

REPRINTS OF ECONOMIC CLASSICS

THE DISTRIBUTION OF WEALTH

THE
DISTRIBUTION OF WEALTH

(1893)

By

JOHN R. COMMONS

with an introductory essay

“THE FOUNDATIONS OF COMMONS’ ECONOMICS”

By

JOSEPH DORFMAN



REPRINTS OF ECONOMIC CLASSICS

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THE FOUNDATIONS OF COMMONS' ECONOMICS

As a founding father of institutional theory, as a gifted practitioner and promoter of research, as the creator of new vital areas of study, such as industrial relations and administrative economics, and above all as an extraordinarily successful policy maker, John Rogers Commons (1862-1945) had more than enough credentials to make him a major contributor to the development of the science of economics and economic statesmanship. Like Veblen, he more than repaid his debt to other disciplines for maturing and sharpening his insight, by his contributions to the other social sciences and law.

Commons grew up in the wake of America's great industrial revolution. As a product of the turmoil-ridden Middle West, he was keenly aware of the transfer of dominance from the agricultural-commercial economy of pre-Civil War days to that of the powerful industrial state. It would be his role to help accelerate the process of adjustment. A full sketch of the life history of this colorful figure cannot be given here, but enough will be supplied to provide a background for this long overdue reprint of his first major treatise in economic theory, *The Distribution of Wealth* (1893).

Commons was born in Hollandsburg, Ohio, and grew to manhood in the nearby Indiana towns of Union City and Winchester. To some extent there was a tradition of reform in the family. His parents had been active abolitionists and participated in

the "underground railway" for the escape of southern slaves to Canada and freedom. His mother was a zealous promoter of temperance reform. His parents were cultured, middle class people who had little material success. His father engaged in a variety of enterprises—harness making, farming, land speculation, and the publication of newspapers. None were long-lived, but from the venture in newspapers, young Commons learned the printing trade. His mother, an Oberlin graduate and former school teacher, with a deeply religious bent, was intent that Commons become a minister. She induced him at the relatively advanced age of twenty to enter her *alma mater*, where he spent the first year in the preparatory division, to make up the deficiencies in his lower school education. He met part of his expenses by working as a printer, and at the same time became deeply interested in trade unionism, and as he put it, in "the now classical work"¹ of Henry George, *Progress and Poverty*, and his single tax movement.

After receiving a B.A. in 1888 Commons chose a path that would enable him to turn his interest in religion to the service of social and economic reform. Instead of going to a theological seminary, he went to the pioneering institution for graduate work in the United States, Johns Hopkins, to study political economy and history. There he was enveloped in the two leading movements for the reform of the dominant classical economics: the German historical school and the marginal utility school. Both were largely imports from Europe,

¹ See below, p. 176.

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but Americans provided vigorous independent contributions.

The American exponents of the German historical school sought to enlarge the hitherto extremely narrow scope of classical economics in order to provide sound guide lines for economic policy; for a policy that would promote orderly industrial growth and equitable distribution of national income but would avoid the extremes of excessive individualism and Marxian socialism. They emphasized the use of history and statistics, the study of comparative economic development, jurisprudence and ethics. To achieve social and material progress they advocated the expansion of the role of government, meaning not so much an enlargement of national power, but rather an increase in the functions of the state governments and their subdivisions. They also looked towards the church and other voluntary associations including trade unions.

The most prominent figure in the American movement was Commons' teacher in political economy, the German trained Richard T. Ely, who was also the chief creator of one of the most important products of the movement, the American Economic Association in 1885. As part of his method of investigation, Ely emphasized, by practice and instruction, the need for every economist and would-be economist to engage in field work and even to join organizations that offered the opportunity to study and understand the people involved. Thus he encouraged Commons to join the Charity Organization Society of Baltimore as a case worker

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in order to be in a strategic position to study the facts of practically every important social problem—the problem of labor, of the unemployed, of long hours, of women and children workers, and of city government.

The other movement, that of the marginal utility school, centered on what it conceived as a new theory of value. In contrast to the view of the classical school that the cost of production was the foundation of value, this school contended that value had its formal immediate foundation in demand—desirability—and the relationship between price and desirability was explained by the concept of marginal utility which, as Commons defined it, was “the quantity of utility or pleasurable sensation afforded by the last increment of commodity actually enjoyed.”²

This school had first attracted attention in the United States through the popularity of *The Theory of Political Economy* (1871) by the English proponent of utility theory, W. Stanley Jevons. Its attraction was considerably enhanced by the presentation of a non-mathematical version at about the same time, by Carl Menger of Vienna, and in Commons' day, by the English translations of the works of Menger's two great disciples Friedrich von Wieser and Eugen von Böhm-Bawerk.

At Johns Hopkins, many of Commons' friends among the graduate students were deeply interested in the marginal utility school of the Austrian variety, notably Sidney Sherwood, William I. Scott, and David I. Green. Another of the group, E. A.

² See below, pp. 4-5.

Ross, who later became a prominent sociologist and a colleague at the University of Wisconsin, was engaged in developing the mathematical variant.

Thus as Commons began his teaching career in 1890 he was not only passionately interested in practically all of the popular political and socio-economic issues but was fully equipped with the latest tools and methods of investigation. After a year at Wesleyan and the succeeding year at Oberlin, he became professor of economics and social science at Indiana University in 1892. There for three years he found outlets for his manifold interests and extraordinary energy.

His introductory course in economics, Economics and Statistics, was notable for its emphasis on "the collection and interpretation of statistics as affording a basis for future work"³ in the social sciences. His advanced course, Economic Theories, out of which grew *The Distribution of Wealth* was a study of the theories of value and distribution and their application to current economic problems. As the historian of the university wrote: "Commons took an active interest in public affairs. He took his students to investigate municipal enterprises, to conferences on charities and correction; he went to Dwight, Illinois to investigate the Keeley cure, and in many ways kept himself and his students in touch with and interested in active life."⁴

³ *Annual Catalogue of The Indiana University, 1893-94*, Bloomington, Indiana, p. 54.

⁴ James A. Woodburn, *History of Indiana University* (Bloomington, Indiana: Indiana University Press, 1940), vol. 1, pp. 413-4.

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Wherever experiments were being conducted, whether at home or abroad, Commons was ready to investigate, usually on a group basis. Thus he proposed in 1894 to make a fifteen month trip to Australia for the federal Department of Labor, in which he would have been accompanied by a young man of considerable fortune and legal and business experience, a future governor of Indiana, James Putnam Goodrich.⁵ Most likely, the mission was planned to investigate the experiments in Australia and New Zealand in compulsory arbitration in industrial disputes and the fixing of minimum wages in sweated industries by government boards; experiments to which Commons at the time was sympathetic.⁶

⁵ In his application for the mission, Commons wrote concerning Goodrich: "He is a young man of about thirty who has already made quite a fortune by his own efforts, especially in the line of contracting for street and road improvements, and introducing gas and electric lights. He owns two or three very valuable plants in as many cities. He also has a lucrative law practice and has served as prosecuting attorney in his judicial district." (Commons to Carroll D. Wright, National Archives, September 22, 1894.) Negotiations continued for some time but the trip fell through.

⁶ See below, p. 82 and "Compulsory Arbitration", *The Kingdom*, September 7, 1894.

Commons later changed his mind on compulsory arbitration, but he retained leanings toward compulsory investigation when the public interest was at stake as in the case of railroad strikes. See his comment at the conference of the Mediation Committee of the National Civic Federation in 1916, in Marguerite Green, *The National Civic Federation and the American Labor Movement 1900-1925* (Washington: The Catholic University of America Press, 1957), pp. 242-4.

For the experiments in Australasia, see John R. Commons and John E. Andrews, *Principles of Labor Legislation* (New York: Harper, 1916, 4th ed. 1936), pp. 439-47.

Like his teacher Ely, Commons was also active in promoting a variety of reform organizations. He was a founder in 1893 of the American Proportional Representation League. He served as a vice president of the National League for Promoting the Public Ownership of Monopolies, primarily municipal ownership of public utilities. In 1893 he and Ely promoted the Institute of Christian Sociology to encourage "the study of social questions from both the scientific and Christian standpoint."⁷ In Commons' view, as stated in *Social Reform and the Church* (1894), Christianity called for the securing of equality of opportunity, that is: "free scope for development of such gifts as we have are the logical conclusions of Christianity".

He strongly appreciated that political reform was essential for the achievement of sound social and economic reforms. He was a zealous advocate of civil service reform, the secret ballot, the primary and initiative and referendum or "direct legislation" as it was then called. The political reform in which he took his earliest and greatest interest, was proportional representation. He wanted representation of various economic interests as distinct from representation by geographic dis-

⁷ From statement by the institute in editorial "Institute of Christian Sociology", *The Cyclopedic Review of Current History*, 3d quarter, 1893, p. 636.

Commons continued to stress the role of the minister in reform until the close of the decade, although after a year the Institute was "practically wrecked" by a faction that "imagines that the main reliance is the glorification of Christian sentiments." (A. W. Small to L. F. Ward, April 10, 1895 in "The Letters of Albion W. Small to Lester F. Ward", no. 1, ed. by Bernard Stern, *Social Forces*, December 1933, p. 171.

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tribution. While the plan was not adopted to any appreciable extent, it is the germ of one of his later and most important contributions to economic policy and statesmanship; namely, that the achievement of sound working rules in any institution, whether business or any other kind, is through a process of "collective bargaining" between the representatives of the affected interests in their organized or group capacity.

His interests in economic reform went far beyond the direct improvement of the working conditions of the wage earner, such as sanitary work shops and support of a strong trade union movement. These interests ranged from slum clearance and free educational services to renovation of taxation and the monetary system. In calling for tenement house reform, he pointed out that it involved "demolition". He went on to say "let the city renovate the tenement house, even build its own tenement houses as Liverpool and Glasgow have done. . . . Let it furnish cheap transportation and carry the children free to the schools and back as Sydney and Melbourne have done."⁸ He also wanted free textbooks and free meals for school children. He called for laws against the adulteration of food.

Commons also began developing the idea of using the instrument of taxation as a means of increasing "opportunities" for "capital and labor" and thus the national income. This notion took the form particularly of taxation of "natural monopolies."⁹

⁸ *Social Reform and the Church*, pp. 130-31 (New York: Crowell, 1894).

⁹ "Protection and Natural Monopolies," *The Quarterly Journal of Economics*, July 1892, pp. 479-84.

Thus he urged in *City Government* (1895) that local taxes "be based on unearned incomes, especially land values, exemption of personality and improvements, thus destroying land monopoly and speculation, encouraging industry and . . . furnishing employment". He supported also progressive income and inheritance taxes provided they were not so heavy as to discourage enterprise and economy. Thus, "a low income tax of two per cent, or a moderate inheritance tax which goes no higher than five per cent as in Ohio, or ten per cent as in Great Britain, imposed only on superfluous wealth, cannot check a wholesome individual ambition."¹⁰

Commons advocated federal control of banking and railways, our two most influential business interests. For the most part as later, however, he held that reforms should be enacted by the states rather than the national government.

On monetary reform he was quite a social inventor. He opposed fiat money and looked upon the demand for the restoration of the old bimetallic standard, embodied in the cry for "free silver" as "only the politic step to that end".¹¹ Yet he held that the monetary system should be reformed, to maintain a stable level of prices and thereby prevent depression with its vast unemployment. As he stated in the essay, "Progressive Individualism" in 1895: "The secret of monetary reform is this; the creditor should receive in commodities, just

¹⁰ "Progressive Individualism", *The American Magazine of Civics*, June 1895, p. 571.

¹¹ Commons to Albert Shaw, August 7, [1893], Shaw papers, New York Public Library.

what he loaned in purchasing power, no more, no less. He discounts his risks in the rate of interest. The debtor assumes all the risk of business—he should therefore receive all the profits and gains that come from lessened cost of production. Justice to the creditor, reward to the debtor, is the essential standard of free and fair competition. This can be secured not by falling prices nor by rising prices, but by *level prices*".

To help eliminate fluctuations in the level of prices, he supported the movement in 1893 to allow silver to be used as a money of redemption—a legal tender—only at its market value, but the mechanism of his particular scheme explicitly included what has since been called "managed money", and the use of open market operations as an instrument thereto. Commons urged that Congress "appoint a National Monetary Commission representing difference interests and including monetary experts. Let the Commission establish a price barometer to determine the fluctuations of general prices. When prices fall let them expand the currency, when prices rise let them contract. To expand, they can buy silver bullion and issue legal tender notes. To contract, they can sell bullion for the notes and retire the latter. To prevent speculation let the Commission issue notes to a limited extent without a corresponding purchase of bullion. Notes could be deposited on call with designated banks on approved securities of public and railway bonds, the government sharing in the profits. Deposits would be withdrawn when the commission wishes to contract. Deposits could be made with New York banks

whenever a money panic sends interest up to say, eight per cent."¹²

Where Commons proposed silver bullion and silver notes as the major instrument for open market operations, the Federal Reserve System today uses government securities for much the same purpose. Interestingly Commons gave enthusiastic support to this Federal Reserve practice when it was consciously initiated in the 1920's.¹³

To provide for his many reforms a systematic, technical rationale, grounded in the most up-to-date versions of economic theory, Commons published in 1893, *The Distribution of Wealth*. For him, the distribution of wealth was *the* social problem in the sense that the current maldistribution gives rise on the one hand to "great wealth, bringing great luxury and extravagance", and on the other hand to "insecurity of employment", with its inherent evils.¹⁴

The book is an ingenious combination of the modern types of economic theory that he had imbibed at Johns Hopkins. It attempted to fuse the Austrian utility theory with an abundance of diagrams and the techniques of the German historical school with its emphasis on the role of law and the use of statistics. His marginal analysis combined the doctrine of marginal utility for value and its

¹² Commons, "What Should Congress Do About Money?", *The Review of Reviews*, August 1893, p. 153; see also "Bullion Notes and An Elastic Currency", *Annals of the American Academy of Political and Social Science*, September 1893, pp. 99-101.

¹³ Commons, "The Stabilization of Prices and Business", *The American Economic Review*, March 1925, pp. 43-52.

¹⁴ *Social Reform and the Church*, p. 6.

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counterpart for distribution, marginal productivity, under the one "great law, which is the corner stone of political economy, the law of diminishing returns".¹⁵

So pronounced was his use of utility theory that it was doubtless *The Distribution of Wealth* that led Joseph A. Schumpeter in 1912 to salute Commons as a supporter of "the marginal utility theory . . . with unimportant qualifications".¹⁶

By emphasizing customs, the role of fixed social relations and legal rights as basic factors controlling the operation of the marginal principles, Commons presented suggestive doctrines of monopoly-profit maximization, the justification of certain trade union practices, an embryonic social security program and tax reform.

There is even in the book the glimmerings of what in modern terminology is called monopolistic competition: "If the enterprise is one of a number of competitive undertakings . . . world prices are determined by the supply of the world product, but inside the world product each entrepreneur has his especial range of customers. If he infringes upon the territory of his competitors, he can do so only by lowering prices or by improving the quality of his product. In either case, he must sooner or later reach a point of diminishing returns in values."¹⁷

The most explosive notion was "the right to work, for every man that is willing", as a respon-

¹⁵ *Social Reform and the Church*, p. 15.

¹⁶ *Epochen der Dogmen—und Methodengeschichte*, 1912, translation by R. Aris as *Economic Doctrine and Method* (London: Allen and Unwin, 1954), p. 186, footnote.

¹⁷ See below, pp. 131-2.

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sibility of government. Under this "right to employment" Commons discussed ways of preventing the involuntary idleness of both employers and employees resulting from crises and depressions, and also the unemployment of labor resulting from the displacement of laborers by machinery. Commons was in advance of his time when he argued that government could help remedy technological unemployment by employment bureaus and public works. He granted that his various proposals for implementing the right to security of employment might seem inadequate and impracticable, but what he had in mind were means that would make for economic development and equity. As he put it in the concluding sentence of the book, "Public policy should leave capital and labor and business ability free and untrammelled, but endeavor to widen and enlarge the opportunities for their employment."

The Distribution of Wealth, however, appeared at an inauspicious time. It was published at the beginning of an interlude of conservatism and even reaction in public affairs, between the spurt of the 1870's and 1880's and the progressive movement of the new century—both periods of active social and economic reform. The stagnation was accompanied by a frowning upon of any kind of innovation in economic analysis let alone economic reform among professional economists.

As a result the book was not cordially received. The reviewers, and they included economists with reputations both in the academic world and world of affairs, practically ignored the elaborate tech-

nical analysis and generally condemned the book as the work of a socialist in disguise.

Commons realized that he needed a much broader base for his reform position than the utility theory.¹⁸ He wrote at the time, "I am planning my work to center around the legal aspects of sociology—expanding the doctrines in my *Distribution of Wealth*."¹⁹ The result was thirty years later, his second major contribution to theory, *Legal Foundations of Capitalism* (1924), and then the sequel, *Institutional Economics: Its Place in Political Economy* (1934).

By this time he disowned *The Distribution of Wealth* as having been "dominated by the theories prevailing during the last quarter of the nineteenth century",²⁰ but actually he merely shifted the emphasis. By the 1920's, his fellow institutionalist, Veblen, had forced orthodox economists to engage in serious revisions of their doctrines, and among the casualties was the pleasure-pain calculus of marginalism, which had been the formal keystone for Commons as well. He turned to a more sophisticated, subdued version of "Austrian" economics, which his friend David I. Green was developing at the time of *The Distribution of Wealth* and which allowed Commons to give in formal theory as well as in fact due importance to the creative role of institutions.

¹⁸ See recollection of Selig Perlman in L. G. Harter, Jr., *John R. Commons: His Assault on Laissez Faire* (Corvallis, Oregon: Oregon State University Press, 1962), p. 37 ft.

¹⁹ Commons to Ely, March 3, 1896, Ely Papers, Wisconsin Historical Society.

²⁰ *Institutional Economics* (New York: Macmillan, 1934), p. v.

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To sum up, *The Distribution of Wealth* contains the foundations of Commons' economics. It reveals more clearly than his later works, his ambition to transform the narrowness of the doctrines of classical economics into a more comprehensive organized body of economic theory that could serve as a guide to economic statesmanship in a rapidly developing economy. The book saw the problem of achieving an orderly, accelerated economic growth that would avoid the excessive inequality in the distribution of wealth, which must spell the doom of democratic government. In the germinal vitality that *The Distribution of Wealth* displays, despite its crudities, lies in part the explanation of Commons' role as a pioneer in the theory of economic policy.

JOSEPH DORFMAN

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BY

JOHN R. COMMONS

PROFESSOR OF ECONOMICS AND SOCIAL SCIENCE, INDIANA UNIVERSITY

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To
My Mother

PREFACE

IN the present essay an adequate acknowledgment of indebtedness to others would require a history and criticism of theories of distribution, pointing out what seems to me to be of permanent value in the work of the leading economists, and showing reasons for disagreeing with their weaker and more transient arguments. This is a task which needs to be done, but for the present I am interested in the practical outcome of these theories.

Neither should the reader expect to find in this essay more than an outline. I have attempted to cut a straight line through a tangled jungle, and to give merely a glimpse into the maze of conflicting opinions. Each chapter herein might well be expanded into a volume; and this would necessarily be done were it not that I assume on the part of my readers a fair acquaintance with the problems and the extant discussions of the subject.

I have received valuable assistance in reading the proof and many helpful suggestions from my friends Professor Sidney Sherwood of Johns Hopkins Uni-

versity, Professor Richard T. Ely and Professor Wm. I. Scott of the University of Wisconsin, and Dr. D. I. Green of Alfred Center, N. Y. It is a pleasure to express to these gentlemen my sincere thanks. Most of all am I indebted to my wife, whose devotion is in every line of this book.

JOHN R. COMMONS.

INDIANA UNIVERSITY, May, 1893.

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HUMAN FACULTIES.

I. WANTS, satisfied by

II. ABILITIES. (See 1.)

I.) FREE GOODS.

II.) DIRECT ECONOMIC GOODS.

(I.) *Individual.*
(Food, clothing, dwellings, lands, etc.)

(II.) *Collective.*
(Public works, parks, streets, education, security, justice, etc.)

Procured by Factors in Distribution.

1. Personal Abilities { (1) Labourer.
(2) Entrepreneur. (See II.)

2. Capital (Indirect economic goods).

(1) Employment { A. Private.
B. Public.
(2) Uses { A. Consumption.
B. Auxiliary { (A) Tools and machinery.
(B) Material.
(3) Form { A. Fixed. { (A) Specialised.
B. Circulating. { (B) Non-specialised.

3. Monopoly Privileges.

(1) Natural (Economic). { A. Land.
B. Distributive { (A) With franchise.
Industries. { (B) Without franchise.
C. Manufacturing Industries. (Trusts).
D. Good will, business connections, etc.
(2) Artificial (Legal). { A. Patents.
B. Copyrights.
C. Trade-marks.
D. Franchises.

4. Legal Rights.

(1) Personal { A. Life.
B. Liberty. { (A) Contract.
{ (B) Movement.
{ (C) Industry.
{ (D) Use of Nature's Gifts.
{ (E) Use of Public Property.
C. Employment.
D. Marriage.
(2) Property (In capital and monopoly privileges). { A. Private. { (A) Full Ownership (Dominium).
{ (B) Partial Ownership { a. Servitudes.
{ c. Personal rights { (a) Trusts.
{ d. Inheritance. { (b) Contracts.
{ (A) Full Ownership (same as private).
{ (B) Partial Ownership { a. Servitudes.
{ b. Mortgages.
{ c. Eminent Domain.
{ d. Right of Way.
{ e. Taxation.
{ f. Nuisance.
{ g. Public Policy.
{ h. Fines, Forfeitures, Escheat.

CHAPTER I

VALUE, PRICE, AND COST

REFERENCES: It is proposed in this chapter to give only enough of the theory of Value to introduce the principles of Distribution. The theory is based primarily on the work of the Austrian economists. But the Austrians, in simply holding that Value depends upon Usefulness and Scarcity, have added nothing to the classical dogma of Demand and Supply except the mere conception of Marginal Utility. This is a serviceable conception, but it does not help us out of the dogmatism and logomachy of the older doctrine. Yet it gives a scientific basis for explaining the fundamental question of Value; namely, What are the forces which control the supplies of commodities relatively to the demands? Upon the answer to this question the whole theory of Distribution depends. The solution is attempted in this and the following chapters. The work of the Austrians is best outlined for English readers in Smart's *Introduction to the Theory of Value*, London and New York, 1891. See also Böhm-Bawerk, *Positive Theory of Capital*, translated by Smart, London and New York, 1891. The master constructive mind of the Austrian school is Wieser. See *Der Natürliche Werth*, Vienna, 1889, a translation of which is announced by Messrs. Macmillan & Co. American writers stand next to the Austrians, especially Clark, *Philosophy of Wealth*, Boston, 1886, and Patten, *Theory of Dynamic Economics*, Philadelphia, 1892. Gunton develops the law of prices and cost in an interesting way. See *Wealth and Progress*, New York, 1887, and *Principles of Social Economics*, New York, 1890. The discussions in the *Quarterly Journal of Economics* and the *Annals of the American Academy of Political and Social Science* are highly valuable.

THE modern problem of the Distribution of Wealth is the outcome of a social organisation based on pri-

vate property, division of labour, and exchange. The share of the social income which an individual or a class obtains is therefore a problem of the *ratios* at which the various products are exchanged. The ratios of exchange depend upon the relative values of commodities to the members of society. Ultimately, therefore, an analysis of Value is the doorway to a theory of Distribution.

Back of value lies utility. Human wants are not only the great motive power in economic conduct; they also determine the value of economic products. Utility is that attribute of external objects which fits them to satisfy human wants.

But the economist has a different view of utility from that taken by the chemist, physiologist, psychologist, or moralist. These discuss what may be called abstract utility; that is, the qualities of external objects and their physical or moral adaptation to satisfy the wants of human nature. The economist discusses concrete or quantitative utility; that is, utility depending upon the actual and relative intensity of different wants. He examines the physical and social conditions which compel men to exert themselves in order to satisfy these wants. The physiologist and moralist take notice that man has different kinds of wants, and that the satisfaction of some of these is more essential for his life and well-being than that of others. Air, water, food, clothing, shelter, luxuries, ornaments, education, religion, supply wants of very different human significance.

The economist, while he must begin with a recognition of these various kinds of wants, finds his most significant fact in the varying degrees in which nature and society supply the material for satisfying them.

He notices that these wants vary in the relative amounts of material needed for their satisfaction; that labourers will spend about 50% of their resources for subsistence; 16% for clothing; 20% for shelter; 4% for fuel; and 10% for sundries.¹

Now, the significance of this fact is to be found in the diminishing scale of utility. The different kinds of wants, no matter what their importance from a physiological or moral point of view, are capable of satiety. The first increments consumed may give a very intense pleasure, but succeeding increments will give less pleasure until, perhaps, finally an increment is reached whose consumption gives no pleasure at all. This is the point of satiety. The only differences, from the economic standpoint, between different kinds of wants are, on the one hand, the different quantities of goods necessary to supply them up to the point of satiety, and, on the other hand, the different degrees of provision which nature and society make for them.

A want — or rather a need — is not felt unless the provision for its supply is occasionally short of the point of satiety. We may, perhaps, have the most urgent and intense need for electricity in the atmos-

¹ Massachusetts Bureau of Labour Statistics for 1883.

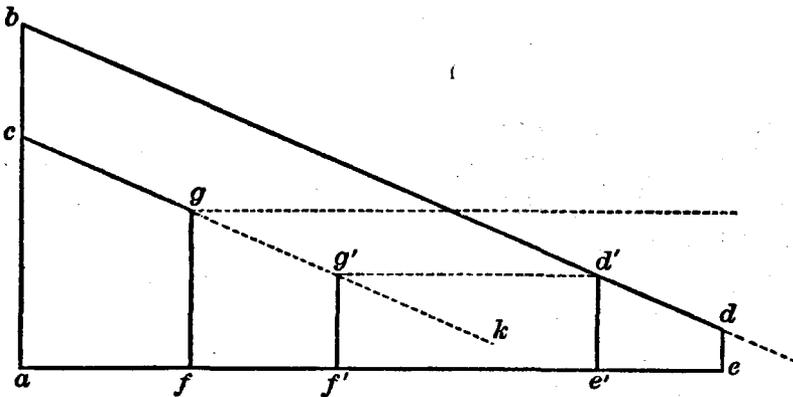
phere. But nature provides this electricity so abundantly that we never realise the want of it. We are seldom conscious of our need of air — by far the most urgent and extensive need of life — because we always have an abundance of air, and the point of satiety is constantly reached. The needs for electricity, air, and, perhaps, water are not properly wants, because we are not conscious of them. A true want must be felt.

But there are wants which are periodically felt. Nature, while lavish in her supply of our intense need for air, is niggardly in her supply of food, clothing, and shelter.

The degree to which the different wants are felt depends upon, 1, the extent of the supply needed before the point of satiety is reached, and, 2, the quantity of the supply habitually furnished relative to the need. Therefore it is that the most significant need is often the least want, and that such important and natural needs as those for food are often less felt than such acquired wants as those for intoxicants. The intensity of the want depends upon the degree of satisfaction which has been reached in the descending scale of utility. This depends upon the quantity of the good in question which has already been supplied. The least intense want of a given kind which is actually supplied marks the marginal utility of the article supplying it. Marginal utility, then, is quantity of utility or pleasurable sensation afforded by the last increment of commodity actually

enjoyed. The marginal utility of different kinds of goods does not depend upon the kind of want, except as the *kind* determines the *quantity* wanted. It depends directly upon the relative supply. It is scarcity that prevents the marginal utility from descending to *nil*, but scarcity is a relative term and always refers to the quantity needed. An amount which may be bountiful in supplying one kind of wants may be very limited in supplying

DIAGRAM I.



other kinds. Marginal utility, therefore, may be less in the case of indispensable wants than in the case of dispensable ones.

In Diagram I. let ab measure the quantity of satisfaction obtained from the first increment of food, and ac from that of clothing. If the diminishing scale of the utility of food follows the line bd , and the actual supply of food is ae , the marginal utility will be ed . If the clothing scale is ck , and the supply is

only *af*, then the marginal utility will be *fg*. The actual, felt want for clothing, therefore, measured by its marginal utility, is greater than the felt want for the far more indispensable utility, food.

Wants as just described are the first component of demand. Resources is the second. By resources is meant simply one's share of the social product, no matter what the cause or origin of that share. If his share is large, he may receive so large a quantity of all products that the marginal utility of each will be lower to him than the average marginal utility to society. Or, if his share be small, then the marginal utilities may be higher than those of society.

We have here reached the essential nature of subjective value. It depends upon marginal utility. But it extends further than the marginal increments of commodities. By means of his intelligence the individual ascribes to those increments which he consumes before the marginal increment is reached the same concrete utility which he gives to the marginal increment. This is subjective value. Subjective value is an intellectual estimate of the quantity of utility embraced in definite amounts of a commodity depending upon the marginal utility of the commodity.

Now, in order to get the largest possible total enjoyment from his share of the social product, the individual must not choose from this product equal quantities of different kinds of commodities. This

is because his wants are not equal in extent. If he did so choose, then some wants, being relatively less completely supplied than others, would yield high marginal utilities, and others, being relatively over-supplied, would give but little satisfaction. A greater economy of expenditure and a higher total enjoyment are obtained when, by restricting the supply of those wants that are over-supplied and that give, therefore, little marginal satisfaction, he is able to increase the supply of those wants where the marginal satisfactions are still high. The diagram on page 5, as originally presented, would represent a wasteful expenditure of resources. A higher total utility is obtained by reducing the expenditures for food from ae to ae' , and increasing the expenditures for clothing from af to af' . Then for a loss of utilities measured by the area $e'edd'$, he would gain a larger sum of utilities measured by $ff'g'g$. The highest possible total enjoyment is obtained when the individual, taking into account the relative extent of his different wants and the amount of his resources, distributes his expenditures in such proportions that the marginal utilities in all lines of expenditures will be equal.

How is the individual to do this? In the first place, he receives his share of the social product not directly in the form of goods, but indirectly in the form of money. He speaks of his income, not as one of social products, but of money. When he gets his actual true income, — food, clothing, shelter,

— he speaks of it not as income, but as expenditure. Money represents for him a general claim upon the goods of society, and, therefore, enables him to distribute his expenditures among the different kinds of goods in proportion to the relative extent of his different wants.

Having his money income, he now purchases social products of different kinds, up to the point where he judges the marginal utilities of all kinds to be equal. That is to say, he aims to get for the last unit of money expended in one line of goods, a return of satisfaction equal to that obtained from the last unit expended in any other line. But in making these purchases he is compelled to accept the prices of commodities which he finds current in the market. In other words, he accommodates his subjective valuations to the ruling objective values. Objective value is not a quantity of utility, but it is the *ratio* at which commodities exchange.

Money is the common measure of objective values. The fact that money gives command over the products of society makes it possible for the individual to receive his income in it. Objective value expressed in money is price. Now, it is to be noticed that expenditures are distributed in the proportions in which we find them, because *prices* are what they are. Should the prices of subsistence fall one-half, wages remaining the same, the workingman who spends 50% of his income for subsistence would redistribute his expenditures, so that, perhaps, 35%

would go for subsistence, and larger proportions for the other utilities. In this way the purchaser would again distribute his resources to the best advantage, and would gain the largest total satisfaction. His wants for subsistence would now be much better supplied by an expenditure of 35% of his income, and the marginal utilities of subsistence would be lower, so that expenditures in that line would give him less satisfaction. But by extending his expenditures in other lines, and supplying new wants with higher marginal utilities, he readjusts the employment of his resources on a basis suited to the new relations of prices. It cannot be said, therefore, that any particular supply of a commodity is *necessary*. The quantity demanded depends upon the prices asked. The demand is for a certain quantity at a certain price, not for a certain quantity at *any* price. The extent of the demand depends upon the height of the price; it increases as the price falls, and diminishes as the price rises.

Here arises the all-important kind of subjective value in our treatment of Distribution, namely, "subjective-exchange value," depending on the objective values of commodities. This kind of subjective value is not a quantity of utility. Quantity of utility is simply quantity of pleasurable feelings. Subjective-exchange value is an *intellectual estimate of the ratio existing between marginal utilities*. Value, whether subjective-exchange or objective, is always a relative term, indicating a ratio, while utility, or

subjective value proper, is an absolute term, indicating a quantity of satisfaction. To the poor man all the marginal increments may afford high satisfaction, because his supplies are limited; but to the rich man the marginal increments may give little satisfaction. Yet each, though on different levels, endeavours to make the marginal increments in all lines equal. A function of money is to enable the individual to portion out his resources in this way. Money — or, rather, the individual's subjective estimate of money — is the ultimate measure of marginal utilities, and therefore of subjective values. It is therefore the common unit for determining the ratios of marginal utilities. This differs for different individuals. One's estimate of the value of money tends to vary directly with one's avarice, and inversely with one's resources. To the rich man and to the spendthrift the dollar is a smaller unit of subjective valuation than to the poor man and the miser, and it requires a larger number of dollars (or units of money) to measure the same satisfaction. Consequently, the unit of subjective valuation is not the same for all. It is, to speak exactly, the reciprocal of the current monetary unit and one's resources, modified by the co-efficient of one's avarice.

Individuals, so far as they are called upon at all to estimate the value to them of commodities and services, do so, either consciously or unconsciously, in terms of money. They grow up from childhood

in the habitual use of money, and the significance of valuable objects to them is immediately referred to the money with which they are familiar. A professional man, considering what a horse may be worth to him for physical exercise, thinks of the price he can afford to pay for the horse. This is the only way in which he can estimate its subjective value in comparison with its market value. In doing so, he estimates not the absolute worth of the horse to him, — the total pleasurable experiences, — but he estimates the proportion of his total resources he can afford to devote to this purpose, in order that the marginal utility of his expenditure here may equal that elsewhere. Thus, subjective-exchange value is not simply a ratio between marginal utilities; it is also the ratio between the marginal utility of a single line of expenditure and the marginal utility of all other lines of expenditure taken together. And money is the common subjective measure which the individual uses in portioning out his resources among his several wants in such ratios as to gain for himself the highest aggregate satisfaction. Whether this aggregate satisfaction be high or low, measured by the standard of quantity of utility, he does not stop to think. He only considers the actual ratio of the utility, or subjective value, in question to all the other utilities which his resources allow him to command. Thus it is “subjective-exchange value,” and not “subjective value,” upon which our studies must

mainly turn in a treatment of distribution based upon private property and exchange.¹

The law of diminishing utility, as above stated, requires a very important qualification before it can correctly explain the phenomena of consumption. According to this statement it would be expected that the rich consume greater quantities of a given commodity than the poor, and that the marginal increments, therefore, give less satisfaction than those consumed by the poor. This is contrary to facts. The poor are more likely to consume in mere *quantity* much more than the rich. The defect is, that the law, as stated, does not take into account improvements in *quality* and *variety*. It applies only to a single kind of goods and a uniform quality. But the rich, instead of consuming greater quantities of goods as their resources increase, endeavour to keep up the marginal utility by improving the quality and increasing the variety of their consumption. Instead of using coarse, heavy bread, they have fine, light bread; instead of pork they eat game; instead of shoddy they wear woollens; instead of shanties they inhabit palaces. Thus the marginal utilities of their consumption are kept up, and the total satisfactions of life are greater. Still, the law of diminishing utility holds good as one of the great

¹ The reader is referred to Smart's *Introduction to the Theory of Value* for the full treatment of these various conceptions. The terminology of the Austrian economists has been adopted throughout this discussion, though there seems to be room for improvement.

principles of economics. An improved quality of goods is simply a grouping together of goods and services, which, if consumed separately, would give diminishing utility. The man who eats venison instead of bacon consumes what cost, perhaps, ten, instead of one, day's labour. Had he eaten ten days' product of bacon, the labour producing it would have been worth very little to him, because the marginal utility of bacon would have been very low. Thus, improvements in quality are efficient methods for resisting the universal law of diminishing utility.

We have now considered the main conditions which influence the demand of the individual for goods. It follows that if all wants were supplied to satiety, for all people, there would be no values and no exchange. No wants would be felt, and, therefore, no effort would be made to supply them. But we know that some goods require labour to procure them; they have real costs of production, and they have values. This is due to no other reason than that their supply is limited relatively to their demand. The price of any commodity — that is, the proportion of social product which society will give for it — depends upon the ratio of its supply to its demand, compared with the ratios of the supplies of other articles to their demands. If the supply increases, the demand will increase, but at a lower price. Society, like every individual, accepts the prices of commodities as it finds them, and regulates expendi-

tures thereby, with the prime economical purpose of securing equal quantities of satisfaction for equal marginal expenditures, and thus the greatest aggregate satisfaction.

And so, for society, as well as for the individual, it is meaningless to say that there is a *necessary* supply. All that we can speak of is the *customary* supply. It would be true to the facts if we should say that *the normal value of any commodity is determined by the customary supply of that commodity, relative to the customary demand for it, compared with the customary supplies of all other commodities, relative to the demands for them.*

With these results before us, the important question of economics is this: What are the forces which limit the supplies of commodities relatively to the demands for them?

The only thing which can directly satisfy human wants is the material of nature. This must be furnished to man in appropriate forms. Nature supplies some needs — the most extensive — in abundance, with material already prepared, as air and sunlight. These are free goods, and their marginal utility is nothing. Other goods are scarce, and can be obtained only when human labour controls and exploits nature. These are economic goods.

But human labour is always more or less associated and organised. Men do not work alone. It is impossible in these days to determine how much any individual contributes to the social product, because

his contribution cannot be measured in goods but only in values. Society, composed of associated and organised individuals and working as a unit, produces goods in varied abundance. These goods are distributed among the members of society, and the relative abundance of each kind, compared with the relative demand for it, determines its value to all the members. Water is so near the line of free goods, that even where labour is required to procure it, the supply is so abundant as to reduce the marginal utility very nearly to *nil*. Nature is more niggardly in furnishing material for other wants, and social labour, therefore, cannot produce them in such relative abundance.

