

UNIVERSAL
LIBRARY

OU_152253

UNIVERSAL
LIBRARY

OUP—23—4—4—69—5,000.

OSMANIA UNIVERSITY LIBRARY

Call No. 339.201

Accession No. PG. 6473

Author C36B

catherwood, B.F.

Title

Basic theories of distribution

This book should be returned on or before the date
last marked below.

1939.

BASIC THEORIES OF DISTRIBUTION

BASIC THEORIES OF DISTRIBUTION

BY

B. F. CATHERWOOD, PH.D.

*Professor of Social Sciences and Director of the Academic
Department of Ithaca College, Ithaca, New York*

LONDON

P. S. KING & SON LTD.

ORCHARD HOUSE, 14 GREAT SMITH STREET
WESTMINSTER, S.W.1

1939

Printed in Great Britain

TO MY FAMILY
AND
TO MEN AND WOMEN
WHO
LABOUR IN THE FIELD OF
FREE PUBLIC EDUCATION,
THE
BASIS OF ALL DEMOCRACY

AUTHOR'S PREFACE

THIS book is the result, in part, of an extended study of the subject of Distribution made in the Graduate School of the State University of Iowa. It is thought that the best method of discovering a writer's meaning relative to a particular subject is to refer to his own words; consequently, recourse has been had to the original sources, the writings of the men indicated which probably form the nucleus of economic thinking from their own time to the present.

Since the time of these early economists Distribution has been found to be one of the most difficult fields of economic thought. In academic life there has been great paucity of instructive teaching and thinking in this field. Industrial and commercial view-points have been emphasized from the productive angle and probably have for the most part met the demands which have been incident to an economy in which productive elements have been discovered, invented, combined and utilized with wonderful speed and effectiveness.

In more practical fields these productive elements have reached such a stage of effective combination that they apparently react upon themselves and either prevent further increase in productive efficiency or produce an actual decline. In the quarter century just passed we have seen States change their form or meet annihilation, often on some political pretext, but in reality partly because the distributive mechanism has not been functioning. We have seen Governments change form and become the antithesis of that form which for the past century and a half has been the stated aim and ideal of peoples. This change has usually had its genesis in an unbearable condition of peoples resulting from a complete or partial breakdown of the distributive process.

Perhaps we are now in an epoch in which further increases in much needed production are dependent on a more rational understanding and a more effective operation of those principles of Distribution which generally apply in economic life.

B. F. CATHERWOOD.

ITHACA, N.Y.

November 11, 1938.

CONTENTS

	PAGE
PREFACE	vii
CHAPTER	
I. INTRODUCTION	I
II. THE NEO-CLASSICAL SCHEME OF DISTRI- BUTION	7
III. ADAM SMITH	20
IV. THOMAS ROBERT MALTHUS	59
V. DAVID RICARDO	95
VI. NASSAU WILLIAM SENIOR	140
VII. JOHN STUART MILL	177
VIII. SUMMARY	237
BIBLIOGRAPHY	260

LIST OF ILLUSTRATIONS

ADAM SMITH	<i>Frontispiece</i>
THOMAS ROBERT MALTHUS	<i>Facing page</i> 59
DAVID RICARDO	95
NASSAU WILLIAM SENIOR	140
JOHN STUART MILL	177

BASIC THEORIES OF DISTRIBUTION

CHAPTER I

INTRODUCTION

ADEQUATE justification for the study of classical English economics is found in the fact that it provides the historical background, if not the complete framework, of much of our contemporary economic thought. This is especially true of the distribution theory which, although it has been recognized since the organization of the science as an important division of the subject, has been relatively neglected in comparison with value, the subject of many theoretical discussions. As long as the present economic order exists, serious students will be concerned with the historical antecedents of its attendant theoretical dogmas.

So far as the writer is aware, no student of the classical field of English economics has pushed his investigations to the point of isolating the essential principles of the distributive schemes of the classical writers and evaluating them in the light of modern economic doctrines. There have been discussions, however, which have involved practically the entire economic field under the terminological captions of value and distribution, production and distribution, and some other combinations which have been much more inclusive than the present study. The scope of this effort has been limited to what is conceived to be the fundamental principles of classical English distribution as they were viewed, in a partially disintegrated fashion perhaps, by the writers involved. The analysis is directed to the theory of distribution only and is not intended to include all of the minutæ and problems in applied economics related thereto, but merely

that part of it comprised in the fundamentals of the systems. This limitation has removed the necessity of considering many subsidiary problems that are related to distribution, and which were, moreover, placed by the classical writers in remote parts of their discussions, and consequently were very obviously considered by them as non-essential to the distributive scheme. Neither the detailed implications of the subject, nor considerations found in fields remote from those in which their theories have been expressly and intentionally stated, have ordinarily been brought into the discussion. This has permitted an interpretation of their intended theses on the subject, and left less as a matter of conjecture. Although these writers employed subordinate ideas related to distribution as supplements to the consideration of other phases of economics, it seems just to select only those parts that the writers themselves, either by expression or implication, considered most important.

It is the position of the writer that economic theory does not require to be applied to any specific problem or at any specific time in order to establish its validity. It is composed of broad generalizations and inclusive concepts which in their own right contribute to a more complete understanding and a more effective solution of specific problems when and where they may exist. It is true, however, that if this study had no other present significance, the maladjustments of economic life in the year 1938 are sufficient to justify any effort in the field of historical theory or elsewhere that looks toward a more comprehensive grasp and a clearer understanding of the forces that determine the apportionment of the social income, or control the activities that make the functional shares available.

The problem, then, briefly stated, is the extraction of the component parts of the traditional scheme of distribution from the discussions of the several writers, and the evaluation of this scheme in the light of the modern theory of distribution, applicable to present-day economic life. This traditional system was not common to all the

writers involved ; one component was developed by one writer and another by another and so on ; consequently, as will be developed, all the writers did not subscribe to the system as a whole.

There will probably be no questions raised as to the rank of the writers whose discussions of distribution form the basis for the following analysis. Adam Smith, Thomas R. Malthus, David Ricardo, Nassau W. Senior, and John Stuart Mill occupy a position in the genesis and development of the science of economics that is not subject to question. More than a century and a half has elapsed since the *Wealth of Nations* was published, and it has been more than three-fourths of a century since the last of the group wrote his *Principles of Political Economy*. Both historical perspective and critical discussions have served to evaluate their respective contributions to the science. Other writers than these might have been included in the list, but an intensive study of the important principles of a few was considered preferable to an extensive study of the contributions of many. The works involved compose adequate samples of the theses of that group of writers who based their discussions on the foundations laid down by Adam Smith. Only the editions of these writers' works which are thought to be most suitable and to contain the ideas of the writers in their most appropriate setting have been used. It is true, however, that fundamental notions on distribution were little changed by the revision of editions, and that even in the instances of personal correspondence between writers concerning controversial matters the integrity of the originally important ideas were generally maintained as determinedly at the end of the correspondence as at the beginning. As Ricardo says in his letter to Malthus, "Like other disputants, after much discussion we each retain our own opinions."

The method used in the development of this thesis is simple and direct. It has been possible in all cases to use the original sources of material ; hence there has been no necessity for resorting to comments of later

4 *BASIC THEORIES OF DISTRIBUTION*

writers to ascertain just what each writer said on a subject. This has the advantage that it permits the presentation as a part of the discussion not of an opinion but of an actual statement, that, in so far as it is interpreted correctly, gives the precise meaning of the original writer. The analysis is based on the actual expressions of these writers. This plan has been consistently followed throughout.

This is not meant to be a collection of readings on distribution. No general effort has been made to incorporate the opinions and criticisms of the great multitude of commentators who have lived and written since the publication of the *Wealth of Nations*. In a very few instances commentators have been quoted. Let the reader think of the host of writers, critical and otherwise, who have based their discussions more or less directly on the works of these fathers of the science, and he will immediately see that the magnitude of the task involved in incorporating the thoughts of even a relatively small number of leading authorities would far surpass the limits of this work. From the standpoint of the purpose of the thesis much of it would also be without great value.

It would be most presumptuous to pretend to criticize the theories contained herein from the same point of view as if they had been written in the twentieth century. The criticisms offered, either as to general content or as to details and implications, are directed more particularly to modern thoughts based on the fallacies involved than to the discussions directly under consideration.

Granting that a high degree of continuity obtains in the development of economic thought, the analysis proceeds on the assumption that the economic doctrines of the classicists were to a great extent moulded by the prevalent social, political, and economic institutions of the period. This assumption is substantiated by an examination of the efforts of the writers to make practical applications of their theories to existing contemporary problems, with the apparent thought that their successful applica-

tion to the solution of such temporary problems would be adequate proof of the validity of the theories.

The desire to consider the scheme of each writer as a unit has made it necessary to resort to a considerable amount of repetition. The wish to present a clear and, as far as possible, a complete and concise picture of the system proposed by each man is responsible in part for a considerable degree of prolixity.

In 1836 Malthus asserted that there were great differences of opinion among political economists as to the essentials of the science. Among other things these differences concerned the distributive shares of rent, wages, and profits. During the intervening century writers on the subject have repeatedly noted the confusion in the teaching of economics, as well as the disagreement on the fundamental principles, and have expressed astonishment that students have the temerity to pursue the study under existing conditions. Is this confusion of tongues an unavoidable heritage of the science? Is not a greater degree of agreement much to be desired for a science that is as far reaching in its influence, and has such a direct bearing on the material welfare of mankind as has the science of economics? Certainly a unified analysis is highly desirable. It is the hope of the writer that this analysis may contribute to a simplified concept of the contribution of the classical writers to the distributive scheme and may also add something to an understanding of the forces that are operative in a realistic sense in modern economy.

As the work progressed it naturally divided itself into three distinct divisions. The first part is embodied in the following chapter and sets forth the definite point of departure from which the analysis is made. This is a homogeneous theory of distribution, with all the shares governed by the same principle, with an infinite number of factors, and with little necessity of distinguishing between factors or shares except for expository reasons. This is in contrast to the heterogeneous scheme evolved in the study, with three shares generally recognized,

6 *BASIC THEORIES OF DISTRIBUTION*

each determined by different principles. The second part includes Chapters III, IV, V, VI, and VII, the body of the analysis. In this are to be found the statements and the exposition of the five writers whose works were selected for the basis of the discussion. In the last part is to be found a summarizing statement of their various contributions to what has been called the classical theory of distribution.

CHAPTER II

THE NEO-CLASSICAL SCHEME OF DISTRIBUTION

THE point of departure for this study is embodied in the neo-classical system of distribution. The purpose of this chapter is a concise statement of this as a theory definitely acceptable for the task at hand. Any such theory must be particularly applicable to a distinct economic order. The name commonly applied to the existing economic system is the competitive order. In certain respects it could also very appropriately be called the entrepreneurial system, or the system of automatic organization for production. In the historic evolution of the economic order certain dominant forces and institutions have come to have general prevalence in economic life. Among the most important of these are the profit motive or "getting ahead" urge, and the legal institutions of private property and freedom of contract.

Consistent with neo-classical theory, distribution exists co-ordinately with other economic phenomena, and consequently it is usually described, analysed and evaluated in conjunction with the theories of the other phenomena. Distribution implies reception and ownership. Ownership and control is the right of disposal and the claim to the income. This idea of ownership is based upon the institution of private property, which is founded on the belief that better productive efforts result and the maximum of consumption goods is obtained where private property prevails. This position is merely a reflection of the social mind at a given time and is subject to modification or radical change in accordance with the evolution of society's ideology and

standard of values. If the idea of ownership of material goods and productive services were dissipated, however, competitive distribution would cease to have any great meaning. The relationship between the possessor and the thing possessed would be limited to the act by which the unit of the common good or service renders its contribution to human satisfaction. There would then be no opportunity for the identity of the product and the pay as now approximated in market pricing phenomena. Wages, profits, and rent as interpreted in the present terminology would hardly be conceivable if their allocation were made contingent on their reception by individuals in an economic order where private property was non-existent. The making of a productive contribution by a factor is significant with reference to personal distribution only if that good is privately owned and its income privately appropriable.

Freedom of contract is the automatic regulator of our economic order. It is the second phase of that greater concept, economic freedom. The first, sometimes called the Ricardian stage, was freedom of competition, a combination of natural and individual elements, in contrast to the restrictive control of economic actions by ecclesiastical and secular authority of the mediæval epoch. This freedom of contract is the essence in modern economic life of *laissez-nous-faire*. It directs the market forces toward a state of equilibrium by contributing to the equalization of the forces of supply and demand and the causes which affect them. Free contract or free enterprise does not refer to individual political liberty nor yet to atomistic competition. It is based on the idea of ownership and refers to liberty of decision and disposal, within limits. It is not a natural order, but an industrial contract, a substitute for individual production, affecting the mutual relations between the individual and society. We have progressed from individual production to co-operative endeavour by which man's struggle with nature, and in combination with his fellow-men, is more fruitful of want-satisfying goods. The wants

and wishes of others are the determiners of our economic activity.¹

The right of disposal implies ownership. Free contract is based on this ownership of private property. This property is either personal, material external physical things, or "rights" legally established and maintained. Freedom of person is generally an established fact from a legal point of view. Freedom of contract over material things is likewise firmly grounded in the present order of Anglo-Saxon Society. That control and responsibility in case of trial and error which characterize productive effort under free contract contribute to a minimum of errors is the assumption which underlies the economic philosophy of to-day.²

Among characteristics other than those mentioned above that feature our economic life, organized activity is important. Instead of direct personal and atomistic competition, indirect centralized co-operative effort is the rule. The manager directs production in accordance with the market demands, and interprets these demands. His calculations contain a strong element of futurity. Production often takes place long before consumption, and the manager's efforts must be directed toward the interpretation of, and the forecast of, possible changes. Sometimes these estimates are not accurate and the risk incurs a loss. Markets distant in space as well as time must be satisfied or else there is a lack of adjustment, economic want, and often economic disaster.

Production is roundabout rather than direct, and consequently, in a progressive society, calls for increasing amounts and a constantly greater variety of forms of the material agents of production. Continually more and more productive power is converted into these newer capital goods. There is a tendency for capital as an inanimate force to occupy a relatively more important place in the productive scheme.

¹ Smart, William, *Distribution of Income*, p. 99.

² Knight, Frank H., *Risk, Uncertainty and Profit*, pp. 351-360. Houghton Mifflin Company, 1921.

Economic theory is so inclusive, economic life so complex, and the economic laws overlap to such an extent that it is necessary to adopt a simplifying concept. This device is calculated to bring the fundamental principles and laws of economics into such relation to each other that their operations will stand out clearly. The conventional method of attaining this condition is by the assumption of a static state or an imaginary society.

This simplified economic order is characterized by the absence of general change. There is a suspension of improvements in the technique of production. Private property, economic freedom, and perfect mobility of agents prevail. Natural forces assisting production are uniform in their activity. Population is maintained at its normal in numbers and efficiency. Average intelligence and the economic motive continue to characterize human beings with the same intensity. No new wants are developed. A constant ratio is maintained between population and capital goods. All factors are constantly combined so that the maximum results will be produced. In the static state of industrial society the net product and the real income are interchangeable.¹

It is not expected that this abstract situation approximates actual conditions at any particular time. It contains a greater degree of universal truth, however, than an actual description of conditions in real life. Under these assumed conditions which correspond to the laboratory conditions of the physical sciences, we are able to discern what forces determine the division of the product between the factors co-operating in its production. This state is assumed to prevail in the discussion in the following paragraphs.

Division of labour and specialization lead to the development of collective markets. In such a market is determined the price which clears the market of goods and services, and to which is equated the entrepreneurial costs of production. The market through this price establishes the relationship between prices of productive

¹ Seager, H. F., *Principles*, p. 183, 4th Edition.

services and prices of consumption goods. Normal competitive prices may be regarded as costs of production ; costs of production include the prices of the agents of production ; the prices of the agents of production are interpreted as the distributive shares. Theoretical analysis ultimately proceeds to examine the condition of the supply and demand from which arise the long run price of these factors. The annual incomes of these agents equal the total annual income or the national dividend.

The business man's demand for the factors of production is a reflection of the market demands for the products of the specific combination of these factors. His demand is the demand for their combined activity. He cannot make brick without straw. One factor usually calls for another. His calculations are impersonal and have no ethical significance. His manipulation of the factors is conditioned by the great principle of diminishing productivity of which the physical law of diminishing returns is a part. Specifically the operation of this law is conditioned by the fact that, within limits, the ratio of the factors in the combination is adjustable. The law of diminishing returns as applied here operates as follows. In a combination of productive agencies, if one of the agents is applied in increasing amounts and the co-operating agents remain fixed in quantity, assuming divisibility of agencies into small units, the total physical product will increase, within limits, but the increments of increase of the total product with each increase of the variable factor will not be equivalent to the incremental increase of the variable factor. Not the increase of the variable factor, but the relationship between the factors is the important consideration, and the cause of the decrease per unit in physical productivity. Not only does the total product increase in a smaller ratio than the variable factor, "but—equal arithmetic increments of the factor yield decreasing increments of the product."¹

¹ Knight, Frank H., *Risk, Uncertainty and Profit*, p. 100. Houghton Mifflin Company, 1921.

That is to say, the total product resulting from the joint activity of the agents increases in decreasing amounts, and also the increments of the product attributable to the additional units or equal quantities of the variable factor decrease. The last increment added to the combination is the marginal one, and the product resulting from this addition is the marginal product. This marginal product is the guiding star of the manager.

The second phase of the principle of diminishing productivity is the result of the necessity of an exchange valuation. In addition to the decline in the increase of the physical product, and the absolute decline per variable unit, there is a cumulative declension in the value product. The total production increases in amount. This increase tends to cause a decline in the value per unit. The units attributable to a unit of the factor become less, physically, as the factor increases in amount. Hence the value product of the marginal productive unit may decline much more rapidly than either the physical product or the unit value taken separately.

Ultimately the reward to the marginal increment of each factor must equal that increment's contribution, value considered, to the total product. Distribution is the apportioning of the joint product to the agencies co-operating in its production. Hence distribution is the apportioning of the joint product back to the agencies co-operating in its production. This is accomplished through the medium of the market price which is the standard to which the entrepreneur adjusts the processes of joint production. When all available resources are utilized this is the market clearing price. To this is equated the marginal productivity of the agents, and each agent receives a return equal to its specific product. This is the theory of distribution here subscribed to. It is the theory of specific productivity, the introduction to which is found in the immediately foregoing section.

SHARE OF THE FACTORS AND THEIR RELATION

For a primitive economic order, where most of the production was by individuals and for direct consumption, the traditional classification of productive factors, into labour, capital, and land suffice. But in the present order the purchaser of productive services does not purchase aggregates of agencies or aggregates of services. The activating forces in which he is interested are highly interchangeable, one with another, and in general are highly divisible or reducible to small units. The problem is conditioned by the fact that, in reality, instead of three classes or factors, there are many kinds. Within the human group there are hundreds of kinds of labour, each similar in some respects to other kinds and conceivably to some degree interchangeable. Productively, they may be united with other agencies, into a class that to an extent will form a non-competing group, so far as other groups are concerned, and thus form a distinct productive factor. The same is true of capital goods and land. There is both intra-class and inter-class substitution and competition of agencies. Productively speaking, man employed in the mere menial activities is much more like the auxiliary machine with which he may co-operate or compete, than he is like a worker in the higher activities. Also the price he receives for his participation in the productive process may have a much more direct causal relation to the income and the price of the machine than it has to the wages of the more remote of his fellow-workers.

The organizer directs his attention, un-morally, to the purchased services. Socially, distribution centres interest in the share of the social dividend passing to the person, or the owner of the thing. Productive services and the payments therefor refer to groups differentiated on the basis of physical characteristics with their units highly interchangeable.

LABOUR AND WAGES

Qualifying the fact of interchangeability we must see that there is a difference between men and machines.

Man is the master of the machine and not the servant, or else the whole concept of economy would be awry. Any casual observation shows numerous kinds of labourers. Formerly, hereditary elements in industrial occupations tended toward a differentiation and stratification into large groups. Subsequently, however, mechanization of industry has tended to a degree of commonness, in all labour, and within this similarity, a differentiation into numerous small classes. Cairnes, adopting Mill's grouping, introduced the non-competing groups. This stratification results in the most conspicuous wage differences. These wage classes range from the highest extreme, where chairmen of boards of directors, pugilists, and movie stars receive fabulous salaries; the professional man, utility attorney, or expert surgeon who accepts generous compensation; the skilled worker, the electrician, and the plumber who can live quite comfortably on their incomes; and finally at the extreme bottom, the hewers of wood and drawers of water for their more favoured brethren who eke out a modicum of existence in any possible way. Marshall thinks Gidding's grouping into (i) automatic manual labour, (ii) responsible manual labour, (iii) automatic brain workers, and (iv) responsible brain workers is more suited to our present industrial order.¹ These groups are in a condition of perpetual flux.

As shown in our general proposition, the market demand for labour is the dominant factor in the determination of the labourer's income, or wages. The labourer is on the market. His cost of production is a matter of the past. His productive ability is a perishable product and will be sold to the highest bidder. The price the buyer is willing to pay is determined by the specific productivity of the added marginal unit in the combination. This added unit of labour is always marginal, and his productivity is the marginal productivity of the group of interchangeable units of which he is an immediate member.

¹ Marshall, A., *Principles*, p. 218, 8th Edition.

The entrepreneur is a highly specialized labourer. His reward may be separated into two parts: one part, the wages of management, is subject to the general laws of wages outlined above. The other element is derived in a different manner. Production is now organized so that society depends upon the entrepreneur to keep it going. He may be an efficient organizer and contribute to the maximization of the total joint product. His pure profits or losses, however, arise at the point where he purchases the services of the productive agents at a price less than, or more than, the value of their immediate actual contribution to the joint product. Competition for the services of the agents of production, the mobility of these agents, and the prevalence of the economic motive, tend to eliminate this element and it does not become a part of the normal costs of production. Modern profit and losses are indicative of the partial failure of the competitive order to attain its theoretical ideal.

THE NON-HUMAN FACTOR AND RENT

The second and remaining factor of production is the impersonal and non-human factor. It may be thought of as composed of two parts: the traditional land, and capital goods, whose share of the social income is rent. Capital is as varied in form as the ingenuity of man can make it. Not only machines exist, but machines to make machines; buildings in which buildings and machines are made; transportation agencies, pipe lines, tunnels, railroads, and power plants; many of these are expected to function for the next century. The roundaboutness of capitalistic production has contributed to an almost infinite variety of forms. The scientific foundation for the distinction between human labour and capital goods lies in the power that man has over capital. He can by combining his own powers with those of external nature increase the supply of capital goods.

Land was traditionally recognized as in a class by

itself. It is the non-human natural agency. As the human race increased in numbers land was appropriated by groups and individuals, until at the dawn of our science it was recognized as important from the social standpoint and also from the standpoint of individual property. Later developments have facilitated the passing of land freely from owner to owner as an article of commerce. The productivity of land can be increased; land can also be increased in amount; it is not a fixed datum. This together with the actual blending of land and other artificial productive agents, and the high degree of interchangeability of one for the other, amply justify considering land as capital goods, and the return to land as rent to capital. Even in a relatively new country the cost of acquisition and defence may be considerable from the standpoint of investment.

Rent, therefore, may be simply defined as the return to capital goods. The value of the products is estimated in the market under the influence of the supply of these products and the effective desire of the consumers of them. If with a given quantity of labour succeeding units of capital goods are combined, the flow of the joint product will show a less ready response to the succeeding applications of the variable units, and while the total product may continue to increase for a considerable length of time, the product per variable unit will decrease. The margin of entrepreneurial indifference is reached when the added unit will no longer pay for itself in the value of its product. The convertibility of capital from one use to another directs it toward its most productive use. This use changes under the impulse of the forces which determine the value of the product. The margins of production are caused to shift by the same forces.

The active force in determining the use of capital goods is the desire for the products. This demand is strong enough so that it just balances the costs of production at all the margins. In the entrepreneurial system this cost is composed of the costs of the units of productive power at the point of application of the

marginal doses of capital goods, on one side, and on the other side it is the price, determined by consuming society, of the product attributable to the marginal unit of capital goods. Consequently at this point the productivity of the marginal unit of capital goods determines the specific income, the rent to specific capital goods.

Pecuniary interest, a return for a loan-fund, is a derived element in the national dividend and not an original share. It is a reflected result of the rent of capital goods. The loan fund is the agency for subtracting from one man's cash resources and adding to the cash resources of another.

The current rate of interest is the prevalent number of hundredths of a dollar that will be given, per dollar, for the use of the mobile investment funds for the year. Interest is a rate, or ratio between two values. A homogeneous value fund of present utility is transferred by the saver to the borrower, in most cases the entrepreneur, who embodies it in capital goods which produce a value fund. "The rate of interest is the ratio of the specific value product of capital goods to the cost of production of such goods."¹ It is equated by market demands for loanable funds, to the productivity of the marginal dollar at all investment margins.

The market demand for funds is based on the value productivity of the marginal unit of capital goods, in whatever activity it is employed. Society has a continuous choice of the consumption of immediately consumable wealth or the diversion of productive forces employed in its creation to the production of capital goods which will function in the production of goods for future consumption.

We have distinguished between capital goods and capital. The return to capital goods is rent, and the amount is determined by the value product of the marginal unit of capital goods used in the productive process. Interest, the return to capital, is a payment for a value fund, calculated by per cent. and determined by the

¹ Nelson, R. W., *Some Economic Aspects of Immigration*, p. 15.

demand for loanable funds. The value, or the cost of the capital goods, does not determine the rent, but if the net rent of the capital goods is capitalized at the current rate of interest the result will be the value of the capital. By this computation rent for capital goods becomes interest on capital value and as a corollary interest is an alternative to rent. An owner of investment capital may accept the interest determined by market conditions for his capital or he may invest it in capital goods and receive rent.¹ For the time being more or less durable forms of capital goods do not bear a definite relation to the original cost of production of this particular form of capital goods. The income, then, is rent, and the value of the capital goods is determined by capitalizing the rent at the current money rate of interest.

The normal or long-run rate of interest changes under the impulse of changing conditions. Due to competition and the mobility of investment capital, investments that show a higher rate of return than the prevailing rate invite other investments and will soon be levelled to the prevailing rate. This is the rate of payment of capital goods used in production. As "free competitive relations tend to impute to each agency its specific contribution as its reward for participation in productive activity,"² this rate is equated to the productivity of the marginal unit of this productive good and will determine the form newly created capital goods will take.

SUMMARY

The capitalistic, profit-seeking organization, permeated by the principles of private property and economic freedom of contract, is the predominant method by which productive activities are translated into pecuniary terms. The prevailing technology results in a high degree of interchangeability of productive units. As a partial consequence two groups of productive agencies, human

¹ Knight, Frank H., *Risk, Uncertainty and Profit*, pp. 329-330. Houghton Mifflin Company, 1921.

² *Ibid.*, p. 57.

and non-human, are recognized. These are continually being balanced, under the forces of the law of diminishing productivity and entrepreneurial competition, to approximate the maximum results in pecuniary terms. The sum total of these results makes up the national dividend which is apportioned, by the principle of specific productivity, back to the agents, in the form of wages and rent. Interest is a derived pecuniary concept and is not considered as part of the national dividend. The manager apportions the various productive units, indifferent to their origin. Their costs to him are the costs of production.

The business organization is not only the combining agency for productive activities; the meeting point of competition with all other enterprises; the agency for the allocation of productive powers to specific lines of productivity; but also the intermediary for distributive apportionment. The prices of the productive services while controlling production become the determinants of distribution. The explanation of these prices is the explanation of real distribution. When these prices, which depend upon the specific productive contribution of the agency, are combined with the prices of consumable goods they determine the real income of the individual.

CHAPTER III

ADAM SMITH

ADAM SMITH (1723-1790) was born and received his early education in the little village of Kirkaldy, Scotland. At the age of fourteen he went to Glasgow College, where he studied for three years. During part of that time he attended lectures of Doctor Hutchinson. He spent the next six years studying moral and political science and ancient and modern languages in Baliol College, Oxford. After two years spent with his mother at his old home in Kirkaldy, he went, in 1748, to Edinburgh, where he lectured on rhetoric and belles-lettres under the patronage of Lord Kames, probably at Edinburgh College. It was during this period that his contacts probably led to his acquaintance with David Hume, whose friendship Smith enjoyed until the death of the latter.

In 1751 Smith was elected to return to his Alma Mater as Professor of Logic. The following year he succeeded Mr. Craigie in the Chair of Moral Philosophy, which position he occupied for twelve years, until he had an opportunity to attain a cherished ambition and become a private tutor.

The period of his professorship at Glasgow, which saw the publication of his *Theory of Moral Sentiments*, was also the occasion of his delivering a series of lectures grouped under the heads of theology, ethics, justice, and expediency, which ultimately became of much greater importance than his book on *Moral Sentiments*. Comparatively recent discovery of copies of a student's class notes covering these lectures indicate that the fourth division of the lectures, covering expediency, became the basis of Smith's great work, the *Wealth of Nations*, as the third division had become the basis for the *Moral*

Sentiments. The notes covering expediency have four subdivisions, the last three of which are concerned with police, revenue, and arms. From these it seems the *Wealth of Nations*, upon parts of which the following analysis of distribution is based, was later developed. The roots of these discussions probably extend back, then, to the lectures Smith delivered beginning in 1752, and some commentators have thought they could trace them through to the lectures delivered by Doctor Hutchinson, when Adam Smith was a student at Glasgow in 1737.

For many years Smith had hoped to become a private tutor. This opportunity came to him in 1763, and he resigned his work at Glasgow to become the travelling companion of the Duke of Buccleugh. The contract called for an annual compensation of £300, expenses while travelling, and a pension of £300 per year for life. Early in the spring of 1764 Smith and his charge arrived in Paris, where they remained only ten days. They then went to Toulouse, at that time the intellectual centre of France. Smith's friend Hume had provided him with a letter of introduction to Hume's cousin, Abbé Colbert, a reputed relative of the great Minister. The clerical friend tried to make the stay of Smith and the Duke pleasant, but it seems he was not very successful at first, because Smith found the first six months of his stay at Toulouse dragging rather slowly. During this period of enforced solitude, Smith was not an adept with the French language, he started a piece of work just "to pass away the time." This work was the *Wealth of Nations*. The succeeding months of his sojourn in Europe became more bearable, partly by virtue of the fact that he formed a close friendship with the Duchess d'Enville, a woman of great ability and intelligence, at whose coteries at Geneva Smith was soon on intimate terms with a number of personages with whom he must have had many ideas in common. The Duchess had the reputation of being the inspirer of Turgot's political and social ideas, which he incorporated into a discourse

about this time. Smith also became intimately acquainted with Quesnay, Morellet, Dupont, and probably Mirabeau.

These two lines of development, the logic used while lecturing at Glasgow, and the ideas and impressions received while on the Continent, probably converge in the principles incorporated by Smith in the *Inquiry into the Nature and Causes of the Wealth of Nations*.

It is the purpose of this chapter to examine rather minutely the reasoning by which Adam Smith supports his contentions bearing on distribution, the dividend, its sharers, and the share amounts.

Relative to Adam Smith's theory of distribution, Mr. Edward Cannan has this to say: ". . . the theory of distribution, though it appears in the title of Book I, is no essential part of the work and could easily be excised by deleting a few paragraphs in Book I, . . . and a few lines elsewhere"¹; and also, "A reader who was making his first acquaintance with the *Wealth of Nations* would naturally be led by the title of the First Book to expect to find it fall into two parts, the first dealing with the productive powers of labour, and the second with the manner in which its produce is distributed. His expectation would, however, be weakened when he looked through the titles of the chapters, and found that while Chapters i. to iii. deal with the division of labour and Chapters viii. to x. with wages, profits, and rent, the intermediate chapters deal with money and prices."²

It is clear, and will become more so as we proceed, that Mr. Cannan is in error in the above quotations. Quite consistent with Adam Smith's plan, two major subjects, the improvement in the productive powers of labour and the manner of distribution of the product, form the main part of Book I of the *Wealth of Nations*.

"The causes of this improvement, in the productive powers of labour, and the order according to which its produce is naturally

¹ Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Vol. I, p. xxx.

² Cannan, Edwin, M.A., *Production and Distribution*, p. 186.

distributed among the different ranks and conditions of men in the society, make the subject of the First Book of this Inquiry.”¹

There can be no doubt as to Adam Smith’s meaning when he says,

“As the price or exchangeable value of every particular commodity, taken separately, resolves itself into some one or other, or all of those three parts; so that of all commodities which compose the whole annual produce of the labour of every country, taken complexly, must resolve itself into the same three parts, and be parcelled out among different inhabitants of the country, either as the wages of their labour, the profits of their stock, or the rent of their land. The whole of what is annually either collected or produced by the labour of every society, or what comes to the same thing, the whole price of it, is in this manner originally distributed among some of its different members” (p. 54).

This quotation is clearly referring to the division of the joint product among the producers.

PRICE

The converging point of the productive activities, and the point of origin of the distributive shares, is in price. “In every society the price of every commodity finally resolves itself into some one or other, or all of those three parts” (p. 52), and the price of all commodities, which is the price of the distributive fund, must “be parcelled out among different inhabitants of the country, either as the wages of their labour, the profits of their stock, or the rent of their land” (p. 54). Economic theory has not, as yet, made any great departure from this concept of the convergence and origin of the distributive shares.

Although our direct interest is with the component parts of price rather than with price itself, some observations relative to price are pertinent. Exchange value, or price, has two expressions, according to Smith, the real

¹ Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Vol. I, p. 2.

Note. Due to the fact that in this chapter all references are taken from the same book, subsequent references will be indicated by page number.

price and the money price. He seeks the ultimate answer to the price riddle in regions far removed from the market-place; he seems to reason that man must live by the sweat of his brow, and that the only way to get what he wants is by the exercise of his own powers. "The real price of everything, what everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it" (p. 32). When a man is in pursuit of and acquires the object of his desire, the subjective element is strong in the valuation process. His own labour has been translated into the object, and its costs to him have been the imperative exercise of his abilities. When he has once acquired the object, if he does not have use for it, its value then takes on a double aspect. It has both a subjective and an objective element. It is still subjective in that it can, without his further effort, save him some toil and trouble. In addition to this power which it has, should anyone else want it he must get busy and by his efforts secure something which he may exchange for it.

"What everything is really worth to the man who has acquired it, and who wants to dispose of it or exchange it for something else, is the toil and trouble which it can save to himself, and which it can impose upon other people" (p. 32).

Its exchange value is "precisely equal to the quantity of labour which it can enable them to purchase or command" (p. 33). This is both the labour cost and the labour command theory of value. Smith seems to have a hazy idea of the bearing of cost of production and utility on prices.

Because of the fact that "money has become the common instrument of commerce" (p. 34), the real price becomes, to Smith, the money price. To him this change from the real price to the money price seems to offer no difficulty, as he thinks that

"At the same time and place the real and the nominal price of all commodities are exactly in proportion to one another. . . .

At the same time and place, therefore, money is the exact measure of the real exchangeable value of all commodities " (p. 39).

In fact, this transition from the real price to the money price is not so simple. First, the question arises as to whether the "value" of a commodity to its possessor is "precisely equal" to its labour command power, as asserted by Adam Smith. In maintaining that it is, he seems to seek, very vaguely and not entirely effectively, the causes behind the selling price of commodities. Secondly, the difficulty of translating the real price in labour, which involves to a great degree the psychological element, into the money price, which is almost entirely commercial, is a real obstacle not overcome by Smith.

In the concept of the real price, he attacks the hitherto unsolved problem of the relation of the cost price to the selling price. Assuming a labour theory of value, the relation of the cost price to the selling price must represent an equilibrium adjustment. The nearest, however, that Smith approaches to combining the cost price and the exchange value of goods is in his statement, relative to owned goods, that "They contain the value of a certain quantity of labour which we exchange for what is supposed at the time to contain the value of an equal quantity" (p. 32). The essential things to be noted are that Smith thinks that a possessed commodity has value which is determined by its power to command a "quantity either of other men's labour, or, what is the same thing, of the produce of other men's labour" (p. 33), and that this value and the money price at the same time and place are always equal, as noted above. Finally, we must agree with Doctor Whitaker that in this price concept Adam Smith left us "As a theory of value to apply to actual life . . . an early form of the law of entrepreneur's cost and a labour command theory of value."¹ While establishing the equality of the real price and the money price, Adam Smith does not willingly permit

¹ Whitaker, Albert C., *Labour Theory of Value*, Studies in History, Economics and Public Law, Vol. XIX, p. 31.

us to lose sight of what he thinks is the ultimate cause of value. His effort is obviously directed toward finding a "universal" measure of value from the standpoint of both time and place. The conclusion he reaches is,

"Labour, therefore, is the only universal, as well as the only accurate measure of value, or the only standard by which we can compare the values of different commodities at all times and at all places. . . . By the quantity of labour we can, with the greatest accuracy, estimate it both from century to century and from year to year" (pp. 38-39).

Historically, it must be admitted, money has been rather an erratic measure of value; hence Davenport is justified in saying,

"But the attempt to find in labour a common denominator of value had this much at least in its favour—that if labour would not serve for the purpose, nothing else was at hand that would. It may not be yet clear on precisely what grounds this common denominator was so pronouncedly a desideratum; but for whatever it was worth, the labour measure was the only thing possible for the time. And it may fairly be questioned whether later thought in its endeavour to substitute utility for labour cost as a value determinant, thus stating the payment problem in terms of utility truly, but only of utility as working itself out in terms of value expression, has been able to do more upon the utility side than to repeat the error made upon the cost side, that namely, of seeking to compare things which in their fundamental nature offer no basis of comparison; with value conceived as a mere ratio of exchanges, the assertion of equality or inequality between two values can have, for the purpose in hand, no possible meaning, unless and until some basis of homogeneity between the quantities in the respective value ratios has been established."¹

Having followed Smith thus briefly as he sets forth his concept of distribution through the price of the whole product of society and resolves this product or its price into its rather equally important components, and again as he explains the causes and the measure of value and equalizes the real exchange value and the money price, we now proceed to the analysis of the components of

¹ Davenport, H. J., *Value and Distribution*, pp. 17-19.

this price, to trace them back to the point of their origin. The component parts of price become the forms of revenue, which is classed as original and derived revenue. The original forms are wages, profit, and rent.

“The revenue derived from labour is called wages. That derived from stock, by the person who manages or employs it, is called profit. . . . The revenue which proceeds altogether from land, is called rent, and belongs to the landlord” (p. 54).

Of the derived revenues, one form is interest. That income derived from the stock by the owner who

“lends it to another, is called interest or the use of money. . . . It is the compensation which the borrower pays to the lender, for the profit which he has an opportunity of making by the use of the money. Part of that profit naturally belongs to the borrower, who runs the risk and takes the trouble of employing it; and part to the lender, who affords him the opportunity of making this profit. The interest of money is always a derivative revenue” (p. 54).

Other forms of derivative revenues, or revenues implied in the three original sources, are taxes, salaries, pensions, and annuities.

Let us here attempt a summary of Smith's process of reasoning which leads up to his explanation of the shares of the social dividend. The price of commodities is the point at which the distributive shares converge. This price is the exchange value, and has two measures, the real price and the money price. The money price is the exchangeable value in terms of money. This money price takes on two forms, the natural price and the market price. The natural, or naturally regulated price, is divisible into three parts, the rate of wages, the rate of profit, and the rate of rent. Smith tells us that the rate of wages and the rate of profit are “naturally regulated” by two forces, “partly by the general circumstances of society, their riches or poverty, their advancing, stationary, or declining condition; and partly by the particular nature of each employment” (p. 57). The rate of rent is also regulated by two forces,

but the second force is different from the second force that operates on wages and profits. The rate of rent is regulated "partly by the general circumstances of the society or neighbourhood in which the land is situated, and partly by the natural or improved fertility of the land" (p. 57).

WAGES

Let us proceed to analyse the component, wages, in the discussion of which Adam Smith has involved several important postulates. He argues the necessity for a subsistence wage modified by contract, by the demand for labourers, and by the cost of living, to maintain the labour supply. He contends that "A man must live by his work" (p. 69), and that he must receive a wage sufficient to support his family, thus guaranteeing a supply of labourers for the future. Smith tells us that this subsistence wage is the "natural wage," thus helping us but little. By whom and by what means is the need for, and the supply of, future labour determined? Is this wage the result of a conscious, purposeful determination? If so, then many economic phenomena are directly subject to man's control, and cease to be "natural" in the usual interpretation of the word. If wages are not subject to some conscious determination, it seems that man's intelligence does not impinge very forcefully on the economic process. Neither supposition will, however, validate Smith's explanation of wages. It is a safe assertion that even if a man must live by his work and have a little extra, this fact will not explain wages. How and why does he get his living and the support of his family? It is quite obvious that if the workers do not receive a subsistence wage they will soon disappear. But the pertinent question is by what mechanism this reception of wages by the workman is brought about. Smith's explanation leaves a decidedly unlighted area between the worker and the result of his work; the pricing process relative to wages is not delineated with clarity or precision in spite of the truth

of the fundamental proposition that wages is a component of price.

Smith's expression of the modification of the subsistence wage by contract is a statement that the common wage of labour "depends everywhere upon the contract usually made between these two parties" (p. 68), that is, between the master and the man. He states, however, that though the masters have the advantage in the bargaining process, they cannot for very long reduce even the "lowest species of labour" (p. 69) below this subsistence wage. Analysing the validity of these remarks, Cannan very properly says that masters "serve their own personal interest, and there is little grounds for ascribing to them the enlightened corporate self-interest which might induce them to provide a stock of labourers for the next generation."¹ Presumably it is not a humanitarian but a mercenary interest that controls the masters. It is directed toward immediate conditions rather than those that may or may not prevail a generation or a century hence. If the master's primary and direct interest were in providing a future labour supply, according to Smith's supplementary argument, he might better retain a bare subsistence income for himself and use the remaining revenue to pay the highest possible wage to his labourers, thus encouraging the greatest increase of population, a great supply of labourers, and the resultant minimum wages that conceivably might continue to be forced below any reasonable subsistence level. In his discussion of the bargain, Smith mentions the combination of the masters and the violence of the workers as coercive elements. He fails, however, to explain the thing that really determines the master's ability to pay, and consequently fixes his bargaining power, the factor that establishes the workman's right to receive, and is even the basis of his right to demand—the productivity of the worker.

While he thinks that the common wage of labour

¹ Cannan, Edwin, M.A., *Production and Distribution*, p. 235.

"depends everywhere upon the contract" (p. 68) made between the two parties with antagonistic interests, and that there is a point below which the masters cannot force the wages of labour, since "A man must always live by his work, and his wages must at least be sufficient to maintain him" (p. 69) and support his family, he also thinks that there are certain advantages which often enable the labourer to raise his wages above this rate. These advantages arise from the demand for labour, which is determined by two forces, or better by one force having two applications. Changes in the demand for labour result from changes in the amount of national wealth, or "The demand for those who live by wages, it is evident, cannot increase but in proportion to the increase of the funds which are destined for the payment of wages" (p. 71). As these funds consist of revenue and stock, their increase depends upon an increase in revenue and stock. When a rich man has a greater revenue than is necessary to keep his immediate family, "he employs" all or part of the surplus to keep "menial Servants" (p. 71). Also when an independent workman has more stock than he needs to maintain himself and supply his own raw materials, he "naturally employs one or more" (p. 71) workmen with the surplus, "to make a profit by their work" (p. 71). These two conditions result from an increase of national wealth. This is the embryo of the wage fund doctrine which was for long the subject of so much contention.

Smith argues, then, that variations from the subsistence wage depend partly upon the fluctuations in the supply of stock, or wealth, in the different national stages: the progressive, the stationary, and the declining state. Relative to this argument, Cannan says:

"This theory of Adam Smith, though in form it supplements his subsistence theory, in reality supersedes it. . . . So little room is left for the subsistence theory that Adam Smith seems, toward the end of his work, to have forgotten that he had ever held it."¹

¹ *Ibid.*, p. 237.

While it is true that the subsistence wage is represented as being modified by changing forces, the assertion that Smith seems to have forgotten that he ever held the subsistence theory is not in accord with the facts. Throughout the entire discussion, the major chord that unifies the whole is the normality of the subsistence wage, affected, to be sure, by changes in the national wealth.

We have stated that Adam Smith's theory of the influence of changes in the amount of revenue and stock upon wages is, in embryonic form, the wage fund doctrine. Let us now pause to note the various and somewhat confusing uses which he makes of the term, *funds*. He says,

"The number of useful and productive labourers, it will hereafter appear, is everywhere in proportion to the quantity of capital stock which is employed in setting them to work, and to the particular way in which it is so employed" (p. 2).

He also uses the term as "funds . . . for the payment of wages." He speaks of it as a "fund" to maintain the rich man's servants. Again he speaks of the surplus being used to employ one or more workmen. Now there is a vast difference between a "fund" used to pay wages and support workmen on the one hand, and a "fund" of capital stock with which to set men to work on the other. In one case it may be doled out by the rich man to the starving workers, or used, as Smith previously suggested, to pay wages which have been determined by a bargain between the master and the worker. In the other case it may take the form of machinery essential to the most efficient employment of labour. If it takes this form, Smith has not properly explained the relation between the fund and the labourer's wage. This relationship is of more direct interest to the labourer than is the existence of the fund itself. Thus we have at least two interpretations of the maintenance fund; first the wage fund, and secondly the fund which sets the labourers to work. Now again, if this main-

tenance fund were used to pay wages only, we would have to conclude that no employer would be interested in hiring labourers if nothing more were involved than merely the payment of their wages. He would have to have machinery with which to equip them. In fact, would this not be the first consideration in the mind of the employer in deciding whether it would be profitable to employ a worker? It is probably true that the master will have to provide the machinery as well as to pay the worker, but in considering the wages of the worker the two acts should be distinguished. Adam Smith uses the two meanings of the "maintenance fund" confusedly.

The maintenance fund, even though Smith conceived of it sometimes as a fund of material goods, "the real quantity of the necessities and conveniences of life" (p. 79), and sometimes as "capital stock which is employed in setting them to work" (p. 2), or again as the cash returns for the goods when "he sells them for money" (p. 261), is always involved in his effort to solve the problem of the relation between capital and wages. He sees, as we have noted, that the problem is complicated by the fact that the owners of capital control the use of capital and may selfishly drive a hard bargain with the wage earner, but he sees the fund as a wage factor separate and distinct from the capitalists who control the funds.

According to Smith, the significance of the increase of national wealth is purely a relative matter, related to the state of society. It is a question of proportionality. "It is not the actual greatness of national wealth, but its continued increase" (p. 71) that causes wages to rise. Why, let us ask, may not an increasing national wealth be used in such a way that there will be no perceptible increase in wages? Surely this has happened in many periods of history. As to what causes the increase of wealth, Smith is silent.

The increase of the funds for the maintenance of labour, and the effect of this increase on wages, have been depicted by Smith as taking place in an advancing

society. In fact this increase of funds seems to be, to him, the characteristic of the advancing society, though the cause of this distinguishing mark is not given. He thinks that in a stationary state of society wages do not increase, because the supply of and the demand for labour have arrived at a balance. If the funds for the maintenance of labour are very great but "have continued of the same, or very nearly of the same extent for several centuries" (p. 73), the number of labourers employed each year will supply, or more than supply, the demand for labour during the following year, and wages will not rise. "The hands, on the contrary, would, in this case, naturally multiply beyond their employment" (p. 73). Just why people will continue to multiply beyond the possibility of their employment Smith does not tell us. It may be that he would explain it as a natural propensity to procreation. If so, it is rather far removed from a direct wage determinant, though he actually uses it, or its result—the lack of proportion between the supply of and the demand for labour—as the cause of the appearance of the next stage of society. The third phase of the relative change of the labour maintenance fund is found, according to Smith, where the fund is relatively declining. In the stationary state the lowest labouring class can keep up its numbers, but that will not be the case where the fund is "sensibly decaying" (p. 75). As a result of the decline of the wage fund, the scanty subsistence of the labouring classes is reflected on all the other classes, and all classes gravitate toward the poorest class. Want and famine are common. We are not told why the supply of labourers does not outrun the subsistence fund in the advancing state, or why the two do not deviate from the condition of equilibrium in the stationary state, or why the population will not decline more rapidly than the fund in the declining state. Supposedly if these things happen the different states will lose their characteristics. It seems very clear that the causes represented by Smith as operating through periods of time of sufficient length to allow for the rise

and decline of nations, with all the exigencies connected therewith, cannot be put forward as direct wage determiners in an economic order. The economic order itself may very readily change several times within the existence of any one stage of society.

