ELEMENTS OF ECONOMICS

VOL. I.



ELEMENTS OF

ECONOMICS OF INDUSTRY

BEING THE FIRST VOLUME OF

ELEMENTS OF ECONOMICS

ΒY

ALFRED MARSHALL

Professor of Political Economy in the University of Cambridge, Honorary Fellow of Kalliol College, Oxford.

SECOND EDITION

(Fifth Impression).

London:

MACMILLAN AND CO., LIMITED. NEW YORK: THE MACMILLAN COMPANY. 1898

[All Rights reserved.]

First Edition printed 1892. Reprinted 1893, 1894. Second Edition 1896, 1898.

PREFACE TO THE FIRST EDITION.

HIS Volume is an attempt to adapt the first Volume of my *Principles of Economics* (Second Edition, 1891), to the needs of junior students.

The necessary abridgement has been effected not by systematic compression so much as by the omission of many discussions on points of minor importance and of some difficult theoretical investigations. For it seemed that the difficulty of an argument would be increased rather than diminished by curtailing it and leaving out some of its steps. The argumentative parts of the *Principles* are therefore as a rule either reproduced in full or omitted altogether; reference in the latter case being made in footnotes to the corresponding places in the larger Treatise. Notes and discussions of a literary character have generally been omitted.

The influence of Trade-Unions on wages depends much on the course of Foreign Trade and on Commercial Fluctuations; and therefore in the *Principles* all discussion of the subject is postponed to a late stage. But in the present Volume, the practical convenience of discussing it in close connection with the main theory of Distribution seemed to outweigh the disadvantages of treating it prematurely and in some measure incompletely; and a Chapter on *Trade-Unions* has been added at the end of Book VI.

A few sentences have been incorporated from the *Economics* of *Industry*, published by my wife and myself in 1879.

PREFACE.

Though she prefers that her name should not appear on the title-page, my wife has a share in this Volume also. For in writing it, and in writing the *Principles*, I have been aided and advised by her at every stage of the MSS. and the proofs; and thus the pages which are now submitted to the reader are indebted twice over to her suggestions, her judgment and her care.

Dr Keynes, Mr John Burnett and Mr J. S. Cree have read the proofs of the Chapter on Trade-Unions, and have given me helpful advice with regard to it from three different points of view. 18 February, 1892.

 $*_*$ The changes in this edition follow those made in the third edition of my Principles. Book I. Ch. 1V. and V. and Book III. Ch. vi. have been rewritten in order to make more clear how closely the economist adheres in substance to the methods of inference and judgment of ordinary life; and how thorough are the harmony and the mutual dependence between the analytical and the historical methods of economic study. In Book II., Ch. IV. and V. have been thrown together to make a new Chapter IV.; the old definition of Capital regarded from the point of view of the business man is retained; but Capital is defined from the general point of view as wealth which yields "income" in forms that are admitted in the broader use of the term in the market place. Book VI. Ch. I. and II. have been recast, with further explanations, and a fuller rehearsal of the chief results obtained in the earlier Books

June 1896.

vi

CONTENTS.

[Italics are used to give references to definitions of technical terms.]

BOOK I.

PRELIMINARY SURVEY.

- Chapter II. The Growth of Free Industry and Enterprise. § 1. Early civilizations. Influence of climate and of custom. § 2. The Middle Ages. Free towns. § 3. New forces promoting freedom.

pp. 10-13

- Chapter III. The Growth of Free Industry and Enterprise continued. § 1. Englishmen early developed a faculty for organized action. § 2. Influence of the Reformation. § 3. Beginnings of modern forms of business management. § 4. Rise of the factory system. The new organization accompanied by great evils. §§ 5, 6. Many of these were due to the pressure of war, taxes and bad harvests; and competition was seen at its worst. But now with the increase of knowledge and wealth we should seek to restrain its evil and to retain its good influences pp. 14-25

- Chapter VI. Methods of Study. Nature of Economic Law. §§ 1, 3. Induction and deduction are inseparable. Neither reasoning alone nor observation alone is of much service. § 4. Uses of the machinery of science. §§ 5, 6. Social Law. Economic Law. Normal. The Action of a Law. pp. 42-48

BOOK II.

SOME FUNDAMENTAL NOTIONS.

Chapter I. Introductory. § 1. Difficulties of definition in Economics. pp. 54-55

Chapter II. Wealth. § 1. Classification of Goods. Wealth. § 2. Personal Wealth. Broad meaning of wealth. § 3. Collective Goods.

pp. 56-61

- Chapter III. Production. Consumption. Labour. Necessaries. § 1. Man produces and consumes only utilities. Consumption and Production Goods. § 2. Productive labour and Productive consumption. § 3. Necessaries for existence and for efficiency. Conventional necessaries. pp. 62-65

BOOK III.