But the niggardliness of nature is not the only cause for limiting the supply for certain human wants. There are important social institutions and regulations which do the same thing. Government sometimes does this with the express purpose of increasing the price of the article to purchasers, as in the cases of intoxicants, narcotics, and oleomargarine. But more especially does government give this power to individuals through the institution of private property, and the creation of artificial monopoly privileges. Private property in land is simply the power given to individuals to combine with nature in limiting the supply of land relatively to the demands of society for it. Rent is that share of the social income which landowners can command by virtue of this ownership. It is a part of the

cost of production of every article which society consumes. There is no product which is not produced upon rent-paying land. If we agree that the most expensive part of the customary supply of a commodity determines the price of the whole, then we can always find that a portion of the expenses of production of this part goes to pay the rent of landlords. Take an agricultural product like wheat. The poorest land in the United States on which wheat is grown is worth, at least, five dollars per acre, exclusive of improvements. Then in its various transformations from the wheat-grower to the bread-eater, this product turns off successive rent-payments to the ground landlords, upon whose land are located the warehousemen, wholesale dealers, speculators, millers, bakers, and retailers. Every other product which society uses is subject to these same conditions.

There are other monopolies besides land which get a share of the value of every product, and they are able to do so because their supply is limited relatively to the demand for them. Transportation and telegraph monopolies are an element of expense for every product. Five-sixths of the manufacturing of the United States is based on patents, and patents are simply exclusive rights to sell, *i.e.* exclusive rights to limit the supply of articles relatively to the demand. Trusts obtain their power to regulate prices only through their power to regulate supply.

All of these monopoly elements have power to

limit supply, and thus to keep values above the real costs of production. But there are a great many enterprises and many producers who do not possess these monopoly privileges. With them competition plays freely; that is to say, they produce goods in such abundance that the value of the goods falls to the real cost of production. Their competition goes on above these monopoly elements. It is "marginal" or "peripheral" competition. Here, only, is value determined by cost.

By cost of production is meant, in all cases, the pain, efforts, and sacrifices of the producers. Expenses of production regulate prices, but expenses include more than real costs. The whole mechanism of exchange centres around the retail dealer, who sells directly to consumers. He fixes his prices at such a figure as will cover not only the expenses of his goods to himself, but also his own rents, wages, interest, and necessary profits. If free competition plays fully upon him, he can get no higher prices than these. But whether he gets only these or higher prices, his only means of forcing purchasers to pay his prices is by having the power to prevent sales at lower prices; that is, a control over the supply. He limits supply by purchasing of wholesale dealers only that quantity of goods which he thinks can be taken off at paying prices. Thus the value of the finished product is distributed back among all the factors of production. Each factor determines its own share through its power of limiting its contribution to the finished product.

The factors which have been mentioned above are strictly monopoly factors, with well-recognised powers of controlling supply. There are two other factors where perhaps cost of production may be the controlling factor. These are capital and labour. The complete exposition of the cost of production of capital and labour will be developed in Chapter IV., but we may here anticipate that discussion, in order to supply an important link in the theory of value.

By cost of production of capital is not meant the cost of producing the raw material, because the value of raw material includes payments for monopoly profits, rent, and wages. What is meant is interest on capital. Capital is simply stored-up products of labour. It can be freely stored up, the quantity can be indefinitely increased relatively to the demand, and the rate of interest can thereby be forced down to the cost of production. The cost of production is the sacrifice or abstinence of the savers of capital, measured by the intensity of the pleasures which they forego, the risks they assume, and the length of time they have to wait. Now, a great deal of capital is saved which represents no abstinence whatever. It is simply a reinvestment of profits, which, if spent in present enjoyments, would bring only surfeit and *ennui*. But no man, not even the richest, can save capital indefinitely. A point is reached where sacrifice appears. Then the rate of interest, or future pleasure, is balanced against present pleasures postponed, and the cost of saving is equal to the rate of

interest. Only his marginal savings represent cost equal to the rate of interest, but on all savings before the marginal the rate exceeds the cost. If we say that interest is proportional to the marginal cost of saving capital, then it is true that cost of production, so far as interest enters into it, is determined by the cost of saving the most expensive part of capital which enters into social production.

The same principle holds true of wages. The cost of living of a given class of labourers may be looked upon as the cost of production of that class. But, just as in the case of interest, it is not the cost of production of all the labourers, but only of the most expensive part of the customary supply that determines the wages of the class. The influences which limit the supply are different for different classes. Among the higher and organised classes it is principally the possession of monopoly advantages; with the weakest classes it is the minimum of physical existence.

These, then, are the only cases where it can be said that cost of production determines prices. Yet in each of them it is questionable whether costs should be looked upon as causes or as coincidences. At any rate, their importance in the expenses of production of final commodities is lessened when we notice what has already been said concerning the part played by monopolies.

Before attempting a final statement of the law of prices we must notice the significance of the term,

“the most expensive part” of the customary supply. If we were dealing with pure physics, we might say that the most expensive part need not be more than one per cent of the whole, because the necessary supply would not be forthcoming unless the price should rise high enough to cover the expenses of producing this one per cent. But we are dealing with so very elastic a set of forces as human wants, human resources, and human enterprise. A “trust” cannot control the prices of its products unless it control 70% to 90% of the total product. And it may well be that in all competitive enterprises the same proportion would hold true. At least, the proportion must be so large that the minority, who have cheaper expenses of production, may not be able to extend their supplies far enough to meet the entire demand.

The final statement of the law of prices, to be precise, cannot be brief, but it may be loosely stated as follows, reserving for Chapter IV. the demonstration of particular points. *The price of a commodity is determined by the expenses of production of the most expensive part of the customary supply. This supply is determined by the relative power possessed by the different co-operating productive factors of limiting their share of the total product relatively to the wants and resources of society. Cost of production coincides with, and partly determines, expenses in the case of the marginal savings of capitalists, marginal monopoly labourers, and all freely competing labourers.*

CHAPTER II

THE FACTORS IN DISTRIBUTION

REFERENCES: It is not true that one definition is as good as another, provided that you hold to the same definition throughout your discussion. Definition is analysis, and nothing in economics to-day is more important than analysis. It is true that we have no concrete entities like a horse or a house to describe, but we have groups of relations and phenomena which must be clearly separated according to their salient characteristics, if we are to have clear thinking. And if definitions are profound, they will be fruitful, and will lead naturally to a discovery of the forces and laws that operate in the distribution of wealth. The ablest discussion of definitions, and one to which the writer is indebted in many particulars, is Böhm-Bawerk's *Rechte und Verhältnisse vom volkswirtschaftlichen Standpunkte*, Innsbruck, 1883; especially has the writer followed Dr. Böhm-Bawerk in the important distinction hereafter made between full, or absolute, and partial rights of property, and in his presentation of the true nature of monopoly privileges, other than land. At the same time, it is surprising that this eminent thinker should have made so little use of his earlier profound treatise, and in his later *Positive Theory of Capital* should have put to one side the results of his investigations into the nature of private property, and fallen back upon so very inadequate a distinction between social and private capital as that between productive and consumption goods. This distinction is criticised in the earlier pages of this chapter. The economic significance of property is nowhere so ably expounded as by Wagner in *Lehrbuch der Politischen Oekonomie*, Bd. I., Berlin, 1879. Samter, *Das Eigentum*, Jena, 1879, is worth reading. English and American writers have sadly neglected this field, and the only books to which reference can be made are Holland, *Elements of Jurisprudence*, sixth edition, London, 1890, and Donisthorpe,

Individualism, a System of Politics, London and New York, 1889. See also Clark, *Philosophy of Wealth*, Boston, 1886, and *Capital and its Earnings*, American Economic Association, Vol. III.

The accompanying table is intended to present in condensed form an outline of the argument of this chapter.

Section I.—Introductory.

MAN has certain capacities, faculties, or powers, which, when put into a certain amount and kind of exercise, give him pleasurable sensations. These capacities include his entire sentient nature. When they are not exercised at all, he experiences unpleasant sensations, which are called wants. When they are sufficiently exercised, those pleasurable sensations follow which he calls satisfaction of wants. When they are over-exercised, unpleasant sensations follow, which he calls weariness, or *ennui*. Finally, when they are exercised in a way contrary to their nature, there follow unpleasant sensations called pain.

Satisfaction of wants can come about only through contact with external material nature. In order that these sensations may be pleasant, the material of nature must have certain forms and certain relations of time and space with reference to man, so that they may be properly adapted to his faculties, and may come into contact with them at the time when he experiences his wants.

When the material of nature assumes these forms under these conditions, so as to satisfy wants, we

call it goods. The term wealth might be used, but this term usually refers to large quantities of durable goods, and is not therefore sufficiently broad for our purposes. Goods, or good things, then, are those forms of external matter which are adapted to satisfy human wants. They are not the faculties or capacities themselves. Every pleasurable feeling has two sides, an internal or subjective, and an external or objective. The internal is the human sensibilities, or faculties; the external is the material of nature. In order that the pleasurable feelings may arise, the two must be brought into contact. We are accustomed to refer the cause of the satisfaction, not to the subjective side, but to the objective, and this we call a good, or goods. The faculties are not themselves goods, because they do not satisfy their own wants. The very idea of want signifies the need of contact on the part of these faculties with external nature in some appropriate form. When this contact is experienced, the want is satisfied, and we consider the external object a good thing.

Besides material goods, there are also direct satisfactions of wants received from other persons in the form of services. In its ultimate analysis this involves also contact with external material nature.¹ For example, a teacher may instruct me either verbally or through a printed book which I have purchased. In the latter case, he satisfies my want through the medium of a material object, the book,

¹ See Clark, *Phil. of Wealth*, Chap. I.

which we call a "good"; in the former case he satisfies my want directly, and we call the effort and the satisfaction a service. All goods which are the product of labour may themselves be looked upon as services. They are simply the material for carrying human services from the producer to the user. They are valuable, not on account of their material alone, but on account of the human service which they embody. Their value depends mainly upon the value of these services, and when we speak of goods, we mean generally the good services which they convey to us. In general, therefore, the reasoning which applies to goods, so far as diminishing and marginal utility is concerned, applies also to services, and it will be convenient to consider only the former.

But human faculties and capacities have a twofold function. While, on the one hand, they are the subject of pleasurable sensations, brought about by contact with appropriate external exciting agents, they are also the *means* or *conditions* for *acquiring* these external agents. The human being is one and indivisible. His personal abilities, his power to labour and acquire good things, is one side of the same faculties which enjoy these good things. The power to labour and economise is a result of the satisfactions gained from food, clothing, shelter, education, and amusements. The process of eating food is pleasurable in itself — the food satisfies the wants of the physical faculties of our nature. Also, these

physical faculties are the means whereby we procure not only food, but other goods, for the satisfaction of our wants. Reasons will be given later to show why these faculties should not be classed as capital.

Free goods are those want-satisfying forms of external nature which are unlimited in quantity, and consequently, as a whole, physically inappropriable. Economic goods are limited and physically appropriable in whole or in part.

The attributes of economic goods, whereby they satisfy wants, are called utilities. These utilities, in the sight of the economist, are not mere capacities existing in thought, but certain actual relations of external objects with reference to human beings.

One attribute which is always tacitly assumed throughout all discussions of economic goods is legal appropriability. This is a social relation, characterised by the term "private rights of property," and consists in "the capacity residing in one man of controlling, with the assent and assistance of the state, the actions of others"¹ with reference to the economic good in question. This attribute might be called a utility, but the utilities usually assigned to economic goods are of four kinds,—elementary, form, time, and place. By elementary utility is meant the original constituents of matter as found in nature, by which it is fitted to satisfy human wants either directly or to be worked up by human labour so as to satisfy wants. Form-utility

¹ Holland, *Elements of Jurisprudence*, p. 71.

is given to this original combination of matter by human labour, first in the extractive industries, then in manufactures. Time- and place-utility consist in the presence of the material goods at the time and place when and where man can make use of them.

Abstract names are given to different utilities corresponding to the different kinds of wants which the material goods satisfy, as sweetness, warmth, shelter, beauty. The generic term covering all these abstractions is pleasure. For example, to say that a building produces shelter is to say shortly that material external nature has been so disposed as to afford conditions for many comforts of life, and to prevent the pain which arises from exposure to wind and weather. So with warmth, beauty, sweetness.

The *character* of the wants which are satisfied is not taken into account when discussing simply the creation or existence of utilities. This belongs to a discussion of the consumption or use of utilities. Whatever satisfies a human want, no matter what kind of want it may be, is a good, and possesses all five of the utilities above mentioned. It is legally set aside for the exclusive use of the consumer; it has originally been extracted in the form of raw material from the earth, and contains those elementary chemical constituents which are fitted to supply human wants; it has been fashioned and formed in such a way as to satisfy the human want for which it was designed; and it has been brought to the consumer at the time and place when and where he wants it.

This is production: the creation of all or any of the above utilities. And productive labourers are those who are engaged in the creation of any of these utilities.

Besides the economic goods just mentioned, which satisfy human wants directly, it is usual to speak of indirect economic goods which are used to produce the direct goods. Direct goods are called consumer's goods. Indirect goods are capital. Capital is the material economic goods which labourers employ in producing utilities. It must be borne in mind that an essential attribute of capital is *value*; that is to say, it must always be limited in quantity relatively to the demand for it.

It is usual to restrict capital to those material goods which are themselves the product of labour, and therefore to place land in a category by itself. This is because there are believed to be certain laws of production and distribution which apply to land, but not to capital.

Section II. — Land and Capital.

It is important to get a clear distinction between land and capital. According to the usual definitions it is land which furnishes the raw material, the forces of nature. Land is held to be almost identical with nature. The material of nature becomes capital as soon as labour is applied to it and it is worked up into useful forms. According to

this definition, it logically follows that a tree standing in the forest is land, but as soon as it is felled it becomes capital. A mustang roaming over the plains is land; when captured, and trained to do man's bidding and satisfy his wants, it becomes capital. Iron ore in the bowels of the earth is land; when the miner has dug it out it is capital. But a different treatment is usually accorded to the fertile soil which is useful in agriculture. Soil is held to be land before any labour is applied to it, and it remains land, in so far as its original and indestructible qualities are concerned, even after the application of labour. The same is true of such natural sources of power as a waterfall — this is looked upon always as land, being furnished by nature above and beyond the results of man's labour. The embankments, the conduits for utilising the force of the water, are capital, but the waterfall itself is always land.

Taking these examples into consideration, there must arise a suspicion that the analysis of capital and land from the economic standpoint has not been thoroughly made. Such is indeed the fact. Land is a common requisite of all classes of industries; not only of the extractive industries, but also of manufactures and commerce. If we generalise the common attribute of land required by all these industries, we find it is not the forces and material of nature. These are not furnished by land to manufactures, but have already become capital as

soon as the farmer and the miner have taken them from nature, and before the manufacturer has touched them. What land furnishes to all industries is simply *room* and *situation*. This is the fundamental idea of land in production and distribution. It is nothing more than the bare surface of the earth. Not land, but capital, embodies the forces, energies, and material of nature. These forces and energies are cohesion, attraction, heat and light, electricity, chemical forces, and the vital forces. They are wrapped in material forms, and it is thus that man is able to utilise them. When they exist simply in their raw and wild state, we should call them *nature* and not land. Land merely furnishes room for nature to work upon the surface of the earth, just as it furnishes room for man to work. And when the forces, energies, and material of nature are combined with the labour of man, land furnishes room for the two to work together in the production of utilities.

All that man can do by labour in any industry is to change the places of things. In every case, labour is simply "putting things into fit places for being acted upon by their own internal forces, and by those residing in other natural objects." As soon as this is done, the material employed ceases to be mere nature, and becomes capital. This is just as true regarding the soil employed in agriculture and the waterfall, as it is for iron ore and domesticated animals. Soil is capital as soon as labour is em-

ployed in clearing the land, draining, fencing, plowing, fitting, fertilising, and planting. These operations are not different in kind from those employed in manufactures. They consist only in changing the places of the material of nature. The main difference is, that they make use of the *vital* forces of nature to a greater extent than is done in manufactures. But this is not a fundamental distinction for the economist. Vital forces are but part of the forces of nature, and should be grouped with the others. Man utilises them in the same way as the other forces. Soil must be renewed and repaired year after year like machinery. From the very first application of labour to it, in order to make it useful to man, it becomes capital (*i.e.* stored-up labour). The same reasoning will apply to a waterfall. Not merely the machinery is capital, but also the fall itself.

There are two or three possible difficulties in this distinction between land and capital which must be explained.

1. We must guard against the mistake of assuming that in agriculture and water-power nature performs a greater proportion of the work of production than in manufactures. On this point the criticisms made by Dr. Böhm-Bawerk on the theories of Henry George are concise and to the point.¹ He says: "The separation of production into two groups, in one of which the vital forces of nature form a dis-

¹ *Capital and Interest*, p. 417.

tinct element in addition to labor, while in the other they do not, is entirely untenable. George here repeats, in a somewhat altered form, the old mistake of the physiocrats, who would not allow that nature co-operates in the work of production except in one single branch of it, agriculture. The natural sciences have long ago told us that the co-operation of nature is universal. All our production rests on the fact that by the application of natural forces we put imperishable matter into useful forms. Whether the natural power of which we avail ourselves in this be vegetative or inorganic, mechanical or chemical, makes no difference whatever in the relation in which natural power stands to labour. It is quite unscientific to say that, in production by means of a plane, 'labour alone is the efficient cause.' The muscular movement of the man who planes would be of very little use if the natural powers and properties of the steel edge of the plane did not come to his assistance. Is it even true that on account of the character of the plank-planing, as a simple change of form or place of the material, nature can do nothing without labour? Can we not fasten the plane into an automatic machine, and get it driven by the force of steam; and will not the plane, untiring, continue the production even when the carpenter sleeps? What more does nature do in the growing of grain?"

2. Even if it could be proven that nature does more in the vegetative properties of the soil than in

the mechanical properties of buildings and machines, the capitalistic properties of the soil would, nevertheless, not be disproved. The question as to the *proportion* between what nature furnishes and what human labour furnishes does not enter into the definition of capital. All that is essential to the idea of capital is a *union* of nature and labour, without reference to the proportion in which the two are combined. It may be true that the *value* of the nature-element employed is greater than that of the labour employed. But value is composed of two elements, utility and scarcity. Granting that the forces of nature embodied in a given kind of raw material are capable of being made useful by labour, the relative scarcity of that material compared with labour, and with other kinds of material, may give it a high value; but if it has any value at all (or a highly disproportionate value compared with labour) it is capital, and not nature or land. Only when the material of nature is so abundant as to have no value at all, as air, sunshine, does the co-operation of labour with it fail to make capital of it. It is economic goods, *i.e.* limited goods, and not free goods, which become capital.

3. These *free goods* have a peculiar place in all industries. It may be thought that they contribute more to agriculture than to manufactures; and, therefore, again, that nature in the form of air, sunshine, rain, climate, does more in agriculture than in manufactures. There are two answers to this.

The first is that already given, that, being free goods, they do not contribute to the *value* of capital. Capital is essentially an *economic* instrument; its significant attribute is *value*. It has value because it is useful and limited in quantity. This value may be given to it partly by the fact that the material of nature of which it is composed is limited in quantity, and partly because the labour entering into it is limited. But in so far as free and unlimited goods enter into it, no value is given to it, and so far it is not capital.

Second, further analysis shows that these free gifts of nature are simply the universal appendages or attributes of the *room* which land furnishes. They are the common free gifts of nature, which, though free, yet require room upon the earth's surface for their appropriation. And they are as necessary to manufactures as to agriculture, and require like room. Manufacturing establishments could not utilise steam were it not for the air which produces combustion, nor could operatives work without breathing- and living-space; sunlight and rain have also their part in manufactures. Labour does not create these elements; they are free gifts. But labour requires *room* to use them in the production of goods, and this is what land, properly speaking, furnishes.¹

¹ Besides the strictly free gifts of nature which are physically inappropriable, there are materials of nature which, though physically appropriable, are legally inappropriable. Such are rivers,

4. Where the material of nature has a value in its original state, and before it has become capital through the application of labour, this value is usually due to its situation. To bring out the significance of this distinction will require a careful investigation.

Situation always has reference to the aggregations furnishing power for transportation. Now, legal appropriability is not an attribute of capital, viewed from the standpoint of production or of society. It is simply the power granted an individual of securing for his own use the fruits of capital. It has nothing to do with the nature of the material good itself—it is simply a social relation, enforced by the power of the state. According to our analysis the combination of material and forces of nature which goes to make a river is social or national capital, because it is used by all the people free of charge, and can only become useful when labour is employed in co-operation with it, as in propelling vessels, dredging and deepening harbours and shoals, constructing docks and wharves. But the room occupied by the river and its banks, including the situation with reference to the habitations and industrial activities of man, is land. Though the river itself, as capital, cannot be made private property, yet its banks, as furnishing room for shipping, may be; and this gives opportunity to invest labour and capital productively through access to social capital, the river. It is only a historical and legal incident that the river itself is considered to be national instead of private property. In mediæval times rivers were indeed the private property of the feudal nobles. If they were private property to-day they would still be strictly capital in the sense of material economic goods used for further production, but the profits from their use would not be distributed among society at large by reason of free access to the carrying forces of the river, but would be diverted into private pockets.

The ocean, on the other hand, is not capital, because it is physically inappropriable as a whole. But the harbours and rivers along its coast are national or private capital, being physically appropriable, and the situation-value of these harbours—*i.e.* the sites occupied by docks and wharves—is land.

of man in society. That situation is said to be best for economic purposes which is most conveniently accessible for the largest body of men engaged in economic activities. Land which is not accessible to men has no value, neither has the material of nature which rests upon it. Pine forests in Michigan well situated — *i.e.* easily accessible to markets — are worth perhaps two hundred dollars per acre. The same timber in central Canada is worth ten and twenty dollars per acre, but in the northern wilds of Canada it is worth nothing. Yet in each case it embodies the same quantity and quality of the material of nature. Again, of two tracts of land equally well situated, the one covered with pine and the other with walnut, if the pine is worth two hundred dollars per acre, the walnut is worth one thousand dollars per acre. What do these facts show with reference to the relative weight of the material of nature and the situation of land in determining value?

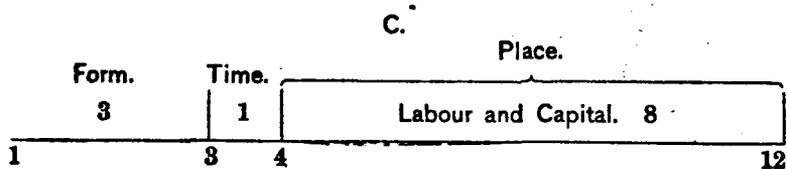
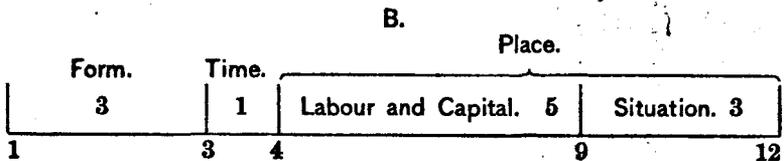
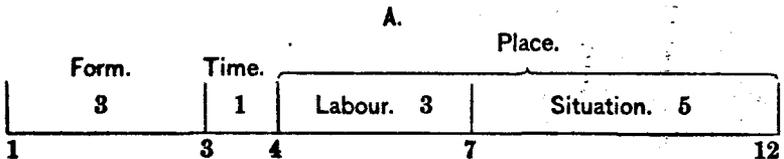
The explanation rests upon the Austrian theory of complementary goods.¹ There are four kinds of utilities which an article must have in order to satisfy human wants; namely, elementary, form, time, and place. The article may be looked upon as a group composed of these four utilities. In order to have value, the article must also be limited in quantity with reference to the wants supplied by it. Its maximum value is determined by its marginal

¹ See Smart, pp. 40-45; Böhm-Bawerk, *Positive Theory of Capital*, pp. 170-178.

utility as a group. Now, all of these utilities are replaceable except place utility, which is irreplaceable. According to the theory of complementary goods, the replaceable members can never obtain any other value than that which they get from their marginal utility in all other uses. But the irreplaceable members absorb all the remainder of the value of the group. In the case of pine trees, the elementary utility is practically unlimited, if we take into account the world's supply of pine. Therefore, considered alone, the marginal utility of the elementary utility is *nil*, and its value in all cases is consequently nothing. Form- and time-utilities are the product of labour and capital. They are therefore replaceable, and so cannot command a greater value than capital and labour can command in the general uses to which they are put. These three elements are constant in any given article. There now remains place-utility. This arises in two ways. It may be produced by labour and capital, as when an article is brought to the user from a distance. In so far, place-utility is a replaceable element, depending on the replaceable elements, labour and capital, and so much of place-utility as depends on labour and capital cannot have a greater value than the labour and capital which produced it. But place-utility may be given originally by land itself. In this sense it is the surplus above the cost of the replaceable elements, and consequently it varies in amount inversely as the replaceable elements. The maximum place-utility

is given to an article when it is in the place where the user wants to use it. But usually the article must be brought from a distance. In that case, the cost of bringing it is the cost of remunerating the replaceable elements, capital and labour, which have brought it. If it has been brought from so great a distance that the cost of bringing it equals the maximum utility, then there is no surplus to go to the irreplaceable element, the original situation. But if the cost of bringing the article to the user is less than the maximum utility, there remains a surplus which is absorbed by the irreplaceable element, land situation.

In the accompanying diagrams, let the maximum utility of pine lumber equal twelve dollars. In each diagram the form- and time-utility are the same, being the result of equal amounts of labour and



capital. Elementary utility does not appear, because it has no value. But place-utility is shared between labour and capital on the one hand, and land situation on the other.

There are \$8.00 to be thus shared, because \$4.00 have already been absorbed by the replaceable elements, labour and capital, which produced the form and time-utilities. If the pine is at such a distance that it will cost \$8.00 to bring it to the user (figure C), there will be no surplus left for situation. But if the cost of bringing it is \$5.00 (figure B), there is a surplus of \$3.00 for the irreplaceable element, situation, and if the cost is \$3.00 (figure A), there is \$5.00 for situation.

The same reasoning will hold for two different kinds of elementary utilities which have equally accessible situations, as the walnut and pine timber already cited. The reason why walnut timber is more valuable than pine is not because the marginal elementary utilities of walnut are, as a whole, greater, but because accessible walnut is found in such limited quantities that the marginal utility of such walnut does not descend so low as that of pine. This is saying, simply, that the place-utility of walnut is more limited in proportion to the demand than is the place-utility of pine. If it can be shown that the world's supply of walnut is so limited that, irrespective of situation, all the walnut in existence has a value, then, of course, a part of its value would be due to its limited elementary utilities, and another

part to its place-utility. But, in order to demonstrate such a proposition, it would be necessary to show that all the world's supply of walnut is accessible at a cost less than the maximum utility of walnut at the place of using it. Then if the most distant of the world's supply of walnut timber, whose cost of bringing to market is the highest, has still a maximum value exceeding the cost of production, this excess must be attributed to the limited quantity of its elementary utilities. But it cannot be proven that the elementary utilities are thus limited.

The same holds true for all the other forces and energies of nature, such as mineral deposits, rivers, waterfalls, animals, etc. A waterfall in the centre of Greenland has no value, though it embodies the most useful forces of nature. But a similar waterfall in New England has great value, because, in addition to its elementary utilities, attraction and cohesion, it has a situation so near the habitations of men that the utilities which it helps to produce can be conveyed to consumers without absorbing in the cost of transportation all the maximum value of the utilities. A surplus value remains, which is attributed to the place-utility of the waterfall.¹

In conclusion, the following propositions seem to be sustained: 1. The function of land in the theory

¹ The doctrine of complementary goods is capable of fruitful applications in many branches of economic theory. Especially may it be employed to explain the difficult problem of the connection between *qualities* of goods and their values.

of economics is to furnish simply room and situation; 2. The value of land is due to its situation; 3. Capital, instead of land, embodies the forces and energies of nature; 4. The maximum utility of an article to the user may be looked upon as a group of complementary goods or utilities, namely, elementary-, form-, time-, and place-utilities; 5. The first three of these making up the group are replaceable, and the fourth is partly replaceable and partly irreplaceable; 6. The replaceable elements have their value determined through competition in all the general employments of industry where they are found; 7. The irreplaceable elements absorb the surplus of the maximum value above that going to remunerate the producers of the replaceable elements; 8. Nature contributes only the elementary utilities to goods, but these utilities are replaceable and usually so abundant, taking the world's supply into account, that in themselves their marginal utility is zero, and consequently they have no value; 9. Labour and capital are replaceable factors, contributing form- and time-utilities to goods, and, therefore, these utilities absorb as much of the maximum value as the same quantities of labour and capital absorb in other industries; 10. Place-utility, so far as it is produced by labour and capital, absorbs a share of the maximum value in the same way as form- and time-utilities; 11. Where a surplus of utility remains after deducting the values of all the replaceable utilities from the maximum value, the surplus goes

to the irreplaceable element, the land situation of the original material—and this is not because the world's supply of the material is limited, but because the quantity of material found in this particular original situation, and in all accessible situations, is limited with reference to the demand for it.

Section III.—Personal Abilities and Capital.

While economists generally agree to distinguish between land and capital, they almost universally class personal abilities and business privileges as capital, because it is held that these are means of production whereby the individual acquires or produces economic goods. There are several reasons why these should not be classed as capital. First as to personal abilities.

1. Man is not a slave nor a machine, the object of private property; and his earning power is never in business operations capitalised like that of land or capital.¹ The basis of capitalisation is a surplus above costs of production. A workman does not himself capitalise his labour power, and count the capitalisation as part of his resources, because he considers that the work he does is fully equal to

¹ I am informed that an exception to this statement is often found in partnerships. The exception, however, does not weaken the argument. Since the "Capitalization" in such a case is not based on ownership but is a mere convenience in order to find a commensurable basis for sharing profits with capital and other factors.

the income he gets, and there is no surplus above the laborious effort involved, like rent or interest, which can represent net earnings, and be properly capitalised.¹

Neither does his employer place a capital value upon the labourer, because he does not possess exclusive private property in him. Were the labourer his slave, then the owner would capitalise him upon the following principles: He would ascertain the wealth-producing ability of the slave. From this he would deduct all the expenses of providing for and guarding him. This would give an annual surplus above the cost of production of the labourer's product. Then the owner would estimate the probable duration of the slave's physical powers, and hence the probable continuance of this surplus product. Finally, taking into account the current rates of interest, he would capitalise the slave at that amount of *money* which would yield, in other investments, a sum of interest equal to the surplus product. If the current rate of interest were low, the capitalisation would be high, because it would require in other investments a larger amount of capital to yield the given surplus product than it would if the current rate of interest were high.

But nothing of the kind occurs with the free labourer. He is paid for the actual product of his labour, irrespective of the cost of his maintenance; and if there should be a surplus above this cost,

¹ Böhm-Bawerk, *Rechte und Verhältnisse*, pp. 89-92.

the labourer himself would be the one to capitalise it.

(2) It is held that so much of a man's personal abilities as results from his industrial education is capital, since the expenses of his education are an investment for future profits as much as are his investments in machinery and horses. But if we say that a part of a workman's industrial education is a productive investment on which he draws interest, we must logically say that the whole of his ability is such. His present abilities are the product not only of his purely industrial education, but of his entire nurture, training, and education, first on the part of his parents, and then perhaps, through his own labours. It is impossible to draw the line and make part of his abilities capital, and the other part labour. They must all be labour, or all be capital. The proper view is to look upon his entire education from infancy to death as a part of his consumption. The whole of it results productively, it is true, but so does the food which he eats; yet it is a false view which identifies the consumption of food with an investment of capital. The man is one and indivisible. His entire personal abilities, no matter how developed and sustained, should be looked upon as labour and not as capital.

(3) The decisive point in a matter of classification is the usefulness of the distinctions. This depends upon the standpoint which we consider most important to take. If we take the standpoint of produc-

tion, it is perhaps convenient to classify abilities as capital, though such a classification would be very questionable; but if we take the standpoint of distribution, it is not permissible. Capital, strictly defined, apart from individual abilities, has become the dominating instrument in the distribution of wealth. Capital can be accumulated indefinitely both in quantity and duration, while abilities are narrowly limited. It is the ownership of capital rather than the possession of abilities that has important bearings on the social problems of wages, interest, and profits. And, most important, the returns to ability follow a different law from those to capital, and it is therefore just as important to distinguish labour from capital as it is to distinguish land from capital.

Section IV. — Monopoly Privileges and Legal Rights.

Neither should business privileges be classed as capital. They are not the result of labour, but are social relations; and the laws of their returns are very different from those of interest. The classification of rights and privileges given in the table at the beginning of this chapter, and a discussion of the peculiarities which mark their incomes, will show how important it is from the standpoint of distribution, to maintain this distinction. But first, in order to approach this discussion properly, it is necessary to examine the basis of the prime distinction between private and social capital.

The most important and fruitful distinction in the theory of capital, and the one to which all others must be subordinated, is that between capital as an instrument of production, and capital as an instrument of private acquisition. This distinction agrees with that between capital viewed from the social or national standpoint, and capital viewed from the private standpoint. The former standpoint is taken when we are dealing with questions of production; the latter when dealing with questions of distribution. It is the interest of society viewed as a whole to have the largest possible production of wealth. The greater the quantity of utilities produced, the less will be their marginal utility or subjective value, except as modified by improvements in quality and variety, but the greater will be the total utilities and the total enjoyments of society.

But the interest of the individual is not directly to have a large production of all utilities, but to get a large share of the utilities produced. His interest lies in two directions. First, it is to his interest to increase the marginal utility, or subjective value of all goods which he offers for sale, and to have society increase the production, and thereby lower the marginal utility of all goods which it offers for sale. In this way all other goods will have low values compared with his own, and he can command a larger share of the total social product. He can increase the marginal utility of his own goods by limiting their supply relatively to the demands of society for

them. This can occur only where he has a control over the supply, and applies, therefore, only to more or less monopolised products. In so far his interests do not lie in harmony with those of society. But, whether or not he can limit the supply of his own product, it is nevertheless in all cases to his interest to have a high marginal utility for his own product and low marginal utilities for society's products.

Second. Providing he can keep the marginal utility of his own product above its cost of production, it is his interest to sell as large a quantity of his product as possible. Here his interests coincide with those of society; for he gains in two ways, first, by extending his sales as far as possible, that is by satisfying the wants of the largest possible number of individuals, and second, by lowering his cost of production, and thus again making possible a wider satisfaction of wants at less cost to society.

Thus there are two ways by which the individual increases his share of the total product of society; first, by limiting the supply of his product so as to maintain a high value, and second, by increasing the sales of his product as widely as possible, consistent, however, with keeping its value above its cost of production.

Now, modern industry is carried on by entrepreneurs, not for the direct satisfaction of their own wants, but for the sake of sales to society at large, that is, for the sake of acquiring from society as large a share as possible of the social product. But

what is it that makes it possible for the entrepreneur, first, to limit the production of his goods, if he enjoys a monopoly privilege, second, to require from society a return of social product in exchange for his own product? Plainly it is the institution of private property. That this is so must be almost self-evident if we stop to inquire what would be the distribution of wealth if all economic goods were public instead of private property. Supposing the production of wealth under public ownership were equal in quantity to its production under private ownership, we should have this production regulated, and the product distributed, arbitrarily by government. All the present independent proprietors and entrepreneurs would be simply wage-earners and salaried employés of government. Having no exclusive power over goods involved in the right of property, they could not limit the quantity of their product and thus give it a high value, because government alone has this exclusive power. Neither could they produce a large quantity of goods by employing labourers, and sell these goods to society in exchange for society's products, because society already owns these goods itself through its agent, government, having owned the capital out of which they were produced, and has already paid the would-be entrepreneur all that it allows him in exchange for his product, namely, his stipulated salary. Public property, then, would do away with private profit, because the public would control the relative supply

of goods and the terms of exchange. Private profit must, therefore, rest upon private property in capital.

This proposition, that private capital is simply private property in capital, can be demonstrated in another negative way. We can best do this by examining the argument of Professor Böhm-Bawerk,¹ who denies this proposition.

Professor Böhm-Bawerk agrees with the distinction here noted in making the difference between private and social capital to depend upon the fact that the latter is looked at from the standpoint of production, the former from that of distribution. But he maintains that the fundamental distinction is not that between capital as an instrument of production and private property in capital. Rather he makes the distinction to lie in the peculiar part played by consumption goods, because these are used for enjoyment and not for production. But, though being consumed, they are private capital, because their owners use them as a means for the acquisition of more wealth. Social capital is, therefore, the narrower term, and does not include "consumption goods which owners do not use for themselves, but employ by exchange (sale, hire, loan) in acquisition of other goods, *e.g.* let-houses, lending libraries, means of subsistence advanced by undertakers to their labourers, and many others."² Neither does social capital include "dwelling-houses and other

¹ *Positive Theory of Capital*, Bk. I.

² *Ibid.* p. 71.

kinds of buildings, such as serve immediately for any purpose of enjoyment or culture, *e.g.* theatres, schools, churches, law-courts." Social capital does include, of course, "productive buildings of all sorts, workshops, factories, sheds, steadings, ships, street-railways, and so on."¹

Professor Böhm-Bawerk agrees that the distinction between capital as an instrument of production and private property in capital is an important distinction, and one that needs to be drawn; but he holds it subordinate to the one stated. The true distinction, he says, is not between *capital* and *property in capital*, but between two *stores* of goods. Social capital, or productive capital, is the narrower store. Private capital, or acquisitive capital, is the wider store, and includes, besides all social or productive capital which is subject to private ownership, also those consumption goods which are sold or leased by their owners for a profit. Private capital is "a group of products which serve as means to the acquisition of goods." This acquisition is mainly through exchange, and is always through exchange where consumption goods are concerned. Consumption goods, he asserts, are private capital only where they are *not used by the owners themselves*, but are employed in exchange. Thus a dwelling-house is in no case social capital. When used by its owner, it is not capital, but consumption goods; but when leased by its owner, it is private capital.

