ness. The effect of contact in producing or maintaining difference of potentials would be perceived by a difference in electric brilliancy, and this difference would vary with each re-arrangement of the objects. Every movement of our body, each touch of our hand, and the very friction of our clothes, would cause a play of effects analogous to those of light and shadow on the eye, while more highly electrified matter would bring into prominence by induction electrical differences between surrounding bodies. This speculation, however fanciful, helps us to conceive the omnipresence of electricity; and since the mechanical conditions required to excite sensation are fulfilled in the electrical relations between bodies at different potentials, there does not seem any very great boldness in suggesting that some living things may have *an electrostatic sense* so far developed as to be of use to them" (page 51).

Altogether this little work forms a very suitable introduction to its author's much more advanced and well-known "Textbook of Electricity and Magnetism."

The Natural History of the Cranes. A Monograph by the late Edward Blyth. Greatly enlarged and reprinted with numerous illustrations by W. B. Tegetmeier. (Published for the Author, 1881.)

THIS is an excellent monograph of an exceedingly interesting group of birds. On the arrival in 1873 of a pair of the beautiful white-naped cranes of Japan in London they were drawn by Mr. T. W. Wood for the *Field* newspaper, and the late Edward Blyth took the opportunity of publishing in the columns of that paper a monograph of all the then known species of crane. At the suggestion of Prof. A. Newton, Mr. Tegetmeier has republished these notes, inserting however much new matter that either want of space had prevented Blyth from incorporating, or that had come to hand since Blyth's death. Thus we have Wolley's graphic account of the nesting of the common crane in Lapland, Dr. Cullen's account of the nesting of the Demoiselle in Bulgaria, and even Col. Prjevalsky's account of a new species found at Koko-nor. Sixteen species, two belonging to the genus Balearica and fourteen to the genus Grus, are described. Mr. Wood's figures of *Grus leucauchen* are reproduced. There is a facsimile of the coloured figure of *Grus nigricollis* from Col. Prjevalsky's "Birds of Mongolia"; a spirited sketch by Prof. W. H. Flower of flocks of *Grus virgo* on the banks of the Nile; some copies of studies of cranes from Mr. Cutler's beautifully-illustrated work on Japanese ornament (charming studies); and a few woodcuts of anatomical details.

Cranes of one or more species are found everywhere, with the exception of South America, the Malayan and Papuan Archipelagos, and the scattered islands of the Pacific. The common European species, celebrated in all times for its migrations—

> "So steers the prudent crane
> Her annual voyage, borne on winds; the air
> Floats as they pass, fann'd with unnumber'd plumes"—

was at one time very numerous in the fenny districts of England; so possibly Milton knew the bird. The name is quite wrongly applied to the heron in Scotland and Ireland, while in America and Australia the white egret herons are also called cranes. Old Æsop's fable of the stork being captured in the evil companionship of the cranes, and being condemned to death for thus even associating with notorious plunderers of grain, indicates that he well enough knew the two kinds of birds; far better indeed, as Blyth truly remarks, than did that renowned master of mediæval painters, who commits the curious zoological mistake of introducing cranes instead of storks in his world-known cartoon of the Miraculous Draught of Fishes.

In common with many other gregarious birds, cranes always place sentinels as a lookout, while the rest of the flock will trustfully repose; and they likewise leave them on the watch while on their marauding expeditions to crops of grain.

Zoological Atlas (Including Comparative Anatomy) With practical directions and explanatory text for the use of students. 231 coloured figures and diagrams. By D. McAlpine. Vertebrata. (W. and A. K. Johnston, 1881).

THE object of this work is to help the student in the examination and dissection of the leading types of animal life. The author quotes Dr. Macalister's words, "That in a practical science such as zoology it is only by the examination of specimens that any knowledge of the science worth acquiring can be obtained, and the function of a book is to assist in practical study." Bearing this in mind, he has here tried to assist the student by giving descriptions and drawings of one selected specimen from each group of the vertebrates. The skate and cod have been chosen to represent the cartilaginous and bony fishes respectively; the salamander to represent the tailed amphibia; the tortoise to represent the reptiles; and the pigeon and rabbit to represent the birds and mammals. The various systems are well represented, with the exception of the muscular system, which perhaps has been wisely overlooked. There can be no doubt but that this Atlas will form an important addition to the working student's books. It should remove many elementary difficulties from his path.

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.*]

Dr. Carnelley's Experiment with Mercuric Chloride

I WAS a little surprised to notice from a paragraph in Prof. McLeod's letter in NATURE, vol. xxiv. p. 28, that he had been unable to repeat Dr. Carnelley's experiment with mercuric chloride. Immediately after the publication of my former letter, it was remarked to me, that although I had shown hot ice to be an impossible commodity, perhaps Dr. Carnelley's assertion of the existence of solid mercuric chloride above its boiling point might still hold. I therefore repeated this experiment, and after overcoming a few preliminary difficulties, obtained a result similar to that with ice. The difficulties were these:—After solidifying a cylinder of mercuric chloride round the thermometer (to which it adhered at first), on heating, the mercuric chloride soon became detached and fell from the thermometer. It had therefore to be sustained in position round the thermometer, by a stout iron or copper wire. Another difficulty arose from the fact that the mercuric chloride soon became deeply pitted and fissured, so much so, that the thermometer was sometimes seen through holes a quarter of an inch deep. This pitting went on till the mercuric chloride cylinder, though not much reduced in diameter, became a mere network, the thermometer being visible in many places. The erosion seemed to take place more quickly next the bulb; making the holes in the cylinder widest at the interior. Another difficulty lay in the high temperature causing, as Prof. McLeod noticed, the rupture of the thermometer thread; but by using a very good thermometer, and keeping it as nearly vertical as was convenient, this was entirely obviated. A large condenser is not required, and I only used a piece of combustion tubing fully an inch in diameter and about twenty inches long, the thermometer with the cylinder of mercuric chloride being inserted at one end, and a tube connected with a Sprengel pump at the other. The results obtained are as follows:—Melting point of mercuric chloride, 271° (uncorr.); boiling point, 291° (uncorr.). The pressure was now reduced to 400 mm., and the tube heated until the temperature was constant, the pressure again reduced, another reading taken, and so on until a vacuum was reached, or the cylinder had become too porous to give correct readings.