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

which is sometimes used by monometallists that "if a change of prices be due to an expansion or contraction of the supplies of money the rise or fall must be universal" and uniform. Partisans on the other side will do well to attend to Mr. Price's teaching that in order to prove the operation of such a cause "the commodities on which the index-number is based must be independent."

Considering next the economic effects of changes in prices, Mr. Price, after reviewing almost all the relevant considerations, decides that "they appear to converge to the broad conclusion that the balance of general advantages lies on the side of rising rather than of falling prices." In the proof of this conclusion he lays much stress on the effect which a fall of prices is apt to produce on the "imagination" of entrepreneurs. Might he not have attributed some counteracting influence to the sagacity of business men, whose anticipation of a further fall in prices is apt to act upon the loan market in such wise as to lower the rate of interest and *pro tanto* proportion the burden of future debt to the shoulders which have to bear it? This is a consideration which has been powerfully urged by Professor J. B. Clark in a recent number of the *Political Science Quarterly*.

The changes in the quantity of money and the corresponding vicissitudes in prices are traced by Mr. Price through four great historic periods. As to the rise of prices in the sixteenth century what Adam Smith says is broadly true: "It is accounted for . . . in the same manner by everybody; and there never has been any dispute either about the fact or the cause of it." The consensus is not indeed absolutely complete, as Mr. Price reminds us. If we may accept the statistics of Jacob and Soetbeer, it is certainly remarkable that while the production of silver in comparison with that of gold both in respect of volume and total value should have varied by enormous fluctuations, the value of silver relatively to gold should only have altered from the proportion 1 : 10·45 to the proportion 1 : 15·63.

The fall of prices after 1810 forms the next topic. Winding his way skilfully through the mazes of controversy which perplex the monetary history of the beginning of the century into the clearer light of index-numbers, Mr. Price concludes :—

"In view of the evidence supplied by the index-numbers, in conjunction with the notorious revolutionary disturbances in America and a known diminution of the supplies of the precious metals, amounting between 1810 and 1840 to some 40 per cent., it is impossible to resist the conclusion that the cause was adequate

to produce an effect on prices, that the effect was produced, and there must have been a connection between the cause and the effect."

In the course of the argument he mentions the opinion that "man's efforts to win wealth from bounteous or reluctant nature are with the lapse of time rewarded with more success in the case of the mass of commodities than in that of the precious metals." But his own opinion appears to be that which is expressed on an earlier page: "In the past history of metallic mining, chance, rather than any regular law which can be ascertained, appears to have exercised predominant influence; and recent metallurgical progress renders all prediction doubtful" (p. 66).

Dealing with the rise of prices after 1850, Mr. Price does not fail to point to the "ostensive instance" of the success of bimetallism which is afforded by the stability of the ratio of exchange between gold and silver in spite of the enormous fluctuations in relative production which have occurred in the course of the century. In dealing with this period the author has to consider the relation of credit to prices. He judiciously balances the power of credit to intensify the action of a given addition of metallic money on the level of prices, and the counteracting influence which credit exercises by facilitating extensions of commerce (p. 155, *cp.* p. 49). And apart from such extension of the volume of business it should seem that credit by taking the place of hard money can mitigate a fall of prices (p. 187).

The fall of prices after 1873 forms the last topic. After balancing probabilities Mr. Price thus sums up:—

"In the light of these converging lines of evidence it seems impossible to doubt the existence of a causal connection between the recent fall of prices and the monetary changes of the last twenty years."

One may assent to this proposition as probable, without agreeing that "the degree of probability is so high as to amount to practical certainty." Indeed Mr. Price may seem to have over-estimated part of the evidence: namely, that which is afforded by considering the relation between money and goods "dynamically" in Mr. Giffen's phrase (Price, p. 177). A matter which Mr. Price does not make quite clear may be expected to present great difficulties; and it will be worth while to discuss it at some length.

