

ing a correspondence between the  $t$  points of the cubic  $T$  associated with the quadrilateral  $T$ , and the similarly determined  $u$  point, and proceeds to examine all the cases in which this correspondence is uniform, *i.e.*, when to a point of each curve corresponds a single point of the other curve. He then shows that all other cases may be reduced to this case of uniform correspondence. His conclusion, after a discussion of these equations of condition, is that *there are no other solutions besides those deduced from the uniform correspondence cases*. He establishes coincidences with most of the cases discussed in Mr. Kempe's paper, and arrives at one new case, *viz.*, when Mr. Kempe's triangles reduce to straight lines coinciding with the sides respectively of  $T$  and  $U$ .

Our object has been to draw attention to what we look upon as a valuable pendant to the last-named gentleman's Researches in Linkworks.

*Lecture Notes on Physics.* By C. Bird, B.A., F.R.A.S. (London: Simpkin, Marshall, and Co., 1880.)

THE author says in his preface that the book "may be supposed to represent the notes, somewhat expanded, which the teacher would desire the class to take down and learn." If so, the "notes" before us would certainly merit a good deal of attention from the teacher's red-ink pen. Of its 178 pages, 68 are taken up with examination papers of the Science and Art Department. The various branches of physics are very unequally treated. Occasional blunders are frequent. Thus on p. 27 we are told that "Writing  $m$  for the refractive index, the critical angle for any medium is  $\frac{1}{m}$ ." On p. 2 Laplace's correc-

tion of the velocity of sound for the adiabatic conditions is stated to be the ratio of the two specific heats of air, when it should be the square root of that ratio. On the very next page we are told that the amplitude of a sound-wave varies inversely as the *square* of the distance from the source, and that *therefore* the intensity falls off in the same ratio; whereas in fact the intensity is proportional to the square of the amplitude. Under the heading "Electrometers" we observe that the only instruments named are the quadrant pith-ball electroscope, the torsion balance (which is not even described), and the unit-jar! But one could hardly expect accuracy of an author who allows himself to talk about "force" being "converted into heat."

*Diagrams of Zoology.* Sheet I. and II., with handbooks thereto. By Dr. Andrew Wilson. (Edinburgh and London: W. and A. K. Johnston.)

THESE sheets are meant to serve as important adjuncts in the way of illustrating a series of lectures on the classes to be met with in the animal kingdom. They have been drawn and coloured under the direct superintendence of Dr. A. Wilson, and are accompanied by a handbook to each sheet which contains full descriptions of each figure. They will no doubt be found most useful for the purposes of science classes in our public schools, and in them illustrations of recently described forms will be found. For example, under the kingdom of the protozoa, we find no less than five figures representing that low form of animal life called by Hæckel *Protomyxa aurantiacea*, one of the Monera.

#### 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.]

#### The Exploration of Socotra

WOULD you allow me, on behalf of the Committee of the British Association for the Advancement of Science for the Ex-

ploration of Socotra, to state in your columns that we are anxious to find a competent naturalist to proceed to Socotra early next year, the gentleman whose services we had hoped to secure being unfortunately unable to undertake the task. The expedition will be but a short one, as it would be useless to remain in the island after April.

It would be desirable that the explorer should have some acquaintance with Arabic and some local knowledge of the surrounding districts.

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#### Monkeys in the West Indies

IN reply to the inquiries of Mr. Watt (*NATURE*, vol. xxi. p. 132), I send you the following extract from the *Proceedings* of this Society for February 13, 1866.

"Mr. Sclater called the attention of the meeting to three monkeys recently received from the Island of St. Kitts, West Indies. Mr. Edward Greey, Fellow of the Society, having reported the existence of monkeys in a wild state in considerable numbers upon this island, had been urged by Mr. Sclater to attempt to obtain some specimens, in order that it might be ascertained to what species they were referable, as it had always been believed that there were no native *Quadrupeds* in the Lesser Antilles. Through the assistance of Mr. John Carden, of St. Kitts, Mr. Greey had succeeded in obtaining a specimen of this monkey, and two others from the same island had at the same time been presented to the Society by Mr. H. B. Cameron, Superintendent of the R.W.I.M.S.P. Company, at St. Thomas's. The animals were undoubtedly referable to the common green monkey (*Cercopithecus callitrichus*, Geoffr.) of Western Africa, and must have been introduced years ago, as they were stated to be now very abundant in the woods of St. Kitts, and to cause great damage to the sugar-plantations."

As regards Trinidad, where true American monkeys (*Cebidae*) are certainly found, it should be recollected that, zoologically speaking, Trinidad is not one of the Antilles, but a little bit of Venezuela, broken off at no very remote period.

Prof. Mivart and Mr. Bates are, therefore, correct in saying there are no *indigenous* monkeys in the Antilles.

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#### Is Mount Unzen a Volcano?

IN a recent visit to the Simabara Peninsula, about twenty miles east of Nagasaki as the crow flies, an opportunity was afforded me of ascending "Unzen," a mountain which rises about 4,700 feet above the sea (by aneroid). If tradition is to be believed "Unzen" is an active volcano, the subterranean fires of which have been slumbering since the close of last century, when a disastrous earthquake, accompanied by a volcanic eruption, destroyed 53,000 of the inhabitants of the district. But I failed to find any trace of a recent volcano, which, wherever it may be, is certainly not situated in the higher peaks of the mountain, where popular belief has located it. From the sea-level up to the highest summit a porphyry is the ever-prevailing rock, which varies somewhat in different parts of the peninsula. True it is that from many points of view Unzen has somewhat the form of a truncated cone, but there the resemblance ends.

There are, however, three hot sulphur springs, which may help to explain the popular error on the subject. One of them is situated in the fishing village of Wobama, at the foot of the mountain, and close to the water; a strong odour of sulphuretted hydrogen scents the air, and the thermometer placed in the water rose to 112° F. Rather more than 2,000 feet above the sea are the hot springs of Kojeego and Unzen. In the former place the water bubbles up into a pool some ten or fifteen yards across, with a temperature of 182°, while at Unzen the hot springs are on a far more extensive scale, numerous springs bubbling away furiously over an area of several acres, which is completely destitute of vegetation. The ground is often so hot that with a thick pair of boots one cannot stand long on the same spot. The thermometer rose as high as 202°, which would be only about 6° below the boiling-point of water at that elevation, and a dense cloud of white smoke ascended into the air which was strongly impregnated with the same sulphureous odour. The chemical and thermal influences of these hot sulphur springs have produced a singular effect on the porphyry of the immediate