¹ *Positive Theory of Capital*, Bk. I., p. 66.

But while private capital is used to acquire goods mainly through exchange, there may be an acquisition which comes direct to the owner through production; as when his own orchard yields him fruit which he himself consumes, or when he produces, for his own use, shoes or clothing in his workshop.

Thus private capital enables its owner to acquire goods either through exchange or through production — the latter, however, only when the private capital is at the same time production goods.

It will be seen that the foundation relied upon by Professor Böhm-Bawerk for overthrowing the proposition that private property is the distinguishing mark between social and private capital, is the deep significance which he attaches to the antithesis between productive capital and consumption goods. It behooves us, then, to examine minutely into the nature of consumption goods, and to determine where the line shall be drawn between consumption goods and productive goods. If it should appear from a legitimate analysis that those goods which he calls consumption goods, and which are private capital only because used in exchange, are really also productive goods used in the creation of additional utilities; then it would follow that private and social capital are identical so far as the store of goods is concerned, and the only distinction remaining between the two is that based on private property in capital.

Consumption goods are of two kinds, transient and

durable. The former are wholly consumed in a short period of time, as food; the latter persist through years and decades, as houses.

1. *Transient consumption goods.* — It is admitted by Professor Böhm-Bawerk that “finished consumption goods in the hands of producers and merchants (as warehouse stock)” are social capital. It seems strange that he should stop at this point, and fail to prolong the productive nature of his finished consumption goods. If they are productive goods in the hands of merchants, when do they cease to be productive, and become consumption goods? We need to bear constantly in mind the nature of production.¹ It is using the material of nature to create form-, place-, and time-utilities. So long as these utilities are being added to the elementary utilities, the material of nature remains capital, and not consumption goods. The transition from capital to consumption goods does not occur when their transfer is made from the manufacturer or merchant to the consumer, as one would infer from the phraseology of Böhm-Bawerk and the classical writers; but it occurs *only when utilities cease to be added to the material and the consumer is actually using up the product.* The consumer of meat is himself a time-, place-, and form-producer, when he goes to the store, brings home his meat (time and place), gives it to his wife, who cooks it (form), and brings it to the table at meal-time (time and place). Up to

¹ See above, pp. 27, 29.

the time when he receives the meat ready for consumption it is social capital, because utility is still being added to it. It is social capital in the hands of the consumer himself and his family as long as it is being prepared for their use. His wife is a productive labourer as well as he. Food is social capital while it is being prepared, cooked, and placed on the table; it ceases to be such only when it has reached its maximum utility, *i.e.* when it is at the place and the time and in the form necessary to supply the wants of the actual consumer. Only then does it become consumption goods.

The line apparently should be drawn at the point where the consumer begins to enjoy the food. If we have a proper view of consumption we shall not make the mistake of pressing the above argument too far and holding that the mastication of food is also productive labour. Such a view would maintain that the ultimate utility of food is only the physiological one of digestion, whereas, for the economist it is the psychological one of enjoyment. The same is true of all other consumption goods. They cease to be social capital as soon as the consumer begins to enjoy them.

Likewise, it can be shown that consumption goods are social capital when they are used by the employer in the payment of wages. The employer pays his workmen either in money or in consumption goods. 1. If he pays in money, it is agreed that he pays in what is social capital. Money is social capital

because it facilitates division of labour, and hence increases the productivity of the community. 2. If the employer pays in consumption goods, such as food, groceries, clothing, he simply takes the place of the retail dealer, and the consumption goods are social capital for the same reason, and just as much as when they were in the hands of the dealer. Like the retail dealer, he adds time- and place-utility to his goods up to the time when he delivers them over to his employés.

This distinction is very different from that of the English economists and Wagner, who put "the maintenance of productive labourers" under social capital. They considered this to be capital because it was so much investment which brought as a return the products of these labourers. Labourers were considered as themselves a kind of fixed capital, and subsistence was circulating capital. The two together produced an increase of utilities. This view can apply only to slave labour. The free labourer is not capital, and his subsistence is not capital. It is consumption goods, used for his own enjoyment. This is their ultimate destination. Here the purpose of production ceases. Its object has been attained, and that is the end of it. *The reason why consumption goods are capital is not because they are consumed by productive labourers, but because they are having further utilities added to them, i.e. because they are not yet consumption goods.* As soon as they cease to have utilities

added, they cease to be capital; they become consumption goods, and are at once used up and destroyed.

2. *Durable consumption goods.* Consumption goods which are durable are also social capital, because they are the basis for the creation of further utilities. Böhm-Bawerk¹ excludes from social capital "dwelling-houses and other kinds of buildings, such as serve immediately for any purpose of enjoyment or culture, *e.g.* theatres, schools, churches, law courts." He includes "productive buildings of all sorts, workshops, factories, sheds, steadings, ships, street-railways, and so on."

It is agreed that a factory or bake-shop, for example, is social capital, because it is a means for producing goods or utilities. But a dwelling-house is capital for the same reason, or a theatre. The only difference is that the utilities that are made in a bake-shop are given a substantial material form which can be transported and consumed elsewhere. A dwelling-house serves for the creation of various kinds of utilities. First is shelter and warmth, which is a utility that can be consumed only in connection with the plant that produces it. Second is the preparation and serving of food, which can be carried on successfully only under cover, where stoves can be erected, wood and coal can be stored, and chimneys can carry off the smoke. Third is the storing and the final exertions in preparing clothing

¹ *Positive Theory of Capital*, Bk. I., p. 66.

for the wearers, such as washing and ironing. Now, if all these activities were carried on in a factory, or workshop, or in a hotel, it would not be difficult to see that such buildings were not only private, but also social capital. And unless we insist that the work of women in the household is unproductive, we must allow that the implements, the stoves, the fuel, and also the buildings which are the indispensable accompaniments of their productive labour, are social capital. Even the utility shelter itself, the one utility which is inseparable from the building, and could not be produced at a factory and shipped to the consumer, even this utility is a product of labour in connection with capital, viz., the labour of repair, which is necessary to keep the building from falling into decay.

The validity of this point may be further demonstrated by comparing capital with labour. Labour satisfies human wants in two ways: First, indirectly, by making some material product which the consumer then uses up, as a hat or a book; second, directly, by performing some service, which yields a direct satisfaction. Now, consumption, as a phenomenon of Political Economy, is defined as the using up or destruction of a utility in the process of satisfying human wants. The definition is not literally broad enough. It ought to include the enjoyment of *services* as well as the enjoyment of material goods. Services, in the economic sense, are consumed directly without the mediation of a material

product. Products, themselves, may be looked upon as the material embodiment of services. It is the service rather than the product which is consumed. The book which I purchase and read is the material embodiment of the abilities of its author. But the author may deliver the same thoughts to me directly in the form of lectures. In either case, I should consume the product of his labours.

In a similar way durable capital may satisfy human wants indirectly or directly. In a factory, by the aid of labour, a material product is made, and this product is carried by labour and capital to the consumer. Thus, form-, place-, and time-utilities are given to the material of nature, and capital and labour satisfy human wants indirectly through the medium of this material. But capital, as well as labour, may satisfy wants directly, as when a house produces the utility, shelter. What is here consumed by man is not a material good, but a *use* or a service of capital. There are two ways in which durable goods are destroyed; first, by man's using; second, by that "complex of destructive surroundings" which we call time. When a dwelling-house is constructed, something is made which affords utility not for one sitting only, but keeps giving off the utility, shelter, indefinitely. The forces of nature — attraction, cohesion — are here producing utilities for man's benefit, just as much as do other forces, heat, electricity, and vital forces, in other industries. We may say that this utility, shelter, is consumed, but we do

not strictly say that the building is consumed. It is gradually destroyed through the wear and tear to which it is subjected, the breaking of glass, hinges, doors, etc. The same destruction occurs with a factory and machinery, and is there known as depreciation. A dwelling-house may be looked upon not only as active capital, creating the utility, shelter, but also partly as passive capital, receiving additions of utility through applications of labour. The depreciation of a dwelling-house, and the constant reproduction of the utility, shelter, are accompanied by productive labour just as truly as is the production of commodities with machinery. The labour of repairing a factory is productive, and so is that of repairing a dwelling-house, because it creates new utilities in conjunction with the fixed capital, the building. Circulating or passive capital is used in making these repairs, and when this is incorporated in the building, it becomes fixed and active capital.

Taking all these facts and principles into consideration, there seems to be as much reason for designating durable consumption goods, including dwelling-houses, as social capital as there is for calling a factory social capital. The same is true of theatres. Here a utility is produced which is inseparable from the building. We are right in holding that actors are productive labourers, because they produce something that satisfies a human want. But if actors are productive, theatres

are plainly the capital without which they could not produce their characteristic utility.

Likewise teachers produce the utility education and mental training, and school buildings are their capital. Churches are the social capital for the production of the utility, worship, and law courts for the utilities, security and appropriability of property.

Consequently the conclusion seems plain that social capital is identical with private capital so far as concerns the material instruments which it includes. There does not exist the antithesis between "means of production" and "means of consumption," which Professor Böhm-Bawerk insists upon.¹ "Means of consumption" strictly defined, consist *only of those goods which are actually being consumed*. Means of production include, *first, all those transient consumption goods which are destined for consumption, but are yet receiving additions of form-, place-, and time-utilities; second, all so-called durable consumption goods, even when they are being destroyed and used up by man, and subjected to other causes of depreciation; third, auxiliary capital, fixed and circulating.*

Since the "store of goods" in private capital is identical with the "store of goods" in social capital, we need to base the distinction between capital as a means of production, and capital as a means of acquisition, on some other foundation. It remains

¹ p. 67.

to be shown definitely that private property is the means for the private acquisition of economic goods, whether this be through actual production for his own use on the part of the owner of capital, or through sales, leases, and loans, where acquisition comes through exchange, and production is for the benefit of others.

Section V. — Law and Rights.

The place of law in Political Economy is a subject which has received from English economists no attention at all commensurate with its far-reaching importance. The reason for this is mainly a lack of historical investigation. A comparison of different countries and of different times would show the influence of legal regulations. The English economists have taken the laws of private property for granted, assuming that they are fixed and immutable in the nature of things, and therefore needed no investigation. But such laws are changeable — they differ for different peoples and places, and they have profound influence upon the production and distribution of wealth.

The modern economic system depends upon the independent enterprise of free individuals as contrasted with the public management of business by the community or the government. This private enterprise takes the form of either the independent activity of a single individual, or the associated activities of individuals in partnerships and corporations.

The decisive characteristics of industry under the régime of private enterprise are, Division of Labour, Exchange of Products, Credit, Self-Interest, and Competition. These characteristics are becoming yearly more widely extended and fundamental. There is to-day a minute division of labour, whereby an individual's wants are supplied by millions of other people, working in more or less harmony; and in turn, the producer of wealth depends upon millions of other people for the recompense of his work. Out of this world-wide division of labour has grown the transfer and exchange of products, and, as a necessary consequence, the system of credit. Every one of these characteristics involves the profound dependence of man upon his fellow-man. Social relations are growing more and more important. In order that industry may be carried on at all under such complex relations, there must be a very definite understanding by every individual as to what he may expect from others, and what he must do in turn for others. Nothing can be left to chance, fraud, or force. Industry would be impossible, or would revert to primitive, cumbersome, and isolated forms under such conditions. Consequently, there must be found somewhere a supreme authority, with power to define and enforce the rights and duties of individuals. It is not always so important that these rights and duties be based upon ideas of justice as that they be certain. There must be no room for the arbitrary

rulings of individuals. This indicates the necessity for law and government. Thus there are in society two lines of economic activity, the voluntary activity of individuals and associations, and the compulsory activity of government. The first is the field of free competition and self-interest; the one hitherto solely treated by the English economists. The second is the field of coercion,—of force.

The necessity of a sovereign power employing force is shown by the following facts:—

1. Private self-interest is too powerful, or too ignorant, or too immoral to promote the common good without compulsion.

2. The *common* wants of society—justice, roads, military defence, etc.—can be supplied only by compulsory contributions from individuals, and compulsory administration of government.

Law is the expression not of the whole society, but of the sovereign element or social class. It is imposed simply by virtue of the *might* residing in government. “The most obvious characteristic of law is that it is coercive. . . . Even when it operates in favor of the legitimate action of individuals, it does so by restraining any interference with such action.”¹

At the same time, laws are not the fortuitous and blind coercion of nature. There are always human purposes underlying the enactment of laws, and these are the purposes of whatever may be the ruling political class at the given time, and in the given

¹ Holland, p. 67.

country. These may be good or bad. Historically considered, they may be classed as follows:—

1. The determination of the ruling classes to exploit other classes. (*e.g.* Land laws of England.)

2. The desire of the ruling classes to realise certain ethical and political ideals. (Factory legislation, prohibitory liquor laws, universal suffrage, etc.)

3. The desire of the ruling classes to facilitate or suppress the industry of the country. (Laws of contract, taxation, etc. Laws against oleomargarine, etc.)

The primary function of law is to create and define legal rights. "A right (in general) is one man's capacity of influencing the acts of another, by means not of his own strength, but of the opinions and the force of society."¹ A *legal right* is "a capacity residing in one man of controlling, with the assent and assistance of the state, the actions of others. That which gives validity to a legal right is, in every case, the force which is lent to it by the state."²

The purpose of law with reference to rights is twofold: First, it defines or creates them. They are of two kinds, antecedent and remedial. Antecedent rights are the ultimate primary rights towards which remedial rights are directed. They are rights where an act is "due for its own sake," while in remedial rights the act is "due merely on default of another act."³ In these two senses law is "substantive."

¹ Holland, p. 70.

² *Ibid.*

³ Holland, p. 123.

Second, law provides a method of aiding and protecting substantive rights. This is "adjective law, or Procedure."

"Remedial or sanctioning rights are merely part of the machinery provided by the state for the redress of injury done to antecedent rights."¹ Adjective law determines the mode in which the support of the state may be secured in order to the realisation of a remedial right. Remedial rights and adjective law are concerned with the enforcement of rights. From the standpoint of the law practitioner, they are more important than the definition of rights proper. His interest lies in the violation and enforcement of rights. Remedial rights spring into being only when the primary ones are violated. Adjective law involves all those weighty questions which are concerned with the organisation and jurisdiction of courts; the duties of judges, sheriffs, and other public officers; the indictments, summonses, pleadings, evidence, decisions, precedents, judgments, appeals; and the execution of the judgment, whereby the physical force of the state is set in motion through appropriate state officers to carry the judgment into effect. All these matters are of utmost importance, because they are the steps for the physical enforcement of rights; and a right without provisions for its physical enforcement by government is only a moral and abstract right, not a legal and serviceable one. But to the economist, remedial rights

¹ Holland, p. 128.

and adjective law are of interest for different reasons than to the lawyer. The former's interest in them lies in,—

1. The fact that before the creation of legal tribunals and regular forms of procedure, private warfare and anarchy characterised the attempts to enforce rights; *i.e.* rights were moral but not legal, depending upon custom rather than authoritative definition and enforcement.

2. The failures and defects of procedure, whereby the substantive rights of individuals and society are not enforced.

3. "The manner in which the tribunals have contrived, from time to time, to effect changes in the substance of the law itself, under cover of merely modifying the methods by which it is enforced."¹

The interest of the economist lies further back than the enforcement of rights. It lies in the creation and definition of primary rights. This is substantive law proper. Here we are concerned with the analysis of rights, their purposes, and their effects on society and industry.

A legal right exists where one course of action is approved and enforced, and another course is disapproved and prohibited by that organised society, "the state." An analysis of such a right shows it to be the result of the following elements:—²

1. *The Person Entitled.* — "A person 'in whom

¹ Holland, p. 305.

² Holland, Chap. VIII.

the right resides,' or who is 'clothed with the right,' or who is benefited by its existence.

2. *The Object.* — In the case of property rights, an object over which the right is exercised.

3. *The Act or Forbearance.* — "Acts or forbearances which the person in whom the right resides is entitled to exact.

4. *The Person Obligated.* — "A person from whom these acts or forbearances can be exacted; in other words, against whom the right is available; in other words, whose duty it is to act or forbear for the benefit of the subject of the right."

Bearing in mind these constituent elements of a right, we may proceed to the examination in turn of personal and property rights.

Section VI. — Personal Rights.

In the analysis of the factors of distribution which has been made up to this point, personal abilities, including the whole of man's intellectual, moral, and physical powers, have been marked off as one of the great factors in the private acquisition of wealth. But personal abilities, in and of themselves, can do no more than *produce* wealth. They are the agents whereby man changes the place and arrangement of external objects of nature, in order that the forces and energies of nature may operate in such new ways as to satisfy human wants. In this way utilities are created. But how shall it be determined who shall enjoy these utili-

ties? A slave may produce utilities, but he has no legal right which enables him to enjoy them. As soon as they are produced, it is the right and power of some one else to take them from him, and to use them for one's own enjoyment or disposal. The right to do this is based on a right of private property in the slave. But a freeman is recognised by the law as having rights in himself for the free production, acquisition, and enjoyment of wealth. The state guarantees and enforces these rights against the world.

Personal rights in our day and country have become so generally recognised that they are taken as a matter of course, and it is difficult to realise their essentially legal character. Yet if we examine them historically, we find a time when they were not recognised. Such an examination will show us, too, the significance which these rights have for the private acquisition of wealth.

Personal rights may be classified as those of life, liberty, employment, and marriage. The interest of the economist in these is to determine the influence they have in affording individuals a share in the social income.

The primary and fundamental personal right is the right to life. If the state guarantees this in its fulness, the state must furnish the individual, not only with protection against the unlawful violence of his fellow-men, but also with a share of the social product equal to his minimum of subsistence. And

this is what the state has done in two ways, through slavery and poor-relief; the first for the slave and serf, the second for the freeman.

In primitive times the right to life was not only not recognised, it was not imagined. Enemies were slaughtered as a matter of course, like wild animals. There was, indeed, a mutual protection of life within the clan and tribe; but this was not based on any ideas of the rights of man as such, or the dignity of human beings, but simply upon common origin, common worship, and common need of military defence. It was very little above the mutual recognition of rights among a pack of wolves. Even in their own tribe and clan, old and decrepit people, the sick and feeble, the defective infants, were exposed and abandoned, simply because they were a burden instead of a help.

The recognition of new rights is not simply a matter of the growth of abstract ethical ideas; it is first of all an outcome of new economic conditions. It requires a wealthy and well-ordered society for the realisation of the highest ideals of all-rounded human rights, and it is economic privations that are the prime causes for their withholding. When these privations are overcome by an accumulation of wealth, and the ruling classes have thus other resources for the satisfaction of their wants, then it is possible for new wants of the lower classes to be recognised. And the ruling classes, themselves, ultimately gain more than they lose by the recognition of these rights.

This was the way in which the right to life came first to have, not ethical and theoretical recognition, for that was an afterthought, but practical enforcement. Slavery was substituted for slaughter. The introduction of slavery marked a long advance-step in human civilisation. It laid the foundation for the recognition of the right of life for the lowest of men. And this in two ways. First: Slavery first made possible the production of wealth in abundance, so that there could be a regular supply of goods for the satisfaction of wants. This did away with the primitive alternatives of starvation and cannibalism. Without slavery it is doubtful whether restless, nomadic peoples could have made the transition from a hunting and pastoral life to a sedentary, agricultural life. Only the direful lash of the overseer could cower the wild barbarian into a plodding, spiritless ploughman. Thus it became possible for ancient civilisations to spring up, where the citizen class had leisure for developing the higher departments of life. Three-fourths of the population of Greece were slaves, and there could have been no Sophocles or Empedocles, no Praxiteles, Socrates, Plato, or Aristotle, had not thousands of slaves in the fields and the houses been caring for their bodily wants.

Second: Slavery made it the direct interest of the ruling classes to preserve the lives of their slaves, and to furnish them with a regular supply of their wants, equal, at least, to their minimum of subsist-

ence. The slave had the right of life against all the world except his master. Thus the slaves were themselves better off than when free. Instead of living like savages, slaves to nature and the seasons, they now had a regular provision all the year round. And their life was seldom so burdened with anguish as is that of thousands of the tenement-house and work-house poor in our day. The prodigal son did not ask to be made a slave in his father's house — he was too humble for that — he asked the very meanest place — that of a hired servant. The slave had the right to life and personal security, the hired servant had not this most precious of rights.

But in modern times, when slavery and serfdom have been abolished, the right to life has found a new recognition, the public poor-relief. This has taken two forms, both based upon the attempt of government to provide a minimum of subsistence — outdoor and in-door relief. As to the merits and demerits of the two forms we are not here concerned. We have but to note the circumstances which have, in modern times, given rise to this attempt of the state to guarantee the right to life. The circumstances are these: —

1. The freedom of the labourer.
2. His inability to engage in productive labour, or lack of employment.
3. Fear on the part of the ruling classes of popular uprisings, as in the English poor laws at the time of the French Revolution.

4. Ethical ideas regarding the sacredness of life.

5. Great accumulations of wealth, making possible generous provision for the dependent.

With the right to life thus recognised by law and enforced by government, we find that the labourer — *i.e.* the man who has nothing but personal abilities for acquiring and producing goods — is guaranteed a share of the social income equal, at least, to his minimum of subsistence. This is the fundamental and absolute right in its influence upon the distribution of wealth. We have next to inquire into those personal rights which enable the labourer to get, besides the minimum of animal subsistence, also the highest possible share of the social product in return for the use of his personal abilities. These rights may be grouped under the common name, liberty.

The right to liberty is not a single right, but a *bundle of rights*. It includes many separate ones which have been classed by various writers as independent. Among the most important of these are the right to free motion and locomotion; rights to the uses of the free gifts of nature, air, sunlight, water; rights of free contract, free industry, free belief and worship, free speech and publication; the right to equality, and the right to marriage.¹ The right to property is also a species of liberty. There might be added, the right to an education furnished by the state.

¹ See Herbert Spencer, *Justice*, New York, 1891.

The economist looks upon these rights from two standpoints.

I. The production of wealth. Rights which increase the efficiency of labour, and the quantity of wealth.

A. Rights which furnish motives to industry. This is a characteristic of all the rights to liberty, but more especially the rights to marriage and property.

B. Rights which increase the abilities of labourers, especially the right to education, and the free development of one's abilities. This grows out of the various other rights to liberty.

II. The distribution of wealth. Rights which enable labourers to procure a share of the total product in excess of their minimum of subsistence.

A. By limiting the numbers employed in a given industry, thereby raising wages. (Freedom of contract and combination.)

B. Rights which give individuals access to opportunities for the production and acquisition of wealth. (Freedom of movement; freedom of industry; right to use the free gifts of nature; right to the use and enjoyment of public property and services on an equality with others.)

I. Rights viewed from the standpoint of the production of wealth.

Professor Wagner mentions four possible motives¹ which lead men to industry, each having a positive and a negative side.

¹ Wagner, *Lehrbuch*, Bd. I., s. 389.

1. The acquisition of wealth, or the fear of want.
2. The feeling of honour, or the dread of shame.
3. The fear of punishment, or the hope of reward.
4. The feeling of duty, or the fear of remorse.

To which may be added

5. Love of work, and dislike of idleness.

With the slave, the third motive is almost the only one upon which reliance is placed. Therefore his work must be poor in quality. It was suited only to the coarsest kind of agriculture, and when agriculture gave way to commerce and manufactures, slavery had outlived its usefulness. It gradually disappeared in all European countries, after passing through the stage of serfdom. The growth of wealth gave rise to new wants for new and better goods, and slave labour was found incapable of competition with free labour. The rise of the free cities gave protection to the free labourers against the feudal slaveholding nobility, and the capitalists employing this free labour grew wealthy and powerful at the expense of the landed interest.

Gradually the use of money became general in the country, as well as in the cities, and this made possible a system of wage-payments instead of compulsory service. This enabled the land-owners to gain greatly, for, by receiving their rents in money instead of services, they could employ free workers when and where they needed them, and be relieved of their support at other times. The production of wealth has enormously increased under a régime of

freedom; because higher motives in the labourers have been appealed to. The right to enjoy the fruits of one's own labour, in one's own way, is the most powerful of motives for industry and improvement, and this motive is guaranteed by freedom in all its forms. Especially are those motives which lead to provision for one's own family powerful industrial motives. They depend upon the right to marriage, and the control of one's family. "The marital right of a husband, as against the world, is that no other man shall, by force or persuasion, deprive him of his wife's society, still less be criminally intimate with her."¹ The parental right, also, which extends to the custody and control of children till they reach the years of discretion, is a powerful stimulus to the production and accumulation of wealth.

The right of property is closely connected with the right of marriage and family life. The provisions of law for the ownership of goods is an indispensable motive for the freeman to produce goods.

It is not the purpose of this discussion to dwell upon the place of rights in the production of goods. Our special interest lies in their influence on distribution. But we may notice here, again, how economic progress clears the way for higher ethical ideas. Freedom was the inevitable outcome of advancing industry, and being thus assured of a sound, practical basis, it became ultimately the doctrine of abstract justice. The natural equality of all men

¹ Holland, p. 150.

was finally asserted in essays, constitutions, preambles, and declarations. It was these assertions of the dogmatists and humanitarians which were needed to drive out the last vestiges of slavery. The abstract right to freedom as a matter of principle did not reach its triumph until the abolition of negro slavery by England, in 1836, and by the United States in 1863 and 1867. And to-day liberty seems to us to be an ultimate, inalienable right of man, established in his very nature, so fully have we forgotten the necessities and prejudices of centuries of ancestors.

II. Personal rights, and the distribution of wealth.

The influence of the right to life upon the distribution of wealth has already been examined. We have now to notice the influence of the rights to liberty, employment, and marriage.

The return which the labourer gets for the use of his personal abilities is, like all commodities, subject to the law of marginal utility. If the marginal utility of services is low, wages are low; if the marginal utility is high, wages are high. The marginal utility depends upon the quality and intensity of the wants supplied by a given class of labourers, and upon the number of the labourers. If the number is large compared with the wants supplied, the marginal utility and the wages will be low. If labourers, therefore, can limit their numbers in any given industry, with reference to the demand for their labour, they can each obtain individually a larger

share of the social product than where they have no control over their numbers.

The right to limit their numbers by combinations and labour unions is one of their most important rights of freedom. It involves restrictions on the admission of apprentices, and the exclusion of non-union men from the opportunities of the trade. It is a new right, having been granted first in England, only in the year 1824, and it is not yet fully recognised in other countries. It is an extension of free exchange and contract. Freedom of contract is the essential right of freedom in industry. It is alone the legal right which enables the labourer to refuse to work except on terms which suit himself. It therefore gives him the right to exact, in return for the use of his personal abilities, a surplus of the social product above his minimum of subsistence. But, for this purpose, it applies only to organised and scarcity labourers, *i.e.* to labourers who are able, by limitations on their numbers, to keep their marginal utility above the minimum. The skilled, the intelligent, the educated, the gifted, labourers, those in whom intellectual and moral qualities predominate, are benefited by the freedom of contract. But for the unskilled, the unorganised, the redundant labourers, those whose marginal utility is low, freedom of contract offers no help. Their condition is worse than that of slaves, for they may not even secure a minimum of subsistence, unless they come upon the poor-relief. Freedom of contract is two-

sided. It is freedom for the employer as well as for the labourer; and if the labourer is unable by it, or otherwise, to limit his numbers and maintain a high marginal utility, he cannot compel the employer to pay to him more than this marginal utility.

The right of combination, therefore, in its influence on the distribution of wealth, has a contradictory effect. It enables organised labourers to limit their numbers arbitrarily, and thus raises their wages; but it thereby depresses the marginal utility of the unorganised.

There are two ways for labourers to keep up their wages through keeping up the marginal utility of their labour. The first is that just discussed,—the limitation of the numbers permitted to enter into that particular industry; the second consists in finding new opportunities where the marginal wants for their labour are more intense. Both methods depend, in their ultimate analysis, upon the relative scarcity of labourers compared with the demand; but the first achieves the result by limiting the supply, the second by extending the demand. The possibility of employing the second method, like that of employing the first, depends upon certain personal legal rights. These are divisions of the great right of freedom, and involve its necessary corollary, equality. They are,—

1. Freedom of movement.
2. Freedom of industry.
3. Right to use the free gifts of nature.

4. Right to the use and enjoyment of public property and services — (highways, post-office, railways, law courts and officers for administering justice and enforcing rights).

1. Freedom of movement. — This is a right which has not been fully granted even to the freeman until recent years. It includes not only the right to move about within one's own country, but also that of emigration and immigration. The value of this right to the labourer is unquestioned. It protects him in his efforts to better his condition, and raise his wages, by abandoning a country where labour of his particular kind is overabundant relatively to the demand, and where the marginal utility, therefore, is low, and by going to another country where labour is relatively scarce, and the marginal utility high. Where laws have been passed restricting this freedom of movement, the underlying object of the ruling classes has been to maintain an oversupply of labour and consequent low wages. This was true of the English laws of settlement and apprenticeship which depressed agricultural wages, and is now true of the restrictions on negro emigration from our Southern States.

2. Freedom of industry is closely connected with freedom of movement, and has allied effects on wages. By freedom of industry is meant, not the right of the labourer to abandon one employment and seek another, for that right is fully comprehended in the right to free movement and contract;

but it is his right to establish a new enterprise, and become an independent producer and employer, so long as he does not interfere with like rights of others. In this way an overcrowded industry is relieved, and the labourer finds a higher marginal utility for his labour. This he may do in two ways: either by entering upon new land where he can supply his own wants directly, and in greater abundance than heretofore; or by contriving to satisfy the wants of society, either by discovering and cultivating a new want, or by satisfying more fully some old want.

3. The right to use the free gifts of nature is a right that sometimes must be guaranteed by the state, as when nuisances which pollute the air or the water are prohibited, or interferences by adjoining landlords with the supply of light are prevented. This right does not extend, except partially, to the use of the limited gifts of nature, as land. The consideration of this subject, however, comes under another head, the right to employment.

4. The right to make use of all the advantages open to the community in general is indispensable for the labourer in taking advantage of his other rights. The state provides highways and waterways, and guarantees to all freemen their free and gratuitous use. It provides public services for all citizens, and guarantees the equal right of all to the free use of these, upon the payment of established fees and charges. The means of communication, including post-office, telegraph, railways, are essentially public

services, though in some countries government fails to perform its duty to all citizens in guaranteeing the equal right of all to use them. The administration of justice, and the enforcement of rights, are services which government performs freely for all individuals.

The uses of public property and public services, when properly administered, have this significance for the labourer, that they open up to him new and wider opportunities where the marginal utility of his labour is high, and thus enable him to abandon old and narrow fields of labour where wages are low.

Right to Employment. — We have seen that the rights to life and liberty have been the result of an historical development, due to continually increasing economic resources, and higher ethical standards. The right to liberty is now looked upon as belonging to man as a man. It indicates that we have a much higher idea of the dignity of man than ever before. But the acquisition of liberty has been made at heavy expense in other directions. Though the slave was compelled to work, he never suffered from that terrible evil of the modern labourer, lack of work. With the coming of freedom, the labourer was divorced from his means of livelihood, and now that all available land has become private property, and all capital is private property, the propertyless man is a dependent when work is plenty, and a vagabond when work is slack. Of what use to him are his centuries

of struggle for the right to life and the right to liberty, if he is denied the right to produce for himself the food, and clothing, and shelter that preserve life, and that make liberty worth having? The rights to life and liberty are practically denied to labourers in our day, by virtue of the denial of the right to employment. There is, therefore, pressing upon us, the claim for recognition of this new and higher right, belonging to man as a man, by virtue of the very dignity of the manhood that is in him. The claims of justice rebel at the dictates of law which have reduced the earth and all the opportunities for livelihood to the private possession of one third the race, and thus compel the other thirds to be either wage-slaves or paupers. The right to work, for every man that is willing, is the next great human right to be defined and enforced by the law.

The right to employment is simply a new application, under modern conditions, of the old right to freedom of industry. Free industry meant essentially the right to free access to nature for the production and acquisition of wealth. But it applied only to organisers, promoters, entrepreneurs, employers. So far as it applied to labourers, it was only the right to quit the ranks of wage-receivers, and to enter the ranks of profit-receivers. But such a right could have practical value only in a country and at a time when industry was unorganised, and there were abundant new opportunities for investment, as in the United States up to the last quarter of the nine-

teenth century. We had an immense area of vacant public lands, and these were open to the people on generous terms, inviting every man to independence. Other industries were conducted on a small scale, and an enterprising man could easily crowd to the front and become an independent producer. But to-day freedom of industry is no boon except to the wealthy capitalist. All industries except agriculture and retail merchandising have become monopolised, and these are rapidly on the road to monopoly. It requires immense capital nowadays to become an entrepreneur. The great mass of the people must remain wage- and salary-receivers. Consequently, the only way in which these people can get access to nature for production is through the recognition of the right to employment.

This is twofold: 1. The right to security in the tenure of employment against arbitrary discharge, as long as one proves efficient and honest. 2. The right of the unemployed to have work furnished by government. Each of these will be briefly examined later, but let us notice first the signs of the times which indicate the beginnings of this recognition both in public and private industries.

The movement for civil service reform in government enterprises is a demand for recognition of the right to employment. Most civilised countries have adopted this reform. The national government of the United States has adopted it partially in the public service, all cities have done so in their fire

departments, and many in other departments. In our country, the arguments in its favour are usually based on the improvement of the service, and the purification of politics, rather than on the right to employment. But the two go together. The right to tenure of office in public employment could not be guaranteed to labourers, if at the same time it should not prove a benefit to the public. The same is true of private employment. The guaranty of this right would be worth millions of dollars to the country every year, for it would do away with the tremendous losses on account of strikes, lockouts, and chronic hostility between employers and employés.

But how is the right to be enforced? Its enforcement in the public service is by means of public judicial tribunals having power to try every case on its merits. And in private service we may learn that it can be enforced in the same way, if we compare the history of the rights to life and liberty. The right to life, we know, was not authoritatively enforced until courts of justice were established by the sovereign to apprehend, examine, and punish violators; that is, until government and law had advanced so far as to provide remedial rights and forms of procedure. And so with the right to employment. The new courts that shall enforce the right to employment are courts of arbitration, created by government, and empowered to compel employers to submit to investigation and to suffer punishment for violating the right of employés to work. No man is to be

discharged for any cause except inefficiency and dishonesty. Wages, hours of labour, conditions of work, are to be adjudicated by the courts. This is not the place to enter upon the details of these laws. It is sufficient to know that they are already in operation in the mining districts of Belgium, and are being proposed in other countries. If they were adopted everywhere and applied to all industries, there is no doubt that, so long as industry is prosperous, the labourer would be as independent in his right to employment as he is in his right to life.

But this would solve only half the problem of lack of work, and that the easier half. The most difficult part for solution is that *involuntary idleness* which attacks both employer and employé, and closes factories as a result of industrial crises and depressions. Besides this, there is the mass of employés who are being continually displaced by new machines and new methods of doing business (trusts). One cannot be so sure in his application of a remedy for these two evils, as for the evils of arbitrary discharge. But a few suggestions can be offered.

1. The right to employment, like the rights to life and liberty, depends upon economic progress, and an increased production of wealth. This is exactly what is occurring to-day in the growth of monopolies, which are the greatest economic inventions the world has ever known.

2. The industrial depression is caused by over-production. Hence, when industries are organised

on the basis of the trust, in so far there will be no overproduction, and therefore no more crises and depressions. Work will be constant and regular for those who work at all, though there might still be large numbers of the perennially unemployed.

3. The displacement of labourers by machinery and by trusts can be remedied by government through employment bureaus and public works.

4. A system of taxation which would compel owners of unimproved lands and natural resources held for speculation, to open them up to labourers, either by themselves making the lands productive, or by selling or leasing to others who would do so.¹

The right to employment when enforced would have the effect of guaranteeing to every worker, even the lowest, a share of the total income in excess of his minimum of subsistence. It would give steady work through the year, which would increase the wages of the lowest labourers by 30% to 50%. And by overcoming the chronic excess of labourers beyond the opportunities for employment, it would raise the

¹ The writer is informed, that through the recent partial introduction of the "Single Tax" in New Zealand the great Land and Mortgage Company of that colony, being compelled to put its immense speculative holdings to productive use, has been unable to find labourers in the colonies, and has just sent to Ireland for six ship-loads of immigrants.

To say that the suggestions here offered are wholly adequate or practicable, would at present be mainly dogmatism. There is needed yet a multitude of experiments and years of patient, scientific thought.

marginal utility of the marginal labourers, thus raising the wages of all.

5. *Right to Marriage.* — This right has a double significance.

(1) For the individuals contracting it serves as the most powerful of all motives, to industry and increased production. In so far it assists in creating a large income to be divided among producers.

(2) For the social class to which the parties belong. Ancient restrictions have been removed except against marriage of near relatives, and in the case of sanitary regulations. On the whole, individual freedom is far greater than social restriction. While statistical investigations show that a large and growing population can produce greater amounts of wealth per capita than can small and stationary peoples, it is also shown that the most rapidly increasing factor is at a disadvantage in the sharing of this product. Competition forces down the per capita wages of that class of labourers which increases in numbers most rapidly, by lowering the marginal utility of the last labourers. These are the ones that are discharged by thousands when panics and depressions appear. The unrestricted right to marriage permits the poorer and uneducated classes to make early marriages without the necessary ripeness of mind, character, or body, and without adequate economic resources. It is, therefore, indirectly, one of the most powerful causes for the material and mental poverty of the lower classes. Too early marriages,

too large a number of children for adequate provision, make the new generations physically and mentally impotent. This has a cumulative effect, and succeeding generations are weaker still.

Section VII. — Rights of Property.

It has been stated that the right of property is composed of four elements; the person entitled, the object, the act or forbearance, and the person obliged. For the purposes of the present study we need to examine only the first two of these elements, remembering that the latter two involve a technical legal discussion beyond the immediate requirements of economic analysis.

