

A YORKSHIRE AEROLITE.

FOLLOWING my recent description of the "Yorkshire Gypsy-Springs," I may say that the great Yorkshire aerolite fell a century ago at the village of Wold Newton, where these springs first rise to light. Wold Newton is ten miles west from Bridlington Quay, no village on the Yorkshire Wolds having so much to interest the students of archaeology and natural phenomena. Here, at Wold Cottage, lived Edward Topham, the retired "Tip-top Adjutant," who, in 1787, established *The World*, and whose epilogue, spoken by Lee Lewis in the character of Molière's "Old Woman," created him a star in the dramatic firmament. Two fields south-westerly from Wold Cottage, and protected on the north side by a plantation, you come to a flue-like column of bricks, which used to receive its washing with white lime every year. A yellow slab in the middle bears the following inscription:—

HERE,
on this spot, December 13th, 1795,
fell from the atmosphere
AN EXTRAORDINARY STONE.
In breadth 28 inches,
In length 30 inches,
and
whose weight was 56 pounds.
This column
was erected by
Edward Topham,
1799.

Thus, it is scarcely more than a century since this meteoric stone fell. The day was Sunday, the time about three o'clock in the afternoon, the weather misty, thunder and lightning being at a distance. Suddenly there came a noise like an explosion. George Sawden, a carpenter, was passing within sixty yards of the spot where the aerolite fell; and so much nearer was John Shipley, a farm servant, that he was struck by some soft earth thrown up by the stone when it plunged into the earth. While it was still passing in a north-easterly direction from the sea-coast, a number of persons at Reighton, who, while "turniping" their sheep in the fields, saw it moving down the clouds, made hasty steps for the top of their church-tower to see where it fell, while others spread the tale that it was a cannon-ball shot by a ship-load of French giants who were supposed to have landed to invade the island. Two sons of the Vicar of Wold Newton heard the same body whizz over their heads, and they were among the first on the spot where it fell. It excavated a place 19 inches deep and of something more than 3 feet in diameter, embedding itself so fast in the chalk rock that considerable force was required to dislodge it. A piece split off was, sixty years ago, in the possession of the Rev. Francis Wrangham, F.R.S., Vicar of Hunmanby. It had a black, vitrified surface, and exhibited marks of having been exposed to the action of fire. The inside was white and of a granulated but very compact texture, its composition having no resemblance to any natural stone of the terrestrial sphere. Sent originally to Sowerby's Museum, London, now the aerolite occupies a conspicuous position in the British Museum. It is about the size of a man's head.

HARWOOD BRIERLEY.

PRIZE SUBJECTS OF THE PARIS ACADEMY OF SCIENCES.

AT the recent annual meeting of the Paris Academy of Sciences the following prizes were announced for the year 1896. In Mathematics the subjects proposed are: the Grand prize for an important improvement in the algebraic theory of groups of substitutions between n letters; the Bordin prize (3000 fr.) for an important advance in the theory of geodesic lines; the Francœur prize (1000 fr.) and the Poncelet prize (2000 fr.) will be awarded for discoveries useful in pure and applied mathematics. In Mechanics, the extraordinary prize of 6000 fr. will be given as a reward for an invention tending to increase the efficiency of the French naval forces, the Montyon for the improvement or invention of instruments useful to the progress of agriculture or the mechanical arts, and the Plumey prize (2500 fr.) for improvements in steam engines or any invention contributing to the progress of steam navigation.

In Astronomy, the Lalande prize (540 fr.) will be awarded to any one (in France or elsewhere) who shall have made the most interesting observation, or have published the most useful work bearing on astronomy; the conditions for the Valz prize (460 fr.)

are similar. The subject announced for the Damoiseau prize (1500 fr.) is to connect together by the theory of disturbances the various appearances of Halley's comet, going back as far as 1456 (Toscanelli), taking account of the attraction of Neptune, and also to calculate exactly the next return in 1910. The Janssen prize (a gold medal) is offered for an important result in Physical Astronomy; a Montyon prize (500 fr.) for studies in French statistics, and the Jecker prize (10,000 fr.) for researches in organic chemistry. In Mineralogy and Geology, the subjects for the Vaillant prize (4000 fr.) are to study the physical and chemical causes which determine the existence of rotatory power in transparent substances, especially from an experimental point of view, and to improve, theoretically or practically, methods relating to geodesy or topography; the Fontannes prize (2000 fr.) is offered for contributions to paleontology.

