How happy should I be if the news were conveyed to me, that the man who is the ringleader of this diabolical scheme had himself fallen beneath the vengeance of a lion or a crocodile.

Even if there were sufficient proof that the sleeping sickness is propagated by the large mammals and reptiles, there are many other means of checking it besides the extermination of these animals. The increase of various birds should be encouraged which devour the flies which propagate the disease, and every other means should be taken of a reasonable character.

Although I recognise the undisputed fact that the wild species of Africa must be kept in due bounds in the more thickly populated districts, I am convinced that every State of that vast continent, should never cease to preserve a sufficient number of all the indigenous local species, and that in the near vicinity of all the principal towns national parks should be established for the preservation of these wonderful forms of life; so that future generations may not be deprived of the pleasure of beholding them.

RALPH DE TUNSTALL SNEYD.

Fairview, Leek, Staffs, September 8.

Instincts that are not Inherited Memories.

If, as is not improbable, the presidential address to the British Association has the effect of reviving the dying embers of the use-inheritance discussion, it may not be out of place at this juncture to direct attention again to the fact that it is impossible to regard some of the instincts of insects as inherited memories.

Not only do the instincts of the neuters among the social Hymenoptera stand like a "lion in the path," but there are the less prominent but equally important section of instincts connected with oviposition, where, as in the case of some spiders, the female protects her eggs after deposition, with no possibility of the action being transmitted to the offspring so protected.

A bug, *Tectocoris lineola*, var. *banksi* (Don.), is recorded by Mr. Frederick F. Dodd (Transactions of the Entomological Society, 1904, pp. 483-5) as protecting its egg patch, laid on twigs of its food plant, by standing over them for a period of three weeks.

Females of some species of Psychid moths block the entrance of the larval case, which serves both as a puparium and place to deposit the eggs, with their bodies after depositing their ova.¹ Various species of Hymenoptera carefully block the entrance to the burrows where their eggs are laid, &c.

A. BACOT.

154 Lower Clapton Road, N.E., September 8.

Meteors and the Comet.

SEPTEMBER 13, 8h. 32m., mag. 1, rapid, streak, $343^{\circ}+26^{\circ}$ to $332\frac{1}{2}^{\circ}+12^{\circ}$. Radiant, $71^{\circ}+52^{\circ}$.

September 14, 9h. 19m., mag. 1, slowish, yellow, $336^{\circ}+38^{\circ}$ to $330\frac{1}{2}^{\circ}+48^{\circ}$. Radiant, $343^{\circ}+24^{\circ}$ or $347^{\circ}+15^{\circ}$.

On September 14, at 9 p.m., the comet was seen at Bristol in a 2-inch field-glass just north of 50 Cassiopeiæ as a misty patch, perhaps about equivalent to an eighth-magnitude star.

W. F. DENNING.

Bristol.

Meteors.

THE observation of meteors forms one of the most attractive branches of astronomy. No instruments are needed. The observer only requires patience, a pretty good eye, and experience, which, of course, must be learned.

Meteors fall on every night of the year. The sky may be lit with the moon, it may be murky, it may be cloudy, but still there are the meteors going on unceasingly. For every one seen by human eyes there are no doubt thousands, probably tens of thousands, unseen. Yet this branch, involving as it does star-gazing pure and simple, is a most attractive one, and in the bright years of the future it will no doubt occupy a very prominent place.

Bristol.

W. F. DENNING.

¹ "Brit. Lepidoptera," Tutt, vol. ii., p. 367.

SURVEYING FOR ARCHÆOLOGISTS.¹

III.

Instruments for the Measurement of Magnetic Azimuth alone.

THE most inefficient instrument to employ in measuring magnetic bearings is the ordinary mariner's compass, showing the compass points only.

FIG. 7.—The "points" of the mariner's compass.

But there are now mariner's compasses available in which the bearings are stated in degrees, and in many ways, the degrees running from N. and S. to E. and W., and so on. The best form of card, however, is represented in Fig. 8, in which the degrees run from N. through E., S., W. to N. again.

FIG. 8.—Compass with the circle of the horizon divided into 360 degrees, the N. point being 0°.

The magnetic bearings thus obtained should at once be changed into true bearings; this can be done approximately by reference to the appended maps, which bring together the recent results obtained by the Ad-

¹ Continued from p. 445.