which it is almost impossible to measure the extent. When the national legislature levies a duty of thirty dollars, for example, on merchandise worth one hundred and thirty dollars in the home market, it is because the government estimates that the foreign manufacturer can produce for one hundred dollars merchandise which the home manufacturer cannot produce for less than one hundred and thirty dollars, and because it believes it to be judicious to make the consumer pay the additional thirty dollars.

Now what is the extent of the sacrifice imposed upon the consumer by this increase in price? Very little perhaps if the industry languishes. But if it prospers—and this is the result hoped for—the sacrifice, or tax upon consumption for the benefit of certain manufacturers, is multiplied by the number of units of the produce sold, and may reach a considerable sum, which sum is an unknown quantity. If the government, instead of instituting a protective tariff had promised a bounty to the home producer, as is sometimes done, especially in connection with

shipbuilding, it would perhaps have regretted the step, but it would at least have known the extent of the sacrifice demanded of the nation.

2. When a government inaugurates a protective tariff it intends to establish it simply for a period of time sufficient to build up the protected industries. It is proclaimed as a kind of tutelage. The parties interested would perhaps not dare to ask it if they suffered men to believe that the duty would be perpetual. Nevertheless history presents but few examples of an industry coming to the government voluntarily to declare itself adult and no longer in need of protection. There are good reasons for this.

No manufacturer, no matter how much his industry prospers, ever considers his profits too large. Again, whilst one manufacturer conducts a profitable business, there are many capitalists and entrepreneurs who seek a living by the same business, and according to the situation or ability of each, there establishes itself a gradation of profits from the entrepreneurs who make fortunes down to those who barely vegetate. Now, for these last, the least abatement of the tariff, no matter how small, will always mean ruin.

3. When, despite obstacles, a government, desirous of catering to interests other than those of the privileged manufacturers, lowers the duties, the home industry which is thereby exposed to foreign competition is not necessarily destroyed. It runs risk of suffering at first and of witnessing the badly organized succumb; but such as are in better condition survive and are transformed, the industry sometimes finding in the removal of the tariff a stimulus which leads to growth.

4. When protection operates equally upon all im-

ported articles, it produces a general dearness and perhaps an isolation of the nation in question if the duties prove prohibitive. In this case the economic interests of the nation suffer through the restriction placed upon foreign commerce. But in reality, protection is a privilege conferred upon a small number of industries. Ordinarily, these industries are not the modest ones, but, on the contrary, amongst the most powerful, since it is just they that have sufficient influence to secure a protective tariff from the government. Great inequality thus results between different classes of producers.

5. The result is that if protective tariffs provide employment it is for only a fraction of the working population. Now, as the average wage in protected industries is no greater than the general average in the unprotected industries, we are forced to conclude that such tariffs do not exercise the beneficial influence upon real wages generally attributed to them.

In England better wages were paid for many years without protection than were paid in France and Germany with protection. Wages are higher in the United States principally because of the superior economic conditions of a land so rich in agricultural and mineral resources, and because of the superior efficiency of labor, not because of the protective tariff.

6. In order to render a nation completely independent of foreign nations in certain industries, such as silk fabrics, for example, it is not sufficient to check the importation of the manufactured product; the nation must likewise procure the raw material without recourse to the foreigner, that which is impossible for many countries. The truth is, in the first place, that modern industry and commerce do not permit nations to ignore each other; in the

second place, that a nation is not wholly dependent on any one foreign nation because of the competition from other countries, and because of home competition.

7. If protection is applied to agricultural products which constitute the necessities of life, such as grain and meat, it enhances the cost of living especially of the working classes, makes money wages higher, or decreases the efficiency of labor by lowering the standard of living, and thus puts the industries of the nation at a disadvantage in competition with other countries. Although the additional charge on the products at first be slight, it may increase indefinitely. The barrier of the tariff prevents the level of prices from establishing itself on both sides of the border; it makes possible cheapness abroad resulting from abundance, side by side with dearness at home resulting from scarcity. It may thus happen that the nation practicing protection of agricultural products may some day find that it has fallen behind other civilized nations.

Laws whose object it is to alter the natural equilibrium of prices are always dangerous.

Free-trade concerns itself less with the interests of a certain class of producers than with the general interest, and above all, with the interest of the consumer. Its object is to encourage foreign commerce and to provision the home market as plentifully as possible and at the lowest prices.

The theory of free-trade is based on sound economic principles.

To trade is to labor: all the principles of non-interference which apply to industry apply with equal force to home and foreign commerce.

To buy where one wishes is likewise a tenet of liberty: As foreign commerce between the nations consists

principally in the exchange of product for product, and as, in order to buy goods to import, it is nearly always necessary to produce something to export, a nation cannot, to use a metaphor sometimes employed, be "inundated" with foreign products except approximately in the degree to which the nation itself "inundates" foreign markets with its own products.

Imports introduce merchandise which the nation either does not produce or which it produces to less advantage. In the first instance the result is a benefit for every one; in the second it stimulates the home manufacturer to better his production and becomes at one and the same time a cause of cheaper products for commerce and of improved methods on the part of the manufacturer.

These considerations may be embodied in the two following propositions, one of which contains the principles, the other the consequences :

Free-trade, with reference to the producer is synonymous with free labor; with reference to the general results of exchange, is synonymous with extension of the market; and with reference to industry, is synonymous with cheaper production.

Under the protective system we pay for certain merchandise more than it is worth; under free-trade we pay for merchandise that which it is worth.

By virtue of these principles and their consequences, absolute free-trade demands the complete suppression of import and export duties in all countries.

The tariff for revenue only is less exacting. It regards a tax on consumption as legitimate and considers it proper to levy this tax on imports. It admits the legitimacy of a tariff as a source of public revenue but not as a hindrance to the entry of foreign merchandise. Accord-

ingly it imposes only moderate duties with a view to impeding foreign commerce as little as possible and of realizing from the duties an increase of public revenue.

Protection is one of the economic questions most frequently discussed in political assemblies and most prone to excite the passions because the words protection and free-trade touch the greatest interests, private and public. The tariff for revenue only, which in our time is the best adapted to further the interests of great manufacturing and commercial nations, is far from having won the approval of all statesmen. On the contrary, although political economy demonstrates the advantages and equity of free-trade, private interests resist and often triumph, supported as they are, by considerations political properly so-called.

98. *General Commerce, Special Commerce and Transit, Bonded Warehouses and Public Exchanges.*—Merchandise may pass and re-pass the frontier without having been the object of exchange within the country. It comes to seek a purchaser which it fails to find, or it simply traverses the territory to reach another territory. It would not be fair to make it pay duty. This is why in many countries the customs regulations divide foreign commerce into two classes: *general commerce*, embracing all the merchandise which enters or leaves, no matter of what kind nor who the owner, and *special commerce*, embracing solely in the matter of imports the foreign merchandise which enters for home consumption, and, with reference to exports, only exported merchandise which has been produced at home or actually acquired by home merchants.

Foreign merchandise which seeks a purchaser and on which it is not desirable to pay the duty until the pur-

chaser is found, is stored in *bonded warehouses*. It remains there for such period as the owner desires and leaves freely, without paying a tax, when it is desired to send it abroad; in this case it figures simply as imports and exports of general commerce. But if consumed in the warehouse, or if it leaves in order to be sold in the country, it pays a duty, and figures as imports in special commerce, after having already figured as general commerce.

Bonded warehouses and public storehouses facilitate transactions on the public exchange, where the auction sales are surrounded by legal guarantees which encourage wholesale trade.

Merchandise which simply passes through a given country from one foreign country to another, pays no duty and does not figure in tables of special commerce.

Tariffs give rise to very complex fiscal regulations. When a merchant imports goods which he exports again he pays no duty. But when a French miller imports from Russia wheat and exports it to Switzerland in the form of flour, when the machinist gets from England iron and steel to be turned into machines for export to Italy, what course should be pursued? It would not be right to make him pay duty just as if the article had been consumed within the country; moreover it would be injurious to the national industries to increase in this manner the cost of production of articles intended for foreign markets. In this case a *drawback* may be paid on exportation of the goods equal to the duty collected on the raw material which entered into their manufacture, or the raw material may be admitted free under certain guarantees which provide for its future exportation after certain work shall have been bestowed upon it; this latter is called *tempo-*

rary entry. Sometimes the customs laws provide for more than simple reimbursement; they attempt special protection by allowing a premium. As a rule, the less complex the tariff regulations the better, exacting less labor and giving less opportunity for fraud.

99. *Exchange.* In foreign commerce the metallic and fiduciary circulation are not always in a state of equilibrium. If a nation has sold much to another nation without having bought equally as much, it becomes the latter's creditor and the balance due must be settled in specie, securities, or some other form of value.

