

to foresee what will happen. In the absence of this knowledge, it is absurd to prepare for a limited number of possibilities only, and impossible to be ready for every one, because of the magnitude of the task. This is rather hard on the professional fighters, who are apparently preparing for a war to be fought on lines similar to the last one, not so much out of ignorance or lack of vision, as because it is the only concrete thing that they have to work upon.

A long chapter is devoted to a dramatic description of the first twenty-four hours of an imaginary war of the future. The capitals of both of the combatants are immediately crippled by the enemies' air fleets, and we are left with the impression that the continuation of the war is impracticable, because of the destruction of the centres of organisation. This holocaust occurs principally because of the rapidity of the blow, which is made possible, first, by the lack of cumbersome mobilisation of armed forces as in previous wars, and, secondly, by the facilities with which orders can be transmitted by wireless.

The author develops a rather ingenious subdivision of methods of use of gas in aerial warfare, which can either be used for killing, temporarily incapacitating a population, or rendering an area uninhabitable. A good many aircraft designers of to-day would not agree with one of his premises, that civil air transport aeroplanes can be used immediately for war purposes; also, that the airship is inferior to heavier-than-air craft in every respect, both in its war and peace applications.

*Equality.* (Halley Stewart Lectures, 1929.) By R. H. Tawney. Pp. 303. (London: George Allen and Unwin, Ltd., 1931.) 7s. 6d. net.

"THE lever which lifted political and religious boulders will snap when used to move economic mountains" expresses a pessimistic outlook which does not appear to be shared by Prof. Tawney. Nor does he believe that our present social and economic maladjustments are the inevitable results of original sin. "It is more contemptible to be intimidated by distrust of human nature than to be duped by believing in it." His book is an interesting examination of political and economic equality as an ideal, and involves an analysis of the causes, social and psychological, which have resulted in our present degree of inequality. The chapter on "Equality and Culture" is a good tract for the times, and reiterates the useful truth that, if the Kingdom of Heaven is not eating and drinking, "neither is civilisation the multiplication of motor-cars and cinemas, and of any other of the innumerable devices by which men accumulate means of ever-increasing intricacy to the attainment of ends which are not worth attaining".

*Critique of Physics.* By L. L. Whyte. Pp. xi + 196. (London: Kegan Paul and Co., Ltd., 1931.) 10s. 6d. net.

THE main purpose of this inspiring book is to propose a new structural method of physics where relativity and the quantum theory are shown as special cases of a more general limitation on the classical frame. The proposed method, which the author calls 'unitary theory', is a deductive theory of measurement and of the relations holding between measured quantities, based on a theory of the structure of rods and clocks, in which all theoretically significant lengths, times, or masses appear as functions of one primary length, time, or mass.

It can be gathered, therefore, that the author's method does not arise out of experimental necessities, but is shaped merely on logical postulates based on a searching analysis of the assumptions of modern physics. Without adequate mathematical and experimental developments, it would be difficult to pass a final judgment on the author's endeavour. But he is himself aware of the provisional character of his suggestions, and likes to call his method heuristic rather than scientific. At any rate, if it inspires physicists to look with a constructive suspicion at the postulates of their theories, and try to remedy their obvious logical defects, the labours of the author will not have been in vain.

T. G.

*A Defence of Philosophy.* By Ralph Barton Perry. Pp. 56. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press, 1931.) 4s. 6d. net.

PROF. PERRY says there is a sort of gentlemen's agreement not to ask ultimate questions. "People do not as a rule insist upon knowing the meaning of things, further than to assign them a place in their world of familiar objects." Yet philosophy differs from other studies in that it continues to press inquiry beyond the point where it customarily stops. "It sets no limits to the questions it asks, save to insist that they shall really be questions." When it is objected that if inquiries are carried too far the methods of science have to be left behind, the philosopher's reply is that he will use what methods he can. Yet the questions which he asks are all familiar in kind: What is real? Why did it happen? How do I know? What ought I to do? Everyone philosophises up to a point; the difference between the metaphysician and the rest of the world is one of degree only, and lies in the thoroughness and obstinacy with which the latter pursues his quest. The philosopher is the intellectual frontiersman, who attempts to domesticate the wild areas which lie beyond the cultivated fields of science. Students of science will read this lecture of Prof. Perry's with interest and with a large measure of agreement.