Russell-Stanton-Farquhar model. They suggest that the model parameters be adjusted so that model ages for Houterman's *B*-type leads coincide with the age of mineralization. This would result in many truly conformable and normal vein-type leads becoming apparent *J*-type anomalies, even where independent evidence suggests that this is most unlikely.

The authors consider all normal lead ores to have arisen from a homogeneous mantle, in general accord with the controversial hypothesis of continental additions and growth throughout geologic time, proposed by Wilson. No reference is made to a stimulating paper by Shaw, published in 1957, suggesting that normal lead isotope abundances could be explained by crustal recycling and refusion processes, thus presenting features more directly acceptable to many geologists. At the present time it appears unlikely that lead isotope abundances can be used as a criterion for a crustal or mantle origin of lead ores. Thus, as pointed out already in 1956 by Holmes, the uranium/lead and thorium/uranium ratios calculated for the source of lead ores from isotopic data closely match those of average basaltic and average continental rocks.

A final, perhaps somewhat too brief, chapter is devoted to developments in the lead-uranium-thorium methods of age determination without which no discussion of lead isotopes would be complete. An appendix lists numerous lead isotope determinations carried out by many laboratories.

The authors are both primarily physicists and, quite understandably, the book suffers from certain geological shortcomings. Nevertheless, it is strongly recommended to all workers interested in geochronology, isotope geology and ore genesis.

S. MOORBATH

LAW AND ORDER IN ZOOLOGY

International Code of Zoological Nomenclature adopted by the XV International Congress of Zoology

Pp. xvii+176. (London: International Trust for Zoological Nomenclature, 1961. Published for the International Commission on Zoological Nomenclature.) 20s.

THE new *International Code of Zoological Nomenclature* is the result of much thought and labour during many years. For a long time it was clear that the old 'Règles' had become inadequate for their purpose, and this was evidenced by the growing number of interpretative "Opinions and Declarations" rendered by the International Commission. Inspired by Mr. Francis Hemming, the International Zoological Congress at Paris in 1948 authorized their revision, and the Copenhagen Congress of 1953 issued a number of amendments, additions and clarifications (the "Copenhagen Decisions"), and approved the preparation of a draft of a revised code by Prof. J. Chester Bradley for submission to the London Congress in 1957. This was admirably done by him, and it was submitted to the colloquium held immediately before that Congress. There the draft was intensively studied and its provisions debated line by line as strenuously as any Parliamentary measure. The outcome is the new *International Code* now available.

An important innovation is the production of parallel English and French texts, set out side by side, which "are equivalent in force, meaning and authority". The *Code* itself is divided into eighteen chapters

comprising eighty-seven Articles—many of these are subdivided, and several are accompanied by Recommendations. The Articles are mandatory Rules, and the Recommendations indicate the best procedure for cases not covered by their strict application.

One major change from the 'Règles' concerns the limitation of the Law of Priority. The new Article 23b is a wise compromise between the purists on one hand, who would apply the old rule rigidly, and those on the other who deplore the resurrection of a long-unused senior synonym and its substitution for a name extensively used over the years. Such a forgotten name (*nomen oblitum*) that has remained unused for more than fifty years is to be submitted to the Commission for consideration as to whether it is to be used or finally rejected.

Many other points are clarified or changed. In fact, the extent to which greater clarity has been achieved is one of the main gains of the new *Code*, and this is well exemplified by the chapters on "Criteria of Availability of Names" and on "Homonymy". As examples of previous difficulties that many systematists met, one may cite, *inter alia*, the status of figures designated as lectotypes, the choice and validity of neotypes, and cases involving the correctness of the identification of the nominal species designated as type-species of a new or established genus. All these and many others are satisfactorily and clearly dealt with. At the same time the Commission is aware that, in trying to apply the Rules, systematists will frequently need further authoritative guidance, and there are several statements that the zoologist "is to [not should] refer the case to the Commission". Obviously, much work lies ahead for the Commission.

Wisely, the *Code* does not deal with names of higher rank than superfamily or of lower rank than subspecies.

All zoologists should read Prof. Chester Bradley's preface and Dr. Norman Stoll's introduction. As well, there are five appendixes, of which one is a code of ethics and three are concerned with the problems that confront systematists introducing new names whose knowledge of the classical languages is not strong. It would have been helpful to suggest that consultation with someone with a good knowledge of them should be sought—colleagues and teachers are usually glad to assist. The glossary and index are full and invaluable. Finally, the volume is well produced and the print easy to read.

One small criticism—the "Code comes into force on the day of its publication" (Article 84), but nowhere in the volume is the precise date given, only the year 1961. Perhaps Article 21b should apply?

H. DIGHTON THOMAS

VIRUS RESEARCH

Advances in Virus Research

Vol. 7. Edited by Kenneth M. Smith and Max A. Lauffer. Pp. ix+397. (New York: Academic Press, Inc.; London: Academic Press, Inc. (London), Ltd., 1960.) 10 dollars

VIRUSES can be studied in many different ways and most of them are treated in this volume; purely chemical and serological investigations are the only important facets omitted. The 'natural history' of viruses is covered by Harrison, writing on the transmission of soil-borne viruses, and by Hitchborn and Thomson on variation. The myxoma : fibroma