

become loosened from the upper part of the mountains, and fall in extensive landslips down the sides. These landslips or rockslips are so numerous, that in fine weather they are most conspicuous objects on the sides of the hills, and look like dry water-courses. One of these rockslips I witnessed at Cape Grafton, from a distance of three miles. The noise was terrific, and the ground trembled as though from an earthquake. On examining the blocks of granite which had slipped to the bottom of the ravine, I found many of them with their sides grooved and scratched, and one fragment was as beautifully polished on one side as if it came from the hands of a lapidary, excepting, of course, the scratches and grooves. In the course of a few centuries, much of the range will be worn away, and its sides represented by an alluvial deposit mainly consisting of angular boulders of every size and shape, many of which will be polished, scratched, and grooved. There are very few geologists who would not call it a glacial drift, even now, were not the cause so evidently before them. Will this help to explain the so-called drifts, which, like this instance, are found far within the tropics?

T. E. TENISON-WOODS

Union Club, Sydney, N.S.W., March 25

Variability of Number of Sepals, Petals, and Anthers in the Flowers of *Myosurus minimus*

IN my article on "Different Modes of Self-fertilisation where Visits of Insects are wanting" (NATURE, vol. x. p. 129), I gave a short account of the number of sepals, petals, and anthers in a hundred flowers of *Myosurus minimus* examined by myself. Some error must, however, have slipped into this account, the sum of the quoted flowers differing from a hundred. I have, therefore, lately repeated my examination and give here the results. In 200 flowers I now found 35 different proportions in the number of sepals, petals, and anthers. These were contained in—

Flowers	Sepals	Petals	Anthers	Flowers	Sepals	Petals	Anthers
1 ... 4 ... 3 ... 4	2 ... 5 ... 5 ... 3	c					
1 ... 4 ... 3 ... 6	3 ... 5 ... 5 ... 4						
6 ... 5 ... 2 ... 3	7 ... 5 ... 5 ... 5						
4 ... 5 ... 2 ... 4	7 ... 5 ... 5 ... 6						
1 ... 5 ... 2 ... 5	4 ... 5 ... 5 ... 7						
1 ... 5 ... 2 ... 6	3 ... 5 ... 5 ... 8	a					
1 ... 5 ... 3 ... 2	1 ... 6 ... 2 ... 5						
4 ... 5 ... 3 ... 3	1 ... 6 ... 2 ... 6						
10 ... 5 ... 3 ... 4	1 ... 6 ... 2 ... 7						
23 ... 5 ... 3 ... 5	1 ... 6 ... 2 ... 8						
33 ... 5 ... 3 ... 6	1 ... 6 ... 2 ... 10						
24 ... 5 ... 3 ... 7	1 ... 6 ... 3 ... 7						
9 ... 5 ... 3 ... 8	1 ... 6 ... 5 ... 7						
1 ... 5 ... 3 ... 9	1 ... 7 ... 2 ... 7						
6 ... 5 ... 4 ... 4	1 ... 7 ... 3 ... 6						
7 ... 5 ... 4 ... 5		b					
16 ... 5 ... 4 ... 6							
14 ... 5 ... 4 ... 7							
2 ... 5 ... 4 ... 8							
1 ... 5 ... 4 ... 9							

In general, the number of sepals, petals, and anthers increases and decreases with the size of the flower, the 12 first quoted flowers being exceedingly dwarfish ones.

It should further be considered that in combination with a certain number of sepals and petals a certain number of anthers seems to be the normal one, and from this normal (maximum) number of anthers, as to be seen under *a*, *b*, *c*, the numbers of flowers on the two opposite sides are constantly decreasing.