The bankers and merchants of the debtor country must then buy the money of the creditor country to remit to it. This money, sought in the market of the debtor country, commands a premium, like all scarce articles. Thus the pound sterling is worth \$4.86 $\frac{2}{3}$. If the United States is required to remit much money to England it pays in New York for the pound more than \$4.86 $\frac{2}{3}$. It may pay over \$4.90, as has been the case on more than one occasion since the resumption of specie payment. On the other hand, if it is England which is called upon to make heavy payments in the United States the pound may sell in New York below \$4.82. This difference between par and the market price is called exchange.

Exchange is unfavorable to a nation whose money is below par and favorable to the nation whose money is above par.

Before resorting to the purchase and shipment of specie, which is costly, the debtor merchants try to buy drafts, or bills of exchange, drawn on the creditor nation, in order to discharge their debt with evidences of debt. They generally find them; since, if the United States is at a given moment the debtor of England, England may

be perhaps in debt to Germany and France, and the bankers may offer to their American clients German or French bills drawn upon English merchants. But these drafts, sought like money, like it, command a premium, though in a different proportion, and one still says that exchange is favorable for one nation and unfavorable for another.

The definition may be generalized so as to render it applicable even to two localities in the same land by saying: *Exchange is the price in a given place of a specified sum of money deliverable elsewhere.*

It is *favorable* to the nation or locality of which the money and bills are at a premium in another nation or locality, *i. e.*, to the nation which has more credits than debts upon the foreign market. On the other hand, exchange is unfavorable to a nation which has upon a foreign market more debts than credits, and of which the money and bills are at a discount.

These fluctuations in exchange are always confined to narrow limits because the premium which one consents to pay cannot exceed greatly the cost of transporting the specie itself from the home of the debtor to that of the creditor. The cost of transporting gold from New York to London varies from $1\frac{1}{2}$ to $2\frac{1}{2}$ cents per pound sterling.

Exchange may be considered as a sort of barometer which it is useful to know how to consult, but to which we must not attach too much importance. It is in fact nothing more than the barometer of the movements of the precious metals, the instrument of commerce. Favorable exchange indicates simply a balance of exportations; unfavorable exchange a balance of importations. That does not necessarily imply that a nation is growing either rich or poor.

100. *Crises.* In the home trade of a nation as well

as in foreign commerce there are fluctuations of another kind which we call crises and which are a diminution in production, consumption or circulation of wealth, and a rupture of the equilibrium established between these different branches of economic activity.

The enterprising man, at the moment he enters upon an undertaking, does not yet know exactly to what extent the commodity will be consumed. It is well that he possesses a certain amount of boldness in his enterprise; for it is the abundance and cheapness of products which partly determine the extent of consumption. He accordingly ventures a certain amount of capital which he hopes to recover and repay within a reasonable time. When the moment arrives, will the capital really be free and available? Here is something which he can only presume will happen. Production, capital, consumption, are three terms closely affiliated, terms which increase or diminish together, but which, nevertheless, do not keep such even step but that one is sometimes in advance of the other.

As a natural result of the spirit of enterprise, it is often production, industrial and commercial production, which tends to quicken its pace. In prosperous times, when capital is abundant and production barely meets the needs of the consumer, many entrepreneurs apply themselves to production or buy goods to sell again. It is at such times that we witness the construction of factories, the founding of great corporations, or speculation for a rise in values. The speculator buys in the hope of being able to sell again later on at an advance. He lacks the ready money to pay for his purchases, but he expects to have it when he shall have sold again. His hopes are realized and at the end of a given period he has the money and a profit, growing rich perhaps by frequently renewing

the same operation. Thousands of speculators do likewise and the manufacturers work incessantly to furnish them with various commodities.

But there arises a moment when the spring snaps. Where capital is tied up it requires time to free it or to create fresh capital. Now speculation cannot wait. Once launched on its upward flight on the wings of credit it may not rest, for only the continuation of credit and high prices permit it to meet its engagements. Not so with consumption which ends by protesting and by limiting its needs. Consumption no longer keeps pace with production. Though the separation may not be apparent at first, the least accident may discover it. A bad harvest perhaps compels the nation all at once to use a larger proportion of its income for necessaries, and, consequently, to buy less of other things. A war, or menace of war, interferes with the negotiation of time bills and paralyzes trade. Disaster on one of the great markets of the world which has its effect upon other markets, or the failure of some great banking house which has suffered by speculation and involves the market in its fall, may precipitate it.

There must ensue a decline in values, and this cannot come about without disruption and suffering; the crisis is upon us. Speculators for a rise resist a while, continue to buy or refuse to sell at the lower values and at this moment make their liveliest appeals to credit. The discounts of the banks are larger than ever, and the circulation of bank notes increases while the reserve diminishes. At length it is necessary to give way, the resistance having served simply to aggravate the losses, and the crisis ends in numerous failures, in a shrinkage of business, of circulation and often of the bills presented for discount. It is a period of apathy, of dullness. Prices are low and

capital accumulates in the banks. This period may be considered as a period of liquidation of the crisis. Its duration may be short and in this event there is a real liquidation; or it may be protracted either by the incompleteness of the liquidation or by persistence of the causes which occasioned the general evil, there being the while less liquidation than general apathy of the market. This is termed a *commercial* crisis.

At other times the disturbance is less general. It may proceed solely from trouble in the monetary circulation caused ordinarily by an excessive exportation of the precious metals: this is called a *monetary* crisis.

Crises appear to be a sort of periodical malady inherent in our economic organization, without, however, any precise period of recurrence. Political events, harvests, economic institutions, commercial customs of a people all may precipitate or modify them.

101. *Commercial Geography and International Competition*.—Within the same state there exists a territorial division of labor, founded on the diversity of the productions peculiar to each district. There exists, all the more, a diversity of natural productions between different countries and regions of the world.

Minerals are found principally in mountainous regions and in ancient formations. Vegetable substances and animals are subject to the law of climates and their production depends in the first place upon latitude and altitude; in the second place, upon the nature and situation of the land. This diversity, due to physical causes, is one of the reasons for the existence of trade between nations.

However, we must not think that nature, the passive element, is the sole cause of the diversity of productions

of each country. Man, the active element, in this respect, does more than nature. This is the double aspect of which we must not lose sight when we study commercial geography and seek to explain the kind and importance of the traffic of nations with each other. In fact, it is in countries where man counts most by reason of his energy, enlightenment or capital that production or commerce are greatest. It is in these countries that man, dominating nature, creates not alone agricultural wealth, of which the products suffice or contribute to maintain a dense population, but creates likewise large and varied manufacturing interests.

Europe and the United States of America are where these qualities are found united to the highest degree. Commerce carries to these countries from all other countries raw material which their industries use and a complement of foodstuffs for consumption by their numerous and relatively rich inhabitants, while manufactured products are exported in exchange. There is thus formed throughout the world regular currents of wealth circulation. In this the most civilized countries play a double rôle: the rôle of laboratories where the material, produced or mined in all parts of the world, is transformed by industry into products, *i. e.*, into divers utilities for the service of men and for the benefit of the manufacturing nation, and the rôle of a pump sucking in raw materials and ejecting finished products.

Owing to the extent of its territory, the variety of its climate, the quality of its soil, and its mineral wealth, the United States enjoys an advantage over the central and western European states; it produces the greater portion of its own foodstuffs and raw material, and exports both these products as well as manufactures to Europe.

It is the industrial and rich nations which dominate this movement. They export the most, import the most, and, precisely by reason of this wealth, buy of other nations not only a quantity of raw material and foodstuffs, but also a large quantity of manufactured products, notwithstanding the fact that they themselves manufacture so much. The industrial countries strive to place their products on foreign markets; thence a competition which stimulates the spirit of invention and enterprise and favors free commercial intercourse. The processes of the great industries to-day rest upon science, and as the discoveries of science are liberally communicated now amongst all civilized peoples, there are less secrets in industry than formerly. The machine having replaced the hand tool, manual dexterity counts for less and the advantage which certain groups of people formerly derived from it has diminished. Again, transportation of raw materials having become less costly, the advantages of situation counts for less. Accordingly any nation which has enterprising men and capital and means of communication, may hope to establish manufactories capable of supplying the home market, and of entering the lists with other nations in foreign markets. This is why, despite the rapid increase in the division of labor with economic progress, the industrial nations each tend to form a complete group by the variety of their manufacturing industries. Although this new condition sometimes renders more difficult the importation of manufactured products on the part of the best equipped nations, and intensifies the general competition on the world's markets, it manifestly indicates a general growth of human activity and of wealth.

102. *The Rôle of Commerce in Civilization.*—Logically, commerce is secondary and derivative; it follows

production which it presupposes. Historically, commerce is as old as primitive society, and is one of *the first bonds which united men into social groups*. It cannot be asserted positively that the commercial contact of a barbarous and a polished people is always advantageous to the former. The barbarian may be incapable of making use of the instruments of labor which civilization offers him, and he is always susceptible of being corrupted by the indulgences it offers. That is what happened in the case of the North American Indian.

But it may be said that among *civilized nations as a rule, commerce exercises a favorable influence upon wealth and progress*.