1. *The Person entitled.* — The subject of a right is a person, or else it is looked upon by the law as a person. The most radical distinction in law is that between public and private persons. “A public person . . . is the state or the sovereign part of it, or a body or individual holding delegated authority under it.” “A private person . . . is an individual, or collection of individuals however large, who, or each one of whom, is, of course, a unit of the state, but in no sense represents it even for a special purpose.”¹

By the operation of the law, there is created a class of persons embodying, in the eyes of the law, the characteristics of individual persons, but also possessed of certain sovereign attributes of the state itself. These are corporations, and there results the

¹ Holland, p. 109.

division of private persons into two classes, natural and artificial. "The characteristics of an artificial person differ from those of a group of natural persons no less than from those of a single natural person. On the one hand, it is not merely the sum total of its component members, but something superadded to them. It may remain, although they, one and all are changed. The property which it may hold does not belong to the members either individually or collectively. Its claims and liabilities are its own. Its agents, though appointed by a majority of its members, do not represent them. In all these respects, true artificial persons are distinguishable from clubs and unincorporated partnerships, however large.

"On the other hand, an artificial necessarily differs from a natural person. 'A corporation aggregate of many is invisible, immortal, and rests only in intendment and consideration of law. It has no soul, neither is it subject to the imbecilities of the body.' Its will is that of the majority of its members, and can be expressed only by means of an agent. There are many wrongful acts of which it is obviously incapable, and its capacity for being the subject of rights — 'rechtsfähigkeit' — and for performing legal acts — 'handlungsfähigkeit' — is strictly limited by the purposes by which its existence is recognised."¹

It is plain, therefore, that to corporations the state delegates a portion of its sovereignty, but this

¹ Holland, 290.

exists in different degrees in different corporations. (1) To *all* corporations is granted so much of sovereignty as is necessary to act with unity. This involves compulsion of the minority of the members by the majority. Although membership in a corporation is looked upon as a contract between the several stockholders, it is more than a contract; it is an agreement to submit to whatever policy, within the law, a majority of the stockholders may dictate. This indefinite power given to the majority, and enforced by the state, is less in extent, yet similar in effect, to that exercised by the state itself over its own members. (2) Private corporations may be entrusted, in addition to their corporate franchises, also with sovereign power over the community at large, as when railway corporations exercise the right of eminent domain and expropriation of property-holders, and the right to charge tolls for carrying freight and passengers. (3) Political corporations, such as municipal corporations, possess very many sovereign attributes, especially those of eminent domain and taxation. These are properly not corporations, but branches, departments, or divisions of government, instituted for convenience in the administration of strictly public affairs. Therefore the property rights enjoyed by them, as well as those enjoyed by the state itself, are to be looked upon as public property.

The state, with its administrative divisions, being looked upon as a person, may be the subject of rights

and duties similar to those of private persons. "Besides its rights and duties as the guardian of order, in which respect little analogy can be remarked to anything in private law, the state as a great juristic person enjoys many *quasi*-rights against individuals, as well strangers as subjects, and is liable to many *quasi*-duties in their favour. These rights and duties closely resemble those which private law recognises as subsisting between one individual and another. The state, irrespectively of the so-called "eminent domain" which it enjoys over all the lands forming its territory, is usually a great landed proprietor; and in respect of its land is entitled to servitudes over the estates of individuals, and subject to servitudes for the benefit of such estates. It owns buildings of all sorts, from the palace to the police station, and a large amount of personal property, from pictures by Titian and Tintoretto to cloth for making the prison dress of convicts. It carries on gigantic manufacturing undertakings, lends and borrows money, issues promissory notes, and generally enters into all kinds of contracts. It necessarily acts by means of agents, who may exceed their powers or act fraudulently. Its servants may wilfully or negligently cause damage to individuals. It may become a mortgagee, and in many cases allows itself a tacit hypothec by way of security for what is owed to it. It is capable of taking under a will, and succeeds *ab intestato* to all those who die without leaving heirs. Its rights

and liabilities under many of these heads are different from those of individuals, or even of private artificial persons, especially with reference to liability for injury done its servants and as to the barring of its rights by prescription, though here the modern tendency is to modify the strictness of the old rule that "nullum tempus occurrit regi."¹

2. The object over which the right of property exists must be capable of physical appropriation, else like the air and sunlight it cannot become property. It must be valuable—*i.e.* useful and limited in quantity—else there will be no inducement on the part of any one to appropriate it as his own. And most important of all, it must be recognised by the law of the land, by the courts of justice and even the military power of the state as an object of property. This is a fundamental condition.²

I have said that the object must be capable of physical appropriation; yet by a legal fiction "the idea of ownership has been so far extended as to make it applicable to certain closely coherent masses of rights; which are thus treated for certain purposes as if they were tangible property."³ The law therefore, classifies things as material and immaterial, *res corporales* and *res incorporales*. But it is an interesting fact, as indicating the basis of this fiction, that the common law officers will not levy upon such an intangible thing as the "good-will" of a business.

¹ Holland, p. 330.

² See Samter, *Eigentum*, p. 3.

³ Holland, p. 178.

while they will execute a judgment upon patent rights, mortgages, and promissory notes. This is because the latter rights have legal documentary representatives which are tangible, though the rights themselves are intangible. But the good-will of a business is both intangible and unrepresented by legal paper, and therefore cannot be reached by the officers. Yet the "good-will" may be transferred by means of a contract, stipulating that the original possessor will abstain from following the same pursuit whose good-will he has sold, and the contract can, of course, be enforced by law.

The question of the proper place for these immaterial rights is one of the most important in economic analysis. Economists generally classify them as a species of capital, but a careful consideration of the part they play in economics will show that they are radically different from capital. First, however, we need to examine the economic justification of the jurists' classification of *res corporales* and *res incorporales*. To do this, we must begin with an analysis of the ultimate nature of property. Austin defines property as "a right over a determinate thing, indefinite in point of user, unrestricted in point of disposition, and unlimited in point of duration"; and Donisthorpe puts it as follows: "Property is all those undefined uses over a thing which remain over after the definite and specific uses of others have been deducted."¹ According to this definition, *definite*

¹ *Individualism*, p. 98.

rights of property are not strictly proprietary. They are simply interests or claims in the valuable object, and the proprietary right is the indefinite residuum which remains after these have been deducted.

To the popular apprehension, this rigid definition of property seems somewhat arbitrary. At least, from the standpoint of the economist, it is better to recognise all of the elements of legal control over valuable objects as property rights; but to designate certain of these rights as definite, and the residuum as indefinite.

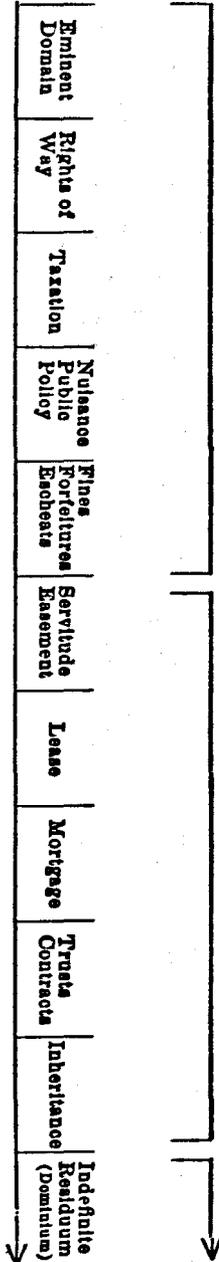
Property is, therefore, not a single absolute right, but a *bundle of rights*. The different rights which compose it may be distributed among individuals and society — some are public and some private, some definite, and there is one that is indefinite. The terms which will best indicate this distinction are *partial* and *full* rights of property. Partial rights are definite. Full rights are the indefinite residuum. The total right of property over a valuable object may be represented by a line of indefinite length, from which are marked off definite lengths for the partial rights, as indicated in Diagram II.

It is to be noted, in agreement with Austin, that the total right of property extends indefinitely not only in the direction of the *use* and *disposition* of the object, but also in the *duration* of the control. A partial right of property, therefore, may be either a right which limits its use and disposition by the full owner, or one which merely limits the time over which his full control extends.

1. The first definite right to be deducted from the total right of property is the public right of eminent domain. This is the definite right which belongs to the state in its organised capacity of purchasing any property whatsoever at its market value, whenever public safety, interest, or expediency requires. It is merely a definite restriction upon the unlimited control which belongs to the individual.

2. Another right belonging to the public is the right of way. Every landowner owns to the middle of the road or street adjoining his land. If the road were closed up, he could extend his fences, and resume in possession that which had always been his, though subject to a definite public right of use.

The Arrow represents the Total Rights of Property Definite and Indefinite.



Public Partial Rights.

DIAGRAM II.

Private (and Public) Partial Rights.

3. Strangely enough, the right of taxation is not mentioned by able jurists as one of the definite public rights which must be deducted before the indefinite residuum of private property is determined. Taxes are conceived by them as payments made by owners for the protection of their private property. This false view results from the lack of historical investigation, but without the latter a complete juridical analysis will show its inadequacy. The data resulting from such an investigation reveal the principle that government, *i.e.* the people in their organised capacity, is part owner of every piece of land within its jurisdiction. Take, for example, a tract of land whose market value is, say, \$2000. If taxes are fifteen mills on the dollar, this property will be taxed to the amount of \$30 per year. The government is joint owner in that land to the extent of an annual income of \$30, and the individual is owner of the residuum. What is the value of the state's portion? Land being an object not of immediate utility, its value is determined solely by its productive capacity. It is the capitalisation at the current rate of interest of the annual production of the land. To determine the value of the state's portion, the income of the state must be capitalised at the current rate of interest. If this is 6%, the state's portion is worth \$500, and the total value of the property is \$2500. It is plain that the individual, when he bought the land, did not buy the whole of it. He paid \$2000 for property which is worth

\$2500. If the government had waived its right to the annual revenue of \$30, this would have fallen to the individual proprietor, and he would have paid, not \$2000, but \$2500 for his property. In like manner, the value of the property to the individual rises or falls inversely according to the annual income which the state exacts. Should it be in the case supposed, \$60 instead of \$30, the private element would be worth \$1500 instead of \$2000, and the state's share would have been \$1000 instead of \$500. The public, therefore, has a definite right of taxation in every piece of land, changing, no doubt, from year to year, according to the needs of the government, but always definite and limited.

4. The fourth definite public right is a negative one, namely, that the owner must not use his indefinite residual rights in such a way as to injure others. His property must not become a public nuisance.

5. Closely connected with this is the right belonging to the state that private property must not be used in a way contrary to public policy. Thus the courts will refuse to enforce a contract which exists or may exist for the restriction of production.

6. The public has also a number of definite rights in the property of individuals which emerge only on the occasion of certain unlawful acts or other facts on the part of the property-owner. These are fines, forfeitures, and escheats.

The partial rights which have been mentioned thus far are attributes of the ultimate sovereignty which

the state has over all property in its jurisdiction. They are imposed upon property simply by virtue of the *force* which government exercises, without regard to the freedom of the individual owner in the matter. In a constitutional government, certain principles and machinery of law are provided to prevent the arbitrary employment of these rights, and to do justice to the individual. But in the end the individual is *compelled* to submit to them, and in so far he is not the absolute owner of his property.¹

But there are other partial rights which the owner may grant away, and which do not pass without the condition that the owner has been free in his will to dispose of them. These partial rights grow out of the owner's right to freedom of contract. They are especially servitudes and easements, pledges and mortgages, trusts and contracts. While the law on this subject is so complicated as to prevent a thorough discussion in this essay, their main characteristics may be briefly mentioned, in order to point out the partial nature of the rights which they guarantee.

A servitude is a specific right of using land for certain definite and limited purposes, such as riding or driving cattle across it; or of removing certain

¹ It will be observed that the foregoing analysis, though based on English writers, is yet not technically true of English property. In England the original ultimate property in land is regarded as residing in the sovereign, the private owner having simply certain granted rights. Yet the analysis is *practically* applicable in England, and also technically so in America, where private owners are not feudal but allodial.

tangible objects from it, as wood, turf, minerals; or of enjoying certain profits or fruits of the land; or of restraining the owner from using his land in certain definite ways, such as obstructing a stream which runs through it. These rights are created by contract or custom.

A pledge or a mortgage is a right held by a creditor to a definite portion of the profits of the debtor's property. It is a partial right of ownership given to a creditor in order to secure him in the repayment of a loan, together with interest thereon. In the event of non-payment, it gives a right to compel a sale of the property, which may lead to its full ownership; but so long as the obligations of the debt are met, the mortgager is looked upon as the full owner.

Trusts and contracts are looked upon as available, not against the whole world, but against certain individuals. The trustee is bound by a moral obligation to administer the property of which he is custodian for the benefit of the person of inherence, the *cestui-que trust*, according to the terms of the trust, and the courts of equity will enforce the obligation. A trust may become, thus, simply a method of transferring in effect the full right of property; but the law looks upon it as only a partial right of property, the full right still remaining in the original grantor.

A contract is an expression of agreement between parties, with a mutual engagement to carry it into effect. "The state lends its force to assure the

performance of those promises of which it thinks fit to take cognisance.”¹ A contract has for its function the creation of a right in the widest sense of the term, whether it be a partial or a full one. Thus the promisee has a claim upon the promisor, if it be in a matter of property rights, which amounts to a partial ownership of the property, and limits in so far the owner’s full control.

Inheritance² is the right of an heir to receive all the rights and duties of a deceased person. It is brought about either by an involuntary fact, the man’s death intestate, or by a voluntary act, the making of his will. Absolute right of property, if there were such a thing, would extend into the future unlimited; but the right to inheritance, when defined and regulated by the state, or when once granted by the testator, limits the duration of his control, and is consequently a partial right to be deducted from the full right of property.

These include the principal partial rights which may inhere in private individuals. They constitute, therefore, one class of private ownership of property. But it is to be noticed that since the state is to be looked upon as a person capable of all the legal relations of private persons, these rights may also belong to the state. Yet in any case they are essentially private rights, because they originate, not by virtue of the sovereignty of the government, but out of the free right of contract of individuals. The state in

¹ Holland, p. 220.

² Holland, p. 139 ff.

these cases respects this right, and places itself on the level of a private individual in entering upon a contract.

The analysis of the property rights thus far will expose the fallacy of those economic writers who class mortgages, contracts, etc., as capital. They are capital, indeed, from the private standpoint — the standpoint of distribution — but so is the full right of property. If partial rights are considered capital, why not the full right? The peculiar feature about these partial rights is that they can be bought and sold apart from the valuable object to which they lay part claim. They are represented by legal documents which can be transferred, and which are conceived in the fiction of the law as being themselves proper objects of absolute and full property, being one kind of *res incorporales*.

But the *dominium*, the full ownership, is the ownership not of a part claim, but of the valuable thing itself. When the *dominium* is transferred, the object itself is transferred. It does not exist apart from the object.

This fact is not sufficient ground for calling partial rights of ownership capital, and refusing the title to the full right. The function of both kinds of rights is to secure for their possessor a share of the products and the uses of the land and capital. It is acknowledged that the ground whereon partial rights are assigned to the category of capital, is the fact that they, like any kind of capital, bring to their owner

a share in the social income. This is true, but the *dominium* does the same. Capital itself — the productive instrument — would not yield its products to any particular individual were it not that that individual owns the capital. Ownership, then, either partial or full, determines the direction and destination of the products and the uses of the land and capital, and from the standpoint of distribution, both full and partial ownership — the total rights of property — are capital.

In conclusion, social and private capital are categories wholly different in kind. Capital from the standpoint of production and *society* consists of the instruments and material of production — the things themselves, *res corporales* — to be distinguished from consumption goods only by the fact that they are either active in creating utilities or passive in receiving utilities, while consumption goods are being actually used and are giving up their utilities for human enjoyment. Capital, from the standpoint of distribution and of the individual, is a historical institution, consisting in the *ownership* of social capital, and comprises both those kinds of partial ownership known as definite rights — *res incorporales* — and that full, indefinite ownership known as *dominium*. Social capital creates utilities, private capital distributes utilities. They are inseparable in practice because production is essentially for the sake of enjoyment, and ownership has no significance except as applying to the

acquisition of useful products, but they are separable in analysis, since the destination of products is a conception distinct from the creation of products. And, moreover, the *value* of social products, besides depending upon the physical qualities and circumstances of these products, depends also upon their legal appropriability.

Section VIII. — Monopoly Privileges.

Besides the partial rights of ownership, jurists are accustomed to designate as *res incorporales* another class of radically different rights, or rather "closely coherent masses of rights."¹ These are patents, copyrights, trade-marks, and franchises. A patent right is "an exclusive privilege of using a new process for a fixed term of years; and also the right of letting or selling (the) privilege to another." A similar favour when granted to authors of books, to painters, engravers, and sculptors is a copyright. A trade-mark is a design which is recognised by government as the exclusive property of an individual or private corporation. A franchise was originally a royal privilege, subsisting in the hands of a subject, such as the right to have a fair or market. Owing to the modern development of means of transportation, the franchise is principally a public grant conferring a legal monopoly and the right of eminent domain and expropriation of private property-

¹ Holland, p. 178 ff.

holders, and the right to levy tolls and charges for the use of *quasi*-public property.

These rights and privileges are neither capital nor partial rights of ownership; but are *exclusive privileges of selling goods or services*.¹ They are additional to the property right in capital, and are superimposed upon them. A man may make a sewing-machine. The machine has a certain value represented by his outlay of capital and labour. He may also own the exclusive patent-right to make and sell machines of this pattern. This right is in itself valuable because it is a monopoly privilege granted by government. It is not productive capital because it is not a material object; but it is a social relation defined and established by government. Its value grows out of the fact that it gives its owner power to limit the production of the article patented relatively to the demand for it. In this way he can keep up the marginal utility and the price of the article at some point above its cost of production, so that in selling it he may receive a surplus, or monopoly profit, on each unit of the article. This principle underlies the value also of copyrights, trade-marks, and franchises.

It is a legal convenience to treat all these masses of rights as incorporeal things, because they are valuable and can be bought and sold. They can, therefore, be the objects of partial and full rights of property. For this reason they are an important

¹ See Böhm-Bawerk, *Rechte und Verhältnisse*, p. 124 ff.

element in the distribution of wealth; and are properly classed, along with other rights of property, as private capital.

But artificial monopolies, *res incorporales*, are not the only monopolies. There are others which grow out of the very nature of modern industrial society based on private property in general, without a special act of creation by government. These are, 1. Land; 2. Distributive industries, such as railways, highways, post-office, gas- and water-works, etc. These industries usually demand a public franchise, and where these franchises occur, we find a combination of natural and artificial monopolies. 3. Manufacturing industries, like trusts, which become monopolies from sheer mass of capital. 4. "Good-will" and allied business advantages, such as business connections, reputation, etc. "Good-will" might be looked upon as the monopoly element of trusts, and in that case, the monopoly which gives it is absolute. But it is also characteristic of competitive business, giving special advantages to certain individuals, or corporations above those of their competitors.

These natural monopolies, as well as the artificial ones, are simply exclusive privileges of selling goods and services, and their value is owing to the same cause that gives value to artificial monopolies. They give their owners the power of limiting the supply relatively to the demand, and thus of keeping the price above the cost of production. They are

not social capital, but monopoly privileges. A trust, for example, has property in the capital — the machinery, material, and product — which it uses and creates; but it has also the *de facto* monopoly right of exclusively making the product and selling it. This monopoly privilege is itself valuable — may be worth much more than the actual capital invested — and it may be separated from the capital, not only in economic analysis, but also in business dealings. It can be valued and sold independently of the capital, or may form the basis for the issue of bonds and stocks. From the standpoint of society it is not capital, but from that of the owner it is. The right of private property makes it capital for him, because this right gives him power to exact from society a certain share of the social income above what it costs him to render a return to society.

The same is true of the distributive industries which enjoy monopoly privileges. They are exclusive privileges of selling certain services or commodities, and this means the power to limit the supply of their commodity or service, relatively to the demand. They are not capital, nor simply property in capital; but they are property in a monopoly privilege.

Land, viewed from the standpoint of distribution, differs from these other monopoly privileges only in the fact that it is a material object. In its significant features it is like the others. It is not capital, but represents value over and above the value of the

capital employed upon it. Its main significance in distribution is situation; this means access to markets; this means exclusive privileges of producing and selling place-utilities; and this is a social relation. Finally, the income from land is governed by the same law as that which governs the incomes from other monopoly privileges, *i.e.* the law of surplus product, or rent.

Summing up this review of natural and artificial monopolies we have to note the following propositions:—

1. They are not capital, but exclusive privileges of selling goods and services. This privilege is of paramount importance in modern society where goods are produced, not for direct consumption by the producers, but for sale and profit.

2. They furnish opportunities for the profitable investment of labour and capital.

3. Their value consists in the power they give to limit the supply of their product relatively to the demand for it.

4. They may be united in more or less complicated combinations in single enterprises. A railway, for example, may possess monopoly advantages due to patents, franchises, land, and good-will.

5. They are, like capital, the objects of the rights of property, and may, therefore, be subject to full and partial ownership. In the case of artificial monopolies, the government creates the monopoly privilege, and then assigns it to individuals, who

may transfer it by deed or otherwise. But in the case of natural monopolies, the monopoly privilege arises simply by virtue of private property in a certain peculiar kind of material object.

6. Good-will is partly a natural, and partly an artificial monopoly. It *originates* in the fact of private property in material objects, such as a retail store or a manufacturing enterprise. But it can be transferred separately from the material object. In order that this may be done, the law must make it an artificial monopoly. It does this, not by formally creating a monopoly privilege, but by enforcing the private contract of the seller not to engage in the same occupation, according to the terms of the contract.

7. The public, as well as individuals, may be the owner of land, capital, and monopoly privileges. The state, in its various divisions, is a legal person, and as such is a subject of the same rights as private persons. This includes full ownership, which may be the ownership simply of material objects, as a post-office building; or the ownership of a natural or legal monopoly, such as water-works, streets, and the post-office business, *i.e.* the exclusive right to supply water, maintain streets, and carry the mails.

We may now recur to the distinction between social and private capital. We found that it does not consist, as Professor Böhm-Bawerk maintains, in a difference in the material contents of the two notions. So far as the stock of goods is concerned,

private capital is identical with social capital. Individuals are simply agents, as it were, of society, employing social capital—productive goods—for the production of social utilities. The true distinction is that between capital as a productive instrument, and property in capital. It is property in capital which determines its character as an instrument of acquisition. The ownership of capital and land, as well as other monopoly privileges, whether the ownership be partial or full, determines the destination of the products and uses of these instruments and monopolies.

The fact that the right of property may be public as well as private does not affect this conclusion. The distinction between capital and property in capital still remains the fundamental one; the former having to do with the productive instruments, the latter with the distribution of those instruments and their products. Public property in land, capital, and monopoly privileges, is simply the legal means of determining that the fruits of these instruments and privileges shall be directed immediately to the uses of government and the whole people, instead of to the emolument of private proprietors.

Section IX. — Theories of the Right of Property.

Especial significance has been given throughout this discussion to the part played by government in the distribution of wealth. Government exerts its influence through the laws affecting persons and

property. In order that the function of government in the creation of rights may be clearly apprehended, it may be necessary to examine briefly those theories which give a different origin. Especially with regard to rights of property various conflicting theories may be noted.¹

1. The theory of "natural right" affirms that property is a necessary consequence of human personality, which, for its economic activity, requires a dominion over material goods. Property is simply the necessary extension of the individual over external nature. This theory overlooks several facts. First, the great majority of people have no property for the exercise of their economic activities. The only property they have is consumption goods, which are not used productively. On the other hand there are some property owners who do not produce, but get an income by loaning property.

2. The "labour theory" holds that property is the result of labour. The labourer must have control over that which he produces, as a condition of his continuing to labour. Land, if it is to be made productive, must be private property, in order that the producer may be secure in the enjoyment of the products of his labour. This theory disagrees with facts past and present. It may serve as an ideal for legislation, but as an explanation of the origin of property it fails signally. The largest accumulations

¹ Wagner, *Lehrbuch*, pp. 535-575; Conrad, *Handwörterbuch, Eigentum*; Proudhon, *What is property?*

of property are found in the ownership of those who do not labour; and slaves, instead of owning the product of their labour, are themselves owned. Land is not owned by its cultivators, but, taking the civilised world at large, four-fifths of the land is cultivated by tenants. Land and monopoly privileges, moreover, are not the products of labour, but the creatures either of nature or of government.

3. The "occupation theory" ascribed property rights to him who first obtained possession, and whose possession was recognised by his fellows. This theory does not even account for the origin of property among a primitive people, or a conquering people like the Romans, who based their title to the lands of their conquered enemies upon it. Neither does it account for modern titles by transfer and inheritance. The primitive origin of property was common ownership, and the title of the Romans was by conquest.

4. The "legal theory" asserts that property cannot exist without the state. Viewed externally, it is the coercive *power* of the state that creates and enforces the rights of property. Viewed internally, it is the *purpose* of the state with reference to the objects which it wishes to attain which leads it to create, define, and enforce these rights. The three preceding theories touch only the *purpose* of the state in the establishment of property rights. This purpose depends upon the ethical and political development of the particular state at the particular time.

The state — *i.e.* the people or social class who control the policy of the state — may endeavour to realise the right of labour to its product, or it may grant to first occupiers a legal title to their land. But in the end, the actual title to property rests on the sovereign power of the state to enforce its decrees. “Ohne Klage kein Recht, ohne Executive keine Klage, ohne Macht keine Executive.”

It is inaccurate, therefore, to speak of limitations on the right of property. There is, strictly speaking, no such thing as absolute, unlimited right of property, which law steps in as an afterthought to restrict. When property right is originally given by the state, it is with these restrictions already asserted. The state gives to individuals a certain amount of control over material objects, reserving for itself and the public at large a certain share. The amount of private control may be greater or less, according to the stage of civilisation, and the policy of the government. In this way arise both partial and full rights of ownership over material objects. But the state does more than give rights of property over material objects. It creates, by virtue of its sovereignty, certain exclusive privileges of selling certain kinds of goods and assigns these privileges to individuals. These are strictly property rights.

It is the same with personal rights. The rights to life, liberty, and employment are not natural, but acquired. Government creates, defines, and en-

forces these rights. Such rights are not absolute and unlimited, but in the very act of their creation government determines their limitations. A man has the right to life as long as he does not maliciously kill his fellow-man. In former days, his right to life was much more restricted than it is today. He has the right to liberty so long as he does not commit certain crimes.

Thus we see that the all-powerful factor in the distribution of wealth is the sovereignty of government. The wants, abilities, and energies of men operate within a framework constructed by the laws of the land. Labour and capital are the primary factors in the production of wealth, though good and bad laws are potent in aiding and checking it. In so far as production is a prerequisite of distribution, so are labour and capital factors in distribution. But it is Law that gives labourers the power to acquire their own products. Law assigns capital and land to private or public control, and thus gives individuals, or a nation of individuals, the power to determine the destination of the fruits of capital. But the ownership of land, and of some combinations of capital (natural monopolies), gives its possessors certain monopoly privileges, and law sustains them in the acquisition of that part of the social income which they obtain through their monopoly. Finally, government creates outright certain additional monopoly privileges (artificial monopolies), and assigns them to individuals, or retains them for its own advantage and that of its citizens.

Section X. — Monopoly Profits and Taxes.

The significance of the arguments presented in this chapter may be illustrated by reference to the current discussions regarding the true nature of railway charges. A class of writers maintain that railway charges are like taxes, and they base this opinion upon the fact that charges are determined, not by the cost of furnishing the service, but by what purchasers can afford to pay. But railway charges are not different in this respect from any other class of monopoly charges. Fundamentally they are all alike and are all like taxes.

A tax is defined by Professor Bastable¹ as “a compulsory contribution of the wealth of a person, or body of persons, for the service of the public powers.” The first half of this definition is valid, but the latter will not stand the criticism of history. Taxes are levied for other purposes besides the service of government. They are often levied to protect or discourage certain industries or practices; also to affect the distribution of wealth, either to centralise it, as in the Middle Ages, or to diffuse it, as in modern democratic communities.

A tax differs from a fee in that the latter is a payment for a special service performed by the officers of government, and is based on the cost of the service; while a tax is exacted for the general services of government, and is based on ability to pay. But a

¹ *Public Finance*, p. 243.

fee is not always based on the cost of the service. Sometimes it exceeds the cost, and then it is a tax. This is true of fees paid to the patent-office, of letter postage in the English post-office, of freight and passenger charges on the Prussian state railways, of the alcohol, gunpowder, and salt monopolies of various European countries, and of many other fees and charges which might be mentioned. In such cases it would be held by most writers, that in so far as the charges are necessary to meet the cost of service they are fees, but the excess above the cost is a tax.

Now, the same may be said of any grant from the sovereign power to individuals, giving them exclusive privileges of selling goods. Patents and copyrights are attributes of sovereignty in the hands of individuals, enabling them to tax the community for the use of the patented or copyrighted article. Such a franchise involves the right to limit the quantity of goods produced, and thus to keep up the marginal utility above the cost of production. Should the government reserve this monopoly privilege to itself, as in the French tobacco monopoly, it would be a true tax. The effect is the same as when, in the United States, the government imposes a tax of 500% on distilled alcoholic liquors. By its power of compulsion it prohibits the sale of liquors on which the tax has not been paid, and thus limits the supply to such an extent that the marginal value will cover both the cost of production and the tax.

Patents and copyrights are monopoly privileges

resulting from the express intention of the legislature. But there are other monopoly privileges which result from the very nature of private property when applied to certain kinds of objects under certain industrial conditions. This is true of all those enterprises which require the privilege of eminent domain, such as railways, telegraph lines, water and light supply. And when it becomes possible, under the operation of the laws regarding private property, for aggregations of capital to maintain a monopoly of a manufactured or mineral product, it is plainly the sovereignty of the state, through the expression of its will in the laws of the land, that supports the monopoly privilege.

Moreover, it follows from the principle already developed regarding the right of property, that all prices, whether regulated by cost of production or by what the market will bear, are compulsory payments. If a person takes from another an article which the law declares is private property without paying for it what the owner asks, the law calls in the physical force of society to inflict on the offender a greater expense than it would have cost him to purchase the article outright on the owner's terms. But it does not follow that the prices paid for all goods are fundamentally like taxes. Where competition is free they are more nearly like fees, being regulated by the cost of production. But in so far as they exceed the cost of production, owing to the control over supply given by some monopoly privi-

lege, they are fundamentally like taxes. They are compulsory payments, conditioned, on the one hand, by the sovereign franchise, or liberty of the right of property; and on the other hand, by the urgency of the public want which the commodity satisfies. The unlimited right of property in such a case is the freedom of the proprietor or monopolist to charge for his services as he wishes under the protection of government.

But the monopolist, in practice, never has an unlimited right of this kind. The state itself may fix prices, or the monopolist may be controlled by powerful conditions in his industrial environment; especially by the fact that exorbitant prices would invite powerful competitors, or would compel the public to resort to substitutes. Within these limits, his charge may be wholly arbitrary. But on the whole they are regulated, not by the cost of the service, but by what the market will bear, *i. e.* by the value of the service.

Finally, these monopoly privileges, when in the hands of government, form the basis of taxes usually "for the support of the public powers," though they may be used for other purposes, which, nevertheless, are looked upon as *public*. Likewise, when government bestows these privileges upon private persons or corporations, it is for public purposes — the expansion of industry and enterprise, the encouragement of literature and art, the ostensible promotion of the happiness of the people.

CHAPTER III

DIMINISHING RETURNS AND RENT

REFERENCES: The law of diminishing returns has been ably criticised in the writings of Professor Patten. See his *Premises of Political Economy*, Philadelphia, 1885; *Stability of Prices*, American Economic Association, 1890; *Theory of Dynamic Economics*, Philadelphia, 1892. See also Marshall, *Principles of Economics*; Adams, *Relation of the State to Industrial Action*, American Economic Association, Vol. I.

Section I. — The Law of Diminishing Returns.

THERE are no laws in Political Economy apparently so simple and yet so confused as the so-called laws of increasing and diminishing returns. The conclusions which can logically be drawn from them are widely different with different writers. There is need, therefore, for a thorough analysis of the ideas which economists have in mind when they speak of these laws. If we examine any one of the classical writers on this important subject, we shall likely find that he has entirely different principles in mind when he writes of manufactures on one page and agriculture on the other. He claims that manufactures follow the law of increasing returns, and that agriculture follows that of diminishing returns.

But in the important conclusions which he draws from these propositions he is thinking of entirely different things in the two industries. There are at least four different standpoints from which the economist looks at these laws, and the same economist may shift in turn from one standpoint to each of the other three. There is one standpoint which he takes in treating of agriculture, and from that he derives a universal law of diminishing returns for that industry. But in manufactures he takes another standpoint, and here he derives a law of increasing returns. Yet if he should take in manufactures the standpoint which he took in agriculture, he would find that manufactures also show diminishing returns. And if he took in agriculture the standpoint which he took in manufactures, he would find increasing returns in both industries. These four standpoints for both increasing and diminishing returns are as follows:—

1. The capital and labour of an entire industry throughout a long period of industrial development.

2. The capital and labour of an entire industry at a given stage in the development of skill and knowledge.

3. The capital and labour of a single enterprise at a given stage in industrial progress, without reference to the area of ground occupied.

4. The capital and labour invested on a given area of ground.

It is to be noticed in all these standpoints that the

arbitrary unit with reference to which returns are measured is a compound unit of capital and labour, *i.e.* a "dose" of capital and labour. Where diminishing returns hold true, it is agreed that for the successive increments of the earlier investments of capital and labour, there may be increasing returns; but for the later increments, a condition of productivity sets in where the returns per increment become proportionally less.

Now, comparing these four standpoints of the laws of increasing and diminishing returns, in order to discover the way in which they are confused, we perceive that it is from standpoint (4) — a given area of ground — that writers usually begin when they take up the discussion of agriculture. For example, President Walker says in substance:¹ "Suppose that 10 labourers, with a certain outfit of tools and implements, are engaged in cultivating a given tract of land of 100 acres, producing 2000 bushels of wheat a year, being 20 bushels per acre and 200 bushels per capita. If additional labourers crowd into this *same area* for the purposes of agriculture, 12 labourers would produce 22.8 bushels per acre, 15 labourers would produce 27 bushels per acre, and 20 labourers 32 bushels per acre; but each labourer's share would descend necessarily from 200 to 190, 180, and finally 160 bushels."

Now, when transition is made from agriculture to manufactures, another transition is tacitly made from

¹ *Political Economy*, third edition, pp. 35, 36.

standpoint (4) to standpoint (1), (2), or (3). Manufactures and commerce, it is said, follow a law of increasing returns, except in so far as they make use of raw material, which is subject to diminishing returns.

But if we confine ourselves to the first standpoint, having regard to the quantity of product, and not its value, we shall find that agriculture, as well as manufactures, has constantly shown increasing returns per unit of labour invested. Otherwise a relatively decreasing number of agriculturists could not have provided food and raw materials, not only for themselves, but for the nation at large, and for foreign markets. In England it is possible to take a large view of the progress of agriculture covering, say, 600 years; and there we find that the product per acre of staple crops has increased tenfold. And if we take into account the infinite new varieties of agricultural products, we can see that the productiveness of agriculture as a whole, measured per capita of those engaged in the industry, has steadily increased.

The fact that agricultural products have increased in value while those of manufactures have fallen, may be well explained, not by recourse to a law of the general diminishing of agriculture throughout the world at large, but by the exaggerated system of private property in land, which locks up great estates from cultivation, or encourages speculation and short leases, thus keeping land back from more profitable

kinds of cultivation.¹ The difference between agriculture and manufactures, from this first standpoint, is simply in the different *rates* of increase. In agriculture there is a physical barrier to production, consisting in the forces of nature, which, however, is being continually pushed downward and outward; and improvements in all industrial arts have enabled agriculture to derive increasing returns from lower margins.

In manufactures there is also a barrier to production, consisting in the forces of nature and society which have not yet been brought into subjection and organisation. But this barrier is being steadily overcome. The difference between agriculture and manufactures, considered from the first standpoint, is simply that in manufactures the rate of increase is greater than in agriculture. For the future there seems to be no limit to this increase, until the time may come when invention and progress shall cease. And whatever may be said of a future limit to increasing returns in agriculture, the past and present show that such a limit has not yet been reached.

There are many indications, too, that agriculture is beginning an era of unparalleled development and increasing returns. Great corporations are entering this field, and, with immense capital at their command, they promise to exploit nature as never before. Extensive systems of irrigation will banish nature's lottery of seasons and rains. Acres

¹ See Wachenhusen, *Grundrente*.

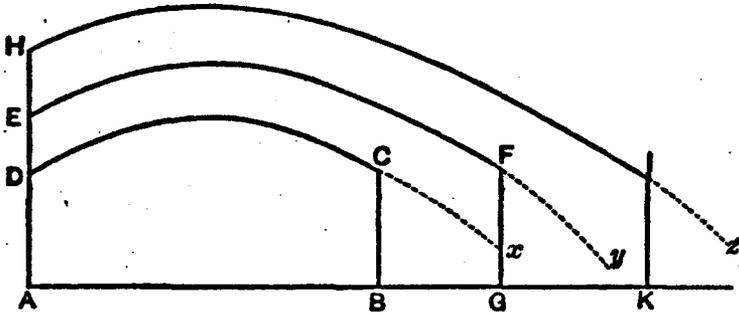
of glass, and thousands of steam-pipes and electric currents will control the temperature. Chemistry and electricity will do for agriculture as much as they have done for manufactures. Biology will have its scientific experts and inventors. There is no limit to what science, accumulated capital, and organised industry can do for agriculture. The industry, as a whole, shows no signs of diminishing returns.

