



Principles Of Political Economy by John

The Project Gutenberg eBook of Principles Of Political Economy by John Stuart Mill

This eBook is for the use of anyone anywhere at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at <http://www.gutenberg.org/license>

Title: Principles Of Political Economy

Author: John Stuart Mill

Release Date: September 27, 2009 [Ebook #30107]

Language: English

Character set encoding: ISO 8859-1

START OF THE PROJECT GUTENBERG EBOOK PRINCIPLES OF POLITICAL ECONOMY

Principles Of Political Economy

By

John Stuart Mill

Abridged, with Critical, Bibliographical,

Principles Of Political Economy by John
and Explanatory Notes, and a Sketch
of the History of Political Economy,

By

J. Laurence Laughlin, Ph. D.

Assistant Professor of Political Economy in Harvard University

A Text-Book For Colleges.

New York:

D. Appleton And Company,

1, 3, and 5 Bond Street.

1885

CONTENTS

Preface.

Introductory.

A Sketch Of The History Of Political Economy.

Books For Consultation (From English, French, And German Authors).

Preliminary Remarks.

Book I. Production.

* Chapter I. Of The Requisites Of Production.

§ 1. The requisites of production.

§ 2. The Second Requisite of Production, Labor.

§ 3. Of Capital as a Requisite of Production.

* Chapter II. Of Unproductive Labor.

§ 1. Definition of Productive and Unproductive Labor.

§ 2. Productive and Unproductive Consumption.

§ 3. Distinction Between Labor for the Supply of Productive Consumption and Labor for the Supply of Unproductive Consumption.

* Chapter III. Of Capital.

§ 1. Capital is Wealth Appropriated to Reproductive Employment.

§ 2. More Capital Devoted to Production than Actually Employed in it.

§ 3. Examination of Cases Illustrative of the Idea of Capital.

* Chapter IV. Fundamental Propositions Respecting Capital.

§ 1. Industry is Limited by Capital.

§ 2. Increase of Capital gives Increased Employment to Labor, Without Assignable Bounds.

§ 3. Capital is the result of Saving, and all Capital is Consumed.

§ 4. Capital is kept up by Perpetual Reproduction, as shown by the Recovery of Countries from Devastation.

§ 5. Effects of Defraying Government Expenditure by Loans.

§ 6. Demand for Commodities is not Demand for Labor.

* Chapter V. On Circulating And Fixed Capital.

§ 1. Fixed and Circulating Capital.

§ 2. Increase of Fixed Capital, when, at the Expense of Circulating, might be Detrimental to the Laborers.

§ 3. --This seldom, if ever, occurs.

* Chapter VI. Of Causes Affecting The Efficiency Of Production.

§ 1. General Causes of Superior Productiveness.

§ 2. Combination and Division of Labor Increase Productiveness.

§ 3. Advantages of Division of Labor.

§ 4. Production on a Large and Production on a Small Scale.

* Chapter VII. Of The Law Of The Increase Of Labor.

§ 1. The Law of the Increase of Production Depends on those of Three Elements--Labor, Capital, and Land.

§ 2. The Law of Population.

§ 3. By what Checks the Increase of Population is Practically Limited.

* Chapter VIII. Of The Law Of The Increase Of Capital.

§ 1. Means for Saving in the Surplus above Necessaries.

§ 2. Motive for Saving in the Surplus above Necessaries.

§ 3. Examples of Deficiency in the Strength of this Desire.

§ 4. Examples of Excess of this Desire.

* Chapter IX. Of The Law Of The Increase Of Production From Land.

§ 1. The Law of Production from the Soil, a Law of Diminishing Return in Proportion to the Increased Application of Labor and Capital.

§ 2. Antagonist Principle to the Law of Diminishing Return; the Progress of Improvements in Production.

§ 3. --In Railways.

§ 4. --In Manufactures.

§ 5. Law Holds True of Mining.

* Chapter X. Consequences Of The Foregoing Laws.

§ 1. Remedies for Weakness of the Principle of Accumulation.

§ 2. Even where the Desire to Accumulate is Strong, Population must be Kept within the Limits of Population from Land.

§ 3. Necessity of Restraining Population not superseded by Free Trade in Food.

§ 4. --Nor by Emigration.

Book II. Distribution.

* Chapter I. Of Property.

§ 1. Individual Property and its opponents.

§ 2. The case for Communism against private property presented.

§ 3. The Socialists who appeal to state-help.

§ 4. Of various minor schemes, Communistic and Socialistic.

§ 5. The Socialist objections to the present order of Society examined.

§ 6. Property in land different from property in Movables.

* Chapter II. Of Wages.

§ 1. Of Competition and Custom.

§ 2. The Wages-fund, and the Objections to it Considered.

§ 3. Examination of some popular Opinions respecting Wages.

§ 4. Certain rare Circumstances excepted, High Wages imply Restraints on Population.

§ 5. Due Restriction of Population the only Safeguard of a Laboring-Class.

* Chapter III. Of Remedies For Low Wages.

§ 1. A Legal or Customary Minimum of Wages, with a Guarantee of Employment.

§ 2. --Would Require as a Condition Legal Measures for Repression of Population.

§ 3. Allowances in Aid of Wages and the Standard of Living.

§ 4. Grounds for Expecting Improvement in Public Opinion on the Subject of Population.

§ 5. Twofold means of Elevating the Habits of the Laboring-People; by Education, and by Foreign and Home Colonization.

* Chapter IV. Of The Differences Of Wages In Different Employments.

§ 1. Differences of Wages Arising from Different Degrees of Attractiveness in Different Employments.

§ 2. Differences arising from Natural Monopolies.

§ 3. Effect on Wages of the Competition of Persons having other Means of Support.

§ 4. Wages of Women, why Lower than those of Men.

§ 5. Differences of Wages Arising from Laws, Combinations, or Customs.

* Chapter V. Of Profits.

§ 1. Profits include Interest and Risk; but, correctly speaking, do not include Wages of Superintendence.

§ 2. The Minimum of Profits; what produces Variations in the Amount of Profits.

§ 3. General Tendency of Profits to an Equality.

§ 4. The Cause of the Existence of any Profit; the Advances of Capitalists consist of Wages of Labor.

§ 5. The Rate of Profit depends on the Cost of Labor.

* Chapter VI. Of Rent.

§ 1. Rent the Effect of a Natural Monopoly.

§ 2. No Land can pay Rent except Land of such Quality or Situation as exists in less Quantity than the Demand.

§ 3. The Rent of Land is the Excess of its Return above the Return to the worst Land in Cultivation.

§ 4. --Or to the Capital employed in the least advantageous Circumstances.

§ 5. Opposing Views of the Law of Rent.

§ 6. Rent does not enter into the Cost of Production of Agricultural Produce.

Book III. Exchange.

* Chapter I. Of Value.

§ 1. Definitions of Value in Use, Exchange Value, and Price.

§ 2. Conditions of Value: Utility, Difficulty of Attainment, and Transferableness.

§ 3. Commodities limited in Quantity by the law of Demand and Supply: General working of this Law.

§ 4. Miscellaneous Cases falling under this Law.

§ 5. Commodities which are Susceptible of Indefinite Multiplication without Increase of Cost. Law of their Value Cost of Production.

§ 6. The Value of these Commodities confirm, in the long run, to their Cost of Production through the operation of Demand and Supply.

* Chapter II. Ultimate Analysis Of Cost Of Production.

§ 1. Of Labor, the principal Element in Cost of Production.

§ 2. Wages affect Values, only if different in different employments; "non-competing groups."

§ 3. Profits an element in Cost of Production.

§ 4. Cost of Production properly represented by sacrifice, or cost, to the Laborer as well as to the Capitalist; the relation of this conception to the Cost of Labor.

§ 5. When profits vary from Employment to Employment, or are spread over unequal lengths of Time, they affect Values accordingly.

§ 6. Occasional Elements in Cost of Production; taxes and ground-rent.

* Chapter III. Of Rent, In Its Relation To Value.

§ 1. Commodities which are susceptible of indefinite Multiplication, but not without increase of Cost. Law of their Value, Cost of Production in the most unfavorable existing circumstances.

§ 2. Such commodities, when Produced in circumstances more favorable, yield a Rent equal to the difference of Cost.

§ 3. Rent of Mines and Fisheries and ground-rent of Buildings, and cases of gain analogous to Rent.

§ 4. *Résumé* of the laws of value of each of the three classes of commodities.

* Chapter IV. Of Money.

§ 1. The three functions of Money--a Common Denominator of Value, a Medium of Exchange, a "Standard of Value".

§ 2. Gold and Silver, why fitted for those purposes.

§ 3. Money a mere contrivance for facilitating exchanges, which does not affect the laws of value.

* Chapter V. Of The Value Of Money, As Dependent On Demand And Supply.

§ 1. Value of Money, an ambiguous expression.

§ 2. The Value of Money depends on its quantity.

§ 3. --Together with the Rapidity of Circulation.

§ 4. Explanations and Limitations of this Principle.

* Chapter VI. Of The Value Of Money, As Dependent On Cost Of Production.

§ 1. The value of Money, in a state of Freedom, conforms to the value of the Bullion contained in it.

§ 2. --Which is determined by the cost of production.

§ 3. This law, how related to the principle laid down in the preceding * Chapter.

* Chapter VII. Of A Double Standard And Subsidiary Coins.

§ 1. Objections to a Double Standard.

§ 2. The use of the two metals as money, and the management of Subsidiary Coins.

§ 3. The experience of the United States with a double standard from 1792 to 1883.

* Chapter VIII. Of Credit, As A Substitute For Money.

§ 1. Credit not a creation but a Transfer of the means of Production.

§ 2. In what manner it assists Production.

§ 3. Function of Credit in economizing the use of Money.

§ 4. Bills of Exchange.

§ 5. Promissory Notes.

§ 6. Deposits and Checks.

* Chapter IX. Influence Of Credit On Prices.

§ 1. What acts on prices is Credit, in whatever shape given.

§ 2. Credit a purchasing Power, similar to Money.

§ 3. Great extensions and contractions of Credit. Phenomena of a commercial crisis analyzed.

§ 4. Influence of the different forms of Credit on Prices.

§ 5. On what the use of Credit depends.

§ 6. What is essential to the idea of Money?

* Chapter X. Of An Inconvertible Paper Currency.

§ 1. What determines the value of an inconvertible paper money?

§ 2. If regulated by the price of Bullion, as inconvertible Currency might be safe, but not Expedient.