Lippstadt, May 16

HERMANN MÜLLER

"A Dead Heat"

TELEGRAMS from Paris on Monday state that the "Prix du Jockey Club" had resulted in what is usually called a "dead heat." It is unnecessary for me to inform you, that there can be no such thing as a "dead heat." It is called so, I suppose, in consequence of a disagreement among the judges as to which horse first thrusts his nose beyond the winning-post. Are living judges any longer necessary to determine the results of a race? Five years ago I proposed to prove by indisputable evidence the winner of a trotting match which, in consequence of a dispute among the judges, had to be trotted over again. By means of a single thread stretched across the track, and invisible to either horses or their riders, twenty

photographic cameras have been made to synchronously record positions impossible for the eye to recognise. With the aid of photography, the astronomer, the pathologist, the chemist, and the anatomist are enabled to pursue the most complex investigations with absolute confidence in the truth it reveals; why should those interested in trials of speed not avail themselves of the same resources of science? I venture to predict, in the near future that no race of any importance will be undertaken without the assistance of photography to determine the winner of what might otherwise be a so-called "dead heat."

449, Strand, W.C., May 23

EDWARD MUYBRIDGE

Aurora Borealis

THE auroral display mentioned by your two correspondents was particularly brilliant at Oldham on the evening of the 14th inst., at 11.10. I observed at 11.15 one very fine streamer reaching quite to the Pole Star; it was of a ruddy hue, dull, and changing to purple. The horizon was cloudy, the cloud being fringed with white light, changing to rose colour. The constellation Cassiopea was at times covered with a mass of light, from whence the streamer arose, lighting up the whole of the northern sky.

Oldham

W. PULLINGER

Bright Meteors

1882, May 16, 11h. om. G.M.T. Meteor many times brighter than Venus; green, then white; began of second magnitude, 5° above main cluster of *Coma*; passed 1½° above *Iota Urs. Maj.*, where it changed colour suddenly; ended, of second magnitude, 5° left of *Beta Aurigæ*. Duration 8 seconds, may have been 10. No streak. Observed from the University Observatory. A few minutes later another was seen describing very nearly the same path.

Oxford

G. L. TUFMAN

Curious Formation of Ice

IN your issue of November 24, 1881 (vol. xxv. p. 78) Mr. J. F. Duthie described small wafer-like, rather funnel-shaped pieces of ice which he noticed in October, on the slopes of the Himalayas, and asked whether such forms of ice had been observed elsewhere.

On November 30, 1881, I observed, at a height of about 7000 feet, near the hill station of Chakrata, on the outer Himalayas, ice crystals which were grouped in bundles about one inch long and one inch in diameter. The bundles consisted of prisms up to a quarter of an inch diameter, and looked at from the side the long parallel prismatic faces, and the short rectangular outlines of the ends of the prisms suggested rather the orthorhombic system of crystallisation. On looking straight at the end of the crystals, it was, however, seen that all the prisms were hexagonal, and that they ended in hollow hexagonal pyramids, thus bringing out clearly the hexagonal system of crystallisation to which ice belongs.

The hollow hexagonal pyramids showed further development in other portions of the hoar frost, and there seems very little doubt that what Mr. Duthie describes were accumulations of small crystals originally grouped in the shape of hexagonal hollow pyramids, but more or less expanded and rounded off.

I may here mention another interesting occurrence of crystals which I had the opportunity of noticing at the salt works in Che-hire. During slow evaporation of brine in a steam-heated reservoir, crystals of salt formed at the surface in the shape of hollow hexagonal pyramids. This is easily explained. Whilst the ordinary well-known hollow salt pyramids with square base form, by the gradual sinking and growth of a cubical nucleus which floats with one pair of faces horizontally placed, these exceptional hexagonal pyramids form from an original cube which floats on the water with a solid angle as its lowest point. The six lateral edges are the beginning of the hexagonal pyramids.

H. WARTH

Dehra Dun, N.W. Provinces, East India, April

The Existence of a Voice in Lizards

THE following may perhaps be of some interest in connection with the letter of Prof. Th. Eimer (vol. xxvi. p. 29). One evening as I sat in the verandah of my house in Madras, my attention was called by a peculiar cry, and on looking