If we accept the postulate that the advancing, stationary, or declining wealth of society determines either the subsistence wages or variations from the subsistence standard, we see only one side of the structure. Although Adam Smith has given us suggestions of the existence of the enterpriser, he has not developed the concept. The man who combines labour and stock or capital goods into a productive organization is interested in the effects of the combination. Economic society, through the pricing process, holds him responsible for the outcome. Only the *possibility* of production is present when a supply of capital goods is at hand for the use of an existing supply of labour. If this possibility of production is materialized, it must be on the basis of approximate harmony of the price of the produced goods on the one hand and the sum of the price of labour and the price of capital goods, or rent, on the other. The centre of interest is in the entrepreneurial price. In this price we find wages entering as a component.

Adam Smith sees a third force which may operate to change the subsistence wage on occasions, the first having been the bargain between the master and the men, which gives the advantage to the masters and often results in wages being forced to, or below, the level of "present subsistence" (p. 60), and the second the increase in the demand for labour which forces the masters to compete among themselves for labour and "raise wages" (p. 70). But this increased demand depends upon an "increase of the funds which are destined for the payment of wages" (p. 70). The increase of this fund again depends upon or is an increase of "national wealth" (p. 71), which affects wages through an increase of revenue and an increase of stock. These are "the funds destined for maintaining"

labourers, and the identity of the "wages" fund and the "maintaining" fund is declared. According to Smith's own reasoning, as shown above, this identity cannot be a true one. Then, too, since he seems to be searching for ultimate causes, why should he not give us the final cause of the increase of these funds? He has asserted that the increase of the fund "is the increase of national wealth" (p. 71), but he has not allowed for that considerable part of national wealth which may take forms that are not directly conducive to the continuous employment of labour, and may even be inimical to the interests of the labourers.

The third force which Smith mentions as determinative of wages, a corollary to the subsistence wage, is the price of food. Since he believes a man must live, and as a partial consequence of this conviction proposes the subsistence theory of wages, his next supposition is that the costs of living help determine wages.

"The money price of labour is necessarily regulated by two circumstances: the demand for labour, and the price of the necessities and conveniences of life . . . and the money price of labour is determined by what is requisite for purchasing this quantity" (p. 87).

If we grant the truth of the subsistence theory, then the secondary proposition must be true. Consequently, when the commodities which the labourer must consume are high, it follows that wages must be high so that the labourer can purchase them. When the price of goods is low, wages will tend to be low. Also, if the capitalist's demand for labour tends to increase wages when the costs of living are low, the effect of the latter fact tends to neutralize the former. Although the demand for labour may slacken, tending to lower wages, while existing prices of commodities are high, a man must live, and consequently the high commodity prices will tend to raise wages in the face of a decreased demand, and there is a neutralizing effect again. The logic seems perfect if we grant the validity of the primary

assumption, but we again assert that the price of food does not explain wages. Whence will high wages come, if this be true, when the demand for labour is low? It is an economic impossibility to harmonize the assumed moral necessity of a subsistence wage with the assumed practical necessity of translating high and low living costs into causal forces for high and low wages. Smith thinks that the "price of necessaries" may work either with or against demand in its influence on wages. Conceivably, if the masters have the advantage attributed to them by Smith, the bargaining may result in reducing wages to a lower level when food is cheap than when it is high. But we submit that wages are paid with little heed to the worker's cost of living. What the worker is worth to his employer is the primary criterion of wage determination at any given time. Also, though there is more or less capital available for combination with labour, there must be a more pertinent cause for the use of both labour and capital than the fact that living costs vary. The entrepreneur is under no moral or pecuniary obligation to combine labour and capital, even if there is an immense quantity of each just at hand. We must seek further for the motive for the employment of available capital goods and labour. This motive is found in the value productivity of the combination.

When Smith assumes that wages will vary from the normal under the influence of agreeableness of the occupation, cost of education, continuity of employment, responsibility required, the possibility of success, and the notions of honour or discredit held concerning certain occupations, he substitutes very intangible elements for a portion of the money wage. The difficulty of making calculations in such incommensurable things as these elements and a money wage is at once clear. Then, too, relatively disagreeable occupations are often overcrowded at a low wage, with workmen who are not qualified for more agreeable work. Neither does it seem to be a practical fact that honourable professions, as a rule, receive a low money wage which is balanced

by the honour of the position. Sometimes prostitution of beautiful talents is not conducive of high rewards. Educated men cannot be said always to receive wages according to the cost of their education.

When we attribute to the worker his own contribution to the value product, the tendency is for the worker to get what he produces, whether wages are high or low, or the work agreeable or disagreeable. The manager tries so to arrange the combination that labour is highly productive. The standard wage, if there is one, is then determined by the energy, the ability and the character of all the workers engaged in production. It depends on both the management and the individual worker. Under the productivity concept a worker can buy what he produces, and is not paid a wage according to what he buys. This concept leaves no possibility of underconsumption. It is a simple arithmetical calculation having no remedial power.

Neither Smith's theory of a pure subsistence wage nor the theory modified by the effect of the contract wage is an adequate solution to the wage problem. The necessity for a subsistence wage is a problem in the realm of ethics rather than in the field of economics. The arguments for it are not those that obtain in the realm where man struggles for a living. The contract wage does not reach the heart of the question. It is very obvious that the masters will never bargain for the use of labour when they know that the productivity of the labour will continually remain below the contract wage. The worker will not long continue to bargain with masters and accept a contract wage that continuously remains below his productivity. Other masters will be only too glad to give him a higher wage approaching the limit of his productivity, until he gets what he produces. However inadequate Smith's explanation of the increase of wealth, and however incomplete his discussion of the relation between this increase of wealth and the changes in the wages of labour, it seems probable that he has here a valid cause for an increase in the

joint product, part of which increase will take the form of higher wages. The tendency of population to lag behind the increase of wealth in the advancing state, to equalize the existing wealth in the stationary state, or to continue to exceed the maintenance fund in the declining state, is subject to question as a general principle of economic reasoning, unless the terms are more specifically defined, and if true is not the solution sought.

Although Adam Smith's concept of the wage fund is ambiguous and consequently misleading and confused, it has not that rigidity that later came to be attributed to it by his followers. Still, it is not accurate as a wage determiner. Its principal importance depends on its relation to the worker's productivity.

The cost of living as a wage determinant is put forward obviously as a corollary to the subsistence wage theory, and offers a less tenable solution than the original proposition. The kind of standard of living more directly affects the productivity of the worker than does the cost of living.

Adam Smith sees wages determined by forces external to the labourer, primarily exclusive of the number of workers, and not directly dependent on the results of the activities of the labourer in production. In modern economy, all of these forces, the necessity for a supply of labourers, the supply of capital, the bargaining process and the cost of living of the labourer affect the wage question indirectly, but the force that is directly or basically determinative of wages is the productivity of the worker.

Since Smith asserts that the money price of commodities "itself varies with the natural rate of each of its component parts" (p. 65) or with each of the distributive shares, we have traced in the foregoing his development of the variations of one of the components, wages. In his concluding paragraph on wages, although it seems to be an argument to justify high wages, he has his nearest approach to the modern theory of wages. He reasons as follows : the increase in the wages increases

the prices of goods, since wages is a part of price. But "The same cause, however, which raises the wages of labour, the increase of stock, tends to increase its productive powers, and to make a smaller quantity of labour produce a greater quantity of work" (p. 88). This is to the interest of the owner of the stock, which makes possible increased amounts of machinery and the specialization which leads to the invention of more machinery. This increase of machinery results in such an increase in the productivity of labour that the increase in the wage price is more than offset by the smaller amount of labour used, which, of course, would indicate a lower price of commodities as the ultimate result. Even here Smith does not unravel the relation between the joint product of labour and capital on one hand, and the increase of capital and the increase in the productive powers of labour on the other.

PROFIT

Adam Smith divides stock into two parts. One part is that for "immediate consumption" (p. 261), and the other part "is called capital" and is expected to "afford revenue." He does not make this distinction, however, under his discussion of distribution, where it would add much to the explanation of that subject, but he places it in a remote part of his work, under the discussion of the division of stock. In his discussion of distribution he defines capital stock as "the funds destined for the maintenance of industry," the supply of which funds regulates profits. The reader will recall from the discussion of wages that this "fund" is used with two meanings, the one that it is a fund to set the labourer to work, the other that it is a fund to support the labourer. This indefinite concept of the labour maintenance fund blurs the discussion of stock and profits.

Just as the concept of stock, the basis of profit, is not clear cut, neither is the definition of profit clearly and accurately stated. Profit as a revenue derived from the use of stock is referred to as "gross profit" (p. 98),

which supposedly at its lowest point "frequently" includes compensation for "extraordinary losses" plus a surplus of "neat or clear profit" (p. 98). Then we are told that this clear profit is in proportion to the "interest which a borrower can afford to pay" (p. 98), and in the next paragraph that the "lowest ordinary rate of interest must" (p. 98) be more than enough to compensate for losses. This seems to establish beyond any reasonable doubt that Smith was very inconsistent in the use of the term profit, using it to include interest or clear profit, and then using interest as equivalent to, or to include, gross profit. With Smith's use of the terms stock, profit, and interest, it is very easy to see that it will be more difficult to determine the profit of stock, as Smith says, than it was to determine the wages of labour. The difficulty, however, seems to be due fully as much to the confusion in the use of terms and to the inconsistency involved as to the variations of price, fortune, and accidents to which it was attributed by Smith.

The analysis of the relation between interest and profit is handicapped because of the ambiguous use of terms. As noted above, interest and clear profit are apparently used synonymously. Then when "Double interest" (p. 99) is assumed to be equal to "reasonable profit," it is impossible to know to a certainty just what is meant. It is not true, however, that interest will vary, exactly and directly, with profit. Interest is more uniform and the rate is more calculable than is the rate of profit, if profit has a rate. Neither is there a higher rate of profit on the average, as a long run or continuous relationship, in a risky business; else capital would flow to that business. Smith argues that the increase of stock in a progressive society lowers the rate of profit but increases wages; in a stationary society, even with a great supply of wealth, but not an advancing supply, both wages and profits will be low; in a declining society where stock is diminishing, the rate of profit will increase and wages will decline. He thinks that labour and stock are under two influences which affect wages and profits, "the

general circumstances of society " (p. 57) referred to above, and the " particular nature of each employment " (p. 57). He has defined profit as that revenue " derived from stock, by the person who manages or employs it " (p. 54). Now we are told that " The rise and fall in the profits of stock depend upon the same causes with the rise and fall in the wages of labour, the increasing or declining state of the wealth of the society ; but those causes affect the one and the other very differently," and " The increase of stock, which raises wages, tends to lower profit " (p. 89). He thinks this is true because the competition of rich men or owners of stock directs it to the best paying trade, a fact which tends to lower its profits. Then when all the different trades have like increases of stock, the effect will be the same in all. This increase of stock, Smith thinks, takes place in an advancing society. The stationary society is the second social stage, in which a country has its " full complement of riches " (p. 96) and can advance no further. In this situation the " wages of labour and the profits of stock would probably be very low " (p. 96). The competition for employment with a dense population will force wages low, and the competition of the capitalists will drive " profit as low as possible " (p. 96). In the third stage the " diminution of the capital stock of the society, or the funds destined for the maintenance of industry " (p. 95) raises the profits of stock because of lack of competition. Wages are lowered from lack of " funds," marketing of goods costs less, and a still greater part of the price is left for profit.

Before beginning our discussion of Smith's major propositions, let us note this remark of Cannan :

" It would be idle to pretend that this account of the causes which determine the rate of profit is, as a whole, entitled to any very great respect. Why 'must' the stock employed in the cultivation of the cheap and fertile land of a new colony 'yield a very large profit' ? How can a diminution in the quantity of all goods in the production of which capital is employed raise their prices ? If all producers 'bring less to market,' how can each

give each other more in exchange for their various products? But the main practical question is, What causes the fall of profits as a country grows richer? and Adam Smith was on strong ground when he answered 'Increasing wealth.'"¹

The above criticism refers to part of the major thesis of Smith relative to profits; that is, that an increasing stock causes the rate of profit to decline. Competition of the owners of capital will doubtless tend to cause a decline in the rate of profit if there is enough of the capital. But we must remember that the increase of stock is a mark of the advancing state of society, another mark of which is an increasing population. Now if stock, or that part of it expected to afford revenue, called capital, should increase only as rapidly as the population, Smith's argument would evidently be much weakened. Smith seems vaguely to recognize this difficulty. While he thinks profit will decline, he says:

"A new colony must always for some time be more understocked in proportion to the extent of its territory, and more under-peopled in proportion to the extent of its stock, than the greater part of other countries" (p. 94).

We cannot see how, even in a new country, it can be assumed as a fact that the stock will be larger than its population. In America, of which Smith was speaking, such a conclusion was not warranted.

It should also be stated in connection with the above that Smith approaches very near to the point where he could have developed a real solution for the problem of profit. He says: "Stock employed in the purchase and improvement of" (p. 94) fertile and favourably situated lands "must yield a very large profit" (p. 94). We note that here he uses the stock to *purchase* and *improve* the land. Obviously, then, any income or any change in income will be due to the stock and not to the land. An explanation of why this "large profit" exists would have led him to the productivity of the stock as a solution.

¹ *Ibid.*, p. 278.

The point is well taken that as the riches of a country, composed in part at least of capital goods, increase, the owners of capital goods will direct them into the most advantageous employments, and the competition will not only tend to lower the rate of profits, but will tend to bring about a uniform rate of profit in the different occupations. And conversely, if the riches decline, lack of competition will tend to result in an increase of profit. We must always remember that these quantity changes are strictly relative. Land is assumed to be fixed in quantity. Labour may be increasing, stationary, or declining in numbers relative to land, or to both land and capital goods. In this case capital goods would be more nearly stationary relative to land than labour would be. Again, capital goods may be increasing, stationary, or declining in quantity relative to land or both labour and land. In this case labour would be more nearly stationary in numbers, relative to land, than capital would be. Also both the supply of labour and the supply of capital goods may increase, remain stationary, or decline in approximately the same ratio relative to land. The effects of these various combinations relative to stock would all have to be explained in order to explain Smith's concept of profit. However, in all of these cases the principle of proportionality seems to apply. The greater the supply of an agent of production relative to the co-operating agents, the less its rate of participation in the joint product. This is a direct implication of the law of diminishing returns and the corner-stone of the principle of diminishing productivity.

Relative to profits in different occupations, it seems very doubtful if the agreeableness of an occupation can be translated into terms of profit. It would have to do more with the psychology of the situation and might affect the choice of a direct participant, but would probably not affect the choice of investment of funds to any great extent. In discussing the minimum rate of profit Adam Smith gets at a truth when he says the lowest rate of profit "must always be something more" (p. 97)

than enough to care for the losses. Had he traced the "something more" to its source he would have found the productivity of the capital. He says the surplus or "clear profit" is the "interest which the borrower can afford to pay" (p. 98). Inquiring into the source of this ability of the borrower to pay interest would have disclosed the same productivity. It may be noted, however, that this idea of interest as a derivative income almost exactly conforms to the modern concept of interest.

The causes of the maximum rates of profit and their effects merit investigation. Now it is recalled that Smith thinks the rate of profit will decline in an advancing stage until, when a stationary condition prevails, profits as well as wages will be as low as possible. When the stationary state is left behind and humanity is on the toboggan slide, with stock becoming scarcer all the time, the rate of profits will increase. He thinks the

"highest ordinary rate of profit may be such as, in the price of the greater part of commodities, eats up the whole of what should go to the rent of the land, and leaves only what is sufficient to pay the labour of preparing and bringing them to market, according to the lowest rate at which labour can anywhere be paid, the bare subsistence of the labourer" (p. 98).

Smith gives no reason for this startling assertion. Why should the landlords permit their land to be used without the payment of rent when the population is dense? Again, we have noted that Smith thinks of stock as being used in the purchase and improvement of land. Will not the stock so used be deprived of profit under Smith's explanation and will not this deduction from gross profits decrease the rate of profit on stock? Will not the land be relatively more scarce than in either of the other stages Smith describes, and will it not then tend to draw more rent instead of less or none at all? If land is available and capital is at hand, why should labourers submit to a bare subsistence wage? The real reason for the maximum rates of profits is that given in his general

thesis that a scarcity of stock will bring high profits. In this interpretation, then, he has again foreshadowed the productivity theory. He has not, however, explained the causes of the changes in the wealth of society, which changes, he opines, cause inverse changes in the rates of profit.

There is something intriguing in Smith's discussion of the difference in effect of an increase of wages and an increase of profits on the prices of goods. The increase in wages he says causes prices to "rise only in arithmetical proportion," but an increase of profit causes a rise of price in "geometrical proportion" (p. 99). As he sees it, the cumulative effects of a 5 per cent. increase of profits centres in the fact that the employer of each stage of production gets the profit increase on the "whole value of the materials and wages which he advanced to his workman" (p. 99), while the increase of 5 per cent. in wages will only operate directly on the immediate employment of the worker. In this case it is not difficult to see that not only the wage that is paid directly and its increase, but also the wages that have been paid in previous stages of production become a part of the stock of the employer and both partake of the cumulative effects of the increase of profit. Hence it is not consistent to attribute all, or most of, the increase in the price to the increase in the rate of profit, *versus* the increase of wages, as Adam Smith does. A good part of this increased price is a result of the increase in wages which have become an element in the stock of the employer.

Smith's assertion that "profit always rises more or less with the risk" (p. 112) is not true relative to modern profits. Also we are faced with the difficulty arising from his definition of profit as the revenue of capital. There is too much difference in the revenue derived from the use of capital goods, and the gain from risk taking, to put them in the same category. In the uncertain element of the profit according to Adam Smith's explanation may possibly be found the pure profits of the entrepreneur, which may sometimes detract from his

wages of management and sometimes supplement them. The other element is clearly covered by the rent of capital goods and becomes a real share in distribution. Its rate is determined by the portion of the value of the product attributable to it because of its participation in production. "The profits of stock" of Adam Smith does not satisfy the modern concept of profit or interest. In fact there is but one point of similarity between Smith's profit and real profit as it exists in present economy. This is indicated in the expression, "something must be given for the profits of the undertaker of the work who hazards his stock in this adventure" (p. 50). These explanations, however inadequate in themselves, provide a most substantial start for the real theory of distribution. The demand of the producer is the demand for the productive services. The producer's costs are the payments for productive power embodied in labour units and capital goods including land. The demand of the producer is a joint demand. As a rule the labour, stock, and land must work together in producing anything. The result of the joint productive power depends on the proportions and the method of combination. The value of the product equals the value of all the services used in the production.

Smith's theory of profits covering that part of profits due to the use of capital goods in production is the productivity explanation of rent due to the use of capital goods. The share of the dividend going to capital goods is determined by their productivity, which is determined in great measure by the amounts of these goods relative to the amounts of labour with which they are combined. Smith carries his competitive theory of profit through the different social stages with a high degree of consistency. The competition of the owners of capital tends to force profits down as stock accumulates in the advancing stage. This same increase of stock and competition for its employment provides the basis he uses for an increase of wages during the advancing stage, or rather during the first part of this stage. As population increases

wages will be forced down, not especially by a lack of stock but by the competition of the workers. Here it is noticeable that he uses the competition of the workers as the determining element in the wage question, rather than the supply of stock which has been, and later continues to be, the determining element. His explanation shows the stationary stage as the really competitive stage where, by virtue of the competition of the labourers, wages are forced low, and because of the competition of the capitalists profits are reduced to the minimum. But after this stage is passed the scarcity of stock, which is at once the cause and the evidence of a declining society, causes profits to rise. This inconsistent shift to the competitive determination of wages in the stationary state is not explained. The competitive determination of profits, however, is maintained through the advancing, stationary, and declining stages of society.

RENT

In his critical analysis of Smith's theory of rent, Cannan chooses to recognize four propositions as the basis of his criticism: the extension of improvements, the rise in the price of certain products, the reduction in the price of manufactures, and finally the increase in the "real wealth of the society."¹ The four criticisms referred to above do not reach the centre of Smith's explanation of rent, and consequently cannot supply an adequate and valid exposition of the fallacies involved. Instead of four propositions relating to land rent, Adam Smith uses eight major propositions, all essential to his concept of rent. In fact, we must also include three other larger propositions to which his rent theory is supplementary, in order to be at all fair or comprehensive in the analysis of the theory of rent. These larger propositions are: the theory of national stages, his theory of a subsistence wage, and his law of competitive profits.

We recall that the wage theory of Smith was based on

¹ *Ibid.*, p. 312.

the supposition that a man must live ; that is, he must receive at least a bare subsistence for himself and his family. This is the natural wage. Supplementing this wage theory is the theory of competitive profits, the essence of which is that the rate of profit is determined by the competition of the capitalists for employment for their stock in production. The relation of wages to profit, and of both of them to rent, is determined by the national stage under consideration. In all three stages, inferentially at least, the amount of land is considered as practically fixed. In a progressive state the quantity of stock and population are increasing. In a stationary one there is no change in the proportions. In the declining state the quantity of wealth is declining relative to the numbers of labourers and the supply of land.

Adam Smith defines rent : " The revenue which proceeds altogether from land, is called rent, and belongs to the landlord " (p. 54). In following the tortuous path blazed by Adam Smith as he traces the concept of land rent, we note first that he thinks it is a monopoly price, and is determined by what the farmer must pay rather than by what the landowner can afford to take. This means practically that the tenant who operates the land is permitted by the landlord to retain

" no greater share of the produce than what is sufficient to keep up the stock from which he furnishes the seed, pays the labour, and purchases and maintains the cattle and other instruments of husbandry, together with the ordinary profits of farming stock in the neighbourhood " (p. 145).

Any part of the produce, or the price of any part of it, over and above this share is reserved by the landlord as the rent of his land. The liberality or ignorance of the landlord may decrease this part and the ignorance of the tenant may increase it, but :

" This portion, however, may still be considered as the natural rent of land, or the rent for which it is naturally meant that land should for the most part be let " (p. 145).

" The rent of land, therefore, considered as the price paid for

the use of land, is naturally a monopoly price. It is not at all proportioned to what the landlord may have laid out upon the improvement of the land, or to what he can afford to take, but to what the farmer can afford to give " (p. 146).

The first direct fundamental assumption of Adam Smith, then relative to rent, is that rent is the result of a monopoly price determined by what the farmer can afford to pay and what the landlord demands, rather than what the landlord can afford to take and the farmer can produce. Just why, may we ask, is the price paid for the use of land a monopoly price? Whence does the landlord derive the power to coerce the tenant into paying to the limit of his productive powers? This is the original fallacy which vitiates the entire explanation. It assumes a power of ownership and an aristocratic prestige on the part of the landlord that cannot be so attributed. It assumes a subservience and a fixity on the part of the tenant farmer that is not consistent with actual conditions. The rent the landowner can get for his land will determine whether he will leave his investment in the land or move it into an occupation that will produce a higher rent. He has a choice of investment. He is not an hereditary monopolist of land because, economically, land ownership is prompted by its desirability as an investment. Land is owned by many different people, and its qualities and products are so various that a high degree of monopoly as an explanation for rent cannot be attributed to it. Then, too, the assumed fixity and lack of choice on the part of the farmer is not actual. He is free to choose and move. The only meaning that the assumed condition of immobility would have would be from an historical standpoint. It will not fit as a theoretical generalization.

Land should not be placed in a special category. While it is agreed that spatially land has some peculiar characteristics, yet in its productive contributions land is but a form of capital goods. It is a merchantable commodity. As a capital good, its product may be increased by the investment of more capital. It has no

mysterious power as a productive agent. Its dollar value, determined by its productive contribution, must be mingled with the dollar values of other productive goods. It is as an instrument of production only, when considered in an economic sense, that land has a price. This point depends on its function in production or its rent. The rent is the embodiment of the productivity of the land. A monopoly implies a higher degree of unity of ownership and control than is consistent with facts relative to land. Neither in the ownership of the land, nor in the ownership of the control of the products in whose production land is an element, is there a monopoly. Land is simply a scarce article, units of which are owned by many and transferable at a price, the price being determined, as is the value of other capital goods, by the capitalization of the rent at the market rate of interest, and it can be considered neither in a class by itself nor classed as a monopoly. When commodities are brought to market, the price must be sufficient to cover the cost of labour, the replacement of capital, and the profit on stock, else they will not be marketed, thinks Smith.

"If the ordinary price is more than this, the surplus part of it will naturally go to the rent of the land. If it is not more, . . . it can afford no rent to the landlord. Whether the price is, or is not more, depends upon the demand" (p. 146).

The rent of land "in the price of the greater part of commodities makes a third component part" (p. 51). The second proposition relative to rent, then, is that it is a component of price. In the preceding argument it has been shown that land is simply a scarce article, an economic capital good. Since land is not in a special category, rent, instead of being specifically attributable to land, changes its application and becomes the income to the owners of all capital goods, including land. Then the market price, instead of being sure always to cover wages and profits, as Adam Smith maintains, and sometimes leaving a mysterious element for rent, covers wages and rent.

If wages and profits are high or low, then the price of the product, according to Smith, must be high or low. The relation of rent to commodity prices is, he thinks, different from the relation of wages and profits to commodity prices. "High or low wages and profit are the causes of high or low price; high or low rent is the effect of it" (p. 147). This high price, then, the resultant of high wages and high profits, according to the above quotation, is in its superfluity above wages and profit, the source of high rent, low rent, or no rent at all. Now if high or low wages and profits are the causes of high or low prices, remembering that wages and profits are components of price, will not the results be in proportion to the causes, and will not the high and low wages and profits absorb all the price? If so, "high or low rent" cannot be the effect of the price, as stated above, because there will be no portion of the price to apply to rent. It is conceivable that the market price bears some relation to the wages and profits paid for the production of the commodities sold. The selling price, however, is not so simply disposed of as that. It is determined, on one side, by the competition of numerous consumers on a highly differentiated market for those commodities they use, and on the other side by the forces determining the supply, which forces include the costs of labour and capital used in production. It thus pays all the shares in distribution.

Even though Smith has told us in the above that "high or low wages and profit" cause high or low prices, which in turn cause high or low rents, he has also told us that if the price is not more than enough to pay wages and profit, "though the commodity may be brought to market, it can afford no rent to the landlord. Whether the price is or is not more depends upon the demand" (p. 146). He also tells us that there are certain "parts (food) of the produce of land which always afford some rent" (p. 147). Now there is a vast difference between a high price caused by high wages and high profits and a high price caused by demand. It is prob-

able that both sets of forces leave their influence on the price, but Smith is not consistent in his expressions when he attributes the high price to the one or the other. This is clearly a basis for a cost of production theory of price, but it is not an adequate solution of either price or rent. This fourth proposition, that the demand for food is always so great that the price will be high enough to afford a rent, which is a standard for the measurement of all other rent, is only partly true. The first part of the proposition is true if we think of rent as a return for capital goods, including land. If we think of rent as the result of a mysterious power outside the pricing process, its validity is questionable. The price of food conforms to the general principles of pricing, unless we choose to leave the economic field and enter regions of remotely related phenomena. The fifth proposition, that "The rent of land not only varies with its fertility, whatever be its produce, but with its situation, whatever be its fertility" (p. 148) is valid for the very simple reason that these differences are differences in the productivity of the land. Adam Smith does not seem to see that he is dealing here with a law of price that covers a broader field than that of the returns for the use of land. It is not land only that is thus affected. The difference in productivity between a sharp axe, sharpened by the use of labour and capital goods, and a dull one, or the difference in the productivity of an improved mill over an obsolete one, is as evident as is the difference in the productivity of two unequally fertile plots of land. A difference in productivity is all that differences in fertility and situation amount to in the final analysis.

The sixth proposition, that improvements in the circumstances of society tend to raise the "real rent" (p. 247) of land, would probably hold good if the land were put in a class by itself, and if its productivity could not be increased or diminished by the application of other forms of capital goods to the land. But as society progresses and the demand for goods increases, other forms of capital goods, as tile drains, irrigation ditches,

commercial plant foods and so forth, may be used to increase the output from the land. Or in case of a decline in demand the more mobile forms of capital goods may find their way from the land to other combinations and decrease the output of the land. Of course, in so far as land is a scarce article, its specific income will increase as the amount of other capital goods and labour increases relative to it.

The assertion is made that the price of food products or raw material always rises and the price of manufactured goods always falls as society progresses.

“That rise in the real price of those parts of the rude produce of land, . . . tends too to raise the rent of land directly. . . . All those improvements in the productive powers of labour, which tend directly to reduce the real price of manufactures, tend indirectly to raise the real rent of land ” (p. 247).

Smith thinks that this rise in the price of food and raw materials increases the share of rent. From a social standpoint this error has probably caused as much confusion in economic thought as has any other fallacy in the entire system. As before stated, food products enter the same stall in the market place with other goods. They are produced and sold under the same regulatory economic forces. Their amount can be affected by the use or withdrawal of capital as well as of land. Consequently there can be no differentiation of principles applying to the one and the other as a partial explanation of rent.

The eighth proposition, which also emerges in the explanation of later writers, is involved with all the foregoing ones. The Physiocratic idea that land almost always produces more food than is necessary to support the labourers concerned and pay profits on stock is clearly a metaphysical concept. This extra, or remainder, is that unexplainable surplus that lies outside the pricing process, called by Adam Smith and others, rent. Nothing is more clear than that whether or not the land produces more than the labourers and capitalist are paid depends

on the amount of labour and capital involved, as well as on the land. This surplus cannot be attributed to land itself, but becomes a portion of the joint product, and cannot be identified as a surplus.

SUMMARY

An acceptance of Adam Smith's theory of distribution depends upon the acceptance of his concepts of the natural price and its components, the natural rate of wages, the natural rate of profit, and the natural rate of rent. He himself, however, fails to make clear the reason for their naturalness. The implications of "natural" may be many. Naturalness may be due to a divine origin, or to universality, or to existing conditions, or to any number of things.

Market price is defined as the actual price for which a commodity is sold. It fluctuates about the natural price as a centre. The regulating forces are the market supply and the demand of those who would be willing to pay the natural price, with the emphasis on the demand. This demand could presumably be called the natural demand, which Smith thinks is modified by market conditions.

When there is an abundant supply, some of the components of price "must be paid below their natural rate" (p. 59). Low rent causes the landlords to "withdraw a part of their land" (p. 59) from this specific form of production. Low wage rates or low profit causes similar withdrawals of labour and stock, resulting in less product. If the supply is short, resulting in a price higher than the natural price, some of the components will receive a higher rate than the natural rate. In case of land, more land will be directed into this specific production. The same is true of labour and stock. The result is more product. In the case of both an abundant and short supply, the supply will become adjusted to the "effectual demand" (p. 59). When supply and demand are adjusted, natural conditions will prevail. It must be admitted that this is a statement of the law of supply and demand. Yet it is quite evident

that it does not completely solve the problem of the distributive shares. Just why is land, or labour, or stock increased or diminished in the productive combinations? Very clearly, whether the price to be considered is the natural price which is made up of the components, natural wages, natural profits, and natural rents, or the temporary market price which results in some one or more of the components receiving the natural price, or a price somewhat above or below it, each contributor to the value product receives as pay the part it has contributed to that value product.

The real truth is that the demand becomes adjusted to the supply through the market price. Smith does not tell us why the increase or diminution of the price is felt by one or another of the price components. Presumably it is because of an excess or a deficit of that particular factor. This interpretation is borne out further when the explanation is made that the poorly paid factor is withdrawn and the well paid one is increased. The result of the market price is the high or low price paid to some one or more of the factors. In the natural price, the price of the factors was thought of as determining the price of the product. This was exclusive of the returns to the landowner. In the market price, the price of the product is thought of as determining the price of the factors. This would make market wages and market profits, or wages and profits which vary from the natural wages and natural profits under the impetus of market forces, partake of the nature of "natural rent." Smith does not explain this reversal of process in his discussion of the market price. The necessity of transferring land from one occupation to another in order that it may receive a natural rent does not substantiate Smith's claim of a monopoly nature of rent.

If we accept the interpretation that the quantity of the factor determines its share of the price, we have a starting point for the true explanation of current wages, profits, and rent. Whether a factor is scarce or abundant, relative to the factors co-operating with it, the product will

be the result of the combination ratio. The condition of society with respect to the stage of diminishing returns is the pertinent fact. The ratio of the abundant or scarce factor to the co-operating factors determines the quantity of the product attributable to that factor. If the physical product increases, the price will tend to decline. If it decreases the price will tend to advance. The value of the product depends on both the price and the quantity of the product. The contribution of the land, or labour, or stock will tend to be compensated by the share of the value product attributable to that factor. It is the function of price to equilibrate demand to the existing supply. The important postulate of the market price is that of the transferability of the factors of production. Labour leaves that occupation the price of whose product will not pay labour a natural wage, going to an occupation whose product will pay labour a natural wage or more. Stock paid less than the natural rate of profit will seek other occupations. Land will be withdrawn from that use for which it cannot receive a natural rent, and go to that use where it can be paid the natural rate or more. The mobility of labour is possible to a degree under certain conditions. Mobility implies a destination more desirable than the one departed from. The willingness of those already located at the new destination, where labour is paid a natural rate or better, may affect the reception extended to newcomers. Competitive friction will probably develop. Certain intangible considerations may also enter, such as agreeableness or perhaps social esteem. Time also enters as a factor in the situation. As Bagehot says: "There is, in most cases, a long and dreary economic interval to be passed first."¹ This same writer well says: We see then that there are at least four conditions to be satisfied before this axiom of our English Political Economy is true within a nation."² There must be employments to move between, a Government to keep peace and order, a power to hold other

¹ Bagehot, W., *Postulates of Political Economy*, p. 57.

² *Ibid.*, p. 94.

nations in check, and no involuntary labour to limit employments and to move more freely than the voluntary labour. There are also hindrances to the transfer of stock or capital goods: its proximity to the owner, the safety provided by the Government or the industry, the extent to which capital goods can be changed into money or negotiable paper. These would, of course, imply the existence of money and agencies for manipulating the money and securities.

In his explanation of wages, Smith makes a few rather indefinite references pointing toward the wage as the result of the productivity of the worker, but he does not pursue this theory to its end, the real explanation of wages. His concept of the fund for the maintenance of labour, used both as a fund of subsistence and as a fund from which is supplied material to occupy the worker, is ambiguous, incomplete and unsatisfactory, and the term is used to include a fund of commodities or a price fund, and also a fund of equipment and a fund of subsistence. Its fault is not that it is rigid, but that it is indefinite and incomplete. It is an embodiment of one of the original efforts to explain the relation between capital and wages. It may provide the explanation of the origin of the present-day inequalities of distribution.

The share of profits as explained by Adam Smith can be separated into two parts, one of which bears some resemblance to the aleatory profits of real distribution. The other part might be interpreted as rent for the use of capital goods. But the rate of profit is not adequately explained, either as a normal or in its variations. This explanation must be sought in the productivity of capital goods, and in the attribution to the owner of such capital goods of their contribution to the joint product.

Interest is described as "derivative revenue" and not as an original share. This is the true nature of interest. It is the return for the use of money. In the modern productivity theory of distribution, interest is the price for the use of the loanable funds. It has its origin in the

rent for capital goods, and is measured in terms of money or a per cent. of the loan fund. Consequently the explanation of interest as a derivative revenue is fairly satisfactory.

The share of rent for the use of land, as well as the classification of land as separate from capital, is unsatisfactory. Rent as a share in the total product is explained as if it were the result of a mysterious quality inherent in the land alone, and of a supposed monopoly of the land factor, neither of which exist. Consequently the explanation of land rent is not valid. It is to be said, however, that in so far as the rent concept applies to the productivity of the land, it is a true explanation.

CHAPTER IV

THOMAS ROBERT MALTHUS

THOMAS ROBERT MALTHUS (1766–1834) was born at Guildford, England. His father was a country gentleman, an earnest student of natural philosophy, and a believer in the “perfectibility of mankind” as expounded by Condorcet and Godwin. For the first twenty years of his life, Robert’s education was a matter of direct interest to his father, who contributed to the independence and development of his son’s intellect by permitting him to grow and develop outside the conforming influence of schools, but provided him with teachers who had advanced views on intellectual training. Among these were Richard Graves and Wakefield, the master of dissenters. The former described Robert as decidedly pugnacious and always willing to fight for the sake of fighting.

Thomas Robert entered Jesus College, Cambridge, in 1784, was graduated, and attained his M.A. in 1791. He was in orders in 1798. In 1796 he had written a pamphlet, *The Crisis*, attacking Pitt and supporting the poor laws, but his father persuaded him not to publish it. He and his father had friendly arguments over the question of the perfectibility of humanity, and in order to state his thoughts clearly he wrote his first *Essay on Population*, which was published anonymously in 1798.

In 1805 he was made professor of history and political economy of the College at Haileybury. In the discharge of his duties as lecturer he had cause to investigate the question of rent, and in 1815 he published his essay on *The Nature and Progress of Rent*. In 1836 he published his *Principles of Political Economy*, based partly on his essay on rent, but more fundamentally on his *Essay on Population*.

Personally, after the passing of his pugnacious youth, he was of a singularly amiable disposition, and during his career did not permit either success or abuse to ruffle this amiability. He maintained his poise under the criticism of Godwin, Coleridge, Owen of New Lanark and others. In later days Henry George and Marx were among his critics. Godwin declared that Malthus argued as if the truth were the only goal sought. Among his contemporary followers were Ricardo, Senior, and Mill. Darwin stated that the *Essay on Population* first suggested to him the subject of his own theory of evolution.

Malthus began as a critic of the unqualified teachings of the millennialists, and after gaining his point proceeded to become a reformer in his own title. He did not seek the reformation of the entire social order, but attacked one single point which appeared to him a crucial point. The principle of population is the major chord in his theory of rent and underlies his *Principles of Political Economy*, upon the second edition of which is based the following discussion.

Malthus did not use the term *distribution* in the same sense in which Adam Smith used it. In his discussion we have scarcely a hint that distribution is the division of the product among the different classes of the population, as Smith conceived of it, but we find the term used very definitely to designate the distribution of the physical product over the country to the consumers, which in current terminology is a part of production. Malthus says that a "proportionate" increase of wealth cannot be brought about by "the powers of production" alone, but requires also an effectual demand which is promoted by "such a distribution of the produce"¹ as will result in an increased value. This definitely indicates his use of distribution to mean a part of production,

¹ Malthus, Thomas Robert, *Principles of Political Economy*, p. 361, 2nd Edition.

Note. Due to the fact that in this chapter all references are taken from the same book, subsequent references will be indicated by page number only.

and we must search in other quarters for a concept comparable to the distribution of Adam Smith.

Malthus describes as follows certain controversial conditions which prevailed in the field on political economy at the time when he wrote :

" . . . on some very important points there are still great differences of opinion. Among these, perhaps, may be reckoned—The definitions of wealth and of productive labour—The nature and measure of value—The nature and extent of the principles of demand and supply—The origin and progress of rent—The causes which determine the wages of labour and the profits of stock " (p. 3).

He attributes these differences to precipitate attempts to simplify and generalize, and suggests that when the truth has been discovered, the parts may be combined into a unified science. His reluctance to discuss political economy as a consistent whole, especially that part of it relating to distribution, was no doubt based upon these controversies. He says :

" When these discussions have been for some time before the public, and a sufficient opportunity has been given . . . to separate what is true from what is false, the different parts may then be combined into a consistent whole " (p. 4).

Consequently, the plan of Malthus' work shows neither such organization nor such a connected scheme of distribution as was noted in the *Wealth of Nations*. Regardless of these superficial differences in methods of approach, in essence Malthus agrees with Smith to the extent that he centres distribution in price, the exchange value or the money price.

PRICE

There are, according to Malthus,

" Three sorts of value :

1. Value in use, . . . intrinsic utility . . .
2. Nominal value in exchange, or price, . . .
3. Intrinsic value in exchange . . . determined-by-the supply compared with the demand, and by the elementary cost of production " (p. 60).

Demand is the will and ability to purchase, and supply is the quantity and the disposition of the owner to sell. He thinks that the costs of production determine the "permanent prices" (p. 70), if all the components of price are included. But market prices are determined by principles distinct from costs of production. This he holds to be true of the price of raw products, but the price of manufactured goods more frequently coincides with their cost of production. The cost of production only influences the price because it is a "necessary condition" (p. 71) of the supply of the goods. Therefore both the natural price and the market price are determined by the great law of demand and supply.

In two respects Malthus clarifies the price concept. He agrees with Smith that the merchant is interested in the money price, rather than in philosophical considerations; conditions that prevail in the market place are matters of concern to him. ". . . it is the nominal value of goods, or their prices only, which enter into the consideration of the merchant" (p. 55). This money price is not traced to the price of the manager as it could very well be at this point, but it stops with the middle man, the buyer and seller of finished goods, not the entrepreneur. Secondly, he brings into the picture in strong relief the supply and demand explanation of price and relegates the cost of production as a price determiner back towards the position in which it belongs, as an element in the determination of the supply. This is his "principle which operates independently" of costs. He tells us that the truth of the matter is that the way costs affect price is through supply.

" . . . if the permanent cost of producing the commodity were doubled, it is evident that such a quantity only could be permanently brought to market, as would supply the wants of those who were both able and willing to make a sacrifice for the attainment of their wishes, equal to double of what they did before" (p. 65).

He tells us also that under actual market conditions nothing affects price but the relation of the supply to

the demand, and on the supply side the conditioning elements are the payments, wages, profits, rents, "the price of each of these component parts being determined exactly by the same causes as those which determine the price of the whole" (p. 77).

This price is the "natural price" of Adam Smith. It is defined and traced in a somewhat different fashion, but ultimately arrives at the same point at which Smith left it, the ordinary and average price. "The price which fulfils these conditions is precisely what Adam Smith calls the natural price" (p. 77). This, of course, is not a satisfactory definition of price. The metaphysical implications are too pronounced for the definition to be of great use. The terms ordinary and average might be as indefinite as natural and lead to as much confusion.

We are thus led to the essence of distribution. Human desire is satisfied by commodities, and the supply of the objects that satisfy these desires is regulated, first, by the kind and direction of human exertion; secondly, by the help of previous accumulations; and thirdly, by the supply of raw materials and food for the workers. In order that human ability may be rewarded, previous accumulations must be remunerated, and a price must be paid to secure a supply of food and raw materials, which price will provide a rent on nearly all land cultivated. These three conditions must be met in order to obtain a supply of most commodities, and the "price" which fulfils the conditions consists of three parts, wages, profits, and rents, and is the natural price. Rent has very little effect in determining the price, yet in almost all products rent is a part of price, because products that sell for the same price "have a very different quantity and value of rent in them" (p. 77).

The order of discussion used by Malthus is rent, wages, profits. Smith discusses wages first, then profits, and lastly rent. The fact that Malthus tries to dispose of rent first may be taken as indicative of its importance in his discussion and the necessity, according to his view,

of using rent as a basis from which to explain the other shares. He says: "The rent of land may be defined to be that portion of the value of the whole produce which remains to the owner of the land, after all the outgoings belonging to its cultivation, of whatever kind, have been paid, including the profits of the capital employed, estimated according to the usual and ordinary rate of the profits of agricultural capital at the time being" (p. 136), and "the first object which presents itself for inquiry, is the cause or causes of this excess of price" above the costs of production. Malthus thus becomes a pure surplus theorist. It is very obvious that the validity of his explanation of rent must rest upon the validity of his primary assumptions and definition, as well as upon the logic of his explanations of the various causes of this excess.

Relative to the remarks of Smith and Quesnay on rent Malthus says they seem to think of rent "as too nearly resembling . . . that excess of price above the cost of production, which is the characteristic of a common monopoly" (p. 136). Later he says the primary cause of rent "is quite unconnected with monopoly" (p. 140). We cannot see why a monopoly surplus, as far as surplus is concerned, is not just as good an explanation of rent as any other surplus would be. The concept of rent as surplus is never justified, however. When Malthus defines rent as a residual surplus of the price above the costs of production, a surplus above the wages of labour and the profits of capital employed in production of the priced commodity, we have confusion worse confounded. The concept of price itself is not clear or accurate, and we have inextricably confused with it that equally indefinite thing, a surplus above price. Malthus probably did not invent the idea of surplus, but may have developed the suggestion from Smith or from some other source. The context shows that he studied not only Smith, but the Physiocrats and other writers on this subject as well. Rent as a surplus savours much of the Physiocratic teachings. It may be a carry-over from

their error in placing land in such a predominant position in production. Yet again it may be of the character of Physiocracy itself, which is the "government of nature." At any rate, whatever it is, rent defined as a surplus is placed further outside the pricing process than it is in the *Wealth of Nations*, and such being the case no economic law can explain it satisfactorily and completely.

Malthus describes three causes of the surplus, or the excess of price above the costs of production.

"The causes of the ordinary excess of price above the costs of production, may be stated to be three. First and mainly, That quality of the soil, by which it can be made to yield a greater quantity of the necessaries of life than is required for the maintenance of the persons employed on the land. Secondly, That quality peculiar to the necessaries of life, when properly distributed, of creating their own demand, or of raising up a number of demanders in proportion to the quantity of the necessaries produced. And, Thirdly, The comparative scarcity of fertile lands, either natural or artificial" (p. 140).

The first and primary cause of surplus, characterized by Malthus as "the gift of nature to man" (p. 140), is the power of the land to produce a surplus above the amount necessary to pay for the labour and capital used in production. This power is identified by him as being due to the "natural or acquired" fertility of the soil. He thus goes farther than Adam Smith who, at the most, left us to infer the identity of this power of the land and the fertility of it (p. 147).

This surplus, the "main cause" of all rent, is primarily, according to Malthus, entirely extraneous to human effort and, in consequence, it must be an economic outlaw. As such it does not fit into the productive process in a normal and explainable way. This erroneous idea carries with it a second and closely related fallacy, which is directly implied if not specifically stated; that is the meaning of production. What is production? Can land alone produce? Does it consist in making available physical quantity alone? Economic produc-

tion is, very obviously, a joint process, and in addition is continuous and not segmented. The errors at this point seem to be based on the limited and inaccurate ideas of production and distribution held by Malthus. Production from land calls for the co-operation of labour, and production is not complete when the raw produce is in the field ready to be harvested or in the mine ready to be hoisted to the surface. It must be refined and carried to the consumer. The product must be in a form and at the place where it is available for the consumer's use.

Malthus' restricted and Physiocratic ideas of production are well illustrated in a passage from the *First Essay on Population*.

"The French Economists consider all labour employed in manufactures as unproductive. Comparing it with the labour employed upon land, I should be perfectly disposed to agree with them; but not exactly for the reason which they give. They say that labour employed upon land is productive, because the produce, over and above completely paying the labourer and the farmer, affords a clear rent to the landlord"; (*First Essay*, p. 330)

and manufacturing labour merely replaces the provisions the workman consumes.

"He will have added nothing to the gross produce of the land; he has consumed a portion of this gross produce, and has left a bit of lace in return" (*First Essay*, p. 331).

"A capital employed upon land, may be unproductive to the individual that employs it, and yet be highly productive to society. A capital employed in trade on the contrary, may be highly productive to the individual, and yet be almost totally unproductive to the society" (p. 333).

This, then, is his reason for calling manufacturing unproductive. "Every accession to the food of a country, tends to the immediate benefit of the whole society" (p. 335). We have, then, two confusing ideas: the physical productivity of the land and the value productivity of manufacturing and commerce. We also very clearly have two carry-overs from the Physiocrats in

Malthus' explanation of rent: the limited concept of production and the "clear rent to the landlord." Both are major errors and both are clearly parts of the classical theory of rent. In fact, physical production and surplus to the landlord are the corner-stones of that theory.

Obviously, Malthus made an effort to differentiate between individual wealth and social wealth. He seemed to sense very hazily the relation between production and wealth indicated by Adam Smith in his lectures which became the basis for the *Wealth of Nations*. Smith says: "Cheapness is in fact the same thing with plenty" (*Lectures of Adam Smith*, p. 156) and "National opulence consists therefore in the quantity of goods" (p. 190).

Malthus makes no advance over Adam Smith, who maintains that there is a high degree of balance in the relative importance of fertility and situation. A shock of wheat in the fields of Saskatchewan is very far removed from a loaf of bread on the table of a coal miner of Wales, both mechanically and in point of distance. There are cases where location and transportation facilities are more important than fertility. Famines in parts of China have been relieved by transporting wheat across the Pacific from America when wheat was selling at ten cents per bushel in other parts of China. A little thought will show that the most fertile fields of soil are relatively unproductive if their product is far removed, by distance or inconvenient transportation, from the ultimate consumer, and it will also be relatively unproductive unless combined with intelligent labour and efficient capital.