The following spirited utterance of an English orator is intended to show how false the idea of isolating a nation, no matter how fully its industries may be developed.

Pointing to the landed proprietor whose constant cry is for economic independence of the stranger, he asks, what the career of this man is and exclaims, "Why, a French cook dresses his dinner for him, and a Swiss valet dresses him for dinner; he hands down his lady, decked with pearls that never grew in the shell of a British oyster; and her waving plume of ostrich feathers certainly never formed the tail of a barn yard fowl. The viands of his table are from all countries of the world, his wines are from the banks of the Rhine and the Rhone. In his conservatory he regales his sight with the blossoms of South American flowers. In his smoking-room he gratifies his scent with the weed of North America. His favorite horse is of Arabian blood; his pet dog of the St. Bernard's breed. His gallery is rich with pictures from the Flemish school, and statues from Greece. For his amusements he goes to hear Italian singers warble German music, fol-

lowed by a French ballet. If he rises to judicial honors the ermine which decorates his shoulders is a production that was never before on the back of a British beast. His very mind is not English in its attainments; it is a mere picnic of foreign contributions. His poetry and philosophy are from Greece and Rome; his geometry is from Alexandria; his arithmetic is from Arabia; and his religion from Palestine. In his cradle in his infancy he rubbed his gums with coral from Oriental oceans; and when he dies his monument will be sculptured in marble from the quarries of Carara. And yet this is the man who says, 'Oh! let us be independent of foreigners!'

The American may experience the same conditions in his own country and without going outside of the most modest social circles. The Chicago workman before starting for his shop, takes his coffee grown in Brazil, sweetened with sugar from Cuba. The wool of which his clothes are made may have come from Australia and he pulls on a pair of boots made from hides which the Argentine has supplied.

To sum up the advantages of commerce to men; 1st. Commerce, by transporting each article exactly where it is most sought, increases, by that fact alone, the sum of utilities.

2nd. Commerce is necessary to a division of labor. It renders it easier and, so to speak, more specialized according as it itself becomes more varied, and, by supplying to manufacturing countries raw material, gives rise to numerous industries in such countries.

3rd. It increases economic activity, not only by the industries which it leads men to establish, but by the new enjoyments it offers and by the very needs which it creates.

4th. By establishing closer relations and more frequent communication between different countries, it leads people to know each other and to enlighten each other.

5th. By stimulating exploration and discovery by sea and land, it gives men a better knowledge of the planet they inhabit. It was the spirit of commerce that led to the discovery of the passage to India via the Cape of Good Hope.

6th. By giving men a knowledge of the earth it invites them to *colonize* regions whence come and whither go exchangeable products.

7th. By multiplying the ties which unite people and weakening the prejudices which serve to estrange them, commerce, which has often been the cause of war, *tends nevertheless to render war less frequent* in consequence of introducing a juster view of the interests of all.

Résumé

Commerce is buying and selling, *i. e.*, the exchange of merchandise for merchandise, or of merchandise for money. Its object is to carry products, often from one place to another, or from one period of time to another, and always to transfer them from one owner to another.

Although they do not create products, merchants are producers because they create utilities.

We distinguish home commerce which is generally free, from foreign commerce which is subject to statutory regulations. Foreign commerce embraces imports and exports, general commerce and special commerce, and transit through the country to a foreign port. A nation's exports approximate its imports.

Taxes on exports are rare. Taxes on imports are

fixed according to either the liberal or the restrictive system.

Exchange is the price at one place of a definite quantity of specie deliverable elsewhere. It is favorable to the creditor nation, unfavorable to the debtor nation. Exchange is a barometer of the condition of commerce: but we must not confide too much in it.

Crises are a diminution of production, of consumption, or of circulation of wealth, and a rupture of the equilibrium between these different branches of economic activity.

A crisis is characterized first by an increase in the circulation of banknotes, by the falling off in the bank reserves, by the increase of discounts. It is preceded by a tendency toward a higher level of prices and followed by a fall in prices and an apathy in business more or less prolonged until the liquidation is complete.

Crises, commercial or other, are a sort of periodical malady inherent in our economic organization. It is in countries where men count for most because of energy, instruction and capital that production and commerce are greatest; in such countries is found a dense population, and large and varied manufactures. Nations in which industry is most highly developed import principally raw materials and foodstuffs, and export manufactured products. Industrial nations each tend to form a complete industrial group.

It may be said that as a general rule, commerce exercises a favorable influence upon wealth and civilization. It increases the sum of utilities; it augments economic activity, it teaches people to know each other and to know the earth; it stimulates colonization and renders wars less frequent.

PART IV

CONSUMPTION

103. The Various Kinds of Consumption. 104. Productive Consumption. 105. Outlays for Capital and Education. 106. The Consumption of Capital by Labor and Production. 107. Unproductive Consumption. 108. Luxuries. 109. Preservative Consumption. 110. The Mechanism of Insurance. 111. Different Forms of Insurance.

103. *The Various Kinds of Consumption.*—We know that consumption is *the legitimate end of wealth* (see 5 and 6). If men take the trouble to produce, conserve and exchange wealth, it is because they expect to find in it a means of gratifying their wants. Now, wants, as we have explained, are the determining cause of economic effort, and consumption which satisfies the want is the recompense for effort.

Nevertheless, it is not necessary that all the wealth produced should be immediately consumed. A portion of it is *saved* in order to be consumed later, and especially to create capital (21 and 22). Nor is it at all necessary that all consumption should aim at, or result in, satisfaction of personal wants, nor even that all the wealth consumed should satisfy wants at all.

Man creates neither matter nor physical energy. No more can he destroy matter or physical energy. He creates simply utilities, that is, some utility which he again destroys by consuming wealth (7 and 11).

Primarily we may divide consumption into two great classes, *viz.*: productive and unproductive consumption. The first class includes all consumption made with a view

to production, or, more precisely, with a view to creating or conserving some utility in the form of either a product, service or productive force. The second embraces other kinds of consumption, *i. e.*, all which have no industrial aim, but either satisfy personal wants or are due to accident.

We may likewise distinguish between rapid and slow consumption of wealth¹ according to the duration of the service and the time which intervenes between the initial employ and final destruction of the utility.

Personal services fall under the head of rapid consumption. Foodstuffs and fuel likewise belong under this head. Under the second head come monuments and buildings which may serve the same use for many years or even centuries, machines and tools which serve for a longer or shorter period the purposes of production, and books which we keep in our libraries.

This distinction is important, particularly in industrial consumption where each product should contain the whole value of all the several forms of rapid consumption employed in its fabrication while including only the fractional recovery, or amortizement, of the forms of slow consumption employed.

We may distinguish between consumption of revenue and consumption of capital. The latter is most frequently reproductive consumption.

Whether rapid or slow, consumption always implies a destruction of utility; all wealth, except lands, is consumed and comes to an end. The most solidly constructed monuments of antiquity are ruins to-day and those of the Middle Ages which still exist could not have preserved their usefulness except by important outlays for maintenance.

We may likewise distinguish between private and public consumption, the first embracing all that individuals and groups of individuals consume, the second all that is consumed in the public service, that is, in the disbursements of the political community.

Consumption, in the economic sense, often takes place much sooner than the ordinary sense of the word might lead us to suppose. Take, for example, bread and butter. Everbody knows that consumption will not be long in absorbing this food, that the same evening probably the bread will cease to exist, and, after a few days, the butter also.

But take the planks in a carpenter shop. How and where will they be consumed? When they have ceased to be planks in order to become tables and chairs. Take the cotton in the factory. Will it be consumed only when the cloth which is made of it is used and worn out? Long before that; for it ceases to be cotton when the spinner has converted it into yarn, as the yarn ceases to be yarn when the weaver has converted it into cloth, and the cloth ceases to be cloth when the garment worker has converted it into garments. Most products, except land, are continually destroyed or used up or transformed by incessant consumption.

104. *Reproductive Consumption.*—When the farmer sows wheat he consumes it. He consumes besides the labor employed in the sowing and in preparing the soil, the interest on his capital for nine months, and presently he will consume the labor of the harvesters. All these forms of consumption are but advances made to production. If his operations have been good he will recover the whole of his outlay in the harvest. Seed and labor

will have been, not destroyed, but transformed into grain and straw.

When a manufacturer builds and equips a shop at a great outlay in order to produce machines, he consumes a considerable amount of capital which there is no reason to believe he will recover in the price of the first engine that comes from his shop; for here, as we have said, is fixed capital. In the price of the engine he will recover the whole value of the metal, of the labor and of the fuel consumed in its construction, and he will recover, besides, a small portion of the fixed capital invested in the establishment. The same will be true of each piece he constructs, and in a dozen years perhaps, if he has managed well, he will have recovered in the form of this gradual repayment or amortizement the whole of the fixed capital. Here again, we have simply a transformation, a group of utilities which change their form, ordinarily serving to create greater utilities. These transformations are styled reproductive consumption because in fact we destroy certain utilities only to produce directly a sum of utilities at least equivalent. They are really advances made to production (see 23).

