

sale, etc., and a list of stock companies founded in Germany in the same years. An examination of these documents will be repaid by the discovery of curious divergencies from American banking practices. R. P. F.

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PRINCIPLES OF ECONOMICS. By Alfred Marshall, Professor of Political Economy in the University of Cambridge. MacMillan & Co., London and New York, 1890. Vol. I, pp. xxviii, 754.

The publication of this book is a scientific event of the first magnitude. Announcement was made some time ago that Professor Marshall was preparing an extensive treatise on the Principles of Economics, and students were prepared to find it a well-thought-out and scholarly work. But it is safe to say that very few anticipated a work of such scope, of such fresh interest, of such exhaustive information, of such breadth and thoroughness of method as this proves to be in fact. To call it the greatest systematic work since Mill is to speak far within the truth, for the only other book to which it can be compared is "The Wealth of Nations." It does for political economy in the last decade of the nineteenth century what Smith did in the last quarter of the eighteenth, and what Mill did after the discussion of two generations had apparently fixed the fundamental lines. It gathers and sifts the store of economic knowledge. It reconstructs the whole body of doctrine on broader grounds and in that new spirit, at once more liberal and more severely scientific, that has characterized every department of thought in these later years. It so marks the close of one scientific period and the beginning of another that in future advanced discussion must start from Marshall as hitherto from Mill.

To attempt a carefully critical review of such a book on the basis of a first reading would be absurd. Its merits and defects must be revealed by time, through much investigation and reflection. The most useful notice that can

be put before the Academy at this time is one merely describing the work in its more essential features.

There could hardly be a more interesting testimony to the radical change that scientific thought has undergone under the influence of evolutionary ideas than is offered in these pages. The principle of continuity has become cardinal in all interpretations of the phenomena of thought and affairs as of those of the physical world, and Professor Marshall has for the first time applied this principal thoroughly and consistently to economic theory. Two kinds of influences, he says, have most affected the substance of the views expressed in his book. These are modern biological conceptions as represented in the writings of Mr. Herbert Spencer, and conceptions of historical development, as represented, first, in Hegel's *Philosophy of History*, and, more recently, in ethico-historical studies on the continent and elsewhere. Professor Marshall's familiarity with the thought of the two authors named, Spencer and Hegel, appears often in his chapters, and gives a pleasant philosophical tone to his discussions, without any touch of pedantry.

Thus while Mill, writing in a spirit of the inflexible utilitarianism of Bentham, regarded economic theory as substantially complete and crystallized, Marshall, writing in the spirit of a philosophy that regards human society as organic, flexible and growing, views economic science as plastic, and holds all definitions incomplete or inexact save as they are modified by an interpretation clause in nearly every case of application. It goes with this that our author knows no "school" in economic science. He has no use for the shibboleths of "orthodox" and "historical." Deduction and induction, analysis and observation, are all alike good instruments to him. He neither breaks with the old economy nor accepts it as final. "Some of the best work of the present generation has indeed appeared at first sight to be antagonistic to that of earlier writers; but when it has had time to settle down into its proper

place, and its rough edges have been worn away, it has been found to involve no real breach of continuity in the development of science. The new doctrines have supplemented the older, have extended, developed, and sometimes corrected them, and often have given them a different tone by a new distribution of emphasis; but very seldom have subverted them." The treatise is therefore "an attempt to present a modern version of the old doctrines with the aid of the new work, and with reference to the new problems of our own age."

While these influences have determined the substance of Professor Marshall's views, their form has been most affected by mathematical conceptions of continuity as represented in Cournot's *Principes Mathématiques de la Théorie des Richesses*. Under the guidance of Cournot, and in a less degree of Von Thünen, Professor Marshall says he was led to attach importance to the fact that observations of nature in the moral as in the physical world relate less to aggregate of quantities than to increments of quantities, and, in particular, that the demand for a thing is a continuous function, of which the marginal increment is, in stable equilibrium, balanced against the corresponding increment of its cost of production. Nevertheless the book is not written in mathematical symbolism. Diagrams, especially the interesting rectangular hyperbolas that Professor Marshall has long used with his students and which have been privately circulated among leading European economists, are freely used in the notes, and Professor Marshall thinks there are many problems of pure theory that no one who has learned to use diagrams will willingly handle in any other way, but he has taken pains not to make the argument of his text dependent upon them.

