case when it was wholly in the air, because, to be of any use then, the strokes would have to be so rapid as to be scarcely countable, as is the case with certain sea fowl (notably auks) which use their wings (with a comparatively slow stroke) whilst swimming *under* water, but when flying move them so rapidly that the strokes can either be counted with difficulty or not at all. On watching flying-fish whilst in the air, I noticed a flickering of the fins, indicating what I believe to have been rapid motion.

As Mr. Mitchell's observations, on which he chiefly relies, were made when looking down from the high bows of a steamer, the "waving from side to side" of the tail of the fish, being a lateral motion, was clearly seen, whilst the movements of the side fins would be less easily discernible.

Finally, could the impetus acquired by the fish, when springing from the water, carry it through the air "50 or 100 yards" (Mr. Mitchell's estimate) without the aid of any additional propelling force during its flight? If so, the initial velocity must have been very great.

JOHN RAE

4, Addison Gardens, W., November 27

The "Jeannette" Drift

IN NATURE of November 20 (p. 66) you give an account of the finding of some relics of the *Jeannette*, which have been picked up on an ice-floe at Julianhaab, in lat. 61° N., long. 46° W., near the south point of Greenland, and which must have drifted from the New Siberian Islands in lat. 75° N., long. 155° E., where the *Jeannette* was squashed three years ago. This I consider a most important find with regard to Arctic navigation and discovery. The question arises, How did the ice-floe get to Julianhaab? I propose the following solution. The Siberian Islands bear nearly due north from Julianhaab, and in a straight line up Davis's Strait, Baffin's Bay, Smith's Sound, Lincoln Sea, &c., and across at a distance of about 250 knots from the Pole. I think it most probable that the floe may have drifted through "the unknown," or what Osborn calls "the land of the white bear," the large unexplored area to the west of Banks's Land, and have got into Baffin's Bay through one of the sounds on its west coast—either by Jones's Sound, where the tide runs eastward at the rate of two knots an hour ("Inglefield," p. 77), or by Banks's Strait and Lancaster Sound.

We know that the icebergs come *down* Baffin's Bay and Davis's Strait into the Atlantic, and the floe has had fair success in navigating through a distance of 2700 knots to reach Julianhaab in three years.

I cannot for a moment suppose that this ice-floe has come from the Siberian Islands, *via* Francis Joseph Land, Spitzbergen, Iceland, to Greenland, a distance of 3600 knots, for that course would have been directly *against* the Gulf Stream, in which no floe could last three years, even if it were 26 feet thick, as Inglefield found them in Jones's Sound, or 40 feet thick, as McClure found them in Banks's Strait. McClure found the current west of Point Barrow going 2 knots per hour to the south, evidently making for Behring's Strait, while of the north-west point of Banks's Land the drift was north-east 1 knot an hour, evidently going towards Lancaster Sound.

I therefore conclude that the *Jeannette* relics could not have come westward, they *must* have come eastward, and this proves that there is a course open which is unknown to us.

I would suggest that a number of very strong buoys, capable of resisting ice-pressure, should be set adrift on ice-floes on various parts of the Siberian coast, each numbered indelibly, so that when recovered it could be ascertained whence they started, and their course *might* possibly be ascertained from the Eskimo, who may have seen them, or by other means. This experiment is worth a trial.

R. S. NEWALL

Ferndene, November 30

A Meteor Visible in the Daytime

AT Waterpark, just below Waterford City, about 4 p.m. on October 15, my attention was attracted by a flash of increased light. Looking up, I saw in the south-south-west, about half way between the horizon and the zenith, a bright meteor slowly sailing nearly due west, its apparent size about half that of the full moon, intensely white in colour at the centre, passing into blue at the circumference. It described a low arc, and was in sight for several seconds, leaving a trail of indigo blue with lighter

luminous edges. The meteor disappeared behind some clouds which concealed the sun at a considerable altitude above the horizon.

JAMES GRAVES

November 27

Noon-Glow

WHILE waiting at the telescope shortly before noon this date to note place of sun-spots at meridian passage, masses of cloud formed suddenly in a clear sky overhead, and drifting slowly due south, obscured a peculiarly brilliant sun. No sooner had direct light been intercepted than the upper air above cloud and sun's place appeared filled with the latterly common white glare (as of attenuated peat-smoke highly illuminated), which soon became suffused with the now familiar rose-tint, apparent also between the clouds and on south-south-west horizon, but not beneath the sun on meridian. The sun's apparent meridian altitude being 16° , the superior limit in altitude of rose-tint was 39° ; the colouring being monotone throughout, and not to be confounded with that of halos. Fearing ocular deception, as often happens from fatigue of eyesight, I asked an intelligent companion to verify observation, more especially as the diffused white glare at first slightly masked the tinting as compared with that of other "glows." It seems, however, plain that the terms "fore-glow" and "after-glow" no more cover the entire field than the Krakatoan dust.

