

Is the present movement being pushed for the benefit of any particular person? This question was asked at the hearing referred to by the Chairman of the Committee.

Are there not already too many detached organizations scattered throughout the departments of the government in such a manner that their business affairs cannot be properly supervised?

This objection might be met by saying that all the scientific work of the government should be brought together under one department, under proper supervision, and with committees in Congress to look after it. Indeed, it seems to me likely that Congress would pass some general measure of this kind rather than take up special legislation for the Observatory alone.

A. HALL, JR.

ANN ARBOR, June 30, 1899.

CEREBRAL LIGHT AGAIN.

IN 1897 Dr. Scripture contributed a note to *SCIENCE* (SCI. 6, p. 138, July 23) on what he calls 'cerebral light.' Soon afterward (SCI. 6, p. 257, Aug. 13) I tried to show that whether the phenomena described was of cerebral origin or not the observations of Dr. Scripture did not prove it. I fear Dr. Scripture did not see my criticism.

Now, again, Dr. Scripture brings forward (SCI. 9, p. 850, June 16, 1899) what he thinks demonstrative proof of cerebral origin. Observing the cerebral figures in the early dawn, and looking at the window, he was able to see the figure in the frame of the window. "Now," says he, "placing the fingers of the two hands against the outer ends of the two eyeballs, I displaced them simultaneously in opposite directions. As a result there appeared two images of the frame moving in opposite directions. But the retinal figures seen in front of the frame remained single and *did not move*. Granting that there was no error in my observations, I cannot imagine a more conclusive proof as to the cerebral nature of the light."

Now, I freely grant that there was no error in his observation, yet his conclusion does not follow. In proof of this it is only necessary to make the same experiment with any after-image, say that of the sun. I have just done

so. *It behaves in exactly the same way as his cerebral figures.* The reason is obvious. When we press on the sides of the eyeballs external images of *objects* move in the field of view because their retinal images move on the retina. But retinal brands do not move on the retina and, therefore, their spatial representatives do not move in the field of view. I pointed this out in my previous criticism, and this is the reason I think that Professor Scripture did not see it.

As to whether the phenomenon described, or, indeed, any after-image, is retinal or cerebral I have nothing to say. Whether a change in a cerebral cell has its origin in a peripheral impression (retinal), or in the course of an optic fiber, or in the cell itself, it may be difficult to say.

JOSEPH LE CONTE.

BERKELEY, CAL., June 28, 1899.

POT-HOLE VS. REMOLINO.

TO THE EDITOR OF *SCIENCE*: The term 'pot-hole,' so frequently applied, of late, to rounded cavities formed by rivers in their rockbeds, is inelegant and grates harshly on people of sensitive temperament. I suggest, in place of it, the Spanish word *remolino*, which is the common designation in the Republic of Colombia, for phenomena of this order.

OSCAR H. HERSHEY.

FREEPORT, ILL., June 19, 1899.

ASTRONOMICAL NOTES.

PROPER MOTION.

A VALUABLE contribution to the list of stars with proper motions is made by Professor Porter, Director of the Cincinnati Observatory, in Publication No. 14 of that Observatory. This is in continuation of similar studies previously published, and contains the results of meridian-circle observations of 2,030 stars made between 1893 and 1898, and a careful comparison with earlier observations. A large number of the stars have an appreciable proper motion.

FUNDAMENTAL STAR CATALOGUE.

THERE has recently been distributed Vol. VIII., Part II., of the publications of the Nautical Almanac Office, which contains Professor