In such a case disutility is an ultimate standard of value according to my definition, since (1) the disutility incurred by the workers is varied (2) up to a point of equilibrium at which value corresponds to effort and sacrifice. (ECONOMIC JOURNAL, Vol. IV. p. 519, par. 3).

Professor Böhm-Bawerk suspects that I am not true to my own definition (above, p. 60), because in referring to this case in my first memorandum (ECONOMIC JOURNAL, p. 520, par. 4) I adduce only the *first* attribute of the definition. But surely it was allowable to take for granted the second attribute implying the classical proportion that the remuneration of occupations varies according to " the agreeableness or disagreeableness of the employments themselves, the easiness and cheapness, or the difficulty and expense of learning them," etc. As it happens, however, I have expressly stated in a note to the sentence on which Professor Böhm-Bawerk bases his criticism (p. 724, par. 1, p. 520, note 2) that *both* attributes must be present. I may have been unhappy in my choice of a definition, but I have not been unfaithful to the one which I have chosen.

Principles of Economics. Third Edition. By ALFRED MARSHALL. (London: Macmillan & Co. 1895.)

" THANK God it's black "—a puritanical old dame is reported to have ejaculated, as the new clergyman ascended the pulpit in a Geneva gown, regarded by a certain sect as more suitable than the surplice for a preacher. A similar feeling of relief and satisfaction may be experienced by another sort of susceptible *doctrinaire*, when the *doyen* of English economists appears in a literary garb which can excite no suspicion of his being tainted with a form of error much condemned by those who have no mind to it—the inordinate use of reasoning. Professor Marshall has rewritten two chapters of his first book " in order to make clear how closely the economist adheres in substance to the methods of inference and judgment of ordinary life " (preface to third edition). He multiplies analogies drawn from the physical sciences in order to show the inadequacy of mere reasoning—instancing now the naval engineer who cannot explain why a fish moves more easily than a torpedo, now the chemist who cannot predict before trial what will be the effect of his drugs on living bodies. It is conceded that much economic work " has less need of elaborate analytical methods than of a shrewd mother-wit, of a sound sense of proportion, and of a large experience of life " (p. 102).

Mathematics are useful—or at any rate they are used "in a treatise such as the present" . . . "only to express in terse and more precise language those methods of analysis and reasoning which ordinary people adopt more or less consciously, in the affairs of everyday life" (p. 804).

The hope that "at last the time has come for the cessation of barren controversy," will be echoed by moderate men of different shades of methodology—especially those who think that in this matter there was little room for improvement on Professor Marshall's earlier editions, perhaps not much room for improvement upon Mill's *Unsettled Questions* and *Logic*.

As it appears to us, the advance which Professor Marshall makes upon Mill's teaching with respect to method is not so much in insisting that the chains of economic reasoning are comparatively short and weak, and require the collateral support of specific observation, but in indicating the nature of the first principles from which the deductive reasoning depends. Mill, in his first version of the logic of political economy, consistently grounded the fundamental premise on the principle of self-interest, the prevalence of the desire of wealth and the love of ease (*Unsettled Questions*, Essay V.). But it is not quite clear what, in his view, would become of the logical structure if, as he came to believe at a later period, a great part of human actions was prompted by altruistic motives. Professor Marshall makes the matter clearer when he explains that the motives dealt with by the economist need not be self-interested; it is required only that they should be regular and measurable. *Money* figures so largely in economic science, not because it is the principal end of human action, but because it is the one convenient mode of measuring human motive on a large scale.

"It would perhaps be possible even now to predict with tolerable clearness the subscriptions that a population of a hundred thousand Englishmen of average wealth will give to support hospitals and chapels and missions; and in so far as this can be done, there is a basis for an economic discussion of supply and demand with reference to the services of hospital nurses, missionaries, and other religious ministers."

"The expense which an Englishman with £500 a year will incur for the education of his children can be told pretty well beforehand. But . . . no good guess could be made of how much he would give to support a destitute second cousin."