§ 3. Examination of the doctrine that an inconvertible Current is safe, if representing actual Property.

§ 4. Experiments with paper Money in the United States.

§ 5. Examination of the gain arising from the increase and issue of paper Currency.

§ 6. *Résumé* of the subject of money.

* Chapter XI. Of Excess Of Supply.

§ 1. The theory of a general Over-Supply of Commodities stated.

§ 2. The supply of commodities in general can not exceed the power of Purchase.

§ 3. There can never be a lack of Demand arising from lack of Desire to Consume.

§ 4. Origin and Explanation of the notion of general Over-Supply.

* Chapter XII. Of Some Peculiar Cases Of Value.

§ 1. Values of commodities which have a joint cost of production.

§ 2. Values of the different kinds of agricultural produce.

* Chapter XIII. Of International Trade.

§ 1. Cost of Production not a regulator of international values. Extension of the word "international."

§ 2. Interchange of commodities between distance places determined by differences not in their absolute, but in the comparative, costs of production.

§ 3. The direct benefits of commerce consist in increased Efficiency of the productive powers of the World.

§ 4. --Not in a Vent for exports, nor in the gains of Merchants.

§ 5. Indirect benefits of Commerce, Economical and Moral; still greater than the Direct.

* Chapter XIV. Of International Values.

§ 1. The values of imported commodities depend on the Terms of international interchange.

§ 2. The values of foreign commodities depend, not upon Cost of Production, but upon Reciprocal Demand and Supply.

§ 3. --As illustrated by trade in cloth and linen between England and Germany.

§ 4. The conclusion states in the Equation of International Demand.

§ 5. The cost to a country of its imports depends not only on the ratio of exchange, but on the efficiency of its labor.

* Chapter XV. Of Money Considered As An Imported Commodity.

§ 1. Money imported on two modes; as a Commodity, and as a medium of Exchange.

§ 2. As a commodity, it obeys the same laws of Value as other imported Commodities.

* Chapter XVI. Of The Foreign Exchanges.

§ 1. Money passes from country to country as a Medium of Exchange, through the Exchanges.

§ 2. Distinction between Variations in the Exchanges which are self-adjusting and those which can only be rectified through Prices.

* Chapter XVII. Of The Distribution Of The Precious Metals Through The
Commercial World.

§ 1. The substitution of money for barter makes no difference in exports and imports, nor in the Law of international Values.

§ 2. The preceding Theorem further illustrated.

§ 3. The precious metals, as money, are of the same Value, and distribute themselves according to the same Law, with the precious metals as a Commodity.

§ 4. International payments entering into the "financial account."

* Chapter XVIII. Influence Of The Currency On The Exchanges And On
Foreign Trade.

§ 1. Variations in the exchange, which originate in the Currency.

§ 2. Effect of a sudden increase of a metallic Currency, or of the sudden creation of Bank-Notes or other substitutes for Money.

§ 3. Effect of the increase of an inconvertible paper Currency. Real and nominal exchange.

* Chapter XIX. Of The Rate Of Interest.

§ 1. The Rate of Interest depends on the Demand and Supply of Loans.

§ 2. Circumstances which Determine the Permanent Demand and Supply of Loans.

§ 3. Circumstances which Determine the Fluctuations.

§ 4. The Rate of Interest not really Connected with the value of Money, but often confounded with it.

§ 5. The Rate of Interest determines the price of land and of Securities.

* Chapter XX. Of The Competition Of Different Countries In The Same Market.

§ 1. Causes which enable one Country to undersell another.

§ 2. High wages do not prevent one Country from underselling another.

§ 3. Low wages enable a Country to undersell another, when Peculiar to certain branches of Industry.

§ 4. --But not when common to All.

§ 5. Low profits as affecting the carrying Trade.

* Chapter XXI. Of Distribution, As Affected By Exchange.

§ 1. Exchange and money make no Difference in the law of Wages.

§ 2. In the law of Rent.

§ 3. --Nor in the law of Profits.

Book IV. Influence Of The Progress Of Society On Production And Distribution.

* Chapter I. Influence Of The Progress Of Industry And Population On Values And Prices.

§ 1. Tendency of the progress of society toward increased Command over the powers of Nature; increased Security, and increased Capacity of Co-Operation.

§ 2. Tendency to a Decline of the Value and Cost of Production of all Commodities.

§ 3. --except the products of Agriculture and Mining, which have a tendency to Rise.

§ 4. --that tendency from time to time Counteracted by Improvements in Production.

§ 5. Effect of the Progress of Society in moderating fluctuations of Value.

* Chapter II. Influence Of The Progress Of Industry And Population On Rents, Profits, And Wages.

§ 1. Characteristic features of industrial Progress.

§ 2. First two cases, Population and Capital increasing, the arts of production stationary.

§ 3. The arts of production advancing, capital and population stationary.

§ 4. Theoretical results, if all three Elements progressive.

§ 5. Practical Results.

* Chapter III. Of The Tendency Of Profits To A Minimum.

§ 1. Different Theories as to the fall of Profits.

§ 2. What determines the minimum rate of Profit?

§ 3. In old and opulent countries, profits habitually near to the minimum.

§ 4. --prevented from reaching it by commercial revulsions.

§ 5. --by improvements in Production.

§ 6. --by the importation of cheap Necessaries and Implements.

§ 7. --by the emigration of Capital.

* Chapter IV. Consequences Of The Tendency Of Profits To A Minimum, And The Stationary State.

§ 1. Abstraction of Capital not necessarily a national loss.

§ 2. In opulent countries, the extension of machinery not detrimental but beneficial to Laborers.

§ 3. Stationary state of wealth and population dreaded by some writers, but not in itself undesirable.

* Chapter V. On The Possible Futurity Of The Laboring-Classes.

§ 1. The possibility of improvement while Laborers remain merely receivers of Wages.

§ 2.--through small holdings, by which the landlord's gain is shared.

§ 3. --through co-operation, by which the manager's wages are shared.

§ 4. Distributive Co-operation.

§ 5. Productive Co-Operation.

§ 6. Industrial Partnership.

§ 7. People's Banks.

Book V. On The Influence Of Government.

* Chapter I. On The General Principles Of Taxation.

§ 1. Four fundamental rules of Taxation.

§ 2. Grounds of the principle of Equality of Taxation.

§ 3. Should the same percentage be levied on all amounts of Income?

§ 4. Should the same percentage be levied on Perpetual and on Terminable Incomes?

§ 5. The increase of the rent of land from natural causes a fit subject of peculiar Taxation.

§ 6. Taxes falling on Capital not necessarily objectionable.

* Chapter II. Of Direct Taxes.

§ 1. Direct taxes either on income or expenditure.

§ 2. Taxes on rent.

§ 3. --on profits.

§ 4. --on Wages.

§ 5. --on Income.

§ 6. A House-Tax.

* Chapter III. Of Taxes On Commodities, Or Indirect Taxes.

§ 1. A Tax on all commodities would fall on Profits.

§ 2. Taxes on particular commodities fall on the consumer.

§ 3. Peculiar effects of taxes on Necessaries.

§ 4. --how modified by the tendency of profits to a minimum.

§ 5. Effects of discriminating Duties.

§ 6. Effects produced on international Exchange by Duties on Exports and on Imports.

* Chapter IV. Comparison Between Direct And Indirect Taxation.

§ 1. Arguments for and against direct Taxation.

§ 2. What forms of indirect taxation are most eligible?

§ 3. Practical rules for indirect taxation.

§ 4. Taxation systems of the United States and other Countries.

§ 5. A *Résumé* of the general principles of taxation.

* Chapter V. Of A National Debt.

§ 1. Is it desirable to defray extraordinary public expenses by loans?

§ 2. Not desirable to redeem a national Debt by a general Contribution.

§ 3. In what cases desirable to maintain a surplus revenue for the redemption of Debt.

* Chapter VI. Of An Interference Of Government Grounded On Erroneous Theories.

§ 1. The doctrine of Protection to Native Industry.

§ 2. --had its origin in the Mercantile System.

§ 3. --supported by pleas of national subsistence and national defense.

§ 4. --on the ground of encouraging young industries; colonial policy.

§ 5. --on the ground of high wages.

§ 6. --on the ground of creating a diversity of industries.

§ 7. --on the ground that it lowers prices.

Appendix I. Bibliographies.

Appendix II. Examination Questions.

Footnotes

PREFACE.

An experience of five years with Mr. Mill's treatise in the class-room not only convinced me of the great usefulness of what still remains one of the most lucid and systematic books yet published which cover the whole range of the study, but I have also been convinced of the need of such additions as should give the results of later thinking, without militating against the general tenor of Mr. Mill's system; of such illustrations as should fit it better for American students, by turning their attention to the application of principles in the facts around us; of a bibliography which should make it easier to get at the writers of other schools who offer opposing views on controverted questions; and of some attempts to lighten those parts of his work in which Mr. Mill frightened away the reader by an appearance of too great abstractness, and to render them, if possible, more easy of comprehension to the student who first approaches Political Economy through this author. Believing, also, that the omission of much that should properly be classed under the head of Sociology, or Social Philosophy, would narrow the field to Political Economy alone, and aid, perhaps, in clearer ideas, I was led to reduce the two volumes into one, with, of course, the additional hope that the smaller book would tempt some readers who might hesitate to attack his larger work. In consonance with the above plan, I have abridged Mr. Mill's treatise, yet have always retained his own words; although it should be said that they are not always his consecutive words. Everything in the larger type on the page is taken literally from Mr. Mill, and, whenever it has been necessary to use a word to complete the sense, it has been always inserted in square brackets. All additional matter introduced by me has been printed in a smaller but distinctive type. The reader can see at a glance which part of the page is Mr. Mill's and which my own.

It has seemed necessary to make the most additions to the original treatise under the subjects of the Wages Question; of Wages of Superintendence; of Socialism; of Cost of Production; of Bimetallism; of the Paper Money experiments in this country; of International Values; of the Future of the Laboring-Classes (in which

the chapter was entirely rewritten); and of Protection. The treatment of Land Tenures has not been entirely omitted, but it does not appear as a separate subject, because it has at present less value as an elementary study for American students. The chapters on Land Tenures, the English currency discussion, and much of Book V, on the Influence of Government, have been simply omitted. In one case I have changed the order of the chapters, by inserting Chap. XV of Book III, treating of a standard of value, under the chapter treating of money and its functions. In other respects, the same order has been followed as in the original work.

