

the disc as well as in cross-section at the limb, should prove of great service.

If we may interpret another group of observations in the same way, the parallel plate micrometer will also make it easy to distinguish eruptive jets, rising near spots and descending at some distance after following a long-arched trajectory, from the true vortex structure with which they are likely to be confused on spectroheliograms. At their source these apparent jets often appear as bright flocculi, seen on the violet side of  $H\alpha$ , which seem to become dark absorbing streams at a higher level and finally descend at a velocity sufficient to produce a marked displacement to the red, beyond the normal boundary of the  $H\alpha$  line.

Bright hydrogen flocculi include those of the quiescent or slowly changing type and those of short life, which change rapidly in form and intensity. These short-lived bright flocculi are themselves of two kinds: eruptions, shown by the spectrohelioscope, when near the centre of the sun, to give a displacement of the bright  $H\alpha$  line to the violet; and bright flocculi which are receding or stationary in the line of sight. From my recent visual observations, it appears probable that the short-lived stationary or receding bright flocculi are often due to the descent of comparatively cool hydrogen, which appears dark at high levels but turns bright as it falls. The distinction is important, as terrestrial magnetic storms and auroras will probably be found to result from the presence near the middle of the sun of bright flocculi of the eruptive type, which emit charged particles at velocities sufficient to carry them to the earth.

Spectrohelioscopes capable of distinguishing such eruptions, if they could be built at small cost and used systematically at a sufficient number of stations well distributed in longitude, should aid materially in determining the exact relationship between these solar and terrestrial phenomena. After considering several possible designs, and making a variety of preliminary tests, I am now building a solar telescope and spectrohelioscope which promise to be both inexpensive and powerful. From tests already completed, I find that a single plano-convex lens of 3 inches aperture and 18 feet focal length, used with a simple heliostat or

celostat just large enough to fill it with light, will serve very well for the necessary solar telescope. In the spectrohelioscope a single prism, twice traversed by the sunlight, will take the place of a grating. Its dispersion will be adequate with a focal length of 13 feet, or by the use of additional prisms the focal length can be reduced. For general use, fixed monochromatic telescopes of the above type will be less expensive and probably more satisfactory than those carried by an equatorial mounting. Moreover, I have designed a spectrohelioscope for attachment to equatorial telescopes, but have not yet found opportunity to build and test it.

Continued use of the spectrohelioscope has strengthened my hope that in the hands of amateur astronomers it may contribute materially to our knowledge of the solar atmosphere. As another indication of its service, I may add that on June 26 last I observed a phenomenon recorded but once, and then incompletely, in the entire collection of  $H\alpha$  spectroheliograms obtained on Mount Wilson since the beginning of such records in 1908. This unique case was the sudden engulfment, on June 3, 1908, of a large dark flocculus (prominence) by the vortex associated with a sunspot, illustrated and described in "Solar Vortices," *Astrophysical Journal*, vol. 27, September 1908. The phenomenon of June 26 was very similar in appearance, and although the parallel plate micrometer was not then completed, I was able to see its final stage, which was necessarily missed in the earlier record. This was the appearance of a black dot, after the large dark flocculus had been sucked into the vortex, exactly upon the outer (receding) boundary line of the penumbra, as in the observations of August 15 and 16. This could be seen only when the second slit was on the red side of  $H\alpha$ , indicating the rapid recession of the hydrogen. The detailed observations will be given later. The point to be made here is that many interesting and unfamiliar phenomena of the solar atmosphere, including cases of this kind, can be observed by any one who cares to equip himself with the simple and inexpensive apparatus required. A full description of the instruments now under construction will be published soon after the final tests have been completed.

### News and Views.

THERE have just been placed on exhibition in the Geological Department of the British Museum (Natural History) the remains of a Stegosaur or armoured deinosaur, obtained by the late W. E. Cutler from the Belly River sandstone of the Red Deer River, Alberta. Baron Nopcsa, who will soon publish a description of the specimen, believes that it represents a new genus; but in any case it is closely allied to *Panoplosaurus* (Lambe) and *Ankylosaurus* (Barnum Brown) from the same beds, and is not very unlike *Polacanthus* (Owen) from the Wealden of the Isle of Wight. The chief interest of the specimen lies in the preservation of the plated skin still in position over the greater part of the skeleton. The bony plates range from large broad-based spikes, presumably covered with horn in life, to minute specks in the wrinkled skin of the neck. The skin of the

under surface has left no trace and was no doubt relatively thin. The vertebræ of the back lie in a straight line, and the ribs were probably fused to them, as in *Ankylosaurus*. The sacral vertebræ are fused to one another. The vertebræ of the neck and tail were movable. The limb-girdles are clearly shown, and the large bones of the left fore-limb clearly retain their natural position, indicating a squat posture with a bend at the elbow, so that the height at the shoulder was only about three feet. The left hind-limb has been bent over the belly, and is almost complete. The skull is missing. The length of the fossil is 15 feet, and its breadth 6 feet. In the absence of jaws and teeth, the feeding habits must be inferred from those parts in allied forms. Baron Nopcsa holds the view that the creature roamed a sandy desert and lived on occasional swarms of

locusts; the museum labels adopt the more usual interpretation of the Stegosaur teeth as adapted for vegetable food.