Of the various forms of reproductive consumption called for by agricultural or manufacturing industries, some are rapid, others slow. The former is consumption of circulating capital, the latter of fixed capital.

105. *The Outlay for Capital and Education.*—Most industries gradually use and conserve their fixed capital. This capital merits special consideration in the study of consumption. It had to be created and maintained: it is useful to increase it. At the moment it is created, there is a consumption of circulating capital which is transformed into fixed capital. Here it is important to ob-

serve that the manufacturer who puts fixed capital into his establishment pays out money for it; but money only circulates; it is products, wood, metals, etc., bought with that money which are consumed. The use of money is not even always necessary: an example is offered by the carpenter using planks which he has in his shop to construct a shed for his own use.

We have pointed out in treating of *saving* and capital (see 23 and 24) how consumption, made with a view to the creation or increase of capital, serves to increase wealth. One or two examples will suffice to show how outlays for maintenance are no less important. A farmer who abstains from the use of fertilizers on account of their expense, may, in despite of the modest harvest he reaps, find himself with more money in his pocket at the end of the year than if he had incurred the expense in question. But the following year his shortsightedness will become apparent in the impoverishment of the soil. The owner of a horse may make the animal work one or two days without feed: he may flatter himself that he has saved the cost of the corn and hay; but, the fourth day, the horse would die and the miser would lose all his capital because he failed to make the necessary outlay for maintenance. No one is so stupid as to do this, but there are people who, because they nourish their horses insufficiently, get inadequate service from them.

We know that intellectual capital is still more precious than material capital (see 16, 18, 19, 20). It is likewise by consuming wealth that we create intellectual capital, maintain it, increase it; and it is the more important to do this accordingly as intellectual capital is the more useful to civilization. A nation may save the enormous sums which it pays out for education, primary, secondary

and higher, and after having closed all the schools, believe itself richer for a certain period because it has more available capital. But the moment of disillusion will be cruel indeed. In twenty years a large portion of its intellectual capital will have been destroyed for lack of transmission and the nation would be relegated to an inferior position. The only way in which to increase capital is to continue to create it; and there are but two kinds of consumption applied to material capital, *viz.*: creation and maintenance. Just so with intellectual capital, which the labor of savants and thinkers creates and instruction spreads and transmits.

By way of summary we may say that reproductive consumption :

Applied to matter, embraces :	{ The cost of production or creation of wealth. { The capitalizing or increase of material productive forces.
Applied to persons, embraces :	
	{ The cost of supporting the producers or the sustenance of human life. { Education or the increase of moral productive forces.

106. *The Destruction of Capital in the Work of Production.*—It is the nature of capital to be active because it is productive only when employed (see 23). And it engages in the work to be consumed in it. The near and certain fact is consumption. The aim is reproduction, *i. e.*, regeneration in a new form and with an added value. But this end is more or less distant and the entrepreneur is never quite certain of attaining it. All capital is like the seed which one consigns to the ground; it is lost if there be no harvest.

A manufacturer has employees who work badly, a poor installation or inadequate tools; each unit of product costs him ten dollars and it is worth but nine dollars on the market. If his total production for the year amounts to

100,000 dollars it means 10,000 dollars of capital consumed as a pure loss. He attempts a consumption which he intends shall be reproductive, but which proves unproductive.

A tradesman establishes himself in a certain street. Customers are lacking but he nevertheless persists in the undertaking until he is obliged to close his shop after having consumed several thousand dollars which he had accumulated previously, or borrowed. Here again we have consumption intended to be reproductive but which has degenerated into unproductive consumption.

In the United States the failures in business which took the form of assignments for the benefit of creditors for the four years 1901-4 show an average annual excess of liabilities over assets of more than 65 million dollars, and to this sum must be added the loss of the capital invested in the enterprises. Moreover such failures represent but the smaller portion of the industrial losses occasioned each year by *agricultural, industrial or commercial operations which unfavorable circumstances or bad management render unprofitable.*

Capital is, so to speak, constantly on the field of battle struggling for the conquest of wealth. There are casualties, but wealth is conquered none the less, or, to speak more correctly, is created by an enormous quantity of effort under which some of the combatants succumb.

These losses must not discourage nor alarm us unduly. The important thing is to be careful, intelligent and economical, with a view to avoiding them. On the other hand we must not forget that no business ventures are free from risk and from occasional loss. The enrichment of a nation is found in the difference between the amount of services of all kinds consumed in any manner whatso-

ever and the sum of services produced in the same time. The timid nation which, for fear of loss, refrains from employing much of its wealth in production, enriches itself less rapidly than the enterprising nation which increases the employment of capital and in which the successful ventures due to its intelligent activity greatly exceed the losses due to rashness. Here again we have a trait which manifests the superiority of the moral forces over the material.

When we speak of industrial losses we do not include the fall in market value of merchandise or securities which is a phenomenon of a different order. Variation in values and variation in the quantity of products are two different things, although intimately connected. It is always desirable that the quantity of products should increase; it is not always desirable that prices should increase (see 75).

107. *Other Kinds of Unproductive Consumption.*—All consumption which is not reproductive is termed *unproductive*. There are two distinct kinds of unproductive consumption, *involuntary* and *voluntary*.

The industrial loss resulting from an enterprise badly conceived or conducted is an example of *involuntary* unproductive consumption.

Another is the accidental loss occasioned by some fortuitous event such as the wreck of a ship or destruction of a harvest by the elements. These are blows which cannot be foreseen with respect to each particular happening, but against the disastrous effects of which individuals, as we shall point out further on, may often protect themselves by insurance.

Nevertheless, even in the case of accidental losses, human energy is not entirely impotent; for many fatalities

are due primarily to inefficiency, ignorance or carelessness. If the pilot had known the location of the reef his boat would not have been wrecked; if the farmer had roofed his barns with less inflammable material and left more space between them, they would not all have been burned. Just so in the case of industrial losses. If the owner of the thread mill had comprehended the value of certain new inventions, he would have discarded his old machinery and not persisted in manufacturing thread which cost more to produce than he could obtain for it. If the merchant had had a better knowledge of commercial geography and the state of the market, he would not have sent to a distant port merchandise which in all probability would have to be sold at a loss there. The amount of capital which is engulfed each year in involuntary unproductive consumption, especially industrial consumption, is enormous. How much of it would not professional training, or more foresight and experience, have saved!

By voluntary unproductive consumption we mean all that individuals and society consume to satisfy wants other than those of production, or maintenance, or the development of productive force. Such consumption divides itself into outlay for the maintenance of non-producers and for expenditures for luxury, private or public.

Under the head of outlay for the maintenance of non-producers we do not include the expenses of families who are supported by the efforts of one of the members, but persons who live upon their income or pension or by charity. Consumption for luxury we may designate as all consumption not useful for the support of a person.

108. *Luxury*.—It is easier to define luxury in a general way than to designate the point where luxury begins in individual consumption. A merchant has a coachman

and a valet. Is this a luxury? We dare not say off-hand that such is the case. For these two servants who in many respects constitute a personal indulgence permit him to occupy himself more exclusively with his affairs. Another person does not keep a carriage, but frequently pays out money to hire one. Is this a luxury? Not necessarily, for it may facilitate his business. On Sunday he hires a carriage for a ride in the park. Is that a luxury? Yes, but if it does not appear to exceed his means it is a form of comfort to which his labor and economies entitle him.

Luxuries are accordingly not in themselves reprehensible; they constitute a legitimate satisfaction so long as they are not excessive, *i. e.*, the amount of luxury in which *each individual can indulge is variable, depending upon his income*. By income is meant the sum, the fruit of labor or interest on capital, which each one has at his disposal for the satisfaction of personal or family needs.

Everyone should divide his income into two parts: the first to be devoted to necessities and adequate savings, the second to be available for luxuries. To abandon one's self to the latter without adequate means of meeting the demands of the former is ruinous. But when the demands of the former are fully satisfied it is legitimate to indulge in luxuries; it is in fact an increase of well-being, a broadening of life.

Since production takes place with a view to satisfying human needs, it is at meeting the needs of maintenance and the demands of luxury that wealth principally aims. Reproductive consumption, however important, is a means and not an end; it prepares products to be finally consumed for the support and entertainment of the race. In

economic activity everything proceeds from man and ends in man.

There is however a common prejudice by which we must not permit ourselves to be deceived. It is frequently said that "luxury promotes trade." The maxim is false. The taste for luxuries may really stimulate productive activity by stimulating the desire to grow rich in order to satisfy fancies. But, since products are continually moving, continually destroyed and re-created, except in the very rare case of the miser hoarding his treasure, it is evident that if the owner of the wealth had not used his money for luxury he would have used it in reproduction, either personally if he be engaged in business, or by lending it if he be a capitalist. The nature of the thing consumed may thus fail to *exercise a favorable influence on the amount of labor at command.*

In spending his income on luxuries, the owner has simply exercised his right. The income being a product and not a productive force, the sum of the productive forces of the nation remains the same. If, however, he had devoted a portion of his income to reproductive consumption, that much would have been added to existing capital instead of being destroyed, and the *reproductive force of the nation as well as the general command of labor, would have increased to that extent.*

Seriously prejudicial is, of course, the luxury which involves prodigality, indulgence which, not content with the expenditure of income, eats into capital. Such indulgence has the same effect as the stupidity of the savage who fells a tree in order to secure the fruit. It destroys a portion of the productive forces of society and impoverishes the nation.