Wherever it has seemed possible, American illustrations have been inserted instead of English or Continental ones.

To interest the reader in home problems, twenty-four charts have been scattered throughout the volume, which bear upon our own conditions, with the expectation, also, that the different methods of graphic representation here presented would lead students to apply them to other questions. They are mainly such as I have employed in my class-room. The use and preparation of such charts ought to be encouraged. The earlier pages of the volume have been given up to a "Sketch of the History of Political Economy," which aims to give the story of how we have arrived at our present knowledge of economic laws. The student who has completed Mill will then have a very considerable bibliography of the various schools and writers from which to select further reading, and to select this reading so that it may not fall wholly within the range of one class of writers. But, for the time that Mill is being first studied, I have added a list of the most important books for consultation. I have also collected, in Appendix I, some brief bibliographies on the Tariff, on Bimetallism, and on American Shipping, which may be of use to those who may not have the means of inquiring for authorities, and in Appendix II a number of questions and problems for the teacher's use.

In some cases I have omitted Mr. Mill's statement entirely, and put in its stead a simpler form of the same exposition which I believed would be more easily grasped by a student. Of such cases, the argument to show that Demand for Commodities is not Demand for Labor, the Doctrine of International Values, and the Effect of the Progress of Society on wages, profits, and rent, are examples. Whether I have succeeded or not, must be left for the experience of the teacher to determine. Many small figures and diagrams have been used throughout the text, in order to suggest the concrete means of getting a clear grasp of a principle.

In conclusion, I wish to acknowledge my indebtedness to several friends for assistance in the preparation of this volume, among whom are Professor Charles F. Dunbar, Dr. F. W. Taussig, Dr. A. B. Hart, and Mr. Edward Atkinson.

J. LAURENCE LAUGHLIN. HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS, *September, 1884.*

[Illustration: Population Map of eastern United States, 1830]

Chart I

[Illustration: Population Map of United States, 1880]

Chart II

INTRODUCTORY.

A Sketch Of The History Of Political Economy.

GENERAL BIBLIOGRAPHY.--There is no satisfactory general history of political economy in English. Blanqui's "Histoire de l'économie politique en Europe" (Paris, 1837) is disproportioned and superficial, and he labors under the disadvantage of not understanding the English school of economists. He studies to give the

history of economic facts, rather than of economic laws. The book has been translated into English (New York, 1880).

Villeneuve-Bargemont, in his "Histoire de l'économie politique" (Paris, 1841), aims to oppose a "Christian political economy" to the "English" political economy, and indulges in religious discussions.

Travers Twiss, "View of the Progress of Political Economy in Europe since the Sixteenth Century" (London, 1847), marked an advance by treating the subject in the last four centuries, and by separating the history of principles from the history of facts. It is brief, and only a sketch. Julius Kautz has published in German the best existing history, "Die geschichtliche Entwicklung der National-Oekonomie und ihrer Literatur" (Vienna, 1860). (See Cossa, "Guide to the Study of Political Economy," page 80.) Cossa in his book has furnished a vast amount of information about writers, classified by epochs and countries, and a valuable discussion of the divisions of political economy by various writers, and its relation to other sciences. It is a very desirable little hand-book. McCulloch, in his "Introduction to the Wealth of Nations," gives a brief sketch of the growth of economic doctrine. The editor begs to acknowledge his great indebtedness for information to his colleague, Professor Charles F. Dunbar, of Harvard University.

Systematic study for an understanding of the laws of political economy is to be found no farther back than the sixteenth century. The history of political economy is not the history of economic institutions, any more than the history of mathematics is the history of every object possessing length, breadth, and thickness. Economic history is the story of the gradual evolution in the thought of men of an understanding of the laws which to-day constitute the science we are studying. It is essentially modern.(1)

Aristotle(2) and Xenophon had some comprehension of the theory of money, and Plato(3) had defined its functions with some accuracy. The economic laws of the Romans were all summed up in the idea of enriching the metropolis at the expense of the dependencies. During the middle ages no systematic study was undertaken, and the nature of economic laws was not even suspected.

It is worth notice that the first glimmerings of political economy came to be seen through the discussions on money, and the extraordinary movements of gold and silver. About the time of Charles V, the young study was born, accompanied by the revival of learning, the Reformation, the discovery of America, and the great fall in the value of gold and silver. Modern society was just beginning, and had already brought manufactures into existence--woolens in England, silks in France, Genoa, and Florence; Venice had become the great commercial city of the world; the Hanseatic League was carrying goods from the Mediterranean to the Baltic; and the Jews of Lombardy had by that time brought into use the bill of exchange. While the supply of the precious metals had been tolerably constant hitherto, the steady increase of business brought about a fall of prices. From the middle of the fourteenth to the end of the fifteenth century the purchasing power of money increased in the ratio of four to ten. Then into this situation came the great influx of gold and silver from the New World. Prices rose unequally; the trading and manufacturing classes were flourishing, while others were depressed. In the sixteenth century the price of wheat tripled, but wages only doubled; the laboring-classes of England deteriorated, while others were enriched, producing profound social changes and the well-known flood of pauperism, together with the rise of the mercantile classes. Then new channels of trade were opened to the East and West. Of course, men saw but dimly the operation of these economic causes; although the books now began to hint at the right understanding of the movements and the true laws of money.

Even before this time, however, Nicole Orême, Bishop of Lisieux (died 1382), had written intelligently on money;(4) but, about 1526, the astronomer Copernicus gave a very good exposition of some of the functions of money. But he, as well as Latimer,(5) while noticing the economic changes, gave no correct explanation. The Seigneur de Malestroit, a councilor of the King of France, however, by his errors drew out Jean Bodin(6) to say that the rise of prices was due to the abundance of money brought from America. But he was in advance of his time, as well as William Stafford,(7) the author of the first English treatise on money, which showed a perfect insight into the subject. Stafford distinctly grasped the idea that the high prices brought no

loss to merchants, great gain to those who held long leases, and loss to those who did not buy and sell; that, in reality, commodities were exchanged when money was passed from hand to hand.

Such was the situation(8) which prefaced the first general system destined to be based on supposed economic considerations, wrongly understood, to be sure, but vigorously carried out. I refer to the well-known mercantile system which over-spread Europe.(9) Spain, as the first receiver of American gold and silver, attributed to it abnormal power, and by heavy duties and prohibitions tried to keep the precious metals to herself. This led to a general belief in the tenets of the mercantile system, and its adoption by all Europe. 1. It was maintained that, where gold and silver abounded, there would be found no lack of the necessaries of life; 2. Therefore governments should do all in their power to secure an abundance of money. Noting that commerce and political power seemed to be in the hands of the states having the greatest quantity of money, men wished mainly to create such a relation of exports and imports of goods as would bring about an importation of money. The natural sequence of this was, the policy of creating a favorable "balance of trade" by increasing exports and diminishing imports, thus implying that the gain in international trade was not a mutual one. The error consisted in supposing that a nation could sell without buying, and in overlooking the instrumental character of money. The errors even went so far as to create prohibitory legislation, in the hope of shutting out imported goods and keeping the precious metals at home. The system spread over Europe, so that France (1544) and England (1552) forbade the export of specie. But, with the more peaceful conditions at the end of the sixteenth century, the expansion of commerce, the value of money became steadier, and prices advanced more slowly.

Italian writers were among the first to discuss the laws of money intelligently,(10) but a number of acute Englishmen enriched the literature of the subject,(11) and it may be said that any modern study of political economy received its first definite impulse from England and France.

The prohibition of the export of coin was embarrassing to the East India Company and to merchants; and Mun tried to show that freedom of exportation would increase the amount of gold and silver in a country, since the profits in foreign trade would bring back more than went out. It probably was not clear to them, however, that the export of bullion to the East was advantageous, because the commodities brought back in return were more valuable in England than the precious metals. The purpose of the mercantilists was to increase the amount of gold and silver in the country. Mun, with some penetration, had even pointed out that too much money was an evil; but in 1663 the English Parliament removed the restriction on the exportation of coin. The balance-of-trade heresy, that exports should always exceed imports (as if merchants would send out goods which, when paid for in commodities, should be returned in a form of less value than those sent out!), was the outcome of the mercantile system, and it has continued in the minds of many men to this day. The policy which aimed at securing a favorable balance of trade, and the plan of protecting home industries, had the same origin. If all consumable goods were produced at home, and none imported, that would increase exports, and bring more gold and silver into the country. As all the countries of Europe had adopted the mercantile theory after 1664, retaliatory and prohibitory tariffs were set up against each other by England, France, Holland, and Germany. Then, because it was seen that large sums were paid for carrying goods, in order that no coin should be required to pay foreigners in any branch of industry, navigation laws were enacted, which required goods to be imported only in ships belonging to the importing nation. These remnants of the mercantile system continue to this day in the shipping laws of this and other countries.(12)

A natural consequence of the navigation acts, and of the mercantile system, was the so-called colonial policy, by which the colonies were excluded from all trade except with the mother-country. A plantation like New England, which produced commodities in competition with England, was looked upon with disfavor for her enterprise; and all this because of the fallacy, at the foundation of the mercantile system, that the gain in international trade is not mutual, but that what one country gains another must lose.(13)

An exposition of mercantilism would not be complete without a statement of the form it assumed in France under the guidance of Colbert,(14) the great minister of Louis XIV, from 1661 to 1683. In order to create a

favorable balance of trade, he devoted himself to fostering home productions, by attempts to abolish vexatious tolls and customs within the country, and by an extraordinary system of supervision in manufacturing establishments (which has been the stimulus to paternal government from which France has never since been able to free herself). Processes were borrowed from England, Germany, and Sweden, and new establishments for making tapestries and silk goods sprang up; even the sizes of fabrics were regulated by Colbert, and looms unsuitable for these sizes destroyed. In 1671 wool-dyers were given a code of detailed instructions as to the processes and materials that might be used. Long after, French industry felt the difficulty of struggling with stereotyped processes. His system, however, naturally resulted in a series of tariff measures (in 1664 and 1667). Moderate duties on the exportation of raw materials were first laid on, followed by heavy customs imposed on the importation of foreign goods. The shipment of coin was forbidden; but Colbert's criterion of prosperity was the favorable balance of trade. French agriculture was overlooked. The tariff of 1667 was based on the theory that foreigners must of necessity buy French wines, lace, and wheat; that the French could sell, but not buy; but the act of 1667 cut off the demand for French goods, and Portuguese wines came into the market. England and Holland retaliated and shut off the foreign markets from France. The wine and wheat growers of the latter country were ruined, and the rural population came to the verge of starvation. Colbert's last years were full of misfortune and disappointment; and a new illustration was given of the fallacy that the gain from international trade was not mutual.

