The Habits of the Cuckoo.

IN connection with the interesting article in NATURE of Dec. 26, 1895, on the habits of the common cuckoo, it may be of interest to some of your readers to record the following observations, which afford further evidence in support of the contention that the cuckoo occasionally lays its egg before carrying it to the nest in which it is to be deposited.

A few seasons ago, a pair of robins built in the ivy covering the walls of our house. It was cunningly concealed, about five feet from the ground, in a hollow formed between the wall and the interlacing stems of the ivy. The nest was successfully finished, and four or five eggs were laid. One day, in the early hours of the afternoon, the loud notes of a female cuckoo attracted our attention. Almost immediately afterwards we saw the bird on one of the branches of a large yew-tree growing close to the corner of the house where the nest, was placed, and one of our party exclaimed, "Oh! it is holding something in its beak." It seemed in no way disturbed by the close proximity of the house and its inhabitants, and, after a moment's pause, flew down and disappeared behind the angle of the wall. It then quickly reappeared and flew away, making a considerable noise. We immediately went to the nest, and found the cuckoo's egg together with the robin's. The entrance to the robin's nest, and the entire hollow where it lay, was far too small to admit so large a bird as the cuckoo; the short time, also, that the bird was there, presumably points to the fact that it carried its egg thither and simply placed it in the nest.

Some years before, much the same thing occurred in the same garden. In this instance the robin's nest was in a hole in a bank, which was also too small to easily admit the cuckoo. The parent robins were seen furiously attacking the larger bird, who was forced to beat a retreat. But it had already deposited its egg in the robin's nest, where we found it immediately afterwards.

London, December 29, 1895. ANNIE LEY.

A Luminous Centipede.

WAS not the insect seen by Miss Rose Haig Thomas (see NATURE, p. 131) a specimen of the Myriapod *Scolopendra electrica*, or *Geophilus electricus*, a well-known luminous insect whose light is but rarely seen owing to the insect living underground and in manure heaps? It is, however, the only luminous British species. I have but once seen one crawling abroad at night, but I know the insect well. It may be readily captured in the daytime. The light is bright and the colour is the same as that of the glow-worm. According to my observation both sexes are luminous, and the light is not peculiar to the summer season, as is that of the British glow-worm, hence the meeting of the sexes can scarcely be the object of the luminous prevision.

Worcester, December 20, 1895. J. LLOYD BOZWARD.

IT is impossible to give an unqualified reply in the negative to Mr. Lloyd Bozward's question; but for reasons stated in the note appended to Miss Rose Haig Thomas's communication, I see no grounds for doubting that the specimen she observed was an example of *Linotænia crassipes*, and not of *Geophilus electricus* (= *Scolopendra electrica*, Linn.). So far as my experience goes, the latter is very scarce in the south of England. It must be borne in mind, however, that there is no safety in the assumption that every luminous centipede found in this country is certainly referable either to one or the other of these two species. As a matter of fact, the family *Geophilidæ* is represented in England by at least a dozen species, belonging to five genera, and it is possible that all of them possess the property of phosphorescence. Perhaps it is not surprising that persons unacquainted with these facts jump to the conclusion that every luminous centipede they see must be co-specific with the one to which Linnæus gave the name *electricus*. This is so far from being the case, that not one of the many specimens that have been brought of late years to the British Museum, on account of its luminosity, has proved to be an example of this species. No doubt, however, there is much that might be learnt on this subject by the careful preservation of specimens, with particulars as to date, locality, &c., and I need hardly add that I shall be very pleased to identify any examples that are sent or brought to me at the British Museum for that purpose.

British Museum, Cromwell Road, S.W. R. I. POCOCK.

A Lecture Experiment on the Nodes of a Bell.

THE following modification of Chladni's method makes an interesting lecture experiment, and shows the nodal lines of a bell far more sharply and easily than any process already described of which I am aware. For the bell, use a cylindrical glass crystallising pan (say nine or ten inches diameter and four to six inches deep, but almost any size will do), and stand it, rim upwards, on three india-rubber corks. Some light-coloured powder, such as flowers of sulphur, is mixed with soapy water and smeared over the concave surface. The mixture should be quite watery, and can be applied by pouring a little into the bell, which is then tilted as much as possible and rotated round its axis. With one hand inside the bell, press it down firmly on the corks, and excite the rim with a bow. It is best to make double contact with the bow at two opposite points on the rim, and a succession of rapid strokes will produce strong vibrations, the powder meanwhile shooting upwards in arch-like curves, till it collects in four or six distinct vertical lines, easily visible at a distance if held against something black. Using a smaller vessel, smeared only half-way round, no doubt the whole process could be optically projected. G. OSBORN.

The Leys School, Cambridge.

The Critical Temperature of Hydrogen.

IF my allusion to the absence of "fresh experiments" in Dr. Natanson's work is not sufficient acknowledgment of its purely theoretical nature, a reference to my original abstract in the Physical Society's *Proceedings* will, I feel sure, correct any false impression that has arisen in the author's mind on that point. My note was in no way intended as a criticism or expression of opinion. But the Cracow *Bulletin* paper was certainly calculated to give any reader the idea that Dr. Natanson was the only worker besides Olszewski who had attempted to calculate the critical temperature of hydrogen, and, to prevent misunderstanding, a reference to Wroblewski's previous work seemed desirable. As Dr. Natanson still appears to pass over the long and laborious experiments on which the latter investigation was based, and to be unaware that the whole object was to get the critical constants, &c., *from the application of Van der Waals' theory* (which had previously given chemists an accurate knowledge of such data in the case of oxygen, nitrogen, and marsh-gas *before the gases had been actually liquefied*), I must refer *him* to Wroblewski's memoir. Further, it might interest him to consult a paper by Prof. Dewar in the *Philosophical Magazine* for September, 1884, which discusses the critical constants of hydrogen based on the experimental facts known at that time.

G. H. BRYAN.

THE SPERM WHALE AND ITS FOOD.

THE services which H.S.H. the Prince of Monaco has rendered to the science of oceanography, during the last ten or twelve years, are familiar to every one interested in that department of research. First in the small schooner *Hirondelle*, with no power but the strong arms of his Breton crew, and later, in the large and perfectly equipped auxiliary steam yacht *Princesse Alice*, there is no branch of the science which has not been enriched by his enlightened enterprise and his unwearied perseverance. It may be interesting to the readers of NATURE to know something of what was achieved in the summer cruise of 1895 in the waters of the North Atlantic, chiefly in the vicinity of the Azores. The dredging and other deep-sea operations conducted on board the yacht herself were very successful, and produced an abundant harvest. The most interesting result of the cruise, however, was due to the lucky chance of a cachalot or sperm whale being pursued by the whale-fishers of Terceira, and killed almost under the bows of the *Princesse Alice*, and to the prompt measures taken by the Prince to utilise this rare opportunity, the importance of which for science he immediately and intuitively perceived. The preliminary reports of the investigation of the material thus collected by the Prince, in collaboration with the Portuguese whalers, go to show