ontogeny, the paracone of the upper molars of Osborn arises earlier than the protocone. Gidley's restudy of the Jurassic mammals would seem to confirm the results obtained by the embryologists, and it may make necessary a revision of the tritubercular theory.

The work as a whole is an excellent one. The illustrations are good, with the exception of those on page 43. The proofreading has been well done, since there are but few typographical errors. The bibliography in the back will be useful. The book is well indexed and it cannot but be of much service to those interested in the development of the higher animals.

Roy L. Moodie.

A TEXT-BOOK OF SURGICAL ANATOMY. BY W. F. CAMPBELL. Octavo of 675 pages and 319 illustrations. \$6.00 in cloth, \$6.50 in half morocco. W. B. Saunders Company, Philadelphia and London, 1908.

According to the author "the single purpose of this book is to aid the student and practitioner in mastering the essentials of practical anatomy," and in many respects the work is well calculated to accomplish this end. While lacking the cyclopedic fulness of many treatises on the subject, it must, nevertheless, in its own class, take high rank for the amount of valuable material presented and the manner in which it has been treated. Surgically we find it very complete and practical, the exposition clear and to the point, and those for whom it is intended will miss little of practical importance, although a somewhat fuller and more detailed treatment of certain topics, e. g., the eye and particularly central nervous system would have enhanced the value of these important chapters. Fortunately the writer is a teacher of anatomy, and his knowledge of the subject has enabled him to produce a work of corresponding anatomical accuracy upon which the practitioner can rely and in which the treatment of questions of pure anatomy is quite refreshing when compared with that of certain other text-books on the same subject. He has introduced a large amount of descriptive material on the more important regions, to which are added many well-chosen and instructive illustrations. Not only has normal anatomy in so far as it concerns the student been handled most commendably, but those variations and abnormalities which are of surgical or medical interest have received rather extensive attention.

Why he should repeatedly use the expressions "infraorbital notch" and "lymphatic ganglia" we do not understand. He speaks of the posterior border of the lesser wing of the sphenoid as being in relation with the Sylvian fissure where he should have been more explicit as to what part of the fissure was meant. In speaking of the escape of cerebrospinal fluid from the ear he fails to note the character and location of the lesions upon which rests the possibility of such escape. The location given to the Gasserian ganglion is quite conventional if not erroneous, and in this respect he differs in no wise from the majority of the standard works on anatomy. The ganglion in no sense occupies the impressio trigemini which is far smaller than the ganglion, lodging simply the two roots of the nerve as they pass beneath the sup. petrosal sinus. The ganglion itself is roughly crescentic in shape (g. simulunare), placed almost in a sagittal plane, being in relation, from behind forward, with the anterior surface of the tip of the petrous portion of the temporal bone, with the internal carotid artery as it leaves the temporal bone to enter the cranial cavity and with the base of the great wing of the sphenoid.

On the whole, there is little to detract from the practical value of the book, while the extent of the field covered, the mass of anatomical and surgical facts brought together in a concise and orderly manner and properly correlated, and the clear and terse treatment accorded each commend it to the profession most favorably.

N. W. Ingalls.

CONTRIBUTIONS FROM THE ANATOMICAL LABORATORY OF THE UNIVERSITY OF WISCONSIN. Volume III, 1906-1907. Madison, 1908.

This volume contains the reprints of eleven papers published by the various members of the Anatomical Staff of the University of Wisconsin during the years 1906-1907. Professor W. S. Miller, whose previous work on the lung has made him an authority upon this subject, contributes four papers dealing chiefly with the bronchial blood-vessels and the vascular supply of the pleura pulmonalis. Dr. B. M. Allen, also continuing the line of his previous investigations, adds three papers on the development of the sex-cells in *Chrysemys* and *Rana pipiens*. A paper on the pancreatic ducts in the cat is contributed by G. J. Heuer, and one on the pyloric cæca of the Centrarchidæ by R. H. Johnson. Professor C. R. Bardeen has two papers, the first of which concerns the abnormal development of the toad ova when fertilized by spermatozoa