It seems to be the idea of Malthus that as cultivation is extended, rent will arise on the most fertile land. Now, under intensive cultivation more capital and labour will be applied to a given area of land. It is obvious, therefore, that most plots of land could be worked by so much labour and capital that under the operation of the law of diminishing returns as applied to the combined product, all of the product will be required for the compensation of labour and capital if they are made

preferred claimants, or for labour alone if it is to receive an irreducible minimum of subsistence wage. Hence, the surplus-producing power of the soil will disappear entirely.

Malthus thinks that the "surplus from the land, arising from its fertility" (p. 141) is the main cause of all rent, but that the value of the surplus depends upon its power to raise a "population to consume it" (p. 141). This is his second cause of surplus. He illustrates his thought by assuming that an industrious family owns a given area of land and on it produces the necessities for themselves and "five other families" (p. 142). This part, for the five other families, is the embodiment of the surplus, or the unusual powers of the soil, the gift of nature. ". . . it follows from the principles of population that . . . they would soon be able to command the labour of five other families" (p. 142), therefore the produce is worth "five times as much" (p. 142) as its cost of production. He assumes further that if the family gave up that part of the land which produced the extra amount, and instead possessed themselves of a machine for making coats or hats for fifty people besides themselves, "no efforts which they could make would enable them to ensure a demand for these hats or coats" (p. 143), and enable them to sell them for a price "greater than their fabrication had cost" (p. 143). The argument put forth is that the extra hats or coats will not give the command over labour that the extra raw produce will give. This is clearly another reversion to Physiocratic ideas. The thought is that the difference in the demand for the raw produce and the demand for the hats causes this difference in the commanding power. Now we must recall that, according to Malthus' explanation, we are dealing with rent as a surplus above the costs of production, and that the price is the price of the merchant and is calculated in money. Just why will a hat dollar not command as much labour as a wheat dollar? They are, in fact, identical in purchasing power, and such being the case the difference between agricultural products

and manufactured goods breaks down entirely. Conceivably, there is a gustatory difference between a loaf of bread and a hat, but this difference is not commensurable in terms of the market dollar. Under some circumstances hats may be as essential as bread under other circumstances. It is not an explanation of the phenomenon of rent to assert that food, a product of the land, has an exclusive power of creating a demand for the extra food resulting from the surplus attributable to the fertility of the land.

Malthus' second cause of the excess of the price of raw produce above the costs of production, therefore, is the demand creating power of the necessities of life. This "tendency of an abundance of food to increase population" (p. 150), he thinks, is necessary both to give a value to the surplus product of the good land, and to "create a demand for more food than can be procured from the richest lands" (p. 150). This demand creating power is partly the result of "the tendency of the population to press against the means of subsistence" (p. 160); in other words, it is based on the Malthusian law of population. The gist of this law, it will be recalled, is found in his postulates. "First, That food is necessary to the existence of man. Secondly, That the passion between the sexes is necessary, and will remain nearly in its present state" (*First Essay on Population*, p. 11). His assertion is "that the power of population is indefinitely greater than the power in the earth to produce subsistence for man" (*ibid.*, p. 13) and "the effect of these two unequal powers must be kept equal. This implies a strong and constantly operating check on population from the difficulty of subsistence. . . . And the race of man cannot, by any efforts of reason, escape from it" (*ibid.*, pp. 14-15). Here then we find the Malthusian law of rent based on the Malthusian philosophy of population. But from the above we can readily see that his laws of rent contradict his principles of population on which they are postulated. If land possessed the power to produce a cumulative surplus above the necessities for

the cultivators there would be no obvious "difficulty of subsistence" (p. 14).

It is at this point, too, that Malthus discards the monopoly theory of rent. He holds that in common monopolies, the cause of the excess of price above costs is that the demand is exterior to, and independent of, production, while in the production of necessities the demand is dependent on the product itself. His exclusion of the monopoly explanation of rent is justified, but the grounds on which it is excluded are not valid. The monopoly explanation of rent is invalid for the simple reason that a monopoly in a highly divided, multiple ownership, and freely transferable condition of land cannot exist. Malthus' refutation of the monopoly theory of rent is invalid for the equally simple reason that he makes it dependent upon a difference in the nature of the demand for the raw products and the demand for manufactured goods. This difference is non-existent, since in the market the same general pricing rules hold for goods of all kinds.

The third cause of the excess of price above costs of production, "the comparative scarcity of fertile lands, either natural or artificial" (p. 140), is a phase of the reason first given, the power to produce a surplus, since Malthus identifies the surplus as existing because of the fertility of the land. He also asserts that this cause "is clearly the natural consequence of the second, is finally necessary to separate a portion of the general surplus from the land, into the specific form of rent to the landlord" (p. 150). He does not tell us what happens to the rest of the surplus. All three causes are thus connected, but the third cause is the result of the relationship existing between man and his environment. This third cause is a corollary of the principles of population. Fertile lands become scarce as population increases. Land, in reality, then becomes simply a scarce good, an economic good. The amount of rent is then determined by the fertility, the productivity of the scarce good. This is quite a logical and correct

explanation of real rent in modern economy. The rent is determined by the productivity of the capital good. This is not a justification of an incorrect concept of rent, but simply squares this portion of the Malthusian theory with the valid rent theory. This argument is completed if land is classed as a capital good and rent is defined as a return to capital goods and as a cost of production of other goods, rather than as a result of a certain quality of the soil and its products. We are forced to raise the question whether Malthus' entire explanation of the nature and cause of rent was not properly a corollary of his theory of population, and more a part of the historical controversy over the justification of landlordism than an explanation of an economic situation.

Malthus says that there is an impassable limit to rent.

"This limit is the surplus of necessities which the land can be made to yield beyond the lowest wants of the cultivators, and is strictly dependent upon the natural or acquired fertility of the soil" (p. 147).

The surplus theory of rent is here further confused with two other distinct errors. The first one has to do, again, with his theory of population. There is no reason to think that generally the cultivators of the soil will submit to a standard of living that includes only their "lowest wants," if other people have more than this. A part of the general argument on this point is shown when he says relative to the separation of rent from profits and wages that "the actual cultivators of the soil in these countries are generally in a very low and degraded condition" (p. 155). Such an argument cannot be used as substantiating a general proposition, like the law of rent. The second error, very glaring, is the dependence of the surplus on the "natural or acquired fertility of the soil." If the fertility is acquired it cannot be described as a quality of the soil "which God has bestowed upon man" (p. 148). It is man made. In addition to its being created by man it is produced at a cost. Any kind of acquired fertility is acquired at a cost of effort

or capital and the result of such fertility is not a surplus but a portion attributable to the labour or capital used in its formation.

Malthus gives us a new view of the surplus when he says, under the discussion of the separation of rent from profits and wages,

"where knowledge and capital of an old society are employed upon fresh and fertile land, the surplus produce of the soil shows itself chiefly in high profits, and high wages, and appears but little in the shape of rent. . . . But the accumulation of capital beyond the means of employing it with the same returns on land of the greatest natural fertility, and the most advantageously situated, must necessarily lower profits; while the rapid increase of population will tend to lower the wages of labour" (p. 149).

How can it possibly be a surplus above the costs of production and yet be embodied in high profits and high wages? If, in a new country, profits and wages are high, it is because of the scarcity and productivity of capital and labour. It is not because of that peculiar sustaining quality of the land or the peculiar power of its products. If wages and profits decline with the increase of the population and the growth of capital, it must be because of the decreased productivity in accordance with principle of diminishing returns of these two factors. *Ceteris paribus*, wages and profits may not decline. They may remain at the same level or increase; then how will the rent surplus emerge?

In concluding his explanation of the causes and the separation of rent, Malthus says:

"The quality of the earth first mentioned . . . is obviously the foundation of this rent, and the limit to its possible increase. The second quality noticed . . . is necessary both to give a value to the surplus . . .; and also to create a demand for more food than can be procured from the richest lands. And the third cause, . . . which is clearly the natural consequence of the second, is finally necessary to separate a portion of the general surplus from the land, into the specific form of rent to the landlord" (p. 150).

This then is the heart and centre of the explanation of rent as expounded by Malthus and later adopted in part by Ricardo. The part of this scheme emphasized by Ricardo will be noted under the analysis of the work of that writer. It is relevant to remark that of the three causes proposed by Malthus as explaining rent as a surplus, only the last one, the comparative scarcity of fertile land, has a claim to validity. In discussing this he seems almost to sense the true nature of rent. He speaks of it as a "transfer from profits and wages" (p. 151), and again speaks of the same relation of capital to what he calls rent when he says :

"If the profits of capital on the inferior land taken into cultivation were thirty per cent., and portions of the old land would yield forty per cent., ten per cent. of the forty would obviously be rent" (p. 152).

He does not grasp the thought, however, that what he calls rent in these cases is nothing more than differences in the productivity of capital goods used under unlike conditions. The differential idea is further developed by the followers of Malthus.

With rent postulated as the difference between the price of the product and the costs of its production, the difference depending on the peculiar qualities of the soil and the distinctive characteristics of its products, Malthus thinks he sees four causes for the increase of rents, or four causes which increase this difference :

"1st, Such an accumulation of capital compared with the means of employing it, as will lower the profits of stock ; 2ndly, Such an increase of population as will lower the corn wages of labour ; 3rdly, Such agricultural improvements, or such increase of exertions as will diminish the number of labourers necessary to produce a given effect ; and 4thly, Such an increase in the *price* of agricultural from increased demand—as—is—accompanied by a diminution . . . of the money outgoings of the farmer, compared with his money returns" (p. 158).

Here we have a good beginning of the principle of proportionality. With land limited or fixed in quantity

and the very obvious assumption of the mobility of capital and labour supplementing the measurable increase of each, and an increase in demand which results in an increased price of the raw product, there is probably no reasonable doubt that the income to the land element, called by Malthus rent, would rise. The rent in this case is nothing more than the return for the use of land, a special form of capital goods used in production. The land has become relatively scarcer, and with the other mobile productive forces combining with it in increased amounts, its returns will increase. Malthus also seems to see very clearly that improvements in agricultural production will result in decreasing the amount of labour required for a given production, but he would add (and be in error in so doing) the savings of wages resulting from this improvement to the conglomerate surplus rent. This is another distinct departure from his idea of rent as a divine gift.

His explanation is further considerably marred when he tells us that improvements in the facility of production of necessities, unlike that of other commodities, "is rarely or never attended with a permanent fall of their value" (p. 162), but, on the contrary, the price increases with the quantity. He would have us believe that this double increase goes to rent, as it does if the larger quantity is the result of the productive efforts of an increased population, but not if it is caused by improved technique of production. Again, these assertions are not true to fact when rent is considered as a surplus, and serve only to add an unexplainable element to the rent problem. As we might expect, Malthus attributes a decline in rents to causes just the opposite of those that result in increased rents. It is noticeable that he asserts that poor cultivation on fertile land may prevent the rise of rent. This being true, we must conclude that it takes something more than fertile land to result in rent. His explanation suggests that the surplus-producing power of the soil is non-operative, but he has previously told us that this power is the primary source of rent. Nothing

is clearer than that so many workmen may be crowded on a given area of land that the joint product will not provide a surplus, and in fact the number may be so great that the product will not provide sustenance, let alone a surplus. Such an overcrowded condition seems to be the final endpoint of the Malthusian theory of population. Thus it again stands in contradiction to his theory of rent. Malthus considers that when the first three causes that operate to increase rents are reversed, their effect to decrease rents is too obvious to need discussion, but the fourth cause, a decline in the price of corn, he follows at some length. He thinks that all the causes do not have to be operative at the same time. He breaks into the explanation of the causes of the decline when he says that the "profits of stock must be low" (p. 175). This he thinks is true because it is the "want of adequate returns which occasions this decline" (p. 175) of rent. It is noted here that Malthus is not in agreement with Adam Smith, who thinks that it is in a declining society that profits are the greatest. Low interest rates and slow accumulations of capital may exist co-ordinately, but a decline in the accumulation of capital may come from other causes than a low rate of interest or low profits of stock. The income from the use of capital goods must originate in their productivity. If conditions are such that their productivity is low, then the returns cannot be high, even if there is but a small supply of capital goods available.

Malthus has just previously told us that the produce of a country, or its price, declines from a diminution of demand. The cause of the decreased demand he has not explained, but has asserted that it terminates "in a rise in the value of money" (p. 174). This he thinks tends "to throw land out of cultivation and lower rents" (p. 174). It does not seem that Malthus has harmonized his philosophical views of the pressure of population on the food supply and the pecuniary explanation of the relation of the purchasing power of money and the price of corn on the one hand, and land rent on the other. ~~If~~

men were starving ; that is, if the pressure on the food supply were intense enough, a rise in the value of money would hardly serve to throw land out of cultivation and to lower rents. He argues that fluctuations in rent depend partly on fluctuations in price, which fluctuations depend altogether on demand, which is affected by elements that are not only intangible but are incommensurable in market terms. Price is determined by other things in addition to demand.

When Malthus uses the historical period of "twenty years from 1793 to the end of 1813" (p. 164) to prove some of his arguments covering long-run propositions, he is not convincing. His assertion that attempts to fix prices by law so low that there will be no rent will reduce "produce and population to less than one-tenth" (p. 176) savours much of the defence of *laissez faire* and the landed class.

Malthus seems to be conscious that the validity of his rent theory depends to a great extent upon the hypothetical difference between the price of agricultural products and the price of manufactured goods. In his argument he again reverts to his attempt to justify this difference.

"The difference between the price of corn and the price of manufactures, . . . is this ; that if the price of any manufacture were essentially depressed, the whole manufacture would be entirely destroyed ; whereas, if the price of corn were equally depressed, the *quantity* of it only would be diminished. There would be some machinery in the country still capable of sending the commodity to market at the reduced price" (p. 178).

Following this he describes land as a series of machines of unequal powers, "all susceptible of continued improvement by the application of capital to them" (p. 178), and being gifts of nature he thinks they have different qualities than do man-made machines. This difference is caused by the "great inequality" in the soil machines. This argument does not reach the point intended. There is no greater difference in the productive powers of

different acres of land than there is in the productive powers of different machines. Neither can land be considered a gift of nature if various plots may be improved by the "application of capital" to them. These are not distinguishing marks between a gift of nature and a man-made capital good, as he avers. The best machine is no more capable of producing all the manufactured goods required than the best plot of land is capable of producing all the agricultural products required. The differences in the productive powers of both machines and plots of ground are identical from an economic standpoint and cause similar differences in their incomes, or rent, but this is not the surplus rent referred to by Malthus. These differences are only a part of rent, whereas he uses them to indicate the total rent. We would, therefore, be compelled to reject both his analogy and his explanation. There is probably no more reason to speak of a natural or necessary price for corn than there is to speak of a natural price for hats or coats or box cars. Had Malthus proceeded to a logical destruction of the entire difference between his series of machines of unequal powers and plots of land of unequal fertility, he could have arrived very quickly at the true explanation of rent as a return for capital goods, determined by their productivity. He thinks that labour and capital receive all the product in a new country, and that rent, which he tries to explain as the result of certain qualities of the soil and certain peculiarities of its product, begins to separate from profit and wages as soon as profit and wages begin to fall from relative scarcity of fertile land. Why is it that he cannot also see that the land, when it becomes scarce, is like the capital used on the land?

In summarizing, we note that Malthus rejects the monopoly explanation of rent; subscribes to the theory of rent as a surplus outside the pricing process; finds the causes of the surplus to be a miraculous sustaining power of the soil and a peculiar power of raw products to create their own demand. These are supplemented

by the scarcity of fertile lands. He also explains that rent is taken from, or is separated from profits and wages. We must approve his rejection of the monopoly theory of rent, and reject his idea of rent as a surplus and a derivative from profits and wages. Of his first cause of the surplus of the soil it must be said that even fertile soil cannot always and under all circumstances produce more than enough to sustain the labourers involved in production, but this ability depends much on the amount of capital available for the use of the labourers as well as the efficiency of the labourers. Raw products may contribute to the increase of the population which may demand more raw products, but other things may supplement or counteract this contribution; therefore this cannot be accepted as a valid explanation of rent. Scarcity of fertile soil is simply a scarcity of a special form of capital goods whose productivity will result in a rent like the rent of all other capital goods, but this is not the rent which is a surplus above the costs of production. When Malthus combines natural and acquired fertility as a cause of rent and then calls fertility a "gift of nature to man," he is inconsistent and destroys his own assumption. In reality he puts land, or its fertility, in the same category with capital goods used in adding the acquired fertility, but does not seem to recognize the fact. The increase of capital and population referred to by Malthus would cause an increase of rent to land if this rent is defined as a return to a special form of capital goods. Here he is at the very threshold of the theory of specific productivity. It cannot be true that all savings resulting from improved production will serve to increase rent. This thought of Malthus depends on the thesis that improvements in production will lower the price; that the lower price of raw products will encourage an increase of population, and the population increase will cause a resort to inferior lands which will increase the rent of all land. This view of the differential surplus is too far fetched to be of great use in explaining rent. In reality, improvements in production would tend to increase the

product and lower the price. This, in line with Malthus' own scheme, will throw the less fertile land out of cultivation and decrease the differential on the other land instead of increasing it as he asserts.

WAGES

Malthus says that "The wages of labour are the remuneration to the labourer for his exertions" (p. 217), and that there are two kinds of wages, nominal wages, or money wages, and "real wages" (p. 217), the things money wages buy. It appears that in both the definition and the discussion of wages there has been no great advance over the principles of the *Wealth of Nations*. Malthus thinks that "Adam Smith is quite correct, when he says 'the money price of labour is necessarily regulated by two circumstances: the demand for labour; and the price of the necessaries and conveniences of life'" (p. 220). The definitions of the terms *wages*, *nominal wages* and *real wages* are identical with corresponding ideas of Smith. The natural or necessary price of labour is comparable to the natural wages of Smith, with this possible difference, that the natural wage of Smith is a subsistence wage, and the natural or necessary price of labour of Malthus is that price which is necessary to occasion a supply of labour sufficient to meet the demand. The question arises as to whether labouring people are willing, and will remain willing, to propagate and provide the future labour supply with no hope except that embodied in a bare subsistence wage. If they are, then both wage concepts are identical. If they are not, then Malthus' definition includes the hope of a wage that may vary somewhat with the demand and may increase so that it will supply some of the higher desires of the working class.

The demand for labour is seen to rest in the "funds for its maintenance" (p. 218), but Malthus asserts the importance of the "relative prices of labour and commodities, . . . and . . . the constant and predominant action of the principle of supply and demand on both"

(p. 220). Malthus tries to segregate the "fund" from the capital of the country and implies that only a certain part of the produce of the country is used as a maintenance fund. To understand the demand and supply of labour he thinks it is necessary to consider the maintenance fund, instead of the increase of wealth, or the increase of capital, or the increase of the value of the whole produce, and he also considers that the earnings of the labouring family when employment is scarce should be distinguished from the family earnings when labour is scarce. This latter is clearly another phase of the demand and supply of labour.

This is the much battered wage fund doctrine again. With both Smith and Malthus this maintenance fund is used under two interpretations; in the one it consists of the "necessaries of life" or the sustenance of the labourers; in the other it is the equipment with which the labourer is occupied. Malthus emphasizes the first almost exclusively, as we might expect from his principles of population, and Smith gives greater weight to the second meaning, but uses both. Such ambiguity is destructive in this argument. It must be admitted, however, if we accept the interpretation of Malthus, that he is quite correct in his idea of a segregated fund. If the fund furnishes the necessities of the labourer, then the increase of national wealth, the increase of capital, or the increase of the value of the whole produce is of secondary importance to him. He is interested directly only in what he gets to eat and wear. This, we recall, has been determined for him by the subsistence wage. Here Malthus has scored a point. But it must be clear that things other than food must be provided before the labourer becomes a desirable asset to the enterpriser. Malthus is here thinking of the relation of the population to the food supply. Labourers may receive a good supply of food, under the assumption of Malthus, and yet be of little value as productive agents, or, under Smith's assumption, they may be adequately provided with tools and implements and yet be unpro-

ductive. An abundant supply of both food and tools will not necessarily increase wages or justify high wages. A remark of Malthus' on the poor laws of England is relevant. Concerning paying people without regard to their productivity, he says of the poor laws: "They may be said to create the poor which they maintain" (*First Essay on Population*, p. 83).

Malthus falls into the same error as Smith relative to using the price of food as a determining cause of wages. Both are probably thinking of what they conceive that wages should be, rather than what they are. It seems strange that the price of necessities should be used to determine the money wages, and also be used to determine the relation between the money wages and the real wages. These prices do, in fact, determine the purchasing power of the wage earner's dollar, but it is a major error to assert that wages are determined by the cost of living. Such is not the case except under the postulate of a subsistence wage; then, of course, the labourer will get his living in terms of dollars regardless of how many dollars are required to cover this cost, and without any consideration of what the labourer is really worth to his employer. The only consideration will be the price of food—the money wages of labour will be a very secondary matter, entirely dependent on that price. In reality, high wages and high cost of living may exist co-ordinately, or the cost of living may be exceedingly high at the same time that wages are very low, and to assert that living costs determine wages is to imply that other than economic forces exert major influences on economic phenomena.

Malthus has a penchant for analysing the condition of the labouring class, rather than the wages of labour. He says:

"The condition of the labouring classes of society must evidently depend, partly upon the rate at which the funds for the maintenance of labour and the demand for labour are increasing; and partly, on the habits of people in respect to their food, clothing, and lodging" (p. 224).

This is a slight deviation from Adam Smith's remark that money wages are regulated by the "demand" for labour and the price of commodities. In dealing with the purposeful efforts of labourers to meliorate their own condition, Malthus thinks he sees two points of incidence. He thinks that the condition of the labourer will be improved if the maintenance fund is increased, or if the labourers will improve their habits. This maintenance fund is the source of the demand for labour. If the habits remain fixed, he argues that the labourers' condition will depend on the increase of the funds. If the funds remain fixed, their condition will depend upon their habits. But his further argument is that the first method of improvement is entirely beyond their reach.

"... and that as the former method of improving their condition is neither in the power of the poor to carry into effect themselves, nor can it in the nature of things be permanent, the great resource of the labouring classes for their happiness must be in those prudential habits" (p. 260).

Here we see that his theory of wages depends on his philosophy of population. Prudence, or the proper control of marriage and birth, he thinks, is the only way labourers may improve their lot. By restricting the size of the family, he argues, more food will be available for division among those who live. This is *laissez faire* in pure form applied to labour. Will not more intelligence and greater efficiency on the part of the labourers contribute to the enhancement of the total capital fund and consequently to that part of the fund used by labour? In fact labour is one of the most active and important elements in the increase and perpetuation of that fund.

Though there is a certain degree of fixity and of bare sufficiency of the fund for the maintenance of labour as conceived by Malthus, he also has the idea of an excess of this fund. This is at once confusing and understandable in view of his restricted idea of the meaning of

production. "These funds consist principally in the necessities of life, or in the means of commanding the food, clothing, lodging, and firing of the labouring classes of society" (p. 234). But he thinks that if the "neat surplus" resulting from efficient production "were spent in the maintenance of menial servants, soldiers, and sailors" (p. 335), or unproductive labourers, the maximum demand for labour would result from the use of most of the capital in producing necessities and a minimum amount used "in producing luxuries and superior conveniences" (p. 235). It is clear that he does not think of all kinds of labour as productive labour, and consequently he cannot think of the maintenance fund as applied to all kinds of labour. Consequently the sufficiency of the fund for the productive labourers only cannot be established. Since he refers to the "neat surplus" above the needs of the labourers who produce necessities, the maintenance fund must, in his mind, be more than sufficient to support the producers of necessities. The source of the capital whence comes the maintenance fund, if there is such a fund, is not adequately explained. His major emphasis seems to be on the proportion of necessities to the "exchangeable value of the whole produce" (p. 235), which would involve differentiating between necessities and other articles of consumption. Contradiction to the above thoughts, as well as fatalism, are noted when he says: "But unfortunately, common humanity cannot alter the funds for the maintenance of labour" (p. 223), although he has conceived of a "neat surplus" from efficient production. Malthus has much the better of the argument over Ricardo when he insists that wages are measured, or designated, by the amount of money wages, or real wages, received, rather than by the proportions of the total income obtained by the labourers. It is very clear that if the amount of the social income is small and labour receives a small proportion of it, labour will be meagrely paid, but it may be highly paid if it receives a fixed money wage or a specified real wage. In

the latter case the owner of capital goods may not be very well compensated. It is not a question of justice, however, but a consideration of facts that is of primary importance in the problem of distribution. It may be said in defence of wages as a proportionate part of the social income, rather than as a specified wage rate, that the interests of the worker will, if he accepts this theory, be more directly centred on increasing the social income because of his immediate interest in his increasing share of this income, but it yet remains very evidently true that the worker's proximate interest is in the rate of wages he receives rather than in his proportional share of the social dividend.

Malthus sanctions Adam Smith's cause of the variations of wages in different employments, but thinks all these cases are covered by the "principle of supply and demand" (p. 221). In conclusion it must be noted that, compared with Smith, Malthus has given us a very superficial discussion of the wage problem. The entire *Essay on Population* focuses on the relation between the growth of population and the increase in the food supply. This is the gist of his wage theory, and is one point of agreement with the main wage principles of Adam Smith. He apparently does not contribute to the belief in the contract wage, or the relations developed by Smith between the stages of society and the wage-earner's income, but the context seems to indicate that he subscribes to the subsistence wage and the maintenance fund. At no place does he make as close an approach to the productivity explanation of wages as does Adam Smith in his concluding paragraph when he refers to the productivity of labour and the division of labour, and while he pivots his argument on the necessities of the labourer, he does not explain thoroughly the theory of the mode in which these necessities are determined. Malthus' discussion of wages is, for the most part, a discussion of nominal wages and real wages in the long run, and the theory of market wages has been generally neglected.

PROFIT

Malthus emphasizes the differentiation indicated by Smith between capital and stock. Stock is all the material possessions of a country, while capital is that part of accumulated wealth "destined to be employed with a view to profit" (p. 262) in the production of future wealth. Malthus discusses this distinction immediately as a part of his discussion of profit. Smith discusses it as related to the "accumulation, and employment of stock,"¹ and would divide stock into two parts; one part expected to produce revenue, and the other part for immediate consumption. This would indicate that Malthus had the clearer concept as to the importance of profit in distribution. When he says "that all stock is not . . . capital, though all capital is stock" (p. 262), he has made a step toward differentiating capital goods. This is greatly weakened, however, by his assertion that perhaps no harm will be done by using the two terms interchangeably. There is confusion shown in the definition of profits when he says :

"The profits of capital consist of the difference between the value of a commodity produced, and the value of the advances necessary to produce it, and these advances consist of accumulations generally made up of wages, rents, taxes, interest, and profits" (p. 262).

Here he makes the advances to production to include interest and profit, the result of which is inaccurate, because the profit of Malthus includes interest, and to consider both as part of the value of the advances is to double count. Such a definition of profit also involves the embarrassment of defining a thing in terms of the thing defined. The only justification is that the profits involved in the advances are the past profits, or previously accumulated profits, and those he seeks to define are future or anticipated profits. Tolerating the errors mentioned above, the advances for production as ex-

¹ Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Vol. I, p. 258.

plained by Malthus are almost identical with the entrepreneurial costs of production under actual conditions. But he does not establish this identity.

The manager's personal interests are entirely neglected when the profits of capital are made to take up all the difference between the value of a commodity and the costs of its production, or the value of its advances. Malthus' position cannot be questioned when he makes the rate of profit depend on the ratio of the profits to the advances, or rather, the ratio of their values. "The rate of profits is the proportion which the difference between the value of the commodity produced, and the value of the advances necessary to produce it, bears to the value of the advances" (p. 262). He reasons clearly that the lack of identity and commensurability between the advances and the product makes the use of value comparison, rather than quantity comparison, imperative. His logic is also sound, but not very profound, when he searches for causes of the variation in profit rates in the causes of the variations in the proportions between the value of the advances and the value of the product.

A very important point is raised by Malthus when he says the value of the advances "may be known and measured beforehand, while the value of the product, and the proportion of that value which goes to replace the advances remains to be ascertained when the produce is sold" (p. 266). This introduces the element of futurity and involves an inconsistency, which is clearly shown when we note that he confines profit exclusively to the income of capital and does not include the element of uncertainty, but in the explanation of the rate of profit or the ratio of a certain value of advances to an uncertain value of produced goods, he places a major emphasis on this element of uncertainty.

Malthus asserts that there are two principles that operate to cause the rate of profits to vary. The first is the "limiting principle of profit" (p. 271), and depends on the productivity of the "last capitals employed upon

the land " (p. 271) which determines the proportion of the value of the product required to support the labourers employed, and consequently determines the part remaining to capital in the form of profits. He thinks that under conditions of advancing society profits must fall because of the necessity of resorting to the use of inferior land which requires more labour for a given product. Here we have the conjunction of his theory of rent, his theory of wages, and his theory of profits, all of which are covered by the panoply of his philosophy of population. The surplus theory of rent, combined with the subsistence theory of wages to which he subscribes, give the Malthusian theory of profits.

If we admit the validity of the postulates of Malthus relative to rent and wages, there is not a vestige of an opportunity to disprove his theory of profits. He says :

" But the physical wants of the labourer remain always the same. . . . Consequently, if poorer lands which required more labour were successively taken into cultivation, it would not be possible for the corn wages of each individual labourer to be diminished in proportion to the diminished product; a greater *proportion* of the whole would necessarily go to pay the wages of labour; and the rate of profits would continue regularly falling till the accumulation of capital had ceased " (p. 274).

The wage portion of the product would progressively encroach on the profits portion and lower profit rates would result. This is not because of the competition of capital as in the theory of Smith, but because of the " smaller and smaller " (p. 274) returns to the application of labour, combined with the impossibility of diminishing wages " in proportion to the diminished produce."

The primary error in the explanation of profit may be traced to the differentiation of land and other capital goods, and in attributing to it a distinct productive power and to its product a distinctive demand—creating power. While this error leads him to try to distinguish between the productivity of land and the productivity of capital

goods, it also leads to the confusion of the productivity of land and the productivity of other capital goods at the margin. He has told us that it is the "productiveness or unproductiveness" (p. 271) of the last capital employed that determines the variations in the rate of profit. Now he tells us in the same discussion that profits "would be in proportion to the fertility of the last land taken into cultivation" (p. 272). The two are identical, of course, as incomes which are determined by the productivity of capital goods, but the confusion is caused by the peculiar nature attributed to land and production, and the conception of land rent as a surplus.

The argument that profits will decline "till profits in manufactures and commerce have been reduced nearly to a level with those in agriculture" (p. 275) is valid so far as its implications point to a general level of profits within a country. We cannot see why it is true, however, that the rate of profits in agriculture will be the low point toward which other profits will gravitate. It is just as reasonable to assume that profits in other occupations will be the standard for agricultural profits. The tendency of profits to an equality in the same country is quite true of the income of capital goods. Capital goods employed at the margin of agricultural cultivation will probably draw the same returns as when occupied in other ways. The truth of the argument for a uniform rate of profit is much devitalized, not only by his frantic rush to the margin of cultivation where he thinks "the general rate of profits must be limited by the powers of the soil last cultivated" (p. 275), but also by his provocative and ingenuous attempt to justify again the Physiocratic difference between agriculture and manufacturing. He asks how we can reconcile a diminishing productivity of labour in agriculture, an increasing productivity of labour in manufacturing, and a uniform rate of profit—divergent effects from the same cause. His reply is that in agriculture added labour results in a "diminution" (p. 275) of the product, which in turn results in diminished profits and an increased price, but

in manufacturing increasing productivity results in a decline of the price of the product, which causes a decline in the profits. A smaller physical quantity at an increased price could, of course, result in the same rate of profit in agriculture as an increasing physical output combined with declining prices in manufacturing. The fundamental error here is in the assumption that the prices of the two classes of products are determined by two different sets of pricing forces. Consequently the two original errors in the divergent methods are not corrected by the two subsequent errors in converging the two different rates of profits at the prevailing rate by the arguments used.

The second principle whose operation causes the rates of profits to vary is the "*regulating principle*" (p. 271). This covers the variation "in the value of the produce" caused by the relation of the demand and supply. By this principle the proportion of the produce received as the share of labour varies for the same quantity of labour used with the same value of capital. Malthus thinks this principle determines within the limits prescribed by the land, "all the variations of profit" (p. 276). Here once again he brings to bear on the other shares of distribution the same principle of population which he used with rent and with wages. He proposes two hypothetical cases. The first one he supposes to involve an unlimited territory, a stationary or sparse population, and an increasing capital and produce. The population, he assumes, would be kept in check "by some miraculous influence" (p. 276). He argues that as capital and produce increase faster than labour,

"the profits of capital would fall, . . . notwithstanding the fertility of the soil and the plenty of food, . . . but rent and wages would be very differently affected . . . rent, the amount of it could not be great. . . . With regard to wages they would continue progressively to rise, in necessities, conveniences, and luxuries, so as to place the labourer in a condition continually and in all respects improving, as long as capital continued to increase" (p. 277).

He departs from his argument covering profits to remark that this hypothesis shows the power the labouring class has of improving its own condition. In fact it seems as though the case proposed is better calculated to support his contention covering wages than the one covering profit, though he does state that profits would be low because the "supply of capital would be abundant compared with the demand" (p. 278). This is a relevant remark, but he does not search until he finds the cause that operates back of the relation of the supply of capital to the demand for capital; that is, the productivity of capital.

The second hypothetical case, which he thinks is more real, proposes a limited territory of nearly equal quality, and so fertile that very little capital is needed, an unchecked population, and an increasing capital. This set-up, he thinks, would result in rents being

"extremely high and profits and wages very low. The competition of increasing capital in manufactures and commerce would reduce the rate of profits, while the principle of population would continue to augment the number of the labouring classes, till their corn wages were so low as to check their further increase" (p. 278).

The two suppositions, Malthus thinks, show that the limiting principle of profits does not need to operate in order for the fluctuations in profits, within the extreme limits, to exist. But he also thinks that while the "principle of demand and supply, or competition" (p. 281) is very weighty in determining fluctuations in rates of profit, it is overshadowed by the other principle of limitations.

In both of his hypothetical cases Malthus is again on strong ground. If there is an abundance of good soil, and capital and product increase, but the labour supply remains the same or increases less rapidly, then labour will get a higher rate of wages and capital will get a lower rate of profit. Again he argues correctly that if the supply of land is limited, the rate of profits will be

low and the wages low but rents "extremely high" (p. 278). All of this is but a way of stating the law of proportionality so generally recognized as valid in economic reasoning. The weakness of this theory of profits lies more in what it omits than in what it states. Malthus does have a glimpse of the concept of the entrepreneurial costs as advances in production, but he does not follow the idea to its logical conclusions. He also sees the idea of uncertainty in the roundabout method of production and sale, but does not class pure profits where they belong. He confuses them with profit as a return for the use of capital goods. He of necessity, in order to stay inside his philosophy of population, tries to combine his rent theory with the Smithian concept of a subsistence wage, and as a result of this blend, derives his residual theory of profit. Had he followed up his idea of the "marginal" productivity of capital, his conclusions could have been valid, but he brings in the subsistence theory of wages, by which theory wages remain the same and are deducted from the product, leaving the residual profit. Rent had been previously allotted to the landlord if there was rent. While he thinks he sees that there is a relation between the decline in profits and the use of inferior machines, meaning poorer land, yet he thinks of profit as belonging to capital and rent as belonging peculiarly to land, and confuses the decline in profits with the diminishing fertility of the land, the income of which, by his definition, is to be rent.

The error in his assertion that "profits never fall but when the value of the produce of the same quantity of labour falls" (p. 291) and *vice versa*, rests on the same invalidity noted in the above paragraph; that is the necessity of a fixed wage being deducted from a diminishing value in the joint product. He apparently does not see that the wage element in the joint product may also vary and thus make the variation of profit impossible on this basis.

It will be recalled that Malthus rejects the idea of

wages as a proportion of the total product, and argues that a wage is designated as an amount of money. He holds to this idea of wages in his discussion of profit, but argues that profits depend on the proportion of the product remaining after wages and other advances have been deducted. As previously noted, Malthus reverses the order of discussion of distribution used by Smith. He discusses the shares in the order of rent, wages, and profits. Smith used the order of wages, profit, and rent. This may be taken as indicative of the importance Malthus ascribes to rent. His discussion of this subject originally took place in 1815, or five years before the publication of his *Principles of Political Economy*. His discussion of rent had been preceded by the publication of his *Essay on the Principles of Population* by seventeen years. The close tie-up of his explanations of rent, wages, and profits with his theory of population is not surprising.

Of the eight fundamental propositions of Adam Smith covering rent, Malthus properly refutes the theory of monopoly. He, by implication at least, approves of Smith's principle that rent is a component of price, and with that he sanctions the thought that price must be high enough to pay wages and profit and usually to afford rent. In fact this is one of his principal postulates, and is used as a basis from which to develop much of his reasoning. He side-steps the proposition that the price of food products is always high enough to pay a rent, and substitutes the picture of man struggling for food at the margin of cultivation where his efforts are less and less productive, his absolute food requirements continually the same, and capital receiving less and less in profits.

He approves of the causal relation between fertility and rent, and also situation and rent, but he emphasizes the absolute fertility rather than the relative fertility. This absolute fertility seems to be the "produit net" of the Physiocrats. He would also approve of the causal relation between social improvements and the rise of rents.

The last two propositions of Smith regarding rent are the bulwarks of the Malthusian theory. He argues fervently that food prices rise and the price of manufactured goods fall with progress, and sees in this cross-movement an important cause for the rise of rents. The next and last proposition from the *Wealth of Nations* is the keystone to his triple arch of rent, wages, and profit. Instead of the rather modest thought of Smith that land almost always produces more food than is necessary to pay the wages of labour and the profits of stock used in production, Malthus sees this as "First, and mainly" (p. 140), that cause of the excess of price above costs of production which results in rent. No rent, he thinks, can exist without this surplus, hence it is evident that it is "the foundation or main cause of all rent" (p. 141).

His own third cause of rent, or the excess of price above cost, the comparative scarcity of fertile land, is an extract from Smith's theory of national stages. His own contribution, if such it may be called, is the second cause, the demand creating power of necessities of life. This, too, is much like Adam Smith's thought that "The number of workmen increases with the increasing quantity of food" (*Wealth of Nations*, p. 165) and many other expressions of like tenor. While Smith uses the term surplus in a general sense and as an adjective, generally, Malthus crystallizes the term into its specific application to rent, and uses the word as a substantive. As to wages, Malthus quotes approvingly the regulators of wages as used by Adam Smith, the demand for labour and the price of necessities and conveniences, and he very clearly, inferentially, approves the normality of the subsistence wage used by Smith. This is his marginal wage, under the attribution of which the rate of profit is determined. Malthus considers it important to emphasize the relation between the "prices of labour and commodities" (p. 220), but in doing so has not advanced beyond Smith.

In the analysis of profits some elementary contribution is made in the method of computing the rate of profits.

Gross profits are considered from the standpoint of their proportional share of the marginal product, but the rate of profits is computed in terms of per cent. and on a basis of the value of the advances. The limit to the fluctuations of profits is conceived as the productiveness of the marginal labour and is both provocative and intriguing, as well as apparently original. The residual theory of profits, what is remaining after labour is paid from the marginal product, involves some adumbrations relative to competition of capital, but principally and fundamentally it is in contrast to, and probably much inferior to, the competitive profits of Smith, in both reasoning and emphasis.

Neither the productiveness of labour nor the productiveness of capital as used by Malthus means the specific productivity of the factors concerned. Rather it is a confused jumble and is meant to apply to the decreasing productivity of the land supposedly the result of the decreasing fertility of the soil. The joint product does not seem to be thought of as such, but rather it is conceived of as belonging particularly to the land alone.

CHAPTER V

DAVID RICARDO

DAVID RICARDO was born in London, of Jewish parentage. His father was a member of the Stock Exchange. David was employed in his father's office assisting with the work of the Exchange when he was only fourteen years of age. At the age of twenty-one he married a Miss Wilkinson, became a Christian, and separated from his family. Other members of the Exchange set him up in active business, and within four years he had made such a fortune that he felt that he could turn his attention to the study of science. His extraordinary powers of mind, however, were said to be most in evidence in his accumulation of wealth. He studied mathematics, chemistry, and mineralogy, but it was not until 1799 that he first read the *Wealth of Nations* and gained some idea of the meaning of economics. Even then it was some time before he gave serious attention either to the work or the subject. He was a political pamphleteer, as were many men of the period, and in 1815 had a pamphlet controversy, especially with Malthus, on the question of free trade in corn. The ideas of this essay Ricardo incorporated into his *Principles of Political Economy*. It is on Conner's edition of this work that the following discussion of Ricardo's theory of distribution is based. *The Principles of Political Economy* marks the climax of Ricardo's excursion into the scientific realm. He was not satisfied, however, with these measures of success that crowned his efforts in the accumulation of wealth and in scientific thought, but two years after the publication of his *Principles*, in 1819, having become a very pretentious landed proprietor, he became a member of Parliament. The three somewhat disconnected, yet

related, epochs of his life—his accumulation of wealth, his venture into science, and his essay into politics—should all be considered a part of his background relative to his economic ideas.

Ricardo followed the Malthusian order in his discussion of distribution, analysing rent first, then wages, and lastly profits. He is correct in his interpretation of the general term *distribution* as the division of the joint product among the proprietors of the land, the owners of capital, and the labourers. When he discusses this division, however, and stresses the primary importance of the variations in the “proportions” of the whole produce in the different stages of society, the proportions depending on the fertility of the soil, accumulations of capital, the increase of population, and the technical progress, serious doubts arise as to the possibility and primary importance of studying these questions from the standpoint of proportionality. Modern development has all been in the opposite direction.

He very willingly subscribes to the paramount importance of the study of distribution in political economy and the inadequacy of former treatments of the subject. The laws of distribution have not been adequately explained by “Turgot, Stuart, Smith, Say, Sismondi, and others.”¹ Their writings “afford very little satisfactory information respecting the natural course of rent, profit, and wages” (p. 1). In 1815, however, Malthus gave the world the “true doctrine of rent” (p. 1), which must be understood in order to “understand the effects of the progress of wealth on profits and wages” (p. 1). He thus attributes to Malthus the honour of presenting to the world the “true doctrine” of rent, and consequently we need not expect to find Ricardo differing with Malthus in the essentials of this subject.

¹ Ricardo, David, *Principles of Political Economy and Taxation*, p. 1.

Note. Due to the fact that in this chapter all references are taken from the same book, subsequent references will be indicated by page number only.

"Adam Smith, and the other writers to whom I have alluded, not having viewed correctly the principles of rent, have, it appears to me, overlooked many important truths, which can only be discovered after the subject of rent is thoroughly understood. To supply this deficiency, abilities are required of a far superior cast to any possessed by the writer of the following pages; yet . . . it will not, he trusts, be deemed presumptuous in him to state his opinions on the laws of profits and wages, and on the operation of taxes" (p. 2).

Our conclusion must be that he intends his own contribution to be in the field of the laws of profits, wages, and taxes, rather than in the field of rent. But by the strange irony of fate his claim to immortality has been made to rest more on the theory of rent which he admittedly does not claim, than on anything else. He refers to the "natural course" of rents, profits, and wages, but his treatment of these subjects is not historical but static.

Let us begin to unravel the Ricardian skein of distribution by a brief examination of his discussion of price. Much of his explanation of value and price lies outside the real pricing process. It has been aptly stated that according to Ricardo's distribution theory, the demand for food determines the margin of cultivation, and the margin of cultivation determines rent; the subsistence of the labourer determines wages, and the difference between the marginal product and this subsistence wage determines profit. In close conformity to this we should note that Ricardo says that the value of corn is regulated by the labour necessary for its production on no rent land or with no rent capital. He rejects Adam Smith's modification of the labour theory of value by the appropriation of land, the consequent payment of rent, and the use of capital, and subscribes to and staunchly supports the labour theory in its simple form. To him distribution is primarily a question of proportionality and not of price, but he does approximate a central truth in real value when he says

"it is the comparative quantity of commodities which labour will produce, that determines their present or past relative value, and

not the comparative quantities of commodities, which are given to the labourer in exchange for his labour " (p. 11).

In this hazy manner he tries to relate the productivity of the labourer directly to the value of the commodity and indirectly to the wages of labour. He thinks it is not the wage paid the worker that determines the value of the product, but the productivity of the worker, in different lines, that determines the relative value of the different products. In reality, of course, along with other things, it is the comparative scarcity of the product that determines the relative values. His exposition would have been more accurate if he had travelled the other way around, and related the productivity of the worker to the wage of the worker, and the wage of the worker to the price of the product; but any clear general distinction between price-determining and price-determined costs is beyond his horizon. As will be noted immediately, we cannot analyse the relation between price and rent in Ricardo's system from exactly the same standpoint as we took with the *Wealth of Nations*. According to Ricardo, rent is not a part of price, but rent is to-be explained by price. Rent is not to be considered primarily as explainable in the pricing process, but rather as a part of that everlasting struggle waged by humanity against the forces of nature. Man must wrestle from her the means of subsistence, and as a part of this struggle rent emerges. Higher and higher prices result from more and more labour being required to obtain each succeeding portion of produce forcibly wrestled from niggardly nature.

"The reason then, why raw produce rises in comparative value, is because more labour is employed in the production of the last portion obtained, and not because a rent is paid to the landlord. The value of corn is regulated by the quantity of labour bestowed on its production on that quality of land, or with that portion of capital, which pays no rent. Corn is not high because a rent is paid, but a rent is paid because corn is high " (p. 5).

This part is thoroughly Smithian. "High or low wages and profit are the causes of high or low price; high or

low rent is the effect of it " (*Wealth of Nations*, p. 147). The price, Ricardo thinks, is determined at the margin of cultivation, by the amount of labour used in production. He prefers to emphasize this price at the margin and thinks if rent caused high prices, instead of being caused by high prices, then rent would be a part of price and " price would be proportionally influenced as rents were high or low " (p. 55), but that portion of the produce which requires the most labour " is the regulator of the price of corn " (p. 55); therefore it is incorrect to assume that rent is a part of price. Ricardo does not prove that the marginal price is the prevailing price, and does not raise the question as to what would happen if some other than this marginal price prevailed. If the marginal price is the regulator and becomes the price of all the products, this fact does not prevent rent from being a part of the price of most products, as Smith says, and as Ricardo inferentially denies. Ricardo evidently tries to find a single cause of value and thinks he finds it in labour. Incidentally he tries to isolate labour until he can see it in its natural purity, and thinks this condition prevails at the margin of cultivation where he imagines that the capital used is congealed labour.

Turning directly to the consideration of rent, since this is the first share in distribution which Ricardo discusses, and the one the understanding of which, we have been told, conditions the understanding of other important truths, we note : " Rent is that portion of the produce of the earth, which is paid to the landlord for the use of the original and indestructible powers of the soil " (p. 44). It is often confused with interest, so he thinks. Adam Smith tells us that the demand for timber in southern Europe causes a rent to be paid for the forests of Norway. But this payment is made for the timber on the land and is repaid by the sale of the timber. This is not rent, says Ricardo ; neither is the payment for the use of " coal mines, and of stone quarries." It

" has no connection with the original and indestructible powers of the land. This is a distinction of great importance, in an inquiry

concerning rent and profits; for it is found, that the laws which regulate the progress of rent, are widely different from those which regulate the progress of profits, and seldom operate in the same direction. In all improved countries, that which is annually paid to the landlord, partaking of both characters, rent and profit, is sometimes kept stationary by the effects of opposing causes; at other times advances or recedes, as one or the other of these causes preponderates. In the future pages of this work, then, whenever I speak of the rent of land, I wish to be understood as speaking of that compensation, which is paid to the owner of the land for the use of its original and indestructible powers" (p. 45).

Here we have the definition of Ricardian rent, a dear companion to the "indestructible powers" of the soil. His assertion that the timber and stone have no connection with this power is far from convincing; likewise his explanation that the payment is compensated by the sale of the timber does not prove its unlikeness to rent. The timber and the stone are as much products of the powers of the soil as are bushels of corn or sacks of fruit. The money from the sale of the corn and fruit is as truly a compensation for the rent paid for the use of the land as is the money from the sale of the timber and the stone. The latter require a longer period of time for their formation, but that does not vitiate the facts or justify describing the proceeds from one as rent and the other not rent.

Malthus designates rent as a surplus of price above the expenses of production. Ricardo tries to go behind the price and designates the rent as a differential element in the product, or a "portion of the produce of the earth." ". . . rent is always the difference between the produce obtained by the employment of two equal quantities of capital and labour" (p. 48). This, of course, has just as much claim to the name surplus as does the former, and is but a different way of saying the same thing. While he starts out to deal with the surplus of the product, he repeatedly finds himself dealing with the "exchangeable value" of that surplus and the things that affect its value.