From this time, economic principles began to be better apprehended. It is to be noted that the first just observations arose from discussions upon money, and thence upon international trade. So far England has furnished the most acute writers: now France became the scene of a new movement. Marshal Vauban,(15) the great soldier, and Boisguillebert(16) both began to emphasize the truth that wealth really consists, not in money alone, but in an abundance of commodities; that countries which have plenty of gold and silver are not wealthier than others, and that money is only a medium of exchange. It was not, however, until 1750 that evidences of any real advance began to appear; for Law's famous scheme (1716-1720) only served as a drag upon the growth of economic truth. But in the middle of the eighteenth century an intellectual revival set in: the "Encyclopædia" was published, Montesquieu wrote his "l'Ésprit des Lois," Rousseau was beginning to write, and Voltaire was at the height of his power. In this movement political economy had an important share, and there resulted the first school of Economists, termed the Physiocrats.

The founder and leader of this new body of economic thinkers was François Quesnay,(17) a physician and favorite at the court of Louis XV. Passing by his ethical basis of a natural order of society, and natural rights of man, his main doctrine, in brief, was that the cultivation of the soil was the only source of wealth; that labor in other industries was sterile; and that freedom of trade was a necessary condition of healthy distribution. While known as the "Economists," they were also called the "Physiocrats,"(18) or the "Agricultural School." Quesnay and his followers distinguished between the creation of wealth (which could only come from the soil) and the union of these materials, once created, by labor in other occupations. In the latter case the laborer did not, in their theory, produce wealth. A natural consequence of this view appeared in a rule of taxation, by which all the burdens of state expenditure were laid upon the landed proprietors alone, since they alone received a surplus of wealth (the famous *net produit*) above their sustenance and expenses of production. This position, of course, did not recognize the old mercantile theory that foreign commerce enriched a nation solely by increasing the quantity of money. To a physiocrat the wealth of a community was increased not by money, but by an abundant produce from its own soil. In fact, Quesnay argued that the right of property included the right to dispose of it freely at home or abroad, unrestricted by the state. This doctrine was formulated in the familiar expression, "*Laissez faire, laissez passer.*"(19) Condorcet and Condillac favored the new ideas. The "Economists" became the fashion in France; and even included in their number Joseph II of Austria, the Kings of Spain, Poland, Sweden, Naples, Catharine of Russia, and the Margrave of Baden.(20) Agriculture, therefore, received a great stimulus.

Quesnay had many vigorous supporters, of whom the most conspicuous was the Marquis de Mirabeau(21) (father of him of the Revolution), and the culmination of their popularity was reached about 1764. A feeling that the true increase of wealth was not in a mere increase of money, but in the products of the soil, led them

naturally into a reaction against mercantilism, but also made them dogmatic and overbearing in their one-sided system, which did not recognize that labor in all industries created wealth. As the mercantile system found a great minister in Colbert to carry those opinions into effect on a national scale, so the Physiocrats found in Turgot(22) a minister, under Louis XVI, who gave them a national field in which to try the doctrines of the new school. Benevolently devoted to bettering the condition of the people while Intendant of Limoges (1751), he was made comptroller-general of the finances by Louis XVI in 1774. Turgot had the ability to separate political economy from politics, law, and ethics. His system of freeing industry from governmental interference resulted in abolishing many abuses, securing a freer movement of grain, and in lightening the taxation. But the rigidity of national prejudices was too strong to allow him success. He had little tact, and raised many difficulties in his way. The proposal to abolish the *corvées* (compulsory repair of roads by the peasants), and substitute a tax on land, brought his king into a costly struggle (1776), and attempts to undermine Turgot's power were successful. With his downfall ended the influence of the Economists. The last of them was Dupont de Nemours,(23) who saw a temporary popularity of the Physiocrats in the early years of the French Revolution, when the Constituent Assembly threw the burden of taxes on land. But the fire blazed up fitfully for a moment, only to die away entirely.

All this, however, was the slow preparation for a newer and greater movement in political economy than had yet been known, and which laid the foundation of the modern study as it exists to-day. The previous discussions on money and the prominence given to agriculture and economic considerations by the Economists made possible the great achievements of Adam Smith and the English school. A reaction in England against the mercantile system produced a complete revolution in political economy. Vigorous protests against mercantilism had appeared long before,(24) and the true functions of money had come to be rightly understood.(25) More than that, many of the most important doctrines had been either discussed, or been given to the public in print. It is at least certain that hints of much that made so astonishing an effect in Adam Smith's "Wealth of Nations" (1776) had been given to the world before the latter was written. To what sources, among the minor writers, he was most indebted, it is hard to say. Two, at least, deserve considerable attention, David Hume and Richard Cantillon. The former published his "Economic Essays" in 1752, which contained what even now would be considered enlightened views on money, interest, balance of trade, commerce, and taxation; and a personal friendship existed between Hume and Adam Smith dating back as far as 1748, when the latter was lecturing in Edinburgh on rhetoric. The extent of Cantillon's acquirements and Adam Smith's possible indebtedness to him have been but lately recognized. In a recent study(26) on Cantillon, the late Professor Jevons has pointed out that the former anticipated many of the doctrines later ascribed to Adam Smith, Malthus, and Ricardo. Certain it is that the author of the "Wealth of Nations" took the truth wherever he found it, received substantial suggestions from various sources, but, after having devoted himself in a peculiarly successful way to collecting facts, he wrought out of all he had gathered the first rounded system of political economy the world had yet known; which pointed out that labor was at the basis of production, not merely in agriculture, as the French school would have it, but in all industries; and which battered down all the defenses of the mediæval mercantile system. In a marked degree Adam Smith(27) combined a logical precision and a power of generalizing results out of confused data with a practical and intuitive regard for facts which are absolutely necessary for great achievements in the science of political economy. At Glasgow (1751-1764) Adam Smith gave lectures on natural theology, ethical philosophy, jurisprudence, and political economy, believing that these subjects were complementary to each other.

A connected and comprehensive grasp of principles was the great achievement of Adam Smith;(28) for, although the "Wealth of Nations" was naturally not without faults, it has been the basis of all subsequent discussion and advance in political economy. In Books I and II his own system is elucidated, while Book IV contains his discussion of the Agricultural School and the attacks on the mercantile system. Seeing distinctly that labor was the basis of all production (not merely in agriculture), he shows (Books I and II) that the wealth of a country depends on the skill with which its labor is applied, and upon the proportion of productive to unproductive laborers. The gains from division of labor are explained, and money appears as a necessary instrument after society has reached such a division. He is then led to discuss prices (market price) and value; and, since from the price a distribution takes place among the factors of production, he is brought to wages,

profit, and rent. The functions of capital are explained in general; the separation of fixed from circulating capital is made; and he discusses the influence of capital on the distribution of productive and unproductive labor; the accumulation of capital, money, paper money, and interest. He, therefore, gets a connected set of ideas on production, distribution, and exchange. On questions of production not much advance has been made since his day; and his rules of taxation are now classic. He attacked vigorously the balance-of-trade theory, and the unnatural diversion of industry in England by prohibitions, bounties, and the arbitrary colonial system. In brief, he held that a plan for the regulation of industry by the Government was indefensible, and that to direct private persons how to employ their capital was either hurtful or useless. He taught that a country will be more prosperous if its neighbors are prosperous, and that nations have no interest in injuring each other. It was, however, but human that his work should have been somewhat defective.(29) A new period in the history of political economy, however, begins with Adam Smith. As Roscher says, he stands in the center of economic history.

New writers now appear who add gradually stone after stone to the good foundation already laid, and raise the edifice to fairer proportions. The first considerable addition comes from a contribution by a country clergyman, Thomas Robert Malthus,(30) in his "Essay on the Principles of Population" (1798). Against the view of Pitt that "the man who had a large family was a benefactor to his country," Malthus argued conclusively that "a perfectly happy and virtuous community, by physical law, is constrained to increase very rapidly.... By nature human food increases in a slow arithmetical ratio; man himself increases in a quick geometrical ratio, unless want and vice stop him." In his second edition (1803), besides the positive check of vice and want, he gave more importance to the negative check of "self-restraint, moral and prudential." The whole theory was crudely stated at first; and it raised the cry that such a doctrine was inconsistent with the belief in a benevolent Creator. In its essence, the law of population is simply that a tendency and ability exist in mankind to increase its numbers faster than subsistence, and that this result actually will happen unless checks retard it, or new means of getting subsistence arise. If an undue increase of population led to vice and misery, in Malthus's theory, he certainly is not to be charged with unchristian feelings if he urged a self-restraint by which that evil result should be avoided. Malthus's doctrines excited great discussion: Godwin says that by 1820 thirty or forty answers to the essay had been written; and they have continued to appear. The chief contributions have been by A. H. Everett, "New Ideas on Population" (1823), who believed that an increase of numbers increased productive power; by M. T. Sadler, "Law of Population" (1830), who taught that human fertility varied inversely with numbers, falling off with density of population; by Sir Archibald Alison, "Principles of Population" (1840), who reasoned inductively that the material improvement of the human race is a proof that man can produce more than he consumes, or that in the progress of society preventive checks necessarily arise; by W. R. Greg, "Enigmas of Life" (1873); and by Herbert Spencer, "Westminster Review" (April, 1852), and "Principles of Biology," (part vi, ch. xii and xiii), who worked out a physiological check, in that with a mental development out of lower stages there comes an increased demand upon the nervous energy which causes a diminution of fertility. Since Darwin's studies it has been very generally admitted that it is the innate *tendency* of all organic life to increase until numbers press upon the limit of food-production; not that population has always done so in every country.(31) Malthus's teachings resulted in the modern poor-house system, beginning with 1834 in England, and they corrected some of the abuses of indiscriminate charity.