DEMAND OR CONSUMPTION.

- Chapter VI. Value and Utility. §§ 1-3. The doctrine of Consumers' Rent gives definite expression to a familiar notion. Allowance for collective wealth. § 4. Wisdom in the pursuit and use of wealth pp. 98-106

BOOK IV.

THE AGENTS OF PRODUCTION. LAND. LABOUR, CAPITAL AND ORGANIZATION.

- Chapter I. Introductory. § 1. The agents of production. §§ 2, 3. Marginal disutility. Although work is sometimes its own reward it generally has a supply price. Supply Schedule. Supply Price pp. 107-110
- Chapter II. The Fertility of Land. § 1. Land in what sense a free gift of nature. § 2. Conditions of fertility. Man's power of altering the character of the soil. . pp. 111-114
- pter III. The Fertility of Land, continued. The Law of Diminishing Return. § 1. The basis of the Law of Diminishing Chapter III. Return. The return is measured by the amount not the price of produce. § 2. A Dose of capital and labour, marginal dose, marginal return, margin 52. In Dow of capital minimum and generative to 5., maximum for an of cultivation. Surplus Produce. Its relation to rent. § 3. The Order of relative term. § 5. Misunderstandings of Ricardo's doctrine. § 6. Additions to it. § 7. The return from fisheries, mines and building ground. pp. 115-128
- Chapter IV. The Growth of Population. § 1. Malthus. §§ 2, 3. Causes that determine marriage-rate and birth-rate. § 4. History of population in England. § 5. Modern causes affecting marriage-rate. pp. 129-136
- Chapter V. The Health and Strength of the Population. \S 1, 2. General conditions of health and strength. § 3. Hope, freedom and change. § 4. Influence of occupation. Town life. § 5. Nature's ten-dency to select the strongest for survival is often counteracted by man.

pp. 137-145

- Chapter VI. Industrial Training. § 1. Unskilled labour a relative form. *General* and *Specialized Ability*. §§ 2, 3. Liberal and Technical Education. Apprenticeships. § 4. Education as a National investment. § 5. Mill's four industrial grades; but sharp lines of division are fading . pp. 146—154 awav
- Chapter VII The Growth of Wealth. § 1. Early and modern forms of wealth. § 2. Slow growth of labits of saving. § 3. Security as a condition of saving. § 4. The chief motive of saving is family affection. § 5. The source of accumulation is surplus income. Profits. Rent and Earnings. Collective savings. § 6. Interest is the reward of waiting. Influence of changes in the rate of interest on saving . . pp. 155-164
- Chapter VIII. Industrial Organization. § 1. Organization increases efficiency. Teachings of biology. The law of the struggle for survival. § 2. Harmonics and discords between individual and collective interests. pp. 165-167
- Chapter IX. Industrial Organization, continued. Division of Labour. The Influence of Machinery. § 1. Practice makes perfect. The provinces of manual labour and machinery. § 2. Interchangeable parts. Machinery increases the demand for general intelligence and weakens barriers between different trades. § 3. It relieves the strain on human muscles, and thus prevents monotony of work from involving

- Chapter XI. Industrial Organization, continued. Production on a large scale. §§ 1, 2. Advantages of a large producer as to economy of material, specialization of and improvements in machinery, buying and selling; specialized skill, especially in matters of management, but the small producer makes many detailed savings . . . pp. 182-187
- Chapter XIII. Conclusion. The Law of Increasing in Relation to that of Diminishing Return. § 1. Relation of the later chapters of this Book to the earlier. A Representative Firm. The Laws of Increasing and Constant Return. § 2. Conditions under which an increase of numbers leads to a more than proportionate increase of collective efficiency. pp. 205-209

BOOK V.

THE THEORY OF THE EQUILIBRIUM OF DEMAND AND SUPPLY.

- Chapter I. On Markets. § 1. Most economic problems have a common kernel relating to the equilibrium of supply and demand. § 2. Definition of a Market. §§ 3, 4. Limitations of a market with regard to space. Conditions of a wide market. Grading. Portability. World markets. pp. 210-215
- Chapter III. Equilibrium of Normal Demand and Supply. § 1. Transition from market to normal price. § 2. Heal and Money Uost of Production. Expenses of Production. Factors of Production. Rent in relation to Expenses of production. § 3. The Law of Substitution. § 4. Basis of the general theory. The Supply Schedule. § 5. Equilibrium amount and equilibrium price. § 6. Influence of Utility and

- Chapter V. Equilibrium of Normal Demand and Supply, continued. The Term Normal with Reference to Long and Short Periods. §§ 1-3. Elasticity of the term normal. Long and short period normal prices. Illustrations. § 4. The general drift of the term Normal Supply Price is the same for short and long periods. But for short periods the appliances of production have to be taken for granted; meanwhile the income derived from them affords a Quasi-rent.

pp. 234-243

BOOK VI.