With rent defined, apparently to his entire satisfaction, as a portion of the product paid to the landlord, the payment dependent on the appropriation of land when it becomes relatively scarce, he proceeds to give his causes for the existence of rent, and the causes upon which its amount depends.

“ It is only, then, because land is not unlimited in quantity and uniform in quality, and because in the progress of population, land of an inferior quality, or less advantageously situated, is called into cultivation, that rent is ever paid for the use of it. When in the progress of society, land of the second degree of fertility is taken into cultivation, rent immediately commences on that land of the first quality, and the amount of that rent will depend on the difference in the quality of these two portions of land ” (p. 47).

We submit that if the land were unlimited in quantity and uniform in equality, it could just as well be described as having “ original and indestructible ” powers as when it is limited in quantity and not uniform in quality. This would be true regardless of its extent and quality. It is also true that if it were unlimited in quantity and non-uniform in quality it would have that differential nature which Ricardo considers essential to the existence of rent. Likewise it is true that if land were limited in quantity and uniform in quality it would very probably be appropriated, and a payment would be a condition of its use in production. Whence would Ricardo get this payment ? Without doubt it would have to come from the productivity of the land. The lack of uniformity in the quality causes a difference in this income for different plots of land. This difference is not a surplus and need not be attributed to the “ original and indestructible ” qualities of the soil, except to the extent that they may affect its productivity.

Of Malthus' three causes of the rent surplus, or the excess of price above costs, namely : the surplus, or the main cause of all rent due to the fertility of the soil ; the demand creating powers of the products of the soil ; and the scarcity of fertile lands, Ricardo emphasizes the

last one which also includes the first one. His explanation of Malthus' third principle of rent is rather extensive. When he says, in the course of his explanation, that the progress of society causes less fertile land to be taken into cultivation, he has not made any appreciable addition to similar ideas expressed by both Smith and Malthus. His most notable contribution here is his apparent exposition of the law of diminishing returns, as illustrated by the use of types 1, 2, 3, 4 of land of less and less fertility.

"It may perhaps be found, that by doubling the original capital employed on No. 1, though the produce will not be doubled, will not be increased by 100 quarters, it may be increased by eighty-five quarters, and that this quantity exceeds what could be obtained by employing the same capital, on land No. 3" (p. 48).

He uses the valid assumption of the mobility of labour and capital in assuming that they may be increased on the fertile land in preference to being put to use on the less fertile land. He also seems to sense the bearing of the important principle of diminishing returns on agricultural production and says :

"... if capital could be indefinitely employed without a diminished return on the old land, there could be no rise of rent ; for rent invariably proceeds from the employment of an additional quantity of labour with a proportionally less return" (p. 49).

It is very evident that he is struggling here with the diminishing productivity of all the co-operating agents, in an effort to explain rent as a surplus.

He contributes much toward the negation of his definition of rent and his concept of rent as a surplus when he says in the above connection that rent is always the difference in the result obtained by the "employment of two equal quantities of capital and labour" (p. 48). He thinks that if the tenant doubles his capital but does not double his income, the landlord may, when the lease expires, compel the tenant to pay the difference as an additional rent. He apparently sees the diminishing productivity of the capital, but attributes rent to this

difference. The qualities of capital cannot surely be assumed to be "original and indestructible." For the moment Ricardo forgets rent as a share of the "produce of the earth" and turns his attention to exchangeable value and price as they affect rent. He has very probably been prompted to this step by remarks on price by Smith and Malthus.

He would not let us forget that, as he sees it, labour is the cause and regulator of value.

"... the exchangeable value of its produce will be adjusted in the same manner as the exchangeable value of all other commodities, by the total quantity of labour necessary in various forms from first to last, to produce it, and bring it to market. When land of an inferior quality is taken into cultivation, the exchangeable value of raw produce will rise, because more labour is required to produce it" (p. 49).

Tolerating his efforts to maintain the purity of the labour theory of value, the rise of the price of the marginal produce is not explained in an essentially different way from that of Smith and Malthus. With all three its labour cost of production is higher and causes a higher price. Malthus places special emphasis on this price.

In the comparison of prices of agricultural products with the prices of manufactures and minerals, Ricardo takes issue with both Smith and Malthus. Smith thinks that the price of manufactures was "much higher in those ancient, than it is in the present times" (*Wealth of Nations*, p. 246), and that "every improvement in the circumstances of the society tends either directly or indirectly to raise the real rent of land" (p. 247). In other words, he argues that the price of manufactures declines with progress and the price of raw products increases. Malthus says :

"The difference between the price of corn and the price of manufactures, with regard to natural or necessary price is this; that if the price of any manufacture were essentially depressed, the whole manufacture would be entirely destroyed; whereas if

the price of corn were equally depressed, the *quantity* of it only would be diminished" (*Principles of Population*, p. 178).

He would say that it is the most favourable ~~production~~ that determines the price of manufactures and the most difficult production that determines the price of raw products. Ricardo says :

"The exchangeable value of all commodities, whether they be manufactured, or the produce of the mines, or the produce of land, is always regulated . . . by those who continue to produce them under the most unfavourable circumstances" (p. 50).

Now if the price of manufactures were regulated by the "most unfavourable circumstances," there could obviously be no progressive decline in price without an improvement and extension of production. The only way to obtain a decline would be to eliminate the most unfavourable producers. This would also hold true in agriculture. By a somewhat contradictory argument, however, Ricardo brings his explanation into complete harmony with those of Smith and Malthus. "From manufactured commodities always falling, and raw-produce always rising, with the progress of society" (p. 74), he thinks that the labourer may, by sacrificing a small quantity of food, obtain things to satisfy all his other wants. This is the belief relative to the prices of the two kinds of products that prevails in most of his discussions. In fact it is one of the assumptions on which much of his reasoning is based.

Let us examine Ricardo's causes of increasing rents. "The rise of rent is always the effect of the increasing wealth of the country, and of the difficulty of providing food for an augmented population" (p. 54). Also clearly both by implication and statement he uses the "high price of corn . . . the cause of rent" (p. 55) as a corollary to his second major cause, the difficulty of obtaining food. These fragmentary remarks of Ricardo on the increase of rent cluster around the centre of the Malthusian rent theory. Now we must recall that rent is compensation for the use of the original and inde-

structible forces of nature, but here the *rise* of rent is proposed as the effect of the increasing wealth of a country. This increasing wealth could not possibly increase the original and indestructible force of nature, but it might conceivably be used to increase the differential between the Ricardian plots of land. This he has called rent. But when it is increased by wealth is it attributable to the forces of nature or to the wealth which causes it? If the latter, then it is rent in the modern sense and includes the new differential and the former differential as well.

Since Ricardo argues that rent rises as wealth and population increase, and as capital is employed "on the land with a less productive return" (p. 55), it is to be expected that in considering the decline of rents he will reverse his reasoning.

"It follows from the same principles, that any circumstances in the society which should make it unnecessary to employ the same amount of capital on the land, and which should therefore make the portion last employed more productive, would lower rent. Any great reduction in the capital of a country, which should materially diminish the funds destined for the maintenance of labour, would naturally have this effect. Population regulates itself by the funds which are to employ it, and therefore always increases or diminishes with the increase or diminution of capital" (p. 55).

The Ricardian circle of cause and effect is that a reduction of capital reduces population, reduces the demand for corn, reduces the price of corn, reduces cultivation, reduces rent. "In the reverse order to that in which the accumulation of capital raises rent, will the diminution of it lower rent" (p. 56). This is all good Smithian and Malthusian doctrine. Smith says :

"The contrary circumstances, the neglect of cultivation and improvement, the fall in the real price of any part of the rude produce of land, the rise in the real price of manufactures from the decay of manufacturing art and industry, the declension of the real wealth of society, all tend, on the other hand, to lower the real rent of land" (*Wealth of Nations*, p. 248).

Malthus says :

“ The causes which lead to a fall of rents are, as may be expected, exactly of an opposite description, to those which lead to a rise : namely, diminished capital, diminished population, an operose system of cultivation, and a falling price of raw produce from deficiency of demand ” (*Principles of Population*, p. 173).

There is such close conformity in the three statements of causes of a decline in rents as stated above that additional analysis is almost unnecessary. The philosophy is alike in all three. The order of causes may be slightly different, but the order does not affect the organization of reasoning ; it makes little difference whether we begin with capital, population, price, or product, we end where we began, and find that the thought is that in a declining society rents must inevitably decline, as they must inevitably rise in a progressive one. As repeatedly noted before, all this would be true if we think of land as a scarce capital good, but it is not a universally valid explanation of rent to define rent either as a surplus, or as a differential surplus, which is but a limited form of the former.

Ricardo thinks that improvements in agriculture will have the same effect on rent as if unproductive land were thrown out of use by a decline in wealth, as it probably would in the short run, if we grant his assumptions. Here he uses another one of his concentrated circular epigrams. The fall in the price of agricultural products, because of improvements which occasion the use of less labour, results in a decline of wages, a decline in rent, an increase of profits, ultimately an increase of wealth or accumulations, an increased demand for labour, higher wages, an increased population, an increased demand for raw products, an increased price, and an increased cultivation and, of course, an increase in rents in the long run, and we arrive whence we started. The general cyclical tendency may be such as indicated, but the pricing process, as intimated by the forerunners of Ricardo and by Ricardo himself, is a more proximate

cause of the rise and decline of real rent. The differential surplus does not need to be explained in the pricing system, because its causes as conceived lie outside this system, except to the extent to which the differences in the productivity occasion the differential. Improvements are of two kinds, according to Ricardo: those affecting the productive powers of the land and those relating to machinery which results in the use of less labour. Both lead to a fall in the price of raw produce and both affect rent, presumably through this price. Here again is confusion of pure capital investments and human efforts with the original and indestructible powers of the soil. ". . . the more skilful rotation of crops, or the better choice of manure" (p. 57) calls for investment and human effort. Technical improvements that result in the use of less labour must be attributed to human knowledge rather than to original forces of nature.

In the concluding paragraph on rent, Ricardo says:

"In speaking of the rent of the landlord, we have rather considered it as the proportion of the produce, obtained with a given capital on any given farm, without any reference to its exchangeable value; but since the same cause, the difficulty of production, raises the exchangeable value of raw produce, and raises also the proportion of raw produce paid to the landlord for rent, it is obvious that the landlord is doubly benefited by difficulty of production. First he obtains a greater share, and secondly the commodity in which he is paid is of greater value" (p. 60).

There is great inconsistency here. In every major argument covering rent he has used the idea of price. In spite of his definition of rent he says: "money annually to be paid for the improved farm" (p. 44); "If with a capital of £1,000" (p. 48); "the exchangeable value of its produce" (p. 49); "no reduction would take place in the price of corn" (p. 55); "If the high price of corn were the effect and not the cause of rent" (p. 55); "the fall in the relative price of raw produce" (p. 57). All of this shows conclusively that he has repeatedly used price, or exchangeable value, in his discussion of rent. Mathematically, and in an

elementary way, however, it remains true that if the share of the product going to the landlord as rent continually increased, and the price per unit of that product also continually increased, the landlord would be doubly benefited. But the fact is that the share will not continually increase as a surplus, and only when land is considered as a capital good, becoming relatively scarcer with the increase of the other factors, will its relative productivity, and consequently its returns, be increased. Likewise it has not been proved that the price of agricultural products will generally and continually rise. Technical progress and improvement and uniform principles of pricing have nullified this argument.

Going now to Ricardo's criticism of the theory of Malthus, it should be repeated that in essentials he agrees with Malthus. "Mr. Malthus, too, has satisfactorily explained the principles of rent, and showed that it rises or falls in proportion to the relative advantages, either of fertility or situation" (p. 392). But regardless of this admission of the satisfactory explanation, Ricardo proceeds to correct Malthus on some of the pin-points of his theory. The first one taken up relates to the nature of rent as a clear gain. Obviously the argument is directed toward the interpretation of rent as a source of taxes, and as an addition to the wealth of a country. Here Ricardo is so inconsistent with his former emphatic expression that rent is in terms of produce, that he bases his entire argument on the price of corn, and argues that "rent is a creation of value, . . . but not a creation of wealth" (p. 393). Wealth he conceives to be "the necessities, conveniences, and enjoyments of society" (p. 394). In the name of peace between two admiring friends, does not Malthus argue that rent is a surplus of price, and if it is such, as quantity and price both increase, is there not an increase of value? This is the argument of Malthus. Or if we should take it the other way around, and Ricardo would claim his former brain child, rent as a portion of the produce, he can yet have his way and call the creation of rent a "creation of value,"

since he says the same cause that raises rent raises the value of the produce. Or to approach the controversy in another way, if rent is an increase of the produce, is it an increase of these same necessities; or to put it in yet another way, since he agrees with Malthus that rent comes from the original and indestructible forces of nature, he must admit that it is embodied in these same necessities. Finally, can we have an increase of rent value without a measurable increase in rent wealth? Can there be an increase of price without something to serve as a basis of price?

The next point of criticism is near kin to the former one, but slightly different. Malthus says that the excess of price above costs is rent and proceeds to examine the causes of this excess of price to determine the causes of rent. Ricardo objects.

"High price . . . cannot then be called a *cause* of rent; it cannot be said 'that the immediate cause of rent is obviously the excess of price above the cost of production, at which raw produce sells in the market,' for that excess is itself rent" (p. 395).

In his discriminating zeal to criticise on the use of terms, he himself falls into error and uses high price and excess of price to mean the same thing, rent, whereas one is the integer and the other the fraction. Here he says "High price" cannot be called a cause of rent, but he has previously said: "If the high price of corn were the effect, and not the cause of rent" (p. 55). Thus he clearly contradicts his own statement. An excess of price could obviously not exist without a "high price," that is a price higher than some other price. These are minutiae, however, and the consequence of either interpretation on the essence of the theory is insignificant.

Ricardo's next criticism has a peculiar application. It seems to be a phase of the controversy relative to the niggardliness *versus* the bounty of nature rather than a criticism of validity or logic of deductions. "Is Mr. Malthus warranted in his inference, . . . 'the cause of the *high price* of the necessities of life above the cost of

production is to be found in their abundance, rather than in their scarcity' " ? (p. 396). This is offered in criticism of Malthus' first cause of rent, that quality of the soil by which it can be made to yield a greater portion of necessities " " than is required for the maintenance of the persons employed on the land.' " (p. 396). In explanation of this cause of rent, or excess of price above cost, Malthus says :

" the power of such land to yield rent is exactly proportioned to its natural or acquired fertility, or to the general surplus which it can be made to produce beyond what is strictly necessary to support the labour and keep up the capital employed upon it. If this surplus be as 1, 2, 3, 4, or 5, then its *power* of yielding a rent will be as 1, 2, 3, 4, or 5 " (Malthus, *Principles of Population*, p. 141).

Ricardo has said :

" Thus suppose land—Nos. 1, 2, 3—to yield, with an equal employment of capital and labour, a net produce of 100, 90, and 80 quarters of corn. . . . As soon as population had so far increased as to make it necessary to cultivate No. 2, from which ninety quarters only can be obtained after supporting the labourers, rent would commence on No. 1 " (p. 47).

He has also said that rent is " not in proportion to the absolute fertility of the land in cultivation, but in proportion to its relative fertility " (p. 397). What does absolute fertility mean ? What does relative fertility mean ? Any plot of ground may include innumerable gradations of fertility, or it may be conceived as a plot of uniform fertility, differing in degree from those plots above and below it just as Ricardo uses it. In this sense would not the fertility of each plot be absolute relative to itself, just as Ricardo assumes ? If so, the difference between the two friends loses its fatal character. Rent bearing is a pre-requisite to rent paying, and the point raised is not significant. Their uses of the plots of land Nos. 1, 2, 3, 4 are both for the same purpose, namely, to illustrate the power of yielding rent.

A difference of opinion shows itself on the question

of the relation of the increase of the population to the supply of food, yet again this difference is not vital. Malthus says the increase in the former depends upon the increase in the latter. Ricardo argues: "the general progress of population is affected by the increase of capital, the consequent demand for labour, and the rise of wages; and . . . the production of food is but the effect of that demand" (p. 399). In other words, the demand comes first and "is the effect of an increase of capital and population, but not the cause" (p. 400). The demand increases the price, the food is produced, the people increase, and wages fall. Here it almost seems that Ricardo has him on the hip. Malthus would reply, however, that either capital is composed of necessities, or it is used to produce necessities, so more capital means more food. How can the mouths to be fed precede the food that nourishes them? Malthus' second cause of rent is also the object of the barbed shaft, but only in a minor and indirect way. Malthus thinks that if it were not for the demand-creating power of necessities, the price of raw produce might be reduced "to the cost of production" (p. 401). Ricardo quotes Malthus to prove that corn is always sold at its "necessary price," apparently assuming that they, the cost of production and the necessary price, are synonymous, which is not true, as his cost of production does not include rent. On the question of the rise of rent related to the fall of wages, Ricardo again fails to follow Malthus. He argues that "no fall of wages will raise rent" (p. 404) if the profits of stock rise. But Malthus has postulated the rise of rent on the decline of both wages and profits, and not on the decline of wages alone.

Finally the criticism is directed toward the thought of Adam Smith, which was approved by Malthus, that agricultural labour is more productive than other kinds of labour. As previously noted, this was a Physiocratic obsession, hinging on the limited idea of productivity and the idea of a net product. Ricardo attacks it from a different angle. "If Adam Smith speaks of value,

he is correct ; but if he speaks of riches, which is the important point, he is mistaken " (p. 420). The reason Ricardo gives is that riches consist of necessities and conveniences, which cannot be compared with other necessities and conveniences, as value in use cannot be measured by any known standard. This seems to be half a truth, but is not the purchase price a measure of the value in use of consumers' goods ? Within the judgment of the purchaser does not the price he is willing to pay represent a tolerable measure of the value in use to him ? These criticisms as a whole do not indicate a high degree of disagreement.

Without preliminary discussion, Ricardo leads directly to his classification of wages and his definitions of the two kinds of wages, the natural price of labour and the market price of labour. He argues that labour, like all other vendible commodities which may be increased or diminished in quantity, " has its natural and its market price " (p. 70). He defines the natural price or the subsistence price to be that " price which is necessary to enable the labourers, one with another, to subsist and to perpetuate their race, without either increase or diminution " (p. 70). How like this is to the natural price of labour of Adam Smith and Malthus, and yet how unlike. Smith says the wages must enable a man to live by his work.

" They must, upon most occasions be somewhat more ; otherwise it would be impossible for him to bring up a family and the race of such workmen could not last beyond the first generation " (*Wealth of Nations*, p. 70).

Malthus says :

" The natural or necessary price of labour in any country I should define to be that price which, in the actual circumstances of the society, is necessary to occasion an average supply of labourers, sufficient to meet the effectual demand " (*Principles of Population*, p. 224).

All these are alike in that they are characterized as natural wages. Just why they are " natural " is not

shown, further than that they are supposed to perpetuate the race of workmen. Both Smith and Malthus provide for changes in the labour supply, to correspond to the demand. "The demand for labour . . . determines the quantity of the necessities and conveniences of life which must be given to the labourer" (*Wealth of Nations*, p. 87). Ricardo, on the contrary, looks only to the perpetuation of the race of workmen "without either increase or diminution." If there were no changes in the population, what would become of other parts of Ricardo's theory? His entire explanation of rent and profit, as well as wages, is based directly on the assumption of an increase in the population.

The first basic postulate discussed immediately by Ricardo is the divergence between the price of agricultural products from the prices of other commodities. The first "has always a tendency to become dearer" (p. 70) and the latter "has a tendency to fall" (p. 71). This is basic not only relative to wages, but as we shall notice, with Ricardo's system it is basic relative to profits, as it has also been with rent. He emphasizes this supposed relationship of the prices of the two kinds of goods.

"From manufactured commodities always falling, and raw produce always rising, with the progress of society, such a disproportion in their relative value is at length created, that in rich countries a labourer, by the sacrifice of a very small quantity only of his food, is able to provide liberally for all his other wants" (p. 74).

At this point it is sufficient to restate that the assumed divergence between the prices of manufactured goods and the prices of raw products is not justified and does not exist.

After defining the natural price of labour, Ricardo defines the market price of labour, in terms almost identical in meaning with the general concept of market price of Smith and Malthus. It is noticeable that he patterns after Smith in discussing wages immediately after his chapter on "Natural and Market Price." He defines the market price of labour as "the price which is

really paid for it, from the natural operation of the proportion of the supply to the demand" (p. 71). Now he has said: "The natural price of labour, therefore, depends on the price of food, necessities, and conveniences required for the support of the labourer and his family" (p. 70). It seems clear, then, that he conceives of the market price as determined by the forces of supply and demand, and the natural price as determined by the cost of food, and so forth. But it would seem when he comes to the discussion of the two causes as they affect wages he really finds himself in need of a third kind of wage, a combination wage, one which would be a hybrid from the market wage and the natural wage. He says: "it appears then that wages are subject to a rise or fall from two causes" (p. 75), the supply and demand, and the price of real wages. Just what "wages" can he have in mind in this expression, the market wage or the natural wage? Evidently neither one in its pure form, but a wage the result of combination of the two forces.

Ricardo discusses the relation of the growth and the value of capital to the market price of labour, and interlaces the market price and the natural price in the manner referred to above. His argument is that capital consisting of "food, clothing, tools, raw materials, machinery, etc., necessary to give effect to labour" (p. 72) may increase in quantity and value, or increase in quantity without an increase or possibly with a decrease in value. In both circumstances market wages will rise, "for in proportion to the increase of capital will be the increase in the demand for labour" (p. 73). This is identical in meaning with Adam Smith's notion of the effect of increased stock on wages, but while he applies it to the progressive national stage, and natural wages, Ricardo applies it to market wages, and thinks in both cases, because of the action of increased capital, that the market price of labour will rise above its natural price. But he thinks the permanence of the rise will depend on whether the natural price "has also risen" (p. 73). Thus he

makes the two rates conform, and conceives of both rates as variable, as they probably are. This is partially explained when he says: "It is not to be understood that the natural price of labour, estimated even in food and necessaries, is absolutely fixed and constant" (p. 74). In its implications, then, Ricardo's natural rate of wages differs from that of Smith in the greater possibility of its expansion beyond the minimum, but this seems to apply more to the labourer's standard of living than to labourers as a class, since the natural wage has been defined to be sufficient only to support the population without change in numbers. In fact this is probably the most important difference in the opinions expressed by the two men relative to wages. Ricardo repeatedly asserts that the natural price of labour depends upon the habits and customs of the people, and changes from time to time and from place to place. In this he is correct, if there is a natural price.

Ricardo very clearly approves the subsistence theory of Adam Smith. In the second paragraph on wages he says: "The natural price of labour, therefore, depends on the price of the food, necessaries, and conveniences required for the support of the labourer and his family" (p. 70). He thinks that as the price of these things rises natural wages will rise and as their price falls natural wages will fall. To him this relationship is one of dependence, of cause. It is sufficient to note, just now, that he provides no proof for this causal relationship. It seems that he is not willing to let the exclusive determiner of wages mentioned above stand alone. As we shall notice later, he does consider it as the determining force, but immediately he says that

"wages are subject to a rise or fall from two causes:

1st. The supply and demand of labourers.

2ndly. The price of the commodities on which the wages of labour are expended" (p. 75).

This is no noticeable addition to the explanations offered by Smith and Malthus, but he does offer some slightly

different detailed explanations. Regarding the supply and demand of labour, the accumulations of capital, the embodied demand for labour, he thinks that they "must in all cases depend on the productive powers of labour" (p. 75). Here he has intimated, but to no extent clarified, the idea of the productivity of labour, at least so we might conclude from this passage alone. But in other places he denies entirely this productivity of labour. He confuses it with, or conceives of it as, the productivity of "fertile land," which indicates that he had no definite concept of specific productivity.

It is in the discussion of the relation of capital to wages that Ricardo gets in uncomfortable deep water. He would play the supply of labour against the demand for labour in the forms of population and capital, which is all good Smithianism. Under favourable conditions he thinks that "capital has a tendency to increase faster than mankind" (p. 75), which would increase wages; but

"it will not long continue so; for the land being limited in quantity, and differing in quality, with every increased portion of capital employed on it there will be a decreased rate of production, whilst the power of population continues always the same" (p. 76).

We can now see why Ricardo discusses the rent of land first, and also why he considers the understanding of rent necessary to the understanding of the other shares of distribution. He obviously desires to remove rent from the problem. The validity of this part of his explanation of wages rests squarely on his explanation of rent. This has been proved to be fallacious, under the discussion of rent. In his efforts to support his favourite idea of proportionality he supplements it and his rent theory with two other assumptions, both basic relative to his theory of wages and both without adequate proof. A "decreased rate of production," that is of joint production which Ricardo has in mind, has not been proved to exist to the extent that it contributes to a decline of wages, and very probably it does not so exist. A rapid and continuous increase of capital could and

probably would maintain or increase the level of production of the joint product, and of wages. It is recalled that Ricardo uses capital as the embodied demand for labour. He uses demand as one of the causal forces in the determination of market wages. But he becomes confused in discussing the relation of capital to the principle of population. It seems that population is more directly related to the natural wage than to the market wage. The same might be true of the supply of capital, as capital was conceived by Ricardo. The assertions that "the tendency to an increase of capital diminishes" (p. 75) and with "every increased portion of capital, there will be a decreased rate of production" (see above), aside from their lack of harmony with actual development, must be considered from the standpoint of proportionality or the increase of the mass of capital with which it co-operates. It would also probably not decrease relative to the co-operating labour factor, as erroneously asserted by Ricardo. Its rate of increase relative to itself as a base at any particular time probably would decrease, but this is a meaningless comparison. Each periodical base would be larger, and the same increase would be at a less mathematical rate, but this is not the point at issue. It is the proportionality of the factors. Likewise the rate of joint production cannot be assumed to decrease if the mass of capital does not increase at a diminished rate relative to the land and labour with which it co-operates.

The second assumption is that of an unfavourable balance between capital and production on the one hand and population on the other. This is almost a pure Malthusian principle of population, extremely pessimistic in its implications, intended to prove that eventually, so far as the supply of and demand for labour are concerned, the money wages of labour will fall. What proof does he give that the "power of population continues always the same" (p. 76); that is, that population increases more rapidly than capital and production? None whatever except the principle of population.

As for remedies for this gloomy but imaginary fate of humanity, Ricardo thinks he sees two possible measures: "a reduction of the people, or a more rapid accumulation of capital" (p. 76). Both of these, as we may recall, are good Malthusian concepts, and he also agrees with Malthus as to the possible efficacy of the measures. Both look at them in much the same light. Malthus thinks the latter cause is out of reach of the labourers, and Ricardo says it is "neither very practical nor very desirable, because its effect would be, if pushed very far, to render all classes equally poor" (p. 77). Ricardo's meaning in this connection is conjectural; his expression is a matter of record. If he includes in "all classes" the landlords, the receivers of rent, then we have the paradox of society becoming poor because of a rapid accumulation of capital. In this case just how could a more rapid accumulation of capital render all classes equally poor? Probably he is thinking again in terms of proportions and envisages the mass of the people with little class differentiation? Would it be undesirable in this sense for all classes to be equally poor? If all were equally poor in a rich country with an abundance of capital, would they not all be equally rich? On the other hand, he thinks that in poor countries with an abundance of uncultivated fertile land, a rapid accumulation of capital is desirable, as "its effect would be to elevate all classes of the people" (p. 77), or make all classes equally rich. Here, if the landlords are not outclassed, it would seem that he reaches a valid conclusion. In the first case it would seem that if the landlords are not included, other classes presumably would become poor and the landlords rich because of the rise of rent. In the second supposition, it does not seem that the landlords could become poor and the other classes rich because of the absence of rent. The possible exclusion of landlords from "all classes" in the first case is partially invalidated in his continued discussion of the supply and demand of labour when he says: "It appears, then, that the same cause which raises rent

. . . will also raise wages " (p. 78). If society has a specific aim, is it not that capital shall continue to accumulate? It is impossible to establish, as Ricardo tries to do, that the desirability of this aim is limited when the fertile land is already cultivated, or that it is more desirable where there is an abundance of fertile land. This is another fallacy to which Ricardo's proportionality has led him.

The second possible remedy for declining wages consists of the labourers themselves limiting the population by their prudential habits. This is individual initiative carried to extremes. Are there not laws and customs and traditions in every society that have at least as great a determining influence on the increase of population as do the personal habits of the labourers, or even as does their standard of living to which Ricardo attributes, and properly so, so great a controlling influence? This cause was approved by Malthus, and Ricardo thinks it highly desirable that the prudential habits of the labourers should be stimulated by a "taste for comforts and enjoyments. . . . There cannot be a better security against a superabundant population" (p. 77). He probably has the correct view from a long time standpoint, but to over-emphasize this factor and neglect other, and possibly equally weighty, factors, is to give a distorted view of the situation. The insularity of his view seems to prevent him from seeing that imported goods may also affect money wages.

Following his theory to its logical conclusion, he declares that the resultant effect of the supply and demand forces will be a tendency to a decline in the wages of labour, because the supply will continue to increase at the same rate, but the demand, the supply of capital, will "increase at a slower rate" (p. 77). We have previously noted the error in this, and in it all is the linking, apparently inevitable, of his theories of rent and wages with the increase of capital. He does not seem to entertain a doubt that any other proportional change than this imaginary one can take place. In the century

that has passed since Ricardo wrote, capital and production have very evidently increased more rapidly than population. Before taking up the second cause of wage changes we should note Ricardo's great need of a third wage concept, a combination wage.

"I say that, under these circumstances, wages would fall, if they were regulated only by the supply and the demand of labourers, but we must not forget, that wages are also regulated by the prices of the commodities on which they are expended" (p. 78).

Now just what kind of a wage would this wage be? The market wage, we have been told, is regulated by the supply and demand; the natural wage is regulated by the price of commodities, but the wage that is the resultant of all these forces—what is it? Clearly when all forces act it cannot be either a pure market wage or a pure natural wage.

Turning to the second cause of the variations in wages, the price of commodities, he says:

"As population increases, these necessities will be constantly rising in price, because more labour will be necessary to produce them. . . . Instead, therefore, of the money wages of labour falling, they would rise" (p. 78),

but not enough to enable the labourer to live as well as before.

"While the price of corn rises 10 per cent., wages will always rise less than 10 per cent., but rent will always rise more; the condition of the labourer will generally decline, and that of the landlord will always be improved" (p. 79).

Here we have the climax of Ricardo's pessimism and the gist of his wage theory, so far as the wage theory outlined above may be called his theory. He has given us as the resultant of the forces of supply and demand, a declining wage. As an ultimate resultant of the supply and the demand factors on the one hand, and the price of the commodities on the other, he gives us a declining, increasing wage, which will paradoxically, by his thought, result in a worse condition of the labourer. He thinks

wages will rise because "these necessities will be constantly rising in price, because more labour will be necessary to produce them" (p. 78). This is where he pins his labour theory of value, which has been proved fallacious, to his wage theory. His main emphasis is on this cause, "the price of the food, necessities and conveniences" (p. 70), with which he started to discuss wages. These are all based on arbitrary assumptions that have not been borne out in the past century, and are neither descriptive of economic life, nor apparently safe as a prophecy.

There is very little new or original in Ricardo's discussion of wages. He asserts that the price of labour will rise and fall with the price of food, as his predecessors have done. This cannot be justified except on a basis of a subsistence wage. If the resistance to an increase of wages, on the part of the employer, becomes stronger than the pull of higher prices of commodities, then wages will not be increased to keep pace with the increasing price of foods. The habits of the working man may, and probably will, be broken down, and he will have to be satisfied with necessities only for himself and his family, instead of necessities plus conveniences.

We are carried back to Smith and Malthus when Ricardo says that the demand for labour depends on capital accumulations, which, in turn, depend on the productivity of labour, which likewise depends on the scarcity of fertile lands. The increasing capital, he thinks, encourages an increasing population, which causes a relative scarcity of fertile lands, which scarcity checks the increase of capital, and society catches up with itself and the circular race begins over again. All this is conceivable from the standpoint of philosophy, but is not an adequate universal explanation of wages in the economic system.

Ricardo conceives of two funds from which wages are drawn. They are not drawn simultaneously from these two funds, but each concept is a separate and distinct entity. The first is the marginal product fund. This

fund is fixed in amount and, according to his illustration, "£720 must be divided between wages and profits" (p. 91). It is in this fund that he thinks he finds the inverse ratio between profits and wages. This is the centre of his theory of distribution and doubtless the least valid part of all. He thinks :

"On the one hand, profits can never rise so high as to absorb so much of this £720 that enough will not be left to furnish the labourers with absolute necessities; on the other hand, wages can never rise so high as to leave no portion of this sum for profits" (p. 92).

Thus we notice that this fund is rigid in itself, but the factors, wages and profits, are variable, with just a little less than the total fund as the limit for each. But the only principle he gives us as governing the apportionment is the supposed rise in the price of raw produce. His concept of rent as a surplus which, when deducted, leaves the remainder of £720, and his pure labour theory of value permeates and to a degree vitiates his entire theoretical system.

The second fund from which wages are thought to be drawn is the capital fund. In the discussion of value Ricardo brings out more clearly than does either Smith or Malthus the two aspects of the maintenance fund. "The proportions, too, in which the capital that is to support labour, and the capital that is invested in tools, machinery, and buildings, may be variously combined" (p. 24). His most direct interest here seems to be to determine value from the amount of labour used in production, rather than to determine wages according to the efforts of the worker. The relationship is that of capital to labour, and this relationship can only be explained by the productivity of the two forces concerned.

In following up his discussion of the difference in the durability of capital, he becomes involved in the labour theory of value, the relation of capital and labour in the results of production, and the time element in production. The time element puzzles him and almost wrecks his

labour theory of value, and his discussion of it does not contribute to clarifying the relation between capital and labour. He supposes two problems in production. The first is the employment of twenty men for two years at an annual wage of £1,000. The product is marketed at the end of the second year, and "if profits be 10 per cent., my commodity must sell for £2,310" (p. 30). The second problem is that if the commodity is produced in one year and sold at the prevailing profit of 10 per cent., the value would be £2,200, £110 less than that of the commodity which required two years to produce. Both commodities have required the same amount of labour. "The difference in value . . . is only a just compensation for the time that the profits were withheld" (p. 31). In other words he admits that part of the value has a source other than the labour used in production. He does not translate this time element into labour value.

He defines the capital fund. "Capital is that part of the wealth of a country which is employed in production, and consists of food, clothing, tools, raw materials, machinery, etc., necessary to give effect to labour" (p. 72). Now by virtue of his admission of the time element, is it not obvious that the greater this time element in the production of the other parts of this fund, the less will be the labour element involved? Consequently will not the capital fund increase its ratio to the labour supply, the more roundabout and prolonged the productive process? Such seems to be the case. In places Ricardo has implied the rigidity of the wage fund, if there is such a fund, and he has also implied the rigidity of the limits of that fund as the productivity of labour at the margin of cultivation.

In discussing the fund "necessary to give effect to labour" (p. 72), he discusses both the volume and the value, but he does not make clear the relation of each to the "wages" of the workers. He directs his discussion, rather, to the condition of the worker. He obviously has no clear concept of value productivity and its relation to the wages of the worker. In his argument over

this question with Malthus, he asserts that it is not by providing food that population is encouraged, but "the general progress of population is affected by the increase of capital" (p. 339). Now, by definition he includes food as a part of capital (p. 72).

Ricardo has set forth the desirability and the possibilities of the exercise of prudence on the part of the labouring class, in the restriction of population, but he very obviously thinks the remedy will not be applied. Instead he bases his assumptions on the prediction that population will continue to increase more rapidly than capital and production, with the result that the condition of the labourer will decline. The postulate referred to at the beginning of this discussion, the divergence of the prices of agricultural products and the prices of other commodities, operates co-ordinately with the principle of population, he thinks. The price of food products gets higher and other things get cheaper. Now we again find here a note of distinct pessimism in Ricardo's proposals. He has expostulated on the beneficent possibility of the effects of a higher standard of living on retarding population. The things usually included in a higher standard of living, the comforts and luxuries, are according to his hypothesis becoming cheaper all the time, and yet perverse humanity, determined on increasing the inhabitants of the earth, do not avail themselves of the cheaper goods, but instead consume the higher-priced goods and continue to multiply and replenish the earth.

He does not go into the question of wages in different employments as was done by Smith and Malthus. These men had provided him a good question to follow. Instead he presumably assumes an average wage for all employments, and gives us a somewhat useless mass concept of wages.

PROFITS

Ricardo's wage theory impinges on his profits theory, and combines with his explanation of rent, in his dis-

cussion of the margin of cultivation. As poorer land is taken into cultivation, or more labour and capital are used on the old land,

“ A greater proportion of that part of the produce which remains to be divided, after paying rent, between the owners of stock and the labourers, will be apportioned to the latter. Each man may, and probably will, have a less absolute quantity; but as more labourers are employed in proportion to the whole produce retained by the farmer, the value of a greater proportion of the whole produce will be absorbed by wages ” (p. 105).

Since these essentials of his theory are so confidently based on Smith and Malthus he apparently does not consider it necessary to justify such fundamental postulates. In his explanation of rent Ricardo hints at the productivity theory, but in his discussion of profits he is as far from that theory as it is possible for him to get. He holds firmly to his idea of proportionality, and especially to its fatalistic element, and apparently does not think of the possibility of more capital being employed, and the owners of that capital claiming a greater share of the joint produce, while more labour is being employed. He also obviously loses sight entirely of the time element which we noted in the discussion of wages and the wage fund. He has acknowledged with approval Adam Smith's discussion of natural price and market price. He has made “ labour the foundation of the value of commodities ” (p. 65), and the quantity of labour required for their production the basis of their exchange value. He declares with reason that the desire of every capitalist to put his funds to the most profitable employment prevents any great deviation of profits from the normal, and also causes profits in each trade to correspond. “ With the rise or fall of price, profits are elevated above, or depressed below their general level ” (p. 65), and capital is invited to, or repelled from, an occupation. Thus we see that contrary to his asserted method of approaching rent, both wages and profits are analysed, to an extent, in connection with

price. It is true, as Ricardo says, that with the mobility of investible funds, capitalists and bankers will seek the most profitable investments, and in so doing will produce a tendency toward a uniform rate of return. It is also a very pertinent observation that the transfer of capital from a less profitable to desirable occupation does not have to take place through an entire removal of the capital already employed, but may take place through a diminution of the borrowed share. All businesses are carried on to an extent with borrowed capital. This borrowed part of the capital may be diminished or entirely eliminated, thus lessening the total investment in that particular line.

Leaving us to resort to our own ingenuity for definitions of both stock and profit of stock, Ricardo moves immediately to the consideration of "the cause of the permanent variations in the rate of profit, and the consequent permanent alterations in the rate of interest" (p. 87). (Interest, however, is almost entirely neglected.) Variations in the rate of profit are studied relative to changes in prices. The prices of agricultural products and of manufactured goods are regulated

"by the quantity of labour necessary to produce it, with that portion of capital which pays no rent. . . . The whole value of their commodities is divided into two portions only: one constitutes the profits of stock, the other wages of labour" (p. 87).

This then is the point from which we shall approach his discussion of profits. It may also prove to be the real centre of Ricardo's explanation of distribution.

Ricardo takes his first venturesome step in the explanation of profits, just as he did in the explanation of wages, by trying to explain the divergence of methods and prices governing manufactured goods and those governing agricultural products, the former depending, to a great extent, on the latter.

"Supposing corn and manufactured goods always to sell at the same price, profits would be high or low in proportion as wages were low or high. But suppose corn to rise in price because more

labour is necessary to produce it ; that cause will not raise the price of manufactured goods in the production of which no additional quantity of labour is required. If, then, wages continued the same, the profits of the manufacturers would remain the same ; but if as is absolutely certain, wages should rise with the rise of corn, then their profits would necessarily fall " (p. 87).

In this concentrated epigram he makes three distinct propositions. In the first one, just why, if there is no change in the price of agricultural products, and no change in the price of manufactured goods, will profits vary in the two occupations in an inverse ratio to wages ? His answer would be because wages are deducted from the joint product, leaving the residual profit. A very simple explanation if it is valid. But its validity depends on his labour theory of value ; it depends on his marginal subsistence wage ; it depends on the negation of his diminishing joint product ; it depends on the negation of his postulate of declining prices in manufacture ; it depends on the negation of his postulate of increasing prices in agriculture. Therefore Ricardo would have to pronounce both the hypothesis and the conclusion unreal. In the second proposition, if corn rises in price for the reason given, and wages continue the same in manufacturing, why will the profits of the manufacturer remain the same ? His answer would be, again, because wages are deducted from the joint product, leaving profit. Another very simple explanation. But its validity rests upon what to him is the impossible assumption that wages will remain the same when corn, the food of the labourer, has increased in price, and have we not learned that the price of food determines the wages of the labourer ? Therefore Ricardo rejects both the hypothesis and the conclusion again. In the third proposition, if wages rise because the price of corn rises, why will the profits of the manufacturer fall, " necessarily " ? The answer is the same as before, because wages deducted from the joint product leaves the residual profit. And he feels sure this hypothesis is true, his logic infallible, and his conclusion valid.

We know from Ricardo's explanation of rent and wages that he bases his argument on the hypothesis that the prices of the two kinds of products will not remain the same; he thinks corn prices will increase because more labour is required as production is extended, and manufactured goods will decrease in price, for no given reason, unless it is that less labour is required; but we also know that his theory is that wages will rise because of the increase in the price of food. He makes no effort to reconcile this with the wages fund. The rise of wages will detract from the profit of the manufacturers. The conclusion is that the tendency of profits in the two occupations is downward, but for two entirely different but connected reasons; in agriculture the tendency is downward because of the increasing difficulty of production; in manufacturing the tendency is downward because of the increasing price of agricultural products, which increasing price raises wages, which rising wages subtract more from the joint product leaving less for profit. His logic is admirable, but his premises are fallacious. The Physiocratic difference in the two occupations is just as erroneous when embedded in the subtle reasoning of Ricardo as it is when more frankly expressed by the French economists.

In addition to the fallacy noted above, there is great lack of proof. We were told in the chapter on wages that while the price of corn rises 10 per cent., wages "will always rise less than 10 per cent., . . . the condition of the labourer will generally decline" (p. 79). We have here illustrated again a major difficulty in the use of Ricardo's idea of proportionality; an increasing declining wage. Relative to the price of corn, although the price of corn determines the price of wages, wages will decline, but relative to its former self the price increases in the aggregate and deducts from profit.

Ricardo thinks this proposition is so important that he should go into mathematical details in its explanation. He argues that if a manufacturer and a farmer each employed ten men and raised their wages from £240

to £250, the additional £10 of wages would be the only added cost to the manufacturer to get the same quantity of commodities ;

“ but the farmer on new land would probably be obliged to employ an additional man, and therefore to pay an additional sum of £25 for wages ; and the farmer on the old land would be obliged to pay precisely the same additional sum of £25 for rent ” (p. 88).

He cannot mean what he says here. If so the attenuated character of his reasoning is very apparent. He says the manufacturer will produce the “ same quantity ” of commodities with the same labour force, but the farmer, he thinks, cannot do that. He must have an extra man. The only sensible conjecture is that he means an additional equal quantity, which supposition would, according to his system, call for an extension of cultivation and the use of inferior land. He thinks that to the farmer the £25 wage of the extra man is compensated in the higher “ price of the raw produce, and therefore his profits still conform to the profits of the manufacturer ” (p. 89). He misses the point that the law of diminishing returns applies in agriculture as well as in manufacturing.

Ricardo discusses the limit of profit and wages as a corollary to his major proposition. He assumes an invariable joint product composed entirely of the two elements, wages and profits. Any excess over this joint product will, he thinks, be rent. Then

“ profits can never rise so high as to absorb so much of this £720 that enough will not be left to furnish the labourers with absolute necessities ; on the other hand, wages can never rise so high as to leave no portion of this sum for profits ” (p. 92).

The question immediately presents itself, that if rent can be eliminated from this joint product, why cannot either of the other factors be eliminated likewise ? If rent may be reduced to zero, why not profits ? Can rent be reduced to zero ? When Ricardo assumes the deduction from the joint product to be the “ absolute necessities ” of the labourer he immediately involves the

fallacy of the subsistence theory of wages with his theory of profit. He has previously used the supposition of the absence of rent from the joint product. So far the confusing elements in his explanation of profits are: (a) labour must be paid a subsistence wage, (b) rent is a surplus over the costs of production at the margin, (c) agricultural production and prices differ from production and prices in manufacturing.

More than half the chapter on profits is devoted to the attempted elucidation of the principle that agricultural production and prices are different or are subject to different forces than those that obtain in manufacturing, and that profits tend to be the same in both, and consistently seek lower levels. His chain of causes and conclusions on this division of his subject are the rate of profit diminishes, because of high wages; higher wages result from higher prices of necessities; higher prices for necessities result from "the sacrifice of more and more labour" (p. 98). Thus he makes the decline of profits depend directly on an increase of wages, which has not been proved. This explanation is very much inferior to that of Adam Smith, who explains the decline of profits as a result of an increase of stock and the competition of the owners of stock. Smith's explanation of profits more nearly approximates the true explanation of the income from the use of capital goods, which income is conditioned on their productivity. Ricardo's explanation is also inferior to that of Malthus who postulates the variation in profit rates on the "principle of demand and supply and competition" (*Principles of Population*, p. 298).

When the assertion is made that if labour takes up all the joint product capital accumulation will cease, there is little allowance for accumulation of capital prompted by other motives than the possibility of profit. People may save for the sake of future satisfaction and safety. The assumption of labour taking nearly all the product does not permit capital to be rewarded according to its productivity. One does accumulate for other

reasons than to "make his accumulations productive" (p. 100).

Ricardo raises the question: should we not expect the aggregate amount of profits to increase, even if the rate of profits diminished, because of the accumulation of capital and the rise of wages? He answers: "but after capital has accumulated to a large amount, and profits have fallen, the further accumulation diminishes the aggregate of profits" (p. 102). Mathematically, as Ricardo has illustrated the problem, it would be possible for £1,000,000 at a 7 per cent. rate to aggregate more than could £1,100,000 at a 6 per cent. rate of profit. Very probably the accumulations will be much greater than the amount used in the illustration, and the decline in the rate of profit will probably be much less than that supposed. The real weakness involved in both his statement and the illustration intended to support his statement is clearly shown if the rate of profit is assumed to be $6\frac{1}{2}$ per cent. rather than 6 per cent. under the new conditions. In this case aggregate profits will not be decreased. Have aggregate profits ever been decreased? The supposition of a larger amount of accumulation and a smaller decline in the rate of profit would more nearly approximate real conditions where profits are determined by the productivity of capital goods. The quantity of capital goods more nearly harmonizes with the rate of returns. In Ricardo's explanation, he assumes an unreal decrease of the rate of income to accompany a given increase in accumulation. He has not explained the phenomenon of the historical stability of the interest rate which reflects the elasticity of the capital fund.

Ricardo seems to see how thin is the ice on which he has placed himself, and also seems to have a very hazy idea of the value productivity of capital as a basis of profit, for he almost immediately says:

"There can, however, be no accumulation of capital, so long as stock yields any profit at all, without its yielding not only an

increase of produce, but an increase of value. By employing £100,000 additional capital, no part of the former capital will be rendered less productive. . . . When the accumulation of capital, however, becomes very great, notwithstanding this increased value, it will be so distributed that a less value than before will be appropriated to profits, while that which is devoted to rent and wages will be increased " (p. 102).

To justify this statement he hastens to his usual refuge, the margin of cultivation, where he thinks the whole produce will be increased, and the whole value will be enhanced by two causes: the increased quantity resulting from the additional new produce, and the higher new value given to all the produce because of the "increased difficulty, of producing the last portion of it" (p. 103). The conjunction of his labour theory of value, his margin of cultivation, and his increase and distribution of capital has apparently destroyed any evidence he may have exhibited of having a concept of the law of diminishing returns; why will not \$500,000 worth of additional capital render the former capital less productive? That is exactly what it does do under the law of diminishing returns. Again, why, when the accumulation of capital becomes great, does he think it "will be so distributed" that less will go to profits and more to rent and wages? His answer is:

"Wages would rise because more labourers would be employed, in proportion to capital; . . . The only real gainers would be the landlords; they would receive higher rents, first, because produce would be of higher value, and secondly, because they would have a greatly increased proportion of that produce" (p. 104).

