

MR. LOUIS STROMEYER, of Kolar Gold Field, Mysore State, South India, whose book "The Constitution of the Universe" was noticed in our issue of March 10, p. 319, has sent us a courteous protest against the review, particularly on the ground that it contained no direct detailed criticism of his theory. He contends that the review "would have been more to the point had it averred that the theory was incomprehensible and thus could not be criticised at all." This was substantially our view, with the addition that such parts as could be understood were so frequently wrong as to exclude the author from any right to serious and lengthy attention in our columns.

WE have received a letter from Mr. Leonard Hawkes with reference to Dr. Jeffreys' conclusion (noticed in NATURE of April 28, p. 585) that the Pamir earthquake of February 18, 1911, was the result of a great landslide. Mr. Hawkes directs attention to the view that the earthquake originated at a considerable depth below the surface and was itself the cause of the landslide. The point is dealt with by Dr. Jeffreys, who considers that the energy in the seismic wave was approximately equal to that which would be developed by the impact of the falling mass on the ground, and not greatly in excess, as it would have been if the rock-mass were loosened by a deeply-seated earthquake.

OWING to the proportions to which it has grown, the book department of Benn Brothers, Ltd., has been formed into a separate branch of the business, to be known as Ernest Benn, Ltd. Sir Ernest Benn, chairman of Benn Brothers, Ltd., will be chairman also of the new company, and the managing director

will be Mr. Victor Gollancz, who for the past two years has been manager of the book department of Benn Brothers, out of which the new business has developed. This development will involve no change in general direction or financial control, and the address is the same as that of the parent company, namely, 8 Bouverie Street, London, E.C.4.

A SPECIMEN of a new fountain pen, called the "Research Fountain Pen," has been submitted to us by the manufacturer, Mr. A. Munro, 65 Preston Road, Winson Green, Birmingham, and we have used it with much satisfaction. The pen has two reservoirs, one of which is first filled with ink in the usual way, and the ink is afterwards transferred as required to a reservoir at the nib end by pulling out a knob and pushing it in again. The walls of the reservoirs are made of celluloid, so that the amount of ink in either of these can be clearly seen. It is claimed that the pen will not blot or leak, and that when it contains ink it will always write without being shaken. The pen certainly has some decided advantages, and so far as we have tested it the claims made are fully justified.

MESSRS. W. HEFFER AND SONS, LTD., Cambridge, have in the press "The Expert Witness," by C. Ainsworth Mitchell, which will deal with, among other things, methods of identification by means of patterns on the feet; by the pores of the skin; by the detection of latent prints on paper, etc.; methods of estimating the age of ink in writing, and the application of X-rays to the identification of old masters.

### Our Astronomical Column.

MAY METEORS.—Meteoric phenomena are usually somewhat scarce in May, but fireballs are often more abundant than in other months. The chief display of shooting stars, next perhaps in importance to the Aquarids of Halley's Comet, is a shower radiating from a position eastwards of Corona and near  $\zeta$  Herculis at about  $247^\circ + 29^\circ$ . They are swift white meteors of average magnitude and moderately short paths, and have been most plentifully observed on about May 18 and 24, but further observations are required to determine the epoch of maximum. Fireballs are occasionally recorded from Scorpio and from the western region of Aquila in May, and a few very slow-moving meteors are seen in some years from near Capella. Although the meteors visible at this time of the year are not equal in number to those appearing on autumn nights, they are of considerable interest, and have never been sufficiently observed. The bulk of the observations in this department of astronomy has been accumulated in the last half of the year, and it follows that many of the meteoric systems visible in the spring season have been comparatively neglected.

IRREGULARITIES IN THE MOON'S MOTION.—Prof. Newcomb regarded the irregularity in this motion, the period of which is about  $2\frac{1}{2}$  centuries, as the most perplexing enigma in astronomy. Mr. Walter Child, of Ashford, Middlesex, has made a suggestion

which, although of no practical value, is worth mentioning, as it recalls one of the exact solutions of the 3-body problem. He points out that there is a conical space behind the moon, 83,000 miles long, which is perpetually invisible to us. In this space he locates a moonlet, which he supposes to influence the moon's motion. It is true that there is an exact solution of the 3-body problem with the bodies in a straight line. The distance behind the moon comes out almost 40,000 miles for a particle of small mass; it would be greater if the mass were comparable with that of the moon (Mr. Child's diagram places it much too near the moon). It is also true that the larger solar perturbations on the particle would be the same as those on the moon, since they depend only on the ratio of mean motions. But in view of the fact that the configuration would involve an incredibly exact adjustment, and is unstable, it is undeserving of serious consideration. Moreover, Mr. Child does not explain how the arrangement could give rise to perturbations of long period without causing any short-period ones. Strangely, he seems to imagine that the moon's librations stand in need of explanation; the extraordinary thing would be if they failed to exhibit themselves. They are the natural consequence of an appreciably uniform rotation combined with an orbital motion that is far from uniform; also of the inclination of the moon's equator to the orbit-plane.