Indulgence in luxury is natural to men. It is found

in all times and countries, as well as in all social classes, from the savage who has no capital other than his bow and his hut constructed of branches, but who adorns himself with feathers, from the working women who to-day wear silks whilst their mothers wore cotton, up to the millionaire who decorates his home with masterpieces of painting and sculpture. The growth of consumption of luxuries, public and private, is legitimate in a society whose wealth is growing.

Luxury may take diverse forms according to the habits of a people or the taste of individuals. It may be coarse, such as overindulgence in the pleasures of the table. It may be refined and take pleasure in elegance of dress or furniture. It may be delicate and love art. The more luxury inclines toward spiritual pleasures, the purer it becomes and the more it makes for progress. There is one form of luxury which is to be condemned absolutely, even when it does not exceed the income of the person who indulges in it, namely, luxury by which men become corrupt or corrupt their fellows. Drunkenness and debauchery fall under this head.

Everybody has certain moral duties which ought to translate themselves in practice into economic acts. To work is one of these duties. To make a proper use of one's fortune is another. He who possesses wealth must realize that he has in his hands a force with which he can produce good or evil, that it is his duty to seek the one and avoid the other, to employ a portion of his income in acts of intelligent benevolence, to so direct even his indulgences as to encourage the production of the beautiful and to help form and purify the tastes of his fellow citizens.

109. *Preservative Consumption.*—Between reproductive and unproductive consumption must be found a place

for *preservative consumption*. In its results it is allied to reproductive consumption and it may be classed with outlays for the maintenance of capital. In its nature, however, it differs somewhat from both. Maintenance consists in consuming a certain amount of capital in order to prevent the destruction or impairment of an instrument of production. Preservative consumption, which is nothing other than *insurance*, does not guarantee capital against destruction, but guarantees the owner against the loss of his capital in the event of his capital being accidentally destroyed.

Insurance applies only to losses involuntary and accidental. When wealth is destroyed—not consumed reproductively—no power can cause it to exist again. We can produce new wealth, but cannot re-create that which has disappeared. Accordingly no such thing as insurance is possible for society considered as a whole. Society has no other salve for accidental losses than to possess a volume of wealth and productive forces which will render small losses less sensible in the great mass and promptly fill up any voids that may be created.

But insurance against individual losses is possible, and the security which private interests find in it is eminently favorable to the public interest. The object of insurance most frequently is to *guarantee in case of accidental loss*, the replacing of the capital insured, and it is applied to capital which by its nature is liable to accidental destruction.

Sudden destruction of capital may seriously affect an owner or ruin him. The payment of a small annual premium, which is precisely preservative consumption, gives to him a guarantee that in the event of his capital being partly or wholly destroyed by an accident covered by the

insurance policy, an equivalent capital will be given to him.

110. *The Mechanism of Insurance.*—This result is secured by means of a financial combination which aims at eliminating the element of risk and for this purpose resorts to association and division of risk. Men are exposed to many dangers; but accidents, however numerous, are really the exception in human affairs. Not all the buildings of a great land are devoured by conflagration, not every man breaks a leg every day, not all the living die a sudden death. Just here lies the possibility of dividing the risk.

Example.—A merchant has 100 tons of goods which he desires to transport to a distant country. If he should put the 100 tons on one ship and the ship foundered, he would lose the whole of it. Would it not be better to intrust one ton to one ship, and one ton to another, confiding it thus to 100 ships if he could find so many sailing for the port in question? If he should do this he would be free from anxiety. It is highly probable, we may say almost certain, that not all the 100 vessels will be shipwrecked. On the other hand it is probable that at least one of the ships will be lost, so that the merchant to avoid the danger of losing all his goods, will have practically sacrificed one-hundredth part of them.

But this way of dividing the risk is hardly practicable. What merchant is willing to go to the trouble and expense of making out the papers for the one hundred separate shipments even if he could find 100 ships sailing within a reasonable period for the desired port? This division of risk is arrived at indirectly by an association whose operations are based on a calculation of probabilities.

We have supposed that one ship in one hundred on the average is lost. The merchant finds an insurer who says

to him: "There are ninety-nine chances that the ship which carries your 100 tons will arrive safely and one chance that it will be lost. Pay me one-hundredth part of the value of your shipment and I will insure it. The chances are equal. It is true that I shall run the risk of being compelled to pay you ninety-nine times as much as you have paid me, but I have ninety-nine chances of having nothing to pay. You on your part enjoy the certainty of receiving from me the full value of the shipment if the vessel should be lost."

Of a large number of houses the percentage destroyed by fire each year is tolerably uniform. You wish to insure yours: then pay the insurer such percentage of its value each year. This is the principle on which insurance rests.

Insurance has been compared to hazardous speculation. Such a view is not correct. Insurance is precisely the destroyer of risk. The insured purchases his safety; he surrenders a certain portion of the income of his capital in order to be sure of the continued enjoyment of the capital itself.

In the event of a loss the insurance company on its part pays out money which it has received as premiums for this very purpose, regulating its chances so as to enjoy a profit over and above the average risk.

For a sound company two things are necessary: a large number of risks and a capital sufficiently large to enable it to meet unforeseen contingencies. If a company, knowing that the average loss of vessels is one in one hundred, should limit its operation to insuring one hundred vessels, demanding of each the one-hundredth part of its value, its operations might prove very unprofitable. A storm might destroy three or four out of the 100 vessels the company insured. If instead of insuring 100 it insured

1,000, the chances of suffering only the general average of loss (namely 1 in 100) would be increased not in the proportion of 1 to 10, but of 1 to 100, that is to say, they increase as the square of the increase in the number of the insured. Accordingly when insurance is based upon very large numbers, a company's operations are quite removed from the domain of hazard.

III. *Leading Kinds of Insurance.*—The oldest form of insurance is maritime insurance. It is the first which men devised, as manifestly no form of capital is more exposed to accidental destruction than that of ships and their cargo. Then as the qualities of forethought and prudence developed in modern society, we witnessed the inauguration of *fire insurance* which guarantees the owner of a house against loss by fire.

Again, the productive force of man, the principal source of wealth, is exposed, like material capital, to sudden destruction. Death is inevitable and it often strikes down the young and strong. When it cuts off the head of a family it not only deprives society of a worker, but often robs the household of its support and perhaps leaves it without a source of livelihood. Insurance may in such event minister to the needs of the family. Life insurance is one of the most commendable manifestations of forethought and character. Mutual aid societies likewise come under the head of preservative consumption. By means of monthly payments, not large, they provide: in case of sickness, for medical attendance and supplies and a daily allowance in lieu of suspended earnings; in the event of death, the cost of interment and often a certain sum for widow or children. It is a form of insurance most necessary for wage-earners, whom sickness and enforced idleness consequent thereon often reduce to the last extremity.

Résumé

Consumption is the legitimate end of wealth. To consume wealth is to destroy its utility.

We may distinguish between : reproductive and unproductive, slow and rapid, and private and public consumption.

Reproductive consumption applied to matter includes the cost of production and capitalization; applied to persons, it includes the cost of maintenance and of education.

The measure of luxury which each person can allow himself depends upon his income. Everyone should divide his income into two parts; the first to be devoted to necessaries (maintenance and proper savings); the second to be available for luxuries.

A growth in the consumption of luxuries is permissible in a society whose wealth is growing.

It is inaccurate to say that luxury promotes commerce; because the nature of the thing consumed may fail to exercise a favorable influence on the sum of labor at command.

Insurance is a form of preservative consumption. Its object is to guarantee repayment of capital in case of accidental loss.

It eliminates the element of hazard by division of risk through associations whose operations are based upon definite calculations.

The principal forms of insurance are : on the one hand, maritime and fire insurance which guarantee material capital; on the other, life insurance and mutual aid societies.

PART V

FINANCE

112. Consumption by the State and the Principle of Taxation. 113. Distributing the Burden; Single and Multiple Taxes. 114. Direct and Indirect Taxes. 115. Classification of Taxes. 116. Budgets. 117. Necessary and Facultative Expenditures. 118. Local Budgets. 119. Loans. 120. Debts.

112. *Consumption by the State and the Principle of Taxation.*—The word state designates a group of men who have a distinct and formal political existence; in most cases, among civilized peoples, a *nation*. It includes, besides the nation or people, the territory which the nation occupies and the government which rules it.

In a certain way the state is society organized. It is a condition precedent to the security of the individuals who inhabit the national territory, the instrument of their will in connection with undertakings which call forth the collective power of the community, the guardian of the general interests and the general administrator.