This is again the conjunction of the three explanations mentioned above. He does not, however, give any valid reason at all why this increased capital will be "so distributed." But he argues further that: "Although a greater value is produced, a greater proportion of what remains of that value, after paying rent, is consumed by the producers, and it is this, and this alone, which regulates profits" (p. 104). Now if capital is great in amount

and still increasing, as he has assumed, how can the number of labourers be greater "in proportion to capital"? Obviously only by the population increasing more rapidly than the capital. Ricardo has not proved this, but doubtless has based it on the principle of population. In addition to his former and oft-repeated error of assuming an increase in the value of agricultural products, we have here an indication of inconsistency built on the former error. The product, it is recalled, is the marginal product, and the price is determined at the margin of cultivation, where rent is supposed to be non-existent. Regardless of this, however, he says :

"after paying rent wages consume a greater portion and leave less for profit. Each man may, and probably will, have a less absolute quantity; but as more labourers are employed in proportion to the whole produce retained by the farmer, the value of a greater proportion of the whole produce will be absorbed by wages, and consequently the value of a smaller proportion will be devoted to profits. This will necessarily be rendered permanent by the laws of nature, which have limited the productive powers of the land" (p. 104).

Hence we arrive at the starting point that "profits depend on the quantity of labour requisite to provide the necessaries for the labourer, on that land or with that capital which yields no rent" (p. 105). Here he resorts to the "laws of nature" to explain the profits of capital. Previously resort had been had to the laws of nature to explain the increase of the wage share of the joint product. Apparently the thought is that in the laws of nature, the ultimate causes of economic phenomena have been discovered. In both cases the natural laws referred to are subject to question, when used in this connection. By admission, his efforts have been directed to show "that a rise of wages would not raise the price of commodities, but would invariably lower profits" (p. 107), and that lower profits would result even if the price of all commodities could be raised. In addition to the fragmentary nature of what truth there is in this, the contradic-

tion of his argument stands out clearly. Apparently reverting to his wage argument, he says: "and therefore it may be taken for granted that, under ordinary circumstances, no permanent rise takes place in the price of necessities, without occasioning, or having been preceded by a rise in wages" (p. 96). We are again left almost wholly to conjecture as to what he means. One of two things must be true; he does not include "necessaries" under the term "commodities" or else he forgets his labour theory of value. Has not one of his principal reliances been that the price of "necessities" will rise because of the compulsion of having to pay labour a higher wage in the form of labour's share of the joint product? As a corollary to this proposition he has, all along, assumed that the increased cost of the raw produce element in manufactured goods tended to increase the price. In reality the cost price of goods is made up partly of the wage element; consequently, if a higher wage is paid, and other things remain the same, the cost price must rise. Neither can it be assumed that there is a causal relation between higher wages and lower profits.

Ricardo uses the term profit in three distinct senses; he does not seemingly recognize the vagueness accompanying his uses of the term. He uses profit in the sense of total social profit; he uses it in the sense of a rate of profit; and lastly he uses it to indicate the real income of the capitalist. In this last sense he says that an increase of wages will not raise prices, but if it did his principle of profits would remain the same, and high wages would cause low profits. The reason he gives for this is that employers would have to pay more for the things purchased by their money incomes if prices were higher. This would deprive them of "a portion of their real profits" (p. 106). To confuse profits as an income to the owners of capital or as a rate of income with the real income that is purchased by the capitalist with his money profits is a decided shift in point of view, and is not permissible in this connection.

Ricardian pessimism reaches its zenith when he says

that the natural tendency of profits is to fall because as wealth increases food becomes more difficult to obtain and requires more labour which in turn absorbs a larger portion of the marginal joint product. The rising price of food and wages is checked only, prevented from absorbing the entire product, by the decline of capital accumulation resulting from low profits. This declining capital accumulation causes population to reach its maximum before labour takes all the product. This would indeed be a very precarious balance, if it were true.

Taken in its entirety, Ricardo's explanation of distribution is constructed on the skeleton produced and assembled by Smith and Malthus. By his own introductory remarks we would not expect him to make a great contribution to the solution of the rent question, beyond that offered by Malthus. In fact Malthus and Ricardo, and to an extent Smith, seem to have had the same general ideas regarding rent as a surplus regardless of any averred differences of opinion relative to minor points of doctrine. It is true that Malthus denied the monopoly of land and emphasized the surplus nature of rent; and Ricardo emphasized the differential surplus and the margin of cultivation.

All three men have almost identical concepts of the natural price, with the possible exception of Ricardo with his location of the natural price at the margin of cultivation, where no rent is paid. On the question of wages a similar identity of opinion prevails, though it is on the question of wages and profits that Ricardo expresses hopes of making a contribution. The subsistence wage of Smith is accepted by Malthus, who says the wage is regulated by the demand for labour and the cost of living. Ricardo likewise approves of these ideas and, with Malthus, adds the "supply" of labour to the wage-regulating forces. He also provides for some slight modifications in that he thinks the habits of the workman and the customs of society are causal forces. All three use the determining influence of the cost of living in the wage changes.

The analysis of profits in the system of Smith and Malthus is more detailed, accurate and true to facts than in that of Ricardo. The proportionality of the wages and profits of Ricardo is the result of a cracking process by which a greater or less amount of the gross sum goes to stock as profit. Malthus' method of determining the rate of profit by comparing the advances with the net incomes is much more to the point and is nearer reality than is the concept of a ratio existing between total wages and total profits, and postulating the changes in this ratio on the changes in the productivity of labour at the margin, resulting from the decreasing fertility of the land, supplemented by the subsistence theory of wages. At very few points does Ricardo suggest a direct relationship between the productivity of an agent and its reward. Even in the discussion of rent he does not dig beneath the "difference in their productive powers" (p. 47), to the value productivity of the soil itself. In the case of wages he flatly denies, as we have noted, the determination of the wages by the productivity of the worker.

When he postulates the natural price in money, on the "price of food, necessities, and conveniences required for the support of the labourer and his family" (p. 70) he practically precludes any possibility of explaining wages on the basis of what the worker produces. When this factor of wage determination is made to operate co-ordinately with the "supply and demand of labourers" (p. 75), no improvement is made in this respect. He thinks the natural wages tend to rise because the price of food tends to rise. The price of food tends to rise because of the "greater difficulty of producing it" (p. 70). The greater difficulty of producing the food is the result attributed to the land and not to the labour involved in production. Again when the discussion hinges on the supply and demand of labour, the demand depends on the supply of capital, and the supply of capital, the "accumulation of capital, or of the means of employing labour, is more or less

rapid, and must in all cases depend on the productive powers of labour" (p. 75), but here again the so-called productive powers of labour are dependent on "an abundance of fertile land" and not on the labour itself. Even the supply of labour which finds its endpoint "with a population pressing against the means of subsistence" (p. 76), is not conditioned by the productivity of labour, but by the increasing difficulty of obtaining subsistence, which difficulty is attributed to limited supply and unequal fertility of land.

The resultant of the supply and demand of labour is a tendency toward a lower wage. The resultant of the price of food is a tendency toward a higher wage. The combined resultant of the two tendencies would be for the wage of the workman to decline relative to itself but increase relative to profits.

"... he would therefore receive an addition in his money wages, though with that addition he would be unable to furnish himself with the same quantity of corn and other commodities, which he had before consumed in his family" (p. 78).

All of this is explained without basing it on the productivity of the worker. In his emphasis on the dependence of wages on the funds for the maintenance of labour, he removes himself much farther from the productivity theory of wages than does Malthus.

"Wages do not depend upon the quantity of a commodity which a day's labour will produce, and I cannot help thinking you quite incorrect when you say that the natural consequences of the facility of production being so increased that a day's labour will produce 4 measures of corn, cloth and cotton instead of 2 measures, will be that 4 measures of corn, cloth and cotton will be worth only the price of a day's labour instead of 2. It appears to me that, if instead of 4, 10 measures could be produced by a day's labour, no rise would take place in wages, . . . unless a portion of the increased produce were employed as capital, and then the rise in wages would be in proportion to the new demand for labour, and not at all in proportion to the increase in the quantity of commodities produced" (*Letters of Ricardo to Malthus*, p. 98).

This increase would go to the owner of capital, and not to wages.

Ricardo's residual theory of profits leaves less room, if possible, for a productivity explanation of the earnings of capital than was found in his explanation of wages.

"Thus we again arrive at the same conclusion, which we have before attempted to establish: that in all countries, and at all times, profits depend on the quantity of labour requisite to provide necessaries for the labourer, on that land or with that capital which yields no rent" (p. 105).

As he sees it, profits do not depend upon the productivity of capital, but essentially on the increasing difficulty of obtaining food for the labourer. This increasing difficulty is not caused by a decreasing productivity of the labourer, but by the niggardliness of nature. This power of the soil is not the productivity of the soil, but the difference in its productivity.

The cost of production as used by Malthus and Ricardo is a misnomer. That the real costs of production must include an element attributable to the natural element is unintentionally indicated very clearly by a reference to Malthus.

"Rents are the reward of present valour and wisdom, as well as of past strength and abilities. Every day lands are purchased with the fruits of industry and talents. They afford the great prize, the *otium cum dignitate* to every species of laudable exertion; and, in the progress of society there is every reason to believe, that, as they become more valuable from the increase of capital and population, and the improvements in agriculture, the benefits which they yield may be divided among a much greater number of persons" (*Principles of Population*, p. 217).

There is probably no doubt that in the long run, as land becomes relatively scarcer, it will become more valuable, but the important point here is that men will not continue to purchase land with the "fruits of industry and talents," unless its ownership produces them an income in proportion to their investment. The only way such a proportion can be established with any degree of cer-

tainty is for the pay for the use of land to be computed as a part of the costs of production. To depend upon the owners of land, those who have invested the fruits of their industry in land to permit the use of their land in production, and to receive therefrom an indefinite surplus as pay, involves a naïve attitude of land owners that is far from reality. Will not investments be developmental in opening up new lands and improving the old ?

The attractive euphony and the arbitrariness of Ricardo's expression that "Corn is not high because a rent is paid, but a rent is paid because corn is high" (p. 52), do not cover the point. Ricardo thinks "the immediate cause of rent is obviously the excess of price above the costs of production" (p. 395). This excess, or surplus, would be rationally explained if "costs of production" were made to include the pay for the use of the land, but of a certainty when it is so explained it loses its surplus nature entirely.

CHAPTER VI

NASSAU WILLIAM SENIOR

THE same year that marked the passing of Adam Smith marked the birth of Nassau William Senior (1790–1864), who was to play a part in the lampadephoria of the science which owed so much to Smith. Senior was born at Crompton, England, the son of the Reverend J. R. Senior. He was educated at Oxford. Twice in his busy life, in 1825 and again in 1849, he was called to the Drummond chair of Political Economy, at his Alma Mater, for a period of five years. This indicates his standing among his contemporaries in the field of economics.

He was a busy lawyer and man of affairs. Among his other than economic productions are to be found *Biographical Sketches* (1865), *Historical and Philosophical Essays* (1865), *Journal Kept in Turkey and Greece* (1850), *Essays on Fiction* (1864). An examination of his essays in which he gives a critical discussion of works of Scott, Thackeray, Harriet Beecher Stowe, and others gives ample proof that he was more than an amateur in the field of literary production.

His contributions to the science of economics are to be found in his *Outlines of Political Economy*, contributed to the First Division of the *Encyclopædia Metropolitana* under the head of Pure Sciences. This encyclopædia was developed by Coleridge. It is on the *Outlines of Political Economy* as published in the second edition of the *Encyclopædia*, which was published separately in 1836 as an *Outline of the Science of Political Economy*, that the following discussion is based.

“Senior conceives that political economy concerns itself with wealth only, and from a purely deductive, not a



Nassau Senior

NASSAU WILLIAM SENIOR

practical standpoint. His discussion of the science is derived from four elementary propositions : men desire the greatest possible wealth at the least sacrifice ; moral and physical evil and fear of poverty are the only forces that limit the population ; by the use of the results of production the productive powers of the agents may be indefinitely increased ; diminishing returns operate in agricultural production. To the extent to which he involves these propositions, especially the last three, in distribution, do they form the basis for the following analysis.

Senior states that distribution is effected principally " by means of Exchange." ¹ He admits that he uses the terms " Production and Exchange " (p. 87) in a broad sense, the latter including collection of governmental incomes, but he insists that this is a real exchange, usually beneficial. After designating exchange as the agency of distribution, he asserts that there are two branches of the laws of exchange : the general laws of exchange, dealing with the things exchanged, and the specific laws of exchange, dealing with the exchanging parties.

His first step toward the explanation of distribution is the classification of the members of society into " Labourers, Capitalists, and Proprietors of the Natural Agents " (p. 88), and the formation of his characteristic terms applicable to these classes. He thinks that there should be four terms relative to each class : the instrument, the class, the act, the share. He also thinks that the reward for labour and abstinence is the result of sacrifice, but the reward to the owner of the agent has no sacrificial element, and is the result of possession. He uses this idea " as implying the receipt of the advantages offered by that agent, or, in other words, of rent " (p. 92). Senior has warned us that his treatise will consist to a great extent " of discussions as to the most convenient

¹ Senior, Nassau William, *Outline of the Science of Political Economy*, p. 87.

Note. Due to the fact that in this chapter all references are taken from the same book, subsequent references will be indicated by page number only.

use of a few familiar words" (p. 5), a warning which is partially fulfilled by his discussions of the nomenclature applicable to the different classes of producers. In formulating this nomenclature, he says, relative to the profit of capital,

"but there is no familiar term to express the act, the conduct of which profit is the reward, and which bears the same relation to profit which labour does to wages. To this conduct we have already given the name of Abstinence. . . . Capital is an article of wealth, the result of human exertion, employed in the production or distribution of Wealth. Abstinence expresses both the act of abstaining from the unproductive use of capital, and also the similar conduct of the man who devotes his labour to the production of remote rather than immediate results. The person who so acts is a capitalist, the reward of his conduct is profit" (p. 89).

This entire discussion of the application of familiar terms is enlightening, in spite of the fact that he has used the term "abstinence" relative both to capital and to labour. In his view, "abstinence" becomes a deliberate sacrifice of present satisfaction in order to obtain the power and prestige of ownership.

Continuing his discussion of terms, Senior says :

" . . . it is clear that under the term 'rent' must be included all that is obtained without any sacrifice ; or, which is the same thing, beyond the remuneration for that sacrifice ; all that nature or fortune bestows either without any exertion on the part of the recipient, or in addition to the average remuneration for the exercise of industry or the employment of capital" (p. 92).

We note that profit, rent, and wages are not clearly differentiated. Wages are defined as the remuneration for the use of "strength of body or mind for the purpose of production" (p. 89). Now Senior classes anything above average wages and anything above average profits as a surplus which results, not from labour or sacrifice, but from "nature or fortune," and he calls it rent. We may partly understand, even if we do not agree with his thought, when we note that later he explains the uniform rate of profit by the assertion that "abstinence, being a

negative idea, does not admit of degrees " (p. 202). His efforts are directed to the explanation of conditions to the point where a monistic cause is the key. In such a confusion of limitations as noted above, sharp lines of demarcation between wages, profit, and rent are not to be expected. It is very clear that Senior considers rent as a surplus, non-sacrificial, applying alike to the pay for the use of land, and similarly to the profits of capital and the compensation of labour above the "average remuneration." He has here approached very near to the concept of quasi-rent. His concept of a general surplus approximates a price determined surplus.

His second step in explaining distribution is a statement of the general laws of exchange, or those dealing with the things exchanged.

"First, that all those things, and those things only, are susceptible of exchange, which, being transferable, are limited in supply, and are capable, directly or indirectly, of affording pleasure or preventing pain; a capacity to which we have affixed the name of utility. Secondly, that the reciprocal values of any two things, or, in other words, the quantity of the one which will exchange for a given quantity of the other, depends on two sets of causes; those which occasion the utility and limit the supply of the one, and those which limit the supply and occasion the utility of the other. . . . And, thirdly, that comparative limitation of supply, or . . . comparative scarcity " (p. 96).

It may be just as well not to inquire too closely into what he meant by these three laws, but, obviously, he sees certain obstacles to the supply, which affect the "reciprocal values" of the things exchanged. It is in the explanation of these obstacles and their effects on value that he explains distribution. General value is conceived to be "price or value in money" (p. 96).

Commodities are divided into two classes, one group consisting of commodities the supply of which cannot be increased, and the other of commodities the supply of which "is capable of increase" (p. 97). The second group only is involved in distribution. Senior divides it into two sub-classes: goods produced

"under circumstances of equal competition, of which the commodity thus produced sells for its cost of production, or, in other words, at a price equal to the sum of the labour and abstinence which its production requires" (p. 102),

and secondly, goods produced with the assistance of natural agents. "A commodity thus produced is called the subject of a *monopoly*" (p. 103). This sub-group is again divided into four divisions, the first three of which are not considered in detail, but the fourth one, including goods produced under "THE GREAT MONOPOLY OF LAND" (p. 105), is discussed. This class of goods is produced with the assistance of natural agents limited in number and of varying powers "and repaying with less and less relative assistance every increase in the amount of the labour and abstinence bestowed on them" (p. 105).

It seems evident that Senior is arriving at his explanation of distribution by explaining how the prices of two different kinds of goods—competitively produced goods, and those produced under conditions of a monopoly—are determined. The price of the first, he says, is determined by the cost of production, and "By Cost of Production, then, we mean the sum of the labour and abstinence necessary to production" (p. 101). He thinks that if such purely competitively produced goods existed, "such would be the laws by which their price would be regulated" (p. 114). He apparently is using as his standard for price determination the cost of production of those competitively produced goods, the cost of the labour and abstinence required in the production of which he has defined as the cost of production. This should lead him to no great difficulty, since he has selected his unit and defined it in his own terms, and proposes to apply these terms to goods produced under other conditions.

"Where labour alone has been employed, the price must be equal to the wages of that labour. Where that labour has been assisted by abstinence, . . . the price must be equal to the amount of the wages of that labour and the remuneration to be paid either

to the labourer for having suffered the payment of his wages to be deferred, or to the capitalist who has paid those wages in advance " (p. 111).

The statement that a condition " must be " leaves something to be desired in the way of an explanation. This is clearly the labour theory of value, modified by the addition of the element of sacrificial abstinence.

Senior thinks that no pricing rules prevail with the commodities of the intermediate monopoly classes, but

" The price of the commodities comprised in the fifth and last class . . . has a constant tendency to coincide with the cost of production of that portion which is continued to be produced at the greatest expense. . . . The difference between the price and the cost of production is RENT. . . . A portion of the whole supply, however, that portion which is produced at the greatest expense, is produced without any payment of rent " (p. 115).

We have at last arrived at Senior's discussion of his first share of distribution, rent. He has subscribed to that part of the theory of his predecessors by which rent is conceived as a surplus, as the result of a monopoly, and as the difference between the price as determined by the greatest cost of production and by other costs of production. The fallacies of the surplus theory and the monopoly theory have been previously analysed. It cannot be assumed that the price of agricultural products is determined by the greatest cost of production, or that it is determined by different rules than those which apply to the price of other goods.

Senior falls into the same errors as did his predecessors in defining cost of production to consist of wages and profits, and assuming the surplus and monopoly nature of rent. The situation is further complicated by the notion of a radical difference between agriculture and manufacturing. The fallacies stand out more clearly when we examine more minutely Senior's exposition of this difference.

" No additional labour and machinery can work up a pound of raw cotton into more than a pound of manufactured cotton ; but

the same bushel of seed corn, and the same rood of land, according to the labour and skill with which they are treated, may produce four bushels, or eight bushels, or sixteen bushels. . . . The advantage possessed by land in repaying increased labour, though employed on the same materials, with a constantly increasing produce, is overbalanced by the diminishing proportion which the increase of the produce generally bears to the increase of the labour. And the disadvantages of the manufactures in requiring for every increase of produce an equal increase of materials, is overbalanced by the constantly increasing facility with which the increased quantity of materials is worked up " (p. 83).

Senior is much confused here on two points. First he confuses and tries to compare the physical productivity of the land and the value productivity of manufacturing. He thinks that the law of diminishing returns operates on the physical productivity of the land, and does not operate on the productivity of manufacturing. In this he is wrong; diminishing returns operate alike on both physical and value productivity. His second confusion is manifest as he continues his argument, under the caption of "some remarkable consequences of the proposition that additional labour when employed in Manufactures is *more*, and when employed in Agriculture *less*, efficient in proportion" (p. 119). Consequently he thinks that the costs of production in manufacturing are decreasing and in agriculture are increasing. Likewise the raw material element of the price of manufactures causes a tendency for price to rise, and the share of price attributable to manufacturing causes the price to tend to fall as demand increases. The first is true, he thinks, because the law of diminishing returns operates, and the second because "it is impossible to doubt that the stimulus thus applied to the production of lace would improve every process of manufacture" (p. 120). The error here is common to Senior and his predecessors. They are trying to compare things that do not admit of comparison, and to limit progress to manufacturing. In their description of agricultural production they make their nearest approach to the modern concept of diminish-

ing returns, while in their description of manufacturing production they are dealing with technological progress. For self-evident reasons the two things do not admit of comparison. These men see that improvements in agriculture would tend to negate their conclusions in this field, but they fail to compare this possibility with its counterpart in manufacturing. Agricultural production is as susceptible of improvement as lace-making, and in all probability has been as much improved, in definite areas. This similarity Senior and his fore-runners did not see.

Senior next takes up his second great branch of the laws of exchange, "the general laws . . . which regulate the proportions which rent, profit, and wages bear to one another" (p. 128). If land receives permanent ameliorations, "Is the increase of revenue rent or profit?" (p. 128). His answer is that the improvements are the "capital of the landlord, who has purchased them by engaging not to raise the rent during the currency of the lease" (p. 129). Consequently the revenue is classed as profit. Senior scores a point here. The revenue attributable to the improvements of the land is, without doubt, the result of capital investment, and cannot be classed as a surplus. When he argues, however, that change of ownership from the "original constructor" (p. 129) to his heirs changes the nature of the income from profit to rent, his explanation is faulty. "But in the hands of his heir it has all the attributes of rent. It is to him the gift of fortune, not the result of sacrifice" (p. 129). Here we must recall that Senior differentiates between profit and rent on a basis of sacrificial effort. This distinction if justified would also justify, only in part, the inclusion of the patrimony as a surplus rent. If the original constructor had withheld available advantages from his heir while he was making his original construction, would not the element of sacrifice have been present? But we submit that the income from capital goods cannot be altered in its nature by the mere act of change of ownership. The income is the

same in origin and nature, whether its source is owned by the original constructor or his heir, and cannot be changed in its classification from profit to rent. In addition to the evident weakness of transforming a sacrificial element into a "gift of fortune," Senior here approaches very close to the concept of quasi-rent. If the withdrawal of the income to the owner of the agent interferes with the flow of the commodities or services, then the return to the agent is a price determining cost, but if, as in the case of "a dock, or a wharf" (p. 129), the hypothetical withdrawal of the income does not interfere with the even flow of the commodities, it is a price determined element. Society does not have to pay to receive the desired commodities or services.

Struggling again with his terminology, and making a valiant effort to justify the surplus idea, he asks the question: "Is then the extraordinary remuneration of the labourer, which is assisted by extraordinary talents, to be termed Rent or Wages?" (p. 129). He observes that since it is received from the bounty of nature it seems to be rent. Since it is received from the exercise of labour it seems to be wages. "But as it is clearly a surplus, the labour having been previously paid for by the average wages, and that surplus the spontaneous gift of nature, we have thought it most convenient to term it rent" (p. 130). An average wage is a statistical concept and may have no counterpart in real life. There is no good reason to assume that labour is paid by an average wage. If such an assumption were valid, there would be many labourers whose product would not be the equivalent of an average wage, and instead of a surplus there would be a deficit. An extraordinary talent is compensated by attributing to the worker the product of his effort.

Again Senior asks, since,

"as a general rule, it may be laid down that capital is an instrument which, to be productive of profit, must be employed, and that the person who directs its employment must labour. . . . Is

then the remuneration of this labour to be termed Wages or Profit? (p. 130).

Senior has here been audacious enough to raise three important questions relating to capital and labour, and their respective rewards of profit and wages. He discusses the questions in an interesting but inconclusive way. Part of the income he is sure should "be termed wages" (p. 130) as pay for ordinary labour. Another part will be called rent if the capitalist has exercised "extraordinary talents" (p. 130), or has been the subject of favourable accidents. But the puzzling part has to do with what remains after "deducting ordinary interest on the capital, . . . ordinary wages, . . . and any extraordinary advantages" (p. 131) resulting from accident. Senior decides, in agreement with Adam Smith :

"We shall continue, therefore, to include under the term profit the whole revenue that is obtained from the possession or employment of capital, after deducting those accidental advantages which we have termed rent, and also deducting a sufficient sum to pay the capitalist, if actively employed, the wages which would purchase an equal amount of labour from a person unpossessed of capital" (p. 133).

This is his conclusion and apparent ~~apology~~ after having said :

"perhaps the best plan might appear to be, to apply the term *wage*, to the remuneration of mere labour, the term *interest* to the remuneration of mere abstinence, and the term *profit* to the combination of wages and interest, to the remuneration of abstinence and labour combined. This would make it necessary to subdivide capitalists into two classes, the inactive and the active: the first receiving mere interest, the second obtaining profit" (p. 133).

He has raised the questions of: (1) the relation of capital to labour; (2) the wages of management; (3) pure profits. Clearly he is thinking of whether a certain income should be called wages or profit, because of the relation of labour and capital, and after considerable rumination he decides that it shall be called profit.

The wages of management are clearly involved when he says: "the person who directs its employment must labour," but the recompense for this labour he would also call profit. He has just touched profit in the modern sense, as the remainder after the other agencies have been rewarded. He apparently sees that with a specialization of function goes a differentiation of reward. He has touched on this as supplementary to the pure labour theory of value with his abstinence theory of profit. He also sees the complexity of the entrepreneur's income, and almost but not quite extracts wages of management from the complex tangle of elements. In all of these he has stopped far short of a complete analysis.

The use of the adjectives "ordinary" and "mere" is not clarifying. In addition to the use of such unsatisfactory terms, there is flagrant inconsistency. He has defined profit as the reward of the capitalist for his abstinence. "... the reward of his conduct is Profit" (p. 89). In raising this question he states the object of the explanation to be the "revenue obtained from the employment of capital, after deducting ordinary interest on the capital, as the remuneration for the abstinence of the capitalist" (p. 131), and ordinary wages. In the statement of the proposition he has used interest and profit synonymously. In his conclusion he asserts that he will continue to call the remainder, after wages and rent are deducted, profit, though profit, or a part of it, interest, was included in his deductions before he started his search.

Senior's causes upon which the amount of rent depends have a familiar sound.

"... 1. the positive productiveness of the natural agent by which it is afforded; 2. the comparative productiveness of that agent, or the degree in which it exceeds those agents which are universally accessible" (p. 136).

These are included in the Malthusian causes of rent and also correspond, in part, with Ricardo's explanation. Senior observes that the excess of price of the

produce of fertile land is the *produit net* (p. 127) of the Physiocrats, and is rent. He takes Ricardo to task for his idea that rent is the result of the niggardliness of nature, and for having forgotten the real cause of rent, "namely, the power of producing the subsistence of more persons than are required for its cultivation" (p. 138). Senior is, in reality, a surplus theorist, and gives us a symposium of the rent theories of the preceding classicists. The two causes of rent have been previously analysed, and we should recall that they are legitimate only to the extent that the productiveness of land referred to determines its contribution to the joint product. The idea of the comparative productiveness is only partly true, and covers only a part of the real productivity of the land.

Senior thinks that the surplus produce above the subsistence of the cultivators tends to increase with an increase of population ;

"either because, the increase of agricultural skill and capital increases its positive fertility, or because a diminution of its relative fertility, a diminution of its produce relatively to the number of its cultivators, forces the poorer classes to be satisfied with a less amount of raw produce ; or from both these causes combined " (p. 138).

Surely an increase of agricultural skill and capital cannot cause an increase in the relative productiveness of a natural resource ? An increase in the product resulting from these causes would be attributable to labour and capital as wages and profit. His assumption that the poorer classes might be forced to be satisfied with less raw produce could not be true if they were already at the minimum of subsistence. If, according to his previous assumption, the price of raw produce is determined by the greatest cost of production, which continually increases as the amount of produce decreases, we cannot see that it makes much practical difference to the cultivators. Five bushels of wheat at \$2.00 per bushel would be worth as much to them in a money economy as ten bushels at \$1.00 per bushel.

Finally Senior observes that the amount of rent is independent of the will and exertions of the landlord, who accepts the largest sum that is offered. Neither does it depend on the will or exertions of those who pay it. "Whatever be the value of the services" (p. 139), that value must be paid by those who wish to use the natural agent. It is subject to no general rule, and "it has neither a minimum nor a maximum" (p. 139). We should say that the value of the services of the natural agent will be paid because of the value productivity of that natural agent, and both the maximum and minimum of the price of this service, or the rent, is this same value productivity. The statement that the proportionate rent depends on the productive powers of the natural agents and their number compared to the wealth and population is conditionally true. It is really a statement of the principle of proportionality of the productive factors.

In arriving at the proportionate amount of profit and wages, Senior agrees with his predecessors when he fixes minimum wages at the amount which will "enable the existing labouring population to subsist" (p. 140), a philosophical concept. Minimum profits, he declares, must be enough above "the lowest that is conceivable" (p. 140) to compensate the capitalist's abstention from consumption and from the use of labour for immediate production. He tries to bring profits into line with the labour theory of value. This is a fallacious designation of the determination of profits. What is the cause of the lowest "conceivable" element? Very little, if any, sacrifice is required of the capitalist who has a superabundance of capital which may be used in production. In many cases the sacrificial element would be much stronger if he were compelled to consume instead of to save. Likewise, there is no reason why the subsistence wage shall be the minimum wage of the worker. If the factors of production are the most efficiently proportioned, and the joint product properly distributed according to the contribution of each factor to the value

product, it cannot be assumed that the subsistence wage is the minimum. The maximum for wages and profits, the first at ten times subsistence, and the latter at "fifty per cent" (p. 140) is ridiculous guesswork and has no general counterpart in economic life. The principle of proportionality is well stated by Senior when he says: "if the amount of capital employed in the payment of wages increases, the number of labourers remaining the same, profits will fall" (p. 140); and if the number of labourers increases, the other factor remaining the same, wages will fall, and if both capital and labour increase profits and wages will both fall, because of the increased ratio each will bear to the natural agent. This explanation of profits is superior to the abstinence explanation. The use of abstinence indicates that in his own reasoning he has arrived at an impasse; using profit as a reward for abstinence is delving into subjective psychology to find a basis for an economic phenomenon. Ultimately the search might lead to that point, but it is a far cry from the interest for a loan fund, as determined in the market place, to the psychology of the man who saves and invests, as contrasted with the man who spends and consumes. Then, too, there are too many things nearer home that Senior has not explained, to sanction wanderings so far afield. Obviously, in his explanation of minimum profits he is searching for the reason why profits are paid. They can be paid and are paid because capital is productive.

When we examine the reason Senior gives for the fluctuation of profit rates, we see that it is almost identical with Adam Smith's theory of competitive profits. As capital increases, the rate of profit will have a tendency to fall because of the "larger proportion" (p. 140) which it bears to the co-operating agents. But, in reality, behind this is the more pertinent reason that units of capital become less productive as a result of their diminishing productivity in the combination. Their productivity would also explain, so far as any explanation is necessary, the maximum and minimum

rates of profits. Senior takes over, to a degree, Adam Smith's competitive profits as a supplement to his abstinence theory, which is also paralleled by Malthus' idea that an increase of capital will tend to cause profits to decline. Somewhat in contrast to this, and yet similar to Malthus' regulating principle "or the varying value of the produce" (p. 278) as it affects profits, we have Ricardo's statement

"that in all countries, and all times, profits depend on the quantity of labour requisite to provide necessaries for the labourers, on that land or with that capital which yields no rent" (*Principles of Population*, p. 105).

Comparatively the explanations of Smith, Malthus, and Senior are more satisfactory, yet neither they nor Ricardo goes behind the relation of increasing capital to decreasing profits, to discover the fundamental diminishing productivity.

Senior is correct when he says that the rate of wages depends much on the number of labourers. But he may or may not be correct when he says that high wages tend to their own diminution by encouraging an increase in population. This depends on the standard of living, the customs of society, the traditions of the people, the religious teachings, the marriage laws, the military policies of government, the stage of industrial development, and entirely too many things to attribute an increase in population to high wages alone. If population increases, however, wages will decline if other things remain the same, because of the increasing proportion which labour bears to the other factors. Here, again, Senior does not go behind the proportionality to discover the primary cause in the productivity of the labourer. Although he does speak of the "productiveness of labour" (p. 140), he does not properly connect this productiveness with the productivity and the wages the worker receives, where he would also find the explanation for maximum and minimum wages, and an increasing or declining rate of wages. Assuming that

an average rate of wages and an average rate of profit exist, Senior proceeds "to explain the circumstances which decide" (p. 141) these average rates at a given time and in a given place. He reviews three wage measures that have been used. The first, the popular one, is the "money earned by the labourer within a given period" (p. 142). The second is the "quantity and quality of the commodities" (p. 142) obtained by the labourer. The third is the "proportion which the labourer receives of the produce of his own labour" (p. 142). He is correct in calling Ricardo to task for the use of the last measure of wages. This he thinks is one of the "most unfortunate of Mr. Ricardo's many innovations in the language of Political Economy." Such a measure of wages tells nothing. He is incorrect, however, in part of his criticism of Ricardo's concept of high wages. Ricardo does mean proportional wages when he insists that "high wages and high profits cannot be consistent" (p. 144). He does not use the high per diem wages in this connection. His assertion that the second wage measure, the real wages, was commonly used by Adam Smith is scarcely true to fact. Smith distinctly acknowledges both a money wage and a real wage and uses and discusses both at length.

The assumption that the first two measures, the money wage and the real wage, mean the same thing "at the same time and place" (p. 147) is only partly true. Price adjustments and wage adjustments are not always compensatory. It is true that at the same time and place labourers who receive dollars for wages will be able to purchase the same approximate amounts of the same commodities with the dollars. But the fly gets in the ointment when the conditions of "the same time and place" are contrasted with the conditions at other times and in other places. Wages may vary within a given country at the same time, or the prices of goods may vary within a given area at the same time. These variations may take place directly or inversely. Again wages may decline or rise within a given country from

one time to another, and the prices of products, or real wages, may rise or decline during the same period. Therefore we get but little comparative knowledge of wages by saying that at the same time and place money wages and real wages mean the same thing. The direct cause determining the rate of wages, Senior thinks, is the "Extent of the Fund for the maintenance of Labourers, compared with the Number of Labourers to be maintained" (p. 158). There are certain propositions entitled to consideration he holds to be inconsistent with the general principle. His objections to the first two propositions are well founded. Neither the total "amount of Capital in a Country" (p. 154) nor the "whole revenue of the society" (p. 154) can determine the wages of labour. A great part of each may be so engaged that it does not contribute directly to an increase of wages, even if there is a great quantity. Also it may take on forms that actually compete with labour and may serve to diminish wages, unless there is a proper adjustment of the period of labour and the use of the capital. Because of a concentrated control, capital may be used for production in such a way that the product will be sent out of the country, or the income may be exported and the labourer be deprived of the use of it. The assertion that absenteeism cannot be detrimental to the labouring class of a country that does not export raw products is arbitrary and should be viewed with caution. It seems to be directed more to the justification of absentee English landlordism in Ireland than to the solution of an economic question. There are many conditioning circumstances that could vitiate his statement. In the fourth proposition he takes his stand that "the use of machinery must either raise the general rate of wages, or leave it unaltered" (p. 165). This cannot be unqualifiedly true. The machinery may cause a temporary or permanent condition of unemployment which contributes to decrease the annual income of the worker, or the machine may be so managed that it operates part of the time only, and thus does not

add the expected amount to the social dividend, after replacing the worker. But in the long run, excepting temporary effects, and this is what Senior intends, it is probably true relative to real wages that "the use of machinery must either raise the general rate of wages, or leave it unaltered" (p. 165). Foreign commodities may, in the long run, cheapen the things the worker buys, and thus increase his real wage. The sixth proposition, the make-work argument, is probably correct in asserting that luxurious consumption will not increase wages. He goes to extremes, however, in his argument that production must be material in its nature to benefit labourers. The last inconsistent theory is akin to the sixth and is attributed to Ricardo. Senior contradicts Ricardo's opinion that it is better for the labourer that revenue should be spent on "services than in the production of commodities; that it is better for them to be employed in standing behind chairs than in making chairs; as soldiers or sailors than as manufacturers" (p. 171). He is only partly correct in this. He says:

"In the first place, the labourer can generally manage better his own income than it can be managed for him by his master, even if he were to spend it as he received it, he would probably spend it with more enjoyment. Secondly, the income spent on services is generally spent in the purchase of what perishes at the instant of its creation; that spent on commodities often leaves results which, when their first purchaser is done with them, are serviceable to others" (p. 172).

He places unnecessary emphasis on the consumption of material products. A labourer's satisfying income may not consist wholly of material goods. Certain educational, medical, or personal services, or even forms of entertainment may be as indispensable to his happiness and have as high a value to him as some material goods. Senior does not interpret Ricardo accurately. Ricardo clearly draws the line between necessary servants and costly luxuries. His conclusions would be valid if luxuries were very costly relative to the services; they

would also be correct if by rendering services the labourer entered a new field for labour, as this would tend to increase the demand for labour relative to the supply. It would likewise have the same tendency if more labour were required in the alternative production of services than in the production of luxury, in the form of fine clothes and so forth.

Senior does not make clear what he means by the "funds for the maintenance of labourers" (p. 174). In discussing the propositions which he considers inconsistent with his theory, he does differentiate between the capital and the income on the one hand and this fund on the other, but he does not clearly set out what he means by this "fund." Adam Smith tries to explain wages in terms of "the funds destined for maintaining" (*Wealth of Nations*, p. 73) the labourers. He sees in this fund the agency through which the demand for labour becomes effective. Malthus also considers the demand for labour as proportioned to the funds "which are actually employed in the maintenance of labour" (p. 234), or the circulating capital of the country. "These funds consist principally in the necessaries of life" (p. 234). Ricardo uses the marginal determiner of wages, by which wages continually increase, so he thinks, as the result of the increasing difficulty of production at the margin of cultivation, and decrease because of an increasing number of workers. He counters Malthus' principle of population with the assertion that the increase of population, the basis of the labour supply, depends not on the food supply, but on the accumulation of capital. Obviously Senior recognizes the inadequacy of these explanations of wages, and however valiant his efforts to improve or supplant them, he arrives at approximately the same point from which he sets out.

Having analysed the propositions opposed to his major thesis on wages, Senior returns to consider the major proposition itself. The relation of the extent of the fund to the number of labourers is the gist of what he thinks is the solution to the wage problem. He thinks

there are two causes that determine the "extent of the fund" (p. 174). The first cause is the "productiveness of labour in the direct or indirect production of the commodities used by the labourer" (p. 174). This productiveness of labour depends upon the personal qualities, "corporeal, intellectual, and moral" (p. 175) of the labourer. It depends upon the "natural agents by which it is assisted" (p. 175). It depends upon the degree by which it is "assisted by abstinence" (p. 176). "Fourthly, The last of the causes which influence the productiveness of labour is the existence or absence of government interference" (p. 176). Viewing these four causes in the setting Senior gives them we must conclude that Senior has made progress in two directions. First he attempts to explain the supposedly vital traditional proportion between capital and labour, by analysing the forces as they influence the fund itself, rather than by leaving the onus of the effort to the willingness of the labouring people to exercise prudential checks to the increase of their own numbers as Malthus and Ricardo admittedly did before him. Their thought was that it is futile for the labourers to try to better their condition through efforts of their own directed toward the wage fund or toward any means other than prudentially diminishing their own numbers. Senior's reasoning is more logical and comprehensive. Secondly, in trying to determine the forces affecting the size of the wage fund, he includes the productive process, and the factors that affect its efficiency. The personal qualities of the labourer, the assistance received by the natural forces, and the assistance received from capital are all relevant to the productiveness of labour. It is true that he has removed the productivity of the labourer one step from the direct determination of the wages of the labourer, and placed it in a secondary position. He would have done better if he had made the productivity the direct determiner. But in the subordinate place in which he has placed the productivity concept, he has developed a fairly understandable concept of labour

productivity. His last inference is that governmental interference is a detriment to the wage earner. This is not necessarily true. It might have been true in England at the time Senior wrote. In fact the insularity of some of Senior's views when he speaks of "the labourers in any given Country" (p. 174) is too limited in its scope to be a major part of a scientific concept. If the government is the right kind of government and the so-called interference is the right kind, nothing is more sure than that beneficent results will follow from governmental action. If the government is a democracy, managed for the benefit of all the people, its participation in economic affairs may benefit wage earners as well as other classes. If those in control of capital have a dominant position relative to labour, labour may be highly benefited by governmental participation in the determination of wages, in preference to meeting the combined power of employers without this assistance. Conditions exist under which *laissez-faire* is neither practical nor scarcely a part of sound theory.

Senior deals next with his second series of causes that affect the size of the fund, those that divert labourers from production for their own use. It is here that he makes his nearest approach to the productivity theory of wages. He thinks that if all labourers produced exclusively for their own use, "the rate of wages would depend solely on the productiveness of labour" (p. 180). Though he seems just on the verge of doing so, he apparently cannot see that this is the case even if the labourers produce for someone else, and are paid in money. When he speaks of productiveness, however, does he refer to the whole industry or to labour alone? In his view, labour is diverted from production for its own use the necessity of producing rent, taxation, and profit. In considering the diversion because of the necessity for the production of rent, he argues that an increase in rent derived from "any increase in the productive powers" (p. 180) of the natural agent will not diminish wages because the labourers used in the pro-

duction of this rent may "be considered as existing only in consequence of the existence of natural agents of extraordinary productiveness" (p. 181). In this argument he apparently tries to sustain the theory of rent as a surplus, and to establish its relation to money wages. The "extraordinary productiveness" refers to the same idea involved in the power of the land to produce more than is needed for the persons "required for its cultivation" (p. 138). This power does not exist, in the sense in which it is used, as a surplus-producing power. The increase in the productivity of the natural agent is the result of "improvements in agricultural skill" (p. 180). Since this is assumed to be the case it is not consistent to attribute it, or the labour used in producing it, to rent, supposedly belonging to land. His further argument is that an increase in rent resulting from an "increase in population" (p. 181) will cause a decline in wages. Such an increase, he thinks, is a rarity resulting from superstition and mismanagement. "We have already stated that, in the absence of disturbing causes, subsistence may be expected to increase in a greater ratio than population" (p. 181). Now if this is the case, the influence on wages of a rise in rent resulting from increase of population would be negligible.

Senior has taken issue with Malthus on the principle of population, that is the tendency of population to increase more rapidly than the food supply. He thinks that, other things remaining equal, subsistence may be expected "to increase in a greater ratio than population." He also thinks that he has convinced the author of the principle of population of this fact.

"Mr. Malthus's opinions appear to have been considerably modified during the course of his long and brilliant philosophical career" (p. 45).

"But when the opposite doctrine, namely, that, in the absence of disturbing causes, subsistence is likely to increase more rapidly than population, was brought before him by Mr. Senior, he appears to have disavowed, we will not say his former expressions, but the inferences to which they lead" (p. 46).

"When such persons are told that 'it is the tendency of the human race to increase faster than food' . . . 'to people a country fully up to the means of subsistence,' they infer that what *has a tendency to happen* is to be expected" (p. 50).

While the context indicates that Senior used this counter argument to Malthus' principle of population relative to some temporary political measures, he also used it as an argument to support his theory of wages, as we have noted. Now we must submit that if Senior's contention is correct, that subsistence increases faster than population, his surplus value theory and his theory of rent are completely wrecked. His *produit net* of the Physiocratic era, which he evidently accepts as rent, is rendered non-existent. Then rent must be considered, under his system, as a cost of production, and such consideration of rent will render much of his explanation of wages invalid. He has accepted entirely too much of the system of Smith, Malthus, and Ricardo to be able to throw into the discard such a fundamental portion as the pressure of population on the means of subsistence without destroying the integrity of his own system. If his theory of wages is rendered invalid, then his explanation of profit, which is a corollary to it, cannot be valid in its major postulates.

Since rent has been decided to be extraneous to the subject of wages, and taxation has been declared to be but a mode of expenditure, presumably of no major importance to wages, then "the only remaining deduction from wages is Profit" (p. 185); consequently, with given productiveness of labour, the fund for the maintenance of labour will depend

"on the proportions in which the produce of labour is shared between the capitalist and the labourer . . . it is between these two classes that all that is produced is divided; and the question now to be considered is, what decides the proportion of the shares?" (p. 185).

Senior's very obvious intent is to kill two birds with one stone; solve the two problems of wages and profit with

one effort. His answer to his own question is : " first the general rate of profit in the Country . . . ; and, secondly, the period which in each particular case has elapsed between the advances of the capital and the receipt of the profit " (p. 185). He reminds us that " The profit in every case consists . . . of the difference between the value of the advances and the value of the returns " (p. 186), and that they are to be measured in money. Now this definition of profit is identical with the definition of profit as given by Malthus, the ratio of the value of the returns to the " value of the advances " (*Principles of Population*, p. 262). His explanation, too, of the relations of the maintenance fund, the labouring population, and the average rate of profit has a familiar Malthusian appearance. It is also much like Adam Smith's funds for the maintenance of labour compared with the labour to be maintained. It is not unlike Ricardo's explanation of the supply and demand of labour.

Now just what is Senior trying to do ? He is admittedly trying to explain wages by explaining forces that affect the size of the maintenance fund, or the wage fund. One of these forces he has attempted to explain is the productiveness of labour. The other includes the causes which divert labour from producing for itself to producing for others ; in this case, the only one he thinks important is the necessity for producing profit for the capitalists. Incidentally then, possibly primarily, he explains how he thinks profits are determined. Now to get at his average rate of profit, he assumes " that the average rate of profit on an advance of capital for a year was in this Country during the last year ten per cent " (p. 188). The causes of this rate were, it seems to him, two ; " the previous conduct of the capitalists and of the labourers of this Country " (p. 188) ; or the value of the capital appropriated by the capitalist for the use of the labourers, and the number of labourers which the labouring population had " caused to exist " (p. 188). He is very obviously subscribing to much in the wage theories

of his predecessors. He is apparently using Ricardo's idea of proportionality, which he himself has criticized, and of which Malthus says: "Such wages, namely proportionate wages, only determine, or rather are determined by, the rate of profits" (*Principles of Population*, p. 260). As to what causes the capitalists to so conduct themselves that the maintenance fund is increased, diminished, or left stationary, he does not explain. Neither does he explain the conduct of the labouring population by which the amount of labour is presumed to be determined. Can he use the framework of Malthus and Ricardo which involves basically the principle of population without approving this principle, which we have seen he so emphatically repudiates?

His entire explanation of the first cause regulating the rate of profit, the "previous conduct of the capitalists and the labourers in a Country" (p. 19) is summed up when he says:

"the natural progress seems to be an increase of capital, occasioning a fall in the rate of profit; a check to that fall, occasioned by an increase of the labouring population; a check to that increase, occasioned by an increased difficulty in obtaining raw produce; and a diminution, rarely amounting to a removal, of that difficulty, occasioned by permanent agricultural improvements, increased industry or skill, or foreign importation; leaving as a general result, a constant tendency toward an increase of capital and population, and towards a fall in the rate of profits" (p. 193).

All that he has said here is that an increase in the maintenance fund without a corresponding increase in the labouring population decreases the rate of profit, and that the stationary fund combined with an increasing population increases the rate of profit, with a general tendency, as both population and funds increase, of a decline in the rate of profit. Thus he has said nothing that is new on the rate of profits. He has not substantiated his conclusion by logical argument or realistic illustrations, even though it be true. In fact, he seems to have taken over most of it from Malthus and Ricardo; he may emphasize a different spot on the cycle of "natural

progress," but he seems to have reached the same conclusions as do the former writers. If the increased difficulty of "obtaining raw produce" is rarely removed by improvements and so forth, how can he justify his contention that the principle of population does not operate? Here with wages and profit, as with rent, he has based his explanation primarily on this principle. He does not explain why the cycle described by him tends toward a fall in the rate of profits. If the cycle recurred often enough, and if all the other propositions involved are valid, then profit rates may fall, either according to the explanation offered by him or according to those offered by his immediate predecessors.

