

Mr. Ford is probably accurate as to the present psychology of the worker in his belief that what they want is to be told what to do, how to do it, and be allowed home in the quickest possible time. They prefer, as most of us scientific workers would, leisure to task work, however interestingly it may be disguised.

It is also hopeful to note the growth, if slow, of the conclusion reached by all who have recognised that the problem is not one of production but of distribution, that no reform is possible without reform of the money system. Mr. Cass refers very cautiously to "financial reform in the direction of a measurable amount of inflation, possibly on the lines suggested by Arthur Kitson, Douglas, and others", as a possible way of approach to the unemployment problem. The present state of inflated France, reported to be able to find work for a million alien workers, and deflated England with between one and two million workers permanently unemployed, is eloquent of the importance to industry of the distributing mechanism, the money system. Both rob Peter to pay Paul, the creditor class in the one case and the taxpayer in the other, bearing the loss.

I differ from the reformers cited, while in general agreement with their diagnosis of the industrial and economic situation, in the belief that it is not only possible for a scientific era to devise a stable monetary unit of value, but that it is of far more consequence to its social well-being, even than invariable standards of weights and measures. To me, the present system, in which the quantity of money in circulation is a function of the extent people are allowed to overdraw their accounts and spend what no one knowingly has given up, is mere 'account cooking', already responsible for much if not most of the present deadlock. To believe that greater laxity in accounting is going to produce anything but more confusion and bitterness is impossible. What I think is needed is a much clearer perception of what each expansion of industry involves, the permanent locking up of some definite quantity of wealth in the enlarged flow—not the same wealth but the same quantity permanently—and the necessity of accounting for this quantity just as for capital expenditure in a straightforward manner, without as at present simply drawing upon the general purchasing power of money to meet the outlay. Granted this, with the accountancy of the monetary system kept according to the ordinary laws of arithmetic, I do not see any difficulty in maintaining a monetary system with an invariable standard of value and yet capable of distributing all that society is willing and able to produce.

FREDERICK SODDY.

APPRECIATION by some of our leading men of science of the difficult problems raised by the increasing application of science to industry is to be welcomed, whether it be due to a less suppressed consciousness of guilt or to greater leisure; and the position calls not for less science but more, especially in the sociological sphere rather than in the physical. Progress in the social sciences has probably not kept pace with that in the physical, so that there is some uncertainty and bewilderment as to the best and wisest organisation and utilisation of the marvellous wealth and resources placed at our disposal by chemistry, physics, and engineering. A greater knowledge and more skilful use of the statistical method in economics and politics as exemplified in Sargant Florence's great work and others, together with more boldness in making social experiments, would greatly accelerate progress in the desired direction. Definite measurement and ex-

perimentation, and ultimately we shall hope, prediction also, are probably much more possible in the social sciences than is commonly supposed, and can alone justify the appellation of 'scientific'. They should replace the vague evolutionary fatalism, by which things will eventually right themselves, and the unsubstantiated hypotheses which still cloud our horizon.

Prof. Soddy suggests that in one important respect, which appears to be that of relative values, New Testament economics, or the ancient oriental theocracy, is clearer than that taught in modern universities, and if this be so, then one should be the more, rather than the less, disposed to subscribe to the Biblical economics which may have induced me to invert the natural function of industry, making production secondary; for here also we are dealing with the determination of relative values. But perhaps this division of the aims of industry into moral or spiritual, on one hand, and material on the other, was not the best or most complete analysis that could be made, and was done chiefly with the view of emphasising one aspect of industrialism that might just possibly be overlooked.

It is not easy to agree that unemployment and leisure are essentially two statements of the same condition except by violent distortion of definitions; or that industry should have no responsibility in connexion with the right use of leisure. Of course, under modern conditions, industry is not actually "charged with this alien function", but industry certainly largely determines the amount of leisure, and its proper use is by no means a matter of indifference to the prudent and up-to-date employer. He does not think it advisable entirely to disclaim all responsibility herein, and rely wholly on the theatres, churches, and Press, or even on the universities and schools. Even Mr. Henry Ford, or perhaps he more than anyone else, realises the importance of a right use of leisure; and in proportion as Mr. Ford is correct in his view of the relations between man and his work, a rather hopeless view it seems, so much the more important is leisure and its use.

W. G. LINN CASS.

An Apparent Rôle for the Thymus (in Calcium Metabolism).

It has already been reported (Harris and Moore, *Biochem. Jour.*, 23, 261; 1929) that hypervitaminosis D always involved an atrophy, indeed eventually virtual disappearance, of the thymus, and similar changes in other lymphadenoid tissue—a discovery which has since led us to the observation that an equally remarkable fall occurs in the lymphocyte count in the same circumstances, for example, down to a reduction of more than 90 per cent below the normal average range. The atrophy of the thymus might perhaps have been accounted for simply as a feature of the general inanition: a similar change is seen in vitamin B deficiency and sometimes in starvation: yet this explanation seemed unsatisfactory. Loss of weight, for example in vitamin A deficiency, does not always produce such an effect.

In searching for a meaning for the atrophy of the thymus, and bearing in mind that the other manifestations of hypervitaminosis were the opposite to those of vitamin D deficiency, one could not overlook the suggestive fact that in clinical rickets the organ is indeed frequently hypertrophied. Yet current physiological text-books are unanimously in agreement with a recent monograph on the thymus (Hammett; Berlin, 1928) which asserts that "the function of the thymus