such congruity would be to the great advantage of comparative taxonomy.

In these days of extreme specialization one of the greatest needs in our universities is a professor of systematic zoology with whom conference may be held as to the propriety of any systematic modification resulting from special investigation of the anatomy of any organ or part, or of any group of animals. Such conference might prevent the publication of many propositions due to exclusive consideration of an isolated subject. Perhaps the designation of systematic morphology might better indicate the nature of the suggested course. The consummation, however, it must be admitted, is more desirable than probable.

I have intentionally refrained from any consideration of the work of living zoologists. If I had undertaken this, the task of selection would have been very difficult, and at any rate the time demanded for proper consideration would have been much more than that requisite for the reminder of past discoveries. The progress of systematic zoology during recent years has been in accelerated ratio, and not a few of those whose achievements have helped to put zoology at its present level are in Boston to-day. It is from the summit of the elevation they have enabled us to reach that we look back to the deeds of old masters and can determine, better than their contemporaries or immediate successors, their relative merits.

THEO. GILL

SCIENTIFIC BOOKS

Anatomical Terminology with Special Reference to the [BNA]. By PROFESSOR LEWELLYS F. BARKER. Philadelphia, P. Blakiston's Son & Co. 1907.

The necessity for both exactness and simplicity in the nomenclature employed in the descriptive sciences has always been recognized, and in anatomy several attempts have been made to establish a terminology which would be acceptable to the great body of anatomists and eliminate from anatomical nomenclature the ponderous mass of synonyms with which it is burdened. Henle in his classic "Handbook" accomplished much towards the desired end, and since 1880 Professor B. G. Wilder has labored assiduously for the cause. But it was not a matter for accomplishment by a single individual working independently; it required concerted action. And although endeavors had been made to enlist the sympathies of the American Association for the Advancement of Science and the Association of American Anatomists in the work, for one reason or another little definite progress was made.

In 1887 the pressing need of an authoritative revision of anatomical nomenclature was brought to the attention of the German Anatomical Society, then but recently organized, and in 1889 it established a commission to deal with the matter, appointing upon the commission Professors von Kölliker (chairman), O. Hertwig, His, Kollmann, Merkel, Schwalbe, Toldt, Waldeyer and von Bardeleben, Professor Krause being later selected as editor-in-chief and representatives of Great Britain and other countries being also included. For six years the commission labored with the difficulties assigned for its consideration, and in 1895 it presented a report to the society, submitting a list of some 4,500 terms, carefully selected from the 30,000 or more, principally synonyms, which may be collected from the various standard text-books. The society received and adopted the commission's report at its meeting in Basel, a circumstance which has gained for the list the appellation of the Basel Anatomical Nomenclature or, more briefly, the BNA, and the report, drawn up by Professor His, was published as a supplement number of the *Archiv für Anatomie und Physiologie*.

This is neither the time nor the place for a discussion of the work of the commission; suffice it to say that its results have been widely accepted and that a uniformity of an-

atomical nomenclature has by it been brought within easy reach. The original report, however, has not been sufficiently accessible in this country, and Professor Barker has done good service for anatomy in republishing the list of accepted terms in their Latin form as originally adopted, giving also a literal translation of each term; and, in the few cases when a term differs to any great extent from the English usage, the familiar term is also added. The nomenclature is thus made accessible in a convenient form for all who require a knowledge of anatomical terms, and the introduction to the book, in which are given an interesting account of the work of the commission and a discussion of the advantages of a uniform terminology, is worthy of careful perusal by all who are in any way interested in anatomy.

The translations of some of the Latin terms are open to criticism in that convenience has occasionally been sacrificed to literalness; it seems unnecessary, for instance, to translate *intestinum jejunum, intestinum ileum* and *intestinum cæcum* by empty intestine, twisted intestine and blind intestine, when the adjectival portions of the Latin terms are already in common use in English text-books. There seems little likelihood that the Latin terms will be generally employed by English-speaking people, nor is it necessary that they should be; their use merely adds an additional burden for the student and savors somewhat of pedantry. It would perhaps be a further aid to the cause of uniform terminology if, let us say, the American Association of Anatomists would select for each BNA term an English form; the great majority of Professor Barker's translations, and they are intended merely as translations, could be adopted as they stand, and, with some few modifications, the entire list given an authority which it now lacks. J. P. McM.

The Labyrinth of Animals. (Including mammals, birds, reptiles and amphibians.) By Albert A. Gray, M.D., F.R.S.E., Surgeon for Diseases of the Ear to the Victoria Infirmary, Glasgow. London, J. & A. Churchill. 1907. Vol. I. Pp. 197; 31 stereoscopic photographs.

This volume deals with the labyrinths of Primates (man, yellow-faced baboon, black ape, green monkey, Hocheur monkey, Mona monkey, common marmoset, mongoose lemur, slow loris); Cheiroptera (Indian fruit bat, pipistrelle); Carnivora (tiger, lion, cat, puma, dog, aard-wolf, mongoose, otter, common weasel, crab-eating raccoon, common seal, gray seal, Cape sea-lion); Ungulata (the beisa antelope, Indian gazelle, common sheep, dromedary, common pig, horse); Edentata (three-toed sloth, Tamanduan ant-eater); and Rodentia (common hare, common rabbit, common mouse, common rat, hairy-footed jerboa). It is intended to bring out a second volume dealing with rodents, insectivora, cetacea, sirenia, marsupalia, monotremata, birds, reptiles and amphibia.

The method of study employed is as follows: The labyrinth with the bone immediately about it is fixed in a five- to ten-per-cent. formaline solution, embedded first in celloidin and then in paraffin, delcalcified in hydrochloric acid and then washed. There remains a cast of the organ in paraffin and in this the membranous structures are embedded. The object is now placed in xylol, which removes the paraffin and leaves the organ transparent. It is then photographed from two points of view by taking one picture, then slightly rotating the object-holder and taking the other picture. Each picture represents the image seen by one eye. The pictures are mounted like ordinary stereoscopic photographs and are studied with a stereoscope. In publishing these photographs they are pasted on rather heavy cardboard, two to a page, and the book is accompanied by a pair of prisms, with which, after a little practise, good stereoscopic images may be obtained.

Dr. Gray is evidently a skilled preparator. In the photographs the objects are magnified, usually from four to six diameters, and through the stereoscope they stand out with a beautiful distinctness.

Each photograph is accompanied by a few lines of descriptive text. In addition brief