To perform these functions the state is called upon to make expenditures, *i. e.*, to consume wealth.

In half civilized communities, such as the pastoral tribes of nomadic Arabs, or the agricultural peoples of feudal times, where the sovereign exercises great authority over the persons of his subjects to the detriment of personal liberty, but where the services which the state renders are not numerous and its functions quite simple, the principal expenditures in time of peace are the expenditures of the sovereign whose personal budget is often confounded with

the state budget, the two together forming an inconsiderable sum. In fact the insignificant wealth of such communities could not support a large budget.

On the other hand, in civilized societies the useful functions of the state are multiplied, developing ordinarily with the very demands of wealth. In such, budgets accordingly become large. That of the United States, which in 1900 was over 886 million dollars, in 1840 was only a little over 28 million dollars. A similar increase, in varying proportions, is observable in all civilized countries during the nineteenth century in the measure of their increase of wealth.

What the state consumes is the services of its functionaries and employees of all kinds and the supplies intended for use in the course of administrative and public work of every kind. Moreover, it pays interest on the debts which it has contracted, and of which the capital has frequently been expended for salaries and supplies. *Its outlay is accordingly for salaries and interest and the purchase of commodities.*

The state is the largest of all consumers. It fills alone the chapter of public consumption whilst all the people together contribute toward that of private consumption. The expenses of the state are really the *cost of administering the affairs of the political community*. The members of that community must necessarily pay that cost, for there are no other means of procuring the fund unless by giving the state possession of certain of the productive forces—a kind of socialism injurious to the national wealth. (See 64.)

It is proper that the members of the community pay the cost since it is they who benefit by the state's expenditures.

There are many definitions of taxation. Here is one which approximately takes into account the nature and principle of the thing: *Taxes are that portion of the wealth of the inhabitants of a country which is collected to provide a revenue for the political community and is devoted to the accomplishment of the functions, and to the payment of the expenses, of the state.* We may add: the levy is made, in civilized countries, conformably to law: it should be, as much as possible, in proportion to the presumed resources of those who pay it and should have regard to the ease with which it can be collected.

113. *Distributing the Burden; Various Systems of Taxation.*—To justly distribute the burden of taxation is one of the most serious problems of politics and political economy. On this subject the latter science should enlighten the former. Taxes are always a charge. If this charge is unequally distributed it may become a crushing burden for certain classes even though the budget be in no wise disproportioned to the total national wealth. Thus in France, before the revolution of 1789, taxes were unduly burdensome to the humble class, not because the total collections of the public treasury were excessive, but by reason of the immunity of favored classes, which served to throw the whole load on only a portion of the land holders and farmers and principally upon the poorest.

How is the charge to be equally distributed? If the state could ascertain the exact income of each individual it would have, if not an absolute measure of ability to pay taxes equally applicable under all conditions, at least a criterion. Certain economists insist upon tracing all production to a single source and confining all wealth to a single form, and then instituting on this basis a single tax, pretending to arrive thereby at a proportional dis-

tribution of the burden of taxation. Some believe this basis is to be found in land, others in capital, others again in revenue or even in consumption.

The physiocrats of the eighteenth century advocated a single tax on the net produce of land, because they regarded land as the sole source of wealth and they hoped thereby to free industry and commerce from the many taxes which impeded enterprise. Somewhat of their doctrine was embodied in the fiscal system established by the French constituent assembly of 1790; but the foundation of the system crumbled away when political economy demonstrated that wealth was produced by industry and commerce as well as by agriculture.

The single tax on capital is based upon the idea that real or personal property is the universal agent of production and that the wealth produced is, or ought to be, proportional to the capital employed in its production; that if one derives from his capital an income above the average, it is because he takes greater risks with it, or administers it more intelligently than others, that, in either case, it is unfair to make him pay more taxes on that account. If, on the other hand, one derives no revenue from his capital by reason of leaving it idle or because it is an object of personal enjoyment, such as a private park or picture gallery, it is urged that it is quite legitimate to make him pay for this indulgence and to thereby prompt him to employ his capital in a way which will be profitable to him and advantageous to society. It is further urged that capital, in the largest sense of the word, embraces all material wealth and that it is precisely for the protection of wealth that the state makes its greatest outlay.

Their system is less narrow than that of the physio-

crats: capital is in fact a much broader basis for the levy of taxes than land which is only one form of capital.

But how can an exact inventory of the wealth of a nation be made? If fixed capital is reachable—and this is not always the case—personalty easily escapes the vigilance of the appraiser. Hence the basis being incomplete, no equitable distribution of the burden is possible. This is why certain writers propose to tax only real estate, but that term does not mean the same thing to all of them, and if it did, their basis would still be too narrow.

Moreover is it just to tax unproductive capital the same as the most productive capital, to punish, for example, the manufacturer for the changing commercial conditions which oblige him to close his establishment? Shall the tax department leave him no other alternative than to pay or demolish his factory? On the other hand, is it only material capital which enables men to support themselves? The lawyer who owns perhaps personal property worth 5,000 dollars and earns 10,000 dollars a year at his profession without saving any of it; the painter who pays out a few hundred dollars for rent and supplies and earns as many thousand, are these men not quite as capable of making their contribution to the public revenue as the mill owner who by his industry, intelligence and economy has added his present large capital to the general wealth of the nation and perhaps finds difficulty in earning an average of six per cent. on it?

A single tax on revenue, is this more equitable? Certainly taxes in proportion to each man's revenue is a seductive idea and in many instances may be a principle of justice. But income, as well as capital, is difficult of ascertainment; it is easily concealed and varies from year to year. Even admitting that it is possible to ascertain the

exact income of everyone, is it just to tax it uniformly? The lawyer whom we have supposed to enjoy an income of 10,000 dollars from his profession, but whom sickness or death may strike down, depriving his family of support, should he be placed on the same footing with the landed proprietor whose income will pass with the land to his children?

The single tax on consumption is founded on the argument that consumption is the principal form in which income manifests itself, and that it is above all the circulation of wealth occasioned by consumption which demands the protecting vigilance of society. But is it easy to fasten upon each act of consumption? And a system of taxation based upon such a principle, would it not be fatally vexatious?

Moreover is it proper to confuse productive and unproductive consumption, or the consumption of necessaries with the consumption of luxuries? Furthermore, is personal consumption a true measure of the ability to contribute or even of the amount of protection which the state affords to each man's possessions? A bachelor enjoying an income of 5,000 dollars perhaps lives in miserly fashion and consumes less than the married man who earns only 2,000 dollars and rears a family of half a dozen children on it.

The single tax in any of its forms is inapplicable to a numerous and rich community. As wealth increases with the development and growth of economic activity it becomes diversified; taxation should then become diversified in order to reach the principal forms of wealth. Moreover when a state already levies divers and important taxes it must not, under the pretext of equalizing the burden, add to the load of the taxpayer by creating a universal tax

either upon capital, income or consumption, because this is placing additional burdens on certain forms of wealth already taxed and which are thus subjected to double taxation.

Proportional taxation is taxation on a uniform scale of all taxpayers no matter what the amount of their possessions. Progressive taxation is taxation which varies with the ability to pay, the rate increasing with the increase of the fortune taxed. Two taxpayers having respectively incomes of 2,000 dollars and 20,000 dollars would pay under the first system a uniform tax of 5%, *i. e.*, 100 dollars and 1,000 dollars. Under the second system they might be subject to a rate of 5% and 15% respectively, which would make their respective annual taxes 100 dollars and 3,000 dollars. The tax may appear to be progressive without being so in reality. Such, for example, is the charge upon personalty in Paris: it is progressive according to rent, a double rental being supposed to correspond to an income of the occupier more than double. In a limited number of cases taxation may be effectively progressive without ceasing to be legitimate. The inheritance tax may be progressive, not in accordance with the value of the estate, but in accordance with the degree or distance of relationship.

But a *general progressive tax* would end in confiscation of large fortunes, an act of injustice which would discourage the most capable.

In choosing between different kinds of taxes, we should cling to those which approximate most closely *proportional* taxation, to taxes the collection of which is the least *arbitrary* and of which the taxpayer can readily understand the mode of assessment, to taxes which entail the least cost of collection and to taxes the collection of which can be

relegated to seasons of the year when the taxpayer is best prepared to pay.

From the standpoint of political expediency, *no tax should be imposed without the consent of the people as expressed by their representatives*, and as we cannot realize the ideal of a perfectly equitable distribution of the burden of taxation, the greatest prudence should be exercised in regard to altering taxes because the *inequalities of an old tax* to which particular interests have accommodated themselves and in connection with which the principle of the incidence of taxation has come fully into play in the course of time, *are less vexatious* than the inequalities of a new tax would be supposing it were theoretically as unequal as the old.

114. *Direct and Indirect Taxes.*—Taxes are frequently divided into two great classes; direct and indirect. At first sight the distinction appears clearer than it really is; statesmen and economists are far from being in accord with respect to their meaning.

