sembles that which exists in the German Universities. This arrangement not only allows opportunity for carrying on original research, but also enables the professors to impart a most beneficial impulse to younger men.

In this country it has hitherto succeeded best, and appears to be most in consistence with our national constitution, to place the pecuniary assistance afforded to scientific men under the control of learned bodies as the Universities and the Royal Society. It is to be hoped, however, that our Government will, ere long, recognise the duty of advancing physiologists by aiding them with grants of money. Every medical school in Britain ought to have a physiological laboratory, well furnished with instruments—electrical, chemical, and physical; and with the view of instituting and supporting these it will be necessary to supply certain sums of money annually from the public exchequer. In addition to money given to Medical Schools for the purpose of buying instruments, two or more grants might be set aside as prizes to be bestowed annually on the schools furnishing the best physiological work, and to be distributed by the governing bodies of the said schools among the workers. The awarding of such prizes might very well be entrusted to the Royal Society.

I trust that this plea on behalf of physiology will not pass unnoticed by you.

Birkenhead P. M. BRAIDWOOD

### Mirage

MIRAGE is not, in my experience, an uncommon phenomenon. I saw it this summer on the flats at the mouth of the Dee (Wirral side). It may often be seen, with a bright sun and still air, after heavy rain, on Hartford Bridge Flats, and other level and gravelly heaths in the Bagshot Sand district, where the fir trees may be seen floating in water, or forming promontories jutting out into a lake—a phenomenon similar to, though far less striking than, what I have seen on the Plain of Aan, in Provence.

The most curious mirage-effects I ever saw were on the Wash during hot summer weather. The mirage is there known as the "looming of the land," and when it is about it is impossible at moments to distinguish the sand and weed-banks from the sea, while the distortion, both perpendicular and horizontal, of ship's masts, &c., is ludicrous. In one case I saw a herd of seals on a sand-bank transformed into a row of long-legged monsters, wading in water, or rather rooted by their long legs to the legs of a similar row of monsters below them, which was their distorted reflection in wet mud. I had some difficulty, at first, in making out what they were.

Eversley Vicarage, Sept. 16 C. KINGSLEY

### Astronomical Science

IN your number for August 5th, a letter referring to Astrology, signed "C. J. Robinson" ends as follows:—"Astronomical Science is hardly likely for the sake of sentiment to treasure up the discarded swaddling clothes which for so many centuries impeded its onward progress." Surely such language indicates a sad confusion of ideas on the subject, since it is most unquestionable that the belief of antiquity in Astrology—far from retarding—greatly promoted the study of Astronomy. In fact, the names of Ptolemy and Kepler show that the greatest of ancient and the greatest of modern astrologers were at the same time the greatest Astronomers of their era, and the brilliant discoveries of the latter in both sciences suffice to dispose of the "swaddling clothes" theory without citing the instance of Napier, who, it is well known, invented that most admirable scientific expedient and indispensable handmaid to Astronomy, Logarithms, to shorten and facilitate his astrological calculations.

I have not seen Moore's Almanac referred to by Mr. Robinson, but any one by consulting an Ephemeris may verify the following curious facts. War against Prussia was declared by the French Emperor on the 15th July. The preceding lunar change was a total eclipse of the Moon on the 12th, in 20° 15′ of Capricorn, when the Sun and Moon had (substantially) the same declination as Herschel, Saturn, and Jupiter. Between noon on the 14th and noon on the 15th, Mars came to the opposition of Saturn retrogade. On the 15th, Herschel was in conjunction with the Sun, the planet having at the same time the exact parallel of declination of Saturn and Jupiter. So exceptional and extraordinary did these planetary positions and relationships appear to me that more than two years ago I made two crosses at the middle of July in my Ephemeris, and outlined a hand in the margin that I might not omit to note when the time came whether anything unusual occurred. Now the eclipse on the 12th took place on the Ascendant in the Revolutionary Figure of the Emperor Napoleon in square to Mars and opposition to Herschel, and according to the old astrologers "an eclipse of the Moon in Capricorn in evil aspect to Mars causes military disasters," whilst modern astrologers credit aspects of Herschel with producing events of a strange and unexpected character. Again the same figure presents the Moon in conjunction with Saturn retrograde on the place arrived at by Herschel by direction, whilst the Ascendant falls on the place attained by Saturn, the whole presenting, according to the canons of Astrology, a rare combination of evil portents. Probably it is the preceding data taken in conjunction with the primary directions (also of evil import) which have furnished the ground for the predictions of misfortune to the French Emperor to which Mr. Robinson alludes. T. S. PRIDEAUX

7, Eardley Crescent, West Brompton

[We insert this as a specimen of a kind of letter which it should be impossible to write in the nineteenth century.—ED.]

### Insects upon a Swallow

DURING the month of August, at Meran, in the Tyrol, a swallow sitting upon a stone at the side of a public thoroughfare let me take it up without showing the least fear, or even moving. The cause of its indifference was immediately apparent; two large insects of a dark slate colour were running about the bird upon the outside of its feathers, their power of adhesion being considerable. While trying to remove them, one got upon my hand and was lost, being thrown some distance by the second of two hasty but vigorous shakes. The other fell to the ground after hanging by a thread, similar to, but much stronger than, a spider's single thread. The form of the insects was quadilateral, the head being at one of the angles, the measurement between the opposite angles being about ¼ inch; the strength of the skin was so great that the insect required three crushing rubs by a lady's foot against the road before its activity was destroyed. The bird seemed conscious of release from its parasites, and struggled to get away, and then was only just able to flutter languidly to a tree about forty yards distant. The toughness of the insect, its activity and power of clinging, fully account for the inability of the bird to free itself.

I have seen an account *somewhere* of a bird, whether a swallow or lark I forget, similarly troubled, and showing the same fearlessness of capture. G. H. H.

Birkenhead, Sept. 8

## NOTES

PROFESSOR HUXLEY'S presidential address is not his only outcome at Liverpool which it is our duty to chronicle—a duty which we perform with gratitude to him for his plain speaking. At the unveiling of Mr. Gladstone's statue on the 14th inst., Mr. Huxley, after referring to the Compulsory Education measure, which promises in time to rid us of our worse than Eastern degradation, as one of Mr. Gladstone's greatest achievements, added that if he might presume to give advice to a man so eminent as Mr. Gladstone—if he might ask him to raise to a still higher point the lustre which would hereafter surround his name in the annals of the country, it was that he should recollect there was more than one sort of learning, and that the one sort which was more particularly competent to cause the development of the great interests of the country, was that learning which we were in the habit of calling Science. That Mr. Gladstone was profoundly acquainted with literature, that he was an acute and elegant scholar, they all knew, but he suspected that the full importance for the practical interests of the country of developing what was known as Science was not quite so clear to the Prime Minister as it might be. But, seeing the great faculty of development which his past career had shown, he had no doubt that such a man would by-and-by see that if this great country was to become what it should be, he must not only put the