The second factor supposed to determine the share of the capitalist in "the common fund" (p. 185) is the time of the advance of capital. Now if we concur with Senior in the definitions and postulates offered so far in his discussion, it would be very unwise to disagree with him in this section of his explanation. Its validity is a simple mathematical certainty, but nevertheless not very illuminating. If the rate of profits has been validly arrived at, and the time element and the amount of the advances are given, then the profit, or the capitalists' share of the fund, may be easily computed. All of this is, as Senior says, obvious. As to what determines the period of the advances he is equally frank. "To this question no general answer can be given" (p. 195).

We must agree with Senior when he says, in his explanation, "The inquiry into the causes which regulate wages has, in a great measure, ascertained those which affect profits" (p. 199). The first difficulty arises, however, in his superimposing the explanation of wages on an erroneous explanation of rent. What remains, after rent is paid, is, according to his thought, partly used for wages. This is supplemented by the obscure considerations, or determinants, the labour maintenance fund and the number of labourers. This does not differ in general outline from the explanation of Adam Smith. The extent of the funds, he thinks, depends partly on the pro-

ductiveness of labour, and partly on the number of labourers used in the production of other things than wages. In his view, only those labourers who are producing food or wages directly receive wages according to their productivity. There is no logical reason for this restriction. If he had included all labourers as having their wages determined by their productivity he would have been nearer the truth. Why, may we ask, is not the labourer employed in producing profit for the owner of capital rewarded according to his productivity also ?

Senior devotes less than one page to the direct discussion of the causes which regulate profit, under the delusion that profits have been fully explained in the explanation of wages. His immediate discussion of profits is concerned primarily with the real income purchased by the capitalist with his money income, and not with the determination of the rate of profit. This is a proposition in economic welfare rather than in economic theory. Part of one paragraph is given over to the discussion of the relation of the quantity of capital and the rate of profits, to the condition of the capitalists, which he thinks

“as a body, cannot be deteriorated, unless the fall in the rate has been so great as to overbalance the increase of the amount. . . . And such is the tendency of an increase of capital to produce, not indeed a corresponding, but still a positive increase of population, that we believe there is no instance on record of the whole amount of profits having diminished with an increase of the whole amount of capital ” (p. 199).

In his attempted explanation of the rate of profit he has explained the decline in the rate of profit as having been caused by “an increase of capital ” (p. 193). This hints at the competitive determination of profits. His arbitrary assertion that an increase of capital will not produce a “corresponding ” increase of population is not more convincing than the principle of population which it is intended to negate. He is probably correct

in his assertion that the "whole amount of profits" has not diminished with an increase of capital. In this he is nearer the truth than is Ricardo in his statement that further accumulation of capital "diminishes the aggregate of profits" (Ricardo's *Political Economy*, p. 102).

Senior's discussion of the difference in wages and profits in different employments is a commentary on, and is in general agreement with, the corresponding discussion of Adam Smith. To Smith's causes for variations he adds two others, very pertinent: the difficulty of transferring labour and capital from employment to employment; and the difficulty of transferring them from one country to another. His remarks are enlightening when he says that the difficulty of transferring from occupation to occupation is the result of, or exists in, "proportion to the division of labour" (p. 217), because "the operations in which he is engaged become fewer and fewer" (p. 217) and

"the skill which the division of labour gives to each distinct class of artificers generally prevents whatever peculiar dexterity an individual may have from being of any value in a business to which he has not been brought up" (p. 217).

This all has a very realistic appearance and very probably answers for much of the difference in wages between occupations, and between countries when we add the difference of climate, position, and language. The transfer of "material capital" from one employment to another, he properly observes, is hindered by the degree of specialization to which it is subjected in its use. If it is raw material it can be transferred easily, but if highly manufactured for a specific purpose it cannot be readily changed.

On two occasions Senior apparently tries, with but partial success, to delimit more clearly the concept of the maintenance fund. In the first instance, he thinks part of the revenue does not go into so-called rent, profit, and wages, but is used in "keeping up the instruments of production" (p. 94). This part, which he thinks is

a very large part of capital, originated from land, labour, and abstinence, is entitled

"therefore, when produced, to be denominated rent, wages, or profit, and the circumstances that they were employed to produce future instead of immediate gratification, does not vary their character. . . . But it appears to us to be the most philosophical arrangement to consider it as rent, wages, or profit, according to the character of its proprietor, without regard to its subsequent designation" (p. 95).

He is wrong in thinking of the depreciation charge as a distinct share. It is needed to maintain the *status quo* of the productive process, and is not a part of the net produce divided into the compensatory shares. Although he has admitted that this replacement fund forms a very large part of the "annual produce," and must be classed "not as revenue, but as capital" (p. 94), he has not in his trilogy of capital, "REPRODUCTIVE . . . SIMPLY PRODUCTIVE . . . UNPRODUCTIVE" (p. 66), included it as a part. There is a discrepancy between his capital and his maintenance fund. When he speaks of the relation of the wages fund to the "proportion of the shares" (p. 185), he is thinking of the wages fund as the annual produce of industry with deductions. Now does he leave fixed capital out of account? If he does, the effect is to negate Adam Smith's "capital stock which is employed in setting them to work" (*Wealth of Nations*, p. 2).

The second occasion on which Senior makes an effort to segregate and explain the fund is in the discussion of proximate causes determining the rate of commodity wages. He answers this question with the much used proposition that wages depend "on the Extent of the Fund for the Maintenance of Labourers, compared with the Number of Labourers to be maintained" (p. 153), and follows this by the assertion that the extent of this fund depends

"In the first place, on the productiveness of labour in the direct or indirect production of the commodities used by the labourer ;

and in the second place, on the number of persons directly or indirectly employed in the production of things for the use of labourers, compared with the whole number of labouring families" (p. 174).

In the diversion of labourers from the production of things for their own use to the production for the use of others, the income takes the form of rent, taxes, and profits. Rent is extrinsic and taxation a mode of expenditure, consequently the only important diversion is for profit. Now almost all this part of his discussion of distribution is based on the characteristic determination of commodity wages, as depending on the extent of the fund, which in turn depends upon the productiveness of undiverted labour and upon the amount of the diversion of labour. The amount of diverted labour depends upon the general rate of profit and the period of advances. The general rate of profit itself is determined, so he thinks, by the previous conduct of the capitalists and the labourers, or in other words on the supply of capital and the number of labourers. This is obscure, and we are not told how or why the capitalists have been rewarded for their "abstinence." When he begins his sorting process, he leaves part of the labourers working for the labourers. The other part he imagines is working for the capitalist. Clearly that part of the labour supply working to produce for the labourers would be using the fund directly for the use of the labourer. That part working to produce profit would use part of the fund, but only indirectly for the use of the labourer. Thus he has divided the fund into a direct and an indirect fund.

A queer condition prevails in this discussion. He starts out to explain wages by explaining the relation between the "Fund for the Maintenance of Labourers compared with the Number of Labourers to be maintained" (p. 153). His final conclusion is that this relationship, this ratio, in addition to its dependence on the productiveness of labour which produces for labour, depends upon the accumulations of capital and the number of labourers. He thus arrives at just about the

same point from which he started, and has used the capital fund to explain the maintenance fund which was a part of it, and has used the number of labourers to explain the "Number of Labourers to be maintained," not a very great contribution apparently. By directing productive labour and capital into channels where they produce immediately for others and only indirectly for labourers, he indicates that the "fund" has other immediate uses than in the direct support or occupation of labour.

Senior has offered great promise in at least three different directions. When he says: "The common language of Economists, therefore, which describes the landlord, the capitalist, and the labourer as shares of the produce, is a fiction" (p. 94), he seems to be really started on an explanation of distribution, centring in the entrepreneur, that would be full of meaning. But when he follows along the beaten paths and uses the "common language" of the clan we are disappointed. Again when he considers cost of production our hopes rise. He attributes to Ricardo the honour of having originally introduced the term "'cost of production,'" and having used as its equivalent the "'quantity of labour'" used in production. Mr. Mill, he thinks, also used "'quantity of labour'" as equivalent to cost of production, while Malthus includes as part of cost of production the equivalent of "ordinary profits" (p. 98). Then he gives his own concept of cost of production as "the sum of the labour and abstinence necessary to production" (p. 101), but qualifies it with the thought that when thus defined there must be two costs of production, the

"cost of production on the part of the producer or seller, and the cost of production on the part of the consumer or purchaser. . . . The first is equal to the minimum, the second to the maximum of price" (p. 101).

Now just why would he introduce this idea of the minimum and the maximum of price but to explain the lack of harmony in prices that frequently prevails in the

market place? We should expect such an explanation to be approached as we follow him in the discussion of these two prices, but instead he relates them to the ideas of competition, monopoly, and rent, and dismisses the subject. In his introduction of abstinence he thinks he has found the great force that will validate Ricardo's labour theory of value and explain the relation between labour and capital.

Finally in the discussion of the necessity and the difficulty of determining whether certain incomes should be called rent, profit, or wages, Senior seems on the verge of discarding the surplus theory of land rent. He also seems about to work out a much needed solution for relationship between labour and capital. Relative to rent and profit, he thinks revenue arising from construction or improvements in the hands of the original constructor is profit, "But in the hands of his heir it has all the attributes of rent" (p. 129), since it is a "gift of fortune," and has not called for sacrifice. Relative to rent and wages, he thinks part of the "extraordinary remuneration of the labourer" must be called rent. "But as it is clearly a surplus, the labour having been previously paid for by the average wages, and that surplus the spontaneous gift of nature, we have thought it most convenient to term it rent" (p. 130). The idea of surplus, it seems, is spreading over the entire field of economic endeavour and he seems just ready to dissociate it from its specific appellation to rent for the use of land, but he does not do so.

Apparently in his efforts to validate the wages fund and the labour theory of value he undermines the surplus theory of rent. He shows clearly, as he relates the idea of surplus to wages and to profits, that he is thinking of surplus as a pure surplus, existing apart from the wages fund, but not a deduction from that fund. Again when he says :

"The families that receive mere wages probably do not form a fourth of the community; and the comparatively large amount even of these is principally owing to the capital and the skill with

which their efforts are assisted and directed by the more educated members of the society. Those who receive mere rent, even using that word in its largest sense, are still fewer ; and the amount of rent, like that of wages, principally depends on the knowledge by which the gifts of nature are directed and employed. The bulk of the national revenue is profit ; and of that profit the portion which is mere interest on material capital probably does not amount to one-third. The rest is the result of personal capital, or, in other words, of education " (p. 134),

he seems to have a modern idea of the intricacies of distribution under an increasingly capitalistic mode of production, but he does not develop the idea. He has given an adequate statement of the proposition in the third of his elementary propositions of the science, in the statement that the powers of the productive instruments " may be indefinitely increased by using their products as the means of further production " (p. 111), but his development of the subject is not in proportion to this statement.

Senior uses his four elementary propositions as the framework on which to construct his explanation of Political Economy. The fourth proposition is simply a discussion of the difference between agricultural production and manufacturing production that was given such an important place by his precursors.

" If the labour and skill now employed throughout England on the manufacture of cotton were doubled, but the quantity of raw materials remained the same, the quantity of manufactured produce could not be sensibly increased " (p. 82).

Of course, this is true in an elementary way, and it is only in an elementary way that it can have any importance. Human physical effort and mental powers cannot add to the weight of a given quantity of raw materials even when they are combined with this material in production, but this is saying very little. Senior admits this fact by implication when he says immediately : " The value of that produce might perhaps be much increased " (p. 82). Now it is this very " value " that

is most important in production, and not the physical quantity of matter that is derived from the earth's surface, or carried through the processes of manufacturing. He says :

“The case of agriculture is different. . . . No additional labour or machinery can work up a pound of raw cotton into more than a pound of manufactured cotton ; but the same bushel of seed corn, and the same rood of land, according to the skill with which they are treated, may produce four bushels, or eight bushels, or sixteen ” (p. 82).

The Physiocrats probably never conceived of a finer illustration of the miraculous powers of nature as the basis of the *produit net*. It is literally true that labour or machinery cannot produce matter or energy ; it is literally true that by the application of capital and skill a bushel of seed corn and an area of land can be made to grow four, eight or sixteen bushels of corn, but the pound of cotton or the bushel of corn is not the question. The value product is the thing that matters, and the combinations that result in a high value product is a much superior concept of production to the combination that results in a given physical product that may or may not have a considerable value.

Senior does not discuss the question of population under the subject of distribution where it should logically be placed, since he has assumed the population to be one of the factors in the determination of wages, but he discusses it under his second elementary proposition, or the causes which limit population. The subject of this discussion is Malthus' principle of population. Under the discussion of wages he has stated that “subsistence may be expected to increase in a greater ratio than population ” (p. 181). His inconsistent opinions in this respect are well illustrated in a few passages from his chapter on population.

“We have already stated that, as a general rule, additional labour employed in the cultivation of the land within a given district, produces a less proportionate return. And it has appeared that

such is the power of reproduction and duration of life in mankind, that the population of a given district is capable of doubling itself at least every twenty-five years. It is clear, therefore, that the rate at which the production of food is capable of being increased, and that at which population, if unchecked, would increase, are totally different. Every addition made to the quantity of food periodically produced, makes in general a further periodical addition more difficult " (p. 32).

He tries to reconcile these inconsistencies by the admission that, " But though it be certain that the absence of all other checks would only give room for the irresistible influence of famine " (p. 32), it is his opinion that these checks are operative. He opines that the checks are stronger than the tendency, contradictory to the opinion of Malthus that the tendency will predominate over the checks. One opinion may be more weighty than the other, but they concern the philosophy of population more directly than they do the determination of wages. He evidently feels that the question of population must be connected to the wages-fund.

Under the subject of the diversion of labour from producing for labour, Senior discusses two kinds of land rent; both kinds are, he thinks, surpluses. The first kind of rent is the result of " any increase in the productive powers " (p. 180) of the natural agent, such an increase as that resulting from increased skill or improved technology. This, he is sure, is not a deduction from the " fund " and consequently cannot work to the detriment of labour. He even has a more benevolent outlook than that, and thinks that, instead of being detracted from the production for labour, this group of labourers really exists by the sufferance of " the addition made to that fund by that extraordinary productiveness " (p. 181). He is equally sure that this kind of rent is the important rent, since " subsistence may be expected to increase in a greater ratio than population " (p. 181). But it is possible, so he thinks, and maybe probable under the influence of superstition and misgovernment, to encourage an increase of population

that will outrun the food supply. An increase of rent resulting from such a cause would, he thinks, "be detrimental to the mass of the community" (p. 181). In this case, as in many others, Senior has closed his analysis short of finality, and in so doing has left two kinds of rent, both surpluses, and both contributing, if they were validly arrived at, to the support of the wages-fund.

In discussing the unpredictable nature of profits, Senior has raised a very interesting question, but has not answered it. He very frankly admits :

"The great difficulty of the subject arises from the circumstance, that the rate of profit is not the subject of contract, but of experiment, and cannot be ascertained even by an individual, except as to his *past* operations. While a transaction is going on, the capitalist may hope that the value of the returns will exceed the value of the advances ; he may hope that the excess will be considerable ; but he cannot be certain that there will be any excess at all ; that there will not be a positive loss. He may say what his profit *has* been, but not what it *is*. Frequently, indeed, he cannot say what it *has* been. A whole series of mercantile or manufacturing transactions may be so linked together that, after having been apparently profitable for years, they may terminate in ruin " (p. 187).

It seems that he almost admits that the elements of futurity and uncertainty are so weighty as to over-balance that which he has termed compensation for "abstinence."

There is a clear parallel in the method and nature of the explanation of wages used by Senior and that of Adam Smith. Smith said :

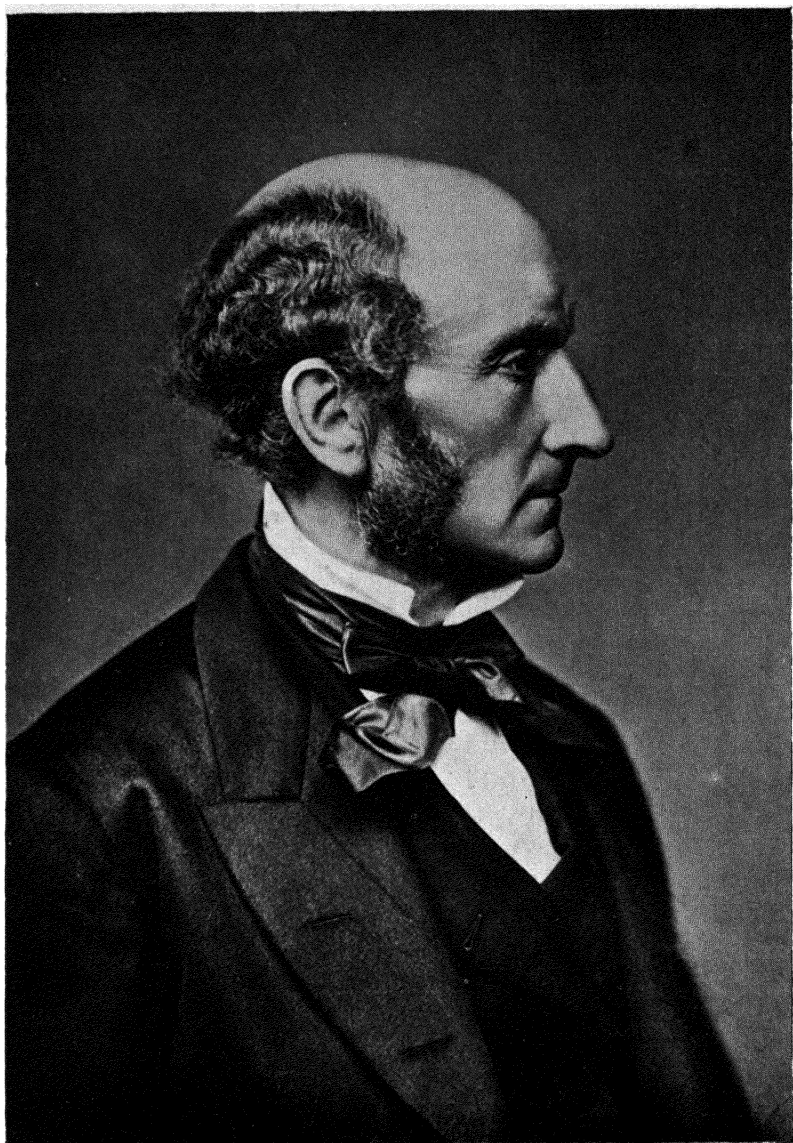
"In that original state of things . . . , the whole produce of labour belongs to the labourer " (*Wealth of Nations*, p. 66).

"As soon as land becomes private property, the landlord demands a share of almost all the produce which the labourer can either raise, or collect from it. His rent makes the first deduction from the produce of the labour which is employed upon the land " (*Wealth of Nations*, p. 67).

"This profit makes a second deduction from the produce of

the labour which is employed upon the land " (*Wealth of Nations*, p. 67).

Starting with apparently the same idea, the " productive-ness of labour in the direct or indirect production of the commodities used by the labourer " (p. 174) comparable to " that original state of things " referred to by Adam Smith, Senior follows his detour, relating his thoughts to the wages-fund, but eventually arrives at the same crossing, with Adam Smith : " Rent, then, being considered as something extrinsic, and Taxation a mode of expenditure, the only remaining deduction from Wages is Profit " (p. 185). Smith tries to explain all the shares beginning with wages. Senior makes the same effort and begins with wages, but before he progresses far he proceeds to eliminate rent under the misnomer of surplus, and finds himself explaining wages as a remnant after profit is deducted.



JOHN STUART MILL

[To face p. 177.]

CHAPTER VII

JOHN STUART MILL

JOHN STUART MILL (1806-1873) was born in Pentonville, London. His education was almost entirely in the hands of his father, James Mill, who professed to be one of the two real disciples of Ricardo. At three years of age John knew the Greek alphabet, at eight was familiar with the dialogues of Plato, and at twelve read Aristotle in the original. The controlling theme taught him by his father was to collect and weigh evidence, but to accept no opinion on authority. In 1820 Mill went to France, where he studied chemistry and botany, and kept methodical notes on the French people, their customs, and their institutions. Two years later he became a clerk in the India House. In the year of his father's death, 1836, he took charge of the business relations of the company with the native States, and continued this work until 1856, when he retired on a pension of £1,500. Mill was active in the formation of two societies. The first was the "Utilitarian" Society, the discussions of which centred around the ideas of his father and Bentham. The second was the Land Tenure Relief Association, organized to encourage the State to take over the unearned increment and to promote co-operation in agriculture. He was interested in current political matters and sympathized with the North in the American Civil War. He became a parliamentary candidate for Manchester, and although refusing to canvass or hire canvassers, he was elected. While filling this office he took part in Disraeli's reform measures and was especially active in urging the extension of the franchise to women. During Mill's incumbency with the India Company he did most of his important writing. In 1843 he published his

Logic, and two years later his discussion of *Some Unsettled Questions in Political Economy*. This probably contained the nuclei of his *Principles of Political Economy*, which he published in 1848 after two years spent in its preparation. It is from Ashley's edition of this work that the following analysis is based.

John Stuart Mill's view of distribution has three distinctive marks. One has to do with his supporting postulates, another with the differences between the laws that govern production and those that govern distribution, and the third relates to the influence of exchange and social progress on distribution. The first of his supporting postulates is the institution of private property. It is based on "the right of producers to what they themselves have produced."¹ When he asserts that this institution has never yet had a fair trial, but is encumbered with hang-overs of force, conquest, and violence, in spite of modifications resulting from industry, his retrospect has the validity coming from authentic history, and we are compelled to agree with him. It seems probable that this concept of modified private property purged that institution of many of those characteristics commonly attached thereto, such as abuse, greed, and violence. None can disagree when he says that property has been made of things, such as human beings, which ought not to be property, and that absolute property has obtained where only qualified property should exist. It seems that Mill's idea of private property would, if it prevailed, divest hedonism of much of its harshness, and lop off much of the impedimenta now attached to the term in economic life. It must be admitted, however, that Mill's view is highly idealistic, rather than real. The fundamental nature of

¹ Mill, John Stuart, *Principles of Political Economy*, p. 218. Ashley ed.: Longmans, Green and Company, 1923.

Note. Due to the fact that in this chapter all references are taken from the same book, subsequent references will be indicated by page number only.

private property and its essentiality to distribution are at once apparent. Division of the product implies a basic ownership of resources prior to the accomplishing of any such division. Besides, a labourer, a landlord, or a capitalist would not be much interested in receiving wages, rent, or interest, respectively, if he could not control and own what he received. Mill's description of private property as guaranteeing to individuals the fruits of their own labours, but not of the labours of others which might be incidentally transmitted to them, has a wholesome flavour, but is highly Utopian. If such a definition were accepted it would probably solve some economic problems and absolve the present distributive system from much blame. This question leads Mill directly face to face with the question of private ownership of land, which he does not evade, but he declares without hesitation that the sacredness of private property "does not belong in the same degree to landed property. No man made the land" (p. 233). The only modifying circumstance he sees, which in itself is not weighty enough to negate the principle, is that "though land is not the produce of industry, most of its valuable qualities are so" (p. 230). He lists as similar but subordinate to property in land, human slavery, public trusts, taxing privileges, commissions, and so forth. In the question of landed property Mill presents the old question of the Physiocrats, of Smith, Malthus, and Ricardo in a different form. Instead of struggling with the practical question of rent, abolish private property in land and there will be no rent, so he obviously thinks. The "valuable qualities" of the land which are the produce of industry he has pronounced as important, but he has offered no solution for the problem resulting therefrom. He says :

"The fruits of this industry cannot be reaped in a short period. The labour and outlay are immediate, the benefit is spread over many years, perhaps over all future time. A holder will not incur this labour and outlay when strangers and not himself will be benefited by it" (p. 230).

but what will he do about it? Land is only to a very small extent the result of nature. The "sentiment of perpetuity" (p. 230) of Sismondi will not solve the problem. His conclusion that when private property in land is not expedient it is unjust may be valid, but neither expediency nor lack of justice covers the situation arising when acquired fertility is added to land, and blended with the natural fertility which presumably gives the landlord a position of economic vantage. A second supporting postulate of Mill's distribution is the conflict between custom and competition, or rather the degree in which competition prevails over custom. It is to the degree that competition prevails over custom that he justifies the science of political economy.

"Only through the principle of competition has political economy any pretension to the character of a science. So far as rents, profits, wages, prices, are determined by competition, laws may be assigned for them. Assume competition to be their exclusive regulator, and principles of broad generality and scientific precision may be laid down, according to which they will be regulated" (p. 242).

In this he seems to be entirely correct, because in custom bound epochs and areas we would find not mobility and adjustment but rigidity and stagnation, and would probably have to look behind custom to find any vestige of economic causation. In a custom-determined State no economic phenomena would exist as subjects of investigation. Mill aptly says that where competition is assumed to be the exclusive regulator, scientific generalizations may be formed, and he properly conceives of this field as the exclusive function of the economist, although we shall find that he departs far from the field of generalizations as he develops his discussions of distribution. The second mark of his unique groundwork of distribution is the difference between the laws of production and the laws of distribution. The production of wealth is not arbitrary, but is conditioned, so he thinks, on certain physical principles, such as the

properties of matter and the knowledge of those properties. These physical elements Political Economy does not investigate, but by

“Combining with these facts of outward nature other truths relating to human nature, it attempts to trace the secondary or derivative laws, by which the production of wealth is determined” (p. 21).

The laws of production “partake of the character of physical truths” (p. 199). Man’s productive activities are conditioned by his environment and the “inherent properties of their own bodily and mental structure” (p. 199). But he asserts that this is not true of the distribution of wealth.

“That is a matter of human institution solely. The things once there, mankind, individually or collectively, can do with them as they like. . . . The distribution of wealth, therefore, depends on the laws and customs of society” (p. 200).

This line of demarcation is distinctive. The subject of production as governed by physical laws is not new, but is practically the same as that of his forerunners. But his human institutional approach to distribution, while briefly referred to by Senior when he says the laws of “the Distribution of Wealth are liable to be affected by the peculiar institutions” (p. 3 Senior), causes investigation and judgment to be turned in a new direction and tends toward a partial negation of the fatalistic implications of Smith, Malthus, and Ricardo. His argument is that while the distribution of wealth depends on the laws and customs of society which may be altered at the social will, human opinions are based in the fundamental laws of human nature, the study of which lies outside the province of political economy.

“We have here to consider, not the causes, but the consequences, of the rules according to which wealth may be distributed. Those, at least, are as little arbitrary, and have as much the character of physical laws, as the laws of production. Human beings can control physical laws, as the laws of production. Human

beings can control their own acts, but not the consequences of their acts either to themselves or to others. Society can subject the distribution of wealth to whatever rules it thinks best: but what practical results will flow from the operation of those rules must be discovered, like any other physical or mental truths, by observation and reasoning" (p. 200).

The practical results, then, of the social rules of distribution are to be studied by observation and reasoning and become the substance of the study of distribution. By statement and by implication, the results, "not the causes," of the rules of distribution are to be studied. Part of this thesis seems quite plausible, but its validity must be determined when it is related to his entire exposition of distribution. Then, and then only, can not only its validity, but also the consistency of his expressly affirmed treatment of distribution with his actual treatment of that subject be decided upon. He should not be taken too seriously in what he says about cause and effect. Mill over-emphasizes the part of physical laws in production, but does not give them enough weight in distribution. Also these same institutions whose influence he confines almost exclusively to distribution are very important to production. In addition to his institutional emphasis on distribution, and contradictory to his statement that he will examine the effects, not the causes, a study of distribution must be a study of the causes that determine the size of the distributive shares. We shall postpone the discussion of the influence of exchange, value, and social progress on distribution to the latter part of this section and proceed with Mill's discussion of what he conceives to be the fundamentals of distribution. Mill uses the usual classification for the receivers of the distributive shares.

"The three requisites of production . . . are labour, capital, and land: . . . Since each of these elements of production may be separately appropriated, the industrial community may be considered as divided into landowners, capitalists, and productive labourers. Each of these classes, as such, obtains a share of the produce: no other person of class obtains anything except by con-

cession from them. The remainder of the community is, in fact, supported at their expense, giving, if any equivalent, one consisting of unproductive services " (p. 238)

an outcropping of Physiocracy. Let us turn now to some of Mill's definitions.

" Productive labour means labour productive of wealth " (p. 45).

" Everything forms therefore a part of wealth, which has a power of purchasing; for which anything useful or agreeable would be given in exchange " (p. 8).

" Labour is either bodily or mental " (p. 22).

" By unproductive labour . . . , will be understood labour which does not terminate in the creation of material wealth " (p. 49).

" This accumulated stock of the produce of labour is termed capital " (p. 54).

" Nature, however, does more than supply materials; she also supplies powers " (p. 23).

So far Mill runs true to classical also in the designation of the shares as wages, profit, and rent, but he departs from the plan of distribution followed by his three immediate predecessors, Senior, Ricardo, and Malthus. While they followed the order of Rent, Wages, and Profit, Mill reverts to the Smithian system and uses the order of Wages, Profits, and Rent. This is significant and indicates, as we shall note, a certain characteristic emphasis on a part of distribution. Mill uses Smith's double approach to wages; he plans to discuss first the causes determining " the wages of labour generally, . . . common unskilled labour of the average degree of hardness and disagreeableness " then " the difference that exists between wages of different employments " (p. 343). Admittedly such a simplifying idea as that of a common unskilled labourer, working under conditions of the average degree of hardness and disagreeableness, might be helpful if in the process of isolating such an imaginary individual reality is not relegated too far into the background. It seems as if the three-fourths of a century since Adam Smith has not been enough to bring to light the sophistry of the dual approach of general

wages and wages in specific employments ; only wages in the concrete are important. Custom, Mill thinks, contributes to a higher wage than would generally prevail, if competition held undisputed away, but he recognizes competition as the regulator of wages, which would readily break down custom. Granting, then, the prevalence of competition, he thinks : " Wages, then, depend mainly upon the demand and supply of labour ; or, as it is often expressed, on the proportion between the population and capital " (p. 343). He proceeds to limit the meaning of both terms, population and capital " (p. 343). Population means that part of the labouring class that works for hire ; capital as used here means only that part of circulating capital used in the " direct purchase of labour " (p. 343), plus such funds as are paid for " unproductive labour " (p. 344) such as servants and soldiers.

" There is unfortunately no mode of expressing by one familiar term, the aggregate of what has been called the wages-fund of a country : and as the wages of productive labour form nearly the whole of that fund, it is usual to overlook the smaller and less important part, and to say that wages depend on population and capital " (p. 344).

This, then, is Mill's foundation principle of wages. It has its origin in Adam Smith's discussion of wages and has persisted with modifications through the doctrines of the other writers studied. We have been assured by Mill that the implications of productive and unproductive do not contribute to the disparagement of any part of the labouring class, but is just a convenient designation. The Physiocrats said the same thing. We cannot see that it makes any difference whether labour is divided, as in this case, into productive and unproductive, or all classed under one term, as he adds both kinds of labour to get the original whole, and also adds the wages of " unproductive " labour to a part of circulating capital to get the wage-fund, since he apparently thinks wages paid for " unproductive " labour do not form a part of

capital. Whence this payment comes he does not say. He seems to be staggered by the confusion, and makes a part of circulating capital synonymous with the wages of productive labour, and productive labour synonymous with population. He bases his short run wages on the wages-fund which, though he later recants it, still remains an essential part of his wage theory. Instead of progressing with the problem of production Mill takes a step backward when he insists that production is a question of material things. It is recalled that Mill is here discussing the general wages of the average worker. He seems to be trying to prove the supply and demand principle by evaluating apparent contradictions. One of these is "a common saying that wages are high when trade is good" (p. 344). Mill thinks this is true in any particular employment, because the demand causes higher wages to be paid and as the demand slackens lower wages will prevail. All this happens while the supply of capital remains the same. Unemployed capital is the same as non-existing capital. All capital is occasionally unemployed. In conclusion he restates his fundamental principle. We cannot see why, since he is discussing general wages, he should attack the question from the standpoint of a particular employment. A more relevant question seems to be as to the ratio of unemployed labour, or unemployed capital, to the whole supply of labour and the whole supply of capital. Is the condition in a single employment weighty enough to greatly modify the general rate of wages? Is any very great proportion of either labour or capital unemployed at any specific time? If it is not, and such seems to be the case, this argument loses its force when applied to the general rate of wages, if there is such. These generalizations are difficult to reconcile with cyclical changes. Mill mixes his scientific theory, institutional approach, social measures, and efforts of reform. He views a point from all these angles and often for that reason is inclined to be confusing. Related to the question of the goodness of trade is the question of price and

its effect on wages. Mill is thinking now of short run wages.

“ But high prices, in themselves, can only raise wages if the dealers, receiving more, are induced to save more, and make an addition to their capital, or at least to their purchases of labour ” (p. 345).

This is possibly true if his postulate of the supply and demand of labour is granted. The savings of the capitalist then increase the demand for labour, or it improves the ratio between population and capital. But may the dealers not add to their capital at the expense of the capital of other people? Then the total fund is not increased but only part of it transferred.

The other apparent contradiction to the supply and demand theory of wages is the belief in the relation of the price of food to wages. This, we recall, was a cardinal point on wages with Smith, Malthus, and Ricardo, but Senior uses the same emphasis on the supply and demand principle that is used by Mill. In partially discounting this apparent contradiction Mill sees fit to state, and to an extent apologise for, Ricardo's view. He thinks temporary fluctuations in food prices do not affect wages, “ or rather, it has some tendency to affect them in the contrary way to that supposed ” (p. 346), that is, in times of scarcity and high prices people will compete more intensively for employment and force the wages down. If true, this shows only part of the picture; employers may compete for labour because of high prices and force wages up. “ But dearness or cheapness of food, when of a permanent character, and capable of being calculated on beforehand, may affect wages ” (p. 346). If a bare subsistence wage prevails, then if the price of food increases, more children will die, and the same wage-fund will be distributed among fewer people, making a high pro-rated wage. If wages are above a bare subsistence, and the price of food increases, the workers may have become so accustomed to a higher standard of living that they will limit their numbers, and

maintain higher wages rather than have their wages decreased. This is only a temporary modification of Malthus' idea. In this case, Mill thinks that wages will rise not because of more deaths but because of fewer births, but this will require a generation. This seems an improvement over the corresponding discussions of his predecessors. Mill feels this subsistence wage of Ricardo requires an apology.

"This assumption contains sufficient truth to render it admissible for the purposes of abstract science; and the conclusion Mr. Ricardo draws from it, namely, that wages in the long run rise and fall with the permanent price of food, is, like almost all his conclusions, true hypothetically, that is, granting the suppositions from which he sets out" (p. 347).

He thinks Ricardo's "moral minimum, is itself liable to vary" (p. 347) in two ways. A rise in the price of food may correct itself by a rise in wages resulting from the operation of the prudential checks to population, or it may really cause a decrease in wages if the procreative instincts of the workers are stronger than their will for a higher standard of comfort. This, again, is a saner view than that of his predecessors. In this phase of his discussion of wages, Mill emphasizes almost exclusively one term of the ratio which he thinks determines wages, "the number of the labouring population," and almost entirely neglects the other term, "the capital or other funds devoted to the purchase of labour" (p. 349). He follows the example of Smith, Malthus, and Ricardo, all of whom apparently thought the labourer's opportunity to improve his own lot lay almost exclusively in his willingness to exercise prudence in the increase of his own kind. But Senior, on the contrary, emphasized the importance of the fund to the exclusion of the labour supply. Whatever the intent may have been, it most emphatically placed the onus of the burden upon the labourers themselves, and offered an excellent opportunity for any who desired to place the burden of blame for any distressing injustice in wages on the labourers.

After emphasizing the importance of the "proportion between those funds and the numbers among whom they are shared" (p. 350), rather than the total capital of a country or the total funds used for the labourers, Mill considered the increase of population and its effects on wages. He is very positive that an increase of population will lower wages except in a few minor cases. Without qualifications he accepts Malthus' principle of population.

"The retardation of increase results either from mortality or prudence; from Mr. Malthus's positive, or from his preventive check; and one or the other of these must and does exist, and very powerfully too, in all old societies. Wherever population is not kept down by the prudence either of individuals or of the state, it is kept down by starvation or disease" (p. 351).

As a corollary to this, he thinks the exercise of the prudential checks on the part of the individual labourers is insignificant, and if population is retarded by prudence it is prudence on the part of the State through "legal restraint, or a custom of some sort" (p. 353). He also thinks that if the growth of urban industry did not absorb the increasing agricultural population they would soon "fall into as miserable condition as the Irish previous to 1846" (p. 357). We must conclude from this, then, that Mill thinks the practical probability of improving wages in reality rests with the regulations of the State and the customs of society, and not to any practical extent with the individual. Here we see cropping out his institutional nature of distribution noted at the beginning of this discussion. It seems to be obvious that the customs of society have great influence on the number of births. The care of the children and the aged demanded by civilized social custom contributes greatly to longevity and an increase in the total population. Laxness or sentimentality in the execution of laws for the segregation or sterilization of the unfit may also affect the character of the population as well as the number. The policy of the State either through statutory provisions

or administrative policies may contribute to the increase as well as the control of the population. Lax marriage laws or laxness in their execution, tolerance toward suggestive and obscene pictures, and the granting of heroic freedom to departing or returning soldiers may all contribute to a change in the population. Mill may have been correct in his conclusions in this regard, but the determining influence on wages is remote. It is noticeable that Mill disregards entirely, in this portion of his discussion, the possibility of increasing the wages of the workers by changing the "capital or other funds devoted to the purchase of labour" (p. 349). Now if we accept Mill's principal proposition that wages depend mainly "on the proportion between population and capital" (p. 343), the most elementary mathematical reasoning will show that if either term of the ratio is changed, the results, the wages, will be changed. Mill gives no reason why the other factor, the capital term, does not have as much power of determination over wages as does the population factor. This could be used as a valid result of the supposed rigidity of the wage-fund, which in this case is the capital, and the theory of which he later recanted under the conviction of its fallacy. As an immediate corollary to his principal postulate that wages depend on the proportion between population and capital, Mill devotes one chapter to the consideration of popular remedies for low wages and another chapter to set forth his own remedy. Under popular remedies he discusses the weaknesses of two classes of remedies, one which pretends to interfere with the freedom of contract and one which does not profess to interfere with this freedom. Under the first class are legal and philanthropical efforts. His answer to these efforts has a threefold aspect, based on his fundamental objection that

"the rate of wages which results from competition distributed the whole existing wages-fund among the whole labouring population; if law or opinion succeeds in fixing wages above this rate, some labourers are kept out of employment; and as it is not the

intention of the philanthropists that these should starve, they must be provided by a forced increase of the wages-fund" (p. 362).

which he thinks would mean higher taxes. "The proportion between labour and the wages-fund would thus be modified to the advantage of the labourers, not by restriction of population, but by an increase of capital" (p. 363). It must be recalled that Mill's use of the term "capital" in this connection is a restricted use applying to the wages-fund only. Then when he speaks of it being increased he has in mind that the increase will come at the expense of the owners of capital other than that part embodied in the wages-fund. He sets forth his first aspect of his answer relative to taxation.

"Society mainly consists of those who live by bodily labour; and if society, that is, if the labourers, lend their physical force to protect individuals in the enjoyment of superfluities, they are entitled to do so and always have done so, with the reservation of a power to tax those superfluities for the purpose of public utility; among which purposes the subsistence of the people is the foremost" (p. 363).

The right to tax, then, he considers inherent in the social contract. But he thinks it is a different question when those who have produced and saved are called upon to give feed "not only to all who now exist, but to all whom these or their descendants may think fit to call into existence" (p. 363). Even if attempts are made to exact work for food they will fail. "When the pay is not given for the sake of the work, but the work found for the sake of the pay, inefficiency is a matter of certainty" (p. 363), and in lieu of the lash the power to discharge is necessary for the exaction of efficient labour. Of his two minor points here involved, the first is the question of the necessity of limiting population. He probably is correct in thinking that certain forms of communism would remove both positive and preventive checks to an increase in population. His second point relative to the efficiency of labour and the necessity of

the right of discharge has a substantial basis and has a very vital application relative to the popular efforts to relieve unemployment in the year 1931. His second view of the remedies for the low wages concerns the principle of diminishing social returns. He thinks that even if the labourers had a high degree of efficiency,

“the increasing population could not . . . increase the produce proportionally: . . . The check to population either by death or prudence, could not then be staved off any longer, but must come into operation suddenly and at once; everything which places mankind above a nest of ants or a colony of beavers, having perished in the interval” (p. 364).

He seems here to have a faint idea that productivity has something to do with wages. Granting his assumptions, he is probably correct in thinking that with a stationary supply of the other factors, an increasing population will result in diminishing addition to the product. A reasonable degree of importance must also be granted to the existence of the wage-fund, and he has given it no attention. His third and final view is that if labourers are guaranteed “a certain payment, either by law or by the feelings of the community” (p. 365), they will not restrain themselves in their own interests. Practical results have indicated that the higher the income the lower the birth rate. This is a question in social psychology and political policy bearing on the influence of the State in regulating the population. It has a relation to the long run wage question, beyond a doubt, but there are more immediately relevant considerations, concerned with current wages. The second class of remedies Mill discusses is the class that does not professedly interfere with freedom of contract, but permits wages to be determined by competition and then by use of a subsidy increases the wages to the necessary amount. The methods used under this class are the “Allowance System” (p. 366), and the “Allotment System” (p. 368). His general conclusion is that the efficacy of any remedies for low wages must rest on the minds and habits of the

people. If not they would eventually "let slip the reins by which population was previously curbed" (p. 372) and contribute to increasing the number of the poor. Mill's entire discussion of remedies is one of practical policy rather than one of theory. In setting forth his own remedies for low wages, he makes them impinge on the principle of population. His efforts would be two-fold, "directed simultaneously upon their intelligence and their poverty" (p. 380). He believes that the working class, regardless of counter-forces and their previous tendencies, can be educated.

"An education directed to diffuse such knowledge as would qualify them to judge of the tendencies of their actions, would be certain, even without any direct inculcation, to raise up a public opinion by which intemperance and improvidence of every kind would be held discreditable, and the improvidence which overstocks the labour market would be severely condemned, as an offence against the common weal" (p. 381).

We can agree with him entirely relative to the importance of education as an agency for the improvement of general intelligence. His reforming tendencies, however, would seem to lead him too far if he suggests a public educational system with its principal aim that of sex control, and its ultimate end in the diminution of the population, whether these ends be accomplished by inhibition, contraceptive devices, laws, or customs. The ends may be wholly desirable, but an educational system devoted entirely to such ends is of doubtful desirability. Since "Education is not compatible with extreme poverty" (p. 381), he would extinguish this poverty for a whole generation, in order to give the virtues of his educational system a chance to operate. He would accomplish this by two non-charitable measures: first national encouragement to colonization; second, the five-acre allotment of common lands brought into cultivation. Both of these he would encourage by means of specific uses of public funds. Mill does not seem to see any relation between such uses of public funds and public

charity. May not charity be both direct and indirect ? Neither does he seem to recognize that the very environment under which he would place the colonists and the rural inhabitants is conducive to an increase of the population he so much desires to decrease. If applied, his remedy would be of an insular nature, as colonization very soon reaches its limit. There is a pertinent question as to whether education can be made so completely to negate environmental conditions as here assumed. This discussion of remedies is, however, another emergence of his institutional distribution. He evidently feels sure that distribution should not be left to its natural course, whatever that may mean, but existing evils call for remedial measures within the reach of society. Having discussed the population term in the labour capital ratio and practical measures intended to improve this ratio, Mill next turns his attention to the analysis of wage differences in different employments. In general his discussion of wages in different employments is an approval of and a commentary on Adam Smith's discussion of the same subject. Mill also had the discussions of Malthus and Senior to pattern after on this subject. Ricardo, it will be recalled, was unusually non-committal on this subject and really referred to a market situation to explain forces of which the market price was supposed to be the result.

Mill divides the wage-earning conceptions into two groups ; the first composed of those occupations the monetary remuneration of which must be unequal in order to balance an inverse inequality of attractiveness ; the second consists of occupations for which unequal compensation is compensation for possession or exercise of ability to meet a trust. In the first group Mill apparently takes exception to Adam Smith's idea that the most disagreeable labours are the best paid. He thinks this would be the " natural consequence of perfectly free competition " (p. 388). It would apply between employments of nearly the same grade filled by nearly the same kind of workers, but with employ-

ments extremely unlike it would not be true. In this he forecasts Cairnes' non-competing groups.

"The undesirable must take what they can get. The more revolting the occupation, the more certain it is to receive the minimum of remuneration, because it devolves on the most helpless and degraded, on those who from squalid poverty, or from want of skill and education, are rejected from all other employments. Partly from this cause, and partly from the natural and artificial monopolies which will be spoken of presently, the inequalities of wages are generally in an opposite direction to the equitable principle of compensation erroneously represented by Adam Smith as the general law of the remuneration of labour. The hardships and the earnings, instead of being directly proportional, as in any just arrangements of society they would be, are generally in an inverse ratio to one another" (p. 388).

Mill's apparent exception here becomes nothing more than a qualification as to existing wage conditions in the absence of free competition. He has seemingly forgotten that he has postulated his explanation of distribution on a condition of competition. In this present discussion he assumes not only "squalid poverty" existing probably from lack of perfect competition, but he also assumes the presence of monopoly forces which tend toward the negation of Smith's solution. Practically, of course, Mill may be nearer correct than Smith. The second group of occupations is dominated, Mill thinks, by opportunity monopolies, and hereditary monopolies. In these occupations, he quotes Smith that "Their reward must be such, therefore, as may give them that rank in society which so important a trust requires" (p. 390). This is the thought of the Scotch philosopher, approved by the English economist. But a Scotch poet said: "The rank is but the guinea's stamp." Does the rank determine the compensation or does the compensation determine the rank? Mill seems to conclude that so far as the actual cost of acquiring the ability to meet a trust is concerned, the compensation will, under competition, determine the rank.

" If unskilled labourers had it in their power to compete with skilled by merely taking the trouble of learning the trade, the difference of wages might not exceed what would compensate them for that trouble, at the ordinary rate at which labour is remunerated " (p. 392).

But he thinks the opportunity is restricted by economic barriers, and by the practice of recruiting employments from the families that are in them. " Consequently the wages of each class have hitherto been regulated by the increase of its own population, rather than of the general population of the country " (p. 393). This, according to Mill, results in a " monopoly rate " (p. 394) which would be above the competitive rate. To the extent that this difference exists, then the rank determines the compensation. There is a considerable degree of soundness in Mill's view when considered from a practical standpoint, and if pursued to its logical conclusion would lead to the productivity theory. In addition to competitive wages, and opportunity or monopoly wages, Mill thinks there are also wages fixed by " law or custom " (p. 401). Apprentice laws limit the number of the workers of a particular kind, but

" these partial combinations, in so far as they do succeed in keeping up the wages of any trade by limiting its members, might be looked upon as simply intrenching around a particular spot against the inroads of over-population, and making the wages of the class depend upon their own rate of increase, instead of depending on that of a more reckless and improvident class than themselves " (p. 402).

We have here his question of population control, in miniature, and as he thinks in a practical way. Does not this string have two ends ? Suppose exigencies occur when there is not enough work of a specific kind to keep the selected workers busy. With the outside world teeming with people ready to work, what will the selected workers do when their own jobs cease ? Will not their inability to get other kinds of work diminish their high wages, supposedly resulting from their limited number ?

Practically Mill's solution has some merit, but is far from an immediate and universal answer to the question of wages. Finally he treats of custom *versus* competition. Custom, he thinks, fixes certain wages. "Such are the fees or charges of professional persons; of physicians, surgeons, barristers, and even attorneys" (p. 403). The element of trustworthiness enters here again, and in addition, certain factors, more or less selfish, cause people to compensate their personal advisers liberally. A lawyer, Mill thinks, who would accept less than the normal compensation for his service would find himself declining to the position of just a subnormal ambulance or matrimonial solicitor. Translating the esteem in which a profession is held into wage terms is a difficult task. While there is probably some truth in what Mill has said it is not very conclusive. In concluding his sixty-two-page discussion of wages, Mill arrives at the starting point.

