

ticularly in the case of contradictory statements on different pages. For instance, on page 87 it is said that the Sonoran family *Geomyidae* has only two genera (inferentially *Geomys* and *Thomomys*), while on the same page the genus *Heteromys* is added, and on a later page (366-7) no less than seven genera are enumerated as included within the family! Again, on page 342 it is stated that no member of the family *Geomyidae* is found within the limits of the Holarctic region, while on page 366 we are told that the genus *Thomomys* of this family 'penetrates into the Canadian sub-region of the Holarctic.'

Lack of personal familiarity with the geographic distribution of living mammals in North America, and carelessness in examining current literature, have led to a number of additional errors. For instance, the genus *Spermophilus* is said to be restricted to the 'Holarctic' (= Boreal circumpolar) region, whereas we have one Tropical and at least a dozen Sonoran species, and two well marked Sonoran sub-genera. Again, the lynxes are said to be 'absolutely confined' to the Holarctic, while in the United States they range throughout the Sonoran and south into Mexico. *Zapus* also is said to be 'solely Holarctic,' although it is common as far south as the city of Washington. In the case of the rabbits it is stated that the greater number of species are Holarctic. In America the contrary is true, the greater number being Austral or Sonoran. We are told that *Notiosorex*, a genus of shrews, ranges south to Central America, but it is unknown from any point south of Mazatlan, in Mexico. Similarly the raccoons (genus *Procyon*) are said to occur 'over most parts of North and South America,' but in North America they are absent from the northern half of the continent.

The book is well printed and some of the illustrations are good; others, as, for instance, that of the tree-shrew (Fig. 61), look as if they might have been exhumed from the tombs of the ancients.

The work deserves a critical review from the paleontological side by some one competent to speak from the American standpoint. Then a revised and corrected edition should be brought out, for in spite of its imperfections, the book is probably the most useful contribution ever

made, at least in the English language, to the subject of the distribution of the *Mammalia*, living and extinct. C. HART MERRIAM.

*The Elements of Electrochemistry.* By MAX LE BLANC. Translated by W. R. WHITNEY. Pp. x+284. New York, The Macmillan Company. 1896. Price, \$1.50.

This volume is the English version of Le Blanc's *Lehrbuch der Elektrochemie*, which was published at Leipzig in the early part of this year.

The original met with a cordial reception, and this translation certainly deserves a warm welcome at the hands of those who are interested in the subject of which this book treats, but who are unable to consult it in the language in which it was written.

It has been the author's intention, averred in his preface, to 'write as clearly and simply as possible.' In this he has certainly succeeded.

The opening chapter brings an introduction to the fundamental principles of energy in general, and electricity in particular, which is most logically and lucidly written.

Next comes a chapter containing a brief but well balanced history of the development of electrochemistry up to the present time, and then follow able presentations of the Arrhenius theory of dissociation, the migration of the ions, the conductivity of electrolytes, electromotive force; a discussion of galvanic elements and accumulators forms the concluding chapter.

A careful persual of this treatise will certainly place its reader in possession of a clear and comprehensive view of the present state of this important subject—electrochemistry.

Comparison with the original shows the translation to be well done and fluent; the translator having wisely avoided too close an adherence to the author's style, which at times is a little ponderous.

Omission, in the English book, of the plus and minus signs, used by Le Blanc to specify the two kinds of ions, is to be regretted. On the other hand, valuable features introduced by the translator are the subject-index and the list of authors' names.

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