

equivalent easily coined according to the convenient and acknowledged methods of scientific word-making from the Greek or Latin. One gets accustomed to such a word as *Anlage*, which is in constant use throughout the book, and after a time begins to forget that it ever was anything but pure English; but I confess to being still somewhat staggered whenever I come across such phrases as that leucocytes "are transformed into *Bildungsgewebszellen*," that certain fibres are "situated in the Randschlier of the dorsal zone of His," and, only two lines further, that "the Rautenlippe during the fifth week buries the solitary tract." Prof. Minot belongs to a University which justly boasts having produced writers of as good and as pure English as can be met with anywhere, and he has himself a clear and trenchant style. It seems a pity, therefore, that he should not have stuck to his own language, or, as an alternative, he might have written his book wholly in German. It is no doubt sometimes difficult to get a good short equivalent of some German expressions, which include the meaning of a whole sentence in a single word; but the same difficulty has been met and combated successfully by other writers; and even if one has to resort to a phrase of two or three words to express in English the idea which one compound German word will imply, it is better, it seems to me, to adopt this plan than to intercalate into an English sentence foreign words, which can only be properly understood by those who are very familiar with the tongue they are written in. Your French scientific writers are never guilty of this fault—they have too much respect for their own language; but the practice is not an uncommon one with English and American scientific men, and ought, in my opinion, to be resorted to either not at all or only on the rarest possible occasions.

This is, however, a very minor fault, and one which in no way affects the scientific value of the book. And it is no exaggeration to say, in spite of the modest manner in which the author introduces his treatise to the public in the preface, that the work before us constitutes a monument of erudition in the difficult and complex subject of which it treats.

E. A. SCHÄFER.

#### OUR BOOK SHELF.

*Catalogus Mammalium tam viventium quam fossilium.* A Doctore E. L. Trouessart, Parisiis. Nova Editio (Prima completa). Fasciculus I. Primates, Prosimiæ, Chiroptera, Insectivora. Fasciculus II. Carnivora, Pinnipedia, Rodentia I. 8vo. (Berolini: R. Friedländer und Sohn, 1897.)

A NEW catalogue of Mammals is much wanted, and will be of great use to the many workers in that group of animals. This important branch of the Vertebrata appears to have been rather neglected by the authorities at the British Museum, who have recently issued many excellent volumes on the Birds, Reptiles, Batrachians and Fishes in the National Collection, but have done little work on the recent Mammals, although they have catalogued the fossil members of the group. We are glad, therefore, that Dr. Trouessart has taken up the subject, although he merely gives us a systematic list of names and localities, without any descriptions. Two parts of his "Catalogus Mammalium" are already issued. The first contains the Primates, Prosimiæ, Chiroptera and Insectivora; and the second, the Carnivora, Pinnipedia and the first portion of the Rodentia (Protrogomorpha and Sciuromorpha). We presume that a third part will

finish the work. Up to the end of the second part, Dr. Trouessart, who includes both recent and external forms, has catalogued 1294 species. Of each of these the principal references and synonyms are given, and a short list of localities. We venture to think that it would have been better if the names of the recent and fossil species had been a little more clearly distinguished in the type. The fossil mammals are only recognisable in the present work by the "dagger" placed before the name, which may be easily overlooked. In most respects, however, the work appears to have been performed in a satisfactory manner, though it would not be difficult to point out a certain number of slips and errors. We have, nevertheless, no doubt that the volume when complete will be of much use for reference, and will supply a quantity of much needed information.

*Essais sur la philosophie des Sciences Analyse-mécanique.* Par C. de Freycinet, de l'Institut. (Paris: Gauthier-Villars, 1896.)

TREATISES of this nature are popular in France, to cite only the "Réflexions sur la Métaphysique du Calcul Infinitésimal" of Carnot, and the "Méthodes dans les Sciences de Raisonement" of Duhamel; the only English equivalent would be Jevons's "Principles of Science."

M. de Freycinet has employed the leisure of the arduous duties of a Minister of War, in writing these essays, in which a philosophical view is taken of various sciences, treated in ordinary language, and addressed to cultivated minds. In the deep concentration now required in the specialisation of science, books such as this will prove very valuable to give the worker, too much absorbed in his own subject, a general perspective glance of what others are doing, devoid of all repulsive technicalities. We find on p. 158: "Il ne suffit pas d'avoir la notion claire de la masse. Il faut aller plus loin. Pour les besoins de la Dynamique il est nécessaire de *Savoir* chiffrer les masses;" . . . and again on p. 162, "Une quantité d'eau peu inférieure a 10 décimètres cubes, soit 9 litres 8088 . . . ; le nombre habituellement désigné par la lettre *g*; voila l'unité de masse."

This will please Prof. Perry; and it is the definition of Euler, Lagrange, Laplace, Poisson, &c.; but, as a recent discussion has shown, the definition is considered heretical in certain educational quarters.

The Metric System is not absolutely sacred, even to a former Minister of France. M. de Freycinet brings forward, on p. 186, his proposal to shorten the metre, or rather to make *g* at Paris the unit of length, the sexagesimal second being the unit of time; while others would make the seconds pendulum at Paris the unit of length.

G.

*Wild Flowers of Scotland.* By J. H. Crawford, F.L.S. Pp. 228. (London: John Macqueen, 1897.)

A NUMBER of people object to an abrupt introduction to nature; they prefer to flit around her like a butterfly around a flower, merely to take a casual glance at different aspects. To confront people of this temperament with a bare fact would be to destroy the interest—aimless though it be—they have in science. Wherefore such books as the one before us are written—books in which pretty things and picturesque scenes are viewed "in contemplative fashion" and poetic state of mind. The present work is not without a value; for it certainly teaches something about a few of the wild flowers of Scotland, but we fancy it will be read more for its easy style of composition than for the facts it contains.

*The Science of Speech.* By Prof. Alexander Melville Bell. Pp. 56. (Washington, D.C.: The Volta Bureau, 1897.)

THE purpose of the author of this work is to define the actions of the mouth and the vocal organs in the production of speech, and express them by a species of