descriptive than philosophical, might have been strengthened by a discussion of the medieval theories about signs and symbols which are expounded by the leading theologians of the period surveyed. As it is, it will serve a useful purpose in enabling one to understand one of the most original aspects of medieval thought. T. G.

The Kantian Philosophy of Space

By Prof. Christopher Browne Garnett, Jr. Pp. xi + 287. (New York: Columbia University Press; London: Oxford University Press, 1939.) 17*s.* 6*d.* net.

THIS is a valuable discussion of the theories of space due to Newton and Leibniz, the development of Kant's views, beginning with his earliest work, and of some modern theories. As against Leibniz, Kant held that space must be in some sense prior to bodies that move, if there are to be universal laws of motion; as against Newton, that empty space, an infinite no-thing, cannot have absolute reality. Modern views tend to be either Leibnizian or Newtonian, or, if the inherent difficulties are realized, Kantian. Kant finally arrived at two inconsistent theories, but between them they seem to exhaust the possibilities.

Essai sur les origines intuitives du positivisme

Par Dr. Pierre Ducassé. (Bibliothèque de philosophie contemporaine.) Pp. x + 272 + 4 plates. (Paris: Félix Alcan, 1939.) 50 francs.

Méthode et intuition chez Auguste Comte

Par Dr. Pierre Ducassé. (Bibliothèque de philosophie contemporaine.) Pp. x + 620. (Paris: Félix Alcan, 1939.) 80 francs.

THESE two books constitute a sympathetic exposition of Auguste Comte's positive philosophy in relation to his life and the development of his thought. Dr. Ducassé is more readable and less dogmatic than Comte himself. His work should do something to revive interest in a thinker once hailed as the founder of a new universal religion and now too much neglected. As the prophet of the application of scientific method to the study of human life and society, if for nothing else, Comte deserves to be studied.

Physics

Angewandte Kristallstrukturlehre

Ein Hilfsbuch zur Bestimmung von Kristallstrukturen. Von Dr. E. Brandenberger. Pp. vii + 208. (Berlin: Gebrüder Borntraeger, 1938.) 12 gold marks.

THIS volume constitutes an excellent work of reference for theoretical studies and computations accompanying crystal analysis. It contains a clear account of structure-topology which is all too rare. For the rest, the discussion follows traditional lines in dealing with the nature of symmetry, translations, point-groups, space-groups, symmetry axes, and the complete formal solution of spatial systems.

The numerous figures in the text are clearly drawn, and some of them (so far as the reviewer's experience goes) are original and decidedly revealing. F. I. G. R.

Proceedings of the Sixth Summer Conference on Spectroscopy and its Application

Held at the Massachusetts Institute of Technology, Cambridge, Mass., July 18–20, 1938. Pp. viii + 172. (London: Chapman and Hall, Ltd.; New York: John Wiley and Sons, Ltd., 1939.) 15*s.* net.

IN this volume, spectroscopy is little more than a thread binding together investigations on many diverse problems, physical, chemical, biological, etc. There are thirty-one papers more or less unco-ordinated, covering a wide field of subjects. On one hand, there are purely technical discussions dealing with instruments, wave-length standardization, photometric technique, and the properties of photographic emulsions. On the other hand, there are examples of chemical analyses, ranging to the extreme case of the application of the spectroscope to the detection of crime. The analyses described follow either the well-known method of emission-line spectra or the alternative method of absorption spectra, so useful in the case of complex organic compounds, of proved value, for example, in the standardization of vitamin preparations. One of the most interesting of the papers describes an extension of this type of work in the use of absorption spectra for fixing the structure of vitamin B_1. There is also a note on still a third method of chemical analysis, the use of fluorescence spectra, by which, for example, the presence of bacteriological contamination can be detected in a cigarette. On the whole, such biological applications of spectroscopy seem to stand out in interest, in that they point the way to a large field of future research. H. W. B. S.

The Nature of Crystals

By A. G. Ward. (Blackie's Tracts on Recent Physics.) Pp. ix + 114 + 4 plates. (London, Glasgow and Bombay: Blackie and Son, Ltd., 1939.) 3*s.* 6*d.* net.

THIS is a refreshing little book. It is a very good introduction indeed to the new crystallography, but at the same time there is considerably more in it than that. Above all, it is a revolt—and an exceedingly well-planned one—against the excessive professionalism of science with which we seem to be afflicted. Actually, the reader is conducted skilfully through the subjects of formal and chemical crystal structure, and he is asked to delight in knowing the reasons why materials have the properties which in fact they display. Whether, however, the inquirer will leave his easy chair (as the author requests him to do) and "get busy" with a few crystals, test-tubes and dishes is another matter, but he will be the happier—and the wiser—if he can and will.

Some very sound advice is offered for the making of models, and it is clear that these need be neither troublesome to construct nor unduly expensive.

Naturally, these pages will not by themselves produce a crystallographer, while the theorists might almost deny that the contemplation of natural things can give pleasure. Again, it is all rather more