The last passage occurs only in the earlier editions. The omission of this sprightly sentence is one of the few instances of that loss of vivacity which is to be apprehended in revised editions. The interruption caused by additional footnotes is another instance.

The Art of Measurement is extended by the modern economist to subjective feelings.

"If the desire to secure either of two pleasures will induce people in similar circumstances each to do just an hour's extra work, or will induce men in the same rank of life and with the same means each to pay a shilling for it, then we say that those pleasures are equal for our purpose." (Book I. ch. v. § 3).

"If there are a thousand persons living in Sheffield, and another thousand in Leeds, each with about £100 a year, and a tax of £1 is levied on all of them, we may be sure that the loss of pleasure or other injury which the tax will cause in Sheffield is of about equal importance with that which it will cause in Leeds." (Book I. ch. v. § 4.)

"If we know . . . that a bank failure has taken £200,000 from the people of Leeds, and £100,000 from those of Sheffield, we may fairly assume that the suffering caused in Leeds has been about twice as great as in Sheffield" (*ibid.*).

The arithmetical precision of the last passage is not paralleled, so far as we remember, in the former editions. However, in other respects the author has expressed himself on this subject with greater caution. He protests against confounding the economic measurement of utility with the adoption of the ethical standard of utilitarianism. To pass from the former to the latter there would be required, as we interpret, an ethical major premise of the form: To procure the greatest possible sum of satisfaction for all is right, or reasonable, or the *summum bonum* or *faciendum*—we will not here dispute about the predicate. There is certainly no logical connection between this principle and the economic art of measurement; and yet, as it seems to us, there is more than a verbal alliance. For the proposition has been controverted in two ways. It is denied by intuitivist moralists in general that the proposition is true, that the predicate is predicable of the subject. It is further asserted by a certain class of metaphysicians that the subject is unmeaning. Now the first of these contentions remains untouched; but not so the second. When the great economist weighs the suffering of people in Leeds against the suffering of people in Sheffield (*loc. cit.*), when he treats the pleasure of a physical gratification and that of doing a kindly act as equatable (p. 77), when he considers whether governmental interference with the course of trade may not in certain cases tend to maximum satisfaction (Book V. ch. xii.), he lends the authority of an accredited science to defend at least the possibility of Utilitarian Ethics. It is not indeed demonstrated that the Utilitarian first principle is true, but there is created the conviction that it is not nonsense.

In connection with the measurement of utility it may be mentioned that the doctrine of *consumers' rent* has been retouched in the third book. The nature of the assumptions which it makes is stated more explicitly. The substitution of *tea* for *coals* in the main example is no doubt an improvement.

In the same book there should be noticed an addition to the section which treats of *discounting* future benefits.

In the fourth book one of the principal changes in expression is the more explicit definition of the disutility of labour.

"The discommodity of labour may arise from bodily or mental fatigue, or from its being carried on in unhealthy surroundings, or with unwelcome associates, or from its occupying time that is wanted for pastime, or for social or intellectual pursuits" (p. 216).

It will be found that this definition cuts the knot of some puzzling controversies which turn upon a narrower interpretation of disutility.

The most important change which has been made in the volume consists of the survey of the problem of distribution and exchange which occupies the first two chapters of Book VI. At the outset—preliminary to the "preliminary survey"—there is entertained the very abstract conception of an imaginary world in which every one owns the capital that aids him in his labour, every one is equally willing and able to work, all trades are equally agreeable and easy to be learnt. The truth that the value of everything corresponds to the amount of labour spent on it, the effect on value of a change in the amount of labour—*e.g.*, a new invention doubling the efficiency of work in any trade—are contemplated clearly in this abstract world; just as the study of the action of the tides is simplified by considering a boundless ocean away from the familiar shores and headlands which disturb the tendency to equilibrium. One returns from this excursus with an added security against errors which beset the theory of exchange and distribution. There is no room left for that exaggeration of the part played by marginal utility which has been wittily termed the dog-and-tail fallacy—as if it was the tail which wagged the dog! The "marginal shepherd" is seen not to embody the whole theory of wages.