It is from the first standpoint that the important conclusion is drawn that population tends to crowd upon the means of subsistence. It is held that, taking the industry of agriculture as a whole, the necessity of recourse to lower margins of cultivation is a result of the growth of population; and that, as population crowds into these lower margins, the quantity of product which labour produces must be proportionately less. But, from the considerations already presented, the conclusion is reached that never yet in civilised lands has the quantity of product per capita of those engaged in agriculture diminished, but has steadily increased. This is due to the fact that invention, enterprise, and accumulation of capital have proceeded faster than population; and that, though the margin of cultivation may be lower to-day than in ages past, yet the control of man over nature has more than compensated for the diminished natural resources. One industry helps another. Especially has progress in facilities for transportation increased the productivity and economy of all

industries. One industry is not to be looked upon as isolated. In this way, taking all industries as a whole, there have been increasing returns throughout them all.

This point may be illustrated by Diagram III. Let AB be the quantity of capital and labour which can be profitably invested in the entire industry of agriculture at a given stage of agricultural and social efficiency of production. The

DIAGRAM III.



last increment invested will yield a return BC, and the entire investment yields ABCD. If production were to increase without any accompanying increase in efficiency, diminishing returns would proceed in the direction Cz, and the returns to the entire investment would be proportionately less than when production ceased at AB.

But suppose there intervenes a growth in knowledge and skill, and a series of inventions in agricultural machinery and in transportation agencies. Every dose of capital and labour now invested in agriculture yields a greater return than before, and

production may be carried to the point AG where the marginal return is as great as it had been at AB. Without these inventions the return would have been only Gx, and marginal labour and capital could not have subsisted on that return.

Taking now the entire investments of labour and capital in each period, and comparing them with their corresponding yields, we find that the yield ABCD bears a smaller ratio to the investment AB than does the yield AGFE to the investment AG. The returns to agriculture, as a whole, have been increased instead of diminished.

From the first standpoint, then, we take into account only the quantity of the product, and we conclude that the law of increasing returns in a progressive community is universal and applicable to all industries. This is, moreover, the dynamic aspect of the laws of increasing and diminishing returns.

The second standpoint takes into consideration the capital and labour invested in a given entire industry at a given stage in the development of knowledge and skill. It is world-production and world-product without reference to improvement in the arts and sciences, but taking for granted the existing stage of industrial progress. This is the static aspect of the laws of increasing and diminishing returns.

In modern times, producers specialise their labours upon a single kind of product; they do not produce to satisfy directly their own wants, but for sale and profit. Their great concern, therefore, is to know

what amount of goods they can sell, and what share of the social product other producers will give them in exchange. Out of this demand for their goods arises the phenomenon of *Exchange Value*, or *Price*. And so the second standpoint of the law of increasing and diminishing returns has two aspects: beginning with questions of *quantity* of product, it makes a transition to questions of *value*.

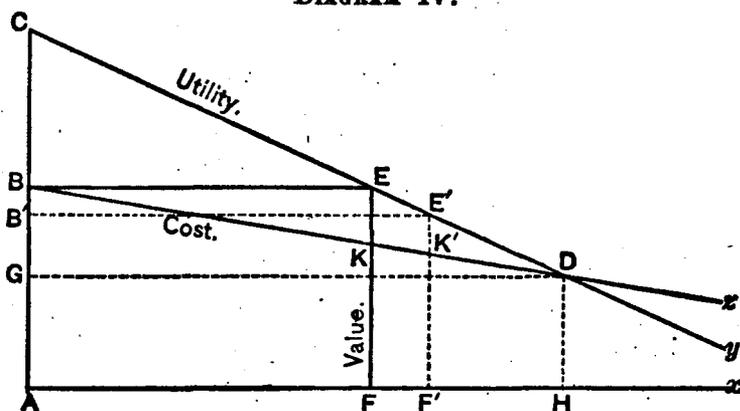
First as to quantity of product. In the present stage of industrial progress, industries may be divided into classes distinguished by increasing returns, constant returns, and diminishing returns. Industries of increasing returns are the distributive industries, like highways and means of communication and public services, such as gas and water supply. The larger the enterprise, the cheaper the cost per unit of quantity of product. The same holds true, though in a less marked degree, of manufacturing enterprises. These gradually approach constant returns, whose characteristic industry is retail storekeeping. Industries of diminishing returns are the majority of the extractive industries. But some of these have, in very recent years, passed from diminishing to increasing returns. This is due to the extensive introduction of machinery, as in mining. It is not too imaginary to hope for a time when agriculture itself, through the operation of similar causes, may become an industry of increasing returns. At present, however, under primitive methods, it remains, as were manufactures a century ago, an industry of diminishing returns.

But whatever may be the facts or the prospects of the several industries in the matter of productiveness, the effect is immaterial in our discussion of value. When we make the transfer to value, we find diminishing returns universal. How this comes about has been demonstrated in Chapter I.

The demand for every commodity shows a diminishing scale of utility. The value of the whole product is determined by the utility of the marginal product. No matter, therefore, what may be the increasing returns in *quantity* of product, providing the scale of demand remains constant, the entrepreneurs of a given commodity inevitably run against the diminishing *value* of their total product. This means that inevitably the point will be reached where receipts will fall below costs, even though costs themselves are diminishing also. Costs do not diminish at so rapid a *rate* as value.

The following diagram will illustrate what is meant:—

DIAGRAM IV.



Let the line Az represent the production of an indefinite quantity of some commodity of increasing returns. Let the line Bz represent the diminishing cost per unit of product, and the line Cy the diminishing utility of the commodity. If production is carried beyond the point H , the value of the marginal product will be less than the cost of producing the same, and the value of the entire product, represented by the area $AHDG$, would be less than its cost, represented by $AHDB$. But if the production be limited at the point F , the value of the entire product being $AFEB$, would be greater than its cost, $AFKB$, and there would be a profit of BKE . Production cannot profitably be carried further than, say, AF' , where the total value of the product $AF'E'B'$ would approximately equal the costs of the total product, $AF'K'B$.

Although the demand of the purchasers for every commodity is a diminishing one, yet there are various circumstances which make the demand for different commodities very different in extent. The more extensive the demand, the further off is removed the point of equilibrium where the value of the product just compensates the cost of its production. Some of these causes are the following:—

1. The kind of want which the commodity satisfies. More than one half of the industry of our country is employed in satisfying the wants for the necessities of life. This class of wants being most intense, constant, and extensive, requires greater

quantities of goods, measured by the capital and labour employed, than other classes. The demand for comforts and luxuries of given kinds is more quickly satisfied when once the necessities have been assured, and, therefore, capital and labour employed in these industries must be comparatively limited.

2. The extent of the market. In a large country it is possible for larger enterprises and larger fortunes to arise than in a smaller one of the same character of population. Likewise the extension of transportation facilities over the whole world has opened up opportunities for mammoth productive enterprises never before dreamed of. Owing to the diminishing scale of utility in all commodities, the wants of the nearest consumers may be wholly satisfied with small investments of capital and labour, and the point of no-profits would soon be reached; but the extension into new markets finds new consumers whose wants have not been satisfied up to the point of profitless values.

3. Efficiency of social production. As the productivity of all industries increases, the producers have greater quantities of goods which they can offer in exchange for a given commodity. A wealthy community can pay higher prices and purchase greater quantities of goods than a poor one. And thus as the various employments of society each furnish the market for all the others, it follows that increased efficiency in any one will be followed by increased demand for all the other products.

But this result has a limited application. Sooner or later, an increased ability to pay shows itself, not in increased demand for accustomed articles, but in a demand for variety and improved quality. Thus the size of a market for a given commodity depends upon, —

4. The distribution of wealth and the character of the people. If wealth is in the process of concentration, luxuries and personal services will be demanded instead of staples. More highly elaborated articles will be required. But if wealth continues diffused, greater quantities of necessaries and comforts will be demanded. The progress of society has shown a relatively decreasing demand for the products of the agriculturist. Wants of this kind are fully supplied on the part of those who are able to pay for them, and their surplus share of the social product is turned into exchange for more refined and expensive commodities.

5. The development of new industries. This gives employment to new workers, and creates a demand for products of all kinds. New industries are the result of, (1) The increased productivity of society, and unequal distribution of wealth, already mentioned, which creates a demand for new and improved comforts and luxuries. (2) Inventions and discoveries which utilise nature better, and create new opportunities for employment. (3) Increased use of capital. This depends ultimately upon the growth of wealth in a community. Capital

involves roundabout methods of production, and large numbers of persons are employed in the management and operation of this capital.

6. The prices of commodities. The demand of society for a given article may be looked upon as made up of a great many *layers* of demand. Every possible *price* has its corresponding layer of purchasers. The higher prices indicate a narrow layer, where wants are intense, and resources are great. As we descend the scale of prices, wider and wider layers of purchasers, with less and less intense wants, and less and less resources, find it economical to make purchases. The demand for *quantity*, therefore, increases with the lowering of price or, in general, the quantity demanded varies inversely as the price.

These are the main reasons why, in a given stage of industry, different kinds of products are demanded by society in different quantities having certain definite proportions among themselves. In Chapter II. we have already seen what are the forces controlling the supplies of these respective commodities, and out of the balancing of these two sets of forces — relative demand and supply — emerges such values of commodities as the existing stage of industry and law may favour.

Since, now, it is with questions of value we are concerned in our study of distribution, we put aside the first standpoint of the laws of diminishing and increasing returns, and begin our studies with the

second standpoint. The first standpoint is necessary in questions regarding the growth of prosperity, the growth of new wants, and the new means for their satisfaction. But the second standpoint is the basis for an investigation into the distribution of this prosperity, whatever it may be, among the members of society.

The third standpoint may be looked upon as an analysis of the second. The second comprises all of the enterprises engaged in the manufacture of a given kind of product, while the third looks upon these individual enterprises each by itself. The two would, of course, coincide, and become identical in the case of a monopoly or a trust which has engrossed the entire world's supply of a given product. But this is more ideal than real, because in no known case has monopoly extended so far. There are, therefore, sufficiently important distinctions to render it profitable to discuss the third standpoint apart from the second, and to give a warning against unconsciously passing from one to the other.

From the third standpoint, industries may again be considered, first, with regard to quantity of product, and second, with regard to value. From the standpoint of quantity, we notice that a factory or railroad can profitably extend its investments into the millions of dollars, and the opportunities for organisation become so great as the output increases, that there is no conceivable limit to the law of increasing returns. On the other hand, it is doubtful whether an agricul-

tural undertaking at present would be warranted in going beyond a million. The difficulties of organisation and management over a wide territory, the topographical limitations, the changes of the seasons, and consequent difficulty of securing labourers when needed, and the absence of any extended division of labour, make it impossible for a large enterprise in agriculture to gain profits corresponding to those of a similar enterprise in manufacturing or transportation. Therefore, looking at it from the standpoint of the capital and labour invested in a single enterprise, and having in view questions of production and not of distribution, we are justified in saying that in agriculture the law of diminishing returns prevails, but in manufactures the law is one of increasing returns.

But to the entrepreneur the interest in his business relates not to the amount of his product, but to its value. The significance of increasing and diminishing product lies only in the fact that in the former there is a tendency towards monopoly, while in the latter such a tendency does not show itself.¹ Now, from what has already been shown regarding the second standpoint, it is easy to see that every industrial enterprise, viewed from the third standpoint, is subject to diminishing values. If a single enterprise is a monopoly, then the demonstration already given for the second standpoint applies fully to the third, without further comment. And if the enter-

¹ See Adams, *Relation of the State to Industrial Action*.

prise is one of a number of competitive undertakings, the same principles hold true. In this case, world prices are determined by the supply of the world product, but inside the world product each entrepreneur has his especial range of customers. If he infringes upon the territory of his competitors, he can do so only by lowering prices, or by improving the quality of his product. In either case, he must sooner or later reach a point of diminishing returns in values. And just as the industry, as a whole, may be subject to diminishing values, so each of its independent constituents may be subject to the same conditions.

It is important to notice that in taking the third standpoint, no reference is made to the area of ground occupied by the undertaking. In fact, all enterprises, as they increase in size, require increasing areas of ground. This is the significant distinction between the third and fourth standpoints.

If, now, we take the fourth standpoint, that of a given area of ground, we find that the law of diminishing returns has universal application. This is true, first, regarding questions of production. No matter what undertaking we examine, we find that for a given area of ground the point is sooner or later reached where an increase of product will involve more than a proportionate increase of expense. A flouring mill, occupying one acre, with a capacity of 1000 barrels daily, would require more than four times the daily expense to produce 4000 barrels *on*

the same area; its buildings must be four times as high and much stronger in order to accommodate the requisite increase in the quantity of machinery and number of labourers. Elevators would be more expensive, accidents and repairs more numerous, and rates of insurance higher. Before the capacity of 4000 barrels could be reached, it would be found more profitable to purchase an adjoining half-acre, in order to secure the additional room required. The "order of cultivation" here is precisely the same as in agriculture. There is a law of increasing and then of diminishing returns for a given area, with subsequent resort to a lower margin. The only difference that can be discovered between agriculture and manufactures, is that in the latter the law admits of greater elasticity.

The significance of the distinction here insisted upon becomes further apparent when we consider that, in comparing agriculture and manufactures, we must include in the area required for the latter not only the site occupied by the factory, but also the area necessary for housing the employés. In a farmer's business the value of the land occupied by dwellings for himself and employés is necessarily included in the total value of his farm for industrial purposes. Apart from the latter, his residence site has no value. Payment of ground rent does not come out of either his own profits or his employé's wages. But in the case of city employés, one sixth to one third of their wages goes to pay rent. The area occupied by

the dwellings of the employés is economically as much a part of the area necessary for the factory as is the farmer's dwelling site a part of his farm. Every extension of a manufacturing enterprise necessitates additional area for employés' dwellings, and the economic result is the same as if the same area were added to the factory itself.

The law of rent is a deduction from the law of diminishing returns. It is, therefore, of supreme importance in all discussions upon rent to adhere strictly to this fourth standpoint. We have thus a common basis of measurement for all industries. In order to show further its importance, it may be well to notice some objections to the law of rent as usually stated, which, however, disappear when we plant ourselves consistently upon the fourth standpoint.¹

1. If diminishing returns apply only to agriculture, there can be no law of rent for manufacturing and mercantile sites. On the contrary, rent could rise to infinity in manufactures, so far as quantity of product is concerned. If the returns here are constantly increasing, there is no reason why the rent, measured in product, should not be correspondingly unlimited. But there is a limit, as already shown, to the increase of returns for every industry. The solution of the difficulty is found in rigidly

¹ The argument can here be stated only on the negative side. Its full significance will appear in Chapter IV. when we take up the positive answer to the problem of rent and distribution.

maintaining the fourth standpoint of increasing and diminishing returns, in contemplating both agricultural and other industries, so long as we are discussing problems of rent. When we take up the question of profits of other monopolies analogous to rent, we are compelled to take the third standpoint, as will be shown later.

2. There is no actual margin of cultivation, according to which the rent of superior lands may be measured, as is contemplated by the current theory. All land, as soon as it is cultivated at all, bears some rent, and has some value. Says Professor Patten:¹ "That the poorest land in cultivation should pay no rent, requires that there should be no other purpose than cultivation to which the land can be put. This is rarely, or never, true, as man does not subsist alone on cultivated plants, such as wheat, oats, and corn, but also on plants that require no cultivation, and on animals that can live on uncultivated land; he also has use for lumber and fuel, and the trees from which they are obtained grow on untilled land. When land is needed for cultivation, it cannot be had for nothing, since it is valuable to its owners for other purposes. Upon uncultivated land, for instance, cattle and sheep can be kept. Persons who wish to cultivate land must compete with those who wish the land for grazing purposes, and as all lands that can be cultivated can be used for pasture, and will yield the usual profit and leave something for rent, those

¹ *Premises of Political Economy*, p. 22.

who wish to till the land must be able to bid over the herders in their offers of rent."

3. Even if there were a margin of cultivation, the rates of interest and wages on that margin would be higher than the rates nearer the centres of industry. Hence the surplus remaining above wage payments and interest for the rent of land with a given productivity of capital and labour must be less than the surplus remaining from an equal productivity where wages and interest are lower. The current statement does not co-ordinate with the fact of the varying local rates of wages and interest, but assumes a fixed world-wide rate for each.

4. In order to get a law of rent for building-lots, it is necessary to go back to agricultural rents. For example, Professor MacVane says:¹ "The new building lots in the outskirts of a city may be regarded as having their rent determined roughly by the agricultural rent of the land. . . . At the meeting line of the two kinds, the difference of rents must always be slight. . . . The economic rent of each more central lot is equal to the rent of an equal area in the outskirts, plus the equivalent of its special advantages over the latter." So that ultimately we are to conclude that the law of rent for lots on Wall Street depends on the returns to labour and capital on an imaginary margin of cultivation somewhere near the Rocky Mountains!

A positive reason for taking the standpoint of

¹ *Political Economy*, p. 307.

area is the fact that land is valuable, primarily, because it furnishes only room and situation.¹ This is practically all that is furnished in agriculture, and notoriously all that is furnished in other industries. These are its only "original and indestructible powers." Soil is *capital*, and its returns are governed by the same law as that which governs returns from machinery. Ricardo and his followers have developed their law of rent from the circumstances of a new country where "there is an abundance of rich and fertile land." But new land is not the normal condition of agriculture. After the first generation of settlers the original qualities have been worn out, and whatever remains is due to the productive power of labour and capital. This must be renewed and repaired every year like machinery. In the case of soil the forces of nature, which are utilised and economised by labour, are summed up in the attributes fertility and vital forces; in machinery these forces are cohesion, attraction, heat, electricity, which appear in the forms of water-power, steam, and electric motors. Agriculture and manufactures are simply two different ways of utilising the forces of external nature. In each case, "putting things into fit places for being acted upon by their own internal forces," is all that man can do. The gifts of nature become capital as soon as they are utilised by man. Before they are utilised they have no economic significance, and are,

¹ See Chap. II.

therefore, neither capital nor land, in the economic use of those terms. By adhering to the standpoint of a given area of ground we keep this fact before us, and are able to utilise directly the definition of land already adopted as connoting only room and situation. Both critical and positive reasons, then, seem adequate for carefully establishing ourselves upon our fourth standpoint when investigating questions of rent.

It will be noticed that, in consonance with the classical treatment of the subject, diminishing returns are found to appear in the *quantity* of the product which can be produced on a given area. But it will not be difficult to show that in taking the fourth standpoint, — a given area of ground, — we are also concerned, as in the third standpoint, not with diminishing product but with diminishing value. The landowner does not produce goods for his own consumption, but for sale. Hence his land is valuable to him in proportion to the exchange value of the product. Now, our fourth standpoint, compared with our third, has this important limitation, that a given area of ground does not usually afford room for the production of so large a supply of goods as to affect the general prices of those goods. The prices of products are determined by the general forces of society, operating throughout the world, as shown in describing the second standpoint. So far, then, as a given area is concerned, the price per unit of its product changes so little

that we may regard it as fixed and constant. The total *value* of its product varies, therefore, exactly in proportion to the *quantity* of the product, and as this is subject to the law of diminishing returns, so also must be its *value*.

But there is a stronger reason for holding that the essential and common element in diminishing returns on a given area of ground, is the value of the product, and not the quantity. The essential feature of land, viewed from the standpoint of distribution, is situation. Situation is simply access to markets. The size of a market depends upon the number of purchasers who compose it, and their wealth. An area of ground situated at the centre of a great population, offers access to a wide market, while the same area on the outskirts of cultivation, has a very limited access. What the landowner sells to his customers is place-utility. Place-utility commands a monopoly value, and is, therefore, a surplus above the cost of production of the articles in which it inheres. The total amount of this surplus, producible on a given area of a given situation, must, therefore, depend upon the number of customers who find this situation most convenient for making their purchases, and on the wealth of these customers. It requires an investment of capital and labour to supply the wants of these purchasers, and the amount of capital and labour that can be profitably invested, depends upon the extent of this want.

Now, granted that a given area of given situation offers a very large market, it would be impossible to make correspondingly large investments were it not that modern industry makes possible in certain enterprises a wonderfully intensive concentration of capital and labour on limited areas. The business manager accomplishes this object, where the situation gives access to large markets, by changing the character of his industry to suit his situation. Industry being carried on for profit, the character of the enterprise is indifferent to him — he will change readily from an extensive to an intensive enterprise, if the latter promises higher profits. We must look upon all capital as one, its essential attributes being value and productivity. But though one in essence it is protean in phenomena. It takes on all sorts of forms, and changes from one form to another according to the wants of society and the situation where it is invested, the main purpose being to produce that aggregate of value which the given situation warrants.

The total aggregate of value, which can be produced on a given area, depends on two factors. 1. The kind of goods that are produced, with regard to the amount of value which can be condensed into a given unit; and 2, the quantity of such goods, which can be produced on the given area. The ultimate condition in each factor is the intensity of the industry which it is possible to adopt. It is, again, the situation of the land which determines how

intensive the enterprise must be, and what must be its character. Forest and pasture land occupy the lowest position. They are on or near the margin of cultivation. Very little investment of capital and labour can be profitably made on them. This corresponds with the fact that they are far removed from the centres of population. Both the extensive character of their cultivation and the limited demand for their place-utility, co-operate to bring in very soon the point of diminishing returns.

Land cultivated with the plough presents but little variety respecting the amount of capital and labour applied to it yearly. In Ohio the yearly investment on wheat land, including cost of seed and fertilisers, ploughing, harvesting, and marketing, ranges from ten to fifteen dollars per acre. In Nebraska and Dakota it ranges from five to seven dollars per acre. Ohio being nearer the market for wheat, it pays to invest more capital in its production, while in Nebraska and Dakota land is nearer the margin of cultivation, and it does not pay to invest so much.

As we come nearer to city markets, we find that it is profitable to invest larger quantities of capital and labour on the land. The character of production changes, cultivation becomes more intensive, spades, hoes, and rakes are used in addition to ploughs and harrows, and great quantities of fertilisers and costly seeds make up a larger use of capital. Instead of from five to fifteen dollars annual investment, it ranges, in vegetable gardening, from

twenty-five and thirty to fifty and a hundred dollars per acre.

Land that is suitable for the use of factories is farther away from the margin of cultivation than arable and most vegetable lands. It is nearer the city, most of it within the suburbs of cities. Here are to be found the advantages of transportation, water-power, access to fuel and labour markets. With manufacturing industries there is a great difference respecting the amount of investment which can be profitably applied. Factories in the suburbs will be one or two stories high, while those of the city will be three, four, and five stories. On one acre in the suburbs there may be one hundred labourers employed, and a yearly investment of labour and capital of \$500,000. In the city there may be 500 labourers on one acre, and a yearly investment of one million or more. The advantages of this land are such that it no longer pays to use it merely for wheat or vegetables. It pays to apply a much larger number of increments of capital and labour per acre, than can be applied in farming or truck growing, and this is done by adopting a more intensive industry. But finally, just as in the previous industries, there comes a point where further investments will yield a less than proportionate return, and at last a margin of profitable investment is reached where it no longer pays to apply further increments. If the owner has more capital to invest, he seeks new fields; perhaps invests in farming near the margin of cultivation,

or goes into some other industry which has not yet reached the margin of profitableness.

Commerce and exchange, including wholesale and retail business and banking, require the best localities available. They represent the heaviest concentration of capital and labour. The buildings are of great height and expensive, thousands of employés and clerks can be concentrated on one acre, and these represent some of the highest paid labourers, such as salesmen and expert clerks. The character of the capital is the most expensive, such as finished goods in retail stores ready for consumers, and in banks we have gold and silver money, notes, certificates, and other evidences of property, the highest possible condensation of wealth. Millions of dollars and credits pass through these offices, and the wealthiest men of the country are assembled on these narrow areas. But even here, on the site best located of all, there is a stage of diminishing returns, and a limit beyond which it is no longer profitable to invest capital and labour.

To sum up this discussion, the entrepreneur produces goods, not for the sake of the goods themselves, but for their values. Therefore, as the situation of land changes from regions where there is little demand for place-utility to sections where the demand is great, the character of cultivation changes from the extensive to the intensive, from raw material to more and more finished goods, whereby greater and greater values are produced on

given areas. But in all these cases, the stage of diminishing returns for a given area of ground, though further and further postponed, yet on account of the physical conditions of production, and the inevitable demand for room, is sure eventually to come.

Thus it can be seen that in the fourth standpoint as with the third, it is the extent of the demand for commodities that determines the range and period of diminishing returns. This is the common and significant feature in the law of diminishing returns, and it is a phenomenon of value instead of product. Upon it is based the whole theory of the distribution of wealth.

In order to bring out more fully the distinctions between the four standpoints, we may review the conclusions already reached, and add several other important considerations.

1. The first standpoint—that of an entire industry through a long period of time—has no direct significance in the theory of distribution. Its importance lies in the study of the growth of prosperity. The second standpoint has an important part, because it furnishes the means for determining the exchange values of social products. The third and fourth standpoints are the essential ones in a theory of distribution. They are the standpoints of the individual, and are, therefore, the basis for determining the individual's share of the social product. The individual is concerned with the *value* of the

social product which he contributes to society, that is to say, with the quantity of other products which he receives in exchange for his; and the significance of diminishing returns, therefore, lies not in diminishing product, but in diminishing values.

2. Cost of production, when viewed from the first standpoint, is "real" or "metaphysical" cost. It is the sacrifice and effort endured by the producers. It is cost viewed from the standpoint of society. "It represents what man parts with in the barter between him and nature." It is composed of three elements. 1. Labour, which is measured by the time and intensity of the aggregate work of society. 2. Abstinence, measured by the *time* of the *waiting* and the intensity of present pleasures foregone. 3. Risk, "a hardship inseparable from the exercise of either labour or abstinence."¹

Cost viewed from this standpoint furnishes the ultimate measure of utility, but not the measure of value.² This is true, also, of the second standpoint so long as we remain in the region of questions of production. Society may be looked upon as a single producing body, and social labour and abstinence as the effort it makes to satisfy its varied wants. With a given stage of the arts and industries, and a corresponding efficiency of labour, society produces goods along all the lines of production, until the

¹ Andrews, *Institutes of Economics*, p. 76.

² See article by Professor J. B. Clark, in *Yale Review*, November, 1892, on *The Ultimate Standard of Value*.

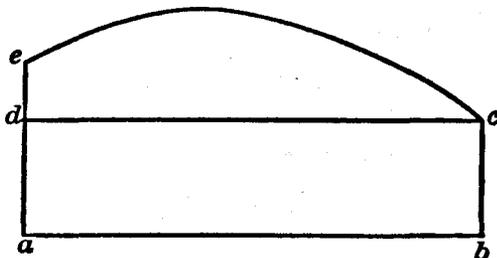
marginal utilities of all are equal. A given unit of the social cost of production, is the standard for measuring the marginal utilities of all these products. But this is "a highly indefinite notion," and "defies computation." Its usefulness as an economic conception does not pertain to the distribution of wealth, but to its production. When we pass to questions of distribution, as we do in the second half of the second standpoint, and in the third and fourth standpoints, cost becomes *expenses* of production. Expenses may or may not correspond with real cost. In most cases there is no correspondence. Expenses of production are determined by the relative power of limiting supply, and real cost of production is only one of many forces which give power over supply.

In ordinary business dealings the term "cost of production" is used in the sense of "expenses," and it would be convenient to follow this usage. But clearness demands that we have distinct terms for distinct conceptions, and the terms "cost of production" and "expenses of production" will be hereafter employed as above indicated.

3. An apparent inconsistency between diminishing product and diminishing value exists in the fact that in the case of product alone, a diminishing return on the latter increments invested on a given area of ground does not reduce the *quantity* of the return to the earlier increments. But in the case of *value*, when the *value* of the marginal units of pro-

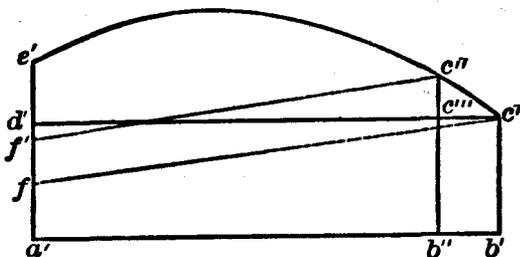
duction has been brought down by increasing the supply, the *value* of each and all the other units of product has been brought down to the same figure. Diagram V. is drawn in such a way as to illustrate

DIAGRAM V.



the current demonstrations of diminishing returns. In this diagram ad represents one dose of capital and labour, and ab the total number of doses; bc represents the quantity of product produced by the marginal dose. The returns to the earlier doses follow

DIAGRAM VI.



the line ec , and the returns to all the doses are represented by the area $aecb$. Diagram VI. is drawn to represent the *value* of the product of an enterprise of increasing returns as it would appear if explained

according to the current theories. Here the *value* of the product produced by the last dose is $b'c'$. This being the marginal product, its value determines the value of each of the preceding units of product. Supposing now, that we are dealing with an enterprise of increasing product, it follows that the returns in product on the earlier doses are less than on the marginal dose, and the return to successive doses would be represented by the line fc' . But the value per unit of product is equal throughout. Consequently the *value* of the returns on the earlier doses must be less than on the marginal dose, and the *values* of successive doses would also be represented by the line fc' . The total value would be represented by the area $a'b'c'f$, which would be less than the total cost, $a'b'c'd'$. It would appear, therefore, that the analogy between diminishing value and diminishing product fails, and that if values were diminishing like product the curve of value would be $e'c''c'$ instead of fc' , and the total value would be $a'e'c'b'$ instead of $a'b'c'f$.

The apparent difficulty is in the technicalities of the theory, and not in reality. The theory makes assumption of *increments* of investment throughout the entire enterprise, and assigns certain definite portions of product to each increment. In reality, a business man does not proceed in exactly this way. He knows nothing of *different rates* of profits on different increments of his investments, but he *averages* his total profits upon the basis of his total invest-

ments. He speaks of *average* returns, and not of increasing and diminishing returns. When profits get so low as to reduce his average returns, then he begins to retrench. This is the only way he has of calculating the returns to marginal investments. In this way an agricultural enterprise is exactly like a manufacturing one, and the returns in both, being estimated in values rather than in quantities, show the same phenomena of increase and diminution.

Now, in an industry of increasing product, so far as product is concerned, the additional increments are to be credited with a larger share of product than the preceding ones; but since these later increments are also the efficient cause for a reduction in value both of the units of product which they have contributed and also of all preceding ones, the entire reduction of value is to be charged to them. This is practically the case in agriculture or diminishing product. A point is reached where the *average* return to all increments is found to diminish, but we attribute the reduction not to a diminished productivity of earlier increments, as well as the later, but only to a diminished productivity of the last increments.

Diminishing return, even when applied to product, does not really mean that in a given round of production—say one year's crop of wheat—there are certain so-called earlier increments which yield a larger product than so-called later increments. But it means that *should* additional increments be em-

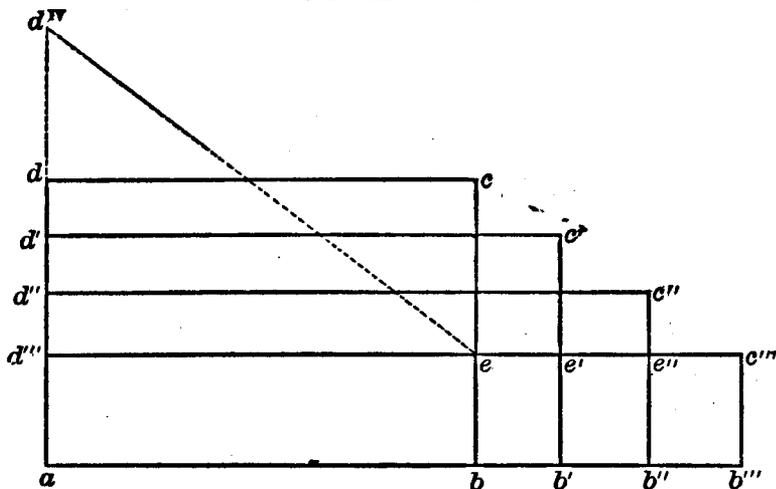
ployed, the average return for all *would* be less than it actually is. In other words, diminishing returns, when referred to a given unit or dose of investment in a given round of production, are not actual but theoretical and potential. They are always described by the auxiliary *would*. They are a product of the intellect, and are conceived only by comparing the returns in one round of production where a given amount of capital and labour is invested, with another possible or prospective round having a larger investment. It is only by a logical device that the different increments invested in the given round are attributed with different amounts of the total product. Yet this logical device is legitimate, and furnishes the only means of tracing out primary causes. It is only by referring to what *would* have been or what *might* have been that we are able to ascribe different effects to different units in actual production. This is simply one way in which theory descends beneath the phenomena of practice, and by means of analysis searches out primary causes and relations. The so-called opposition between theory and practice is only an opposition between *incorrect* theory and practice. Theory rightly viewed is an explanation of practice, or at least an attempt at explanation.

In Diagram VI., it is evident that the marginal investment, instead of being carried out to $a'b'$ will be carried only to, say, $a'b''$, where the value of the marginal product will be $b''c''$, and the value of the total product will be the area $a'b''c''f'$. This

product would, then, on the average just cover the total expenses, $a'b''c'''d'$.

The distinction here noticed may be better illustrated by Diagram VII. This diagram represents the average returns at *four different periods* or *rounds* of production, to investments in a given undertaking or on a given area and situation of ground, measured

DIAGRAM VII.



in terms of *product* and not value. In the first period, investments are limited at the point b and the total number of increments invested is represented by ab . The expense of each increment is ad''' , and the total expense of production is the area $abed'''$. But the total *value* of the product is the area $abcd$, the average return to each increment being ad . The aggregate profit is, therefore, $d'''ecd$. At subsequent rounds, the investments

are carried out successively to b' , b'' , b''' . In each round the expense of the increments remains the same, but the average return diminishes to ad' , ad'' , ad''' . Now, supposing the first period to represent the *actual* investment, the remaining three periods will represent the *possible* diminishing returns which would follow were investments carried out to lower margins.

If we return now to the actual investment, it is plainly a question of convenience whether we represent the total return to the increments ab by the area $abcd$ or by the area $abcd^v$. The former represents the actual state of the matter to the apprehension of the producer himself, since actual returns are procured by the equally efficient co-operation of all the increments ab , and are, therefore, average returns and not diminishing returns. But the area $abcd^v$ gives the explanation of the phenomena, since it shows that the reason why *average* returns are not as high as, say, ad^v , is because successive increments yield a less return than would the single increment a , if it were the only one invested. In other words, the conception of diminishing returns has reference to a *possible* set of circumstances showing what would occur under other conditions, when investments might be increased or diminished. The second area — $abcd^v$ — shows why the undertaker ceases to invest when he reaches the point b , and thus reveals the cardinal importance of the marginal investments.

If now we return to the illustration of diminishing

products already quoted from President Walker,¹ it will be noticed that the same line of reasoning is employed by him, and that *average* product per labourer is spoken of at four successive rounds of production. In the first round, the average product for ten labourers is 200 bushels, then it becomes for twelve labourers 190 bushels, for fifteen labourers 180 bushels, and, finally, for twenty labourers 160 bushels. But the aggregate return for the given area has risen successively from 2000 bushels to 2280, 2700, and 3200 bushels. Now, in order to illustrate the principle of diminishing returns, we should fairly express the conditions and results of the last round of production where twenty labourers are employed with an aggregate product of 3200 bushels, and an average product of 160 bushels, if we should ascribe to the first ten labourers a product of 200 bushels each, to the next two, a product of 140 bushels each, to the next three, 140 bushels each, and to the last five, 100 bushels each. This is not the *actual* product of the different labourers, since they all possess equal efficiency; but from an analogy with what they *would* produce under the different conditions of the first three hypothetical rounds of production, we are justified in dividing up the actual aggregate product in this manner.

So far for diminishing product and the accepted theories. Precisely the same conditions occur in diminishing *values*. Suppose that in an enterprise of increasing product, ten labourers would produce 100

¹ See above, p. 118.

units of product, twelve labourers 130 units, fifteen labourers 190 units, and twenty labourers 250 units. Owing to changes in the supply, the value of each unit in the successive rounds is \$20, \$18, \$14, and \$12, making the successive values of the aggregate products \$2000, \$2340, \$2660, and \$3000. The average share of the labourers, in the successive rounds, would be \$200, \$178 $\frac{1}{2}$, \$177 $\frac{1}{2}$, and \$150. But, supposing the enterprise to be a monopoly,¹ it would be a fair interpretation of the productiveness of each labourer, to represent the first ten labourers as each producing a value of \$220, the next two as each producing \$170, while the next three produce \$106 $\frac{2}{3}$ each, and the last five \$68 each.

We conclude, therefore, that all the arguments which have currently been employed with reference to diminishing product apply also to diminishing value, and that the law of diminishing returns is universal for all industries; that the difficulty in the way of extending the law to value as well as product has arisen from the failure to apprehend that *the law is theoretical and potential rather than actual, applying as it does to a comparison of hypothetical successive rounds of production instead of to successive increments in the same round*; and that its main usefulness is as a logical device for analysing tendencies rather than co-existent phenomena.

The principles here discussed lead to an important conclusion regarding the law of diminishing returns, namely, —

¹ See below, p. 155.

4. The law of diminishing returns obtains its true significance only where capital and labour are employed under circumstances of partial or absolute monopoly. It would apply only potentially to capital and labour were the conditions of their employment subject to perfectly free competition. There would, of course, always be the *possibility* of diminishing returns, comparing one round of production with a possible succeeding one, whether the enterprise is competitive or monopolistic, but for the purposes of analysis and illustration by diagram within the limits of a single round the law can have significance only in the case of monopoly. If we look at the matter from the practical standpoint, it is only because a monopoly is possible for some necessary partner of production that the aggregate increments of capital and labour invested in connection with this monopoly element show a higher average rate of product (or value of product) than do those increments which are invested under wholly competitive circumstances. Were competition free, production would always be carried out to the point where the total product would compensate each increment of capital and labour (of equal efficiency) with exactly equal values. These values would come down to the expense of production and there would be left no surplus above expense of production. But it is because some monopoly element has power to limit production before the point is reached where average value equals expense that the value of the product allows a surplus above its expense. Dia-

gram VII. again will illustrate this point. The only reason why actual investments are not carried beyond the point *b*, is because there is a monopoly element which gives control over the supply of the product to that extent. Were there no monopoly, plainly it would sufficiently remunerate the capital and labour invested to carry investments out to the point *b'''*, because up to that point, the *value* of the product is just large enough to cover the actual expense of each increment of capital and labour. In that case it would be fruitless to introduce the theoretical explanation of diminishing returns for a given round of production, because the return to the marginal increments would then appear to fall below the expenses of those increments, and production would seem to be conducted at a loss. Production normally stops in competitive enterprises at the point where an added increment of capital and labour would not bring a sufficiently increased return, which, averaged with the earlier returns, would cover the average expense of all the increments. This sets the limit, in competitive enterprises, to possible diminishing returns. If business were freely competitive, and there were no differential advantages whatever, each increment of equal efficiency would get equal shares of the product; but with the introduction of monopoly elements, production is limited at the point of highest net returns or according to the arbitrary will of the monopolist, and the earlier increments may be represented in theory and by diagrams as producing a more valu-

able product than the later, the surplus falling to the monopoly elements.