While Adam Smith had formulated very correctly the laws of production, in his way Malthus was adding to the means by which a better knowledge of the principles of distribution was to be obtained; and the next advance, owing to the sharp discussions of the time on the corn laws, was, by a natural progress, to the law of diminishing returns and rent. An independent discovery of the law of rent is to be assigned to no less than four persons,(32) but for the full perception of its truth and its connection with other principles of political economy the credit has been rightly given to David Ricardo,(33) next to Adam Smith without question the greatest economist of the English school. Curiously enough, although Adam Smith was immersed in abstract speculations, his "homely sagacity" led him to the most practical results; but while Ricardo was an experienced and successful man of business, he it was, above all others, who established the abstract political economy, in the sense of a body of scientific laws to which concrete phenomena, in spite of temporary

inconsistencies, must in the end conform. His work, therefore, supplemented that of Adam Smith; and there are very few doctrines fully worked out to-day of which hints have not been found in Ricardo's wonderfully compact statements. With no graces of exposition, his writings seem dry, but are notwithstanding mines of valuable suggestions.

In the field of distribution and exchange Ricardo made great additions. Malthus and West had shown that rent was not an element in cost of production; but both Malthus and Ricardo seemed to have been familiar with the doctrine of rent long before the former published his book. Ricardo, however, saw into its connection with other parts of a system of distribution.(34) The Malthusian doctrine of a pressure of population on subsistence naturally forced a recognition of the law of diminishing returns from land;(35) then as soon as different qualities of land were simultaneously cultivated, the best necessarily gave larger returns than the poorest; and the idea that the payment of rent was made for a superior instrument, and in proportion to its superiority over the poorest instrument which society found necessary to use, resulted in the law of rent. Ricardo, moreover, carried out this principle as it affected wages, profits, values, and the fall of profits; but did not give sufficient importance to the operation of forces in the form of improvements acting in opposition to the tendency toward lessened returns. The theory of rent still holds its place, although it has met with no little opposition.(36) A doctrine, quite as important in its effects on free exchange, was clearly established by Ricardo, under the name of the doctrine of "Comparative Cost," which is the reason for the existence of any and all international trade.

The work of Adam Smith was soon known to other countries, apart from translations. A most lucid and attractive exposition was given to the French by J. B. Say, "Traité d'économie politique" (1803), followed, after lecturing in Paris from 1815-1830, by a more complete treatise,(37) "Cours complète d'économie politique" (1828). While not contributing much that was new, Say did a great service by popularizing previous results in a happy and lively style, combined with good arrangement, and many illustrations. The theory that general demand and supply are identical is his most important contribution to the study. Although he translated Ricardo's book, he did not grasp the fact that rent did not enter into price. Say's work was later supplemented by an Italian, Pellegrino Rossi,(38) who, in his "Cours d'économie politique" (1843-1851), naturalized the doctrines of Malthus and Ricardo on French soil. His work is of solid value, and he and Say have given rise to an active school of political economy in France. In Switzerland, Sismondi expounded Adam Smith's results in his "De la richesse commerciale" (1803), but was soon led into a new position, explained in his "Nouveaux principes d'économie politique" (1819). This has made him the earliest and most distinguished of the humanitarian economists. Seeing the sufferings caused by readjustments of industries after the peace, and the warehouses filled with unsold goods, he thought the excess of production over the power of consumption was permanent, and attacked division of labor, labor-saving machinery, and competition. Discoveries which would supersede labor he feared would continue, and the abolition of patents, together with the limitation of population,(39) was urged. These arguments furnished excellent weapons to the socialistic agitators. Heinrich Storch(40) aimed to spread the views of Adam Smith(41) in Russia, by his "Cours d'économie politique" (1815). Without further developing the theory of political economy, he produced a book of exceptional merit by pointing out the application of the principles to Russia, particularly in regard to the effect of a progress of wealth on agriculture and manufactures; to the natural steps by which a new country changes from agriculture to a manufacturing *régime*; and to finance and currency, with an account of Russian depreciated paper since Catharine II.

For the next advance, we must again look to England. Passing by McCulloch(42) and Senior, a gifted writer, the legitimate successor of Ricardo is John Stuart Mill.(43) His father, James Mill,(44) introduced him into a circle of able men, of which Bentham was the ablest, although his father undoubtedly exercised the chief influence over his training. While yet but twenty-three, in his first book, "Essays on some Unsettled Questions of Political Economy" (1829-1830), he gained a high position as an economist. In one form or another, all his additions to the study are to be found here in a matured condition. The views on productive and unproductive consumption, profits, economic methods, and especially his very clever investigation on international values, were there presented. His "Logic" (1843) contains (Book VI) a careful statement of the relation of political economy to other sciences, and of the proper economic method to be adopted in investigations. Through his

"Principles of Political Economy" (1848) he has exercised a remarkable influence upon men in all lands; not so much because of great originality, since, in truth, he only put Ricardo's principles in better and more attractive form, but chiefly by a method of systematic treatment more lucid and practical than had been hitherto reached, by improving vastly beyond the dry treatises of his predecessors (including Ricardo, who was concise and dull), by infusing a human element into his aims, and by illustrations and practical applications. Even yet, however, some parts of his book show the tendency to too great a fondness for abstract statement, induced probably by a dislike to slighting his reasons (due to his early training), and by the limits of his book, which obliged him to omit many possible illustrations. With a deep sympathy for the laboring-classes, he was tempted into the field of sociology in this book, although he saw distinctly that political economy was but one of the sciences, a knowledge of which was necessary to a legislator in reaching a decision upon social questions. Mill shows an advance beyond Ricardo in this treatise, by giving the study a more practical direction. Although it is usual to credit Mill with originating the laws of international values, yet they are but a development of Ricardo's doctrine of international trade, and Mill's discussions of the progress of society toward the stationary state were also hinted at, although obscurely, by Ricardo. In the volumes of Mr. Mill the subject is developed as symmetrically as a proof in geometry. While he held strongly to free trade,(45) he gave little space to the subject in his book. All in all, his book yet remains the best systematic treatise in the English language, although much has been done since his day.(46)

He who has improved upon previous conceptions, and been the only one to make any very important advance in the science since Mill's day, is J. E. Cairnes,(47) in his "Leading Principles of Political Economy newly expounded" (1874). Scarcely any previous writer has equaled him in logical clearness, originality, insight into economic phenomena, and lucidity of style. He subjected value, supply and demand, cost of production, and international trade, to a rigid investigation, which has given us actual additions to our knowledge of the study. The wages-fund theory was re-examined, and was stated in a new form, although Mr. Mill had given it up. Cairnes undoubtedly has given it its best statement. His argument on free trade (Part III, chapter iv) is the ablest and strongest to be found in modern writers. This volume is, however, not a systematic treatise on all the principles of political economy; but no student can properly pass by these great additions for the right understanding of the science. His "Logical Method of Political Economy" (1875) is a clear and able statement of the process to be adopted in an economic investigation, and is a book of exceptional merit and usefulness, especially in view of the rising differences in the minds of economists as to method.

A group of English writers of ability in this period have written in such a way as to win for them mention in connection with Cairnes and Mill. Professor W. Stanley Jevons(48) put himself in opposition to the methods of the men just mentioned, and applied the mathematical process to political economy, but without reaching new results. His most serviceable work has been in the study of money, which appears in an excellent form, "The Money and Mechanism of Exchange" (1875), and in an investigation which showed a fall of the value of gold since the discoveries of 1849. In this latter he has furnished a model for any subsequent investigator. Like Professor Jevons, T. E. Cliffe Leslie(49) opposed the older English school (the so-called "orthodox"), but in the different way of urging with great ability the use of the historical method, of which more will be said in speaking of later German writers.(50) He also distinguished himself by a study of land tenures, in his "Land Systems and Industrial Economy of Ireland, England, and Continental Countries" (1870), which was a brilliant exposition of the advantages of small holdings.

By far the ablest of the group, both by reason of his natural gifts and his training as a banker and financial editor, was Walter Bagehot.(51) In his "Economic Studies" (1880) he has discussed with a remarkable economic insight the postulates of political economy, and the position of Adam Smith, Ricardo, and Malthus; in his "Lombard Street" (fourth edition, 1873), the money market is pictured with a vivid distinctness which implies the possession of rare qualities for financial writing; indeed, it is in this practical way also, as editor of the London "Economist,"(52) that he made his great reputation.

Of living English economists, Professor Henry Fawcett,(53) in his "Manual of Political Economy" (1865; sixth edition, 1883), is a close follower of Mill, giving special care to co-operation, silver, nationalization of

land, and trades-unions. He is an exponent of the strict wages-fund theory, and a vigorous free-trader. Professor J. E. Thorold Rogers, of Oxford, also holds aloof from the methods of the old school. His greatest contribution has been a "History of Agriculture and Prices in England," from 1255 to 1793, in four volumes(54) (1866-1882).

Of all the writers(55) since Cairnes, it may be said that, while adding to the data with which political economy has to do, and putting principles to the test of facts, they have made no actual addition to the existing body of principles; although questions of distribution and taxation are certainly not yet fully settled, as is seen by the wide differences of opinion expressed on subjects falling within these heads by writers of to-day.

It now remains to complete this sketch of the growth of political economy by a brief account of the writers on the Continent and in the United States, beginning with France. About the time of the founding of the London "Economist" (1844) and "The Statistical Journal" (1839) in England, there was established in Paris the "Journal des Économistes" (1842), which contains many valuable papers. On the whole, the most popular writer since J. B. Say has been Bastiat,(56) who aspired to be the French Cobden. He especially urged a new(57) view of value, which he defined as the relation established by an exchange of services; that nature's products are gratuitous, so that man can not exact anything except for a given service. Chiefly as a foe of protection, which he regarded as qualified socialism, he has won a reputation for popular and clever writing; and he was led to believe in a general harmony of interests between industrial classes; but in general he can not be said to have much influenced the course of French thought. On value, rent, and population, he is undoubtedly unsound. A writer of far greater depth than Bastiat, with uncommon industry and wide knowledge, was Michel Chevalier,(58) easily the first among modern French economists. He has led in the discussion upon the fall of gold, protection, banking, and particularly upon money; an ardent free-trader, he had influence enough to induce France to enter into the commercial treaty of 1860 with England. One of the ablest writers on special topics is Levasseur,(59) who has given us a history of the working-classes before and since the Revolution, and the best existing monograph on John Law. The most industrious and reliable of the recent writers is the well-known statistician, Maurice Block,(60) while less profound economists were J. A. Blanqui(61) and Wolowski.(62) The latter devoted himself enthusiastically to banks of issue, and bimetallism. A small group gave themselves up chiefly to studies on agriculture and land-tenures--H. Passy,(63) Laveleye, and Lavergne.(64) The latter is by far the most important, as shown by his "L'économie rurale de la France depuis 1789" (1857), which gives a means of comparing recent French agriculture with that before the Revolution, as described in Arthur Young's "Travels in France" (1789). The best systematic treatise in French is the "Précis de la science économique" (1862), by Antoine-Élise Cherbuliez,(65) a Genevan. The French were the first to produce an alphabetical encyclopædia of economics, by Coquelin and Guillaumin, entitled the "Dictionnaire de l'économie politique" (1851-1853, third edition, 1864). Courcelle-Seneuil,(66) by his "Traité théorique et pratique d'économie politique" (second edition, 1867); and Baudrillart, by a good compendium. Joseph Garnier, Dunoyer,(67) Paul Leroy-Beaulieu,(68) Reybaud,(69) De Parieu,(70) Léon Say,(71) Boiteau, and others, have done excellent work in France, and Walras(72) in Switzerland.

