

We wish the authors could have given us some information as to the *modus operandi* of the *Teredo* in excavating its cylindrical tube, instead of merely quoting Kater's opinion that the shell is the boring organ. One thing is certain, and indeed has been admitted by Kater, that the foot of *Teredo* is in front, occupying the bottom of the tube, while the shell at the same time occupies that part of the tube which lies immediately above the foot, and is closely pressed against the sides of the tube. To suppose that the position of the foot and shell could be reversed by the animal, so as to make the shell lie at the bottom of the tube and the foot on one side during the process of excavation, is quite inconsistent with our knowledge of the *Teredo* and of the habits of other boring and burrowing Mollusca. *Solen*, *Cardium*, *Natica*, *Actæon*, and many other kinds burrow in sand by means of their strong muscular foot; *Pholas dactylus* occasionally does the same; and the limpet uses its foot only for excavating the hard rock in which it is sometimes more or less deeply imbedded. The gradual enlargement throughout of the tube of *Teredo*, especially at the opening (where the siphons are placed), cannot possibly be caused by the shell, which invariably lies at the other end; and the prickles which cover the surface of the shell, and enable it to act as a fulcrum or *point d'appui*, could not be renewed if they were continually employed in rubbing away the wood. There can scarcely be a question that the foot is the sole instrument of perforation in *Teredo*, as it is in *Solen*, *Pholas*, and *Patella*.

J. GWYN JEFFREYS

OUR BOOK SHELF

The Student's Manual of Comparative Anatomy and Guide to Dissection. Part I. (Mammalia). By G. H. Morrell, M.A. (Longman and Co.)

THIS work is in two parts, which are of such different characters that they must be considered separately. The first is intended to include a short and complete summary of the main facts of the anatomy of Mammalia. This is a large undertaking, and one which a resident in Oxford has not full opportunities of completing; for the advantages in any place other than London, are not sufficient to enable any single student, however enthusiastic, to get familiar with many of the subjects discussed. There is a want of vividness and point in many of the statements, several of which are too inclusive. Referring to the lobulation of the kidneys, the seals and whales are mentioned as presenting it, but why are the ox, otter, and rhinoceros omitted? The peculiarity of the stomach of the chevrotain is not referred to, and all we can possibly infer as to that of the peccary or hippopotamus is that it is constricted into two or three portions, which is undoubtedly not enough. Half a page only is devoted to the peculiarities of the liver throughout the class, and that of man is called simple, while that of the Ruminants is included among the multifid. The spleen of the marsupials is stated erroneously to be bent or bilobed.

But the great and inexcusable imperfection of the work is the omission of the description of the generative system, which no amount of argument could persuade us will prove of the slightest good in any way. It only engenders a mystery and curiosity in the mind of the younger students, as to peculiarities of structure, which if they were treated in the ordinary routine, would, as they undoubtedly are among medical students, be looked upon in nothing but a common-place manner.

The second portion of the work, the guide to the dis-

sections of the brain, heart, &c., of the sheep are excellent, and will be found of great value; they have long been wanted by teachers. A carefully compiled synopsis of the cerebral convolutions in man and the higher apes, from the work of M. Gratiolet, terminates the book.

Académie Royale de Belgique. Centième Anniversaire de Fondation. Two vols. (Brussels: F. Hayez, 1872.)

THESE two stout volumes, intended as a memoria of the celebration of the hundredth anniversary of the Belgian Academy, treat of a great variety of interesting and valuable matters. The Belgian Academy of Science, Literature, and Art was founded by Maria Theresa on December 16, 1772, but as December is not a very suitable month for a great public gathering of men from all parts of Europe, the Academy held its centenary fête on May 28 and 29, 1872, and it did it very royally, in presence on both days of His Majesty the King of the Belgians, who gave the opening address, and entertained members and friends on the second day in his palace at Brussels. There took part in the celebration distinguished deputies from all the countries of Europe and from America, and altogether it seems to have been a great success. In these volumes will be found a detailed account of all that was said and done, verbatim reports of all the speeches made, and of all the interesting papers read. The Academy began to make preparations for the centenary celebration in 1869 by the appointment of a commission. This commission appointed members of the various classes of science, literature and art to prepare papers giving accounts of the work done in these classes from the commencement, and others to do the same for the various literary, antiquarian, artistic and scientific subjects with which the Academy deals. From this it may be surmised that these two volumes contain matter of very great value indeed. The first paper is by M. A. Quetelet, giving a sketch (170 pages) of the history of the first century of the Academy. But the second volume will be the more interesting of the two to scientific men; we can only indicate its contents:—Astronomy in the Royal Academy of Belgium from 1772 to 1872, by M. E. Mailly; Report on the Mathematical works of the Academy during the same period, by M. J. M. de Tilly; Report on works in the Physical Sciences, Meteorology, and Physical Geography, by M. J. Duprez; Report on works in Chemistry, by M. L. G. de Koninck; Report on works in Zoology, by P. J. van Beneden; Report on works in Botany and Vegetable Physiology, by M. E. Morren; Report on works in Geology and Mineralogy, by M. G. Dewalque.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. No notice is taken of anonymous communications.]

Biela's Comets

THE present note is designed to show that several comets move in nearly the same orbit with that of Biela; that they probably entered the solar system as a group; and that, after making their first perihelion passage in close proximity to each other, they were, when receding from the sun, thrown into their present orbits by the disturbing influence of Jupiter.

1. Was the comet of 1772 identical with that of Biela?—The mean of the seven consecutive periods between January 2, 1806, and September 23, 1852, is 2437.7 days. Counting five periods of the same mean length from February 17, 1772, brings us to July 2, 1805—six months before the perihelion passage of 1806. In other words, the mean period between 1772 and 1806 was greater by about thirty-seven days than that between 1806 and 1852. The perturbations during the half century succeeding the apparition of 1772 have not been computed. It seems very unlikely, however, that the difference of periods