In Botany, there will be awarded the Demazières prize (1600 fr.) for the best contribution, to our knowledge of the Cryptogamia, the Barbier prize (2000 fr.) for a botanical discovery having special reference to medicine, two Montagne prizes (1000 fr. and 500 fr.) for work bearing on the anatomy, physiology, development, or description of the lower Cryptogams, and the Thore prize (200 fr.) for the best memoir on European cellular Cryptogams. In Anatomy and Zoology, the Savigny prize (975 fr.) is given to aid young travellers, who, not receiving Government assistance, specially occupy themselves with the Syrian and Egyptian invertebrates. One or more Montyon prizes will be awarded for discoveries in Medicine and Surgery, the Bréant prize (100,000 fr.) for a specific cure for Asiatic cholera. Other prizes offered in Medicine are the Godard prize (1000 fr.) for the best memoir on the anatomy, physiology, and pathology of the genito-urinary organs, the Serres prize (7500 fr.) for the best work on general embryology applied to physiology and medicine, the Bellion prize (1400 fr.) for work of especial value to the public health, the Mège prize (10,000 fr.) for an essay on the causes which have helped or retarded the progress of medicine, and the Lallemand prize (1800 fr.) for researches on the nervous system. In Physiology, besides a Montyon prize (750 fr.), there is offered the Philipeaux prize (890 fr.) for experimental physiology, and the Pourat prize (1800 fr.).

In Physical Geography, the subject announced for the Gay prize (2500 fr.) is a study of the French lakes from a chemical, physical, and geological point of view. Besides the Arago medal, which is only occasionally awarded for discoveries of special value, the following general prizes are offered for 1896. The Montyon prize (unhealthy trades) for a means of rendering less dangerous an unhealthy trade, the Trémont prize (1100 fr.) the Geger prize (4000 fr.), the Delalande-Guérineau prize (1000 fr.), the Jean Reynard prize (10,000 fr.), the Jérôme Ponti prize (3500 fr.), the Tchihatchef prize (3000 fr.) for the exploration of imperfectly known regions of Asia, the Houlléguie prize (5000 fr.), the Cahours prize (3000 fr.) for the encouragement of young men already known as having done interesting work, especially in chemistry, the Saintour prize (3000 fr.), the Laplace prize of books, and the Rivot prize (2500 fr.).

In the case of the prizes bearing the names of La Caze, Delesse, Desmazières, Lalande, and Leconte (in 1898), it is specially stated that they are awarded entirely without preference of nationality, and of the remainder only two or three are restricted to French subjects. All memoirs for this year must be sent in to the Academy before June 1.

AMATEUR CLOUD PHOTOGRAPHY.

THE blue colour of the sky has as much action on an ordinary sensitive plate as the white colour of light clouds (cirrus and cirro-cumulus); it is therefore necessary to diminish the action of the blue background of the sky. For this purpose a yellow screen is placed so as to intercept the rays; the light coming from the sky contains very few yellow and green rays, and is thus extinguished to a great extent; but, on the other hand, the great proportion of yellow and green rays which exists in the white light of the clouds passes the screen and makes an impression on the plate, if it has been made more sensitive to the action of yellow and green rays than the ordinary plates.

There are, therefore, three points to be considered: (1) the coloured screen; (2) the sensitive plate; (3) the method of development of the images.

(1) *The Coloured Screens*.—Coloured screens formed of films of

1 By M. Angot. (Translated from *Cosmos*, November 23, 1895.)