from Mr. Wilfred Mark Webb, honorary secretary of the Selborne Society, at 42 Bloomsbury Square, W.C., post free for three halfpenny stamps.

MESSRS. SWAN SONNENSCHEIN AND CO. will publish at an early date an English translation of "Spiritism and Insanity," by Dr. Marcel Viollet. This book forms part of the Library of Experimental Psychology and Metapsychism published under the direction of Dr. Raymond Marcel, of Paris, and has been translated by Mr. Dudley Wright, editor of the *Annals of Psychical Science*.

THE report and transactions of the East Kent Scientific and Natural History Society for the year ending last September have reached us. The society is affiliated with the British Association and the South-eastern Union of Scientific Societies. The pamphlet, which has been edited by Mr. A. Lauder, the honorary secretary of the society, contains an account of the annual meeting in October, 1908, abstracts of the lectures delivered during the session, notes on the work done by the various sections of the society, and useful meteorological statistics for 1909.

MR. W. ENGELMANN, of Leipzig, has lately issued the third (enlarged) edition of Ostwald and Luther's well-known work, "Hand und Hülfsbuch zur Ausführung physiko-chemischer Messungen." The first edition was reviewed in NATURE of January 4, 1894 (vol. xlix., p. 219), and the second in the issue for December 4, 1902 (vol. lxvii., p. 101). The volume provides teachers and students with details of apparatus and practical hints on manipulation not found in any ordinary text-book, and the new edition claims a place in every chemical and physical laboratory. A second edition of Prof. M. Verworn's lectures on the mechanism of psychical life ("Die Mechanik des Geisteslebens") has been published by Mr. B. G. Teubner, Leipzig. This little work appeared in 1907, and the original edition was reviewed in NATURE of April 16, 1908 (vol. lxxvii., p. 557).

Erratum.—In NATURE of June 9 (vol. lxxxiii., p. 445), column A, line 15 from bottom, for "Thaumatocrinus" (a recent genus) read "Traumatocrinus" (a genus characteristic of Upper Trias).

OUR ASTRONOMICAL COLUMN.

JULY AND AUGUST METEORS.—With the advent of July every meteoric observer is induced to make preparation for the active campaign which the season offers. After the middle of July meteors usually become extremely abundant, and any patient watcher of the skies may record a plentiful harvest of meteor-tracks. In May and June there are comparatively few shooting stars, and perhaps the average horary number is not more than four or six, but in the two succeeding months the rate of appearance often equals twenty or twenty-five per hour.

In July there is a very active display from Aquarius, which apparently reaches its maximum on July 27–31, though the meteors continue to fall from the same centre at about 339—11 during the first half of August—and in July there are many early Perseids displayed, though the latter are a different class of meteor to the Aquarids. Those which are directed from Perseus are of the swift, streaking order, while those from Aquarius are of the slow, trained variety, and they have long flights, the radiant being in low altitude.

This year both the Aquarids and Perseids may be observed to advantage, as the moon will offer little interference. On August 12, when we are led to expect the greatest abundance of meteors, our satellite will set at 10.9 p.m. and leave us with a dark sky, on which the meteors may be seen at their best; but, of course, in our English climate atmospheric conditions are always very doubtful. What we require is a series of beautifully transparent skies such as we experienced during the first half of August, 1909. Observers should seize such opportunities as are available and determine the place of the radiant and horary rate of meteoric apparitions on every clear night. The individual paths of those meteors equal to or brighter than first magnitude should be carefully recorded. The last few years have furnished average displays of Perseids; there is some reason to expect a richer shower this year.

THE LACINGS BETWEEN JUPITER'S BELTS.—Circular No. 124 from the Kiel Centralstelle contains a telegram from Prof. Lowell, dated June 14, announcing that the "criss-cross filaments interlace all Jupiter's belts." This refers to the lacings first observed between the equatorial belts by Mr. Scriven Bolton, and apparently means that similar lacings have been observed between *all* the belts.

OBSERVATIONS OF ORIONIDS IN 1909.—To No. 4418 of the *Astronomische Nachrichten* Prof. Dubiago communicates the results of the Orionid observations made at the Engelhardt and Kasan Observatories during October 17–20, inclusive, 1909. The times and apparent paths of ninety-six meteors were observed at the former station, and of forty-eight meteors at the latter. Eight meteors were observed at both stations, and for these real paths have been computed; the heights vary from 35 to 890 km. The following is the position of the radiant as determined from these observations:—$\alpha = 88° \pm 2{\cdot}9°$, $\delta = +21° \pm 1{\cdot}7°$.

THE CAPE OBSERVATORY.—Mr. Hough's report of the work done at the Cape Observatory during 1909 contains several items of special interest. Among other things, we learn that Dr. Halm's new spectrometer, giving direct readings of wave-lengths, was extensively employed for the measurement of stellar spectra, and the results found not to be inferior in accuracy to those secured by the older methods. It is also of interest to learn that arrangements have been made to take daily photographs of the sun to supplement those taken at Greenwich and other observatories in the Empire. A large number of stellar spectra were secured and measured in the research on the solar parallax and for the examination of the systematic motions of stars in the line of sight. For Prof. Kapteyn's "Selected Areas" programme a number of proper-motion and parallax plates were secured; satisfactory progress in the *Carte du Ciel* programme is also reported.

THE TRANSIT AND TAIL OF HALLEY'S COMET.

THE question as to whether the earth passed through the tail of Halley's comet is discussed, from the point of view of the Helwan observations, by Mr. Knox Shaw in No. 4418 of the *Astronomische Nachrichten* (p. 31). On May 18, at 13h. G.M.T., the tail was seen to stretch as far as α Equueli, where it was 2° broad, although 8° broad where it involved γ Pegasi. At 13h. on May 19 there was no sign of the tail in the west, but it was traced to θ Aquilæ, where it merged with the Milky Way. The form was still tapering, and was 15° broad at α Pegasi. Similar observations followed on May 20, when still no tail was seen in the evening; but at 14h. it was traced to the Milky Way, and was about 10° broad in Pegasus. At 6h., G.M.T., on May 21 the tail was visible for a distance of 20°, but none could be seen at dawn. The narrowness of the tail (8°) on May 18 and the increased breadth next morning suggest that it was bent back in the orbit, and probably did not begin to sweep past the earth before 12h. on May 20. At this time the earth was some four million miles south of the comet's orbit plane, and consequently the tail probably passed well to the north of the earth, for the Helwân observations, during May, suggest that it was not nearly wide enough to envelop the earth at that distance. They also show that its length was well over twenty million miles, and would therefore have enveloped the earth had the planes coincided. No sign of the comet's transit of the sun's disc was observed, although observations were made with the 4-inch Cooke equatorial. Dr. Meyermann also reports that, at Tsingtau, no trace of the comet was seen during the transit, nor were any extraordinary magnetic or meteorological effects recorded by the respective instruments.