"The price which it is just worth while for the farmer to pay for this labour merely gauges the outcome of multitudinous causes which between them govern the wages of shepherds; as the movements of a safety valve may gauge the outcome of the multitudinous causes that govern the pressure in a boiler."

And much more to the same effect in the context. (Book VI. ch. i. § 8.)

Another misconception which has been for ever dispersed relates to the response which the supply of labour makes to the demand for it. Exception has been reasonably taken to the terms in which some economists have expressed the analogy between wages and the price of commodities, *e.g.*, the Ricardian "hats," as if the motives governing supply were exactly similar in both cases. But no exception can be taken to the following guarded statement.

"If the state of knowledge and of social and domestic habits be given; then the vigour of the people as a whole, if not their numbers, and both the numbers and vigour of any trade in particular, may be said to have a supply price in this sense, that there is a certain level of the demand price which will keep them stationary; that a higher price would cause them to increase, and that a lower price would cause them to decrease." (Book VI. ch. ii. § 3).

Land differs from the other factors of distribution in not responding in any way by an increased supply to an increase of demand. Our author makes it additionally clear that this is the essential attribute of land; it does not differ from the other factors so much as seemed to some to have been implied by the doctrine that "Rent does not enter into cost of production." Professor Marshall fully admits the facts on which the more intelligent objections to that form of expression have been based.

"Land is but a particular form of capital from the point of view of the individual manufacturer. And the same is substantially true of the individual cultivator. The question whether he has carried his cultivation of a particular piece of land as far as he profitably can, and whether he should try to force more from it or to take in another piece of land, is of the same kind as the question whether he should buy a new plough or try to get a little more work out of his present stock of ploughs. . . . He, like the manufacturer, weighs the net product of a little more land against the other uses to which he could put the capital sum that he would have to expend in order to obtain it." (Book VI. ch. ii. § 5.)

After this explicit explanation it becomes a mere question of words whether we ought to retain the old formula "Rent does not enter into cost of production." Professor Marshall retains it.

He is less conservative with respect to the definitions of capital. Breaking with classical tradition, he now defines social capital as "wealth which yields income in forms that are admitted in the broader use of the term in the market place." (Preface to third ed.; Book II. ch. iv.) With respect to capital there should be noticed some remarks on the benefits which wage-earners derive from the increase of wealth not owned by them and not in the form of trade capital. (Book VI. ch. ii. § 10.)

But it would be impossible here to discuss in detail all the passages which have been altered in the third edition. It must suffice to say of them that generally, while some relate to new events (*e.g.*, more recent vital statistics), and some to new publications (*e.g.*, Mr. Cannan's book), the majority are new only in expression, altered only in order to be made more explicit.

The author, unlike so many of that irritable genus, instead of deriding those who have misinterpreted him, instead of standing out for every jot and tittle which he had written, has complacently altered expressions which experience had proved to be liable to misconstruction. Like the artist in the well-known story, he has silently listened to and profited by the remarks of experts about details; but meeker than the ancient master, he has refrained from breaking out against the criticisms which have been *supra crepidam*.

Money and its Relation to Prices. By L. L. PRICE. (London: Swan Sonnenschein. 1896. 200 pp.)

THE attribute "broad" which Mr. Price himself has claimed for many of his conclusions appears to be particularly well deserved. Summing up impartially almost all the arguments which have been advanced on one side or the other of each issue, he enounces well-balanced judgments to which a general assent will probably be given by most candid readers.

In the lucid order which he has adopted the measurement of changes in prices comes first. The practical validity, the common sense, of the method of index-numbers has never been better stated. In this matter, as in so many others, the economist "is compelled to be content with a balancing of probabilities." The theory of probabilities gives no countenance to an argument