VALUE, OR DISTRIBUTION AND EXCHANGE.

- Chapter II. Preliminary Survey of Distribution and Exchange, continued. §§ 1—3. Recapitulation of causes, discussed in Book IV., which govern the supply of various forms of labour and capital. These causes play a part coordinate with those affecting demand in governing distribution. § 4. Land is on a different footing. § 5 Mutual relations between earnings and efficiencies of different groups of workers. § 6. Competition is not supposed to be perfect, but to act as it does in real life. § 7. Provisional conclusion as to the general relations of capital and labour. The so-called Wages-fund , pp. 271—286

- Chapter III. Demand and Supply in relation to Labour. Real and Nominal Earnings. § 1. Time-carnings. Payment by Piecework. Efficiency-carnings. Time-carnings do not tend to equality, but Efficiency-earnings do. § 2. Real wages and Nominal wages. § 3. Uncertainty of success. Irregularity of employment. Supplementary earnings. § 4. The attractiveness of a trade depends on its Net Advantages. pp. 287-295
- Chapter IV. Demand and Supply in relation to Labour, continued. § 1. Many peculiarities in the action of demand and supply with regard to labour are *canulative* in their effects. §§ 2-4. The worker sells his work, but he himself has no price, consequently the investment of capital in him is limited by the means, forethought and unselfishness of his parents. Economic importance of moral forces. § 5. The seller of labour must deliver it himself. § 6. Labour is perishable, and the sellers of it are often at a disadvantage in bargaining.

pp. 296-304

- Chapter VII. Demand and Supply in relation to Capital, Business Power and Industrial Organization. § 1. Action of the Struggle for Survival. Services of those who pioneer. § 2. Action of the Law of Substitution in controlling Earnings of Management. § 3. The Law of Substitution acts through the employer and also on him. The business man working with horrowed capital. § 4. Joint Stock companies. § 5. The supply of business ability is drawn from a wide area and is non-specialized. The adjustment of Earnings of Management to the difficulty of the work to be done is fairly accurate. pp. 315-322

- Chapter XI. General view of Distribution. § 1. Résumé of the geueral theory of equilibrium of demand and supply. §§ 2-4. In the last eight chapters is traced a thread of continuity transverse to that in Book V., and establishing a unity between the causes that govern the normal values of the various agents and appliances of production, material and human. § 5. The various agents of production are the sole source of employment for one another. How an increase of capital enriches the field for the employment of labour. § 6. Relations between the interests of different classes of workers in the same trade. § 7. Trade-unions and combinations among employers tend to make the problem of distribution indeterminate
- Chapter XII. The Influence of Progress on Value. § 1. The richness of the field of employment for capital and labour in a new country depends partly on its access to markets in which it can sell its goods and mortgage its future income for present supplies of what it wants. § 2. England's direct gains from the progress of manufactures have been less than at first sight appears, but those from the new means of transport have been greater. § 3. Changes in the labour values of corn, meat, house-room, fuel, clothing, water, light, news and travel. § 4. Progress has raised the labour value of English land, urban and rural, taken together. § 5. The increase of capital has lowered its proportionate but not its total income. §§ 6, 7. Changes in the earnings of different industrial classes. § 8. Earnings of exceptional ability. § 9. Progress has probably lessened inconstancy of employment. § 10. Broader influence of progress. Standard of Comfort and Standard of Life. § 11. Progress in relation to leisure. The wastefulness of excessive work. § 12. In some trades shorter hours combined with double shifts would bring almost unmixed gain. § 13. But in many trades shortening the hours of labour would lessen the output. §§ 14, 15. Fallacies underlying the opinion that a general lessening of the hours of labour would raise wages. § 16. General conclusion as to the good and evil of a reduction of the hours of labour . pp. 358-389
- Chapter XIII. Trade-Unions. § 1. Early history of Trade-unions. § 2. General organization. § 3. Opening of inquiry as to the influence they can exert on wages. Recapitulation of effects of a permanent limitation of the supply of labour. §§ 4, 5. Transition to effects of temporary limitations, by strikes or otherwise, of the supply of labour. Disadvantage in bargaining of the isolated workman without reserve. Claim of Unions to make economic friction side with, instead of against, the work-

References to the "Principles" are generally applicable to its second and third Editions, except when "Ed. III." is added. Most of them are applicable also to the first Edition, if it be remembered that Book VI. of the first Edition was absorbed into the latter part of Book V. of the second and third; and that consequently Book VI. of the new editions corresponds to Book VII. of the first Edition.