However, one may say that direct taxes are those which are imposed directly on persons, like the capitation tax, or on the possessions or use of goods, like the land tax. Their object is to reach the possessions of the taxpayer directly.

Indirect taxes, on the other hand, are those which are imposed upon wealth in connection with some incidental fact: act, exchange, fabrication, transport, etc., with no intention of proportioning the tax to the fortune of the owner of the wealth.

Direct taxes may be *variable*, like the property tax of our cities which varies according to the total sum required for municipal purposes for the year; or fixed like the trade

licenses which ordinarily remain the same from year to year.

Direct taxes are generally less susceptible than indirect taxes of increase or diminution in accordance with the annual variations in the production of wealth; they have the quality of being *relatively fixed*. Indirect taxes *are more flexible*: the returns from them *increase with the increase of wealth and consumption*, and in prosperous times supply the public treasury abundantly without any increase of the tax itself.

The divers inconveniences and advantages of these two kinds of taxes lead to the introduction of both together into the budget of a great country, because they lend assistance in the effort to reach the different forms of wealth, and, when taken together, offer some compensation for each other's defects.

115. *Classification of Taxes*.—The distinction between direct and indirect taxes is not sufficiently precise to serve as the basis of a logical classification. Moreover, no classification ought to be rigorous since there are taxes which strike at the same time different classes of persons and goods. Nevertheless we may distinguish roughly between taxes on persons, such as the capitation tax and immigration tax, and taxes on things, the latter embracing taxes on production, distribution and consumption.

116. *The National Budget*.—A state, like an individual, is obliged to take account of its receipts and disbursements in order to balance the one with the other, and in order to avoid, on the one hand, the squandering of money, and, on the other, the neglect of services necessary to the public welfare. This is what is provided by the *budget, which is a detailed statement of estimated receipts and expenditures*.

Under the parliamentary form of government, the budget is discussed and voted by the legislative power. It thereby becomes a *law* which is mandatory upon the executive power and by virtue of which the latter collects the taxes and makes the payments authorized for the fulfillment of the public service. In the United States the approval of the President is necessary before the Appropriations Bill becomes a law, and he has the right to veto all or any part of it. This latter power, if conscientiously exercised, may accomplish the defeat of dishonest measures.

It is not always possible for budgets to be rigorously exact, but generally speaking, the *financial* administration of a government is *so much the better according as it confines itself strictly within the limits of the expenses fixed by the estimates.*

The sources of national revenue vary greatly in different countries, but most countries derive their principal revenue from what we term import duties and internal revenue taxes, including heavy taxes on wines, liquors and tobaccos, sometimes in the form of a government monopoly of the latter of these commodities. In certain countries the income tax and inheritance tax are important sources of revenue. In 1903 over 90 per cent. of the net ordinary receipts of the United States government was derived from these two sources, namely: customs and internal revenue. An income tax was collected in the United States from 1863 to 1877, the total amount collected in this period being about 347 million dollars. It is a just tax more readily collected than the tax on personalty.

In the United States personalty is being reached more generally of late through the tax on industrial corporations, formed in great numbers in recent years. The

corporations are compelled to pay the tax directly before paying dividends on their stock. But where it has been attempted to find the personalty in the hands of the owner and tax it, the effort has uniformly failed.

No form of tax is more equitable nor more advisable from the standpoint of social expediency than the inheritance tax. The person who has not yet enjoyed the possession of a given property, and whose expenses or scale of living or business, are not dependent upon it for their continuance, does not seriously feel the loss of the portion of an inheritance which the state may retain for public purposes. In fact there cannot be said to be a loss to him but rather a smaller gain. The charge that the inheritance tax discourages enterprise and thrift, cannot be substantiated, since the desire to leave a given sum to his heirs may lead to that much additional enterprise and thrift if the testator knows that a certain portion of the estate will be deducted before the property reaches his heirs.

Moreover the interests of production counsel the taxation of wealth already created.

117. *Obligatory and Facultative Expenses.*—The expenses of the state are partly obligatory and partly facultative. They may be divided also into expenses necessary to enable the state to discharge its obligations, and which are therefore all obligatory, expenses for maintenance which are for the most part obligatory, expenses in the interest of progress and expenses for luxury, which are in part facultative.

In the first group are included payment of the pecuniary obligations of the state, such as the public debt and pensions, on which a government cannot default without putting itself in the position of a merchant who has failed. In the second appear the services relating to the public

security and social order, such as the army, the courts of justice, police, civil administration and works necessary to the preservation of the public domain, including buildings, roads, etc.; in the third, new undertakings, public instruction, encouragement of industry; in the fourth, embellishment.

The amount of expense which each of these services entails is fluctuating. As the demands of the public increase or the value of money diminishes, the state has more services for which to pay and finds them dearer without being better served. Certain services, facultative at one period, become obligatory at another; for example: The United States Government in the earlier years of its existence did not feel obligated to spend any money on internal improvements. In fact it was questioned whether the government had the right under the constitution to extend its activities to this field. In the year 1822 the appropriations for the improvements of rivers and harbors was a little over 22,000 dollars—in 1903 it was 54 million dollars.

It is essential, to good administration of the finances, to regulate *the outlays in ordinary times as much as possible by prospective income*. Under extraordinary circumstances, such as a defensive war or great calamity, the state should not hesitate to make the necessary outlay, no matter how large, even though it should create a debt which may weigh upon the taxpayer for years; this is a consequence of social solidarity.

But except under such circumstances, it is the duty of the government to manifest the strictest economy in handling the people's pennies. There are always plausible motives for expense. Under absolute governments, the sovereign is exposed to the temptation of incurring

them to satisfy his caprice. Under democratic governments where the sovereign power resides in the people and is delegated by them to their representatives, the administration is in danger of being carried away by the wishes of the legislature which is tempted constantly to undertake new measures either useful to the country or pleasing to their constituents. But the administration and the legislatures should both remember at all times the source of the money demanded and the productive use which the taxpayer might make of it if the money were not required by the state.

When a new form of wealth is produced, it is just to tax it; a source of increase to the public revenue. When the national wealth increases, the returns of fixed taxes and of taxes on consumption are larger without the tax itself undergoing a change; another source of increase to the public revenue. But in ordinary times existing taxes should not be increased unless it is plain that they are not large enough, nor should a new tax be placed upon a form of wealth already taxed.

For the state to expend more than it receives, *i. e.*, to have an annual deficit, and continue this deficit year after year is still more reprehensible than to directly increase taxes. It invariably leads to a period of financial disorder and an increase of the floating debt, with the result that in the end taxes are increased anyway.

The growing needs, and particularly the increase of the war budget and public undertakings, led to a considerable increase in the expenditures of civilized states during the last century. The budget of the European states amounted in 1869 to 2,050 million dollars: in 1900 it amounted to 4,506 million dollars.

Of course there has been a great increase of popula-

tion and wealth during this period; the latter has increased even more rapidly than the former. But one is forced to the conclusion that whilst public works are ordinarily productive, the great increase of the military budget and increase of national debts has proven hostile to the economic interests of the various countries and weakens the springs of European wealth.

118. *Local Budgets.*—Beside the great political community which constitutes the nation there are smaller administrative areas, such, for example, as the separate states, counties and municipalities in the United States, disbursing large sums of money.

In America and England the practice is to lay special taxes for local purposes, but in France the departments and communes raise a large part of their revenue by what is known as the *centimes additionnels*, *i. e.*, extra pennies added to the national levy. Their needs dictate the number of pennies to be so added, but the system deprives them of all freedom of choice in the matter of the kind of taxes to be imposed. Besides this, French municipalities collect at the city gates an *octroi* or tax on food supplies entering the city, and like the nation have their public domains which are productive of revenue. They own land, forests, abattoirs, cemeteries and monopolies such as the water and gas services, which they operate or lease.

In the United States the most important source of local revenue is the tax on real estate. Supplementing this are found taxes on personal property, and on franchises and the liquor license. With the formation of industrial corporations arose the possibility of taxing personal property much more effectively than was previously the case, as the tax is charged to the corporation and must be met before dividends are paid.

Local taxation and expenditure is not usually free from control by some higher political body. In the United States the municipal taxation and debt is generally controlled by the state in which the municipality is situated. In France the fiscal policy of the departments and communes is subject to the control of the central government and this is true likewise of the counties and municipalities in England.

119. *Loans.*—There are circumstances under which the ordinary revenue is inadequate. The three principal are: a war which it is necessary to prosecute; a serious and persistent deficit which must be met; great public works which are urgent or which it would be quite profitable to execute.

In vain have certain economists, alarmed beyond measure by the consequences of loans, tried to prove that under such circumstances, it is better to impose heavy taxes than encumber the future; no taxes that could have been devised would have provided the funds for the American Civil war nor the indemnity which France was compelled to pay to Germany in 1871. Neither can we pretend that a state, like an individual, may draw upon its capital when its revenue is deficient. With certain exceptions, such as the war chests which some states maintain, the capital of a state is composed solely of realty, some of which, like the public monuments, are unproductive, other of which, like the forest reserves, could not be alienated to any extent without serious prejudice to the future welfare of the community. It is accordingly necessary and legitimate at times to have recourse to loans.