5. The law of diminishing returns is the basis of the law of rent or surplus values. If, then, the law of diminishing returns is universal, it will furnish a principle whereby the law of rent can be extended to other elements besides land, namely the monopoly privileges of patents, copyrights, trade-marks, franchises and good-will. To do this, it is necessary to take the third standpoint, that of a single undertaking. Here also we are concerned not with product alone but with the multiple of *product and value*. So far as the quantity is concerned, returns in all industries, viewed from this third standpoint, with the exceptions noted in agriculture, might be forever increasing; but a limit to profitable production is set by the needs of the market at some point where an increasing supply will cause a lowering of the value per unit to such a degree that the value of the entire product begins to decline relatively to the expense of production. This is an ever-present limit to increasing returns, and is applicable to all industries, viewed from the third standpoint. This is true whether the single enterprise be a monopoly or simply one of many competitors in the production of a given commodity. If it be a monopoly, the third standpoint agrees with the second; and the law of diminishing returns, as already explained, with reference to the second standpoint, here also holds good. If the enterprise is competitive, it also meets the point of

diminishing returns, but in a slightly different way. It has a certain range of customers, who purchase a certain quantity of its commodity. If it desires them to purchase more, or if it desires to extend its market into the field of its competitors, it can do so only by lowering the price, and this lowering can continue until the prices are no longer remunerative.

6. Thus in taking the third standpoint, and viewing the matter from the side of value or distribution, we discover always a condition of diminishing returns in all other industries as well as agriculture. The only difference to be noted between the two classes of industries, viewed from the third standpoint, is the *relative weight* of the two elements of *quantity of product* and *value*. In both it is the *value* of the total product which increases, then diminishes. In agriculture this total value is determined more by variations in the quantity of the product than by those in the value per unit, though the latter also plays an important part. In other industries the *product* may show always *increasing* returns, but the ultimate decline in *values* brings about *diminishing returns in the value of the total product*.

The same is true, as has already been indicated, when we compare the fourth standpoint with the third. In the fourth, as has been shown, it is always the *product* which diminishes in proportion to the increased expenses of producing it; but when we consider that product is produced for sale, we perceive that the significance of the diminishing return lies in

the value of the product. Here, as in a single agricultural enterprise, the total value of the product from a given area relative to expenses, is determined more by variations in the quantity of the product than by those in the value per unit.

Henceforth, in speaking of increasing and diminishing returns, with reference to the third and fourth standpoints, I refer to the multiple of product and value. This will give a universal law of diminishing returns, both from the standpoint of area of ground, where *product*, primarily, and, therefore value, is subject to the law, and from the standpoint of the single undertaking, where *value* primarily, except in agriculture, is subject to the law.

Section II.—The Law of Rent.

We are now able to make a valid extension of the law of rent, not to fixed kinds of capital, as has been attempted by recent writers, but to certain *social and legal relations* which have essentially the same characteristics as private property in land. We have seen that a piece of land is valuable because it furnishes room and situation; that is, it places its occupier in such relations to society that he can produce wealth and find a market for it; and that from the physical nature of the land itself, and from the nature of private property in land, the owner is able to limit its supply relatively to the demand of society for it. Now, there are other legal relations which give their owners similar advantages. They are the monopoly

privileges which have been fully described in Chapter II., such as public franchises, rights of way, patent rights, copyrights, and the good-will of a business. The general name applicable to all these rights, as well as to the right of property in land, is *opportunities*. We are here taking the standpoint of the individual and not of society. Society creates these rights through law and assigns them to individuals. They are valuable to the individual simply because they give him opportunity, which from the nature of the case must be a partial or total monopoly, to employ labour and capital in the creation of wealth, and to sell this wealth to society at large, thus supplying its wants and receiving in return the commodities and services which society is producing. Their value to the individual is in proportion to the net amount of wealth above expenses which he can thus acquire. In this fact will be seen later the common principle of surplus value which characterises all these monopolies.

That the law of rent is capable of a wider extension than simply to landed incomes, and that not cost of production but earning capacity determines the value of other things besides land, has been perceived by various writers. But the mistake is made of applying this law to capital in its fixed and durable forms.¹

There is a practical reason why this extension should not be made, which does not hold in the case

¹ Clark, *Capital and its Earnings*.

of these opportunities, but which rather suggests the extension of rent to them. The problem of rent has to do with the relations between landowners on the one hand, and the owners of capital on the other. The rent of land has peculiar social significance. It is a share of the social income which goes to a certain class, not on account of the share this class has had in producing that income, but on account of the mere ownership of the conditions for its production. This is the case also with the other social and legal relations. Society creates these relations, and not the individual producer. He merely occupies them as he does land, and uses them for the production and sale of his commodities.

There are also scientific reasons against this extension of rent to capital, growing out of the nature of capital.

1. Capital is the result of labour and savings. It gives no monopoly privilege, since it can be produced at will. But opportunities are not the result of labour and savings. They are social and legal relations.¹

2. Consequently, the prime characteristic of capital is its cost of production. It involves abstinence and risk. But we cannot speak of cost of production of land and patent rights and franchises. They have none. They constitute elements in *expense*, but

¹ True the *ownership* of capital is a legal relation; but in this case one owns the object, in the other he owns the relation — the *res incorporalis* — i. e. the monopoly privilege.

not in *cost*. Capital can have no value in itself unless it is properly employed in connection with these opportunities. These are simply social relations, *i.e.* they furnish access to a body of purchasers. Hence, it is they which create the *demand* for the employment of capital, both in the quantity of goods demanded and the prices offered. The extent of the opportunity furnishes the measure and the limit for the amount of capital which can be employed before the marginal point in diminishing returns is reached where returns barely remunerate costs.

At this point it is necessary to emphasise again the important distinction regarding expense and cost. The *cost* of producing capital is the abstinence and risk of those who save capital for productive uses. But there is also an *expense* of producing capital. This expense consists in the wages paid to labourers, interest paid to capitalists, rents and monopoly profits paid to the landowners and monopolists, and the necessary profits paid to entrepreneurs. The *saving* of capital in these days is a matter of exchange as much as the purchase of commodities for consumption. The capitalist saves by purchasing directly — or indirectly through loans to borrowers — productive instruments and material, which, because he is saving his capital, have been produced for him (or his borrower) as convenient and *productive* means for *investing* his capital. In making these purchases instead of purchasing commodities for enjoyment he enters upon abstinence and risk, and the capital so pur-

chased and saved represents, from his standpoint, true cost of production. It is upon the amount which he thus pays out that he expects to receive the current rate of interest. He therefore receives interest not only on the cost of production on the part of the producers of the capital, but also on their *expenses* of production. For, from the standpoint of these producers from whom he has purchased, this amount represents more than costs—it includes the monopoly payments where control over the supply has given power to exact payments in excess of cost. From this standpoint, then, we must speak of the *expense* of production of capital, and not of the *cost* of production. But since cost of production even from the standpoint of the saving capitalist, is so indefinite a notion, we shall gain in definiteness and yet not lose the essence of the idea of cost if we steadily look at the matter from the side of expenses. The laws which govern expenses are rigid and ascertainable.¹ Expense can be stated in figures, and interest and profits can readily be calculated upon it.

3. If, now, capital employed in connection with the opportunities above described yields a surplus over and above the current rate of profit and interest on the expense of production of the capital itself, this surplus should be credited not to the capital but to the opportunity. This distinction is not merely ideal, it is also practical; for, in our day, the heaviest machinery can be so quickly repro-

¹ See Chap. IV.

duced, that even when fixed, and yielding returns far above fair profits on its expense, it still cannot command a value above this expense. Its owners appropriate this surplus value, not by reason of their ownership of the machinery, but by their ownership of the opportunity. Consequently, the distinction between fixed and circulating capital is of minor significance. Fixed capital shades off into circulating, and its most durable kinds must annually be repaired and continually renewed, otherwise they rust out in a few years. In other words, fixed capital is made up from daily accretions of circulating capital. Both fixed and circulating capital derive their value from their productive use, *i.e.* from their opportunities. And if the opportunity does not warrant it, this annual repairing just mentioned will not go on, and fixed capital will be allowed to waste away.

To state this principle in another form, the employment of capital in connection with these opportunities brings to the entrepreneur a certain yearly profit over and above the yearly expenses of the enterprise. Since business is conducted for profit, the value of his undertaking to him depends upon the amount of this profit. He capitalises (*i.e.* estimates the value of) his entire undertaking, capital and opportunity together, on the basis of this annual profit, compared with the current rate of profit in other undertakings. How, then, shall he divide this capitalised value between his capital proper and his opportunity? Shall he credit the capital with the

total value, or the opportunity? The answer is, viewed from the economist's standpoint, he will credit capital, either fixed or circulating, only with its expense of production, and the balance will be the capitalised value of his opportunity. The reasons for this are twofold. First, practical, because we want to know what part monopolies have in the distribution of wealth. Second, scientific, because capital, being a product of labour and savings, is created with a conscious purpose, and with the expectation that it will command a price equal to its expense of production. If the opportunity is wanting, it will not be created at all; or if the opportunity is a limited one, an inferior quality or amount of capital will be created at less expense. The creation of capital will not extend beyond the point where the demand, as represented in the given opportunity, will yield the looked-for profit. This profit, with reference to capital, is estimated upon the expense of production of the capital, which must, therefore, have a capitalisation (value) equal to its expense of production, or it will not be produced. And it cannot have a value exceeding this, since, then, other capital of like kind will be produced to supply the same wants, and competition will bring down the value of all to the expense of production.

An illustration will serve to make plain the argument. Suppose a transatlantic steamship company, owning a steamer purchased at an expense of \$2,000,000, is able, after meeting all running

expenses, to declare a dividend of \$200,000 annually. This would be a profit of 10% upon the expense of their capital. Supposing that average profits in similar undertakings were 8%, the company would consider its business, including its steamer, as worth \$2,500,000. But the steamer alone would be invoiced at only its expense price, \$2,000,000, and the balance of the capitalisation—\$500,000—would be attributed to whatever monopoly privilege the company may have possessed, such as reputation, business connection, good-will, dock and wharf privileges, patent rights, etc. The share of the capital in the annual profit would be only \$160,000, and the share of the monopoly privilege would be \$40,000.

It will be remembered that in this connection I am speaking of permanent monopoly opportunities, like land, franchises, patent rights, and good will. Where competition is perfectly free, and new competing capitals can be introduced, profits are lowered until they will barely remunerate the customary profit on the expense of production of the capital itself; and there remains, of course, no surplus which can be capitalised and stand thus for the value of the opportunity. The effect of competition, where it is possible, is to reduce profits of opportunities to *nil*; but the normal economic activities will not allow profits on capital to fall below the customary rate on the expense of production of the capital itself.

I am not denying that there may be within the

bounds of capital itself certain differential advantages which yield an income analogous to rent. One machine may be more efficient than another producing the same product. Its wear and tear may be less, and it may displace a greater amount of labour. Its owner could, therefore, reap a greater profit from it; and if its cost to him were equal to that of the inferior machine, the rate of profit would be greater—or, what is the same thing, he would obtain upon the machine, besides the customary rate of profit of the inferior machine, or of machinery in general, also a surplus which would be a true differential receipt analogous to rent.

But this difference in efficiency between pieces of capital is very different from the difference in advantages which the owners of opportunities enjoy.

In the first place, they are usually the result of individual effort and inventive genius, and the differential profits they give are rewards to personal enterprise; while these permanent opportunities are legal and social creations which are turned over to individuals, and which afford more or less exclusive rights of selling goods. These may, also originally have been developed by individual enterprise; but when they have become finally fixed, they depend for their profits upon the existence of society at large and a body of consumers.

In the second place these differences in capital are only temporary and transient advantages. But the opportunities in question are not only perma-

ment but they increase in value as population increases and brings its consequent increase in demand for the product. The old and inferior capital rapidly wears out, and when new machines are introduced they are patterned after the ones which have been enjoying the differential advantages, or they may even be improvements upon them. Thus these advantages are being continually reduced to nothing, and machines which five years ago had advantages far above others may now, on account of new inventions, be good only for old iron. Such is not the case with fixed opportunities, except to a limited extent with patent rights, copyrights, and the goodwill of a business. Other opportunities are fixed when once society has settled down permanently upon a given territory, and if they change in their differential advantages at all, it is rather to increase than to diminish them as population and demand increase.

It is, then, land and other opportunities, not fixed capital, to which the law of rent is properly applied. These opportunities, as well as land, are social and legal relations. They furnish room for the economic activities of man, and the proper environment for him to dispose of his products to his fellowmen. Without these opportunities it would be useless to engage in any production for exchange, but men would be limited to satisfy their immediate needs from the fruits of the earth. But while they furnish room and a market for production,

these opportunities at the same time give their owners a certain power to limit supply and to control the amount of production. This gives them the important power to determine the lowest limit to which marginal production shall descend, and thus to determine the expenses of production. From this fact it follows that the law of diminishing returns, being a law of value as well as of product, is applicable both to land and these opportunities, and out of this application is deduced, in one case, the law of rent, in the other a law of monopoly profits analogous to rent.

The law of rent has two aspects, an extensive and an intensive. The extensive has reference to the outskirts of cultivation. It is to be observed only when we take the first or second standpoint with reference to the law of diminishing returns, that of an entire industry. Its border line is called the "margin of cultivation." The intensive side of the law relates to the third and fourth standpoints; that is, to any particular enterprise or given area of ground. Its limit is that point where the undertaker ceases to invest additional capital and labour in his enterprise, and may be called, with Professor Patten, the "margin of utilisation."¹ In those industries where competition is perfect, it will be the point where the return to the last increment in any one enterprise is equal to the return to the last increment in any other. It will be the point where the receipts

¹ See *Quarterly Journal of Economics*, April, 1891, p. 372.

obtained from the investment of the last increment of capital and labour are equal to the investment itself plus the customary profit thereon. The character of the industry, and the more or less favourable environment which it occupies, will determine how much capital and labour can be invested before this point is reached; but in all such industries the tendency will be to invest up to this point. In the case of the monopoly elements already described the margin of utilisation is determined by considerations leading to the highest net returns. But, according to the law of diminishing returns as already described, it will be seen that this point is the same as that for competitive enterprises, namely, the point where the return to the last increment is equal to the return to the last increments in all other enterprises.

The intensive side of the law of diminishing returns is of more significance than the extensive. Even if we could show that there is anywhere no-rent land which is actually cultivated, such land can have but little influence on the values of land thousands of miles away, because the conditions of capital and labour are so different. This point will appear as we proceed in the discussion of profits.

CHAPTER IV

DIMINISHING RETURNS AND DISTRIBUTION

REFERENCES: The order of treatment adopted in this chapter, and the conception of the essential nature of profits agrees nearly with the lucid work of Gross, *Die Lehre vom Unternehmervergewinn*, Leipzig, 1884. Other suggestive writers on this topic are Wieser, *Der Natürliche Werth*, Vienna, 1889; Marshall, *Principles of Economics*, London and New York, 1890; Walker, *Political Economy*, New York, 1888; Clark, *Capital and Its Earnings*, American Economic Association, 1889; Clark, *Philosophy of Wealth*, Boston, 1886; Patten, *The Theory of Dynamic Economics*, Philadelphia, 1892; George, *Progress and Poverty*, New York, 1879; Gunton, *Wealth and Progress*, New York, 1887; Mataja, *Unternehmervergewinn*, Vienna, 1884; Wirminghaus, *Das Unternehmen, der Unternehmervergewinn, und die Betheilung der Arbeiter am Unternehmervergewinn*, Jena, 1886; Schroeder, *Das Unternehmen und der Unternehmervergewinn, vom historischen, theoretischen, und praktischen Standpunkte*, Vienna, 1884. Articles in *Quarterly Journal of Economics*, by Walker, Patten, Clark, Giddings, Bonar, Hawley, Webb, and others. The reader is referred to Chapter I. of the present essay, where the conclusions hereafter reached, regarding the cost of capital and cost of labour, have been anticipated in order to fill out at that place the outline of the theory of value and price.

IN the production of wealth personal abilities are employed in two radically different ways, and in the distribution of wealth they receive two radically different kinds of income. The labourer deals directly with the forces and materials of nature, and produces utilities by changing the places of things.

The entrepreneur organises the labourers. He does not deal directly with nature, but with society. The labourer takes few risks. He is conservative. He works along accustomed and approved lines. The entrepreneur is the speculating, progressive, organising, inventive, economising agent of industry. He undertakes the management and assumes the risks of business. He is the pioneer of industry. He marshals and controls all the other factors. He looks out for opportunities for profitable investments, and then enlists capital, labour, and land in the supplying of human wants. He contracts with the representatives of the other elements for their services at a stipulated price, and then he takes the risk of obtaining for their united efforts a surplus of value above his stipulated payments. Thus labour receives a stipulated payment, — wages, — and the entrepreneur receives a contingent surplus, — profits. Profits are not proportional to the amount of capital employed, nor to the amount of labour employed; they depend upon the ability and good fortune of the entrepreneur in discovering and utilising favourable opportunities.

The entrepreneur is peculiarly the creature of a stage of industry where production is carried on, not for the immediate use of the producers, but for sale and profit. He is the middleman between producers and consumers. He organises the producers and purchases their combined product, and then sells this product for what he can get for it. Thus his

profits are simply the difference between his expenses and his receipts. He is, therefore, the "residual claimant" in any single undertaking or round of production.

For this reason we gain the important advantage of simplicity in investigating the problems of distribution, if we take the standpoint of the entrepreneur. We can refer all other partners to him as a single starting-point, and so we avoid the danger of doubling on our tracks.

To the entrepreneur the other factors of production appear as expenses. It is out of his receipts that he expects to pay them. His receipts are the value of his product, and this is subject to the law of diminishing returns. Hence, he cannot extend his expenditures indefinitely. He must limit his investments at the point of profitable expenditure; that is, the point beyond which returns would be less than expenses. The extent of his investments depends upon the opportunity which he holds. This is true whether we take the third standpoint of diminishing returns, that of a single undertaking, or the fourth, that of a given area of ground.

But not only are expenditures limited by profitable receipts, the successful undertaker also distributes his expenditures among the different factors of production in such a way that equal marginal investments in different factors will bring equal marginal returns. In this way he gets the highest net returns from his combined expenditures. This adjustment

of the different factors depends upon the prices and efficiency of each. It can be developed only through experience.

Each factor in production, therefore, having its own costs and efficiency, may be looked upon as contributing its own share to the total product, and this share, like the total product itself, is subject to diminishing returns.

Having determined in general the law governing receipts, and the relations between receipts and expenditures, we are now prepared to study in more detail the expenses on account of the different factors which the undertaker must employ in production. These may be conveniently stated as expense of labour, expense of capital, necessary profits, permanent monopoly profits (including rent), transportation, taxes.

1. *The expense of labour* is composed of two factors, efficiency and wages. When wages are high, if efficiency be also high, the expense of labour may be low; and low wages with lower efficiency is very expensive labour. For the sake of simplicity in the following argument I assume that efficiency is constant for all the labourers of a given grade or class.

There are two apparently opposing views regarding the causes which determine the rate of wages. First is the position that the wages of all like labourers are determined by what that labourer can produce who works on the margin of cultivation, or the margin of utilisation, that is the labourer who works on

no-rent¹ land or with no-rent capital.² This labourer receives as wages his total product. If other labourers received more than he, they would leave the margin to compete with them, and the margin would rise to the labourer next above him in point of land and capital. If he received more than the other labourers, then they would go out to the margin to compete with him. Consequently, the equalising tendency of wages brings them all down to the level of the marginal labourer, who works upon the poorest opportunities, and consequently pays neither rent nor interest.

The other view maintains that wages are determined by the standard of life of the labourer. As stated by Gunton, "The chief determining influence in the general rate of wages in any country, class, or industry is the standard of living of the most expensive families furnishing a necessary part of the supply of labour in that country, class, or industry."³

Both of these views are correct. They are simply the objective and subjective sides respectively of the law of wages. They are the two sides of the action and reaction between the individual and his environment. The relative influence of the two elements varies with different classes of labourers. With the higher classes the subjective side is more powerful than the objective, but with the weaker and lower

¹ See George, *Progress and Poverty*.

² Clark, *Capital and its Earnings*.

³ *Wealth and Progress*, p. 89.

classes the objective side is the more powerful, and they are the slaves of their surroundings.

That the standard of living seems to determine wages is supported by several important facts. The help of the wife and children as wage-earners does not permanently increase the family income, but tends to lower it through lowering the standard. An increase in the length of the working day does not increase wages, neither does a shortening of the day lower wages; because with a long work day the standard is lowered, and with a short work day the standard is raised. The experience of England demonstrates that poor relief tends to lower wages by the amount of the relief.

On the other hand, there are the well-known facts which labourers realise intensely, whether other people do or not: that when two bosses are hunting one man, wages go up, and when two men are hunting one boss wages go down. "Bosses" can employ labourers only when productive opportunities are open to them. Hence, wages are higher in new countries where land is free, and opportunities for investment and self-employment are abundant. And as population increases, as better opportunities are occupied, and as the margin of cultivation is lowered, wages are depressed. These facts are amply demonstrated in the now classical work of Henry George.

Rightly viewed, these two theories of wages are not contradictory, but complementary. The product

of labour in all enterprises, like the product of the other factors of production, is subject to the law of diminishing returns. The larger the supply, the lower will be the value of the marginal product compared with the labour of producing it. Hence, whatever controls the supply of labour of a given class controls the marginal value of its product, and thereby the wages of the producers. The rate of wages is not determined by the cost of living, unless cost of living gives control over supply, and alone it cannot do this. It may be an important element in aiding other factors, but of itself it cannot effect so momentous a result. The factors which enable labourers to control the supply of labour, relatively to demand, have been already outlined in our discussion of personal rights. We may here summarise that investigation by mentioning the following factors:—

(1) *Labour Unions*.—The very *raison d'être* of a labour union organised for the purpose of keeping up wages is the restriction of numbers. This is accomplished by limiting the number of apprentices who are permitted to learn the trade, and by refusing employment to non-union men.

(2) Education, knowledge of trade secrets, acquired skill and extraordinary original abilities are all eclectic agents, which pick out a few from the great mass of workers, and set them in positions where they can supply the highest wants and the wealthiest patrons. The fact that in most instances wages are proportioned to efficiency is brought about only by

the fact that efficiency, demand being given, limits the supply somewhat in proportion to the efficiency. Where efficiency does not have this effect wages are low, as in the case of the educated classes of Germany, and women wage-earners everywhere.

(3) Restrictions on the immigration of a low and cheap class of labourers enables those on the ground to maintain a monopoly of their services.

(4) Co-operating with these factors is a high standard of living, which effects its results by late marriages and small families. In all cases where a high standard of living is supposed to keep up wages it will be found that some of these other causes are also present.

On the other hand, the factors which tend to increase the supply of labourers and lower wages are the opposite of those just mentioned. They are found in the unorganised, unskilled, incapable labourers, and those of a low standard. With these classes objective causes are more powerful than subjective. The environment presses upon them and they cannot resist it. But individuals and classes of strong wills and ambitious aims contrive means to rise above their surroundings. The Anglo-Saxon race has maintained a high standard of living, because it has been a pioneer race, seeking and developing new and rich opportunities for the production of wealth, relieving the pressure for employment at home, and thus raising the marginal utility of labour.

It is undoubtedly true that the standard of living

of the most expensive labourers of a given class corresponds with the income of that class; and if the standard be looked upon as the cost of production of that class, we might say with Gunton that wages are determined by the cost of living of the most expensive part of the labourers of that class. But this would be accepting a *post hoc* for a *propter hoc*, and would be setting up one of many causes for the only cause.

In the case of unorganised, freely competing labourers, wages may be forced down to the very lowest cost of living. As a matter of fact, it goes below decent cost, such as prisoners and paupers receive. But this descent must stop before the point is touched where the worker's abilities are wholly destroyed, or he himself is sent to the poorhouse or prison.

The action and reaction of these two sets of conditions in determining wages are visible in the economies of every entrepreneur and every industry. Plainly the labourers of a class or community cannot permanently receive more wages than the marginal labourer receives; but, on the other hand, the complaint is often made that the resources of a country like our West or like the continent of Australia cannot be developed because wages are too high, as though resources were of more importance than men. This statement, however, illustrates the other side of the law of wages, namely, that the location of the margin, whether high or low, depends upon whether wages are high or low. The entrepreneur employs different grades of labourers, and disposes

them in the order which will bring him the highest net return for the wages he pays them. He takes into consideration their differences in efficiency, the differences in wages, and the character and extent of his enterprise. If wages fall through a lowering of the standard (efficiency being given), the farmer can employ a larger number of labourers, can extend his production by cultivating poorer soils or by more intensive cultivation of his original soil; the manufacturer and merchant can increase the quantity of their output to such an extent that prices will fall and lower margins be reached. If the standard of life rises (efficiency not increasing), the undertakers must withdraw from their former margins, or else make up their losses by improvements in organisation or machinery, or by increasing relatively the quantity of capital.

Equally true is it, that when labourers of any class increase in numbers, the newcomers must betake themselves to lower margins. This means that wages are lowered and consequently the standard of life must be lowered, and with this the standard of all the labourers of the same class.

In this same way can we explain differences of wages respecting localities and classes. In an old and densely populated community, or in large cities, opportunities have been occupied, low margins have been reached, the standard of life has been lowered, and common unorganised labourers get very low wages. But in the same communities will be found

higher classes of labourers getting high wages and enjoying a high standard. The numbers of these classes have been limited either through their labour organisations, through restrictions on marriages, or through obstacles in the way of acquiring their skill and ability. Consequently they cannot be employed by undertakers in such large numbers, or on such low margins, as can the common labourers. Yet they are employed up to the limit where the product they create is equal to the wages they receive (including profits thereon), and this constitutes their margin. Thus there are *different margins for different labourers, corresponding to different standards of life, as well as different margins for the same class in different localities.*

Cost of living cannot be looked upon as the sole cause or determinant of wages. In stating the law of wages, it should be borne in mind that there is no *necessary* supply of labour since there is no necessary demand, but that the extent of the demand for labour depends upon its price. *Wages, then, of a given class of labourers are determined by the cost of living of the most expensive part of the customary supply of labourers of that class, this supply being itself determined by the power which the given class possesses of limiting its numbers relatively to the possible demand. Where there is no power to limit numbers the law of diminishing returns presses wages down to the minimum of life. Consequently the expense of labour, efficiency being given coincides with the cost of living of the marginal labourers of the given class.*

The law of wages holds true regarding salaries. Salaries differ from wages mainly in the closer personal relations existing between the salaried employés and the employers, and in the incidental advantages accompanying them.

2. *Expense of Capital.*—There are two kinds of capital involved in production, working or active capital, and material or passive capital.¹

The raw material of production is entirely used up, and its total cost, including interest thereon, must therefore be reckoned as expense, and must be covered out of the receipts of business.

The expense of working, or active capital, depends on three elements, efficiency, depreciation, and interest.

By efficiency of capital is meant the same thing as by efficiency of labour. Some kinds of soil are more fertile than others, and will produce greater quantities of product or better qualities. Some machines having the same cost as others are nevertheless more productive, both in the quantity and the quality of the product. Efficiency is always compared with the cost of the machine and the expenses of operating it.

By depreciation is meant simply the wear and tear and using-up of fixed capital. It is really a deduction from efficiency. The tendency of progress is to increase efficiency and reduce depreciation, and thus doubly to increase net efficiency. Depreciation, like

¹ See Clark, *Capital and its Earnings*.

the expenses for material, must be entirely met by the receipts from sales.

Interest on the capital invested in business, whether owned or borrowed, is a part of the expense of production which must be met by the entrepreneur. Our present purpose is to determine the causes which control the rate of interest; but in order to do so we must briefly inquire into the nature of interest.

Interest is to be viewed from two sides: first, from that of the entrepreneur who employs capital in productive enterprises; and second, from that of the owner of capital who saves it for investment. To the entrepreneur, capital is valuable because it produces more goods at the same expense, or the same goods at less expense, than could be produced without it. *Capital does not produce values, it produces goods.* It does this by virtue of the forces and energies inherent in it. These give off "material services"¹ which supply the wants of men. These services may be given directly to men, as the shelter of a house, or may be given indirectly in the form of some material product, as bread or clothes. These are the uses of capital. Thus the use and productivity of capital are one and the same thing. It is for this that the entrepreneur makes payment. He expects to obtain for these material services a greater sum than he pays. It is his business, then, to look out for the *value* of these services. He must see to it that goods are not produced in so great abundance as to have

¹ Böhm-Bawerk.

no value, or to have a value below their cost of production.

From the side of the owner or lender of capital, interest is a payment for abstinence and risk. There is a subjective and an objective side to the law of interest just as there is to the law of wages. The objective side is that of the entrepreneur who employs capital and of the industrial environment, where are found opportunities for the employment of capital in the production of valuable goods. The subjective side is that of the owner of capital, just as the subjective side of the law of wages is that of the owner of labour power. It is the action and reaction of these two sets of forces and conditions which determine the rate of interest. Abstinence and risk determine the minimum below which the rate of interest cannot fall, because capitalists will not save their capital for investment at a lower rate. Abstinence is painful; it is the postponement of possible present gratifications. It is self-sacrifice. It is the true cost of production of capital. It depends upon the intensity of the pleasures which the savers of capital forego, the amount of risk which they assume, and the length of time they have to wait. The relations between risk and abstinence are very close. Were it not that people save for other than mere egoistic reasons, almost the whole of abstinence might be looked upon as risk. There is the risk of not living to enjoy the fruits of present sacrifice, and also the risk of losing partly or wholly one's savings.

Risk greatly increases the rate of interest which must be paid, at least doubling it, as compared with abstinence, and often increasing it five-, ten-, and twenty-fold.

But we are not to assume that all capital which is saved is the result of abstinence and risk, and that, therefore, interest is always a reward of abstinence. As has been pointed out in Chapter I.,¹ a large amount of capital is saved which represents no sacrifice whatever. It is simply a reinvestment of surplus profits which have been acquired through no effort, and whose expenditure for present consumption would give no pleasure. But there is a limit to this capacity for saving for every individual, even the richest. Sacrifice gradually emerges as the quantity saved increases. The capitalist begins to weigh those possible present pleasures which he postpones against those future payments of interest which he expects to receive. And when he ceases to save additional increments of his income, the marginal savings represent a subjective cost which to him is equal to the rate of interest. On the increments which are saved before the marginal increments, the rate exceeds in his estimation the cost of the saving, and yields, therefore, a true surplus.

On the objective side, the productivity of capital, it is the opportunity for investment which determines the amount of the product and the maximum of interest. In all cases this is subject to the law of

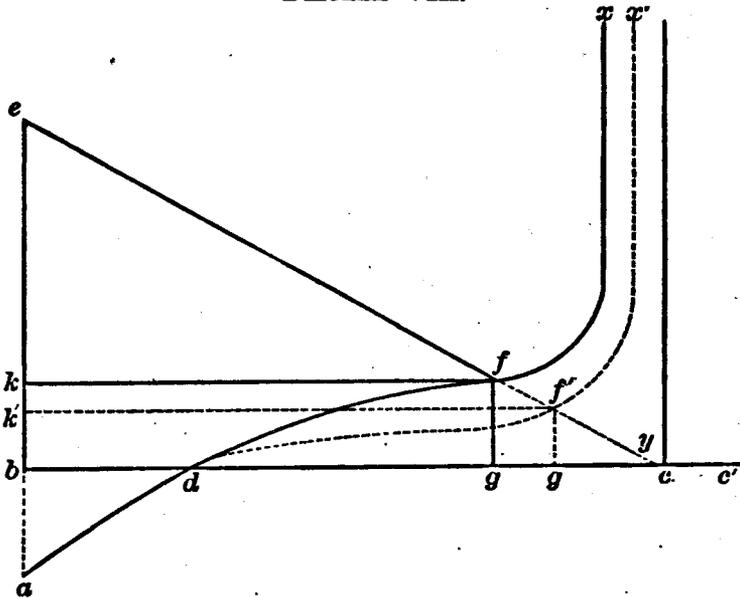
¹ pp. 18, 19.

diminishing returns. The maximum interest which the entrepreneur can pay, efficiency being given, is the product of the capital employed on the margin of production. Maximum and minimum, in free competition, tend to coincide; for the entrepreneur, employing capital at the rate of interest current in the community, will extend his production in the line of diminishing returns out to that margin where the returns to capital will just pay the contract interest. If interest is low he can employ more capital and thus produce goods at lower margins. If interest is high, he must withdraw from his least profitable investments, and the margin is thereby raised. If capital seeking employment is abundant, and if the power of foreseeing the future is strong and risks are light, capital will force itself into lower margins whose returns are less, and, consequently, must accept lower rates of interest. The two causes, objective and subjective to the owner of capital, operate in the same way as with the owner of labour.

In Diagram VIII. let bc represent the entire income of a capitalist, say \$1,000,000 per annum. The curve $adfx$, measured from bc , represents the amount of sacrifice which he will experience in saving successive increments of his income. He has a sufficiently powerful vision into the future to feel severe pain if he should consume his entire income in present enjoyment, so that the line ad , measured below the base line, represents actual pleasure in saving the amount of capital bd . But, from the point d , additional

increments begin to infringe upon his desire for present enjoyments, and true abstinence appears. Should he save his entire income, the line of abstinence for the last increment would take the direction x , and the amount of abstinence would be infinite. The rate of interest for a given period of time, is measured by the line gf . The amount of capital which this capitalist

DIAGRAM VIII.



will save is then measured by bg , and the last increment saved, yields a return in future pleasures, *i.e.* interest, which exactly balances the subjective estimate of present pleasures postponed. The capitalist has gained an unearned surplus above the cost of saving on all the previous increments, and this total surplus is measured by the area $adfk$.

The same diagram may represent the savings and abstinence of an entire community. Wealthy individuals, and those of vivid foresight, experience little or no sacrifice in abstinence; but there is a margin of moderately circumstanced individuals, and those who have a keen sense of present joys, who must be induced to save, in order that there may be sufficient capital for the needs of production. These are in the region gg' . There are also a number of persons whose present wants are so intense, and whose incomes are so meagre, that they cannot save under any circumstances. They are in the region $g'c$. Now, as long as the line of abstinence of the community takes the direction adf , the line of diminishing returns, which takes the direction ey , will intersect at f , and there will be only bg capital saved and invested. But if the power of saving capital is increased through greater foresight, lighter risks, and larger incomes, the line of abstinence may take the direction $adf'x'$, the point of intersection of diminishing returns would be f' , and the rate of interest $g'f'$.

From what precedes we are able to say that *the rate of interest is determined by the amount of product obtained from increments invested on the margin of production, and the lowest point to which the margin can fall is determined by the subjective forces, abstinence and risk, which limit the saving of capital. Consequently the expense of capital, efficiency and depreciation being given, coincides with the marginal*

cost of production of capital, and the rate of interest is determined not by past investments of capital but by investments of new capital from fresh savings or new margins.

Since now it is the supply of disposable capital which determines the rate for all capital, the important question arises, What shall be the rate on old investments?

In the first place, it is to be noted that the entrepreneur does not calculate interest upon the amount of his turnover during the year, but upon what he calls his capital.¹ This is expressed not in machines and materials and finished goods, but in *values*. It is strictly *capitalisation* instead of capital. It includes the values of all his fixed capital, and also an amount which stands for his turnover—that is, for investments in wages, material, and all current expenses. This amount is invested over and over again during the year. Through the system of credit and banking and short loans, sales are anticipated, and these running expenses are met out of product. Out of the difference between those expenses and sales, the entrepreneur expects to earn interest and profits on his capitalisation.

There is considerable difference among different industries regarding the ratio between turnover and capital invested. In manufactures and retailing the

¹ By turnover is meant all those *expenses* which are met out of sales during the progress of a given production period, usually one year.

turnover may be two to ten times the capital invested. But in agriculture, the investments, on the whole, are made but once a year, and the entire capital, therefore, coincides with the entire turnover during the year.

The rate of interest being now determined by the current rate on new capital in the community, the rate on old investments is affected differently, according as the particular enterprise is thoroughly competitive or monopolistic. The simplest case is that of a monopoly. But here there are two alternatives. Suppose the current normal rate of interest falls, but the aggregate net returns on capitalisation of the particular enterprise remain the same. Then this aggregate return will be capitalised at the lower rate of interest, and the capitalisation of the enterprise will be increased. Here the alternatives appear. Either this new capitalisation may be attributed to the capital, which would then show a higher value but a lower rate of interest; or the capital proper would be attributed only with its original value, and a smaller aggregate of interest would, in consequence of the lower rate, be allotted to it, and the surplus would be allotted to the monopoly privilege. From a scientific point of view, as already shown in Chapter III., the latter is the true method of analysis; but in the popular mind and business circles, the former is usually implicitly accepted.

Where the business is competitive, the entrepreneur endeavors to keep the amount of his original capi-

talisation unimpaired. He calculates interest upon this and determines thereby his profit or loss. But prices of his product will be forced down, so that he can earn no more than the current rate on this original capitalisation. If his business falls below this earning capacity, there can come about a new capitalisation at a lower figure only through bankruptcy, when the original investment is wholly wiped out, and business begins again in proportion to the new opportunities.

