

much experience. His zeal is contagious, and consequently much of what he has written will favourably attract the attention of the statist.

It is a pity that the custom does not exist of weighing and measuring all the members of a family at frequent intervals between childhood to manhood, seeing how critical a test of sanitary condition is afforded by the progress of growth. Each illness leaves its mark, therefore a chart of height and weight with accompanying remarks, would give in a compendious form a very valuable life-history of the individual.

A Text-book of Arithmetic for Use in Higher Class Schools. By Thomas Muir, M.A., F.R.S.E. (Daldy, Isbister and Co., 1878.)

"NUMBER," infers "Recorde," in his "Whetstone of Witte," "is the onelie thing (almost) that separateth man from beastes. Hee therefore that shall contempne nombre, he declareth himselfe as brutishe as a beaste, and unworthy to be counted in the fellowship of men. But I truste there is no man so foule ouerseene, though manie right smallye do it regarde."—(De Morgan, "English Mathematical and Astronomical Writers.") We have done with the miserable mercantile compendiums founded on Cocker, which De Morgan condemned, and have had, since his own "Arithmetic" appeared, many works of high value. Mr. Muir's work is worthy of taking place with these. His aims are high—mathematical accuracy, rational treatment, the presentment of essentials, with the accessories in due subordination, the production of a work suited both for mental training and as a preparation for the practical business of life. There is perhaps matter given more suitable for the use of teachers than of pupils—that is, for a school book we think much might be more concisely put. Persons taking up the subject at a more advanced age may find this fulness of explanation very valuable. The exercises are good and varied, and there is a chapter containing notices of books for future reading.

In connection with these notices and Mr. Muir's chapter on the roots of numbers (a part of the work which appears to us to require excision and a new treatment), we may add the following title:—"Éléments de Calcul Approximatif." Par Charles Ruchonnet (de Lausanne). Seconde Édition. (Paris, 1874)—a work which we have already noticed in NATURE.

The work is a thoroughly reliable one, accurately and neatly printed.

The Elements of Dynamics (Mechanics), with numerous Examples and Examination Questions. By J. Blaikie, M.A. (Edinburgh: J. Thin, 1878.)

MR. BLAIKIE says "special pains have been taken to establish the necessary propositions by proofs involving no higher mathematics than the geometry of the first two books of Euclid, and algebra as far as simple equations. At the same time the nomenclature, definitions, and general treatment are in harmony with advanced modern works on the subject." The author starts with kinematics and kinetics and derives statics as a particular case. A chapter is devoted to machines and another to hydrostatics. The objects laid down in the above statement have been well kept before the writer's eye, and the result is a good introductory book for young students. A word of decided commendation is due to the selection of general examples; there are besides some six university examination papers, specimens from the old universities, and from Edinburgh, London and Glasgow. The list of errata we have made is a very slight one, and we say this after working out all the examples.

This accuracy and carefulness of selection may be attributed to the fact of the work having been examined by such men as Professors Tait and Balfour Stewart and Mr. N. M. Ferrers. That our favourable opinion of this

work is not singular may be inferred from the fact that a second edition is already in preparation.

Handbook to Map of the Geographical Distribution of Animals. By Andrew Wilson, Ph.D., &c. (Edinburgh and London: W. and A. K. Johnston, 1878.)

THIS is a very brief statement of the extent and limits of the six zoological regions and sub-regions, as given in Mr. Wallace's "Geographical Distribution of Animals," with an enumeration of the chief groups of mammals and birds characteristic of each region. The only novelty is that of placing the Ethiopian region fourth in order, thus separating it from the Palearctic and Oriental, to both of which it is closely allied, and making it follow the Australian, with which it has no affinity. It is difficult to see the reason of this innovation, which will certainly not be considered an improvement. The map is in two large sheets; with the regions and sub-regions copied from Mr. Wallace's map, and similarly distinguished by colours. It is, however, a mere outline, and entirely without names—a great deficiency in any case, and especially when intended for junior students, to whom alone such a meagre sketch of the subject would be acceptable.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

Gigantic Land Tortoises

MY attention has been called to the recent discussions in NATURE (vol. xviii. p. 220 *et seq.*) in reference to the geographical distribution of the gigantic land-tortoises of Malta, the Galapagos, and other oceanic islands (see also the annual address of the president of the Geological Society). On my return to America in 1864 from a four-years' residence in the guano key of Sombrero, West Indies, I put a small collection of fossil reptilian remains, found on that key, in the hands of the late Prof. Jeffries Wyman, of Boston, who had kindly consented to examine them. His report on the subject, received in August, 1865, was added as an appendix to a paper of mine on the geology of the key, but the latter was partially injured by a fire in the study of the late Prof. Joseph Henry, of the Smithsonian Institution, and its publication consequently postponed. I have since found time to restore and publish only a portion of my own paper,¹ but the report of Prof. Wyman has remained untouched among the charred MSS. of my observations on the guano-deposit of Sombrero. I inclose herewith a copy of Prof. Wyman's report, and also his subsequent autograph letter, in returning me the specimens. (In the former I have supplied, in italics, the probable words which are missing along the singed edges of some of the leaves.) I have thought these details worthy of statement in justice to this distinguished comparative anatomist—who recognised thirteen years ago the occurrence of this interesting fauna in a locality of the Atlantic, and one evidently unknown to the recent investigators—and in explanation of the long delay in the publication of his views. The specimens in question remain still in my possession, with the exception of one in the museum of this school.

I may further state that fossil specimens of these turtles, mostly fragmentary, have been found in many of the northern excavations upon Sombrero, since they were first worked, in 1856, and perhaps are still, as its exploitation has been continued by an English company for many years past. They occur altogether in the guano-veins which intersect the limestone beds to an unknown depth beneath the sea-level, and which are certainly but insertions from an ancient surface-bed of rock-guano, overlying but long since entirely denuded along with the crown of the key. In 1860-61, just before my arrival, enormous quantities of a guano-breccia were taken out from the largest of

¹ "Ann. Lyc. of Nat. Hist. of N.Y.," 1868, p. 251.