The influence of mathematical conceptions and of the work of Jevons and the Austrians, has extended to the partition of the science and the logical arrangement of topics. The theory of consumption, which in the older works was little more than an appendix, is brought into the fore-

ground, and the theory of distribution is merged with that of exchange. The volume is divided into seven books. The first is a preliminary survey, including a historical review of the growth of free industry and enterprise, a review of the growth of economic science, and chapters on methods of study, economic motives and the nature of economic law. These chapters are characterized by great breadth of view and a certain fine accuracy of scientific instinct. For example, the controversy whether economics can regard man as influenced by other motives than those of self-interest is transcended in Professor Marshall's discussion, because he goes straight through to the more fundamental principle that economics does not regard man as merely selfish, but concerns itself chiefly with those motives that are measurable, and whose action can therefore be reduced to law and made the subject of scientific treatment. The range of economic measurement may gradually extend beyond the business work that has an accurate money measure to much philanthropic action, and already the motives to collective action are recognized as of great and growing importance to the economist. Again, the chapter on economic law may be commended equally to those who regard economic law as no less simple than physical law and those who deny altogether the reality of natural law in social phenomena.

The second book, on "Some Fundamental Notions," is devoted to a consideration of the terms "wealth," "productive" and "unproductive," "necessaries," "capital" and "income." The principle of continuity is here used with results that are most admirable. Professor Marshall refuses either to draw hard and fast lines of definition about things that in fact shade imperceptibly into one another, or to invent new technical terms to express niceties of meaning. He would retain the old terms in their broad signification, and have writers form the habit of expressing gradations of thought by interpretation clauses. Thus, wealth should include, in economics as in popular thought,

things that are free and non-exchangeable, and when the writer wishes to limit the term to the transferable wealth that has value in the market-place he should say exchangeable wealth.

The third book is on "Demand or Consumption;" the fourth on "Production or Supply;" the fifth on the "Theory of the Equilibrium of Demand and Supply;" the sixth on "Cost of Production Further Considered," and the seventh on "Value, or Distribution and Exchange." These books are the substance of the volume. It is impossible here even to indicate the wealth of practical information, of sifted results of wide reading, and of close, independent analysis that they contain. Only the general characteristic of the theoretical results can be mentioned. It consists in the emphasis given to the principle of continuity, and the modifications of statement thereby made necessary. No sharp line of division is drawn or recognized between economic conduct that is normal and that which is abnormal, or between normal value and "current," "market" or "occasional" values. There is a continuous gradation from the actions of "city men," based on deliberate and far-reaching calculations, to those people who have neither the power nor the will to conduct their affairs in a business-like way. The gradation here is in character and ability; in values it is introduced by the element of time. Market values are those in which the accidents of the moment exert a preponderating influence, "while normal values are those which would be ultimately attained if the economic conditions under view had time to work out undisturbed their full effect." In like manner interest shades into rent with prolongation of the period in view. The return from free or floating capital is treated as interest, that from old investments as quasi rent.

Besides these thorough-going restatements of old doctrines, Professor Marshall's own additions to economic theory are not slight. One of the most important is his theory of consumer's rent, or the margin between the total

utility of a purchase to the consumer, and the price he pays for it.

No reader of Marshall will learn to think of "labor" in that dehumanized, wooden way that was so unlovely a feature of English economy in its Benthamite period. His pages are pervaded by a spirit of humanity, a desire for the betterment of the struggling classes, and a faith in moral progress that will exert as wholesome an influence on the characters of his students as his scientific thoroughness and sober common sense will upon their minds. His comprehensiveness and reasonableness broaden every issue he touches. Believing thoroughly in freedom of industry and enterprise, he yet has no prejudices against the substitution of collective for individual action under certain conditions. But he never advocates or indicts. He holds consistently throughout the position that "the laws of economics are statements of tendencies expressed in the indicative mood, and not ethical precepts in the imperative."

No other great treatise on Political Economy has been so generous in its recognition of the work of contemporary students. Americans have reason to feel proud of the treatment accorded to them. Professor Marshall has shown wonderful diligence in keeping up with the books, monographs and articles of the last few years, and his notes abound in pleasant references to them.

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THE ECONOMIC BASIS OF PROTECTION. By Simon N. Patten, Ph.D., Professor of Political Economy, Wharton School of Finance and Economy, University of Pennsylvania. J. B. Lippincott Company. Pp. 144.

This work is a powerful effort to furnish a theoretical basis for the policy of protection. Whatever it may or may not do, it will go far toward placing the discussion of this question on a more elevated plane than it has heretofore occupied. "Good in theory, but bad in practice," has been