When the loan is made for the purpose of prosecuting a war which was inevitable, or to discharge obligations which resulted from it, political economy does not pretend

to dispute the dictum of politics. When it is made for the purpose of restoring equilibrium in the budget destroyed by an excessive floating debt, it is nearly always justifiable, since it frees the finances from arrears which affect the public credit. When it is made for public works directly productive of public revenue, or likely to increase the public revenue indirectly by increasing the national wealth, it may prove advantageous. Loans of this nature may be justified on the ground that the present generation ought not to bear the whole burden resulting from a national crisis or from the perfectionment of the social machinery. It is proper that future generations, in the name of social solidarity, should accept their share, since they likewise will reap the benefit of the expenditure.

Loans are of various kinds. A *forced loan* is a kind of extraordinary tax which the state levies upon private fortunes and of which it engages to pay the interest and sometimes to repay the principal within a specified period. The burden of such a tax is such that most taxpayers cannot meet it without impairing their capital and the inevitable inequalities of the tax make it highly unjust and injurious.

Some governments sell annuities; *i. e.*, in consideration of a present sum, the government makes an annual payment during the life of the pensioner. This is simply a form of borrowing on the part of the government.

A third form of loan is the loan redeemable at the end of a fixed period. Certain of the French cities which are forbidden to contract perpetual loans, add to the redeemable loan a lottery feature under which a large premium is paid on the redemption of bonds whose number is determined by lot. This lottery feature attracts

capital, especially in small sums, and enables the community to borrow at a lower rate of interest.

Perpetual loans consist in the emission of obligations which the state does not promise to redeem at any specified time, but which it is not prevented from redeeming should it suit its purposes at any time to do so. This is to-day the most common form of borrowing practiced by states. In an era of falling interest rates distinct advantages attach to the convertible loan which may be redeemed at the option of the state after a short term of years.

The emission may be made by inviting public subscription in which any one may participate, or through the instrumentality of bankers who subscribe for the whole loan with a view to placing it with their clients at a profit.

Even public subscription, in which bankers likewise largely participate, does not result in the loan being placed at the beginning in the hands of capitalists destined to retain it. It is for a time the object of speculation. More or less of it always remains in the hands of bankers and the offer and demand of this portion, together with such as comes for various reasons out of the hands of private holders from time to time, determine the market quotation of the loan. These quotations, which often vary for causes accidental and without real importance, nevertheless in their general trend furnish a useful indication: first, of the credit of the state; second, of the abundance or scarcity of loanable capital.

120. *Debts.*—There are two kinds of debt, floating debt and funded debt.

The floating debt embraces the sums which the state owes its creditors irrespective of loans. The principal cause of its existence is the deficit, *i. e.*, excess of expenditure over receipts. To meet this deficit the state usually

issues short-time notes bearing interest. It renews them according to its needs or pays them when the condition of the national treasury permits. Another cause of floating debts is found in the daily needs of the public treasury. A state whose receipts may not coincide in point of time with its disbursements is compelled to make use of treasury notes. For these reasons floating debts cannot be entirely avoided.

But a heavy floating debt, continued through a series of years, is a source of embarrassment and an indication of faulty financiering. Although it nearly always costs the state less interest than a funded debt, it is better, as has been observed, to make a loan in order to fund a floating debt which has become excessive, than to permit it indefinitely to weigh upon the budget.

The debt, properly speaking, embraces all funded loans. The institution of credit is of ancient origin but its great development is comparatively recent. Industry and commerce have made a liberal use of it during the last century, and governments have done the same; at times to their detriment, in that it has led to prodigality or to ambitious wars; at times beneficially, aiding in the development of social equipment. Loans have multiplied with the facility of placing them and public debts have grown accordingly.

In France and in England, as in all countries where the local communities are under the financial tutelage of the central government, local debt, however excessive it may be at times, is, as we have seen, nevertheless under the surveillance of the government.

But there exists no such surveillance for the central government itself, and there are some countries, such as the United States, where it does not exist, for local units

such as the separate states. In such cases the increase of debt finds no limit other than the wisdom of the government and the credit of the community. Impulse may impair this wisdom and credit may suffer a serious decline without actually preventing the floating of loans, causing them simply to be floated on disadvantageous terms. Thus the debts of nearly all the states of Europe and America have increased during the last century.

There are various ways in which a state may lighten the burden of its debt.

When it has contracted a debt during a crisis, it has done it nearly always under onerous conditions, because its credit was then depressed. When better times come, and the state can borrow at a lower rate of interest, not only has it the right to refund the debt just as every private creditor has the right to discharge a debt when there exists no agreement to the contrary, but it is its duty to do so for the reason that its business is to avoid wasting the taxpayers' money, and not to provide a revenue for money lenders. With this object, it issues a loan at a lower rate of interest, offering to the holders of the old debt either payment at par, which it effects with the proceeds of the new loan, or substitution, if they so prefer, of the new obligations at the reduced interest. This is termed *converting* the debt.

In this process the state may purchase its obligations on the open market and retire them, thus diminishing the principal of the debt and the annual interest charge; this is termed *amortization*. This gradual retirement is provided for by the same law which authorizes the loan when that law sets aside a certain sum each year for the purchase of the debt. The advantage of such a system is that it makes *amortization* obligatory. But it also has the grave

inconvenience of reducing the funded debt at the cost of increasing the floating debt when there is a deficit in the budget.

When retirement is optional it takes place only when there is a surplus in the budget. This is true reduction, really lightening the burden of the treasury. But here again we find an imperfection, *viz.*: the purpose of the law is easily defeated by the public authorities making other use of the surplus.

Is it for the best interests of a state to continue a heavy debt or to endeavor to discharge it promptly? To suppose that a debt is useful to a state is an error; that which is useful is to have the credit. Now the credit of a state depends upon the wealth of the state and upon the reputation it enjoys for scrupulously meeting its engagements and paying its debts, a reputation which is not acquired in a day. Of course, as the wealth of a country increases the burden of the debt is less felt because the nation, having become stronger, carries it more lightly; but this process cannot take the place of actual retirement or discharge of the debt. If, at the moment when the expense has been incurred, it may be just to distribute the burden over a series of years by means of a loan, it would at the same time be unjust to make the charge perpetual and to thus throw it upon the shoulders of a generation too distant to benefit by the outlay. The existing generation has no right to dispose in advance of a large portion of the revenue of posterity and thus to prevent it from making the use of its revenue which it deems best.

Accordingly, *both the interest and duty of the state lie in the direction of discharging the public debt*, either by amortization which shall be regular and obligatory or irregular and dependent upon the occurrence of a surplus,

or by additional taxes the proceeds of which shall constitute a sinking fund calculated to discharge the debt in a given number of years. This is a wise rule, but one which states do not often follow. Some, however, such as the United States after the Civil War, have set a memorable example in this regard.

Résumé

The disbursements of the state are for wages, interest and supplies; they constitute the cost of administering the affairs of the political community.

Taxes are that portion of the wealth of the inhabitants of a country levied in order to provide a revenue for the political community and devoted to the fulfillment of the functions of the state and to the payment of its debts.

The levy should be in conformance with law, should be tempered to the presumed ability of the taxpayer to meet the charge, and should be collectable without difficulty.

The single tax, no matter upon what it may be based, whether upon land, capital, income, or consumption, is inapplicable to a rich and large community.

Progressive taxation might easily lead to confiscation.

Desirable qualities for a tax: to approximate proportionally, to lend itself as little as possible to arbitrary action, to involve the smallest cost of collection, to have been consented to by the people's representatives, and to change as seldom as possible.

There is a distinction between *direct* taxes, such as the capitation tax and trade licenses which are fixed, and indirect taxes which are more flexible and yield an increase of revenue with the growth of wealth and consumption.

The budget is a detailed statement specifying in ad-

vance the probable receipts and disbursements of the state.

The financial administration of a government is so much the better according as it limits itself scrupulously to the disbursements provided for by the budget.

The expenses of the state, obligatory and facultative, may be divided into expenses for the discharge of moral obligations, expenses of maintenance, of progressive development and of luxury.

In ordinary times expenses should be accommodated to receipts. Chronic deficits are more objectionable than increase of taxes.

Public loans are justified in the emergency of war or of a persistent deficit and for public works.

The principal modes of borrowing are by means of a forced loan, by the sale of annuities, by the issue of government bonds, either perpetual or maturing at a specified time.

The two principal forms of public debt are the floating debt and the funded debt. An inordinate floating debt is a source of embarrassment and a sign of inefficient administration of the finances.

A state may lighten the burden of its debt by exchanging its bonds for others bearing a lower rate of interest or by partly discharging the principal of the debt. Consideration of policy and duty both enjoin the discharge of the public debt.