As Cobden had an influence on Bastiat, so both had an influence in Germany in creating what has been styled by opponents the "Manchester school," led by Prince-Smith (died 1874). They have worked to secure complete liberty of commerce and industry, and include in their numbers many men of ability and learning. Yearly congresses have been organized for the purpose of disseminating liberal ideas, and an excellent review, the "Vierteljahrschrift für Volkswirtschaft, Politik, und Kulturgeschichte,"(73) has been established. They have devoted themselves successfully to reforms of labor-laws, interest, workingmen's dwellings, the money system, and banking, and strive for the abolition of protective duties. Schulze-Delitzsch has acquired a deserved reputation for the creation of people's banks, and other forms of co-operation. The translator of Mill into German, Adolph Soetbeer,(74) is the most eminent living authority on the production of the precious metals, and a vigorous monometallist. The school is represented in the "Handwörterbuch der Volkswirtschaftslehre" (1865) of Reutzsch. The other writers of this group are Von Böhmert,(75) Faucher, Braun, Wolff, Michaelis, Emminghaus,(76) Wirth,(77) Hertzka, and Von Holtzendorf. The best known of the German protectionists is Friedrich List, the author of "Das nationale System der politischen Oekonomie"

(1841), whose doctrines are very similar to those of H. C. Carey in this country.(78) An able writer on administrative functions and finance(79) is Lorenz Stein, of Vienna.

But German economists are of interest, inasmuch as they have established a new school who urge the use of the historical method in political economy, and it is about the question of method that much of the interest of to-day centers. In 1814 Savigny introduced this method into jurisprudence, and about 1850 it was applied to political economy. The new school claim that the English "orthodox" writers begin by an *a priori* process, and by deductions reach conclusions which are possibly true of imaginary cases, but are not true of man as he really acts. They therefore assert that economic laws can only be truly discovered by induction, or a study of phenomena first, as the means of reaching a generalization. To them Bagehot(80) answers that scientific bookkeeping, or collections of facts, in themselves give no results ending in scientific laws; for instance, since the facts of banking change and vary every day, no one can by induction alone reach any laws of banking; or, for example, the study of a panic from the concrete phenomena would be like trying to explain the bursting of a boiler without a theory of steam. More lately,(81) since it seems that the new school claim that induction does not preclude deduction, and as the old school never intended to disconnect themselves from "comparing conclusions with external facts," there is not such a cause of difference as has previously appeared. Doubtless the insistence upon the merits of induction will be fruitful of good to "orthodox" writers, in the more general resort to the collection of statistics and means of verification. It is suggestive also that the leaders of the new school in Germany and England have reached no different results by their new method, and in the main agree with the laws evolved by the old English school. The economist does not pretend that his assumptions are descriptions of economic conditions existing at a given time; he simply considers them as forces (often acting many on one point or occasion) to be inquired into separately, inasmuch as concrete phenomena are the resultants of several forces, not to be known until we know the separate operation of each of the conjoined forces.

The most prominent of the new school is Wilhelm Roscher,(82) of Leipsic, who wrote a systematic treatise, "System der Volkswirtschaft" (1854, sixteenth edition, 1883), in the first division of which the notes contain a marvelous collection of facts and authorities. He agrees in results with Adam Smith, Ricardo, Malthus, and Mill, but does not seem to have known much of Cairnes. This book, however, is only a first of four treatises eventually intended to include the political economy of (2) agriculture, (3) industry and commerce, and (4) the state and commune. The ablest contemporary of Roscher, who was probably the first to urge the historical method, is Karl Knies,(83) in "Die politische Oekonomie vom Standpunkte der geschichtlichen Methode" (1853, second edition, 1881-1883). The third of the group who founded the historical school is Bruno Hildebrand,(84) of Jena, author of "Die Nationalökonomie der Gegenwart und Zukunft" (1848).

The German mind has always been familiar with the interference of the state, and a class of writers has arisen, not only advocating the inductive method, but strongly imbued with a belief in a close connection of the state with industry; and, inasmuch as the essence of modern socialism is a resort to state-help, this body of men, with Wagner at their head, has received the name of "Socialists(85) of the Chair," and now wield a wide influence in Germany. Of these writers,(86) Wagner, Engel, Schmoller, Von Scheel, Brentano, Held, Schönberg, and Schäffle are the most prominent.

The historical school has received the adhesion of Émile de Laveleye,(87) in Belgium, and other economists in England and the United States. While Cliffe Leslie has been the most vigorous opponent of the methods of the old school, there have been many others of less distinction. Indeed, the period, the close of which is marked by J. R. McCulloch's book, was one in which the old school had seemingly come to an end of its progress, from too close an adherence to deductions from assumed premises. Mill's great merit was that he began the movement to better adapt political economy to society as it actually existed; and the historical school will probably give a most desirable impetus to the same results, even though its exaggerated claims as to the true method(88) can not possibly be admitted.

Italian writers have not received hitherto the attention they deserve. After 1830, besides Rossi, who went to

France, there was Romagnosi, who dealt more with the relations of economics to other studies; Cattanes, who turned to rural questions and free trade (combating the German, List); Scialoja, at the University of Turin; and Francesco Ferrara, also at Turin from 1849 to 1858. The latter was a follower of Bastiat and Carey, as regards value and rent, and at the same time was a radical believer in *laissez-faire*. Since the union of Italy there has been a new interest in economic study, as with us after our war. The most eminent living Italian economist is said to be Angelo Messedaglia, holding a chair at Padua since 1858. He has excelled in statistical and financial subjects, and is now engaged on a treatise on money, "Moneta," of which one part has been issued (1882). Marco Minghetti and Fedele Lampertico stand above others, the former for a study of the connection of political economy with morals, and for his public career as a statesman; the latter for his studies on paper money and other subjects. Carlo Ferrais presented a good monograph on "Money and the Forced Currency" (1879); and Boccardo issued a library of selected works of the best economists, and a large Dictionary of Political Economy, "Dizionario universale di Economia Politica e di Commercio" (2 vols., second edition, 1875). Luigi Luzzati is a vigorous advocate of co-operation; and Elia Lattes has made a serious study of the early Venetian banks.

Political economy has gained little from American writers. Of our statesmen none have made any additions to the science, and only Hamilton and Gallatin can properly be called economists. Hamilton, in his famous "Report on Manufactures" (1791), shared in some of the erroneous conceptions of his day; but this paper, together with his reports on a national bank and the public credit, are evidences of a real economic power. Gallatin's "Memorial in Favor of Tariff Reform" (1832) is as able as Hamilton's report on manufactures, and a strong argument against protection. Both men made a reputation as practical financiers.

"With few exceptions, the works produced in the United States have been prepared as text-books(89) by authors engaged in college instruction, and therefore chiefly interested in bringing principles previously worked out by others within the easy comprehension of undergraduate students."(90) Of these exceptions, Alexander H. Everett's "New Ideas on Population"(91) (1822), forms a valuable part in the discussion which followed the appearance of Malthus's "Essay." The writer, however, who has drawn most attention, at home and abroad, for a vigorous attack on the doctrines of Ricardo is Henry Charles Carey.(92) Beginning with "The Rate of Wages" (1835), he developed a new theory of value (see "Principles of Political Economy," 1837-1840), "which he defined as a measure of the resistance to be overcome in obtaining things required for use, or the measure of the power of nature over man. In simpler terms, value is measured by the cost of reproduction. The value of every article thus declines as the arts advance, while the general command of commodities constantly increases. This causes a constant fall in the value of accumulated capital as compared with the results of present labor, from which is inferred a tendency toward harmony rather than divergence of interests between capitalist and laborer." This theory of value(93) he applied to land, and even to man, in his desire to give it universality. He next claimed to have discovered a law of increasing production from land in his "Past, Present, and Future" (1848), which was diametrically opposed to Ricardo's law of diminishing returns. His proof was an historical one, that in fact the poorer, not the richer lands, were first taken into cultivation. This, however, did not explain the fact that different grades of land are simultaneously under cultivation, on which Ricardo's doctrine of rent is based. The constantly increasing production of land naturally led Carey to believe in the indefinite increase of population. He, however, was logically brought to accept the supposed law of an ultimate limit to numbers suggested by Herbert Spencer, based on a diminution of human fertility. He tried to identify physical and social laws, and fused his political economy in a system of "Social Science" (1853), and his "Unity of Law" (1872). From about 1845 he became a protectionist, and his writings were vigorously controversial. In his doctrines on money he is distinctly a mercantilist;(94) but, by his earnest attacks on all that has been gained in the science up to his day, he has done a great service in stimulating inquiry and causing a better statement of results. While undoubtedly the best known of American writers, yet, because of a prolix style and an illogical habit of mind, he has had no extended influence on his countrymen.(95)

The effect of the civil war is now beginning to show itself in an unmistakable drift toward the investigation of economic questions, and there is a distinctly energetic tone which may bring new contributions from

American writers. General Francis A. Walker,(96) in his study on "The Wages Question" (1876), has combated the wages-fund theory, and proposed in its place a doctrine that wages are paid out of the product, and not out of accumulated capital. Professor W. G. Sumner(97) is a vigorous writer in the school of Mill and Cairnes, and has done good work in the cause of sound money doctrines. Both General Walker and Professor Sumner hold to the method of economic investigation as expounded by Mr. Cairnes; although several younger economists show the influence of the German school. Professor A. L. Perry,(98) of Williams College, adopted Bastiat's theory of value. He also accepts the wages-fund theory, rejects the law of Malthus, and, although believing in the law of diminishing returns from land, regards rent as the reward for a service rendered. Another writer, Henry George,(99) has gained an abnormal prominence by a plausible book, "Progress and Poverty" (1880), which rejects the doctrine of Malthus, and argues that the increase of production of any kind augments the demand for land, and so raises its value. His conclusions lead him to advocate the nationalization of land. Although in opposition to almost all that political economy has yet produced, his writing has drawn to him very unusual notice. The increasing interest in social questions, and the general lack of economic training, which prevents a right estimate of his reasoning by people in general, sufficiently account for the wide attention he has received.