D. J. ROWAN

Kingstown, November 24

Rosy Glow about the Moon

AFTER watching for some time this evening a lovely twilight in the west, which though bright and luminous was not remarkable for strong colour, I turned toward the south-east, when the moon, now well up, was shining through detached fleecy clouds, and was surprised to see about her a rosy-coloured glow, very like that so often seen about the sun; the nearer clouds, though very high, telling as a cold almost greenish grey upon it. This glow, of course, was much lower in tone than that about the sun, but both in character and extent just like it, and quite distinct, and broader than those prismatic hues often seen about the moon, and called by sailors "cock's eyes" or "peacock's eyes." This was at 4.45 p.m., and as the twilight faded the glow disappeared, from which I infer that it was caused by vapour lying high enough in the south-east to catch some of the very last rays of the sun, but too far east to give a glow in the west.

I see that a correspondent of the *Standard* telegraphed that on the evening of the 25th "a sunset equal in splendour to those of last autumn was seen over the Yorkshire wolds. The predominating hue was a rich crimson." The weather here was cloudy that evening, but between narrow openings in the clouds the sky was the colour of rich painted glass of a ruby-red tint about 4.30 p.m.

ROBERT LESLIE

6, Moira Place, Southampton, November 28

Wild Fowl Decoy

MAY I ask if any of your readers who are interested in wild-fowl decoys will send me the names and positions of any past and present ones they may happen to know or have heard of. I am endeavouring to save the history of decoys from oblivion, and though I have many hundred letters, maps, and sketches connected with this interesting subject, still I may have a great deal of information yet to obtain. I think the subject deserves a standard work, or I would not trouble you.

RALPH PAYNE GALLWEY

Cowling Hall, Bedale, November 24

Prehistoric Man

DURING October last, the sanitary authorities of Gloucester City had occasion to make some excavations in the timber-yard of Messrs. Booth and Co., and in the Bristol Road adjoining this yard, for the purpose of laying down a new sewer. In the course of this operation the workmen disinterred, from a bed of plastic clay, three human skeletons, occupying a position which appears to suggest that the remains in question are probably those of prehistoric man.

Arriving accidentally on the spot some two or three days after the actual find, I learned, to my great regret, that the skulls, two of which had passed through my friend Mr. Wm. Booth's

hands, had been cast on one side, reduced to fragments, and finally buried in the concrete foundation of the new sewer, no one supposing that the discovery represented anything more than some modern interment.

My friend had, however, seen one of the skeletons complete and *in situ*, extended at full length, face downwards, in the clay, while I succeeded in gathering a basketful of bones, including fragments of four left-hand femora, thus, probably, attesting the presence of more individuals than the number to which the workmen deposited.

Some of these bones I extracted from the clay itself, the remainder being found among the excavators' ejecta. Almost all of them are broken and have their cavities, even the spongy tissues and diploë of the cranium, completely filled with the clay in which they were discovered. They are easily broken into fragments by hand, have little organic matter remaining in them, and a few exhibit indications of having been gnawed by animals.

The clay-bed itself showed no signs of disturbance, such as would indicate a burial. On the contrary, it was evident that the bones had been quietly covered with river deposits as they lay, and, although near each other, the skeletons did not occupy a common resting-place.

The remains occurred at a depth of 5 feet 6 inches below the surface, 36 feet above Ordnance Datum, and 3 feet above the highest known modern flood-line, given on the authority of Mr. Martin, engineer to the Severn Navigation Commissioners.

It is clear, therefore, that the clay-bed in question must have been deposited at a time when the River Severn ran, and its flood-loams were laid down, at levels higher by many feet than those of the present day, or, in other words, at some time antecedent to the historic period, during which there is no reason to suppose that our rivers ever met the sea except at existing horizons.

