ZOOLOGICAL NOMENCLATURE

IN accordance with prescribed routine, the undersigned invites the attention of zoologists to the fact that application has been made to the International Commission on Zoological Nomenclature to suspend the Rules and to place in the Official List of Generic Names—

Lepidocyclina Gümbel, 1868, type (1898) *Nummulites mantelli;* objective synonym *Cyclosiphon* Ehrenberg, 1856, type *N. mantelli;*

Lytoceras Suess, 1865, genotype *Ammonites fimbriatus* Sowerby; and

Ophiceras Griesbach, 1880, genotype, *O. tibeticum* Griesbach.

These cases will be held open until about July 1, 1933, to enable zoologists to submit to the commission their opinions, for or against the proposition.

C. W. STILES,
Secretary

SCIENTIFIC BOOKS

Elements of Geophysics as Applied to Explorations for Minerals, Oil and Gas. By DR. RICHARD AMBRONN, Göttingen. Translated by Margaret C. Cobb, Ph.D., New York, McGraw-Hill Book Co.

THIS book is a translation of Ambronn's "Methoden der angewandten Geophysik," published at Dresden and Leipzig in 1926. The attentive reader of either the original or of the translation will learn much about the many branches of geophysics, both of their scientific foundations and of their commercial applications, for, as appears from the title, the latter phase of the subject is the main subject of the book; the foundations are treated only because they are a necessary preliminary. They are, however, adequately treated.

The reader of this book must not expect, however, that a study of it, however careful, even when accompanied by a further study of the numerous books and articles to which reference is made in the text, will put the reader in a position successfully to undertake prospecting for oil, gas or minerals. The author expressly disclaims any such purpose or power. The reasons are not far to seek. Geophysical prospecting, though based on a scientific foundation, is to some extent an art and can not be learned wholly from books but needs practice or personal contact with a teacher, or both. Furthermore, since geophysical prospecting is pursued primarily for profit, the methods used and results obtained are seldom published in detail. This is a loss to science, for the same methods that yield results of commercial value might be expected to yield also results of scientific value, and the "pure" scientist may not unnaturally be envious of the large sums devoted to commercial work in comparison with the meager pittances doled out to research for its own sake.

These ideas, however, lead us a little aside from the book under review. The author's name and position is a guarantee that the facts are competently presented. (He is one of the editors of the *Ergänzungshefte für angewandten Geophysik,* published in connection with *Gerlands Beiträge zur Geophysik,* and the manager of a concern engaged in commercial prospecting.

However, several slips detected by the reviewer in fields with which he happens to be familiar illustrate the practical impossibility of being infallible over the wide range of subjects embraced under the general heading of geophysics. For instance, in Chapter II the numerical values given as those of $\partial g/\partial z$ (g = acceleration of gravity, z = distance along the vertical) are really values of $\frac{1}{g}\partial g/\partial z$, except for an error in the position of the decimal point due to a slip in reproducing the figures in Messerschmitt's work, from which the figures were taken and in which the decimal point is correctly placed and the quantity correctly designated, though not with all the clearness that might be desired. In one instance Messerschmitt's 0.000 000 196 is changed to 0.000 00 296, apparently to agree better with the other figures in the table. Nevertheless 1 and not 2 is the correct figure for the quantity intended and the slip in regard to the decimal point has just been noted. Incidentally recurved $d(\partial)$ for partial derivatives is not used anywhere, so that the formulas containing partial derivatives look as if they might have appeared in an English work of a hundred years ago.

In Chapter II also there is some confusion between the elevation of the geoid above the spheroid and the errors introduced by anomalies in gravity into the elevations above sea-level deduced by spirit leveling. The former may be fairly considerable, perhaps some tens of meters, the latter only a fraction of a meter. In Chapter III the vessel of the Carnegie Institution of Washington that preceded the non-magnetic *Carnegie* is called the *Galileo.* This is a very appropriate name for a vessel engaged in scientific work, but as a matter of fact she was named the *Galilee.* These instances of error of varying degrees of importance may serve to put the reader on his guard against placing a too implicit faith in the literal exactness of every statement made.

The bibliographical references are abundant and constitute one of the most useful features of the