Of late, however, new activity has been shown in the establishment of better facilities for the study of political economy in the principal seats of learning--Harvard, Yale, Cornell, Columbia, Michigan, and Pennsylvania: and a "Cyclopædia of Political Science" (1881-1884, three volumes) has been published by J. J. Lalor, after the example of the French dictionaries.

Books For Consultation (From English, French, And German Authors).

GENERAL TREATISES FORMING A PARALLEL COURSE OF READING WITH MILL.

Professor Fawcett's "Manual of Political Economy" (London, sixth edition, 1883) is a brief statement of Mill's book, with additional matter on the precious metals, slavery, trades-unions, co-operation, local taxation, etc.

Antoine-Élise Cherbuliez's "Précis de la science économique" (Paris, 1862, 2 vols.) follows the same arrangement as Mill, and is considered the best treatise on economic science in the French language. He is methodical, profound, and clear, and separates pure from applied political economy.

Other excellent books in French are: Courcelle-Seneuil's "Traité théorique et pratique d'économie politique" (1858), (Paris, second edition, 1867, 2 vols.), and a compendium by Henri Baudrillart, "Manuel d'économie politique" (third edition, 1872).

Roscher's "Principles of Political Economy" is a good example of the German historical method; its notes are crowded with facts; but the English translation (New York, 1878) is badly done. There is an excellent translation of it into French by Wolowski.

A desirable elementary work, "The Economics of Industry" (London, 1879), was prepared by Mr. and Mrs. Marshall.

Professor Jevons wrote a "Primer of Political Economy" (1878), which is a simple, bird's-eye view of the subject in a very narrow compass.

IMPORTANT GENERAL WORKS.

Adam Smith's "Wealth of Nations" (1776). The edition of McCulloch is perhaps more serviceable than that of J. E. T. Rogers.

Ricardo's "Principles of Political Economy and Taxation" (1817).

J. S. Mill's "Principles of Political Economy" (2 vols., 1848--sixth edition, 1865).

Schönberg's "Handbuch der politischen Oekonomie" (1882). This is a large co-operative treatise by twenty-one writers from the historical school.

Cairnes's "Leading Principles of Political Economy" (1874); "Logical Method" (1875), lectures first delivered in Dublin in 1857.

Carey's "Social Science" (1877). This has been abridged in one volume by Kate McKean.

F. A. Walker's "Political Economy" (1883). This author differs from other economists, particularly on wages and questions of distribution.

H. George's "Progress and Poverty" (1879). In connection with this, read F. A. Walker's "Land and Rent" (1884).

TREATISES ON SPECIAL SUBJECTS.

W. T. Thornton's "On Labor" (1869).

McLeod's "Theory and Practice of Banking" (second edition, 1875-1876).

M. Block's "Traité théorique et pratique de statistique" (1878).

Goschen's "Theory of Foreign Exchanges" (eighth edition, 1875).

J. Caird's "Landed Interest" (fourth edition, 1880), treating of English land and the food-supply.

W. G. Sumner's "History of American Currency" (1874).

John Jay Knox's "United States Notes" (1884).

Jevons's "Money and the Mechanism of Exchange" (1875).

Tooke and Newmarch's "History of Prices" (1837-1856), in six volumes.

Leroy-Beaulieu's "Traité de la science des finances" (1883). This is an extended work, in two volumes, on taxation and finance; "Essai sur la répartition des richesses" (second edition, 1883).

F. A. Walker's "The Wages Question" (1876); "Money" (1878).

L. Reybaud's "Études sur les réformateurs contemporains, ou socialistes modernes" (seventh edition, 1864).

DICTIONARIES.

McCulloch's "Commercial Dictionary" (new and enlarged edition, 1882).

Lalor's "Cyclopædia of Political Science" (1881-84) is devoted to articles on political science, political economy, and American history.

Coquelin and Guillaumin's "Dictionnaire de l'économie politique" (1851-1853, third edition, 1864), in two large volumes.

REPORTS AND STATISTICS.

The "Compendiums of the Census" for 1840, 1850, 1860, and 1870, are desirable. The volumes of the tenth census (1880) are of great value for all questions; as is also F. A. Walker's "Statistical Atlas" (1874).

The United States Bureau of Statistics issues quarterly statements; and annually a report on "Commerce and Navigation," and another on the "Internal Commerce of the United States."

The "Statistical Abstract" is an annual publication, by the same department, compact and useful. It dates only from 1878.

The Director of the Mint issues an annual report dealing with the precious metals and the circulation. Its tables are important.

The Comptroller of the Currency (especially during the administration of J. J. Knox) has given important annual reports upon the banking systems of the United States.

The reports of the Secretary of the Treasury deal with the general finances of the United States. These, with the two last mentioned, are bound together in the volume of "Finance Reports," but often shorn of their tables.

There are valuable special reports to Congress of commissioners on the tariff, shipping, and other subjects, published by the Government.

The report on the "International Monetary Conference of 1878" contains a vast quantity of material on monetary questions.

The British parliamentary documents contain several annual "Statistical Abstracts" of the greatest value, of which the one relating to other European states is peculiarly convenient and useful. These can always be purchased at given prices.

A. R. Spofford's "American Almanac" is an annual of great usefulness.

Preliminary Remarks.

Writers on Political Economy profess to teach, or to investigate, the nature of Wealth, and the laws of its production and distribution; including, directly or remotely, the operation of all the causes by which the condition of mankind, or of any society of human beings, in respect to this universal object of human desire, is made prosperous or the reverse.

It will be noticed that political economy does not include ethics, legislation, or the science of government. The results of political economy are offered to the statesman, who reaches a conclusion after weighing them in connection with moral and political considerations. Political Economy is distinct from Sociology; although it is common to include in the former everything which concerns social life. Some writers distinguish between the pure, or abstract science, and the applied art, and we can speak of a science of political economy only in the sense of a body of abstract laws or formulas. This, however, does not make political economy less practical than physics, for, after a principle is ascertained, its operation is to be observed in the same way that we study the force of gravitation in a falling stone, even when retarded by opposing forces. An economic force, or tendency, can be likewise distinctly observed, although other influences, working at the same time, prevent the expected effect from following its cause. It is, in short, the aim of political economy to investigate the laws which govern the phenomena of material wealth. (Cf. Cossa, "Guide," chap. iii.)

While the [Mercantile] system prevailed, it was assumed, either expressly or tacitly, in the whole policy of nations, that wealth consisted solely of money; or of the precious metals, which, when not already in the state of money, are capable of being directly converted into it. According to the doctrines then prevalent, whatever tended to heap up money or bullion in a country added to its wealth.

More correctly the Mercantilists (in the sixteenth and seventeenth centuries) held that where money was most plentiful, there would be found the greatest abundance of the necessaries of life.(100)

Whatever sent the precious metals out of a country impoverished it. If a country possessed no gold or silver mines, the only industry by which it could be enriched was foreign trade, being the only one which could bring in money. Any branch of trade which was supposed to send out more money than it brought in, however ample and valuable might be the returns in another shape, was looked upon as a losing trade. Exportation of goods was favored and encouraged (even by means extremely onerous to the real resources of the country), because, the exported goods being stipulated to be paid for in money, it was hoped that the returns would actually be made in gold and silver. Importation of anything, other than the precious metals, was regarded as a loss to the nation of the whole price of the things imported; unless they were brought in to be re-exported at a profit, or unless, being the materials or instruments of some industry practiced in the country itself, they gave the power of producing exportable articles at smaller cost, and thereby effecting a larger exportation. The commerce of the world was looked upon as a struggle among nations, which could draw to itself the largest share of the gold and silver in existence; and in this competition no nation could gain anything, except by making others lose as much, or, at the least, preventing them from gaining it.

The Mercantile Theory could not fail to be seen in its true character when men began, even in an imperfect manner, to explore into the foundations of things. Money, as money, satisfies no want; its worth to any one consists in its being a convenient shape in which to receive his incomings of all sorts, which incomings he afterwards, at the times which suit him best, converts into the forms in which they can be useful to him. The difference between a country with money, and a country altogether without it, would be only one of convenience; a saving of time and trouble, like grinding by water instead of by hand, or (to use Adam Smith's illustration) like the benefit derived from roads; and to mistake money for wealth is the same sort of error as to mistake the highway, which may be the easiest way of getting to your house or lands, for the house and lands themselves.

Money, being the instrument of an important public and private purpose, is rightly regarded as wealth; but everything else which serves any human purpose, and which nature does not afford gratuitously, is wealth also. To be wealthy is to have a large stock of useful articles, or the means of purchasing them. Everything forms, therefore, a part of wealth, which has a power of purchasing; for which anything useful or agreeable would be given in exchange. Things for which nothing could be obtained in exchange, however useful or necessary they may be, are not wealth in the sense in which the term is used in Political Economy. Air, for example, though the most absolute of necessaries, bears no price in the market, because it can be obtained gratuitously; to accumulate a stock of it would yield no profit or advantage to any one; and the laws of its production and distribution are the subject of a very different study from Political Economy. It is possible to imagine circumstances in which air would be a part of wealth. If it became customary to sojourn long in places where the air does not naturally penetrate, as in diving-bells sunk in the sea, a supply of air artificially furnished would, like water conveyed into houses, bear a price: and, if from any revolution in nature the atmosphere became too scanty for the consumption, or could be monopolized, air might acquire a very high marketable value. In such a case, the possession of it, beyond his own wants, would be, to its owner, wealth; and the general wealth of mankind might at first sight appear to be increased, by what would be so great a calamity to them. The error would lie in not considering that, however rich the possessor of air might become at the expense of the rest of the community, all persons else would be poorer by all that they were compelled to pay for what they had before obtained without payment.

Wealth, then, may be defined, all useful or agreeable things which possess exchangeable value; or, in other

words, all useful or agreeable things except those which can be obtained, in the quantity desired, without labor or sacrifice.

