The Keeper of the Department of Geology of the British Museum (Natural History) states that the bulk of the material was purchased by the Trustees and that "it was considered advisable that a systematic account should be published by the Museum as an aid to further studies on the fishes of this formation". This policy of the Trustees in publishing accounts of the faunas of definite localities such as, in addition to the present one, the excellent account of the vertebrate faunas of the English Eocene by Dr. White, in a handy and, comparatively speaking, inexpensive form is very much to be commended. It is to be hoped that as time and opportunity occur it will be continued and the field extended.

Problems of Petroleum Geology :

a Sequel to Structure of Typical American Oil Fields. Edited by W. E. Wrather and F. H. Lahee. (Sidney Powers Memorial Volume.) Pp. xii+1073. (Tulsa, Okla. : American Association of Petroleum Geologists ; London : Thomas Murby and Co., 1934.) 6 dollars ; 25*s*. 6*d*.

FEW industries are now more closely allied to science than that of petroleum, both in regard to its geology and its chemistry. This volume deals with the problems of the former, and is a compilation of forty-three papers specially prepared by forty-seven authors.

After a historical introduction, the essential parts deal with the origin and evolution of petroleum, its migration and accumulation, and particularly the relation of its accumulation to structure : there are some papers dealing with oil-field waters. The book is a veritable mine of information, and it will be very helpful to petroleum geologists ; it should indeed aid considerably in future progress.

Mathematics

Interpolatory Function Theory

By Prof. J. M. Whittaker. Pp. vi+107. (Cambridge Tracts in Mathematics and Mathematical Physics, No. 33.) (Cambridge : At the University Press, 1935.) 6*s*. 6*d*. net.

INTERPOLATION by finite differences is an old subject, going back to the time of Newton, but Prof. Whittaker's treatment will come as a surprise to those familiar with the usual treatises. His object is to deal with new and little-known aspects of the interpolation series, and to discuss them in the light of the modern theory of integral and meromorphic functions (which is briefly summarised in the introduction). After three chapters dealing respectively with series of polynomials, differences and summation, and successive derivates, we come to two chapters concerning what is called the cardinal series. It was discovered by J. F. Steffenson and E. T. Whittaker (the author's father) that this series is closely connected with the well-known Newton-Gauss interpolation series, although at first sight it seems to be quite different. The cardinal series is also related to the theory of Fourier series and integrals, and to Hardy's '*m*-functions' ; its interesting properties have been studied by Ferrar, Copson, Pólya, Miss Cartwright and others.

The final chapter deals with asymptotic periods, and the 'tract' concludes with a bibliography of important original work. Most of the contents have not appeared in any other book, and some parts of it, founded on the author's own researches, have not been published before in any form. H. T. H. P.

Analytical and Applied Mechanics

By Prof. Guy Roger Clements and Prof. Levi Thomas Wilson. Pp. ix+420. (New York and London : McGraw-Hill Book Co., Inc., 1935.) 21*s*. net.

THIS work provides a thorough elementary introduction to applied mechanics with a strong practical and engineering bias. On the statical side the usual general theorems are developed lucidly and in order, and adequate discussions are given of the theory of frame-structures, cables and the bending of beams. In the dynamical section the kinematics and kinetics of particle motion are treated in detail, and the work concludes with chapters on energy methods in the solution of problems (including problems of fluid motion) and on uniplanar rigid dynamics. A large number of carefully graduated exercises is provided.

The book, which is, as usual, excellently produced, may be strongly recommended as an introductory course to a student in the final grade. A. F.

Miscellany

Janus-Man in Starry Night

By Colin Tolly. Pp. viii+101. (Oxford : Basil Blackwell, 1935.) 5*s*.

MR. COLIN TOLLY'S budget of sonnets calls for notice in these pages, as poetry inspired or influenced by science will become more and more common as the ideas of science are gradually absorbed and form part of our ordinary mental equipment. This process is going on all the time, and we have often noticed it before. At the moment the due expression of these ideas is peculiarly difficult for two main reasons. One is the extraordinary spate of new discoveries and theories ; the other, the prevailing unrest and dissatisfaction with the general state of the world in which these ideas are shooting up. Both these contemporary features find a striking demonstration in Mr. Tolly's verse. He is at grips with all kinds of problems and mysteries as well as the simpler but dominating thoughts of evolution and death which haunt him throughout. Often there are quite moving and common human emotions ; more often one is tortured by doubts and mystical longings for a state of joyous peace beyond the whirl of atoms and of bewildering problems.

This attitude of mind inclines the author, as so many others in our day, to a deep, but rather inarticulate, sympathy with Eastern thought as in "God-Seeking : Vedânta", where "into the Ocean of Space within he plunged ; and Nature, Man and God