

regenerative cycle is dismissed in six lines, and the description of the binary vapour engine occupies only one page. In view of the excellent textbooks on engineering thermodynamics that are already available in Great Britain, it is doubtful whether this American work will find a place in the list of books recommended for students in engineering.

*Introduction to Internal Combustion Engineering.*

By Dr. J.-B. O. Sneedon. Pp. ix + 268. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1933.) 6s.

THIS book not only deals adequately with the elements of internal combustion engineering but contains, in addition, a large amount of valuable information generally found only in the more expensive textbooks. The subject has been carefully developed, both on the theoretical and the practical sides, with descriptive and mathematical matter so well balanced that the book can be recommended to any student wishing to acquire a sound knowledge of fundamental principles.

The work contains a large number of problems and numerous diagrams and illustrations. A very useful feature is the frequent reference to published papers, modern research work and standard works on the more highly specialised part of the subject.

The contents embrace thermodynamics of gases, ideal and actual engine cycles; gaseous and liquid fuels; combustion; and the more practical aspects—charging and exhausting the cylinder; ignition of the charge; cooling systems; testing of internal combustion engines; and air compressors.

A few pages are devoted to supercharging, but, even at the expense of increasing the size of the book, it is felt that a fuller treatment might have been given to this part of the subject. The application of the oil engine to road vehicles might have been given a place at least equal to that devoted to the application of town and producer gas to road traction.

*Cancer: Civilization: Degeneration: the Nature, Causes and Prevention of Cancer, especially in its relation to Civilization and Degeneration.* By John Cope. Pp. xvii + 293. (London: H. K. Lewis and Co., Ltd., 1932.) 15s. net.

It is extremely doubtful if the fear of cancer will be a sufficiently powerful deterrent to make the average man and woman conform to the suggestions for a simpler and nobler way of life which commend themselves to Dr. John Cope. His book is much more a sociological essay than a contribution to the cancer problem, for the nature and causes of cancer are assumed throughout to be well-known degenerative conditions, due to civilisation's flouting of natural law. All the well-worn fallacies of the predisposing factor of age, the healthiness of savage peoples and their freedom from cancer and constipation, and the greater incidence of cancer in women than in men (on the same page as a table showing the contrary)

pass like a stage army more than once across the scene. The fact that cancer of the uterus has not increased in Great Britain during the last forty years is ignored, with the same insouciance as is meted out to the laborious but precise findings by the experimental induction of malignant growths in animals.

Whether one agrees with Dr. Cope's views on diet, infant feeding and birth control, or not—and much that he writes and figures in vigorous sketches can be conceded as well and worthily done—it is legitimate to protest against the *ad hoc* 'facts' of the biology of cancer which act the scarecrow in his pages.

*Crime, Law and Social Science.* By Prof. Jerome Michael and Prof. Mortimer J. Adler. (International Library of Psychology, Philosophy and Scientific Method.) Pp. xxix + 440. (London: Kegan Paul and Co., Ltd.; New York: Harcourt, Brace and Co., 1933.) 15s. net.

THE authors of this volume, which, in so far as it is affected by practical considerations, is based more particularly on conditions in America, examine minutely the precedent conditions of a science of the criminal from every point of view—behaviour, environment, treatment and the administration of the law. They are severely critical of existing studies in criminology, pointing out in which respects they fall short of compliance with the canons of an empirical science. There neither is, they maintain, nor can be a science of criminology until the studies upon which such a science is dependent, namely, psychology and sociology, are themselves placed upon a scientific basis, a point not yet attained. They bring their thesis to a close with a proposal for an institute and system of study of the criminal from every point of view. As a critical study the book is illuminating and suggestive, as well as constructively helpful.

*Practical Physiological Chemistry.* By Sydney W. Cole. Ninth edition. Pp. xii + 419. (Cambridge: W. Heffer and Sons, Ltd.; London: Simpkin Marshall, Ltd., 1933.) 12s. 6d. net.

IN the new edition of this well-known and deservedly popular manual, some changes have been made in the methods for estimating urea and reducing sugars, and the chapter on the coagulation of the blood has been omitted as, in the author's opinion, unsuitable in the present state of the subject for a book of this kind. The treatment of *pH* has been introduced earlier and somewhat expanded. Further exercises on colloids are added. In view of recent progress, the chapter on oxidations has been remodelled so as to bring it into line with the modern position and many other minor improvements have been made.

In its new form the book will without doubt prove as popular with students and teachers as the eight previous editions published since 1904. The publishers have done justice to the merit of the work by good printing, paper and binding.