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 rock-beds, 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

Newcomb's catalogue of 1,596 stars reduced to an absolute system by the methods explained to the Paris Conference in 1896. The Conference authorized the preparation of the catalogue as a provisional fundamental catalogue, and the British and French Almanac Offices assisted in the calculations. The star places are given for 1875 and 1900. The revised catalogue of 383 stars included in the American Ephemeris for 1900 is taken from this fundamental catalogue.

PARALLAX OF THE ANDROMEDA NEBULA.

BULLETIN No. 6 of the Yerkes Observatory records an attempt by Professor Barnard to obtain an appreciable parallax of this nebula from micrometric measurements with the 40-inch refractor. Two small stars were employed and a series was obtained in July and August, 1898, followed by a second series in November and December, 1898. The differences between the two series are no greater than would be expected in such measures, and are contrary in sign to what would be required if the nebula is nearer than the stars.

A HYPERBOLIC COMET ORBIT.

THE number of hyperbolic comet orbits is so small, and their character, generally regarded, as so uncertain, that a genuine addition to the list is heartily welcomed. Mr. Aitken, of the Lick Observatory, has published in the *Astronomische Nachrichten* a definitive determination of the orbit of Comet 1896 III, discovered by Swift. A large number of observations were made at many observatories, which are discussed with great care and impartiality. The weak point in the investigation is that the observations extend over a period of but two months and four days, but the normal places are represented in a highly satisfactory manner by the hyperbolic elements. The residuals are very small in both right ascension and declination and cannot be reduced by any variation in the computed eccentricity.

WINSLOW UPTON.

PROVIDENCE, R. I., July 7, 1899.

RECENT PROGRESS IN THE EXAMINATION OF FOODS AND DRUGS.

IN the modern investigations of foods and drugs it is beginning to be recognized, to some extent at least, that it is the results of the labors of the scientific botanist and chemist which are being utilized, not only by the analyst, but also by the manufacturers of foods and drugs. New medicinal plants are being added from time to time to the materia medica; new food-producing plants are being discovered; the various active and otherwise valuable constituents of foods and drugs are being isolated and investigations made upon them; in short, the plants and their manufactured products are being so extensively investigated that it is quite possible in many cases to distinguish the pure from the spurious, and it would appear that the time is at hand for the framing of national food and drug laws. In the following an attempt is made to indicate some of the recent developments in the examination of foods and drugs.

MEDICINAL PLANTS.

AMONG the new economical plants from East Africa * may be mentioned *Mascarenhasia elastica* K. Schum. (N. O. Apocynaceæ), a tree which yields caoutchouc; *Canarium Liebertianum* Engl. (N. O. Burseraceæ), the bark of which yields a resin that much resembles olibanum; *Erythrophleum guineense* Don. (N. O. Leguminosæ), the bark of which contains Erythroplœin; and *Cordyla africana* Lour. (N. O. Leguminosæ), which yields an edible fruit.

R. T. Baker describes † two new species of *Eucalyptus:* (1) *E. dextropinea*, the volatile oil (0.85 %) of which consists largely of dextro-rotatory pinene, eucalyptol being absent: (2) *E. lævopinea*, the volatile oil (0.85 %) being made up largely of lævo-rotary pinene, but containing neither eudesmol nor eucalyptol.

The Strychnos species of Africa have been examined by E. Gilg, ‡ who divides them into two groups: (1) those with edible fruits: *Strychnos unguacha* A. Rich. (*S. innosa* Del.), *S. Quagua* Gilg, *S. cerasifera* Gilg, *S. Tonga* Gilg, also two species related to the latter whose fruits are no doubt eaten, *S. Welwitschii* Gilg and *S. cocculoides* Baker. (2) Those with poisonous fruits: *S. Icaja* Baill., *S. Kipapa* Gilg, *S. pungens* Solered., possibly also *S. spinosa* Lam. and

*Notizbl. d. Berl. Bot. Gart., 1899.

†Proc. Linn. Soc. N. S. W., 1898.

‡ Notizlb.. d. Berl. Gart., 1899, No. 177.