

DISCUSSION AND CORRESPONDENCE.

A VISUAL PHENOMENON.

TO THE EDITOR OF SCIENCE: Dr. Gould's interesting statement concerning a 'hitherto undescribed visual phenomenon' induces me to add the following note. In 1897 during a month's inspection of the Ural region under the auspices of the Russian government, our special train stopped one night on a side track near a station on the Siberian border. Some of our party were attending an entertainment given at some distance and expected to return on foot during the night, which was dark, with a slight drizzling rain. At about ten o'clock I was watching, through a glass window in the rear of the car, a light which I supposed to be a lantern in the hands of my returning fellow travelers. There was no other light visible, and as I looked, it seemed evident that the light was descending the face of a far sloping hill reaching to the railway; but the motion was by a series of lateral jerks first to the right and again to the left, each excursion, however, bringing it, *apparently*, lower and nearer. At first the motion amused me, later it interested me, and when, after steadily observing the phenomenon for a considerable time, I found the light had actually not moved from the spot where I first saw it, I was astonished. In this frame of mind my friend, Professor I. C. White, found me, and not being able to see what I described, doubtless formed an opinion of me as unjust as mine was of the supposed revelers who seemed to be coming home in a decidedly zig-zag course. On my return to Philadelphia I described the phenomenon to Dr. de Schweinitz and others. I found I could reproduce the delusion at will by looking from any dark place at a single light; as, for instance, on a cloudy night from the sea beach at the distant light of a ship on the horizon. Whether looked at with one eye or with two, the light always gives the impression of moving by jerks either sidewise or vertically, but in the former case it always seems to progress slowly downward or upward.

Under the conditions above described the phenomenon appears not to be controllable by the will.

PERSIFOR FRAZER.

SHORTER ARTICLES.

CORTICIUM VAGUM B. AND C. VAR. SOLANI BURT.

A FRUITING STAGE OF RHIZOCTONIA SOLANI.

A STUDY of the *Rhizoctonia* of the potato was begun by the Colorado Experiment Station in the spring of 1901. It soon became evident that it is not a sterile fungus and much time has been given to the discovery of a fruiting stage. Observations show that potato plants developed from tubers which are more or less covered with sclerotia of this fungus usually have their subterranean parts overrun with a dark brown cobweb-like mycelium. This covering frequently extends up the green stems from one to three inches above the ground, forming a thin hymenial layer which is usually gray-white in color. This layer does not adhere firmly to the stem and cracks very easily when it becomes dry, consequently it disappears soon after the death of the plant.

The tip of the outermost branches of this hymenial layer become changed into basidia, bearing from two to six sterigmata. The spores are hyaline, and usually ovate in form, with apiculate bases. Fifty spores taken just as they occurred on a green stem gave an average measurement of 10 by 6 μ . But spores after they had fallen averaged 12 by 8 μ . Thus far a pure culture of this fungus has not been obtained directly from spores, but cultures made from the hymenial layer invariably produce a luxuriant growth of *Rhizoctonia*.

The main character of this green stem form agrees with *Corticium vagum* B. & C., but on account of the spore differences and parasitic mode of life, it has been thought wise to make a variety of this form for which Dr. E. A. Burt has suggested *Corticium vagum* B. & C. var. *solani*. It also agrees closely with the description of *Hypnochus solani* Prill & Del, and they may eventually prove to be the same.

FORT COLLINS, COLO.,

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RESULTS OF THE RESURVEY OF LONG ISLAND, NEW YORK.*

NOTWITHSTANDING Long Island has been many times studied by geologists a considerable

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