

### The British Association and Provincial Scientific Societies

THE list of delegates of provincial scientific societies prefixed to the list of members attending the annual meeting of the British Association having appeared to me to be practically useless, being in reality merely a list of "temporary members" of the general committee—with the object of making it of some value to the societies represented, and also eventually to the Association, I suggested, at the meeting at Bradford last year, an alteration in the rule of the Association which affects this list of delegates. My suggestion being favourably received by the Council, the alteration proposed was adopted at a meeting of the General Committee.

The effect of this alteration is to admit as a temporary member of the Committee the *secretary* of any scientific society publishing *Transactions* as well as the president, or in his absence a delegate representing him. My object in proposing it was, as I then stated, to admit of a meeting or conference of the presidents and secretaries of societies thus represented being convened under the auspices of the Association, at which matters concerning such societies (their management more especially) might be talked over and arranged, &c., a thing which could not be attempted in the absence of the secretaries, they, as a rule, having almost the entire management of their societies.

As the revised rule first comes into operation at the approaching meeting of the Association at Swansea, I should be glad if you will draw attention to it, either by the insertion of this letter or in any other way.

JOHN HOPKINSON

Hon. Sec. Herts. Nat. Hist. Soc.

Wansford House, Watford, July 24

### Intellect in Brutes

THE following story was told me by the mistress of the dog herself. The event occurred in a small village in Essex, some years ago.

"A little black and white King Charles, beloved by its mistress, but not by its master, was one day lying on a rug in the drawing-room when the master came in, having just paid its tax. He said: 'I have just paid that dog's tax'; and looking at it with a severe expression added: 'and he's *not worth* his tax.' The little dog immediately got up, and with a crestfallen appearance put its tail between its legs and left the room. It was never seen afterwards, nor was it ever heard of again, although inquiries were made at the time in every direction."

GEORGE HENSLOW

### Chipped Flints

A FEW days ago a man who had been cutting turf in this neighbourhood came to tell me that he found a quantity of small flints at the bottom of the "bog-hole," and he brought some of them for my inspection. Seeing that they all bore very obvious marks of handicraft, while a few were more or less rudely shaped like arrow-heads, I immediately went to the place, accompanied by the man, and succeeded in getting a number of specimens, of which some fifty or sixty show pretty plainly the design of the workman. Among them are a few white flints, evidently from the Chalk, and indeed with some chalk attached to them. This is worthy of remark, as there is no chalk nearer than the North of Ireland, nor are there any chalk flints among the boulders here, where the drift was unmistakably derived from the limestone, silurian, mica slate, and syenite rocks of the west and south-west. The other flints are black, like the chert, which occurs plentifully enough in the carboniferous lower limestone formation of the district. Several pieces of charcoal were mixed with the flints, showing probably that fire was used in breaking them up in the first instance. The final operation of chipping seems to have been done with a very delicately-pointed instrument, not thicker than a large sewing-needle. Its marks, both where it struck off the chip and where it failed to do so, are as plain and fresh-looking as if they were made quite recently. It must have been used as a punch and worked with a hammer, and there must have been some contrivance like a vice to hold the flint during the operation. It is really hard to think that the instrument with a point at once so minute and powerful could be other than metallic; but then, if there was metal available, why have recourse to flint? Perhaps these flints might be referred to a time late in the neolithic period, during the

transition from stone to metal, when the latter, being scarce, was used only for tools. At one time I fancied that I made a capital discovery of metallic particles struck off and lodged in the stone, but with a pocket lens they were found to be only specks of pyrites. A small sandstone slab, quite smooth on one side, lay among the flints, but it was either taken away or thrown into one of the turf holes filled with water before I came to the place, and I failed to find it. By its impression in the turf which remained untouched it appeared that one surface was quite polished. The other was described as rough. Whether it was used in the manufacture of the arrow-heads or not I cannot surmise. The shape of a large sandstone pebble that I found might suggest its use as a hammer, but it showed no signs of abrasion. At one time there must have been at least twelve feet of turf over the flints. They lay immediately above the roots of a pine close to a short piece of the stem that remained. The tree was most probably growing when the flints were worked, and it may be of some interest to note that the craftsman selected the shade or solitude of a wood for his *atelier*.

In this bog is found the striking phenomenon of two growths of trees, one overlying the other. The lower was chiefly pine, identical with, or nearly allied to, the *P. sylvestris*, and rooted in the drift clay or gravel. The upper trees were principally oak, and grew in the turf formed from the prostrate wood that preceded them. This is remarkable, showing a wide difference in the habitats of both kinds and those of their representatives of the present day, when we find the oak growing in clayey soils, while in general the moor agrees well with the firs and pines.

J. BIRMINGHAM

Milbrook, Tuam, July 12

### Lunar Rainbows

THE following communication has been forwarded to me by a lady of considerable ability, and can be relied upon. As a lunar rainbow is a rare phenomenon, perhaps you may deem the notice worthy of a place in NATURE.

J. KING WATTS

St. Ives, Hunts., July 30

"On July 19 a most brilliant lunar rainbow was visible in this village of Over, Cambridgeshire, and was observed by other persons as well as by myself. For several days previously there had been a succession of violent storms, with much thunder and lightning, and the falling of vast quantities of rain. The whole atmosphere was evidently in a very perturbed condition, with considerable electrical disturbance. The wind had for several days previously been exceedingly variable, veering from point to point with rapidity, and on the day in question it had veered much from one point to another. At 10 p.m. the wind blew strong and steadily from the south-west, thereby driving the great masses of cloud to the north-east. To the front of the position I was in, the clouds had been pushed or rolled up into a dark mass extending from the north, north-east, east, and nearly to the south-east, up to the zenith, so that one portion of the horizon was cloudless and the other portion black and sombre. The moon was very clear and nearly to the full. The sky had a singular appearance, one part being most brilliant and clear, and the moon riding in it free from every particle of cloud, and the other part to the north-east was most intensely dark. At 10.35 a beautiful and brilliant silvery white arch was formed (north-east), extending nearly from the zenith down to the horizon. The arch was most perfect in all respects. The force of the wind had abated. There were no prismatic colours visible, but the whole arch, standing out, as it were, in bold relief on the black cloud, had a most awe-like but beautiful appearance, and the sight can never be forgotten. The singular phenomenon was brilliantly visible for a considerable length of time, thereby clearly indicating the slow progress at which the shower was then moving onward. Such a phenomenon is very seldom to be seen. The sky continued clear during the remainder of the night."

"ANNE GIFFORD

"Over, Camb."

W. E. WILLINK.—The "substance" you send us is a well-known alga, *Nostoc commune*. See the "Treasury of Botany," *sub voce* Nostoc.

BRICKMAKING.—A "Brickmaker" asks if any of our readers can tell him of a book on Brickmaking which gives good and trustworthy information about the operations, machines, &c. He has a book by E. Dobson, but it is thirty years old, and therefore of very little use.