"But they can never raise the average wages of labour beyond the ratio of population to capital. By giving more to each person employed, they limit the power of giving employment to numbers: and however excellent their moral effect they do little good economically, unless depauperism of those who are shut out leads indirectly to a readjustment by means of an increased restraint on population" (p. 404),

or, in other words, he is sure it is useless to attempt to evade his primary wage principle that wages depend "on the proportion between population and capital" (p. 343). This is another illustration of his idea of the rigidity of the wages-fund. Professional politicians and militarists may not be willing to adopt policies, even long-run policies, which would tend to diminish the population. Will they not rather prefer, and work for a policy that will tend to increase the numbers; will they not consider each child relative to ballots and bullets? As a general policy, Mill's view of the desirability of a diminishing birth rate is acceptable. Its necessity is greatly accentuated in modern economic life when the possibility of

an increasing birth rate is combined with the increase in longevity. If these two forces continued unretarded, their combined effects on the numbers of mankind would not be adequately pictured by the geometrical ratio of Malthus, which has often been thought of as somewhat exaggerated. Mill has three approaches to distribution, or he views distribution from three different angles: first that view of distribution in which the fundamental laws are supposedly discoverable without reference to exchange; second, distribution as affected by the laws of exchange; third, distribution under the influence of social progress. In the preceding discussion of wages, he used his first approach. Having made this analysis, he turns to an exposition of the laws of exchange, which he considers but the "instrumentality by which in a civilized society the distribution is effected; the machinery of Exchange and Price" (p. 434). It seems probable that Mill had in mind, under his first discussion, that the fundamental laws of distribution, as he saw them, were operating under a system of barter. Under the discussion of exchange, he remarks that:

"Even in the present system of industrial life, in which employments are minutely subdivided, and all concerned in production depend for their remuneration on the price of a particular commodity, exchange is not the fundamental law of the distribution of the produce, no more than roads and carriages are the essential laws of motion, but merely a part of the machinery for effecting it" (p. 435).

After he has discussed exchange he says:

"It is fit that we should now consider whether these same laws still operate, when the distribution takes place through the complex mechanism of exchange and money; or whether the properties of the mechanism interfere with and modify the presiding principles" (p. 688).

What he means by exchange seems to be, then, the exchange of goods under a money economy, and the problem, as he sees it, is to discover in his second approach what effect, if any, exchange has on the laws

of distribution he has supposedly explained as operating under a system of barter. His primary thesis is that money wages and money rent are dependent on the same causes by which

“wages and rent would be regulated if there were no money and no exchange of commodities. It is evident, in the first place, that the law of Wages is not affected by the existence or non-existence of Exchange or Money. Wages depend on the ratio between population and capital ” (p. 688).

Mill uses three steps in his argument to support this statement. First he argues that the money price of labour is the result of two elements :

(a) “real wages, or wages in kind, or in other words, the quantity which the labourer obtains of the ordinary articles of consumption ;

(b) “and secondly, the money prices of those articles ” (p. 689).

Here he has reverted to a Smithian argument, the “subsistence ” (p. 689) theory of wages. Assuming a certain subsistence standard, his supplementary argument is that the price of this subsistence will determine the money wage, that is the cost of necessities will determine the money wage. A somewhat modifying element is introduced, in that he thinks the money price of labour will just enable the labourers to purchase those things “without which they either cannot or will not ” (p. 689) propagate the labouring population. This is an admission that it is not a bare subsistence wage, at least not a physical minimum. If the control of the matter, and such is very clearly the context, is within the “will ” of the labourers, we would expect Mill to connect this control to the matter of labour supply or population, and this he does. He feels sure that with a given standard of comfort money wages will depend on the money price of the commodities necessary to maintain this standard of comfort. The reason he gives for this is the same as the reason given for the necessity of labourers being given a “subsistence,” that is if they do not get enough money to buy this subsistence “their increase

will slacken " (p. 690), and then wages will increase to the point where they may purchase their subsistence. Now this situation, however desirable it might be, has not been borne out by history and can consequently not be used to describe present conditions, or as a basis for predicting future conditions. In other parts of his work Mill has admitted that the past conduct of the labourers does not justify and bear out the argument, but he is hopeful that they are capable of being encouraged to the point where they will so act. As we have noted before, no employer is likely to pay a wage for the primary purpose of generating a labour supply for future generations of employers. Employers have a much more proximate interest to serve. It has been held, however, until quite recently, that the standard of living determines wages and will control population. The second step in his argument consists of three assertions; money price of commodities depends on their cost of production; the major part of the labourer's commodities consists of agricultural products; the price of agricultural products is determined by their cost of production under the "least advantageous circumstances" (p. 690). This is a pure Ricardianism and is subject to the qualifications noted under the discussions of that writer; consequently it is unnecessary to give it further attention here. His third argument is that

"The costliness of the most costly part of the produce of cultivation is an exact expression of the state at any given moment, of the race which population and agricultural skill are always running against each other" (p. 690),

or, in other words, the price of food is simply a reflex of the pressure of the population on the food supply. His conclusion would be, of course, that exchange and the use of money do not alter "the law of Wages" (p. 690). As has been repeatedly noted, there are other things that enter into the question of price determination besides the population and the difficulty of production. Mill has not here given an adequate analysis of pricing forces,

and since he has made wages to be determined by the prices of the products which labour uses, his explanation of wages is weak to that extent. This pretends to be a comprehensive explanation of but one class of wages, that of the lowest group of workers.

We are now ready for Mill's third approach to the question of wages, the influence of social progress on wages. All that he has said on the subject so far has come under what he calls

"the Statics of the subject. . . . All this, however, has only put us in possession of the economical laws of a stationary and unchanging society. We have still to consider the economical condition of mankind as liable to change, and indeed in the more advanced portions of the race, and in all regions to which their influence reaches as at all times undergoing progressive changes. We have to consider what these changes are, what are their laws, and what their ultimate tendencies; thereby adding a theory of motion to our theory of equilibrium—the Dynamics of political economy to the Statics" (p. 695).

There are certain inconsistencies in the way he has related the static to the changing state, but these inconsistencies will be considered later in this discussion. It is evident as Mill sets forth what he means by a progressive society, that he is thinking of a particular group as "the advanced portions of the race," and this particular group is probably England. At first he contradicts Malthus' principle of population, and in the same paragraph very inconsistently admits the necessity of considering it relative to a progressive state.

"The progress which is to be expected in the physical sciences and arts, combined with the greater security of property, and greater freedom in disposing of it, which are obvious features in the civilization of modern nations, and with the more extensive and more skilful employment of the joint-stock principle, affords space and scope for an indefinite increase of capital and production, and for the increase of population which is its ordinary accompaniment. That the growth of population will overpass the increase of production, there is not much reason to apprehend; and that it should even keep pace with it, is inconsistent with the supposition of any

real improvement in the poorest classes of the people. It is, however, quite possible that there might be a great progress in industrial improvement, . . . a great increase of aggregate wealth, . . . while yet the great class at the base of the whole might increase in numbers only, and not in comforts nor in cultivation. We must, therefore, in considering the effects of the progress of industry, admit as a supposition, however greatly we deprecate a fact, an increase of population as long continued, as indefinite, and possibly even as rapid, as the increase of production and accumulation " (p. 699).

It is very evident that in his preliminary discussion of a progressive society, Mill has introduced two ideas which are fundamental in his scheme and in assigning positions of importance to them has vacillated between the two. Obviously, if there is not much reason to expect that population will increase more rapidly than production, there is not much more reason to expect that it will increase just as rapidly as production. In the principle of population, the important point is not which element is in the lead, but the fact that there is a continual race between the two elements. This entire proposition is inconsistent with Mill's explanation of wages, profit, and rent in a static state. If in a static state population has a tendency to increase more rapidly than the food supply, why will the same tendency not prevail in an increased measure in a dynamic state? The race between population and improvement belongs more properly under the dynamic than under the static state.

Mill reverts to the Physiocratic and classical obsession that there is an important difference between agricultural and manufacturing production. As we have noted, he is a firm believer in the cost of production theory of prices. Now he is as equally sure that agricultural prices will increase and manufacturing prices will decrease.

"The cost of production of the fruits of the earth increases *ceteris paribus*, with every increase of the demand. No tendency of a like kind exists with respect to manufactured articles. The tendency is in the contrary direction " (p. 702).

He thinks these are permanent tendencies of prices, caused by the progress of industry and population. Such an assumption of divergent differences in prices is, as we have noted in discussing the predecessors of Mill, entirely without foundation. Mill does hit upon an important idea, however, when he thinks :

“Whether agricultural produce increases in absolute as well as comparative cost of production, depends on the conflict of the two antagonist agencies, increase of population, and improvements in agricultural skill. In some, perhaps in most, states of society, . . . both agricultural skill and population are either stationary, or increase very slowly, and the cost of production of food, therefore, is nearly stationary. In a society which is advancing in wealth, population generally increases faster than agricultural skill, and food consequently tends to become more costly ; but there are times when a strong impulse sets in towards agricultural improvement. . . . Which of the two conflicting agencies is gaining upon the other at any particular time, might be conjectured with tolerable accuracy from the money price of agricultural produce ” (p. 703).

Overlooking the obvious inconsistencies of this passage with his conclusions relative to a static state, since presumably such are to be expected from one reared so carefully in the Ricardian tradition, it is important that Mill sees that agricultural improvements may counteract supposed tendencies resulting from the increase in population. It is to be regretted that he did not see, however, that this propensity to improvement could also negate the principle of population for long as well as short periods of time. Such a view would have compelled him to make fundamental change in his entire theory of distribution. He emphasized the wrong factor. He, with his predecessors, persists in comparing decreasing prices resulting from technical improvements in manufacturing with supposedly increasing agricultural prices resulting from increase of population, instead of comparing the results of technical advances of the one with technical advances of the other. In addition he has

underestimated the importance of technical improvements in agriculture, relative to assumed agricultural price changes resulting from increase of population. Mill describes a progressive society to consist of three characteristic features, "increase of capital, increase of population, and improvements in production" (p. 710), and by a series of supposititious cases, in which he holds first one and then another of these movements in abeyance, proceeds to explain what he thinks would be the effects on the distributive shares. First, he thinks, if production and capital remain stationary, with population increasing, "wages will fall; the labouring class will be reduced to an inferior condition" (p. 710). The next assumption is that population and production remain stationary, and capital increases. "The real wages of labour, instead of falling, will now rise" (p. 713). As a subordinate assumption to the two just mentioned, the next proposition supposes production to remain the same and population and capital to increase. He thinks that if they both increase with the same rapidity labour will receive "the same commodities as before" (p. 714). The next and final case considered is a situation in which capital and population remain stationary and production is improved. This improvement, he argues, may be in the production of luxuries, or of the necessities of the labouring class, and "It may safely be affirmed, therefore, that improvements in production generally tend to cheapen the commodities on which the wages of the labouring class are expended" (p. 715). This is the case generally, but it is different with improvements in the production of necessities. These agricultural improvements are of two kinds: labour-saving devices and those which increase the productivity of land. "In the beginning, money wages would probably remain the same as before, and the labourers would have the full benefit of the cheapness" (p. 719), but the permanent wages, he thinks, will be determined by the standard of living of the workers. But the cheaper products will enable them to live on lower wages;

"and a greater population may now exist, without reducing the labourers below the condition to which they are accustomed. Hitherto this and no other has been the use which the labourers have commonly made of any increase of their means of living; they have treated it simply as convertible into food for a greater number of children" (p. 719).

He concludes that finally the real wages will be no higher than before. In all of this Mill has been setting forth the principle of proportionality. It is a valid conclusion that if there is a change in the quantity of any factor of production, relative to the factors co-operating with it, the share of the product going to this factor will be affected in the inverse ratio. So far Mill is correct. There are two points of his discussion, however, that merit examination. First, if capital and population increase with the same rapidity it seems doubtful if the assertion can be made that wages will remain the same. It is probable that a more intelligent and efficient organization of production will result from the increase of capital and population. This kind of improvement does not seem to be covered in Mill's concept of improved production. In the next place, Mill's final conclusion that a "greater population" probably will be the result of decreased prices is scarcely consistent in view of his assertion in considering the static economy, that labourers could be educated so that this result would not prevail. When Mill takes up the consideration of profits he plunges immediately into the fundamentals of who receives the profits, and of what the profits consist. He leaves until almost the last of his discussion the argument as to how the general rate of profits is determined. His unfolding of the subject is neither consistent nor symmetrical but confusing.

"Having treated of the labourer's share of the produce, we next proceed to the share of the capitalist; the profits of capital or stock; the gains of the person who advances the expenses of production—who, from funds in his possession, pays the wages of the labourers, or supports them during the work; who supplies the requisite buildings, materials, and tools or machinery; and to

whom, by the usual terms of the contract, the produce belongs, to be disposed of at his pleasure. After indemnifying him for his outlay, there commonly remains a surplus, which is his profit; the net income from his capital: the amount which he can afford to spend in necessities or pleasures, or from which by further saving he can add to his wealth. As the wages of the labourer are the remuneration of labour, so the profits of the capitalist are properly, according to Mr. Senior's well-chosen expression, the remuneration of abstinence. They are what he gains by forbearing to consume his capital for his own uses, and allowing it to be consumed by productive labourers for their uses. For this forbearance he requires a recompense" (p. 405).

In this introduction Mill has set forth four distinct concepts, all closely related, yet very distinct; first the capitalistic entrepreneur who advances the expenses of production; second, the actual expenses of production, the support of wages of the labourers, and the material advances, such as buildings, raw materials and machinery; third, the surplus, profit, "net income from his capital" after his advances have been remunerated; fourth, the nature of this profit, a "remuneration for abstinence." Almost immediately, however, he brings out certain qualifications consisting of deductions from a gross gain. These deductions will be considered later in this discussion. Just now we note that he has approved of Senior's description of the nature of profits as compensation for the abstinence of the capitalist. Evidently the term surplus as used in this connection was intended to suggest an amount left over after deduction of the expenses of production, yet we may note that it also implies a nature similar to the surplus character of rent, in the latter part of his discussion.

Now what does Mill intend to do with the "expenses of production"? Does he intend that such expenses of production will determine price? If so, then the entrepreneurial cost of production will be identical with price. If outlay is indemnified through a sort of replacement fund, from one point of view the cost of production will equal profit, plus this fund. Another part must be

absorbed in replenishing the raw material and keeping up the buildings and machinery. As to the nature of the entrepreneur, it seems that his direct and primary function is to advance the expenses of production. It is a matter of secondary importance where these advances are obtained. He may own, or borrow, or rent, but he must supply. Now this introduces another confusing element. If the advances or a part of them are borrowed or rented, is the capitalist exercising abstinence, a form of sacrifice, when he uses them for advances for productive purposes? Probably not. Relative to the deductions Mill says :

“Of the gains, however, which the possession of a capital enables a person to make, a part only is properly an equivalent for the use of the capital itself; namely, as much as a solvent person would be willing to pay for the loan of it. This, which as everybody knows is called interest, is all that a person is enabled to get by merely abstaining from the immediate consumption of his capital, and allowing it to be used for productive purposes by others. The remuneration which is obtained in any country for mere abstinence, is measured by the current rate of interest on the best security: such security as precludes any appreciable chance of losing the principal. What a person expects to gain, who superintends the employment of his own capital, is always more, and generally much more than this. The rate of profit greatly exceeds the rate of interest. The surplus is partly compensation for risk. . . . He must likewise be remunerated for the devotion of his time and labour. The control of the operations of industry usually belongs to the person who supplies the whole or the greatest part of the funds by which they are carried on, and who . . . is the person most interested (at least directly), in the result.”

To exercise this control with efficiency, if the concern is large and complicated, requires great assiduity, and often no ordinary skill. This assiduity and skill must be remunerated.

“The gross profits from capital, the gains returned to those who supply the funds for production, must suffice for these three purposes. . . . And the three parts into which profit may be

considered as resolving itself, may be described respectively as interest, insurance, and wages of superintendence " (p. 405).

It is as clear as can be that Mill is searching for a blanket term that will cover all the income of the entrepreneur, and in doing so has used the term profit very inconsistently. He has asserted that (*a*) profits of the capitalist are remuneration for the abstinence involved in forbearance, (*b*) profits are identical with the gains of the one who makes the advances, (*c*) the gains are only partly interest, (*d*) interest is identical with profits for "merely abstaining," and (*e*) "the rate of profit greatly exceeds the rate of interest." And again he refers to the "gross profits from capital" (p. 406), including three compensations into which "profit may be considered as resolving itself." A term bandied about after this fashion does not contribute to clarity. Mill cannot get away from traditional idea of profit.

Mill also enumerates three parts of profit, "interest, insurance, and wages of superintendence," but clearly discusses four parts, interest, compensation for risk, remuneration for time and labour, and remuneration for assiduity and skill. Now when we have such a conglomeration as this, what he means by the term profit is merely conjectural. He has a clear idea of interest, but he does not see clearly that interest is the big consideration, and he does not get the idea of pure profits.

All of the discussion so far has had to do with the nature and definition of profit, but he has not yet dealt with the determination of the general rate of profit. He turns next to the minimum rate of profit, which he thinks must be adequate to include the three or four parts mentioned above. It is to be noted that the first deduction from "gross profit" is to cover losses; next is the deduction to compensate for abstinence; next is compensation for labour and skill; and lastly is compensation for the trouble of the owners or their agents. These, presumably, would entirely absorb the gross profits. We note that one of these deductions is for

labour and skill, yet he is discussing the subject of "profits of capital." We note also that another deduction is for trouble, a decidedly human derivative, but it supposedly contributes to the formation of profit. This minimum rate of profit, he thinks, is variable. "Such, then, is the minimum of profits; but that minimum is exceedingly variable, and at some times and places extremely low" (p. 408), because of changes in the two elements, the pay for abstinence and the compensation for risk. He has told us: "But the disposition to save does not wholly depend on the external inducement to it; on the amount of profit to be made from savings" (p. 165), but partly on the character of the individual and the state of society. The discount of the future is, as he views it, a leading element. It seems that he is correct in the assertion that other things than profit will help determine the rate of accumulation. Such being the case, it would obviously be more difficult to determine the minimum rate of profit. But to speak of a rate of profit at all after he has ruled out interest is absurd. The minimum rate either covers all distribution except rent or it contributes nothing. The second variable is the compensation for risk; this is not business risk, but a risk of confiscation or partial appropriation resulting from the vice or weaknesses of government. Now compensation for business risks would be difficult enough to calculate, but to determine risks resulting from governmental weaknesses seems to be a super-human task; it seems improbable that it can be combined as a part of a calculable profit for the use of capital. He has implied, but not clearly stated, that economic phenomenon of the uniformity of interest rates through a long period of time. He directs his next efforts to the consideration of profits in different employments and thinks that they vary much more than do wages, because of the attractiveness and risk involved. If there is variation resulting from attractiveness it must, of course, be attractiveness to the owners of capital and not to the capital itself, since it is inanimate. It does not seem to

be logical to argue that differences in attractiveness are more pronounced relative to capital than to human labour. It appears that it would be the reverse of this because a man would be more willing, under the same circumstances, to direct his capital into some unattractive occupation than to go into that occupation himself. It is understandable that the question of risk would be covered by the sought after blanket term, but not by the term profit as compensation for abstinence. Then, too, we cannot speak of higher returns in a risky business in the long run, because in the long run profits and losses tend to balance at the prevailing rate. The remuneration for labour and skill he would have vary in different occupations. We submit that such remuneration is properly wages and not profit for abstinence, if by profit he means, as he has indicated, compensation for abstinence. Under certain conditions he asserts that very high profits result from combinations.

"Some occupations require a considerable amount of scientific or technical education, and can (1848) only be carried on by persons who combine with that education a considerable capital" (p. 409).

"There are cases, again, in which a considerable amount of labour and skill is required to conduct a business necessarily limited in extent. . . . 'The greater part of the apparent profit is, in this case, too, real wages'" (p. 410).

Mill seems to encounter one of his greatest difficulties in apportioning the so-called "apparent profit" between wages and profit, and his final conclusion is in accordance with Adam Smith, that in this case most of it is wages. The result of monopolies of large capital or great control in the hands of a few will be, he thinks, "profits above the general level" (p. 410). He cannot mean here, profits as compensation for abstinence, but a sort of conjunctural gain, which results in a surplus of a nature similar to the classical rent surplus. There is no doubt that such control as he has described will result in a high rate of gain, but entirely another question is involved when he classes it as profit to capital. It

results from monopoly, temporary or permanent, and must be accounted for by recapitalization of source of monopoly power, if it is to be "explained" at all. His conclusion is that

"gross profit; which, though (as will presently be seen) it does not vary much from employment to employment, varies very greatly from individual to individual, and can scarcely be in any two cases the same. . . . That equal capitals give equal profits, as a general maxim of trade, would be as false as that equal age or size gives equal bodily strength, or that equal reading or experience gives equal knowledge. The effect depends as much upon twenty other things, as upon the cause specified" (p. 412).

He seems here, again, to have in mind business earnings rather than profits to capital. If this conjecture is correct, it must be agreed that if two different men have equivalent supplies of capital the business earnings of the two men may vary greatly. In this he is correct, but even so he has not solved the question of the rate of profit. The "twenty other things" are probably too weighty to permit this explanation to stand as an explanation for profits of capital. Mill is thinking of dividing up the income of a business, and does not get a vision of real profit as an extra share, the result of maladjustment, and not the result of equilibrium. In all this whirl of cross-currents Mill sees one stabilizing and steadying element, that of interest.

"The rate of interest, on equally good security, does not vary according to the destination of the principal, though it does vary from time to time very much according to the circumstances of the market" (p. 411).

These changes, he thinks, are brought about by the competition of borrowers, lenders, and middlemen, and the sensitiveness of the "public mind" to changes in the supply and demand for loanable funds. They result in changes during short periods of

"from four, or less, to eight or nine per cent. But, at the same time and place, the rate of interest is the same, to all who can

give equally good security. The market rate of interest is at all times a known and definite thing" (p. 411).

This is probably true, but it does not tell us much about interest. Many, many things are the same at the same time and place, but it is in changes resulting from different times and places that they derive their greatest significance. It is noticeable that Mill says the market rate of interest is a "known and definite thing." It should also be noted that he does not say it is a predictable thing, which would be of great importance if such were the case. He is here dealing with the "market rate" of interest, which is scarcely relevant, when considered in its connection with the general rate of profit up to which he is leading. He has a very indefinite implication, but has not clearly stated that economic phenomenon of the uniformity of the rate of interest through a long period of time. This is surely the factor that would be more relevant to the consideration of a general rate of profit, but he misses his opportunity to explain price profits.

Having discussed causes of variations in the minimum general rate of profit such as variation in desire to discount the future, differences in governmental risks, different attractiveness of occupations, different conjunctural surpluses, as capital and capacity, and capital and control, and differences in individual abilities, and having set forth the steadying temporary influence of interest, Mill tells us that after having made allowances for all these things, it yet remains that the rate of profits on capital in different employments tends to an equality.

"But though profits thus vary, the parity, on the whole, of different modes of employing capital (in the absence of any natural or artificial monopoly) is, in a certain and a very important sense, maintained. On an average (whatever may be the occasional fluctuations) the various employments of capital are on such a footing as to hold out, not equal profits, but equal expectations of profit, to persons of average abilities and advantages . . . ; they tend to a common average" (p. 412).

In this way Mill introduces the element of futurity in his concept of profits, "not equal profits, but equal

expectations of profits " prevail in business. Now when expected profits materialize just what would he call them? He probably has in mind, in this connection, the same thing that Malthus mentioned when he referred to the fact that the value of the advances is known beforehand, but the value of the product, and consequently the profit of the stock, " remains to be ascertained when the produce is sold " (p. 266) (Malthus' *Principles*). The process of equalization of profits is brought about, as Mill properly observes, by the " transfer of capital from one employment to another " (p. 413), not slowly or impractically, as is often thought, but with facility. This is the result of the flow of new capital and credit into the high profit employments and away from the low profit employments.

" This easy, and as it were spontaneous, method of accommodating production to demand, is quite sufficient to correct any inequalities arising from the fluctuations of trade, or other cause of ordinary occurrence " (p. 413).

But he sees two cases where this facility of capital and credit flow does not operate so smoothly. One is when a trade is declining or rapidly dying. In such a case as he explains failure of profits to become equalized is " almost always attended with considerable loss " (p. 413). Here he at least implies that the capital derives its value from the profit it produces. The second case in which profit equilibrium is disturbed is when demand increases so rapidly as to leave producers in a monopoly position, and the price continues high. From this we might conclude that high profits depend on high prices above the expenses of production, but Mill is prepared to dissipate such an idea in a later paragraph. A parting shot is directed at the uniformity of profits which strikes outside the competitive field and reminds us of one of Mill's characteristic postulates that custom often operates to modify the effects of competition. " Custom also has a considerable share in determining the profits of trade " (p. 415). In the two exceptional cases mentioned

above, does he think that custom could maintain profits in a dying trade, or prevent high profits in a rapidly developing trade? Probably behind custom, though he has not looked to see them, competition and other real forces are operating, which result in the custom. Is custom a sort of congealed competition? Having started in the shallower waters of the pool and discussed the limitations and meaning of "the ordinary rate of profit" (p. 416), we have now arrived at the centre and are ready to take the plunge and determine what are the causes of this ordinary rate of profit. But just before we do this, Mill reminds us that popularly profits are supposed to depend upon prices. "This, however, is looking only at the outside surface of the economical machinery of society. . . . If we look more narrowly into the operations of the producer, we shall perceive that the money he obtains for his commodity is not the cause of his having a profit, but only the mode in which his profit is paid to him.

"The cause of profit is, that labour produces more than is required for its support. The reason why agricultural capital yields a profit is because human beings can grow more food than is necessary to feed them while it is being grown, including the time occupied in constructing the tools, and making all other needful preparations; from which it is a consequence, that if a capitalist undertakes to feed labourers on condition of receiving the produce, he has some of it remaining for himself after replacing his advances. To vary the form of the theorem: the reason why capital yields a profit, is because food, clothing, materials, and tools last longer than the time which was required to produce them; so that if a capitalist supplies a party of labourers with these things, on condition of receiving all they produce, they will, in addition to reproducing their own necessities and instruments, have a portion of their time remaining to work for the capitalist. We thus see that profit arises, not from the incident of exchange, but from the productive power of labour" (p. 416).

He could have said most anything else that would have been more accurate than what he did say; he has no idea of the specific productivity of capital. So here we

are at last at the supposed cause of profits, the productive powers of labour. But we have been told by Malthus and his followers that rent depends upon that power of the land by which it can be made to produce or support a greater number of labourers than is required for production. Now what is the difference between the two—one the source of profit and the other the source of rent? One is supposed to be the productive powers, or more accurately the excess productive powers of labour when applied to capital which results in profit; the other is called the productive powers of the land, but is it not just as truly the productive powers of labour as the first? If so, and this seems to be the case, profit and rent have been traced to the same source, the productive powers of labour. Such is Mill's answer to the cause of profit—a cause which he finds far beneath the "outside surface" of market price. Presumably here he is dealing with long-time forces, but we recall that he referred to interest, a component of profit, as of short-time determination. He confuses short-time and long-time forces. From the cause of profits he turns to consider of what profits consist and how they are measured. His answer to the first is that profits consist of the excess of the produce above the advances; to the second that the "rate of profit is the ratio which that excess bears to the amount advanced" (p. 418). Assuming that he has found the real cause of profits, there is no occasion to question his dependent propositions. The profits of the capitalist would consist of this excess, and the rate would be determined in the manner indicated, providing the term profit is a blanket term used to cover several heterogeneous terms. This seems to be the tendency of the term profit as used by Mill. We note here that profit is in terms of produce and not in terms of value, in contrast with Malthus' statement, approved by other classicists also, "that profits are invariably measured by value and never by quantity" (p. 266) (Malthus' *Principles*). It must be admitted that Malthus is much more realistic on this point. Just how either a farmer or a manu-

facturer could either estimate or receive his profits as a share of the produce we cannot see. The advances have a value at the time they were provided. Mill has already said it is the expectation of profits that counts. Now if the value of the product, or the supposed share of it, which the capitalist should receive, turned out to be the expected amount, but the price declined so that the value of the product was less than the value of the advances, Mill would be compelled by his explanation to say there had been no change in the rate of profit, regardless of the change in price and value. This is not consistent with economic reality. Mill asserts that if rent is left out of the question, the advances of the capitalist will be found to "consist of wages of labour" (p. 418), direct wages, plus wages one, two, or three times removed from the labourer. This might be true as a source explanation, but if it is accepted literally, we have nothing but labour. In his concluding section Mill says :

"It thus appears that the two elements on which, and which alone, the gains of the capitalists depend, are, first, the magnitude of the produce, in other words, the productive powers of labour; and secondly, the proportion of that produce obtained by the labourers themselves; the ratio which the remuneration of the labourers bears to the amount they produce. These two things form the data for determining the gross amount divided as profit among all the capitalists of the country; but the *rate* of profit, the percentage on the capital, depends only on the second of the two elements, the labourer's proportional share, and not on the amount to be shared. . . . We thus arrive at the conclusion of Ricardo and others, that the rate of profits depends on wages; rising as wages fall, and falling as wages rise" (p. 418).

Now we recall that Mill and his predecessors have told us that wages depend on "the proportion between population and capital" (p. 343). The "proportion of that produce obtained by the labourers" is undoubtedly wages; then since Mill has dug beneath prices to explain profits, why not go one step farther and say that profits depend upon the forces behind the same proportion that has supposedly explained wages? This

would very obviously be a logical procedure, and we would have, if this were true, both wages and profits dependent on population and capital. But proportion is not explanatory ; it is a statement of a mathematical fact.

Mill adds some refinement to the discussion when he considers "wages, and the cost of labour" (p. 419), the first going to the labourer and the second being deducted from the gains of the capitalist. It would apparently have been just as relevant if this subject had been considered with wages, rather than as a part of the explanation of profits, though as we have just seen he has the two inextricably interlaced and really determined by the same causes. He thinks the payment for wages, from gains of the capitalist, are more intimately associated in the public mind with the payers than with the receivers, and that high and low wages often really mean high and low costs, not high and low wages. "The reverse of this would oftener be the truth ; the cost of labour is frequently at its highest where wages are the lowest. This may arise from two causes" (p. 419), the efficiency of labour and the varying prices of the commodities the labourer consumes, or in other words the relation between money wages and real wages.

"The cost of labour, then, is, in the language of mathematics, a function of three variables : the efficiency of labour ; the wages of labour (meaning thereby the real reward of the labourer) ; and the greater or less cost at which the articles composing that real reward can be produced or procured" (p. 420).

Mill has specifically stated that the cost of labour has to do with the payer, or the capitalist. Now he says : "These, therefore, are also the circumstances which determine the rate of profit, and it cannot be in any way affected except through one or other of them" (p. 420). We can readily see how what he pays, or "the cost of labour" is of primary and direct interest to the capitalist. He, presumably, has charge of the productive process, and under the conditions postulated, receives as profit

what is left after wages are paid. This is a perfect illustration of the residual theory of profits. But the wages received by the labourer are of direct interest to him only, and not to the employer. His direct interest is covered in the cost, the labourer's interest in what he receives. Consequently, the capitalist is not directly interested in the wage the labourer receives only as it is identical with what he, as employer, pays. Wages are a cost of production ; the capitalist is concerned in the cost per unit of product ; the labourer in wages per day. Wages, and what wages will buy, are of only secondary interest to the capitalist, and it cannot be said that the cost of living of the labourer determines profit. This is a carry over from Adam Smith's explanation of wages, that wages depend on the price of food. The computations of the entrepreneur are the basis of offering of employment to labour, the cost of labour, and of the product of labour, but not of the labourer's cost of living. Mill admits that he has given us here but a general, though a conclusive, statement of the propositions governing profit, and he hopes to describe them with greater clarity under value and price. This division of the discussion of profits is very unsatisfactory for two reasons. First, his definition and use of the term *profit* are indefinite, contradictory, and inconsistent. Profits are variously referred to as the gains of the person who advances the expenses of production, the profits of capital or stock, a surplus, a net income from capital, the remuneration for abstinence, the gains which the possession of capital enables a person to make, gross profits, and the gains of the capitalist. Secondly, his conclusion, in conformity with that of Ricardo, that profits depend on the productivity of labour and the wages of labour, and the *rate* of profits depend on the wages of labour or the "labourer's proportional share" is inadequate. It is recalled from the discussion of wages that Mill considered distribution from three angles—without exchange, under a system of exchange, and in a condition of social progress. We turn now to his description

of profits, as he thinks they exist in a system of exchange.

“Wages and rent being thus regulated by the same principles, when paid in money, as they would be if apportioned in kind, it follows that profits are so likewise. For the surplus, after replacing wages and paying rent, constitutes profits . . . profits, in the last resort, depend upon the cost of labour, falling as that rises, and rising as it falls” (p. 691).

From this idea of the determination of profits we may expect Mill to search for causes of variation of profits in causes of variations in the cost of labour, which, we remember, he defined as the cost of labour to the capitalist. He thinks there are two ways in which the cost of labour may be increased: one is by an increase of real wages, and the other is by an increase of population resulting in an increased cost of production and consequently higher prices for the commodities the labourer uses. “On either of these suppositions, the rate of profit will fall” (p. 692). Here he has omitted from his “three variables” the efficiency of labour and has thus left out the most important element of cost of labour in modern economy. Mill is very inconsistent in his argument supporting these suppositions. Relative to the first hypothesis, he qualifies it and tries to explain it by saying that if a labourer receives more real wages because of a decrease in the price of commodities, “real wages will be increased, but not money wages, and there will be nothing to affect the rate of profit” (p. 692). But, he says, if the labourer receives a higher real wage at a higher cost, “his money wages are higher. The expense of these increased money wages falls wholly on the capitalist. There are no conceivable means by which he can shake it off” (p. 692). This is clearly equivalent to saying that the rate of profit may not fall when real wages rise, but he has distinctly stated just above that in either case the rate of profit will fall. This seems to be a confusion resulting from the classical fallacy that wages depend on the price of commodities.

He mixes the wage fund or short-run results with the long-run results. Here he says an increase of population causes an increase of wages and lowers profits, but by the wages-fund method an increase of population supposedly causes lower wages and consequently higher profits. In dealing with profits as a rate Mill is discussing real distribution, and is not resorting to Ricardo's proportioning method. Some commentators have tried to draw a shallow distinction between total profits and per cent. of profits, calling the former a real distributive share and the latter a pseudo-distributive share, but the latter is properly a result of real distribution. His second hypothesis is based on the proposition that an increase of population will result in a higher price for food because of the increased difficulty of production.

"The price will rise . . . , it will rise so as to indemnify him for the increased labour which he must now employ in order to produce a given quantity of food ; but the increased wages of that labour are a burden common to all, and for which no one can be indemnified. It will be paid wholly from profits. Thus, we see that increased wages, when common to all descriptions of productive labourers, and when really representing a greater cost of labour, are always and necessarily at the expense of profits, and by reversing the cases, we should find in like manner that the diminished wages, when representing a really diminished Cost of Labour, are equivalent to a rise of profits " (p. 693).

Mill's fundamental error under the second hypothesis is that he, in common with his predecessors, assumes an increasing difficulty of production, and consequently an increasing cost and price of agricultural products, that is not consistent with reality. In both of his propositions he assumes a degree of fixity of the joint product of labour and capital that is not found in economic life. He seems to be putting old wine in new bottles, trying to explain long-run distribution in terms of short-run concepts which are themselves fallacious. Mill thus disposes of static profits—profits under barter and profits under money economy—and then turns to the dynamics of progress. We have previously noted, under the con-

sideration of wages, that he characterized the progressive state as one in which population and capital are increasing and production improving. Consecutive suppositions with two of the factors stationary and one progressive are supposed to show how the shares of distribution are affected by this state of progress. If population increases, with capital and productive technique remaining stationary, he concludes :

“The state of the capitalist, on the contrary, will be improved. With the same capital, he can purchase more labour, and obtain more produce. His rate of profit is increased. The dependence of the rate of profits on the cost of labour is here verified ; for the labourer obtaining a diminished quantity of commodities, and no alteration being supposed in the circumstances of their production, the diminished quantity represents a diminished cost ” (p. 711).

That is, as he sees it, the capitalist, by virtue of the increased quantity of labour, will be able to buy labour at a less cost to himself. This seems a valid conclusion. But if the ratio of labour to capital varied as inferred by Mill, there would probably be a decrease in wages and an increase in the rate of profits. These changes would take place, however, not because of the increased difficulty of obtaining a subsistence, but because of the diminished productivity of the units of labour and the increased productivity of the units of capital in the productive combination. Mill does not follow Ricardo in his fractionizing process.

The second proposition is that if population and technique of production remain stationary while capital increases, real wages will rise ; “the increase of wages, therefore, must be at the charge of the capitalist ” (p. 713). He has postulated this conclusion on the absurd proposition that “there is no increase of the produce ” (p. 713). Now if population and the technique of production remain stationary, and capital increases in quantity, it very obviously is not logical nor correct to conclude that the produce will remain the same. The produce will logically increase with the increase of any

one of the factors, when the others remain fixed in quantity. This is the point that was obscure to many of the classicists, and in this case, while it does not render Mill's conclusion invalid, his argument is not conclusive. He is correct in his assertion that wages will rise, but they will rise not for the reason given but because of an increased productivity. Profits may fall, not for the reason given but because of the decreased productivity of capital. But under circumstances, the increased product may be shared with capital and tend to counteract the tendency of an increase of capital to create a diminution of profits. The proposed theory of population takes care of the rise of wages as population increases. Under the third condition, if capital and population increase with equal rapidity, Mill concludes that money wages will rise and real wages remain the same.

"The labourer obtaining the same amount of necessaries, money wages have risen ; and as the rise is common to all branches of production, the capitalist can not indemnify himself by changing his employment, and the loss must be born by profits " (p. 714).

Here he has disconnected the decline in profits entirely from the ratio between capital and population, since this is assumed to be constant, and made this decline dependent entirely on the relation of the population to land. His proposed cycle of events is presumably as follows : an increase of population causes an increased demand for food ; the food is produced at an increased cost ; this increased cost causes a higher price for agricultural products ; this higher price increases profit, but the increase of profit goes to the landlord in the form of rent. His conclusion is that the loss resulting from the increase of rent " must be borne by profits," as noted above. This is pure Ricardian theory, but Mill has evidently entirely overlooked the fact that an increase of population and capital does not necessarily cause food to be produced at an increased cost ; it may result in more food at less cost. His combination of labour cost and rent with profit results in error. What disposition

does he make of the product ? Does he mean by profit the rate, or the fraction of product ? What does he mean by increase of capital ? The final distinct case of dynamic profits is a situation in which capital and population remain stationary and the art of production rapidly improves. As Mill sees it, if the improvements take place in those commodities not consumed by the labourers there is no change in the "distribution of the produce" (p. 715). "The rate of profit, however, is not raised" (p. 716). The reason he gives for this is that capital when estimated in the increased commodities has risen in value, and the rate remains the same. It is different, he thinks, when the improvements in production are in the production of necessities. These improvements are of two kinds : one an improvement in saving labour which does not decrease the amount of land used ; the other one in which the productivity of land is increased, enabling a less quantity of land to suffice. As the argument runs, in the first instance the margin of cultivation remains the same,

"and the price continues to be regulated by the same land, and by the same capital as before, but since that land or capital, and all other land or capital which produces food, now yields its produce at smaller cost, the price of food will fall proportionally" (p. 716).

What he means by a "smaller cost" is conjectural, but apparently he is thinking of labour cost only, and labour as constituting the entire cost. Now as to what becomes of the saved "labour," he does not seem to think worth while to explain. Neither does he explain why labour-saving devices will not enable less land to suffice and thus change the margin ; the margin, in his opinion, is rigid. If the price of food falls "proportionally" to the improvement, how can he justify maintaining the same margin, since this margin is so intimately dependent on the price of food. This passage is a perfect example of the complications arising when the classicists attempted to apply their theories to actual economic life. The other improvement is in the pro-

ductivity of land, and this kind of improvement, he thinks, will cause less land to be used, and will cause a recession of the margin, which when combined with the first improvement, will result in a "twofold fall of price" (p. 717). This fall in price of food would not change the money wages of labour at first, but Mill feels sure that it would do so eventually.

"They have treated it simply as convertible into food for a greater number of children. . . . To the extent to which money wages fell, profits would rise; . . . We thus see that a diminution of the cost of living, . . . if the habits and requirements of the labourers are not raised, . . . raises the general rate of profit" (p. 720).

Now under this discussion of improved production Mill has muddled his hypothesis considerably in both instances; his hypothesis calls for a stationary capital and population, but in the first case he argues that the rate of profit will remain the same because capital has "risen value." In the second instance, although he has assumed a stationary population he explains the increase of profits on a basis of declining wages caused by an increasing population. In both cases he seems to have no conception of the competition of capitalists and the productivity of capital as having a part in the determination of profits, but seems to think competition is all on the side of labour, which competition supposedly reduces wages and increases profits. Now, if the margin recedes, less land will be cultivated; if less land is cultivated even though capital does not increase in quantity, it will increase relative to land, or the land will decrease relative to the capital, and also to the population, which means the same thing, and this tends towards a diminution of profits and wages in the same proportion, instead of an increase in profits as Mill asserts. Mill sums up his entire discussion of a progressive state by saying: "the cost of the labourer's subsistence tends on the whole to increase and profits to fall" (p. 724). That would mean that wages will increase and profits fall as popula-

tion, capital, and production increase. As we have noted in various parts of this analysis, many of his conclusions are arrived at from false hypotheses or illogically. Wages and profits are determined on a basis of the productivity of labour and capital respectively, and cannot be decided by the hypothesis that wages increase because the cost of the labourer's subsistence rises as the result of increasing difficulty of producing this subsistence on poorer soil; neither has profit been proven to decrease because the increasing cost of subsistence is subtracted from the hypothetical joint marginal product. Mill turns from considering the causes regulating profits to the question of minimum profits.

"There is at every time and place some particular rate of profit, which is the lowest that will induce the people of that country and time to accumulate savings, and to employ those savings productively. This minimum rate of profit varies according to circumstances. It depends on two elements" (p. 728).

These two elements are the comparison of the present and the future, and the degree of security of capital engaged in industry. Any other motives Mill thinks are relatively unimportant when compared to the motive of profit in the accumulation of capital. The two elements are affected in a favourable direction by progress in civilization. Greater security is provided and "mankind becomes more willing to sacrifice present indulgence for future objects" (p. 730). This is clearly the abstinence basis of capital supply. We have noted in the first section on profits how inconsistently Mill uses the term. Judging by the context, he seems here to consider profit as the pure earnings of capital. If this is a correct interpretation, security and foresightedness may have something to do with the productive activities of a society, but the productivity of capital is a much more proximate force in determining what Mill calls the rate of profit. The real cause of the decrease in profits, Mill thinks, is the increase of capital, but he fails to connect this increase of capital properly with the diminution of profit.

His argument is that as capital increases, if it is not exported, "population would also increase, or it would not" (p. 732). If it does not increase, wages will rise, there will be no increase of produce, and profits will fall. If population increases with the capital, which Mill apparently thinks is the more probable result, more food will be demanded, the food will be more difficult to produce, the labourer's subsistence increases in price, and, of course, since it has been assumed that the price of his subsistence determines his wages, his wages will rise, and profits will fall. He thinks wages must rise. Thus, in either case, according to Mill, when capital increases, profits will fall. But he thinks there are certain counteracting circumstances that may contribute to lessen the tendency to decline. Such circumstances are waste of capital by speculation, improvements in production, importation of cheap commodities from foreign countries, and the export of capital to foreign countries. Considering the first and last causes, it is evident that if capital is wasted, or if it is exported and nothing received in return, there will be less capital to cause a decline in profits. His second and third cause are much alike and his argument is that in either case, that is with improvements in production or importation of cheap foreign commodities, if the labourers do not restrict their numbers, the result will be lower wages and increased profits, which increase will tend to counteract the tendency to a decline. This argument seems to centre more on the principle of population than on the question of profit. Consequently, it does not hit centre on profits and seems to arouse only the faintest hint that profits may depend on the productivity of capital. Mill concludes his remarks on profits by saying that improvements in production and exportation of capital do not diminish the produce and the demand for labour at home; "Nor is it any exaggeration to say that within certain, and not very narrow, limits, the more capital a country like England expends in these two ways, the more she will have left" (p. 745). This illustrates at

once the narrow insularity of Mill's explanation of profit, and the extent to which he looks toward a practical application of his theory from the standpoint of beneficence to England.

Mill attempts to explain rent by the same threefold method he used in trying to explain wages and profits—by using systems of barter, exchange, and social progress. He makes no appreciable progress in the field of rent beyond the discussion of his predecessors. He has six distinct propositions covering the subject of rent. They are (a) rent is the effect of a monopoly, (b) the farmer requires the ordinary rate of profit on all his capital, (c) the excess over the ordinary rate he is compelled to pay to the landlord, (d) a part of the capital used in agriculture yields only ordinary profits, (e) the difference between the produce of this capital and other capital of similar amount measures rent, and (f) rent is determined by price. Considering these propositions in the order named, Mills says: "It is at once evident that rent is the effect of a monopoly" (p. 422). The reason he gives for this is that

"a thing which is limited in quantity, even though its possessors do not act in concert, is still a monopolized article. But even when monopolized, a thing which is the gift of nature, and requires no labour or outlay as the condition of its existence, will, if there be competition among the holders of it, command a price, only if it exists in less quantity than the demand" (p. 423).

It is difficult to consider such an assertion, based on the reasons given, in a serious light. He assumes a condition of competition, in which the owners of land "do not act in concert," and yet calls it a condition of monopoly because land is limited in quality. Such a designation of a monopoly would perforce extend to all economic goods, that is, all goods that are scarce. It is true also that anything, in order to command a price, must exist in less quantity than the demand; if not, it is a free good, and will not command a price. The utter flimsiness of this argument makes it unnecessary to revert to

the reasons given in the negation of Smith's monopoly theory of rent. A great deal of confusion is injected into the second proposition by the bare fact that we do not know just what Mill has in mind when he speaks of profit. It may be any one of several different things. Presumably in this case it is the product of the worst land under cultivation, after a current wage is deducted.

“The worst land which can be cultivated as an investment for capital, is that which, after replacing the seed, not only feeds the agricultural labourers and their secondaries, but affords them the current rate of wages, which may extend to much more than mere necessities; and leaves for those who have advanced the wages of these two classes of labourers, a surplus equal to the profit they could have expected from any other employment of their capital. Whether any given land can do more than this is not merely a physical question, but depends partly on the market value of the agricultural produce. What the land can do for the labourers and the capitalist, beyond feeding all whom it directly or indirectly employs, of course depends upon what the remainder of the produce can be sold for. The higher the market value of the produce, the lower are the soils to which cultivation can descend, consistently with affording to the capital employed the ordinary rate of profit” (p. 424).

Mill cannot mean what he says here, because if the “labourers and their secondaries” are fed they will not be paid the current rate of wages in addition. This would be double-counting. His admission that wages may mean more than bare necessities gets him, in this instance, away from the subsistence theory of wages. It seems to be true also that profits in agriculture will be at a common level with profit in other businesses. The statement, however, that the farmer requires the ordinary rate of profit on all his capital, implies that he may receive more than this rate on some of this capital. Such conclusions are no more valid for agriculture than for other investments of capital. Probably in any business some items may be more profitable than others, yet this fact would scarcely entitle the excess to be called rent. The implica-

tion involved in the above is further emphasized in the succeeding propositions. The third proposition, that

“The surplus is what the farmer can afford to pay as rent to the landlord; and since if he did not so pay it, he would receive more than the ordinary rate of profit, the competition of other capitalists, that competition which equalizes the profits of different capitals, will enable the landlord to appropriate it” (p. 425)

is a perfectly good Smithian idea; the farmer can afford to pay this as rent, and the landlord will exact it because he can, so says Mill. The landlord can exact it, not because land is more of a monopoly than other scarce producer's goods, but because this surplus over profit gives the landowner an income which, when capitalized, determines the value of the producer's good which he supplies to the productive process—in this case land. The so-called “surplus” is the income of the land, and if the land is evaluated as the other productive goods with which it co-operates, it will not be a surplus profit, but will be the average profit. The fourth assumption also involves the idea noted in the second one. It is “that there is a portion of capital applied to agriculture in such circumstances of productiveness as to yield only the ordinary profits” (p. 429), that is, on no-rent land. Just why this statement is considered by Mill as being weighty enough to contribute to the understanding of rent is difficult to see. We repeat that such a conclusion is no more specifically applicable to agriculture than to any mode of capital investment. In this sense there is marginal productivity of all kinds. It is in the fifth proposition that we can note some variety in Mill's argument.

“The difference between the produce of this, and any other capital of similar amount, is the measure of the tribute which that other capital can and will pay, under the name of rent, to the landlord” (p. 429).