DANIEL PIDGEON

Holmwood, Putney Hill, November 22

Fly-Maggots Feeding on Caterpillars

AFTER Mr. McLachlan's remarks in NATURE for November 20 (p. 54), on Dr. Bonavia's rote upon the above subject, it is hardly necessary to say that your correspondent, F. N. Pierce (November 27, p. 82) is undoubtedly mistaken in saying that he has bred the house-fly, *Musca domestica*, from Lepidopterous larvæ. If he has really bred *Musca domestica*, it is a new fact, and I should be very glad to see a specimen. I have had some considerable experience in breeding Lepidoptera, and have frequently bred out Dipterous parasites; these have invariably been *Tachinids*, mostly of the genus *Exorista*. To the ordinary observer they very closely resemble *Musca domestica*, but the same observer would very probably call all the various species of *Musca*, *Anthomyia*, *Homalomyia*, *Stomoxys*, &c., which frequently occur in houses, "house-flies." The general appearance of many of these genera is very much the same, and the term "house-fly" is such a vague one that I remember a good microscopist once showed me a slide labelled "upper and lower wing of house-fly"! some Hymenopteron caught on a window apparently furnishing the materials.

The Diptera are unfortunately much neglected in this country, and many groups are very little known. This is especially the case with the *Tachininae*, and Lepidopterists who breed them would benefit science by pinning the specimens and sending them to one or other of the few students of this order of insects.

4, East Street, Lewes, November 29 J. H. A. JENNER

YOUR correspondent, Mr. F. N. Pierce, in NATURE for November 27 (p. 82) merely continues the error suggested by Dr. Bonavia's note on this subject. It is not the larvæ of the house-fly (*Musca domestica*) that he has found as parasites on his butterfly and moth caterpillars, but the larvæ of a *Tachina*, a Dipterous genus of the *Muscidae*, too well known among even mere collectors, I should have thought, for such a mistake to be made. There is of course a superficial resemblance.

M. E. S.

The Forbes Memorial

MAY I make use of your widely circulated pages to say that I purpose in a few days to send to press a list of the subscribers to the Forbes Memorial, to be bound up with the issue of the zoological memoirs of our lamented friend; the Memorial

Volume is now nearly ready, and I shall be glad to hear from any of the friends of Mr. W. A. Forbes who have not already communicated with me on the subject. May I add that it was agreed by the Committee that subscribers should receive a copy of the volume for every guinea subscribed.

F. JEFFREY REIL

5, Radnor Place, Gloucester Square, W.

THOMAS WRIGHT, M.D., F.R.S.

IT is perhaps hardly sufficiently recognised how much the progress of science has been helped by the leisure-hour occupations of busy professional men. No branch of science has profited more from this source than geology, and no calling has furnished so many helpful labourers as medicine. The career of Dr. Wright, whose recent death is so sincerely regretted, supplies one of the most notable examples of a life apparently absorbed in the laborious duties of a medical practitioner, yet wherein time was found for the pursuit of a long series of original and valuable researches in palæontology. To those who knew him only as a doctor, it might well seem that his whole time and thought were given to the duties of his medical practice. Those, on the other hand, who met him as a geologist and palæontologist could hardly realise that he had any other occupation than the study of the fossils which he treasured and described with such enthusiasm.

Dr. Wright was born in Paisley in 1809. Having a near relative engaged in the practice of medicine, he chose the same profession for himself, and received the earlier part of his education at Glasgow. Before he had completed his studies, he was induced to quit medicine and take part in the development of the manufacturing arts, then making rapid strides in Scotland. But finding the change unsuited for his temperament he turned back with a sense of relief to the profession he had abandoned, resumed his medical studies in Dublin, and finally graduated in 1846. Soon thereafter, circumstances led him to settle in Cheltenham, where he has since spent the whole of his long and honoured life. His devotion to the healing art, and his bent towards a scientific treatment of his subject, were soon recognised, and he became successively attached to the Dispensary and General Hospital, and finally Medical Officer of Health for Cheltenham and surrounding districts. He was twice married, and leaves a son and two daughters by the second marriage.

In the early days of his career Dr. Wright manifested his love for scientific investigation. While still a student in Dublin he devoted himself with ardour to the study of human anatomy, and especially to the application of microscopic research in that department of inquiry. His eyesight, however, not proving strong enough to bear the strain of microscopic work, he finally exchanged that pursuit for the cultivation of palæontology, which from the position of Cheltenham in the midst of richly fossiliferous rocks, lay temptingly open to him. Ranging over the abundant organic remains of the Lias and Oolites of his neighbourhood, he chose the Echinoderms as his special subject, and began to publish the results of his observations. His early papers gained for him the friendship and co-operation of Edward Forbes. It was arranged that the two naturalists should conjointly describe the Echinoderms of the British Secondary formations, Forbes taking the Cretaceous, and Wright the Jurassic forms. The former did not live to carry out his part of the programme, which was accordingly completed by his colleague. The monographs on the Secondary Echinoderms were published by the Palæontographical Society, and form an enduring monument of Dr. Wright's patient and minute research. But while engaged in these investigations, he did not neglect other departments of Jurassic palæontology. In particular, he devoted himself with