Our Bookshelf.

Reports of the Progress of Applied Chemistry. Issued by the Society of Chemical Industry. Vol. 14, 1929. Pp. 775. (London: Society of Chemical Industry, 1930.) 7*s.* 6*d.* to Members, 12*s.* 6*d.* to non-Members.

THE publication of a new volume of the annual reports of the progress of applied chemistry recalls the strange fact that there are still some industrial chemists who have never used, never even heard of, this excellent review. Chemists are usually busy people, and busy people cannot be expected to read extensively the literature of those parts of the science with which they are not immediately concerned. They ought to do so, they admit, but can find neither time nor capacity for the enormous task. Nowadays, a chemist who claims to be well informed is not necessarily a voracious reader of original papers, even in his own language, but is often one who, at least for his non-essential study, relies on records such as that under review, afterwards using them for the selection of the relevant literature to be consulted. How often do we now read not to acquire information but to discover where it is to be found! Moreover, only the favoured few can afford to maintain a reasonably adequate chemical library; most of us are content, so far as journals are concerned, to keep the annual reports on pure and applied chemistry at hand and the corresponding abstracts within reach. By so doing we can at least rely on being kept in close touch with the development and application of chemical science.

The present volume covers the same ground as its immediate predecessor with the exception of explosives, in which domain the survey is biennial. The chapters on general, plant, and machinery (R. Edgeworth-Johnstone); fuel (J. G. King); refractories, ceramics, and cements (W. C. Hancock); iron and steel (C. O. Bannister); india-rubber (H. P. Stevens and W. H. Stevens); leather and glue (D. Woodroffe); foods (L. H. Lampitt); sanitation and water purification (J. H. Coste); fine chemicals, medicinal substances, and essential oils (E. Stedman); and photographic materials and processes (F. M. Hamer) have been entrusted to authors who were not concerned in the preparation of last year's report; the remainder of the twenty-four chapters have been contributed by the same authors as in 1929, either alone or in collaboration. A. A. E.

Laboratory Guide to Vertebrate Dissection: for Students of Anatomy. By Dr. A. B. Appleton. Pp. xix + 152. (Cambridge: At the University Press, 1929.) 6*s.* net.

As its title indicates, this is a book for use in a practical comparative anatomy course. It is intended for a somewhat unusual class of student, and consequently its contents, outlook, and method of treatment are unlike those of the standard texts in this subject. As stated in the preface, it is assumed that the student has already done a course in elementary zoology, including the usual vertebrate types, and has also examined in more detail a mammal. Unless this mammal were man, a number of comparisons in the book would be missed. To obtain full benefit from it the student should obviously have taken the preliminary medical studies, including a fair amount of human anatomy. This is not meant to imply that the student of advanced zoology cannot get many useful hints and fresh points of view from its pages; he undoubtedly can. The types, treated in a series of regional dissections, are the lamprey, the dogfish (*Squalus*), *Necturus*, the lizard, and the dog. As it is intended for assistance in dissection, information regarding osteology and the details of the central nervous system have been purposely omitted and, conversely, the muscles are treated somewhat more fully than is customary.

In applying, so far as possible, the International (Basel Nomina Anatomica) Code of Nomenclature, the author has set a commendable example that might be followed with advantage by other works in comparative anatomy. On p. 28 it is stated that from the union of the pre- and post-trematic arteries dorsal of the first gill-cleft two vessels arise: "the first efferent branchial artery and the internal carotid artery (lateral dorsal aorta)". The former is better termed the first epibranchial and the latter is the hyoidean epibranchial—it is certainly not the internal carotid or the lateral dorsal aorta, as a glance at Scammon's reconstruction of these vessels in the embryo would show.

Atmospheric Corrosion of Metals: Third (Experimental) Report to the Atmospheric Corrosion Research Committee (British Non-Ferrous Metals Research Association). A Discussion held by the Faraday Society, 23rd May 1929. Pp. 173-252 + 475-502. (London: The Faraday Society, 1929.) 5*s.* 6*d.* net.

PREVIOUS reports to the Atmospheric Corrosion Committee have been concerned with laboratory experiments, and most interesting results have been obtained regarding the part played by an initial film of tarnish in determining the subsequent course of corrosion, especially of copper and its alloys. In the present state of our knowledge of corrosion, such carefully designed and executed experiments are of far greater value than a mere accumulation of empirical data, the number of which is already far too great. It was necessary, however, to confirm the laboratory results by field tests, and the latest report describes a systematic series of such tests, utilising the conclusions of the earlier work.

As is usual in field tests of corrosion, the results are by no means simple and in fact the total amount of corrosion was so small as to suggest that typical non-ferrous metals should last for very long periods, even in industrial atmospheres. Much depends on the amount of exposure to rain, as the corrosion when the soluble products are continually removed may take a quite different course from that taken when the products accumulate as a crust. For wire specimens, the change of electrical resistance gives a fair measure of the