It is easy to conjecture why Mill calls rent a “tribute” when we recall his idea of appropriation of natural

resources, and his monopoly aspect of rent. Rent does not constitute a tribute, however, when it is pay for the use of a valuable instrument of production. It is a compensation. It can be paid and it will be collected, both because of the productivity of the land. We see under this division that Mill refers to the difference as "produce" and not value. But we recall that under his second proposition he has admitted that what the land can do in the way of the surplus depends on what this remainder "can be sold for," that is, its value. That this surplus must have value before it is really an income is very obvious. He covers his proposals so far with one blanket; "This constitutes a law of rent, as near the truth as such a law can possibly be" (p. 429), and proceeds immediately to get into deep water by taking issue with Carey for saying that all rent is "the effect of capital expended" (p. 430). Without doubt the truth is between the two.

Mill's final principle is that rent is determined by price. This principle will be best examined in his observations on rent and value, but before we proceed to that question we shall consider another to which it is subordinate—the question of cost of production. The concept of cost of production seems to be conceived and defined quite in consonance with Mill's predecessors in a manner pointing directly to the elimination of rent from the idea rather than to inclusion in the concept of all the elements in the cost of production, and to the elimination from it of all non-component factors. Having almost subscribed to Ricardo's pure labour theory of value, in his ultimate analysis of cost of production, Mill says: "Profits, therefore, as well as wages, enter into the cost of production which determines the value of the produce" (p. 462). According to his explanation, he means here not the general rate of wages, not the general rate of profit, but the portion of wages and the portion of profits resulting from their variations in different products; that is, where they enter to "a greater degree" into costs of some things than of

others. Mill seems to sense the fact that he is walking on thin ice. He refers to

"A natural agent being a possession in perpetuity, and being only serviceable by the products resulting from its continued employment, the ordinary mode of deriving benefit from its ownership is by an annual equivalent, paid by the person who uses it, from the proceeds of its use. This equivalent always might be, and generally is, termed rent. The question, therefore, respecting the influence which the appropriation of natural agents produces on values, is often stated in this form: Does Rent enter into the Cost of Production? and the answer of the best political economists is in the negative" (p. 468).

Admitting certain qualifications, he promises to show in what sense rent does not enter into cost of production. Before we proceed to that phase of his discussion, however, let us examine the above quotation. Now there is no more reason to assert the perpetuity of possession of an appropriated natural agent than of any other agent, natural or otherwise, in an economic state where competition exists, or where land may pass freely from hand to hand. Here is the basis of much of the classical fallacy concerning rent. This hypothesis is based on the idea of "original and indestructible" nature of land, which was expressed by Ricardo. Neither does the natural agent differ from other agents in character relative to the benefits of its ownership coming from payments "from the proceeds of its use." Payments for the use of all agents must come in a like manner. Consequently we may conclude that the special character of a "natural agent" as described by Mill is a pure fiction. Returning now to his efforts to prove that rent does not enter into the cost of production, we note that Mill used value, price, and natural value as synonymous. His argument is purely classical.

"The value, therefore, of an article (meaning its natural, which is the same with its average value) is determined by the cost of that portion of the supply which is produced and brought to market at the greatest expense. This is the Law of Value of the

third of the three classes into which all commodities are divided" (p. 471),

but he has previously told us in the same section of his discussion that "This rise in price will gradually be brought about by the increasing demand" (p. 470), also that this rise in price must precede, not follow, the production of the produce. Now we submit that according to Mill's own explanation he arrives at natural price by two different routes: one a cost of production route, the other the demand route. Mill has not shown us just how these two forces, and that they are two distinct forces is not to be doubted, converge at the natural price. We must remember, too, that he wishes us to understand this price of the "greatest expense" is a cost of production price. Now if it is first caused by the demand, how can it be a cost of production price? The nature of equilibrium conditions may be inferred from his argument, but it is never explicitly described. The difference between the natural price, or, as he would call it, the greatest cost of production price, and other costs of production, is rent. "All the portions raised in more favourable circumstances, selling as they must do at the same value, obtain a value more than proportioned to their cost of production" (p. 471).

His final conclusion is that

"Rent, therefore, forms no part of the cost of production which determines the value of agricultural produce. . . . Thus rent is, as we have already seen, no cause of value. . . . Rent, in short, merely equalizes the profits of different farming capitals, by enabling the landlord to appropriate all extra gains occasioned by superiority of natural advantages" (pp. 472-473).

It is obvious from the above discussion that the concept of cost of production is not accurate or inclusive. There may be marginal costs of production and other costs of production, but where valuable land is used in production and rent is paid, this rent may or may not form part of the cost of production, depending upon the extent to which the land is subject to alternative uses. When Mill

considers rent under a system of exchange, he is very brief and tries to be conclusive.

"When the demand of an increasing population for more food can not be satisfied without extending cultivation to less fertile land, or incurring additional outlay, with a less proportionate return, on land already in cultivation, it is a necessary condition of this increase of agricultural produce that the value and price of that produce must first rise. . . . Exchange and money, therefore, make no difference in the law of rent; it is the same as we originally found it. Rent is the extra return made to agricultural capital when employed with peculiar advantages" (pp. 690-691).

This needs no comment, as it has been thoroughly covered under the first section on rent.

It has been previously noted under wages that Mill tried to confirm the classical fallacy of the difference between the tendencies of agricultural prices and prices of manufactured goods.

"The cost of production of the fruits of the earth increases, *ceteris paribus*, with every increase of the demand. No tendency of a like kind exists with respect to manufactured articles. The tendency is in the contrary direction" (p. 702).

He calls attention much more definitely than do most of his predecessors to the fact that this increase in the cost of production may be counteracted by agricultural improvements.

"Whether agricultural produce increases in absolute as well as comparative cost of production depends on the conflict of the two antagonistic agencies, increase of population and improvements in agricultural skill" (p. 703).

He is absolutely correct in this, as far as he goes, but he makes the fatal error in his argument of emphasizing the population element, and assuming that it will predominate, and he takes no account of the influence of the amount of capital. When he turns from progressive prices to the consideration of his dynamics of rent

proper, he combines the Smithian idea of national stages with the pure Ricardian concept of rent. We remember that his three features of progress are increase of capital, increase of population, and improvements in production. His first problem is that if population increases and the other factors remain constant, wages will fall, but more food will be required and its cost and price will be increased, with the result that

“rent will rise. . . . Its rise will be twofold, for, in the first place, rent in kind, or corn rent, will rise; and in the second, since the value of agricultural produce has also risen, rent, estimated in manufactured or foreign commodities (which is represented, *cæteris paribus*, by money rent), will rise still more” (p. 712).

There is no reason to leave profit out, because it would increase according to both residual and modern versions of profit.

We need not search for a better illustration of the fruits of the early inculcation of Ricardian precepts in Mill's mind. Here they are in their pure though derivative form, with the modicum of truth remaining after eliminating the fallacy of price, as determined by cost of production, that rent will rise by virtue of the principle of proportionality, which is a fundamental of specific productivity. If population and improvements in production remain stationary and capital increases, he thinks, wages will rise, profits will fall more than wages rise, and the excess decline will be added to rent. “The same causes will produce a rise of rent.” His conclusion is valid, but he has used two invalidities in reaching it. In the first place rent does not rise because the addition has been deducted from profits, but because land becomes relatively scarcer than capital. Secondly, he reasons falsely that wages will rise at the cost of the capitalist, since “there is no increase of the produce” (p. 713). But there will be an increase in the produce, and there will be an increase in the produce per worker, because the worker has the same land and more capital with which to combine his labour, not because the worker takes more

from the capitalist's profit. Rent will increase because land is more important in the productive combination. When he supposes population and capital to increase at the same rate, his solution conforms to his previous discussion ; " It appears, then, that the tendency of an increase of capital and population is to add to rent at the expense of profits " (p. 714). This, of course, must give way under the same criticism as the above. Wages, no less than profits, will suffer because of the growing pressure upon natural resources. With a stationary population and capital, and improvements in the arts of production, the argument runs that if the improvements tend to diminish the cost of production of necessities, it will throw the worst land out of cultivation by lowering the price. " It thus appears, that the interest of the landlord is decidedly hostile to the sudden and general introduction of agricultural improvements " (p. 718), because its immediate tendency is to lower rent. But Mill thinks its practical operations are rather in the opposite direction because improvements are slow, and really serve " to raise it much higher " (p. 719), because it gives a greater margin for the increase of the population. But this is shown more clearly when he supposes all three forces to be increasing, but the arts not at the same rate.

" Agricultural skill and knowledge are of slow growth, and still slower diffusion. Inventions and discoveries, too, occur only occasionally, while the increase of population and capital are continuous agencies. It therefore seldom happens that improvement, even during a short time, has so much the start of population and capital as actually to lower rent, or raise the rate of profit. . . . Population almost everywhere treads close on the heels of agricultural improvement, and effaces its effects as fast as they are produced " (p. 712).

He continues this argument by saying that

" Agricultural improvement, then, is always ultimately, and in the manner in which it generally takes place also immediately, beneficial to the landlord. . . . The economical progress of a

society constituted of landlords, capitalists, and labourers, tends to the progressive enrichment of the landlord class " (p. 724).

This is an incorrect conclusion again, if there is a landlord class, and the chain of reasoning by which he has arrived at the conclusion is not a strong one. Agricultural improvements are always inimical to the interests of the landlords because the improvements permit sufficient production with less land. Land will draw a greater share from the social product, because its productivity will increase as a result of the diminishing ratio between it and the other factors. Not because labour takes more and profits less, nor because the improvements give population an opportunity to increase. His conclusion that the development of the arts lags behind the growth of capital and population and causes a consistent increase of prices and rent needs no further refutation than to refer to prevailing wheat prices, under a tractor and combine régime in 1931, which are the lowest in the three centuries, centring at the time Mill wrote his disquisition on prices and rents.

At the beginning of this discussion of rent it was indicated that Mill remained true to Smithian ideas. In partial confirmation of that statement Smith is quoted as follows: " Every improvement in the circumstances of the society tends either directly or indirectly to raise the real rent of land, to increase the real wealth of the landlord " (*Wealth of Nations*, p. 247). This is identical in meaning with the conclusion at which Mill arrived. In further confirmation of the statement, we should recall that in the vernacular of Adam Smith, the " progressive state " (*Wealth of Nations*, p. 83) is characterized by a rapid increase of wealth, which increases wages, resulting in an increase of the population. The stationary state is one in which these forces are at a standstill. The declining state is one in which wealth and population are decreasing. In Mill's hypothetical phases of a progressive society, he imagines conditions which in reality were calculated to set forth the effects of the same

changes indicated by Smith, and Mill's conclusions are identical in most cases with those of Smith. The mechanics of the concept are an advance over his predecessors'. Mill's conception of "industrial progress" called for increase in both capital and population and progress in arts, but instead of spreading these changes over three supposedly successive historical epochs, he has envisaged them to operate singly and in concert with usually one of the factors held stationary. As a whole, in his discussion of distribution Mill has provided us with a synthesis and in many cases with new applications of the theories of his predecessors, but it cannot be said that he has offered any major contribution to previous developments.

CHAPTER VIII

SUMMARY

SUCH an expression as the "classical theory of distribution" should refer to a unified and integrated system of distribution. Its use implies that there has existed a group of scholars, the members of which subscribed to a common set of fundamental principles of an integrated theory of distribution. Since the writers whose works have been considered in this analysis cannot be said to have been a group, the designation of their various theories and theses by this title is a misnomer. There is not, relative to the quantity and content of the social income, to the method of realizing its distribution, or to the determination of the distributive shares of wages, profits, and rent, a unanimity of opinion among the writers studied that justifies the implication of agreement. Probably on the subjects of the tripartite division of income and the concept of wages there comes nearer to being a continuity of thought than on any other portion of the field, but even here the triple division of the produce is seen to be unreal, and there is no general agreement as to the meaning of labour, or as to how the labourer's share is determined.

Although the subject of distribution is a secondary division of the principal argument put forward by the author of the *Wealth of Nations* as a counter against the national policy that had prevailed in England for the greater part of two centuries at least, it can perhaps be more truly said of Adam Smith than of any of the other "classicists" that his was a philosophical viewpoint engaged with long periods of time. The other writers, regardless of assertions to the contrary, were tossed about between the desire to promulgate scientific principles on the one hand and the more immanent

necessity of dealing with problems of political expediency and economic welfare on the other.

Adam Smith retained the "natural" economy of the Physiocrats, but shifted labour into the important place occupied in their discussions by land. He begins his discussion of distribution, as has been previously noted, with the explanation of wages, and concludes it with an exposition of rent. He clearly believes that the subject of wages may be explained, not necessarily without reference to, but prior to, the subject of rent. His basic proposition is that of a subsistence wage, a wage which barely provides for the subsistence of the race. He finds it modified by the labour contract, with the advantage on the side of the employers, by the fluctuation of the funds for the maintenance of labour, with the advantage accruing to the workmen when the fund increases, and operating against them when the funds are decreasing, and by the cost of food.

Profits in Smith's system are competitive profits, determined by the competition of the owners of stock. The effects of their competitive efforts are modified by the quantity of stock in existence. Smith believes that in a progressive state stock increases so rapidly that the rate of profit does not increase, that in a stationary state stock has reached a saturation point and profits are low, and that in a declining state the amount of capital decreases without a corresponding decline in the need for it, and the owners of stock experience their golden age with the existence of high profits.

Smith declares that rent is the result of a monopoly price; rent is a component of price; rent is the effect of price; high or low prices are caused by high or low wages and profits; the surplus of price above wages and profits depends upon the demand; rent varies with fertility and situation; improvements raise rent; the price of agricultural products always increases, thus raising rent; and finally land almost always produces more than enough to pay the wages and profits involved in production.

The scope of the *Wealth of Nations* is much broader than the view commonly embraced in the term political economy or economics. The book includes two grand divisions, the first, included in the first four books, having to do with the annual produce that satisfies the wants of the "great body of the people," and the second concerning the revenue of the State. In the first division Smith treats of production, distribution, consumption, and their many related subjects. In the second he has included discussions of national incomes, expenditures, and debts. In both he has used illustrations of historical evolution on a grand scale. It is a common expression among present-day economists that in the *Wealth of Nations* the embryo of almost any current economic theory may be found. However true this may be, it is certainly true that the immediate successors of Adam Smith found the roots of their own theories deeply embedded in the discussions of the *Wealth of Nations*. His immediate followers, as well as many present-day disciples of Adam Smith, selected specific parts of his doctrines which they chose to emphasize and make the nuclei of their own doctrines, irrespective of the co-ordinate principles of Smith, regardless of the conditions under which they originally evolved, and without due regard to where they led.

The intellectual atmosphere of England at the close of the eighteenth century, like ours in the first half of the twentieth, was surcharged with optimism as a result of great discoveries in natural philosophy, increase of knowledge, extension of printing, and a general emancipation of the spirit of inquiry. Under these conditions, Malthus started his venture into the field of political economy. Neither in his first writing, the *Essay on Population*, nor in his essay on *The Nature and Progress of Rent*, nor yet in his *Principles of Political Economy* did he choose to include the entire field covered by the *Wealth of Nations*. Indeed, the fundamental principles upon which he based his first two efforts can be found in two sentences in successive paragraphs of the *Wealth*

of Nations. Smith says, "As men, like all other animals, naturally multiply in proportion to the means of their subsistence, food is always more or less in demand." This is the gist of the *Essay on Population*. In the following paragraph we find, "But land, in almost any situation, produces a greater quantity of food than what is sufficient to maintain all the labour necessary for bringing it to market." This is Malthus' first principle of rent. To anyone who reads the *Essay on Population*, even as modified in the later editions, following this with the essay on rent, and concluding with the *Principles*, there can be no doubt that the two propositions form, in essence, the theory of the *Principles*. Setting aside the controversial nature and the relativity of this development, we note that Malthus was a conservative reformer, a defender of the *status quo*, who sought to emphasize, not the immediate "perfectibility" of humanity, but rather what he conceived to be hindrances to the attainment of this state of bliss.

The question of rent loomed so large in the opinion of Malthus that, instead of discussing wages first in his explanation of distribution, as does Smith, he proceeds to set up his theory of rent. Instead of subscribing to the monopoly theory of rent as proposed by his predecessor, Malthus denies the dominance of the monopoly element and defines rent as a surplus after costs of production are paid, and becomes the first of the classicists to assert the dominance of the surplus nature of rent. In the position which he gives rent in his scheme of distribution, and in his explanation of the nature of rent as a surplus, Malthus reverts to the Physiocratic concept of the importance of land and the existence of the *produit net*. The causes of the surplus he conceives to be the power of the soil to support more labour than is required in production, the demand creating power of the necessities of life, and the scarcity of fertile land. The first is considered the dominant cause, the second a corollary of it, and the third a subordinate cause, possibly derived from a similar idea

of Adam Smith. Malthus very frankly identifies his principle of population with this second cause of rent. Although in places he asserts the priority of the first cause, in reality he sets the second cause above the first, because he declares that the second cause is necessary to give a value to the surplus produced by the first cause. In addition, he declares that the third cause of rent is the natural consequences of the second, thus definitely centring his entire explanation of rent in his principle of population. The last proposition of Adam Smith on rent becomes the first cause of rent as conceived by Malthus. He also combines some of the elements of Smith's progressive state into the causes of the increase of rents.

In his discussion of wages, Malthus follows Adam Smith very closely and declares that wages depend upon the demand for labour and the price of the labourer's sustenance. The latter is determined by the subsistence wage and the former is embodied in Smith's concept of the wage fund consisting of funds for the maintenance of labour or funds used to set the labourers to work. Probably because of its relation to the question of population, Malthus emphasizes the maintenance fund, and tries to extract it from the total capital of the country, which, he recognizes, is not all of direct interest to the labourers.

The only practical chance he sees for the labourers to improve their condition is in the exercise of prudential habits relative to the increase of their own numbers, rather than in an increase of the wage fund; thus he fits his principle of population into his explanation of wages.

Malthus defines profits as the difference between the value of the product and the value of the advances made by owners of capital. Apparently without realizing it, he makes advances almost identical with the entrepreneurial cost of production, and consequently inclusive of wages and rent. Profit, as he sees it, is limited by the size of the marginal product and regulated by variations

in the value of the produce. As society advances, the size of the marginal product diminishes because of the necessity of resorting to the use of inferior land, but the wants of the labourer do not change. Profit is thus a residue of the marginal joint product. The value of the produce is caused to vary by changes in the supply of capital. The constant increase of capital increases the value of the produce, but labour continually gets an increasing proportion of the produce, thus leaving a decreasing amount for capital in the way of profits. The surplus theory of rent, the subsistence theory of wages, and the residual theory of profits are thus all brought together as expansions of various phases of the great principle of population.

Although traditionally recognized for his supposed contribution to the explanation of rent, Ricardo had no definite theory of rent that could be called his own. On the first page of his *Principles* he subscribes to the theory of rent as developed by Malthus. In his chapter on rent he discusses it not primarily as a major subject but only as a corollary to his labour theory of value. He follows the plan of Malthus in discussing rent as the first share in distribution, and he follows Malthus also in selecting a segment of a discussion on which to base his entire system of distribution. Although he raises some minor questions relative to the first two causes of rent as conceived by Malthus, he ostensibly builds his explanation of rent on the third cause, "The comparative scarcity of the most fertile land," and on this constructs his stair-steps of diminishing fertility and his embryonic idea of diminishing returns, and forms his differential surplus. Malthus has admitted the monopoly factor to a secondary place in the formation of rent, but Ricardo emphatically denies monopoly as a causal force on the basis of his supposition that it is the surplus of price that is rent, and that the price of agricultural products is determined by their labour cost of production at the margin, and is consequently free from monopoly.

Ricardo describes rent as the excess of price above the

cost of production, which is essentially the same as the description given by Malthus. It is only in the non-essentials that there is disagreement. The cause of this excess of price, as Ricardo sees it, or the cause of rent, is that as population increases, with a limited supply of fertile land, the product will require more and more labour, and consequently will constantly increase in price, leaving a greater surplus of price in the price of the product derived from supra-marginal soil. Although he has declared that it is capital that controls population, and not food as Malthus thought, he has arrived at identically the same point in the explanation of rent that was reached by Malthus, even though he has arrived by a different route. The principle of population is just as dominant a factor in the explanation of Ricardo as it was in the explanation of Malthus, regardless of the fact that he follows the detour through capital rather than speaking directly of food. The rise of rent Ricardo explains as the effect of increasing wealth and population, so here again the principle of population is called upon to explain the increase in rent, as it was called upon to explain its original existence.

It is in the discussion of the wages of labour that Ricardo reaches the centre of his doctrine. He blends the subsistence theory of wages and the primitive labour theory of value of Adam Smith into a more rigorous and pure labour theory of value, at the margin of cultivation. He meets with the necessity, as will be explained in the following section, of supplementing the subsistence theory of wages with the residual theory of profits, in order to arrive at the pure labour theory of value, but it is at the margin that the miracle is performed. His wages are determined by two forces, the supply and demand of labour and the price of the commodities which the labourer buys. Now the first force, the supply and demand of labour, is stated specifically to be the force that determines the market rate of wages. The second force is also asserted to be the determiner of the natural rate of wages. The natural price of labour is defined

to be the price that will enable the labouring population to subsist, and of course, under this definition, the most elementary logic would lead to the conclusion that in order for the labourer to subsist he must receive the natural price, or, in terms of money, enough to buy the necessities he uses. If this is not conclusive, it is perhaps as much so as is the explanation that defines the market price of labour as the wages determined by the supply and demand.

Ricardo, therefore, fully subscribes to the theory of the pressure of population on the food supply, but would bring it about through the pressure on the accumulations of capital. The result of these two forces would be a decline in wages. But as stated above he combines with these the other force, the price of the commodities the labourer uses. Here again he reverts to the principle of population, and says that as population increases necessities will rise in price. As necessities rise in price, wages must rise to cover the price of necessities. His final result is that because of the rapidly increasing difficulty of producing food, the price of the food will increase more than the wages, leaving the labourer in a poorer condition than before even though his wages have been increasing. The sum total, then, of the two major forces is a decline in wages. All this Ricardo has deduced from the principle of population, and his concept of rent.

It was stated above that Ricardo blended the Smithian subsistence theory of wages and the primitive labour theory of value into the pure labour theory of value at the margin of cultivation. To do this, he was compelled to supplement the subsistence wage with the residual theory of profit and assume capital to be "congealed labour." Ricardo thinks that with the progress of society the labourer is worse paid but receives higher wages which reduce the profit of the manufacturer and the farmer. The natural tendency is toward a decline in profits because as society progresses food is procured with increasing amounts of labour. This is the zero

hour of the pessimist. The marginal product, therefore, is conceived as consisting of two parts: the wages of labour and the profits of stock. As the first part increases, though the labourer gets less, the residue becomes smaller. The labourer does not get all his product, but the residual profit, after a subsistence wage is paid, goes to the owner of capital. Now if Ricardo is correct, Marx is correct, and there is a surplus value created by the labourer at the margin, which the labourer does not get. This is a fatal point in the labour theory of value, which is the heart and centre of Ricardo's system. It vitiates his explanation of profit, of wages, and of rent. He thinks wages increase because of the increased labour cost of producing the necessities of the labourer, which necessities he would value according to their cost in labour; this increase of wages decreases profits. The increase of the price of products caused by their increasing labour costs results in the increase of rent, which thus also originates in this labour value concept.

Starting with rent primarily as a surplus, Senior spreads the idea of surplus over all the factors, and makes it include elements in the shares of both labour and capital above the average wages and above the average profits. Although granting some importance to the monopoly factor in rent, he conceives of rent as the surplus of price above the cost of labour and abstinence required for production. He frankly admits that the surplus is the *produit net* of the Physiocrats, and he also emphasizes the principal cause of rent as given by Malthus, the "power of producing the subsistence of more persons than are required for its cultivation" as the "real cause of rent." It is approximately accurate, then, to say that Senior subscribed to Malthus' theory of rent and used it as the point of departure for his discussion of distribution.

The source of rent having been located according to the above principle, the amount of rent is declared to be the positive and comparative productiveness of the natural agent. The amount is independent of the will

of those who receive and those who pay it. There is no upper or lower limit to rent. According to this explanation rent is a surplus, extraneous to human efforts and will. His minimum wage is the subsistence wage, and minimum profits are the profits above the "lowest that is conceivable" necessary to compensate the capitalist for his abstinence. The lowest conceivable profits he leaves absolutely untouched in this relation, as to cause and amount. The decline of profits is the result of competition of the owners of capital goods.

As he discusses wages Senior gradually drifts toward Ricardo's principle of proportion, even though he has castigated Ricardo for the use of this principle. Senior declares that wages are determined by the relation of the size of the wages-fund compared to the number of labourers. Unlike his predecessor, Malthus, he apparently gives but little consideration to the number of labourers under his discussion of distribution, but he chooses to emphasize the importance of the other term of the ratio. His logical arrangement and development of this part of his thesis, while suggested in an indefinite way by all three previous writers, constitutes a contribution that is second only to his concept of abstinence, if second even to that. If we accept the validity of his proportion as determining wages, we must agree that he has not been content just to state the proportion as the determiner of wages, but he has gone behind the proportion to uncover the more remote forces involved. The first of these causes he conceives to be the productiveness of labour which depends upon the personal qualities of the labourer, and the degree of assistance provided labour by the natural forces and capital accumulations. If the labourer is the centre of the productive process it must be admitted that a more inclusive and logical set-up of the forces affecting the size or quantity of the product would be difficult to find. The second cause affecting the size of the fund is the diversion of labour into channels other than producing for labourers. Taxation is assumed to be of no importance in this respect, and rent is

assumed to be "extrinsic" because the surplus is assumed to be the result, primarily, of the technical improvements in agriculture, and the labourers used in producing this rent exist "only in consequence of the existence" of this surplus, and are not, in reality, diverted from producing for themselves. The rent surplus is caused, secondarily, by the increase of population, and this rent will be a deduction from wages, or rather the labourers required to produce this surplus will be diverted from their direct function. But he assumes this diversion to be of little consequence.

It should be noted that Senior takes direct issue with Malthus on the operation of the principle of population, not as to fact but as to emphasis, but he is not consistent and repeatedly reverts to the use of the principle and to its causal force in his system.

The really important deduction from wages, as Senior sees it, is the deduction of profit. The rate of this deduction or the rate of profit depends on the relation of the capital and population and the time of the advances. If we compare this idea of population and capital with the idea that wages depend upon the proportion between the funds for the maintenance of labour and the number of labourers to be maintained, we see the identity of this previously proposed determiner of wages with Senior's determiner of profit rates. He has tried to explain wages by explaining profits in terms of wages. His explanation of the principal cause of the diversion of labour which influences wages ends with the blind alley walled on one side with accumulation of capital and on the other with the size of population. He has, however, contributed to the explanation of the forces that affect the wages-fund. Both of his immediate predecessors declared the utter inability of the labouring population to remedy their own situation, by other means than limiting their own numbers; regardless of the inadequacy of his explanation of wages, Senior takes the other side of the question with good effect and shows that there are elabengma forces which affect the funds for the mainten-

ance of labour. He shows, assuming the correctness of his original proposition that wages depend on the proportion between the funds for the maintenance of labour compared with the number of labourers to be maintained, that the other term of the proportion can be influenced and thus the wages be changed as well, and possibly more directly than by the exercise of prudence in the limitation of the number of labourers. This his immediate predecessors have not done.

Senior was imbued with the importance of the labour theory of value, but saw the weakness of Ricardo's labour theory, which, in translating labour cost into distributive shares, allowed for a surplus value which went to profit. He provides a prop for the weakened structure at this point by his abstinence theory of profit which supposedly immediately translates labour cost into compensation for sacrifice endured by the human element in production, and then at once changes this compensation for sacrifice into the more direct shares of compensating labour and abstinence.

In his labour diversion process Senior gives a new interpretation of the method used by Adam Smith in proposing rent as the first deduction from the entire product and profit as the next deduction. Senior maintains that because of the nature of rent it cannot be shown that the labourers producing rent are diverted from their original purpose of producing for labour, and consequently profit is the only deduction from wages.

While Senior's efforts to extend the concept of surplus to cover elements in both wages and profits attenuates the surplus idea, it lands him within touching distance of the concept of quasi-rent of the neo-classicists.

Senior does not maintain the unbroken line of apostolic succession in the theory of distribution, but reaches back over the head of Ricardo whom he describes as the most incorrect writer that ever attained philosophical eminence, and attaches his theory of distribution to the Malthusian theory of rent.

Senior had a balanced judgment and a mind that originated and partially executed his theories with independence and clarity. His perception was so keen that he had uncomfortable misgivings relative to the theories of his predecessors. In the final analysis, however, not many basic alterations were made. On the subject of wages he did not greatly disturb the traditional current of thought that had its genesis in the *Wealth of Nations*. To him the economic importance of capital rested to a great extent on its inclusion of the wages-fund; he emphasized this importance in the discussion of the immediate dependence of wages on this fund and tried to show how the fund, rather than population, is increased. His definition of profit as compensation for abstinence was original, and, as conceived, was a prop to the labour theory of value, covering under two heads, instead of one, the element of subjective sacrifice in value. His concept of the entrepreneur and his cost of production was clear, but was not accorded its important place in distribution. The surplus concept was extended into other fields than the land, and the natural agent took on a highly blended and tenuous character.

Senior has declared that exchange is the agency of distribution. Mill with more emphasis declares that "exchange is not the fundamental law of the distribution of the produce," and proceeds to discuss distribution under three heads: barter economy, exchange, and social progress. The apparent contradiction of the two expressions is based much on conjecture, since we do not know from definitions what each man has in mind for the meaning of the term "exchange." Apparently Senior and Mill are not talking about the same thing, yet it seems that Mill is contradicting Senior. The meaning of "exchange" as used by the first writer is probably the exchange of commodities; that of the second, an exchange of goods under a system of money exchange. If the terms are used with these meanings the apparent differences of opinion disappear. This is typical of many of the supposed classical differences;

when they are analysed to the end point they converge and are identical in meaning.

Mill puts his barter and exchange under the same category, the static economy. The amount of barter wages is described as subject to the classical conventional cause: the proportion between the population and capital. No fundamental changes or additions are made to former interpretations of this ratio, other than to declare for a certain rigidity of the wages-fund, which, as we recall, was afterward recanted. In contradistinction to the discussion of wages by Senior, Mill emphasizes the population element to the partial exclusion of the wage-fund. Many of his ruminations in this field are provocative of thought, but tend toward the practical rather than the theoretical.

Under his exchange wages Mill treats of wages as concerned with cost of production. He subscribes, as we might expect, to the Ricardian pure labour "Cost of Production" theory, and bolsters it up with Senior's concept of abstinence. His thesis is that value and exchange do not alter his original proposition that wages are determined by the proportion between population and capital. His supporting argument is that the money price of labour is determined by the amount of real wages, or the price of real wages, and the price of real wages is determined at the margin of cultivation or by the labour cost of production.

Dynamic wages, as conceived by Mill, are determined by the degree of balance maintained among three forces: improvement in production; increase in population; increase in capital. Mill has set forth the power of improvements in production to counteract the increasing comparative scarcity of land, in a manner that contributes to the clarification of this problem, which was so puzzling to his predecessors, but he does not follow his own concept to its final analysis and conclusion. He becomes entangled in the classical penchant to consider the prices of agricultural products as always rising and the prices of manufactured goods always falling. The net result of

Mill's dynamic wages is that the cost of the labourer's subsistence tends to increase, and consequently the real wages fall even if there is an increase in money wages, unless the money wages are increased as rapidly as the prices of the commodities the labourer uses are increased, and this latter possibility hinges on the labourer's willingness to limit his own numbers, which Mill thinks is negligible. Mill has no clear and consistent definition of profit, but confuses the meaning of the term in a multitude of ways. Under barter, he supposes the rate of profit to be determined by the cost of labour, which means that he subscribes to the Ricardian residual profit theory.

Under exchange the same concept of profits is carried out and profit is made the residual after wages and rent are paid. The profits are made to vary by an increase in real wages and an increased cost of production following an increase of population.

With this disposition of static profits, he explains dynamic profits very much as dynamic wages have been explained. The progressive state is characterized by increase of population, improvements in production, and an increase in capital. When all these forces have been operative and arrive at a state of temporary equilibrium profits will have been reduced to a lower rate because, according to Mill's logic, the cost of living has been increasing. The reason for this is conceived, as we have noted, as the result of the greater difficulty of production on the poorer soils. The minimum rate of profits is made to depend upon security, and the comparison of the present and the future which is measured by the saver's willingness to abstain, and comes about by the competition of an increased amount of capital. No explanation of a subject could be much less satisfactory or be much more lacking in consistency than Mill's explanation of profits.

In his explanation of rent Mill is a monopoly theorist. For the first time since we left the *Wealth of Nations* we are confronted with the bare statement that rent is the

effect of a monopoly. The monopoly aspect is supplemented by the ideas that the farmer requires the ordinary rate of profit on all his capital ; a part yields only this ordinary rate ; the excess over this ordinary rate is rent ; this excess produce measures rent ; rent is determined by price. Here we are brought face to face again with the concept of cost of production. The idea that cost of production determines price is supplemented with the idea that the cost of production of agricultural products is continually rising and the cost of production of manufactured goods continually falling ; consequently the prices of the two kinds of goods are diverging more and more as society progresses. This concept was formulated under the misconception of the so-called "cost of production" which, as we have noted, was not at all the cost of production, but only part of it, on most goods.

Mill improves Adam Smith's notion of a progressive society, a stationary society, and a declining society, by the assumption that the forces which distinguish these societies are embodied in a manipulative form in which, theoretically, the forces may be brought into contrast or harmony and their effects studied.

The labour theory of value seems to be the point of convergence of the wage theories of the five writers discussed. It is here, too, that the so-called cost of production concept has its greatest significance. The labour theory of value has two aspects, both presented by Adam Smith ; one is the labour cost and the other the labour command. Malthus supported the labour command element. Ricardo subscribed to the pure labour cost theory. Senior modified the labour cost theory by the inclusion of the concept of abstinence. Mill, too, accepted the modification of the element of abstinence. The theory of distribution impinges most directly on the labour theory of value.

On the subject of wages, in the language of modern diplomacy, the successors of Smith subscribed to his doctrines in principle. The subsistence wage is carried

through all five discussions with some degree of harmony. There seems to be a sort of general agreement that the subsistence wage prevails, but there is a difference of opinion as to what it is. The contract wage loses its significance after Smith, and the demand for labour and the cost of food are the determiners of wages. This argument is taken over by Malthus with some modifications and additions. Ricardo makes a radical change by inserting the supply of labour along with the demand, and concludes with the cost of commodities. Senior takes up principally the idea of supply and demand, and after the statement of his thesis that wages depend on the ratio of the funds for the maintenance of labour compared with the number of labourers, he deals primarily with the funds and almost neglects, under the discussion of wages, the bearing of the other term of the ratio, the element of population. Mill, on the contrary, while using the conventional ratio of the population and capital, emphasizes the population term, with the supporting argument, under an exchange economy, of the price of real wages, and under dynamic wages the modifying effects of improvements in production.

The wages-fund, the embodiment of the demand for labour, had two aspects, the maintenance fund and the capital fund. Both were used indiscriminately. Senior gives a fuller development to the wages-fund than do any of his compeers.

There are two distinct theories of profits attributable to this group of writers. This first is the competitive theory of profits which predominates in the system of Adam Smith. But in his system may also be found the suggestion of the residual theory which predominates in the explanations of Malthus, Ricardo, and Senior. Senior uses the residual theory and humanizes it by the introduction of abstinence. Mill muddles up the residual explanation of profits under his static exposition, but under his dynamic theory reverts to the Smithian idea of competitive profits.

The five writers included in this study may be divided

into two distinct groups relative to their theories of rent. In the first group are Smith and Mill, who were proponents of the Monopoly theory of rent, and with whom we find that rent was favourably considered as a component of price. To the members of the other group, Malthus, Ricardo, and Senior, rent is a surplus either of produce or price, or both. Ricardo argues that rent is a pure surplus, but Malthus and Senior admit the monopoly element in a position of subordinate influence.

In the development of their distributive theories the writers do not form a continuous succession. The chain divided from Malthus, who is followed in one line of thought by Ricardo and in another by Senior, who attaches his thesis more directly to Malthus than he does to Ricardo. Mill is an apologist for Ricardo, yet he accepts his doctrines in principle, though reaching back to Smith through the concepts put forward by Malthus. Mill offers a consensus of opinion of the previous writers.

It was remarked at the beginning of this summary that a systematic and integrated theory of distribution was not common to the writers studied. Now it may be noted that there is a plan of distribution composed of the residue from their several theories which offers a picture of some degree of unity. This is the plan usually designated by the expression Classical theory of distribution. The predominating sedimentary elements of the classical systems are the surplus theory of land rent ; wages a dual concept, composed of a short run wage system based on the ratio of the supply and demand of labour, or the wages-fund which is its essence, and a long run subsistence-level wage theory having its origins in the Malthusian theory of population ; and the residual share of "profits." Interest is considered a derivative, not an original, share. Rent is referred to sometimes as a surplus of product, but more often as a surplus of price, a price determined surplus. This idea of a surplus is not only applied to land rent, but is also extended as a partial explanation of other phenomena. In their efforts to

understand this so-called surplus, we find the classical writers making their nearest approach to the concept of diminishing returns.

By the process of attrition the problem of distribution is solved. Rent having been disposed of as a surplus, the marginal joint product alone, in which land is theoretically not supposed to have a part, remains to be explained. Since there were but three shares before, this product can have but two parts. The short run explanation of the first part, wages, is embodied in the ratio between capital and population, or the wages-fund. The ratio between the supply and demand of labour is supposed to determine short run wages. The supply of labour is presumably fixed for short periods of time, and the demand is supposed to depend upon the amount of capital available to support the labourers or to set them to work. The long run explanation of wages is the subsistence theory of wages, which is based on the central idea in the Malthusian theory of population. This is the so-called "iron law of wages." Its rigidity is not complete, but it approaches that condition the farther it recedes from Adam Smith.

What remains of the marginal joint product after wages have been extracted according to the above principles is the classical profit, a heterogeneous term involving a number of elementary components, among which are compensation for risk, unexpected incomes, the share of wages above the average, the share of capital above the ordinary rate, and the earnings of capital goods. The quantity of profit is made to depend upon the amount of the joint product extracted as wages for labour.

Such, then, is the picture of the distributive scheme, synthetic in nature, which is to be found in the classical English economics. Its outline is composed of a very few bold dashes contributed by the various writers. It is a composite work, as were the Acropolis and the Colosseum. The ideas involved in it have probably had a more extensive evolutionary history than did these architectural masterpieces. Each may have been, and probably was,

exceedingly well done, considering the epoch and circumstances contemporaneous with their execution.

The modern theory of distribution had its origin in the classical system. The characteristics of the classical systems of distribution that, through the principle of continuity and the force of economic evolution, have been incorporated into the modern theory of distribution are the concept of interest as a derivative share, the concept of diminishing returns a rough idea of the entrepreneurial system, a hazy concept of the similarity of land and other forms of capital goods, uniformity of returns from capital goods at all investment margins, some idea of the relation between surplus and quasi-rent, and the simplest rudiments of productivity.

It is a matter of conjecture as to whether the English system would have worked itself out into a modern and integrated form if it had been permitted to proceed free and unhindered. This was not to be the case, however. Conditions were changing. The industrial revolution was rapidly approaching a higher stage of development, and the line of demarcation was being more clearly drawn between the two productive functionaries, labourers and the owners of capital goods. The parties on either side of the line were quantitatively expanding and coalescing. The English system of explanation of distributive phenomena was, even during the life of Mill, being brought before the judgment bar both at home and abroad. Wherever the doctrines existed, whether in their natural habitat or in transplanted areas, the minds of scholars and reformers were being directed with increasing force and critical penetration to every part of the economic field, but especially toward that part included under distribution.

It seems a part of the irony of fate that the principles proposed by Malthus to counteract the socialistic optimism of the period should, after passing through the deductive mind of Ricardo, become the foundation for the relentless logic of Marx, who used it most effectively both in Germany and England to shake the natural,

laissez-faire, capitalistic edifice that so often turned to the teachings of the classicists for its popular justification. If the labour cost theory of value was a valid explanation, then very obviously only a part of the labourer's product was translated across the margin into the labourer's wage, and the remaining surplus found its way into the profits stream of exploitation. The student outstripped the master at his own game. Karl Marx dropped a hurdle in the path of classical economics, in the form of "scientific socialism" that materially slowed up its progress. The rampant nationalism of the nineteenth century made a triple attack on the classical doctrines. When Governments were striving to grow strong, their interests conflicted directly with the doctrine of non-interference. When the recrudescence of mercantilism took the form of nationalism both the individualism and the cosmopolitanism found in classical economics were antithetical to its interests.

There was another line of criticism of classicism that was directed on two fronts at the same time. A renewed impetus to the historical method was reflected in both English and German discussions. The followers of the historical method in England attacked the classical concept of rent, opposed the classical cost of production concept in favour of the entrepreneurial cost, and conceived of economic phenomena as obtaining in an exchange economy rather than in a natural state. They argued against the classical concepts of wages and profit determination, and verbally wrecked the wages-fund. From the German front classicism was criticized for its presumptuous universality and for its faith in the "economic man." The fallacies apparently inherent in the deductive abstractions of classicism were contrasted both by the English and German schools to the supposed validity of historical evidence.

In addition to other German criticisms of the classicists must be noted those included under the term romanticism, which later found expression in universalism. In the philosophy of Fichte is to be found the

basis of this doctrine, which was given emphatic voice by Adam Mueller. Mueller's efforts are suggestive of the attempts of his contemporary, August Comte, to correlate the social phenomena. He criticized the classicists for their natural order, individualism, and glorified competition. These criticisms were later remodelled into universalism.

Simultaneously with all these criticisms another idea was developing that was destined to make radical alterations in the traditions of classicism. This idea involved the concepts of marginality and subjective value. This is part of the harvest that is of the greatest immediate concern. These new concepts were directed toward a more realistic system of distribution. They were developed independently by the economists of England and Europe. Gossen was among the first proponents, and Jevons and Walras contributed to further advancement. The Austrian triumvirate, Menger, Wieser, and Bohm Bawerk, carried the ideas to a more advanced state of refinement and applied them to the field of distribution.

While socialistic ideas, historical criticism, and the economic interpretation of history, romanticism, and marginality were raising grave questions in the minds of students relative to the completeness and infallibility of the classical traditions, the Cambridge school under the leadership of Alfred Marshall was making additions, and the economic evolution of a new continent had provided fertile soil for the development of scientific curiosity. American economic life had developed to the stage where some American students could be temporarily exempted from the struggle for existence and be permitted to seek solutions for economic problems in the universities and centres of learning of Europe. The economic interpretation of history was to be exemplified in a new form. The doctrines of the old world were to be evaluated and reformed by realistic new-world minds. The study of economic theories was to receive new recruits whose vision was not blurred by the aftermath of Mercantilism and whose thoughts were not obstructed by the existence

of privileged classes of landlords, hereditary nobility, and militaristic adventurers. The American students who went from the United States to Germany to study in the last quarter of the nineteenth century were imbued with the spirit to "look and see." This untrammelled spirit of inquiry produced in the works of J. B. Clark, one of these students, its harvest of greatest immediate concern. It was his mission to break the crust of what has been called by Dr. R. T. Ely, "Smithianism and Ricardianism," particularly in the field of distribution. The modern theory of distribution as originated by Clark and refined by his disciples is a modernization, a development and realistic interpretation of its rudiments found in the distributive systems of the classical English economists. The work done since that time has been in the nature of synthesis and refinement rather than changes in the fundamentals. Modern theory had its origin with the classicists, but to their concepts additions have been made so that the distributive theory of to-day is characteristically unlike that of the first half of the nineteenth century.

"At cattle shows and at farmers' banquets the voice of the Physiocrat is heard in the land. No point of view, once expressed, ever seems wholly to die: and in periods of transition like the present, our ears are full of the whisperings of dead men." (Alexander Gray, *The Development of Economic Doctrine*, p. 370.)

BIBLIOGRAPHY

BOOKS

- BAGEHOT, W. *Postulates of English Political Economy*. G. P. Putnam's Sons, London and New York, 1894.
- BOHM BAWERK. *Positive Theory of Capital*. Translated by WILLIAM SMART, M.A. Macmillan & Co., London, 1891.
- BONAR, J. *Philosophy and Political Economy*. Swan Sonnenschein & Co., London; The Macmillan Company, New York.
- BONAR, J. *The Study and Teaching of Political Economy*. Johns Hopkins Press, Baltimore, 1911.
- BOUCKE, O. F. *A Critique of Economics*. The Macmillan Company, New York, 1922.
- CANNAN, E. *Production and Distribution*, 1776 - 1848. Rivington, London, 1894.
- CANNAN, E. *A Review of Economic Theory*. P. S. King & Son, London, 1930.
- CANNAN, E. *Wealth*. P. S. King & Son, London, 1914.
- CAIRNES, J. E. *Political Economy, its Character and Logical Method*. Harper and Brothers, New York, 1875.
- CLARK, J. B. *The Distribution of Wealth*. The Macmillan Company, New York, 1899.
- CLARK, J. M. *Distribution, Encyclopædia of the Social Sciences*, Vol. V, p. 173.
- DAVENPORT, H. J. *Value and Distribution*. The University of Chicago Press, 1908.
- EDGORTH, F. Y. *Papers Relating to Political Economy*, Vol. III. Published in Behalf of the Royal Economic Society, by Macmillan & Co., London, 1925.
- GIDE and RIST. *History of Economic Doctrines*. D. C. Heath & Co., Boston, New York, Chicago.
- GRAY, ALEXANDER. *The Development of Economic Doctrine*. Longman, Green & Co., London, New York, Chicago, 1931.
- HANEY, LEWIS H. *History of Economic Thought*. The Macmillan Company, New York, 1912.
- HOLLANDER, J. H. *Clark, J. M., Douglas, P. H., Morrow, G. R., Palyi, M., Viner, J., Adam Smith, 1776-1926*. University of Chicago Press, Chicago, 1928.

- HOMAN, P. T. *Contemporary Economic Thought*. Harper and Brothers, New York and London, 1928.
- INGRAM, J. K. *A History of Political Economy*. A. & C. Black Ltd., London, 1915.
- KNIGHT, F. H. *Risk, Uncertainty, and Profit*. Houghton Mifflin Company, Boston and New York, 1921.
- KNIGHT, F. H. *Marginal Utility Economics, Encyclopædia of Social Sciences*, Vol. IV, p. 357.
- LEVY, S. L. *Senior's Industrial Efficiency and Social Economy*, Vol. II, Henry Holt & Co., 1928.
- MALTHUS, T. R. *First Essay on Population*. Notes by James Bonar. Reprinted for the Royal Economic Society. Macmillan & Co., London, 1926.
- MALTHUS, T. R. *The Nature and Progress of Rent*. Reprint by J. H. Hollander, Lord Baltimore Press, 1903.
- MARSHALL, A. *Principles of Economics*.
- MCCULLOCH, J. R. *The Works of David Ricardo*. John Murray, London, 1915.
- NELSON, R. W. *Some Economic Aspects of Immigration*. State University of Iowa, Thesis, 1923.
- PANTALEONI, M. *Pure Economics*. Translated by T. BOSTON BRUCE. The Macmillan Company, 1898.
- RAE, J. *Life of Adam Smith*. The Macmillan Company, London and New York, 1895.
- REUTER, E. B. *Population Problems*. J. B. Lippincott Company, Philadelphia, London, Chicago, 1923.
- SELIGMAN, E. R. A. *Essays in Economics*. The Macmillan Company, New York, 1925.
- SMART, W. *Distribution of Income*. Macmillan & Co., London, 1899.
- SMART, W. *Introduction to the Theory of Value*. Macmillan & Co., 1920.
- SMART, W. *Second Thoughts of an Economist*. Macmillan & Co., London, 1916.
- SPAHN, OTHMAR. *The History of Economics*. W. W. Norton & Co., Inc., New York, 1930.
- TAUSSIG, F. W. *Wages and Capital*. D. Appleton & Co., New York, 1896.
- WHITAKER, A. C. *History and Criticism of the Labour Theory of Value*. Columbia University Press, 1904.
- WICKSTEED, P. H. *The Common Sense of Political Economy*. Macmillan & Co., London, 1910.

ARTICLES

- KNIGHT, F. H. "Economics at its Best," *American Economic Review* (1930), pp. 51-58.
- KUZNETS, S. "Economics, Statics and Dynamics," *American Economic Review* (1930), pp. 426-441.
- PATTEN, S. N. "Political Significance of Recent Economic Theories," *Annals of the American Academy of Political and Social Sciences* (1908), pp. 82-94.
- VEBLEN, T. "Economic Theory in the Calculable Future," *American Economic Review, Supplement* (1925-26), pp. 48-55.
- WARE, N. J. "The Physiocrats," *American Economic Review* (1931), pp. 607-619.