3. *Necessary Profits.*— There is much confusion in nearly all the discussions of profits through the failure to notice that there are three different kinds of profits. One kind alone is considered by Smith, Ricardo, and Mill, when they speak of the tendency of profits to equality and a minimum. Another kind is in the mind of President Walker when he develops his rent-theory of entrepreneur's profits. And the third kind, though it has not escaped notice, has failed to find any place in the systematic theories of distribution.

These three kinds of profits are necessary profits (Smith and others), personal or temporary profits (Walker), and permanent or monopoly profits. To these there should be added, as a fourth species of income for the entrepreneur, his fair wages of superintendence.

In speaking of profits in the early part of this chapter, as a contingent surplus depending on the difference between expenses and receipts, the kinds

referred to were personal and permanent profits. Necessary profits are not a contingent surplus, but a part of the true costs of production, just as much as wages and interest. They bear a fairly constant relation to the current rate of interest, and, in speaking of necessary profits, we may usually, for the sake of convenience, include interest proper; though to be strictly in harmony with the analysis of expenses here made, we should make this category independent of and above interest.

Necessary profits is a compensation mainly for risk and trouble of management. We have already seen that risk is a weighty element in determining the rate of interest which must be paid. But the risk assumed by the lender of capital is in no way equal to that assumed by the entrepreneur. The latter is never a mere manager; he is always a property-owner. He may not own capital proper, but at least he owns the opportunities for its employment. The stockholders of a railway company are the entrepreneurs owning the franchise and rights of way, but usually railroads are built from borrowed funds. The entrepreneur, then, not only takes the risk of his own capital, but all of his capital and property must be pledged as security for the capital he borrows. Thus he is the buffer for the protection of labour and capital against risks. If risk is an element of cost in upholding the rate of interest, the risk of the entrepreneur must be a still greater cost in upholding the rate of necessary profits.

If we estimate this necessary profit at double the current rate of interest (*i.e.* including interest itself), we shall hit upon a figure which is amply warranted by the general business experience of the world at large, at least of small industries. Adam Smith called attention in his time to this connection between "the lowest ordinary rate of profit" and the rate of interest. "The proportion," he says,¹ "which the usual market rate of interest ought to bear to the ordinary rate of clear profit, necessarily varies as profit rises or falls. Double interest is in Great Britain reckoned what the merchants call a good, moderate, reasonable profit; terms which I apprehend mean no more than a common or usual profit. In a country where the ordinary rate of clear profit is 8% or 10%, it may be reasonable that one-half of it should go to interest, wherever business is carried on with borrowed money. The stock is at the risk of the borrower, who, as it were, insures it to the lender; and 4% or 5% may, in the greater part of trades, be both a sufficient profit upon the risk of his insurance, and a sufficient recompense for the trouble of employing the stock. But the proportion between interest and clear profit might not be the same in countries where the ordinary rate of profit was either a great deal lower or a great deal higher. If it were a good deal lower, one half of it, perhaps, could not be afforded for interest; and more might be afforded if it were a good deal higher."

¹ *Wealth of Nations*, Bk. I., Chap. IX.

The difference in the proportion between the rates of interest and profit, I take it, depends not so much on whether rates are high or low as whether the industries are large or small. A large business can be conducted on closer margins, and the necessary profits in the way of risks and trouble of management, though they may be large in the aggregate, may yet be small in proportion to the capital employed and the interest on that capital. It is pretty safe to say that no matter how the current rate of interest varies in different parts of the country, the very facts which cause this rate to vary will cause the rate of necessary profits to vary in much the same proportion. Where risks assumed by owners of capital are great and interest is consequently high, there the risks of entrepreneurs will be great and necessary profits will also be high. Consequently, necessary profits, in average undertakings will be double the current rate of interest, whatever this may be.

Necessary profits are closely allied to personal profits, already mentioned, the difference being mainly one of degree. This line may be said to be somewhat arbitrarily drawn. Its justification, however, is discovered, not in looking backward over an enterprise already established, but in looking forward to the inauguration of a new enterprise or the extension of an old one. If in this forward outlook there is no promise of personal profits the enterprise might still be undertaken; but if customary necessary profits seem not assured the venture will not be made.

This is the crucial point in questions of cost, since it is *marginal* investments which determine the lowest limit of supply and therefore of costs, and marginal investments are *new* investments. They are on the line where freedom of choice is possible, and therefore will not be made unless the prospects are good for what the entrepreneur considers necessary profits. Personal profits are contingent surpluses above necessary profits, originating, as described later, in the progress of an enterprise already established. It is with personal profits that *loss* is to be contrasted, since personal profits are a surplus added to necessary profits, and loss is a decrement deducted from necessary profits.

It is to be noticed that just as interest is calculated upon the capital (capitalisation) of a business, so necessary profits are calculated upon the same amount.

It is a difficult matter, and perhaps in all cases not necessary, to separate wages of superintendence from necessary profits. By wages of superintendence is meant a fair salary for the entrepreneur, such as a man of his abilities could earn in a subordinate position. Wages of superintendence is largely a metaphorical term, because wages proper are a stipulated income, determined by agreement between employer and employed. But the term embodies a truthful idea, namely, that the undertaker rightly considers his own wages, or the wages he could earn in any other position, as a part of his expenses. He must

make a living for himself and his family out of his business, and must sustain the standard of living which is characteristic of his class. And all this is a necessary part of the expenses of his business. It is plain that, while necessary profits, depending largely on risk, vary in proportion to capital invested, wages of superintendence do not necessarily vary in the same proportion. Furthermore, the separation is practically made in the case of joint-stock companies, where the actual managers are paid regular salaries, and the stockholders, the true entrepreneurs, receive no wages of superintendence, but only profits.

4. *Permanent Monopoly Profits and Rent.*—Of the two kinds of contingent profits, personal or temporary profits do not enter into the expenses of production, and will, therefore, be taken up later in the discussion, when treating of the relations between expenses and receipts.¹ Permanent profits and rent enter into the expenses of production in a peculiar way, and their treatment with reference to expenses can be better managed after we have developed more fully the nature of the income itself.²

5. *Transportation charges* are an important element in the expenses of production. It is differences in transportation charges which determine, more than anything else, the differential advantages of the permanent monopoly, land.

6. *Taxes*, viewed from the standpoint of society, are not a part of the expenses of production, but the

¹ See pp. 198, 230 ff.

² See pp. 199, 229 ff.

share which society takes in the finished product. Yet the individual undertaker must estimate them as a part of his expenses,—his profits are a surplus contingent upon taxes as well as upon other expenses. Taxes appear in ordinary statistics of products to account for very little of the expenses. The reason is that only direct taxes on the business itself are considered. There are also indirect taxes on the consumption of labourers which increase their costs of living, and show themselves in higher wages, especially for the better class of workmen.

Summing up this discussion of expenses and receipts, we get the following results: Profits are the difference between expenses and gross receipts. Expenses, measured with reference to the amount of product, tend to diminish in some industries with increase in the quantity produced; in others expenses are constant, and in still others increasing. Yet in all industries the point is reached where *values* decrease in a ratio greater than any decrease in expenses, and then the stage of decrease for profits is entered upon. This stage continues in competitive industries, until the point is reached of equal returns to marginal investments. At that point production normally ceases. In monopolistic industries production is curtailed at the point of highest net returns, taking into account the average product of the enterprise as a whole. By a theoretical explanation the marginal returns here are also held to be equal to the returns on marginal investments elsewhere.

We are now prepared to notice more in detail the distinction between personal and permanent profits.¹ Personal or temporary profits are due to fluctuations in prices, fortunate coincidences, and to the ability of the entrepreneur. Such profits disappear with the return of prices to a normal level, the disappearance of the fortunate circumstances, and the death or retirement of the entrepreneur. They are principally due to the personal abilities of the entrepreneur, and might best be called personal entrepreneur profits. Since this income is not a permanent one, depending upon fixed and certain social opportunities for the sale of products, it cannot be capitalised and disposed of by the entrepreneur to other parties; it follows the person of the entrepreneur himself.

Permanent profits are such as arise out of the monopoly privileges which have been described in Chapter II. They depend upon the nature of the business (natural monopolies, trusts), the possession of natural resources or opportunities (land), the possession of legal advantages (patents, franchises, copyrights), long-established relations to the community, inspiring confidence and popularity (good-will). These advantages consist in the fact that they enable the monopolist to limit the supply of his product relatively to the demand, and at the same time either to sell a larger quantity of his product than he could do without them, or to sell at higher prices, or both. Permanent profits can

¹ See the suggestive discussion by Gross, *Unternehmergewinn*.

be safely estimated in advance. They are such that the entrepreneur can make contracts based upon them either in borrowing money, in agreeing to pay rents and royalties, or in purchasing a business. Permanent profits are absorbed by any monopoly which is concerned in the production and sale of goods. If profits are temporary and not capable of previous estimation, they fall directly to the entrepreneur as such. He also bears any temporary losses. But if profits are permanent, the entrepreneur, for the sake of occupying the especially favorable opportunity involved, can afford to pay for the privilege in proportion to the increase of revenue he expects therefrom. The owners of the monopolistic element can demand and obtain a share of these permanent profits, because the entrepreneur, in possessing the monopoly, is at just so much advantage over his competitors. But he cannot permanently retain such advantages, because if he is not paying for the monopoly the entire difference in profits between what others get without it and what he gets with it, they will bid against him the next time the opportunity is put up for sale or lease, and he will be compelled to pay over to the owner of the monopoly its full value as evidenced by its permanent profits. He cannot complain of this, because he is still left on a level with his fellow entrepreneurs. His profits are, however, no longer of the permanent variety, but personal. They depend on his own abilities as an organiser and manager, or upon the unforeseen

turns of the market. They are the changing surplus above expenses of production and permanent profits of monopoly. Permanent profits now become a part of his expenses, but over and above them there still remains a margin where, by the display of extra abilities, he can secure true personal profits.

These principles will be still further brought out and illustrated in a discussion of such monopolies as land, franchises, patents, good-will, etc.

I. Land may be either a partial or an absolute monopoly. An absolute monopoly is the ownership of all the natural sources of a given kind of raw material. It is stated that there is but one nickel mine in the United States: the ownership of such a natural opportunity would be an absolute monopoly. Investments will stop at the point of the highest net returns. Each increment of investment represents expenses, and the surplus of receipts for each increment is permanent profits. This is absorbed by the owner of the absolute monopoly.

Such a monopoly will illustrate the steady transition from temporary to permanent profits. When it is first opened up it has no value. The entrepreneur enters as a speculator willing to invest his capital and labour, and to take the risks of securing a surplus of receipts. But the mine turns out to be wonderfully rich and easily worked. Profits are enormous. So long as the original contract with the owner lasts, profits fall to the entrepreneur. At the expiration of the original contract a new one is to be made.

The owner and the entrepreneur perceive that these profits promise to be permanent. Consequently the new contract provides for a much higher royalty or rent than the old one. Permanent profits are thus transferred from the entrepreneur to the landowner; and yet the entrepreneur must remain satisfied because he is still in possession of an opportunity where his investments will yield to him as much as they would in any other enterprise.

In case the entrepreneur is also the owner of the monopoly, it is a more difficult matter to distinguish between that part of his profits which belong to the permanent monopoly and that part which is due to his own managing abilities. Yet the difficulty is no greater than the frequent problem which arises in case the entrepreneur is both capitalist and labourer, in determining what part of his income is profit and what part is interest and wages. The conditions vary with the ability of the man and the character of the permanent monopoly. If the business is such that it falls away and declines upon the death of the entrepreneur, we may assert that the monopoly was a temporary and personal one, though it may have existed throughout a long lifetime. But if the business continues just as prosperous as ever through the possession of some permanent differential advantage, such as patents, ground sites, franchises, we may conclude that the entrepreneur was simply the pioneer in developing this particular permanent monopoly, and that the profits which he obtained had

made the transition during his lifetime from the temporary to the permanent.

The partial monopoly in land is far more common. Here *the monopoly absorbs only the permanent profits of the least prosperous entrepreneur who actually sustains himself in business in the community.* He is the man who has no monopoly vested in himself, no especial advantage of good-will, etc., but is subject to the full play of competition. He is the marginal undertaker. He pays the customary wages for labour, the usual prices for capital and material, and is merely able to make interest and necessary profits on his investments. In the quotation given on page 193, from Adam Smith, the "good, moderate, reasonable profit" and the common and usual profit correspond closely with or perhaps slightly exceed the profit I have in mind when speaking of the least prosperous entrepreneur, the man who is just able to keep permanently in business in the community. According to the saying of the Frenchman, that 10% of the men who go into business succeed, 50% "vegetate," and 40% fail, he belongs to the 50% who "vegetate." He must have his necessary profits, or else he becomes one of the 40% who fail, some other entrepreneur takes his place, and he is forced to yield whatever permanent surplus may come to him from his business. In this way the rent of land is determined by what the marginal entrepreneur pays. Land furnishes opportunity for the production and sale of goods. If he is not using the land up to the

extent of the opportunity which it offers, and is, therefore, unable to make his necessary profit on his investments and also on the permanent surpluses on the increments before the marginal increment, then others who can use the land to the full extent of its opportunities will outbid him. Thus he will be left below the "margin of enterprise"¹ and the margin will rise to the point occupied by the next entrepreneur, who will now be the marginal one. Neither will rent be permanently higher than this least prosperous entrepreneur can afford to pay; because, when he fails in business on account of rents higher than the opportunities of the land warrant, there will be no entrepreneur better than himself to take the land; if one should do so, he would be bargaining away needlessly a portion of any especial advantages he may himself possess, such as patents, superior business abilities, etc.

The marginal entrepreneur need not occupy the poorest land of its kind in his community in order that the rent of other land may be determined by the rent of his. If adjoining land is better, it will pay more rent; if poorer, less rent. For, if an entrepreneur, doing business on better land, does not pay more rent, the marginal entrepreneur can afford to leave his own site and bid higher for the better one; and if poorer land pays the same or higher rent than he does, the occupant of the poorer land will either go out of business, or secure a lowering of his

¹ Patten, *Dynamic Economics*.

rent, or bid against the marginal entrepreneur for his site. In the first two cases it is plain that the rent is determined by what is paid by the marginal entrepreneur. In the last case, according to the assumption, the marginal entrepreneur is unable to pay higher rent. Therefore he gives up his position, goes out of business, the margin of undertaking rises, and higher rents are paid throughout the community. In every case the rent of all land is graded high or low with reference to the rent paid by the marginal entrepreneur.

Thus it will be seen that the average business and industrial qualities of the community are an important element in determining the rent of land. The degree of these qualities determines what grade of entrepreneurs shall be the marginal ones. But at the same time none of the undertakers will bid so high for rents as to swallow up any especial advantages one may possess, as patents, good-will, etc. They all estimate their own business prospects, and the rent they can pay, by the prospects and rent of the average or least prosperous of their fellow-undertakers.

Rent is the total surplus above expenses secured by the least prosperous entrepreneur who continues in business. It is the surplus product on each increment of capital and labour invested above the return obtained on the marginal increments. We have no difficulty in seeing the immediate factors upon which the size of this surplus or rent depends.

They are: 1. The *number of increments* of capital and labour invested before the margin of utilisation is reached. 2. The *size of the surpluses* obtained on each increment before the marginal increment is reached.

But while these factors determine immediately the amount of the aggregate surplus, rent, they are the secondary and not the ultimate factors. They themselves depend on two primary and final conditions: I. The extent of the opportunities afforded by the land for the production and sale of goods. II. The expenses of the factors of production, labour, capital, necessary profits, transportation, taxes, sales. The investigation of these conditions and their influence on rent will require careful and prolonged attention.

I. The extent of the opportunities afforded by the land for the production and sale of goods depends upon the height and range of the diminishing returns of a given area of land of given situation. It includes: *A.* With reference to production, land offers opportunities profitable for investments of labour and capital in proportion to the quantity of goods which can be produced with a given outlay of labour and capital, *e.g.* the greater or less fertility of agricultural land, access to natural water-power, etc. *B.* With reference to sales, the opportunities of land have regard to (*A*) the quantity of goods which can be sold and (*B*) the prices which can be obtained. The quantity which can be sold from a given area of land depends upon the situation of the land with

reference to large populations of consumers; the prices to be obtained depend upon (a) the cost of transporting goods to these consumers, which must be met before net prices can be obtained by the producer, and (b) the character and wealth of the customers who are in the habit of doing their trading in the given locality. (Retail stores.) The significant characteristic of opportunities is the fact already developed of universally diminishing returns, varying widely, however, in range and extent.

II. The expense of the factors of production, labour, capital, etc., varies in different localities. Where labour and capital are abundant, and the standard of living of labourers is low, there wages and interest will be low: and, in addition, if taxes are low and facilities of transportation convenient and cheap, the expenses of production will be relatively low.

Taking these two primary conditions together, we may show how they affect the gross surplus which goes to rent by the way in which they affect in turn the immediate factors upon which rent depends, namely, 1, the number of increments of capital and labour which can be invested before the margin of utilisation is reached, and 2, the size of the surpluses on each of these increments.

I. The amount of capital and labour which can be profitably invested before the no-profit increment is reached depends upon, —

1. The opportunities afforded by the land for the production and sale of goods, as above analysed.

The greater the number of increments which can be invested and produce a surplus, the greater the total surplus. In Chapter III.¹ I have shown how greatly land varies in this regard, according to situation. Forest and pasture land occupy the lowest position. They are on or near the margin of cultivation. But little capital and labour can be profitably invested there. As we approach the centres of population, passing through arable land, market-gardening, manufacturing and residence sites, and finally retail and commercial sites, land becomes more and more favourable for the profitable investment of capital and labour. But in all cases, no matter where the land is situated, there is a stage of diminishing returns and a limit beyond which it is no longer profitable to invest capital and labour. This is the margin of utilisation. Beyond that point capital will flow out to other fields of investment. Hence the margin of utilisation in commerce and exchange corresponds with that in adjoining industries. But before this point is reached it has been possible to apply several millions of dollars a year to the land in question, each one yielding a surplus beyond the necessary return to the investment on the margin. The surplus from each increment, as determined by the investments of the least prosperous undertaker, goes to the owner of the land, as in other industries.

2. The total amount of capital and labour which can be profitably invested depends also upon the

¹ See pp. 139-144.

expense of the factors of production, wages, interest, taxes, and transportation. If these are low, a greater quantity of capital and labour can be invested in the progress of diminishing returns, before the point is reached where returns are equal to the increments invested, than is the case where expenses are high. That is, where expenses of capital and labour are low, efficiency being given, production can be profitably carried out to lower margins of utilisation.

Adding this element to the foregoing, we perceive that greater amounts of capital and labour can be invested on land in old countries than in new, in cities than in rural districts; because both the opportunities for sales and high prices are better, and the expenses of capital, labour, transportation, and sales are lower.

II. Each increment invested before the marginal increment yields a surplus. We have next to determine the size of this surplus for each increment. It depends, like the other secondary factor, on the two primary factors.

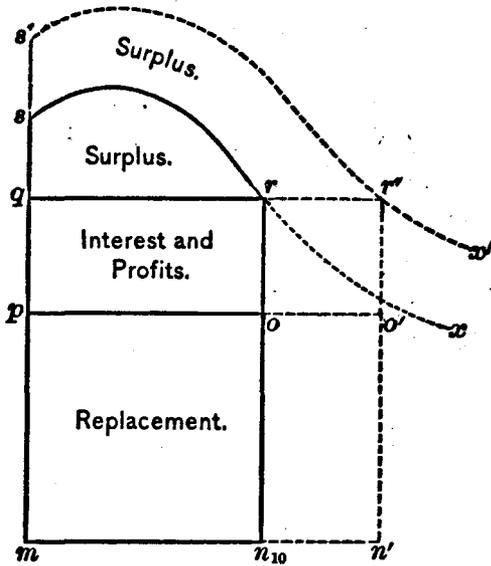
1. The productivity of the land, either its fertility, as in agriculture, or the prices that can be obtained at the sale of products owing to the advantages of situation.

Although all lands are subject to increasing and diminishing returns, yet different lands present wide differences in the rate of increase and diminution for given amounts of capital and labour. That is, the surpluses on the earlier increments invested on one

tract may be much larger than the surpluses on the earlier increments on another tract, though on both tracts the return to the marginal increments is exactly the same.

2. The expenses of the factors of production. If these are high, productivity being given, the net surplus will be small, and *vice versa*.

DIAGRAM IX.



Combining our results, we find that the rent of land absorbs the surplus of production from each increment of capital and labour invested by the least prosperous undertaker before the marginal increment is reached. The gross surplus, or rent, then depends, 1, directly upon the amount of capital and labour which can be profitably invested upon it by the least

prosperous entrepreneur, which in turn depends directly upon the fertility and situation with reference to markets, and inversely upon the expenses of the factors of production; and 2, inversely upon the expenses of the factors of production.

This discussion may be made clear by Diagrams IX., X. and XI. Each diagram represents the annual investment upon a given area of land, say one acre. On the first acre, devoted, say, to the cultivation of wheat, it is found profitable to invest only \$10.¹ This includes the expense of both the capital and the labour employed, but not interest on the capital. In the cultivation of wheat, it would involve ploughing, fertilising, cost of seed, putting in the crop, harvesting, stacking, threshing, and marketing. The farmer would not make this annual investment if he were not normally certain of gaining from the proceeds of his crop enough return to replace each dollar invested, and also the interest and necessary profit upon the investment. Nor will he invest beyond the point where the returns to the last increment will recompense the increment and the interest and profit thereon.

Let mp represent an investment of \$1. Then $mnop$ will represent the investment of \$10 per year. The return to the first dollar invested may be ms . According to the laws of increasing and diminishing

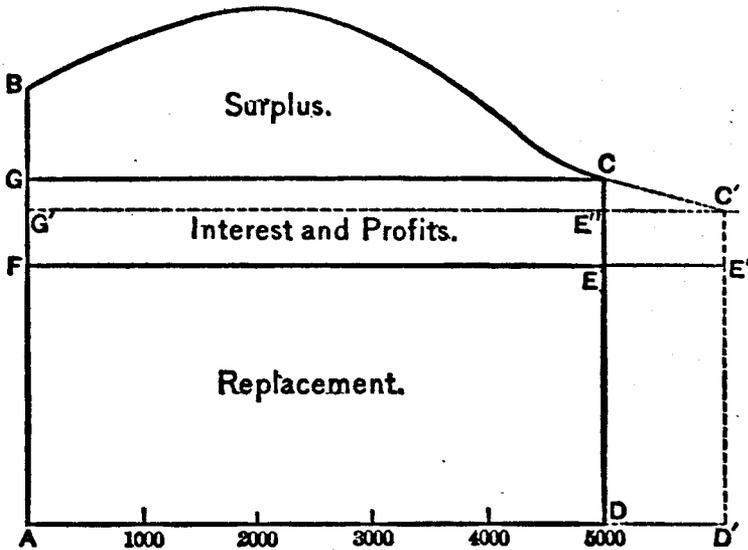
¹ It is to be remembered that the annual investment, or turnover, of the farmer, unlike that of other industries, is equal to the total capital invested.

returns, the limit to the returns on the succeeding increments will follow the line *srz*. But *no* will be the last increment invested, because the farmer must obtain upon that last increment, as upon each of the preceding, a return equal to *no* (the original increment invested), plus *or*, the necessary profit on the same. If he invested \$11, the return on the last dollar would involve a loss of a part of the customary profits; and if he invested only \$9, the last dollar would yield a larger return than he could obtain by investing in other enterprises in his community. He therefore obtains the highest net returns on his entire investment by investing just \$10, at which point the diminishing returns of the land itself will just counterbalance the original investment and the necessary profit. There will, of course, be a surplus on preceding increments over and above the replacement of the investment, and interest and profits on the same. If this surplus has become reasonably fixed and calculable on the basis of the least prosperous entrepreneur who can permanently sustain himself, it will become petrified in the form of rent. But if it is a very irregular and highly speculative surplus, it will fall to the entrepreneur proper, who will, of course, also run the risk of losing it and his entire investment.

If, now, we pass to another acre of ground better situated respecting markets, we find the farmer can invest profitably a larger number of increments. But in order to do this, he must change to a more intensive culture, say vegetable gardening. Sup-

this acre, it will inevitably be devoted to some more intensive use, like manufactures. Now, instead of \$10 or \$30, it pays to employ annually a capital of \$5000, to be invested in fixed improvements and turnover. The line of increasing and diminishing returns is BCC' (Diagram XI). The

DIAGRAM XI.



investment which is just remunerated with customary profits is the five-thousandth, the return to which is DC , DE being the replacement of the investment, and EC the profits and interest. The preceding investments amounting to \$5000 each yield a surplus which, if permanent, goes to rent.

Thus it can be seen that one of the factors determining the gross rent of a given area of land, is the

amount of capital and labour which can be invested profitably upon it by the least prosperous entrepreneur of the community; and that the rent (other things being equal) varies directly as the amount of the investment.

But there is another element which determines the amount of investment that can profitably be made upon a given area, viz. expenses of production, especially expense of labour and expense of capital.

The expense of labour to the employer is made up of the factors efficiency and wages; the expense of capital, of the factors efficiency, depreciation, and rate of interest. I have endeavoured to represent changes in these different elements by means of the diagrams separately. In Diagram IX. (page 209), suppose the general efficiency of labour is increased, while wages remain the same. The new efficiency produces a product whose limit of diminishing returns is represented by the line $s'r'x'$ instead of srx . Wages, customary profits, and interest remaining the same, it will now pay to invest up to the point n' . The investment at this point brings a return $n'r'$ which covers the replacement and profits. Consequently the number of increments yielding a surplus is increased by the amount nn' . The increment n itself now yields a surplus, and so do the newly added increments except n' , which simply yields the original marginal or necessary return.

The same diagram would represent the increased

investments which would be possible from a general increase in the efficiency of capital, interest and depreciation remaining the same. The additional investments, nn' , in this case would be additions of capital instead of additions of labour. If the improvements in capital are general and shared by the least prosperous entrepreneurs, the result would be an increased number of increments yielding a surplus, which would go to rent.

In Diagram X. (page 212), we may represent the increased investments which are possible with a lowering of wages, efficiency of labour remaining the same. The original number of dollars invested was thirty; but if wages fall so that the share of this \$30 which goes to wages will purchase a larger amount of labour, it will be possible to carry out the investments to lower margins than heretofore. Let af represent the original expense for a given amount of labour of a given efficiency. Wages are so reduced that the expense is af' . Interest and profits remaining at the same rate, it will be possible to extend the investments of labour from d to d' . The return to the increment d' is $d'c'$ which covers the new expense of labour, $d'e'$ and the customary profits on the same, $e'c'$. There are thus, as a result of lowering wages, efficiency remaining the same, an additional number of increments, dd' , on each of which, except the last, a permanent surplus is produced which goes to rent.

This diagram will also show the results of a

general saving in the wear and tear, depreciation, and insurance of capital (not in the rate of interest), and a lowering in the prices paid for capital, providing these advantages reach the least prosperous entrepreneur. Wear and tear, etc., of capital, and the prices paid for capital, must be replaced out of the earnings, and if these are reduced there is a less amount to be replaced. Consequently, efficiency of capital remaining the same, its investment can be carried to lower margins of production, until the point is reached where return and depreciation are again at an equilibrium.

Diagram XI. (page 213) has been modified to show the result of a general lowering of the rate of interest and necessary profits. Supposing all other factors to remain constant, if the rate of interest falls it will be possible for the entrepreneurs to carry out their investments to lower margins, and thus apply larger amounts of capital to given areas of ground. If FG and EC represent the original rate of necessary profit, including interest, and this rate falls to FG' , it will be profitable for the entrepreneur to employ additional investments equal to DD' ; because a return on the last increment equal to $D'C'$ will cover the necessary profits and interest on an investment equal to $D'E'$. Wherever this line may intersect the line of diminishing returns, there will have been added a number of increments equal to DD' , each of which, except D' , yields a surplus.

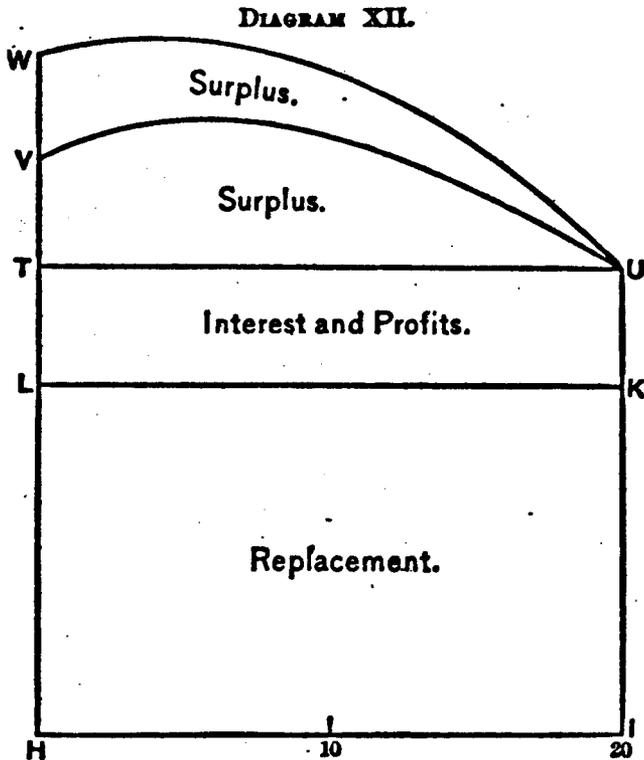
If all these elements of change are introduced

together, we may see a geometric increase in the quantity of capital which can profitably be invested upon a given area of ground. First, as the situation itself improves through the growth of population and consequently increased demands for working and living room, a larger amount can be invested, because there are wider sales and more intensive culture. Then if to this be added an increased efficiency of labour and capital, a decreased rate of wages, decreased prices of machinery and material, lessened expense in repairing the depreciation of capital, and finally a lower rate of interest and necessary profits, we may have some idea of the enormous possibilities which a progressive state of civilisation furnishes for the increased profitable employment to landowners of labour and capital on land.

So far for the amount of capital and labour which can profitably be invested upon a given area of land, and which yields a surplus to the least prosperous but "vegetative" entrepreneur before the marginal increment is reached. The amount of rent depends directly upon the number of increments which can be thus invested. But rent also depends upon another factor, the *size of the surpluses* on each increment. The size of the surpluses is the difference between two factors: 1. The size of the aggregate return for each increment invested on the area. 2. The expense of the factors of production.

1. Suppose the expenses for capital and labour to remain the same, different tracts of ground will yield

widely different total returns on each increment of investment, and will exhibit very different curves in their lines of increasing and diminishing returns. To exhibit this element will require a new diagram. (See Diagram XII.) On each of two pieces of land



of a single acre each, there may be invested annually \$20. In both cases the twentieth dollar is on the margin of profitable expenditure. But the line of diminishing returns may take on the one the direction VU , and on the other that of WU . In each case the aggregate products will be respectively

HIUV and *HIUW*. This difference in the gross products of each acre may be due to two causes; either, first, the fertility of the soil which yields a larger product in one case than in the other to the same kind of cultivation; second, the higher net prices which can be obtained at the sale of the product, owing to better situation, lighter expenses of transportation, lower taxes, etc. In this case the better situation is not enough to warrant a more intensive cultivation, because the market for such cultivation may be already supplied. The farmer still keeps to the old methods of cultivation, investing the same amounts of capital and labour on the same areas, but receiving on account of his advantages a higher aggregate return on the total investment.

The second element here mentioned (higher net prices) is also characteristic of the advantages accruing to retail stores on account of their situation in fashionable shopping streets, to stands in city markets which can charge higher prices for their goods on account of the wealthier class of customers who patronise them, to hotels and numberless other occupations and situations. If the law of diminishing returns were made to apply only to the *production* of goods, these facts could not be brought within its scope, and we could not account in full for the high rents that can be obtained by reason of the high prices which are received for products. Rent is a function not only of diminishing returns in product, but equally of diminishing returns in values.

2. The surplus is the difference between the aggregate product and the expenses of producing it. It increases on the one hand when the aggregate product increases, and on the other when the expenses diminish. To illustrate this factor we may return to Diagrams X., page 212, and XI., page 213. In Diagram X. the original expenses were covered by the rectangle $adcg$. When expenses are lowered through a lowering of wages, the total expenses for the same amount of capital are now $ade''g'$, and there is now added to the surplus the rectangle $g'e''cg$. Likewise in Diagram XI. a lowering of the rate of interest increases the surplus by the rectangle $GCE''G'$.

Summing up, we can see that the surplus going to rent depends (1) directly upon the amount of capital and labour which can be profitably invested upon the given area; (2) directly upon the size of the returns to each increment in the course of the increasing and diminishing returns; and (3) inversely upon the expenses of capital and labour. We can also see the important double part played by the last element: since a decrease in the expenses, with the progress of invention and improvement, the growing efficiency of some labourers and the lessening wages of others, not only brings about a larger investment on a given area, thus increasing the number of increments which yield a surplus, but also deducts a less amount from the total product of each increment, thus leaving a larger surplus to each. Now we can add to the above noticed geometric increase of the *quantity* of the

surplus-yielding capital which can be profitably invested owing to the combined causes of improved situation, increased efficiency of capital and labour, a decreased rate of wages, decreased prices of machinery and material, lessened expense in repairing the depreciation of capital, and a lower rate of interest and necessary profits, an additional geometric increase in the *size of these surpluses* owing to the same causes.

Rent, being determined as above indicated, now becomes a permanent part of expenses. The entrepreneur calculates upon it as upon the other expenses for labour, capital, taxes, and transportation. In order now to make profits, his receipts must cover rent in addition to other expenses.

This is true of agricultural as well as of manufactured products. The familiar dictum that rent does not form any part of the expenses of production of agricultural products is based upon the supposition that there is somewhere a no-rent margin of cultivation, and that the expenses of production there, being the highest actual expenses in the production of agricultural goods, set the price for all agricultural goods. Since this land pays no rent, of course rent does not enter into the expenses of production. But as I have already shown, there is no agricultural product which is raised on no-rent land. As soon as land is cultivated at all successfully, it yields a permanent rent, and this, if it be the poorest land in use for the production of the commodity in question, becomes a

permanent part of the expenses of production of that commodity. The superior rents paid out of the same commodity where it is produced on superior lands are again an additional surplus growing out of the superior advantages of such lands, and are only partly to be considered as expenses of production.

II. So far we have been considering that fundamental monopoly privilege, land, and have discovered the general principles underlying the emergence of ground rent. We now turn to the other monopoly privileges.

The entrepreneur, considering rent as a part of his expenses, has a margin above rent, not only for obtaining necessary profits on his investments, but also for obtaining additional personal and permanent profits. Here we pass from the fourth standpoint of diminishing returns, that of a given area of ground, to the third, that of a single enterprise; and we notice a repetition on a higher level of the phenomena of personal and permanent profits, and the possible transition from one to the other. If profits are temporary, they are due to unforeseen fluctuations in prices, or to the personal ability of the entrepreneur. If permanent, a second monopoly is superimposed upon the first, and now absorbs the remaining permanent surplus. This surplus is analogous to rent. We may call it monopoly profit. This second monopoly may again be absolute (copyrights, patents, natural monopolies, etc.) or partial (good-will of a competitive business). If the monopoly is absolute,

investments are not carried out to the same margin as in other enterprises, but to the amount which will bring the highest net returns. The surplus going as monopoly profits is determined by the excess which the capital (including rent) and labour here invested produce above what the same amount of capital and labour would produce on the surrounding margins of utilisation.

If this second monopoly is a partial one, the surplus going to it is determined exactly as in the case of rent, namely, (1) the quantity of investment (including rent) before the margin of utilisation is reached; and (2) the surplus above what the same investment could secure on the margin of utilisation. Here the determining elements with reference to opportunities for investment and expenses of production operate in the same ways as with rent; and the demonstration already given for rent can be applied here, remembering only that from this new standpoint rent itself becomes a part of expenses.

We may summarise the argument of this essay up to this point in the following way:—

Monopoly privileges in modern industry are social and legal creations whose common features consist in the fact that they afford opportunities for labour, capital, and business ability to unite in the production of goods, to find a market for the profitable sale of goods, and to limit the supply of those goods relatively to the demand. The fundamental monopoly privilege is land, whose significant characteristics are

room and situation, *i.e.* access to markets. This and other monopoly privileges all depend upon the institution of private property. Some of them, however, including land, distributive industries, trusts, good will, etc., grow naturally out of private property in economic instruments; while others, like patents, copyrights, trademarks, franchises, are expressly created by the legislature, and are assigned to individuals as their private property.

In modern industry, the law of diminishing returns finds its true significance in the field of value rather than product, and it is applicable only to the monopoly privileges herein described. This law is the basis of the law of rent, which is, therefore, found to be inappropriate in explaining the returns to capital and personal abilities, but to be a universal law peculiarly characteristic of all monopoly privileges. The application of the laws of diminishing returns and rent to different monopoly privileges is identical in principle, though varying somewhat in the complexity of details. The law of rent of land, applying only to room and situation, should be looked upon as having reference always to an area of ground of a given unit, say one acre, no matter where located or for what kind of industry it is employed. The difference between the different situations of this given unit are to be found not in the *kind* of labour and capital employed, but simply in the different *amounts* of labour and capital which can be profitably invested. The limit to this amount is set at the point in the

progress of diminishing returns where returns to the marginal investments are barely sufficient to cover the expenses of those investments. This is exactly the same and only difference existing between the other monopoly privileges. But, compared with land, these other monopolies are to be looked upon as employing not only labour and capital, but also land itself; and payments for the rent of land, therefore, become a part of their expenses of production, like wages and interest, and subject to a similar law of diminishing returns. Employers who utilise these monopoly privileges, invest the factors, capital, labour, and land, in connection with them up to the point where, in the progress of diminishing returns, the returns to the marginal increments invested in one factor are equal to those invested in other factors; and where, at the same time, the marginal returns to all increments are barely sufficient to cover the expenses of those increments. How far these investments shall be carried out depends,

(1) Directly upon the extent of the opportunity offered by the monopoly privilege in question, *i.e.* the social demand for the product created in connection with it; and

(2) Inversely upon the expenses to be paid for the services of the co-operating factors, labour, capital, and (in the case of secondary monopolies) land, and generally, also, contributory secondary monopolies.

