If we should be asked our opinion as to what the origin of these ice-meteorites may have been, we should be inclined to answer that they are very probably a small part of the collections of water (oceans?) which, we know, must have existed on the disintegrated planet to which our stone and iron-meteorites once belonged.

The various theories which have been held to explain certain well-known facts about meteoric bodies, notably Schiaparelli's ingenious hypothesis connecting comets with meteorites, the fact that most comets give a spectrum, closely resembling that of carbon, and many others will have to be revised in the light of this discovery, and it may be safely claimed that Dr. Hahn's book will prove to be one of the most important contributions to natural science of the present time.

ASTRONOMY.

Prof. Mark W. Harrington, of Ann Arbor Observatory, announces, in a private letter to the editor, the variability of star D. M. + 0° .2910, the position of which for 1855.0 is

A. R. 12h. 6m. 28.4s. Decl. + 0° 23.5′

It reached its minimum on May 22 or 23, when it was of the magnitude of D. M. + 0° .2914, which is given by Argelander as 8.7. It is now increasing in brightness at the rate of a tenth of a magnitude a day. The star, in the same right ascension and in 15′ south of the variable (D. M. + 0° .2911), is of a fine orange color, and should be put in the list of red stars.

Observers desiring information, charts, or comparison stars, for use in observing the variable, will be cheerfully assisted by Prof. Harrington or the editor.

M. Eugene Bleck, of the Observatory of Odessa, Russia, has communicated the following observations and elements of Comet (*a*), 1881, Swift:

Odessa M. T.	App. α.	App. δ.
1881 *d. h. m. s.*	*h. m. s.*	° ′ ″
May 4 14 50 15	0 15 26.53	+ 33 25 3.7
5 14 28 12	0 19 1.00	+ 32 24 36.7
7 14 36 2	0 26 35.05	+ 30 15 5.9

ELEMENTS.

T = 1881, May 20.8294.

	°	′	″
π =	299	47	53
Ω =	123	59	25
i =	79	33	0

$log.\ q$ = 9.76570.

The comparison with the middle place gives

Obs. − *c*, $\delta\lambda\ cos.\ \beta$ = − 27″

$\delta\beta$ = + 3″

Careful search has been made at Boston, at Cambridge by Mr. Wendell, at Clinton, N. Y., by Prof. Peters, and by others, for Barnard's Comet, but without success.

SCIENCE OBSERVER,
Special Circular No. 13.

BOSTON, *June* 2, 1881.

UNDERGROUND WIRES IN PARIS.—The Municipal Council of this city are contemplating adding to their funds by taxing wires placed in the sewers. The proposed tax will be 20fr. per kilometre up to 500, 30fr. from 500 to 1,000, 40fr. from 1,000 to 1,500, and so on, with an increase of 10fr. for each 500 kilometres. *L'Electricité* says that the number of kilometres of wire placed in the sewers being about 7,000, the Compagnie des Téléphones will have to pay something like 59,500fr. It adds that the company make no objection to this tax.

BOOKS RECEIVED.

SECOND REPORT OF THE UNITED STATES ENTOMOLOGICAL COMMISSION, for the years 1878 and 1879, relating to the Rocky Mountain Locust, and the Western Cricket, etc., with illustrations, Washington 1880.

This volume will be read with interest by naturalists, and the facts and statistics relating to the ravages of locusts, and the laws and characteristics governing their migrations are very complete.

The interesting chapter entitled "The Brain of the Locust" opens with these lines. "In order to appreciate the habits, migratory, reproductive, etc., of the locust, and to learn something of its general intelligence as an insect, and as compared with other insects, it is necessary for us to study with a good deal of care the organ of the locust's *mind*, *i. e.*, its nervous system, comprising its nervous centres and the nerves arising from them. The present chapter will be devoted to a study of the brain."

It may be confidently affirmed that with methods far subtler and reasoning much more profound, than any employed by the author of this chapter, we shall always fail to find in the structure of the nervous system any explanation of the migratory and reproductive or of any other habits *as habits* in any animal. A large wing-ganglion means a flying insect—of course, a large optic ganglion means that vision is a powerful sense in the animal in which it is found; an atropic olfactory bulb, in man the monkeys and seals, means that the sense of smell does not play so important a role in these animals as in the fox, dog, lion, camel and opossum, where the bulb is large. The preponderance of the brachial enlargement of the cord in the mole and bat is related to the preponderance of the anterior extremities over the posterior in these animals, but it no more serves to explain the difference in psychical habits existing between the two, nay it does so to a less degree even than the external structure. There are species of locusts which are not migratory and a study of their brains should be made if Mr. Packard wishes to draw inferences as to habits from the cerebral structure; in other words, if he would trace out the line of demarcation between a "migratory" and a "non-migratory" brain.

We believe that the clause in question has been inserted with the purpose of indicating that there *is* a connection between the chapter it opens and the general purposes of the Report. If so, if it was the writer's object to lead the lay mind to look upon his paper as pointing out methods by which, through a careful pursuit of the logical lines and the ratiocination passing through the cells or nerve-tracts of the locust's nervous system, we should in course of time be enabled to overreach and anticipate him by our superior reasoning power, in a manner comparable to that followed by a detective shadowing a forger, we can only say that it might have been omitted. Science needs no apology and the excellent plates accompanying this part of the Report alone justify the expense incurred by Government in getting them up.

We consider it unfortunate that in a chapter not likely to be perused by the lay reader at all, so much matter of a semi-popular character should have been included. It is the attempt to popularize the distinction between the brain of insects and of vertebrates (p. 224) that has led Mr. Packard to the commission of actual errors. Thus speaking of the nervous system of vertebrates, he says: "The gray matter is situated in the centre and consists largely of nerve or so-called 'ganglion cells,' while the external white matter of the brain or cord is composed of a mass of nerve fibres." This is correct only as applying to the very lowest vertebrates; in man, the mammalia and reptilia, the gray matter is more or less near the surface, in some centers altogether *cortical*, while the white matter is internal. Mr. Packard adds, as another