used the telegraph for this purpose in New Zealand, where indeed it forms an important element in the admirable system he has inaugurated for recording shocks throughout the islands. In his last letter he writes as follows:—"Not long ago, one operator asked another 200 miles distant 'Did you feel that?' and got the answer, 'No. What? Yes; there it is,' all in a breath, so to speak!"

Dr. Hector, writing in August last, goes on to say, "I have called attention to the coincidence of the aurora in both hemispheres on April 5, and can't help thinking that when our observations are sufficiently extended, we shall find many phenomena that are looked upon as local to be general. Could not NATURE give us a column recording such phenomena as auroras, earthquakes, tornados, &c., experienced in all parts of the world, somewhat in the form of an almanac? At the present one has to rummage over all sorts of periodicals, and after all find the matter most imperfectly recorded. We shall soon have a capital earthquake register here, since I induced the Government to cause the observers to report every shock they felt in the colony. Their number and coincidence is very remarkable, and I shall publish the results as soon as I have collected a sufficient number. I feel a great want of a good table eusmometer which should be cheap enough to distribute to all telegraph stations." Perhaps some of your readers can inform Dr. Hector where he can procure this great desideratum.

JOS. D. HOOKER

Ocean Currents

AMONG the "Notes" in last week's number it is mentioned, on the authority of the *Inverness Courier*, that a number of glass globes had lately been washed ashore on the western coast of the Isle of Lewis. The question is asked, "Have these been used for some experiments made for the purpose of ascertaining the course of some ocean current?" I have seen precisely similar globes which had been cast ashore after rough weather on the western coast of Shetland; and I ascertained that they were floats used by Norwegian fishermen for buoying their long lines. North-easterly winds had drifted them to that part of the coast where they were found; and the same cause may be assigned for the occurrence of the glass globes or floats in the outer Hebrides.

J. GWYN JEFFREYS

NOV. 12

IN reference to the statement (NATURE, Nov. 10) that glass globes have been washed ashore on the west side of the Isle of Lewis, may not these be float; which are used by the fishermen of Newfoundland? These are, I believe, occasionally found as far to the north-east as Nova Zembla, and this fact is, I think, not indicative of "some ocean current," but of the aerial current from the south-west, which is so prevalent in the north temperate region, and which may be called the *return* current of the north-east trade wind of the north tropical region. This south-west wind from the sea modifies the summer heat and the winter cold of west coasts in the north hemisphere, and produces their so-called "insular climate."

GEORGE GREENWOOD, Col.

Brookwood Park, Alresford, Nov. 12

The Milky Way

THERE appears to be in Wales a remnant of a tradition connected with the Milky Way. During a short stay in Caermarthenshire, an old man, well read in local history, and who is apparently the oracle of the neighbourhood of Llangadock, directed my attention one evening to the Milky Way, remarking at the time "we shall have fair weather to-morrow, as you see it is in the south," meaning that the wind will blow from that quarter. My friend supported this extraordinary statement by appealing to the Welsh word "*Heol y Gwynt*," the *road or way of the wind*. Can any of your readers inform me whether this belt of stars is the subject of a fable in Britain, or how it came to be connected with foretelling the weather? The Scandinavians call it the "*Road of Winter*," possibly "*Heol y Gwynt*" may be traced to northern influence, but, in the absence of facts, I will not commit myself to this explanation.

JOHN JEREMIAH

43, Red Lion Street, Clerkenwell, Nov. 12

P.S.—"*Heol y Gwynt*" is the only proper Welsh name for the Milky Way, and is not a mere local one.

The Colour of Butterflies' Wings

IN making some experiments a short time ago, I came across a fact of which I was hitherto ignorant. I wished to test the effect of acid on the colours of the wings of a butterfly or moth, and with this view applied muriatic acid to a dried and set specimen of the Six-spotted Burnet (*Zygena filipendula*). The red parts immediately became yellow, while the dark parts were unaltered. In subsequent experiments the red was the only colour in any moth which underwent any change. When there was no red there was no change, and the only change was from red to yellow. Next I applied the acid to the red parts of the Red Admiral Butterfly (*Vanessa atalanta*), when, to my surprise, no change took place. Comparative examination under the microscope in no way cleared up the matter. I now seek for an explanation of this phenomenon, which appears to point out a clear difference in the nature of the moth and butterfly's wing. A remarkable fact, perhaps connected with this, is that a yellow variety is known of almost every moth containing red in the wings. Perhaps some of your scientific readers may be able to throw some light upon this subject.

E. V. F.

Winchester, Oct. 18

A New Mode of Evolving Light

A SINGULAR phenomenon of the evolution of light has been recently observed by me. By tearing sharply a piece of twilled calico into strips in a room well guarded from light, a perceptible luminosity was clearly distinguishable, which appeared at its maximum at the final parting of the fabric. This phenomenon is exceedingly well marked in dry, new calico, and appears to me due to the dressing, as after being washed no light is evolved. Whether attributable to electricity, phosphorescence, or fluorescence, I leave for further investigation. The light appears similar to that produced on breaking a lump of sugar in the dark. So far as I can ascertain, the phenomenon of light being evolved on tearing a fabric is new, hence I hope worthy of notice in your valuable journal.

ANDREW PRITCHARD

Canonbury, N.

Philology and Darwinism

IN NATURE, No. 30, I attempted to show that the analogy between Mr. Darwin's teachings as regards plants and animals, and the conclusions of comparative philologists, broke down, when we compared man's conscious influence on plants, &c., to his more and more enlightened control of language. Man's influence on organic forms tends to produce variety, while, with increase of knowledge, language is becoming more uniform. Mr. Ransom (No. 32) replied that the difference I insisted on seemed imaginary; and if man's object was to produce uniformity in plants or animals, that then the domesticated species would be likely to become less varied than the wild species of the family. Now it seems to me that if man had any such intention, no care on his part could produce permanent types yielding so little divergence in the individuals during enormous time as those produced by nature; a permanence so marked that geology only throws light on the law of evolution, in anything like a direct way, through the study of the mammalia (see Prof. Huxley's recent address on the progress of Palæontology), and even with regard to the mammalia naturalists of high standing refuse to see anything but permanent and all but uniform types, necessitating the hypothesis of special creation. How man could obtain by any possible efforts (and with some breeds his aim is uniformity) to maintain species as invariable as nature has done, is what is hard to conceive.

On the other hand, as man's mental faculties become blunter, his consciousness less vivid, and his material conditions harder, his language is more and more in a state of flux, branching forth continually into dialects which mark one group of men from another. Thus in some Polynesian islands we have a number of languages as distinct as those of great part of Europe; and missionaries complain that the Bible requires to be translated anew to the same tribe more than once in a century; in some cases the very numerals in a few generations becoming changed, partly from whimsical customs, and partly from want of frequent intercourse, and of any literature being at the disposal of the tribe. In the progress of time, we may look forward to a period when the language of Shakespeare, Milton, and Addison, which is considered as good English as that of our daily papers—may be the language of the world, but we can scarcely expect that the planet will ever hold only one species of animal or plant.

S. J.