Mr. Price's argument is as follows:—

"The movement of improvements in production sets steadily

in one direction, while the movement of prices inclines first upwards and then downwards, and then up, and then down again. The only ground on which these opposite changes could be attributed to one and the same cause, that of improvement in production, would be a reversal of this movement of improvement during the periods when the direction of the curve was changed. The argument that the movement of improvement in production proceeded at an accelerated speed during the periods of falling and at a slackened rate in those of rising prices is insufficient, for a positive reversal, and not a mere variation in relative rapidity of the movement of prices, is the fact to be explained. It may be allowed that part of the fall since 1873 is due to improvements in production. It may even be admitted—although the evidence seems by no means conclusive—that these improvements have proceeded with accelerated speed. But when ample recognition has been given to these considerations the phenomena of prices are not explained. Some other cause must still be sought" (p. 178).

Upon this argument it may be remarked that, if the level of prices is regarded as directly proportional to the quantity of money and inversely proportional to the quantity of goods, an acceleration in the growth of the latter quantity is quite sufficient to account for a change in the level of prices. This will become evident if the ratio between the two growing quantities is compared to the distance between two moving bodies. Achilles pursues Hector, presumably with a constant velocity, since we are told that "neither the one can overtake nor the other fly away." If the distance between the heroes is diminished, why should not this be entirely attributable to the acceleration of the pursuer, without any variation in the steady motion of the fugitive? The issue is no doubt very fine; and it would not have been easy for the spectators, even if they could have been brought to understand the question, to determine by observation the answer. Homer decides the matter by introducing the agency of Pallas Athene. Hardly less mythological hypotheses appear to be resorted to by some of those who have treated of the race between goods and gold. Of this kind is perhaps the alleged stimulus to the growth of production in recent years. Since the evidence of such acceleration is, as Mr. Price says, "far from conclusive," while the monetary disturbance is conspicuous, it is reasonable to regard the latter as the cause. The preceding illustration, however, may suggest that the matter is not so self-evident as the author represents; and it must be remembered

that the illustration has been artificially simplified and that there intervene between the cause and the effect a great many agencies, such as the number of purchases effected by each piece of money, the number of sales undergone by each piece of goods, and other circumstances about the variations of which we are absolutely ignorant.

The improvement in production during recent years has a certain bearing on the consequences as well as on the cause of the fall of prices. If the quantity of goods *per head of population*—whatever may be the case *per piece of money*—has increased, then it may be expected that *pro tanto* the average entrepreneur from the increase of his turnover will be favourably affected both in pocket and "imagination." Elsewhere, when Mr. Price is contending that a rise of prices is on the whole advantageous, he argues that even those who suffer from their receipts—such as customary fees—being fixed derive some compensating advantage from the increase of business which may be expected to attend a rise of prices (p. 63). Ought he not consistently to admit that in the recent fall of prices even those who suffer from their disbursements—such as long-standing debts—being fixed derive on an average some compensating advantage from the increase of business which has, as a matter of fact, been simultaneous with the recent fall of prices? [1]

The advisability of the practical conclusion to which Mr. Price points depends largely upon another probability which it does not lie within his present province to evaluate, though he adverts to it with his usual comprehensiveness: namely, the possibility of "forming or maintaining in the future a union of nations sufficiently strong to counteract by the demand for coinage at their mints such changes in supply as are likely or conceivable."

Strikes and Social Problems. By Professor J. SHIELD NICHOLSON. (London: Adam and Charles Black, 1896. Pp. 236.)

"THE reaction in favour of the classical political economy," the title of one of the essays here collected, might be applied to the whole collection. There had been, the author tells us, a reaction against certain principles of political economy. "Exceptions were multiplied to such an extent that many people began to think the principles had vanished. This reaction or conversion has now attained such a pitch that the converted seem to think

[1] *Cp.* ECONOMIC JOURNAL, Vol. V. p. 440.