This is the usual definition of wealth. Henry George (see "Progress and Poverty," pp. 34-37) regards wealth as consisting "of natural products that have been secured, moved, combined, separated, or in other ways *modified by human exertion*, so as to fit them for the gratification of human desires.... Nothing which Nature supplies to man without his labor is wealth.... All things which have an exchange value are, therefore, not wealth. Only such things can be wealth the production of which increases and the destruction of which decreases the aggregate of wealth.... Increase in land values does not represent increase in the common wealth, for what land-owners gain by higher prices the tenants or purchasers who must pay them will lose." Jevons ("Primer," p. 13) defines wealth very properly as what is transferable, limited in supply, and useful. F. A. Walker defines wealth as comprising "all articles of value and nothing else" ("Political Economy," p. 5). Levasseur's definition ("Précis," p. 15) is, "all material objects possessing utility" (i.e., the power to satisfy a want). (Cf. various definitions in Roscher's "Political Economy," section 9, note 3.) Perry ("Political Economy," p. 99) rejects the term *wealth* as a clog to progress in the science, and adopts *property* in its stead, defining it as that "which can be bought or sold." Cherbuliez ("Précis," p. 70) defines wealth as the material product of nature appropriated by labor for the wants of man. Carey ("Social Science," i, 186) asserts that wealth consists in the power to command Nature's services, including in wealth such intangible things as mental qualities.

BOOK I. PRODUCTION.

Chapter I.

Of The Requisites Of Production.

§ 1. The Requisites of Production are Two: Labor, and Appropriate Natural Objects.

There is a third requisite of production, capital (see page 58). Since the limitation to only two requisites applies solely to a primitive condition of existence, so soon as the element of *time* enters into production, then a store of capital becomes necessary; that is, so soon as production requires such a term that during the operation the laborer can not at the same time provide himself with subsistence, then capital is a requisite of production. This takes place also under any general division of labor in a community. When one man is making a pin-head, he must be supplied with food by some person until the pins are finished and exchanged.

Labor is either bodily or mental; or, to express the distinction more comprehensively, either muscular or nervous; and it is necessary to include in the idea, not solely the exertion itself, but all feelings of a disagreeable kind, all bodily inconvenience or mental annoyance, connected with the employment of one's thoughts, or muscles, or both, in a particular occupation.

The word "sacrifice" conveys a just idea of what the laborer undergoes, and it corresponds to the abstinence of the capitalist.

Of the other requisite--appropriate natural objects--it is to be remarked that some objects exist or grow up spontaneously, of a kind suited to the supply of human wants. There are caves and hollow trees capable of affording shelter; fruits, roots, wild honey, and other natural products, on which human life can be supported; but even here a considerable quantity of labor is generally required, not for the purpose of creating, but of finding and appropriating them.

Of natural powers, some are unlimited, others limited in quantity. By an unlimited quantity is of course not meant literally, but practically unlimited: a quantity beyond the use which can in any, or at least in present circumstances, be made of it. Land is, in some newly settled countries, practically unlimited in quantity: there is more than can be used by the existing population of the country, or by any accession likely to be made to it for generations to come. But, even there, land favorably situated with regard to markets, or means of carriage, is generally limited in quantity: there is not so much of it as persons would gladly occupy and cultivate, or otherwise turn to use. In all old countries, land capable of cultivation, land at least of any tolerable fertility, must be ranked among agents limited in quantity. Coal, metallic ores, and other useful substances found in the earth, are still more limited than land.

For the present I shall only remark that, so long as the quantity of a natural agent is practically unlimited, it can not, unless susceptible of artificial monopoly, bear any value in the market, since no one will give anything for what can be obtained gratis. But as soon as a limitation becomes practically operative--as soon as there is not so much of the thing to be had as would be appropriated and used if it could be obtained for asking--the ownership or use of the natural agent acquires an exchangeable value.

Rich lands in our Western Territories a few years ago could be had practically for the asking; but now, since railways and an increase of population have brought them nearer to the markets, they have acquired a distinct exchange value. The value of a commodity (it may be anticipated) is the quantity of other things for which it can be exchanged.

When more water-power is wanted in a particular district than there are falls of water to supply it, persons will give an equivalent for the use of a fall of water. When there is more land wanted for cultivation than a place possesses, or than it possesses of a certain quality and certain advantages of situation, land of that quality and situation may be sold for a price, or let for an annual rent.

§ 2. The Second Requisite of Production, Labor.

It is now our purpose to describe the second requisite of production, labor, and point out that it can be either direct or indirect. This division and subdivision can be seen from the classification given below. Under the head of indirect labor are to be arranged all the many employments subsidiary to the production of any one article, and which, as they furnish but a small part of labor for the one article (e.g., bread), are subsidiary to the production of a vast number of other articles; and hence we see the interdependence of one employment on another, which comes out so conspicuously at the time of a commercial depression.

"We think it little to sit down to a table covered with articles from all quarters of the globe and from the remotest isles of the sea--with tea from China, coffee from Brazil, spices from the East, and sugar from the West Indies; knives from Sheffield, made with iron from Sweden and ivory from Africa; with silver from Mexico and cotton from South Carolina; all being lighted with oil brought from New Zealand or the Arctic Circle. Still less do we think of the great number of persons whose united agency is required to bring any one of these finished products to our homes--of the merchants, insurers, sailors, ship-builders, cordage and sail makers, astronomical-instrument makers, men of science, and others, before a pound of tea can appear in our market."(101)

The labor(102) which terminates in the production of an article fitted for some human use is either employed directly about the thing, or in previous operations destined to facilitate, perhaps essential to the possibility of, the subsequent ones. In making bread, for example, the labor employed about the thing itself is that of the baker; but the labor of the miller, though employed directly in the production not of bread but of flour, is equally part of the aggregate sum of labor by which the bread is produced; as is also the labor of the sower, and of the reaper. Some may think that all these persons ought to be considered as employing their labor directly about the thing; the corn, the flour, and the bread being one substance in three different states. Without disputing about this question of mere language, there is still the plowman, who prepared the ground for the seed, and whose labor never came in contact with the substance in any of its states; and the plow-maker, whose share in the result was still more remote. We must add yet another kind of labor; that of transporting the produce from the place of its production to the place of its destined use: the labor of carrying the corn to market, and from market to the miller's, the flour from the miller's to the baker's, and the bread from the baker's to the place of its final consumption.

Besides the two classes of indirect laborers here mentioned, those engaged in producing materials and those in transportation, there are several others who are paid fractions out of the bread. Subsidiary to the direct labor of the bread-maker is the labor of all those who make the instruments employed in the process (as, e.g., the oven). Materials are completely changed in character by one use, as when the coal is burned, or the flour baked into bread; while an instrument, like an oven, is capable of remaining intact throughout many operations. The producer of materials and the transporter are paid by the bread-maker in the price of his coal and flour when left at his door, so that the price of the loaf is influenced by these payments. Those persons, moreover, who, like the police and officers of our government, act to protect property and life, are also to be classed as laborers indirectly aiding in the production of the given article, bread (and by his taxes the bread-maker helps pay the wages of these officials). Shading off into a more distant, although essential, connection is another class--that of those laborers who train human beings in the branches of knowledge necessary to the attainment of proper skill in managing the processes and instruments of an industry. The acquisition of the rudiments of education, and, in many cases, the most profound knowledge of chemistry, physics and recondite studies, are essential to production; and teachers are indirect laborers in producing almost every article in the market. In this country, especially, are inventors a class of indirect laborers essential to all ultimate production as it now goes on. The improvements in the instruments of production are the results of an inventive ability which has made American machinery known all over the world. They, too, as well as the teacher, are paid (a small fraction, of course) out of the ultimate result, by an indirect path, and materially change the ease or difficulty, cheapness or dearness, of production in nearly every branch of

industry. In the particular illustration given they have improved the ovens, ranges, and stoves, so that the same or better articles are produced at a less cost than formerly. All these indirect laborers receive, in the way of remuneration, a fraction, some more, some less (the farther they are removed from the direct process), of the value of the final result.

§ 3. Of Capital as a Requisite of Production.

But another set of laborers are to be placed in distinct contrast with these, so far as the grounds on which they receive their remuneration is concerned. These are the men engaged previously in providing the subsistence, and articles by which the former classes of labor can carry on their operations.

The previous employment of labor is an indispensable condition to every productive operation, on any other than the very smallest scale. Except the labor of the hunter and fisher, there is scarcely any kind of labor to which the returns are immediate. Productive operations require to be continued a certain time before their fruits are obtained. Unless the laborer, before commencing his work, possesses a store of food, or can obtain access to the stores of some one else, in sufficient quantity to maintain him until the production is completed, he can undertake no labor but such as can be carried on at odd intervals, concurrently with the pursuit of his subsistence.

The possession of capital is thus a third requisite of production, together with land and labor, as noted above. Henry George ("Progress and Poverty," chap. iv) holds an opposite opinion: "The subsistence of the laborers who built the Pyramids was drawn, not from a previously hoarded stock" (does he not forget the story of Joseph's store of corn?), "but from the constantly recurring crops of the Nile Valley."

He can not obtain food itself in any abundance; for every mode of so obtaining it requires that there be already food in store. Agriculture only brings forth food after the lapse of months; and, though the labors of the agriculturist are not necessarily continuous during the whole period, they must occupy a considerable part of it. Not only is agriculture impossible without food produced in advance, but there must be a very great quantity in advance to enable any considerable community to support itself wholly by agriculture. A country like England or the United States is only able to carry on the agriculture of the present year because that of past years has provided, in those countries or somewhere else, sufficient food to support their agricultural population until the next harvest. They are only enabled to produce so many other things besides food, because the food which was in store at the close of the last harvest suffices to maintain not only the agricultural laborers, but a large industrious population besides.

The claim to remuneration founded on the possession of food, available for the maintenance of laborers, is of another kind; remuneration for abstinence, not for labor. If a person has a store of food, he has it in his power to consume it himself in idleness, or in feeding others to attend on him, or to fight for him, or to sing or dance for him. If, instead of these things, he gives it to productive laborers to support them during their work, he can, and naturally will, claim a remuneration from the produce. He will not be content with simple repayment; if he receives merely that, he is only in the same situation as at first, and has derived no advantage from delaying to apply his savings to his own benefit or pleasure. He will look for some equivalent for this forbearance:(103) he will expect his advance of food to come back to him with an increase, called, in the language of business, a profit; and the hope of this profit will generally have been a part of the inducement which made him accumulate a stock, by economizing in his own consumption; or, at any rate, which made him forego the application of it, when accumulated, to his personal ease or satisfaction.