It would be easy but unjust to stress the fact that important omissions have been made. The author is well aware of this, and has, in addition to the obvious defence of its intrinsic inevitability, the further defence that paper restrictions imposed a maximum size on the book. Considering the limits allowed him, it is difficult to see how Dr. Davidson could have made a better choice of material, except that some reference might have been made to the effect on general thought—an effect not completely represented in the standard philosophies of the period—of the mechanistic character of physical science during the eighteenth and nineteenth centuries, for it is only in relation to this that the claims made that modern physics has emancipated us from the chains of “necessity” have any significance. The argument was, briefly, that the movements of matter had been proved to be controlled by universal laws, that human actions were movements of matter, and that therefore human actions were controlled by laws which operated independently of the will of the human being. It was a very weak argument at the best, for the one recognizable distinguishing characteristic of living matter was that it did *not* move according to the laws found valid for non-living matter. Nevertheless, the prospect seemed to cause serious perplexity, and the modern discovery that the laws of motion of non-living matter cannot be effectively used for conceptual entities like electrons unaccountably gave great comfort by making it seem possible that, after all, our bodies after we are dead might not be quite inevitably under the control of physical law. Why this is more consoling than the obvious fact that they are not so controlled while we live would be a suitable theme for Dr. Davidson's next book if psychology is included among his many interests.

H. DINGLE.

THE COMING-OF-AGE OF INDUSTRIAL PSYCHOLOGY

An Introduction to Industrial Psychology

By May Smith, D.Sc. Pp. 264. (London, Toronto, Melbourne and Sydney: Cassell and Co., Ltd., 1943.) 7s. 6d. net.

PRESENT-DAY psychology can be understood only in its historical setting, which Dr. May Smith outlines in her first chapter, for modern advance in science had strengthened an attitude—even now persistent in some degree—unfavourable to psychological ways of thought. Stahl, “the last of the animists”, possessed a knowledge of psychology that had to be rediscovered in our day, and with his defeat the subject was banished from medicine, the branch of science that needs it most. Yet it would not keep out. A century after Stahl there came Mesmer with his theories of magnetic fluids to account for psychological phenomena; another century passed, and Charcot, with his *grande hystérie* and metatherapy, was discredited in his turn. Freud at last provided an understanding of these and other clinical problems, but we were still in the dark age of psychology, and not until the War of 1914–18, with its thousands of breakdowns, was medicine compelled to acknowledge its existence. On the academic side psychology had been a branch of philosophy, but workers like McDougall, with his postulation of instincts as a

driving force, were approaching a common ground with Freud; the two lines of descent came together and psychology became an integral part of medicine, at the same time finding wide application outside that field.

The author comments, after referring to an early writer on what we now call vocational guidance: “One cannot but regret that this part of his work did not receive the attention it deserved, but the 17th century had something else to consider, and, caught by the exciting drama of the rapid advances in chemistry and mechanics, paid little heed to the suggestions of a writer whose interest was in men's minds”.

What was true in the seventeenth century was true in the nineteenth. Industry had grown up under economic laws that, though some of their results were softened by legislation, were accepted as not only necessary but also sufficient to ensure the efficiency of the worker. His happiness and contentment were his own private affairs. There was no room for psychology here, but again the War of 1914–18 led to a fundamental change, and under its stimulus was set up the Health of Munition Workers' Committee, which gave origin to the Industrial Health Research Board and marked the beginning of great developments in the study of human problems in industry. In these developments Dr. May Smith, who had been a pupil and fellow-worker of McDougall, has taken an important part, and few can be better qualified to write a survey of this many-sided subject.

Fatigue, the first subject of systematic study, can be measured by tests and estimated by output figures, but, in bringing earlier work into relation with experience after Dunkirk, Dr. Smith strikes a note that prevails throughout the book, and tells us what the workers feel and think. “We shall have to pinch time off if we don't get it” is a sentiment the psychologist would teach us to accept as a factor in absenteeism. Moreover, the ability to listen easily to the expression of such sentiments is essential in the study of problems that appear to be purely physiological—such as lighting, temperature, noise, rest pauses, and the like. An account is given, with references, to work done on these topics, and on accident proneness, training, and vocational guidance and selection. The chapter on time- and motion-study gives full credit to its originator, F. W. Taylor; but it is noted that his work was subjected to severe criticism, which arose from his frank acceptance of American economic theory and practice as they existed in 1911, and found its focal point in the phrase ‘the number of men required was reduced’. Dr. May Smith's thesis is that industrial psychology gives first consideration to the happiness and well-being of the worker, productive efficiency being their natural sequel.

Dr. May Smith's own work led her to the study of the nervous temperament and its influence upon efficiency and sickness, which she describes with a lively human touch. The medical reader will find here a fuller treatment of the subject than his own text-books provide, a treatment aided by unobtrusive psychological knowledge combined with wide experience. The book is an authoritative and up-to-date account of the whole subject, and not only satisfies an urgent need in our present trials but also offers valuable guidance in those new adjustments that will be inevitable when the War shall have ended.

MILLAIS CULPIN.