Magnetochemie
Von Prof. Dr. W. Klemm. (Physik und Chemie und ihre Anwendungen in Einzeldarstellungen, Band 1.) Pp. xv+262. (Leipzig: Akademische Verlagsgesellschaft m.b.H., 1936.) 18 gold marks.

BY magnetochemistry is meant the examination of the problems of chemical structure in the light of magnetic measurements and modern magnetic theory, and it is clear that the author of this book has thoroughly studied the more important methods of susceptibility determinations and the theoretical significance of the results. He does not assume that his readers already know all about the matters on which he writes, and his work is a fine example of careful exposition based upon a proper attention to fundamental conceptions and definitions. The outline of experimental methods and technique is by no means exhaustive, but it should be adequate for the average chemist who is likely to read the book.

The author gives a very full discussion of the earlier theories of para- and diamagnetism, although he follows other writers in obtaining an expression for the molar susceptibility of a diamagnetic substance in which a 6 appears, without giving a complete explanation of how the 6 gets there. The survey of the newer quantum theory of magnetic moments is particularly good, and the explanation of the temperature-independent type of paramagnetism, predicted by Van Vleck, is very neatly set forth. The influence of temperature and chemical combination upon magnetic susceptibilities is also fully discussed.

A large portion of the book is naturally devoted to problems of chemical structure, and the treatment of the magnetic properties of inorganic compounds and metals is especially helpful, for it includes data which the reviewer has not found elsewhere. It can be cordially recommended to all who are interested in the magnetic aspects of chemical problems.

L. F. B.

Le plateau de Meghalaya (Garo-Khasi-Jaintia): étude géographique d'une région naturelle de l'Inde. Par Dr. Shiba Prasad Chatterjee. Pp. 170. (Paris: Les Presses modernes; London: The Bibliophile, 1936.) 10*s.* 6*d.* net.

"MEGHALAYA" is the name given by Dr. Chatterjee to that isolated block of peninsular India which sticks out westwards like a promontory from the Naga Hills into the plain of Assam-Bengal. The meaning is 'abode of cloud', on the analogy of Himalaya, 'abode of snow'. Although the "Khasi and Jaintia Hills", as the name appears on maps, are connected by a high ridge with the Naga Hills, they form no part of them, being very much older.

Dr. Chatterjee, who is a geologist, is the right person to have written this little study, and he has done it very thoroughly. He clearly distinguishes between the Shillong Plateau in the centre, the Garo Hills in the west, leading down to the plains, and the Jaintia Hills in the east. The physiographical distinction, well shown in the contoured sketch map, is convincing, based partly on structural and partly on climatic differences; but to call them natural regions is to exaggerate their importance. The distinction is mainly one of relief.

The author gives a clear account, illustrated by line drawings and by sections, of the structure and evolution of the region, followed by a chapter on the climate. Cherrapunji has attained world-wide fame for its 600 inches of rainfall—not every year! The attempt to divide the flora of Meghalaya into three sub-floras, corresponding with the three physiographical areas, is not so successful; and the vegetation map naturally suffers from compression. The drawings by Mr. Frank Simpson are pleasant, and give a good idea of this interesting country of which we have heard little since Hooker's "Himalayan Journals".

(1) Heat Engines
By S. H. Moorfield and H. H. Winstanley. Second edition. Pp. vii+326. (London: Edward Arnold and Co., 1935.) 6*s.* 6*d.*

(2) Examples in Heat and Heat Engines
By T. Peel. Second edition. Pp. vi+146. (Cambridge: At the University Press, 1935.) 5*s.*

(1) FOR those beginning the serious study of the theory, Messrs. Moorfield and Winstanley's primer "Heat Engines" has already obtained recognition as a suitable medium of introduction to the subject. The second edition follows the lines of the first, but is enlarged by the addition of a chapter on steam turbines. It thus covers the work usually required for the Ordinary National Certificate and presents a difficult subject in an easy and convincing way very suitable for those of limited attainment in mathematics.

(2) "Examples in Heat and Heat Engines", by T. Peel, also in its second edition, contains fifty sets of graduated and arranged questions taken from *A* and *B* papers of the Cambridge Engineering Tripos or prepared in accordance with that standard—a very useful series for those preparing for the advanced examinations.

Lorenz Oken und Georg Büchner:
Zwei Gestalten aus der Übergangszeit von Naturphilosophie zu Naturwissenschaft. Von Jean Strohl. (Schriften der Corona, Band 14.) Pp. 106. (Zürich: Verlag der Corona; Münich und Berlin: R. Oldenbourg, 1936.) 5 gold marks.

FEW people to-day have ever heard of Georg Büchner, while their ideas about Oken turn mainly on his "Lehrbuch der Naturphilosophie", a rather fantastic work, and his controversy with Goethe as to the vertebral origin of the cranium. They lived in a period of controversy which played around irrational theories but was often somewhat poetic in its conceptions. The philosophers of the early part of the last century were indeed imaginative and honest, but too abstract to provide a popular theory of life. The author of the little book before us, however, does not set out to expose this, but to produce a pleasant and readable book on two interesting personalities—and he has succeeded.