the accelerating effect of light stimulation of sub-minimal intensity.

Effect of Strong Stimulus.—Experiment 2: The maximum energy radiated by my transmitter, as stated before, was only moderate. In spite of this, its effect on plants was exhibited in a very striking manner. The balance was immediately upset, indicating a retardation of the rate of growth. The latent period, *i.e.* the interval between the incident wave and the response, was only a few seconds (Fig. 2, (b)). The record given in the figure was obtained with the moderate magnification of 2000 times only; but with my crescograph the magnification can easily be raised ten million times, and the perception of plant to the space-signalling can be exalted in the same proportion.

Under an intensity of stimulus slightly above the subminimal, the response exhibits retardation of growth followed by quick recovery, as seen in the series of records given in Fig. 2, (c). The perceptive range of the plant is inconceivably greater than ours; it not only perceives, but also responds to the different rays of the vast æthereal spectrum. J. C. BOSE.

Calcutta, August 16.

A New British Enchytræid Worm.

IN a collection of worms brought from Lapworth by Mr. Hillman on August 11, I found one which is new to this country, and of great interest on account of its unusual character and relationships. In 1877 Vejdovsky described his *Pachydriulus sphagnetorum*. Eleven years later Michaelsen added to it a variety named *glandulosus*. In course of time the name *Pachydriulus* was changed to *Marionina*, and the two worms above-named were placed as distinct species under this genus, forming a section by themselves on account of their aberrance. They both had the girdle thrown forward, the spermathecae were free in the coelom, the septal glands were more numerous than in the type, and there were other peculiarities. In Michaelsen's "Oligochæta," published in 1900, they appear as *Marionina sphagnetorum*, Vejd., and *M. glandulosa*, Mich.

In 1913 I described a new British Enchytræid (*Chamaedrilus chlorophilus*, Friend), which could not be fitted into any then known genus. Its relationships were discussed and its affinities with the two aberrant *Marioninas* pointed out. On finding *M. glandulosa*, I was for a time in doubt about its true name, as it so closely resembled *Chamaedrilus*. Careful study, however, shows that the three worms are very nearly related, and must be referred to one and the same genus. In *Marionina* the blood is slightly coloured, in *Chamaedrilus* it is quite colourless. In the former the spermathecae are free, whereas in *Chamaedrilus* they are attached to the intestine. In all other respects they agree. The forward position of the girdle, the shape and number of the setæ, absence of salivary glands, form of spermathecae, size of coelomic corpuscles and chloragogen cells, enlarged number of septal glands, incised brain, and other important characters, all point to one genus.

They are exceedingly slender worms, and Vejdovsky has pointed out a peculiarity in *M. sphagnetorum* which is of special interest. Like certain water-worms, it can multiply by subdivision. We have here, very clearly, a genus which links the Enchytræids with some of the other families of worms. Details cannot be discussed now, but it is evident that we shall for the present have to regard the genus *Chamaedrilus* as consisting in this country of three species, *viz.* *Chamaedrilus sphagnetorum*, Vejd.,

C. glandulosus, Mich., and *C. chlorophilus*, Friend. The generic characters are roughly as follows:—

CHAMAEDRILUS.—Girdle advanced to segment 10, 9, or 8; nephridia begin in 8/9 or 9/10; spermathecae with posterior outgrowth, either free or attached to the intestine; coelomic corpuscles and chloragogen cells large; blood colourless or but slightly tinged with yellow or red; the dorsal vessel originating behind the girdle and possessing no anterior commissures (apparently). Salivary gland absent, brain deeply incised. Related to *Stercutus* and *Bryodrilus*.

HILDERIC FRIEND.

"Cathay," Solihull, September 24.

A Photoelectric Theory of Colour Vision.

IN view of the recent letters from Prof. Joly and Sir Oliver Lodge under the above heading, I may be allowed to point out that such a theory of colour vision was advanced by me in a lecture delivered before the Röntgen Society on January 7 last, and published in the Journal of the society for April. After referring to Prof. Joly's views as to the nature of the change taking place in the formation of the latent image and in radio-therapy, I said: "In my opinion, it is unnecessary to assume that a photochemical change is the cause of the visual sensation. It appears to me sufficient to suppose that photoelectric action takes place in the rods or cones, so that we have a separation of electrons resulting in electrification of the nerve-cells which set up the nervous impulse to the sensorium." A number of familiar facts were adduced in support of this view, and it was mentioned that the peaked curve which shows the relation between the sensitiveness of the eye for light of different wavelengths bears a very close resemblance to the curve which shows the variation of photoelectric activity with wave-length.

H. STANLEY ALLEN.

Luminous Worms.

AROUND Nottingham forty-five years ago it was a common practice among anglers to search the meadows by aid of a lantern for "dew-worms and cockspurs," as they were locally known. After collection they were placed in damp moss in a dark shed for a few days until they were "scoured"; this brought them into condition, and rendered them more attractive as bait and fresher and redder in colour. After this treatment worms were phosphorescent for about one-fourth of the entire length of the body, while the light was most noticeable in the ventral region.

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RECONSTRUCTION.

IT has been a reproach, not without foundation, frequently cast at the British Empire that there has been hitherto a lack of reasonable and sufficient organisation. The circumstances arising out of a state of war have led necessarily to the institution of a number of new Departments which have been called into existence hastily and without adequate consideration. Some of these will, of course, disappear, and others will remain to be reconstituted. In view of these facts the Government did wisely in July, 1917, in appointing a Committee with the purpose of considering the changes which would become necessary after the war, and the report of one of its Sub-Committees, that on the Machinery of Government,