The suggestion of Prof. E. Douglas Archibald (October 9, p. 560) that the dimensions of the great corona prove it to be caused by hexagonal prisms, as is the ordinary solar halo, is surely not tenable when its entirely different appearance and colour are considered; and it must arise from a different cause as hinted by Prof. Le Conte (vol. xxix. p. 403). The solar halo is a narrow ring brightest at a distance of about 23° from the sun; whereas this corona is brightest close to the sun, fading continuously, and at first rapidly, as the distance from the sun increases. It varies somewhat in colour, depending on the sun's altitude and other causes, but is always greenish or bluish near the sun, and at an estimated distance of 7° to 10° therefrom, rather abruptly changes to reddish or brownish. This colour is nearly the same for a great distance, though inclining to orange towards the sun, and to pink in its outer part. When seen under favourable circumstances (*e.g.* in Visp-thal) I have traced it faintly to a distance of fully 75°. The solar halo, on the other hand, is usually dull orange on the edge next the sun, and bluish towards the outside; and when its colours are very distinct, all the prismatic colours are visible, the red always being next the sun: so that the colours are in reverse order in the two phenomena, so far as they occur. Whether there is any ice concerned in the production of the corona or not, it cannot be in the form of hexagonal crystals, for there is no trace of the ordinary halo in connection with the corona; and whenever the two phenomena are visible together, the halo is always on true clouds.

Sunderland, October 27 T. W. BACKHOUSE

After-Glow

THE after-glow here on Sunday night, the 26th, at 6.45 p.m., was wonderfully grand, intensely bright golden colour extending from horizon to about 45°, and graduated into delicate rose, again graduating to pale ashy gray. Indeed at no period since first observing these after-glows (now over one year) have I seen one brighter. ROBERT D. GIBNEY

Falmouth, October 28

The Distribution of Scientific Works Published by the British Government

RECENTLY I have enjoyed an opportunity of visiting a number of the scientific institutions of America, but it was with a feeling of humiliation that I learnt that several of the best-known and most important of them have to pay for works like the various Survey and *Challenger* Reports which are published by the British Government. It would have been possible perhaps to have obtained some statistics on the subject, but I must confess to having been restrained by a feeling of shame from making direct inquiries; what I did hear about it merely reached me in the course of casual conversation.

There are few of your readers probably who do not know of the extraordinary liberality of the American Government with reference to their publications, and when speaking of it to Major Powell, Director of the United States Geological Surveys, I was told by him that in his department it was considered that the cause of education, the spread of knowledge, and their own immediate objects were most effectually aided by a widespread distribution of their publications.

We owe much of this liberality, no doubt, to the forethought and generosity of our own countryman Smithson, the principal function of the Institution founded by him being to arrange for the exchange and despatch of books and specimens.

There are perhaps few directions in which the cause of science would be more directly benefited just now than by the establishment of an institution in England which would undertake the management of the exchanges of the scientific Societies of the United Kingdom. I am aware that there are paid agencies for the purpose, but what is wanted is a free agency which would undertake the duty for the large Societies and relieve those that are struggling from charges which now press heavily on their resources.

The great desideratum, however, is a man like Smithson, who, possessing wealth, would be willing to give or bequeath it for the purpose of founding such an institution. Here is an opportunity for any person of capital desirous of doing good and preserving his name to all posterity by one and the same act.

To return, however, to the main object of this letter, cannot anything be done to increase the "free list" of Government publications? Surely there must be stored away vast quantities of Survey and other serial publications which, if they were handed over to the Smithsonian Institute, would, I feel certain, be gratefully accepted and judiciously distributed among the libraries of America. V. BALL

Science and Art Museum, Dublin, October 25

Insect Pests in Ceylon

AMONGST the "Notes" in your last issue, p. 615, is an extract from a Ceylon paper of a report by Dr. Trimen as to an insect "which has caused much alarm by its depredations on cacao and cinchona plantations," and that Dr. Trimen thinks "the only serious damage to cacao comes from the *Helopeltis antonii*, which appears to be a recent importation to Ceylon, although well known in Java."

Quite recently I received from my friend Mr. R. McLachlan some fragments of several specimens of a Hemipteron which he had received from Ceylon, identified as *Helopeltis antonii*, and said to be causing damage to the planters' crops, and my correspondent, having doubts as to the proper identification, had forwarded the specimens (!) for my examination.

Before stating that an error of identification had been made, it is necessary to say what *Helopeltis antonii* really is. That species described by Dr. Signoret is a member of the Capsidæ, possesses nodulose or incrassated femora, and of course, like other members of that family, may be considered as injurious to some kind of vegetation. The specimens I received (*sans* head and pronotum) had also nodulose or incrassated femora, and though somewhat similar also in colour to the *Helopeltis antonii*, clearly belonged to the family Reduviidæ, whose habits and food are of a totally dissimilar character. It is therefore possible that both species occur in Ceylon; the one is being frequently mistaken for the other, a matter of some moment to the planter, as in destroying the Reduviid he may be at the same time killing the worst enemy of the real pest. W. L. DISTANT

Russell Hill Road, Purley, Surrey

The Pentacrinoid Stage of Antedon rosaceus

I WAS somewhat surprised at finding this summer, in Lamlash Bay, on the east coast of Arran, *Antedon rosaceus* in the pentacrinoid stage readily obtainable up to the end of September, and would be glad to hear from others who have been observing *Antedon*, their experience of the duration of the stalked condition. It is well known that the adult *Antedon rosaceus* is abundant at Lamlash, and that young specimens in the pentacrinoid stage are common on *Laminaria* in the earlier part of the summer; but I have always found the "pentacrinoids" rare or absent during August, and I have certainly never before found one in September. I find that the late Sir Wyville Thomson states, in his memoir "On the Embryogeny of *Antedon rosaceus*" (*Phil. Trans.* 1865, p. 513), that the ova are mature towards the end of May or beginning of June, and that, although the time spent in the larval stages may be to a certain extent shortened or prolonged by surrounding conditions, the disengagement of *Antedon rosaceus* from its stalk "constantly occurs between the middle of August and the middle of September" (p. 517). From this one would not expect to find any specimens in the pentacrinoid stage after the middle of September. This season, however, while dredging chiefly in the southern part of the bay near King's Cross Point, I obtained young stalked Antedons nearly every day between September 15 and 25. I generally got one, two, or three specimens in a forenoon's dredging (usually four or five hauls of the dredge). On September 27, the last day I dredged, I found, on some *Fucus* brought up from six or seven fathoms at the south entrance to the bay, upwards of twenty specimens of "pentacrinoids." They were of all sizes, from 3 mm. up to 1 cm. in length of stalk. The last were evidently just ready to be set free, and in fact several of them became disengaged from their stalks while I was watching them in a glass dish during the afternoon. The smaller specimens obtained that day were, from their structure, evidently very much younger, and could not have become free for a considerable time: how long I do not know, and would be glad to learn. Probably they would still have been in the pentacrinoid condition had they lived. W. A. HERDMAN

University College, Liverpool, October 21

Curious Phenomenon

A VERY curious phenomenon has just come under my notice, which is, I think, not unworthy of being put on record. I have