

tions where a knowledge of the preparation and handling of gases is required". They also explain that there is no chapter on macro-gas analysis, the reason being that there are several excellent books on that subject.

The first chapter is devoted to an account of the elements of the kinetic theory of gases from the modern point of view. This happy combination of theory with practice—a characteristic of the work throughout—has very much enhanced the attractiveness of the reading. The second chapter gives an exhaustive account of apparatus for the control of pressure and temperature. It includes a description of the various types of vacuum pumps and pressure gauges, and has a section on taps, valves and lubricants. There is, however, no mention of the recent work in America and in Great Britain on phosphoric acid lubricants. This is the only omission of importance which we have found.

The third chapter deals with the preparation and analysis of gases, and includes directions for

preparing the two forms of hydrogen and deuterium. The section on micro-gas analysis includes analysis by low-temperature distillation, and the estimation of *ortho*- and *para*-hydrogen, deuterium, etc. The fourth chapter, on photochemical technique, deals with absorption spectra, sources of radiation, methods of controlling radiation, light filters, and the measurement of radiation intensity.

The fifth and last chapter deals with the wide subject of experimental methods for the investigation of gas reactions. It includes explosive reactions, and optical methods of investigation, and the great variety of catalysts are described. The section on catalysts is particularly valuable in its examination of the different forms in which metallic catalysts may be used, and in its warnings on the dangers of poisoning and sintering.

Throughout the book useful guidance concerning manipulation and the construction of apparatus has been given. The authors are to be congratulated on a comprehensive and able piece of work.

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## REGNUM ANIMALE

### Caroli Linnaei Systema Naturae

A photographic Facsimile of the First Volume of the Tenth edition (1758). Regnum Animale. Pp. viii+824. (London: British Museum (Natural History), 1939.) 10s. 6*s*.

THE first volume of the tenth edition of Linnæus's "Systema Naturae", published in 1758, is now universally accepted by zoologists as the starting point for the application of the rule of priority in the scientific naming of animals. This particular edition was selected for the purpose because it was the first in which Linnæus consistently applied a binomial nomenclature to the species, while, on the other hand, it was the last to be published during his lifetime. It is probably safe to assume, however, that only a small minority of zoologists have ever had an opportunity of handling a copy of this somewhat rare book. Even the reprint of it published by the German Zoological Society in 1894 has long been out of print and seldom appears in catalogues of secondhand books. The Trustees of the British Museum have, therefore, rendered a service for which zoologists ought to be grateful in publishing a photographic facsimile of one of the copies in their library. The particular copy which has been used for the reproduction can be identified because care has been taken not to expunge the marginal notes and library stamps which it carries, a precaution that may prove one day to be important in the case of

a work where much may turn on the spelling of a word or the position of a comma.

Even those who find the endless legal arguments as to the 'correct' names of animals little to their taste may discover much that is of interest in this old book. Linnæus, although he was much less of a zoologist than a botanist, had a broader conception of systematic zoology than we have to-day. His "Systema Naturae" was meant to be something more than a mere enumeration of species and their diagnostic characters; it was to be a summary of all that was known about them. Appended to many of the species are notes, condensed as only the Latin language can condense them, on the bionomics, ecology, distribution, and uses of the animals dealt with. For example, under "*Felis catus*" there is a delightful little paragraph giving (one imagines) a portrait of a privileged member of the family sitting by the stove in the old Linnæus house in the Botanic Garden at Uppsala, "*tranquilla, ore molat, caudam erigit; excitata agillissima scandit, irata fremit . . . Murum Leo, in praedam intenta caudam movet . . . os instante tempestate manu lavat, dorsum in tenebris electricisat; in altum acta decedit in pedes*" and then, when Linnæus has been kept awake at night, he writes "*clamando rixandoque misere amat*". But "*odore ambrosiaco*" must be ironical.

W. T. CALMAN.