

of the Department of Scientific and Industrial Research—is noted with satisfaction.

Only too frequently is it necessary to refer to the effect of the industrial depression on activity in the chemical industries, but the degree to which the flow of new knowledge has been maintained is a factor of great significance for the future. Already many definite improvements in the situation as it affects those industries are recorded. Among many matters of general interest referred to are the collapse of the price and production agreement between the Chilean and synthetic nitrogen interests and the operation of a price-fixing agreement reached between the Russian, Columbian, Canadian, and South African producers of platinum.

A. A. E.

*A Descriptive Petrography of the Igneous Rocks.* By Prof. A. Johannsen. Vol. 1: *Introduction, Textures, Classifications and Glossary.* Pp. xxii + 267. (Chicago: University of Chicago Press; London: Cambridge University Press, 1931.) 21s. net.

IN this first volume the author provides an introduction to the science of petrography. After dealing with the constituents (minerals), and their relations (textures), he gives in summary some twenty-five systems of classification of the igneous rocks. As many of these are now of historical interest only, he rightly pays more attention to those of present practical importance. Thus the systems of Osann and Niggli, the American normative system, and the author's own, which the second volume will fully illustrate, have each a chapter devoted to them, whilst those of Rosenbusch, Zirkel, and Shand are adequately described. Most of them are illustrated by examples, and as the same rock analysis is used in several, a very fair comparison may be made. No formal criticism of the different methods is ventured upon. Two admirable glossaries of mineralogical and textural terms with sundry tables and two indexes complete the volume.

The book is well printed and illustrated; the selection and reproduction of the photomicrographs illustrating textures are all that could be desired. An interesting feature is the inclusion of photographs, with short biographies, of the authors of the more important classifications. Throughout the work abundant references to original sources are made, and the text is enriched with many quotations. It is pleasing to note that where the author has been unable to check a reference it is starred. The errata noted are exceedingly few; on p. 130, quantitative has been used for qualitative, and on p. 157 Orders 1 and 2 should be 1 and 4.

The classification advocated by the author is based on the mineral composition of the rocks as determined in thin slices. Four classes are recognised from the relative proportions of light and dark coloured constituents; division into orders depends on the character of the plagioclase present, whilst further subdivision into families and sub-families is determined by the proportions of quartz or felspathoids, or the ratio of potash felspar to

plagioclase. Certain new terms and names, built on the 'portmanteau' method, are suggested. The full exposition in the second volume will be awaited with interest.

*A Monograph of the Recent Cephalopoda based on the Collections in the British Museum (Natural History).* Part 2: *The Octopoda (excluding the Octopodinae).* By G. C. Robson. Pp. xi + 359 + 6 plates. (London: British Museum (Natural History), 1932.) 20s.

THIS work gathers into one volume practically all the available knowledge of the Octopoda (exclusive of *Octopus* and some allied genera monographed in Part I in 1929), and includes a great deal of new information due to the author's comprehensive studies of these animals, not only in the British Museum, but also in Paris, Monaco, Berlin, Leyden, and elsewhere. Our knowledge of the whole group is definitely advanced, so that it is now possible to review the systematic interrelationships of the Octopoda with some confidence.

Apart from the Palæoctopoda, based on *Palæoctopus*, the only known fossil octopod, which has been re-examined and yields fresh evidence, three suborders are recognised, the Vampyromorpha, which are the least specialised and apparently most archaic group, the Cirromorpha (*Cirroteuthis*, *Opisthoteuthis*, etc.), and the Incirrata. This last group includes forms more familiar to the general naturalist, such as *Argonauta*, *Octopus*, and *Eledone*. The species commonly associated under *Eledone* prove to be a polyphyletic group now distributed among Octopodidæ and Bathypolypodidæ.

The chapter on "Classification and Evolution" is of special interest, and considerable ingenuity is shown in distinguishing resemblances due to convergence from those due to relationship: in some places the general discussion is a little vague, but definite results are reached in most of the major problems. The systematic part, which occupies about three-quarters of the volume, is throughout excellent, and, so far as we have been able to test it, wholly trustworthy.

*Health and Social Evolution.* (Halley Stewart Lectures, 1930.) By Sir George Newman. Pp. 200. (London: George Allen and Unwin, Ltd., 1931.) 4s. 6d. net.

THIS comprehensive review of the health of the people, and the gradual recognition of public health as an aim of State activity, shows the hand of a master throughout. Beginning with the Middle Ages, which saw the horrors of the Black Death, and also the beginnings of anatomy and physiology, the author goes on to describe the medical and the humanitarian contributions of the eighteenth century, and the effects upon public health of the industrial revolution, political and social reform, and the growth of State intervention in the field of public health as in other fields. The present position of the State medical service in relation to infant and maternal mortality, the health of the school child, the health insurance services, and the international health