In all cases the increments invested before the marginal increments yield each a surplus which goes,

in the case of land, to the landowner as rent, in the case of secondary monopolies, to the monopolists as permanent monopoly profits analogous to rent. The "increments" themselves are arbitrary compound units of expense, *e.g.* one dollar, composed of payments made for labour and capital in definite proportions according to the economies of the several enterprises; and, in the case of secondary monopolies, composed also of payments for definite proportions of labour, capital, rent of land, and monopoly profits on contributing secondary monopolies. The total rent, or monopoly profit, falling to a particular monopoly privilege, depends upon the total number of these increments which can be profitably invested, each yielding a surplus, and upon the sizes of the surpluses on each. Rent and monopoly profits, therefore, increase both when the monopoly privilege offers wider opportunity for the sale of products in larger quantities or at higher prices; and also when there is a lessening of the expenses to be paid for the services of the co-operating factors, labour, capital, land, and the contributing secondary monopolies.

The differences between monopoly privileges are mainly differences in the first factor, namely, the extent of these opportunities. Regarding the second factor, namely, the expenses for labour and capital, the laws controlling these grow directly out of the action and reaction between man and his environment. On the objective side, wages and interest are both subject to the downward pressure of the universal law of dimin-

ishing returns, which lessens the product of marginal labour and marginal capital, in proportion as labour and capital become abundant compared with opportunities, and new labourers and new capital are compelled to take resource to lower margins of production; and then, through free competition between labourers and capitalists, and the law of indifference, the wages of all like labourers and the interest on all similarly situated capital are reduced to a level with the wages and the interest of the marginal labourers and the marginal capital. With regard to wages, there are additional objective conditions, consisting in the personal rights of life and liberty (including freedom of contract, freedom of movement, the free use of a portion of Nature's gifts, and the free use of public property), and also the partial right to employment. These legal rights guarantee to the labourers a minimum of subsistence and also the free use of such powers as they may possess and exert in their efforts to compel payment in exchange for their services, and to limit their numbers and widen their opportunities in such a way as to maintain a high marginal product for labour. With regard to capital, the corresponding objective conditions are the rights of property, which give capitalists freedom to command payments in return for the use of their capital, the amount of the payments depending upon their guaranteed freedom to limit the supply of capital relatively to the demand, so as to keep the marginal utility as high as may be in their

power. Personal and property rights furnish the framework within which human passions and energies are permitted more or less freely to operate in the efforts of man to resist the pressure of the law of diminishing-returns. This leads us to the subjective side of the laws of wages and interest.

With regard to wages, the subjective conditions are mainly those moral attributes of capacity for organisation, ambition, education, public opinion, high standard of living, which enable labourers to control their numbers relatively to the demand for their services, and thus to keep up their marginal utility. When this control over numbers does not exist, as with the unorganised, inefficient, and women workers, wages are depressed through the law of diminishing returns to the minimum of existence as guaranteed by poor relief and prison fare. With regard to interest, the subjective conditions are also mainly moral attributes, like self-control, intelligence, foresight, thrift, provision for children, which promote increased saving of capital. But, as contrasted with wages, these moral attributes do not keep up the *rate* of interest, but tend to lower it by increasing the supply of capital relatively to the demand; though of course, with progressive civilisation, the *gross* income of capitalists, as a class or as individuals, is not diminished, but greatly increased, since the *quantity* of capital increases in greater ratio than the *rate* is depressed.

With the lessening of expenses on account of labour and capital, brought about through the prog-

ress of civilisation either by the increased efficiency of both or by lowered wages and interest, there remains a continually growing surplus falling to the owners of monopoly privileges, which becomes petrified in the form of rent and permanent monopoly profits.

Finally, as the central figure in modern industry, and the one to which all other factors are referred, there is the entrepreneur proper, who takes the main risk of business, who plays the part of buffer to all the other factors, and who receives a share in the product, the amount of which is governed by two distinct laws:—

1. A necessary profit, without a fair prospect of which the entrepreneur will not enter upon a new undertaking nor extend an old one, and which is to be looked upon as compensation for risk and management. In amount it is approximately equal to the current rate of interest, and is estimated upon the capitalisation (*i.e.* value) of the factors employed, namely, capacity, turnover, land, and permanent monopoly privileges.

2. A personal or temporary profit, which is a contingent surplus developing in the progress of an enterprise already established, and is to be contrasted with *loss*. Its amount depends upon the personal abilities of the entrepreneur, good fortune, and fluctuations in prices.

Permanent monopoly profits, going either to land in the form of rent or to the secondary monopolies,

are shown in the phenomena of capitalisation. Land is capitalised at the present value of the future rents that are destined to fall to it, and secondary monopolies are likewise capitalised. Permanent profits take the form of interest on the capitalisation, corresponding to the current rates of interest. These permanent profits again become fixed charges and a part of the expenses of production, as in the case of rent. An entrepreneur who leases a patent right must pay royalties on his products, and these become true and unavoidable expenses in production, the same as rent of land. Or if he purchases the patent at a capitalisation, he must secure interest on his purchase money, *i.e.* permanent profits on his monopoly privilege. The entrepreneur who makes use of these monopolies must calculate on these fixed charges the same as on other expenses. But there still remains to him over and above all his expenses (including now rent and monopoly profits) the opportunity for temporary profits — the pure profits of the entrepreneur. These are determined by the difference between his expenses (including rent and monopoly profits) and his receipts. They vary with fluctuations in prices, and depend upon his ability as an industrial leader. They are only temporary and passing, at the furthest no longer in duration than his own life. They are not something the right to which he can sell to another, because they offer no promise of permanency. It is only permanent profits which can be capitalised. If temporary profits develop into permanent, it is be-

cause of certain social and economic advantages and relations which spring into being with the development of his business. The office and justification of the entrepreneur is to develop these permanent advantages, to direct industry into the most productive channels. But in doing so he sees these personal profits absorbed by other elements. His own pure profits are never more than temporary. They are the phases of change in industry, and endure only until the valuation of the other permanent elements can rise and absorb them.

I have assumed throughout that the entrepreneur, capitalist, labourers, and owners of permanent monopolies were entirely different persons, and that free competition existed among them. This gives a certain exactness to the analysis, but it is necessary to modify these assumptions. We are familiar with the way in which this is done for the four great partners in distribution. I have introduced one more partner, the owner of the secondary monopoly, and have distinguished him from the entrepreneur. But in truth, the entrepreneur is almost always owner of the secondary monopoly. He is the pioneer in the development of that monopoly, and as it grows into a permanent capitalisation, it becomes a part of his fortune. This is the case with a joint-stock company, whose property is often, especially in railroads, simply the ownership of the secondary monopoly, the franchise. Land and right of way are purchased and roads are built out of the proceeds of the sale of

bonds. The corporation is also the entrepreneur, and temporary profits are added to whatever permanent profits may be developed. Yet it is no new thing for a corporation to sell or lease its property to another corporation, the price being agreed upon with reference to its permanent earning powers. The new corporation becomes now the entrepreneur proper, and secures for itself only temporary profits.

We may here briefly note the elements entering into the capitalisation of permanent profits. The simplest problem is rent. Rent, being the aggregate surplus of production, varies, 1. directly with the amount of capital which can be invested on a piece of land. This is greater, of course, in thickly populated districts and cities. 2. It varies inversely with interest and wages, owing both (*a*) to the larger amount of capital and labour which can be invested where interest and wages are low, before the margin is reached, and (*b*) to the greater surplus which remains where wages and interest are low on each increment of investment. This would also tend to make rents highest in cities. 3. Rent, being thus determined, is capitalised at the current rates of interest for the community. In our eastern states it is capitalised at 5% and 6%. In the western states at 10% or 12%. Hence, in the east and eastern cities, capitalisation would tend to double the value of land compared with the west. 4. Furthermore, with the progressive fall in rates of interest, capitalisation correspondingly rises.

The same conditions hold true for the capitalisation of monopoly profits. The combination of all these factors, being a geometric increase, accounts for the enormous rise of fortunes in the last twenty-five years.

What has been said will throw some light on the alleged tendency of profits to an equality and a minimum. The aids and hindrances usually assigned to this tendency are the greater or less intelligence and business energy of the community, the greater or less publicity of the profits of a business, and the natural or legal difficulties which stand in the way of starting new enterprises. In the case of personal profits the hindrances to equality are, of course, only temporary. But in the greater part of the developed industries of our day these hindrances are the rule, and temporary profits are gradually transformed into permanent ones. The pioneer farmer who opens up a new tract of land, earns besides interest and wages a surplus in profits. In the course of time this profit becomes a fixed surplus on the annual investments upon the tract. No longer is it profits but rent—*i.e.* a fixed monopoly profit. A new entrepreneur coming in now and purchasing or leasing this tract of land, before he can earn strictly entrepreneur profits must first earn, not only interest and wages upon his annual investments, but also the fixed monopoly profit, rent. Over and above these earnings there is a fluctuating surplus which is the true entrepreneur profits. This may tend to equality

throughout the community if competition be free; but the equality may come about in two ways: either (1) the profits may be forced down through severe competition, or (2) the permanent profits may be levelled up owing to the developed advantages which the tract of land exhibits, or to the facilities it offers for keeping up the prices of its product, while the prices of other tracts are lowered. In either case temporary profits are reduced to the level of corresponding profits in the same or other industries.

In the second case the true nature of the phenomenon is concealed by the phenomena of capitalisation. As the rent of the tract of land increases, this rent is capitalised at the current rate of interest, and thenceforth the value of the land becomes to the entrepreneur as so much capital on which he must earn interest. The *rate* of interest on the value of the land is not increased, but the value itself of the land is increased to such an extent that it exactly counterbalances the increased rental, and consequently keeps the *rate* at its former figure. The entrepreneur now has larger permanent expenses, and though his total earnings may be increased, his (temporary) profits are kept at a level with those of other entrepreneurs.

The same is true of other permanent monopolies. Wherever these appear there is an apparent equalising of entrepreneur's profits owing to the capitalisation of the monopoly. But the equalising is a rising-up of the underlying monopoly, which swallows the permanent profits, rather than a levelling down of the entrepreneur's profits.

Entrepreneurs' personal profits play a large part in the early history and the transition stages of a country's industry. Their risks are greater, and the bold successful undertaker makes large profits in short periods, while the unsuccessful quickly disappears. But with the progress of time, the growing organisation of industry, and the occupation of opportunities, business becomes less risky, temporary monopolies which are not based on lasting conditions disappear, permanent monopolies find their appropriate development and become fixed. The element of risk gradually lessens, and with its diminution there is a corresponding increase in the permanent profits and the capitalisation of the same. The heads of industries are no longer the independent Napoleons of finance; they find their sphere as high-salaried managers and legal advisers, while the successors of the entrepreneurs proper, the original organisers and promoters of enterprises, are simply the commonplace, idle recipients of the permanent profits and the mildly fluctuating temporary profits.

These considerations have a very definite bearing on the discussions regarding the justification of the entrepreneur's profits. It is held that the entrepreneur's activity is a highly economic one. He creates a product over and above the interest and wages which he pays. He performs a service to society, because capital alone cannot produce goods, neither can labour alone; but the entrepreneur unites them into a productive process, himself taking the risks

and guaranteeing to capital and labour the proper reward for their services. If the consuming public performed this service it would be at a much higher expense. The entrepreneur takes the raw product and gives it exchange value by making it satisfy the wants of consumers. He is the most important element in production, for he is the guiding force which turns capital and labour into those channels where they can really satisfy human needs and thus alone makes it possible for them to receive interest and wages. Though profits may often be higher than a just distribution may warrant, yet on the whole the justification of profits in itself cannot be questioned.

This line of reasoning is perfectly valid, and cannot be too strongly emphasised so long as strictly entrepreneur's personal profits are under consideration. A wise public policy will encourage to the utmost the development and the rewards of personal abilities in the organisers and promoters of business. But the case becomes entirely different when temporary profits have become transformed into permanent monopolies. Now instead of the profits being due to the powerful exertions and abilities of the captains of industry, they are due to certain fixed social relations and rights. The recipients of these incomes may with perfect security become idlers and drones. They abdicate their functions as entrepreneurs into the hands of salaried chiefs and advisers. They are no longer performing the services to society which were performed by their ancestors or predecessors, who

organised and developed the business to which they have succeeded. There is, of course, in all cases that marginal zone of temporary profits, over and above the permanent profits, depending on the fluctuations of business, and the particular abilities of the manager in charge. It is to the interest of society to stimulate as much as possible the workers in this zone. All new economies, new inventions, widening of markets should be encouraged; and the new profits arising therefrom should go wholly to these marginal entrepreneurs, as the reward of their enterprise. But society might care for the permanent profits in entirely different ways, without injury to industry. It might appropriate them through taxation, as, for example, taxes on land values, franchises, and inheritances; but in any case sufficient margin should be allowed for the wide play and scope of the pure entrepreneur's profits.

CHAPTER V

STATISTICAL DATA

THE application of the foregoing principles of distribution to the different branches of industry would involve a statistical problem which is as yet insoluble on account of the absence of data. But it will be possible to present a comparative study in agricultural statistics which will verify, as far as it goes, what has already been said. The accompanying table on page 239, showing the facts of distribution in the single industry of wheat-growing in different parts of the United States, and the comparison with cabbage-growing in Ohio, was collated by the writer several years ago, and has served as the starting-point for the present investigations. It will, of course, not be expected that any except the most prolonged and minute statistical investigations could verify exactly the principles laid down. All that can be hoped is to show that the tendencies are in the direction here indicated. Allowance will need to be made by the reader's sense of all the minute fluctuations and details which necessarily enter into statistical presentations of this kind, covering a series of years and averaging up the experiences of whole communities,

ITEMS.	I. EASTERN OHIO WHEAT.	II. NORTHERN OHIO WHEAT.	III. NEBRASKA WHEAT.	IV. DAKOTA WHEAT.	V. EASTERN OHIO CABBAGES.
1. Annual investments :—					
Fertiliser	\$4.50	\$	\$	\$	\$4.50
Ploughing, dragging, drilling, har- rowing, and fitting	3.75	4.00	2.00	1.50	Fitting, 6.75
Cost of seed	1.12	1.50	1.00	1.35	Planting, 5.00
Cutting crop	1.00	1.50	1.00	1.25	Plants, 15.00
Hauling to barn, stacking	1.00	.85	.50		
Threshing	1.25	1.43	.75	1.50	Cultivating, 4.00
Hauling to market	1.00	.90	.75		
	\$13.62	\$10.18	\$6.00	\$5.60	\$35.25
2. Value of total product	18.00	27.00	9.75	8.19	160.00
	20 bu. at 90 c.)	(30 bu. at 90 c.)	(15 bu. at 65 c.)	(18 bu. at 69 c.)	(4000 heads at 4 c.)
3. Percentage of total product to annual investment	132%	265%	162%	146%	437%
4. Current rate of interest	6%	7%	10%	10%	6%
5. Necessary return (including profit) on annual investment (profit esti- mated at double the rate of interest)	\$13.62 1.63 = 12%	\$10.18 1.42 = 14%	\$6.00 1.20 = 20%	\$5.60 1.12 = 20%	\$35.25 4.23 = 12%
6. Surplus for rent of land, interest on permanent improvements, and personal profit (subtract 5 from 2)	\$15.25	\$11.60	\$7.20	\$6.24	\$39.48
7. Estimated value of land and improve- ments (obtained by capitalising item 6 at double the rate of interest)	2.75	15.40	2.55	1.47	120.52 (Rent and entrepre- neur's profits.)
8. Actual value of land and improve- ments	22.92	110.00	12.75	7.35	1004.00
9. Necessary profits on actual value of land and improvements, at double the rate of interest	25.00	120.00	8.00	8.00	85.00
10. Personal profits of entrepreneur (dif- ference between items 6 and 9)	3.00	16.80	1.60	1.60	10.20
	— .25	— 1.40	.95	— .13	110.32

to say nothing of the different estimates, motives, and painstaking of the different individuals upon whom one must depend for his figures. Yet the table is given for what it is worth.

The problem here before us is to determine from the annual investments of capital and labour and the prevailing rates of profits in different parts of the country, what will be the surplus which goes to the rent of the land, and the consequent value of the land. The data were ascertained by inquiring for figures upon the items indicated under the numbers 1, 2, 4, and 8. That is to say, the facts ascertainable were (1) the amount of capital annually invested upon a given acre of land; (2) the net value of the total product per acre; (3) the current rates of interest; and (4) the actual values of the land and permanent improvements per acre. On the last point, I believe, is the only deficiency of the tables. It would have been pertinent to the present discussion if the value of improvements, apart from the value of the ground, could have been obtained; but the difficulties in correctly distinguishing between the two in agriculture, are well known to be very great, and so no attempt is made. Yet, as will be shown presently, this deficiency is unimportant so far as concerns its consequences upon the general conclusions.

While items 1, 2, 4, and 8 are the available facts, items 3, 5, 6, 7, 9 and 10 are calculations and deductions based upon them.

Taking up first the consideration of wheat-production, it was deemed necessary to compare conditions where different rates of interest prevailed. The points selected were the average conditions first in eastern Ohio, where the ruling rate of interest was 6% ; second, northwestern Ohio, where the rate was 7% ; third, Perkins County, Nebraska, where the rate was 10% ; and fourth, Sprink County, Dakota, where also the rate was 10% .

The principles on which the calculations were based may be shown by examining the sample acre in eastern Ohio. Here the annual investment includes the ploughing, cost of seed, putting in crop, hauling, stacking, threshing, and hauling the grain to market, the total cost being \$13.62 per acre. The crop of twenty bushels at the average price for a series of years brings \$18.00. This is 132% of the annual investment, and if this were the only element involved, the farmer's profits would be 32% . But competition compels him to rest satisfied with a profit on his annual investment no higher than that which is being earned on disposable capital in adjoining enterprises. This is the necessary profit which has already been discussed. Assuming that the necessary profits are double the current rates of interest in an industry like farming which is conducted on a small scale, the farmer in eastern Ohio must secure in the price of his product not only the replacement of his annual investment of \$13.62, but also 12% profits thereon. He could

not on the whole secure more, because then his competitors would outbid him for his situation; and he would not accept less, because his expenses and standard of living require this, and he could get more by leaving his piece of land and going elsewhere. This is the reason, too, why he does not invest more than \$13.62 per year on each acre. Further investments would lead him down to a point of diminishing returns where he could not recuperate his necessary profit.

If his necessary profit is 12%, then to pay him for his annual investment of \$13.62, he must get an annual return of \$15.25. This return will pay him as well as he can do elsewhere; so he is content with it, and bases his calculations upon it as to his ability to pay rent. Seeing, that on the average, the total return per acre is \$18.00, there remains a surplus above his necessary returns of \$2.75.

How is the farmer to look upon this permanent surplus with reference to his business interests? It will be noticed that I have not included in the annual investments, or expenses of production, any reference to "interest on the value of the land." Yet, in each of these cases, entrepreneurs unfailingly estimate interest on the value of their land (*i. e.* rent), as a part of their necessary expenses. Rent, then, must come out of this surplus. But will the whole of it go to rent? I have already stated that "permanent improvements" and "land" are so inextricably bound together in these enterprises, that they cannot suc-

cessfully be differentiated. Hence, though I have indicated "interest on permanent improvements" as a part claimant in the surplus, for present practical purposes, this item might be looked upon wholly as one element, the "rent of land."

But rent, even as thus viewed, cannot absorb the whole of this surplus. Rent always bears a fairly exact proportion between the current rates of interest and the capitalisation of the land. The *landowner* is, to all intents, a capitalist, and loans his land just as the capitalist loans his capital. He loans it for whatever rental he can get. The rental is to him just the same as so much interest on capital which he may possess. Therefore, he considers the land to be worth as much as an amount of capital which would bring to him annually the given lump interest. That is to say, he capitalises the rent at the current rate of interest.

But the entrepreneur is in a different position. He assumes the management and takes the risk of the land just as he does of the capital he uses. If he considers it profitable to employ new capital only when he can make double the current rate of interest upon it, and therefore considers it possible to allow only half his necessary profits as payments for interest, he will also consider land (and other opportunities for employment) as worth to him such a capitalisation as would make the actual return yielded by it equal to the rate which he gains on his new capital, and would therefore allow only half his

surplus as his possible payments for rent. Hence he capitalises his surplus at double the rate of interest, or, what is the same thing, he retains for himself as his necessary profits, one half the surplus, paying the other half over to the landowner, who then capitalises it at the current rate.

Applying this principle, then, to the surplus in question, \$2.75, and capitalising it at 12%, we find the estimated value of the land to be \$22.92.

If we turn, now, to the other tracts of wheat land presented in the table, we find that the tract in northern Ohio differs from that in eastern Ohio in two particulars: 1. Superior natural fertility, as shown by the fact that it does not require outlays for fertilisers, and that its yield is nevertheless 50% greater. 2. A higher current rate of interest. Applying the same principles as in the case of the first tract, finding that the annual expenditure is \$10.18, we see that the necessary return on this account is \$11.60, but that the value of the total product is \$27.00. This leaves a surplus of \$15.40, which, capitalised at 14%, gives the estimated value of the land as \$110.00.

The third and fourth tracts are alike in respect to the rates of interest, and do not differ materially between themselves in other points. Capitalisation here takes place at the rate of 20%, and consequently the estimated values of the land are much lower than they would have been in Ohio with the same surpluses.

I have added in each case the actual value of the land and improvements according to the estimates of each neighbourhood. It will be seen that the estimated value according to the above calculation in no case agrees exactly with the true value. Yet when it is considered what a leverage is involved in the processes of capitalisation here employed, the tendency to agreement will appear remarkable. For example, a lowering of the product in Column III. by 1.46 bushels per acre would bring the capitalisation down to the actual value, and in Column II. an addition of $1\frac{1}{2}$ bushels, or a rise in the price of $4\frac{1}{2}$ cents per bushel, would make the estimated value equal to the true value.

But while there may be many explanations of the discrepancies in particular cases, there is another element which will account for the widest differences, namely, the entrepreneur's personal and temporary profits. This element is plainly illustrated in Column V., the cultivation of cabbages. Instead of investing annually \$10.00 or \$12.00 in the growing of wheat or staple grains, the entrepreneur here invests \$35.25 per acre. Such culture demands greater personal attention and involves greater risks, but if successful yields much greater returns. The profit in this case is 337% of the investment. But the expense of the original investment and customary profits on the same necessitates only \$39.48. The total return is \$160.00, which leaves \$120.52 for rent and personal profits. If

this were a permanent profit it would show itself in a capitalisation of the monopoly equal to \$1004.00 per acre. But it is temporary and fluctuating, and depends upon the abilities of the individual who happens to be in charge. The necessary profits on the actual value of the land and improvements as determined by the competition of the least prosperous entrepreneurs of the neighbourhood who permanently sustain themselves, is only \$10.20. This leaves a remainder of \$110.32 pure personal profits of the entrepreneur.

Applying this principle to the wheat lands, I have indicated under items 9 and 10 the necessary profits on the true value of land and improvements determined as above, and the personal profits (or loss) of entrepreneurs. Of course, in all these cases allowances must be made for the statistical difficulties already mentioned. It would be interesting to extend this line of inquiry into other branches of agriculture and other industries. But scarcely more can be claimed for it than the indication of tendencies which are already self-evident when once they are pointed out. Specially valuable results could be obtained by comparing wheat-growing in England with the American tables here given. It would then doubtless appear that the high values of English farming lands are due not only to larger crops and higher prices, which result from higher agricultural skill and nearness to markets, but also to the more intensive cultivation and extensive use of fertilisers,

and lower expenses of production, which follow from the lower rates of wages and interest.

Another example is given below¹ showing the way in which the permanent monopoly element absorbs

PRICES OF LUMBER AND STUMPAGE IN MICHIGAN, 1866-1887.

DATE.	LUMBER PER 1000 FEET.	STUMPAGE PER 1000 FEET.
1866	\$11.50 to \$12.00	\$1.00 to \$1.25
1867	12.00 " 12.50	1.25 " 1.50
1868	12.00 " 12.50	1.50 " 1.75
1869	12.50 " 13.00	2.00 " 2.50
1870	12.00 " 12.50	2.00 " 2.50
1871	12.50 " 13.00	2.00 " 2.50
1872	13.00 " 13.50	2.00 " 2.50
1873	11.50 " 12.00	2.00 " 2.50
1874	10.50 " 11.00	2.00 " 2.50
1875	9.50 " 10.00	2.25 " 2.75
1876	9.00 " 9.50	2.25 " 2.75
1877	9.25 " 9.75	2.25 " 2.75
1878	9.50 " 10.00	2.25 " 2.75
1879	10.50 " 11.00	2.50 " 3.35
1880	11.50 " 12.00	2.75 " 3.00
1881	12.50 " 13.00	3.00 " 4.00
1882	14.00 " 14.50	3.50 " 4.50
1883	13.50 " 14.00	4.00 " 5.00
1884	12.50 " 13.00	4.00 " 5.00
1885	12.50 " 13.00	4.50 " 6.50
1886	12.50 " 13.00	4.50 " 6.50
1887	12.50 " 13.00	4.50 " 6.50

the advantages which accrue from progress and the lowering of wages and interest. The prices of pine lumber in Michigan have remained at about the

¹ See also *Quarterly Journal of Economics*, July, 1892.

same figure, \$11.50 to \$13.00 per 1000 feet, during the twenty-two years covered by the table; but meanwhile the prices of the same lumber while yet standing in the forests (stumpage), before capital and labour have been applied to it, have risen from \$1.00 and \$1.25 to \$4.00 and \$6.50 per 1000 feet. This shows that capital and labour receive a progressively less share of their total product, and accounts in part for the lowering of wages and interest. Of course, there has been, also, an enormous increase in the efficiency of both. Yet in the case of capital this increased efficiency has been accompanied by a greatly increased *quantity* of capital employed, so that the *rate* of interest has been lowered. Conversely, this lowering of the rate has sent up the capitalisation of the land in a geometric progression from \$10.00 and \$12.00 per acre when the values of the low-priced stumpage was capitalised at 8% and 10%, to \$100.00 and \$125.00 per acre, when the value of the high-priced stumpage is capitalised at 5% and 6%.

CHAPTER VI

CONCLUSION

THE so-called conflict between capital and labour is at bottom a conflict between capital and labour on the one hand, and the owners of opportunities on the other. Capital is not the residual claimant of the current product of industry, seeing that the rates of interest are steadily declining. Neither is labour the residual claimant. This view of President Walker's overlooks the phenomena of necessary and permanent profits, and gives attention only to the temporary or personal profits. Necessary profits in the first place do away with the no-profits entrepreneur. But necessary profits may be looked upon as a kind of wages and interest. Personal profits are the residual or contingent share of the entrepreneur proper in any single round of production, and as its amount depends so largely upon the personal abilities of the entrepreneur it may well be considered as following a law similar to that of rent. In such case one may truly say that it does not enter into the price of products nor does it come out of wages; but it is a surplus above the production of the "no-profits" entrepreneur

who pays the same wages and interest. Hence the competition of entrepreneurs by driving out the lowest would raise the margin of entrepreneurs; the profits of others would be lowered and the gain from the general increasing efficiency and productivity of labour, being a gain which takes place under the "no-profits" entrepreneur as well as under others, would gradually be transferred to the labouring classes.

It is admitted by President Walker, and indeed is essential to his theory, that the individual entrepreneur is the residual claimant "in any individual transaction, . . . owing to the force of contract, just as the farmer, under a lease, pays the owner of the soil no more in years when the yield is exceptionally large, and no less in years when the crops are short."¹ But these are temporary and fluctuating profits, and cannot be capitalised. If the profits in the case cited should turn out to be *permanently* "exceptionally large," we should find that at the expiration of the lease another would be drawn up, in which these permanent profits would be handed over to the owner of the soil in the form of increased rent. And so, not only do capital and labour not get the gain from permanently increased productivity, but even the entrepreneur proper himself fails to get it. He merely takes his chances of having good luck and better ability than his competitors in getting a temporary residual share above his costs

¹ *Political Economy*, p. 249.

for labour and capital and permanent monopoly profits.

President Walker seems also to overlook the element of manufacturing and mercantile rents. He holds¹ that increased productivity of labourers would not go to the landlord class in higher rents, unless it would involve an increase in the amount of material employed. In this case "the increase would no longer go entire to re-enforce wages. A larger amount of materials being used, a greater demand would be made thereby upon the productive powers of the soil; the lower limit of cultivation would be pushed downwards, a longer or shorter distance, to supply the increased demand; and rent would be enhanced." This indeed accounts for the disposal of one part of permanent profits. Mining and timber rents take a large share from the product of capital and labour. But agricultural rents get a very small part, while rents paid for manufacturing and mercantile sites get an increasing share.

Taking together all the different kinds of permanent profits and rents, we can see that they are sufficiently able to rise up and absorb all the increasing production of capital and labour and business ability, where this is diffused so as to reach the lowest grades of capital, labourers, and entrepreneurs. Tracing a single product like furniture, in its transformation from the forest to the consumer, and noticing the different permanent monopoly charges which are

¹ *Political Economy*, pp. 254, 256.

successively deducted, it is easy enough to see where the residual claimants lie. First the stumpage owners, then the transportation profits; profits on patent rights, which are said to cover five sixths of the manufacturing industries of the country; ground rents paid for mill sites, operatives' dwellings, company's offices; the profits and rents absorbed by the agencies of exchange, such as bankers and boards of trade; and finally, whatever permanent monopolies may have been developed in the form of trusts by manufacturers, dealers, and middlemen. To these should be added the rents and monopoly profits of collateral industries furnishing coal and iron for manufactures.

The prime importance of monopoly privileges in the distribution of wealth is well shown by the results of the investigation of the *New York Tribune*¹ in its efforts to ascertain the sources of the fortunes of the millionnaires of the United States. That investigation was undertaken to show that the system of protection has not been the main cause for monopolies and great fortunes. The investigation amply demonstrates this proposition. Of the 4047 millionnaires reported, only 1125, or 28%, obtained their fortunes in protected industries. The following partly estimated summaries are given, based on the *Tribune* report. They show that about 78% of the fortunes were derived from permanent monopoly privileges, and only 21.4% from competitive

¹ Published in June, 1892.

industries unaided by natural and artificial monopolies. Yet there can be no question that if this 21.4 % were fully analysed, it would appear that they were not due solely to personal abilities unaided by these permanent monopoly privileges. They were mostly obtained from manufactures, and five sixths of the manufactures of the country are based on patents. Besides, fortunate investments in real estate, stocks, etc., have often contributed to fortunes where they do not appear prominently.

Furthermore, if the *size* of fortunes is taken into account, it will be found that perhaps 95% of the total *values* represented by these millionaire fortunes is due to those investments classed as land values and natural monopolies, and to competitive industries aided by such monopolies.

**SUMMARY OF THE SOURCES OF THE FORTUNES OF AMERICAN
MILLIONAIRES.**

Grand total	4047	
Origin of fortune unknown	55	
	3992	
In protected industries mainly	1125	=28.1%
		PER CENT.
Land values	981	24.6
Natural monopolies	386	9.7
Artificial monopolies	124	3.1
Competitive industries aided by natural monopolies	1647	41.5
Competitive industries unaided by natural monopolies	854	21.4
	3992	100.0

LAND VALUES.

Protected natural resources are marked P.

Saw mills and lumber	138 P
Coal, iron, zinc, lead, copper, and quicksilver mines	113 P
Marble quarries	2 P
Sugar plantations	3 P
Tobacco growing and lands	3
Wool growing and lands	1 P
Cattle raising and lands	47
Real estate, advance in values	468
Silver and gold mines	73
Oil producing, refining, and transportation	72
Pine lands	19 P
Dealing in timber and mineral lands	11
Plantations, farming, and land	15
Nitrate beds in Chili	1
Asphalt street pavements	1
Plantations, West Indies and South America	6
Phosphate land in Florida	1
Stock raising and lands	3
Cotton raising	4
	<hr/>
	981

DISTRIBUTIVE INDUSTRIES, NATURAL MONOPOLIES.

Railroads	186
Express	18
Telegraph and telephone	12
Gas, waterworks, street railways, ferries	70
Contracting and building railways, streets, and public works generally	77
Contracting for railways in foreign lands	6
Grain elevators, storage warehouses, and wharf business	17
	<hr/>
	386

BANKING, LOANING MONEY.

Loaning money and real estate	9
Banking, real estate, and securities	294
	<hr/>
	303

ARTIFICIAL MONOPOLIES.

Patented and proprietary articles	93
Copyright books, with general printing in some cases	25
Copyright music	2
Mail contracts	1
Royalties on patents	3
	<hr/>
	124

COMPETITIVE INDUSTRIES AIDED BY NATURAL MONOPOLIES,
LAND VALUES, AND CURRENCY.

Manufacturing, with real estate, banking, and other non-protected business, in many cases	619
Brewing and real estate	79
Merchandising mainly, with, in a great majority of cases, investments in real estate, banks, and securities	986
Loaning money and real estate	9
Banking, real estate, and securities	294
Brokerage business and stocks	56
Law practice, real estate, and securities	65
Hotel and restaurant, with real estate	24
Show and circus, with real estate, securities	3
Medical practice and real estate	1
Pawnbroking and real estate	2
Pony express and lands	1
Mercantile agency and investments	2
	<hr/>
	2141
From these should be deducted a minority of the 619 manufacturers, who were probably unaided by monopolies, say	200 ¹
Also from 986 merchants, for the same reason, say,	300 ¹
	<hr/>
	500
	<hr/>
	1641
Miscellaneous investments, mostly protected	6
	<hr/>
	6147

¹ See p. 256, where these figures are incorporated in the table of "Competitive Industries unaided by Monopolies."

**COMPETITIVE INDUSTRIES UNAIDED BY NATURAL AND
ARTIFICIAL MONOPOLIES.**

[P, protected. In many cases, however, fortunes built up on secret rebates from railways. Such supposed cases marked R. Those marked ? may possibly be connected with natural monopolies, e.g. wharves, docks, mines.]

Distilling, mainly	32 P
Malting	2 P
Sugar refining, mainly	29 P
Ship-building and repairing	3
Tanning and leather	49 P
Coasting and lake shipping	31
Flour milling	16 R
Seeds and nursery business, mainly	4
Lithographing and insurance	1
Ocean shipping and foreign trade	75 ?
Whaling and ocean trade	4
Packing and provisions	34 R
Ice business	1
Publishing news and story papers	30
Steamboating on rivers and harbours	20 ?
Cracker and bread baking	4
Louisiana lottery	2
Smelting and refining metals	6 ?
Insurance business, mainly	6
Pension agency	1
Unprotected manufacturing	2
Refining lard, cotton oil, etc.	1
Tweed ring	1
	354
To these should be added a portion of the 619 protected manufacturers, say	200 ¹
Also a portion of the 986 merchants	300 ¹
	500
	854

In examining the foregoing tables and in the general statistical investigations concerning the distri-

¹ See p. 255.

bution of wealth, it should be borne in mind that the true income from monopoly privileges is always more or less concealed, either designedly or inevitably. This is brought about by increasing in the pretended form of expenses the shares of certain factors in production, when such increase, rightly examined, is found to be due to special favours or contracts growing out of the control of the monopoly privileges. Among these ways in which profits are concealed, may be mentioned high salaries; favourable contracts with inside corporations and individuals, imposing heavy fixed charges and operating expenses; fictitious debts; and the tendency to keep up the capitalisation of original improvements and investments without making those allowances for depreciation which would be allowed in competitive enterprises.¹

The principles developed in the foregoing pages have important bearings on the questions of wages,

¹ In a valuable letter received by the writer from Mr. F. C. Waite, special agent of the Eleventh Census in charge of "True Wealth," the statement is made that "the monopolistic value of land in the United States, i.e. the 'unearned increment,' equalled in 1890 about \$25,000,000,000." This is to be compared with a total wealth of the country, as estimated in Bulletin 92 of the Census Bureau, of \$63,648,000,000. "This enormous land value," says Mr. Waite, "is largely made up of inflation, resulting from the fact that owners and buyers expect to continue piling increase upon increase year after year. In some sections almost every dollar of these inflated values is liable to vanish when the great commercial crisis, now brewing, sweeps across our continent, and the resulting foreclosures reduce the amount of mortgaged indebtedness in this country to somewhat the same status as existed in 1880." Regarding the other monopoly privileges it is possible to give only the gross and net earnings without an attempt at capital-

taxation, and public policy, which can only be suggested but not elaborated in this essay. An increase of wages without increased efficiency would come not from interest nor from necessary and personal profits but from permanent profits. Tax reform should seek to remove all burdens from capital and labour and impose them on monopolies. Public policy should leave capital and labour and business ability free and untrammelled, but endeavour to widen and enlarge the opportunities for their employment.

ising the monopoly element. Mr. Waite furnishes the following table:—

**GROSS AND NET EARNINGS OF IMPORTANT NATURAL MONOPOLIES
FOR THE CENSUS YEAR 1890.**

	GROSS EARNINGS.	NET EARNINGS.
Railroads:		
From operation	\$1,051,877,632	\$ 331,373,057
From other sources	126,767,064	
Unreported roads (about)	50,000,000	
Express companies	53,000,000	11,000,000
Street railways	90,000,000	28,000,000
Water transportation	191,000,000	31,000,000
Telegraph companies	25,000,000	7,000,000
Telephone companies	16,404,583	5,260,712
Insurance companies:		
Life	90,000,000	59,000,000 ¹
Fire, etc.	54,991,613	19,000,000
Banks:		
National	144,614,053	72,055,564
All others (estimated)	200,000,000	—
Artificial gas companies (estimated)	25,000,000	—

¹ Gross receipts less gross disbursements.