THE Trustees of the British Museum have recently placed in the Central Hall of the Natural History Museum a case illustrating the tragic effect on sea-birds of the waste oil which is allowed to escape from ships or is pumped out with bilge-water. The scene shows a portion of a beach on the south coast shortly after the turn of the tide, the sand in the foreground being still wet from the sea. At the high tide level lie six dead birds just as they have been washed up by the waves, together with the usual flotsam, while a little higher a guillemot, with glazing eye and panting breath, is evidently on the point of death. The feathers of the living and dead are heavily befouled with the thick dark liquid. A realistic touch is added by the two large flies which have already scented the dead bodies. Guillemot, razorbill, and red-throated diver are the three diving birds represented. The scene reproduces with exact fidelity an actual group of dead birds which were washed up on the Isle of Wight. Such sights are, however, by no means confined to the shores of the English Channel, and may be seen in crowded waters all over the world where oil-burning vessels congregate. The prevention of the oil nuisance was considered at an international conference held at Washington this summer, and it is hoped that as the result stricter regulations will be enforced by the several maritime nations which will lead to an abatement of the nuisance. What precisely is the action of the oil on the birds which leads to their destruction is uncertain.

THE town council of Swindon has decided to purchase for the sum of 2150*l.* the small farmhouse and land adjoining the Marlborough road at Coate, about one and a half miles from the town, which was the birthplace of Richard Jefferies. Jefferies died in 1887, and, since his death, his name, which meant so little to his neighbours during his lifetime, has attained to a certain immortality in the big railway town. The small house in Victoria Street, in which the early days of his married life were spent, is marked with a tablet recording that fact. There is a 'Jefferies Club' amongst the young people of the secondary schools, and the Field and Camera Club, as well as the flourishing branch of the Workers' Educational Association, regard him more or less as their patron saint. But as with so many others, so too with Richard Jefferies: he was no prophet to his neighbours whilst he lived, and only became one when he died. In truth, to country people the "common objects of the country" are so common that they do not appeal to them, as they do to the dwellers in towns. The study of natural history has its strongholds in the large towns and not in the country districts; and this is probably even more the case now than it was fifty years ago. But the influence of Richard Jefferies, for all that, lives to-day. It was he who for tens of thousands of town dwellers discovered the beauty of the Downs and the hanging wood of the chalk escarpment, which are the charac-

teristic features of the country that he loved so well. He was not a scientific naturalist. He troubled himself not at all as to the minute points of distinction between sub-species and varieties, so beloved by many specialists of the present day; but he was a great observer, and what he saw he set down on paper and taught others to see too, and so may rightly claim to have been one of the chief founders of that 'Nature Study' which is now regarded as a necessary means of education.

A NOTEWORTHY event of the seventy-second meeting of the American Chemical Society, held on September 6-10 in Philadelphia, was the great pilgrimage of chemists to the grave and former home of Joseph Priestley at Northumberland, Pa. It was there, on the pleasant banks of the Susquehanna River, that Priestley, in 1794, then aged 61 years, joined his sons after religious persecution had made his life intolerable in England; and it was there that he spent the remaining ten years of his life engaged mainly in the study of theology and philosophy. He never became naturalised, saying that "as he had been born and lived an Englishman, he would die one, let what might be the consequence." The house which was built by Priestley at Northumberland in 1796 has acquired additional fame from the fact that it was the meeting-place of a band of American chemists who assembled there in 1874 to celebrate the centenary of the discovery of oxygen, and to found an association which two years later developed into the American Chemical Society, now the largest chemical society in the world. In 1920 the house was in a sad state of decay, having been used during the War as a boarding-house for immigrant labour, but owing to the enterprise of the G. G. Pond Memorial Association it was purchased at public auction, thoroughly renovated, and a museum was erected on the lawn, which still bears two pine trees planted by Priestley himself.

THE ceremonies held at Northumberland on September 5 comprised a visit to the grave where Priestley, his wife, and seventeen descendants lie buried; an inspection of the house and of the museum containing original apparatus and other personal effects of Priestley; and a short meeting on the lawn at which addresses were delivered, by Dr. W. H. Walker on the history of the house, and by Dr. C. A. Browne, of the U.S. Bureau of Chemistry, on the life of the famous 'pneumatic' chemist, whose great-granddaughter, Mrs. Frances Priestley Forsythe, took part in the proceedings. Although England lost what America gained when Priestley emigrated to Pennsylvania, English chemists will always be grateful to their American colleagues for the way in which they have honoured and preserved his memory. Not all of them, however, will endorse the official reference to Priestley as "the founder of modern chemistry," great as his experimental achievements undoubtedly were. The number of famous chemists in different lands who have been awarded the title of 'founder' or 'father' of the science tends to become embarrassing, and it almost seems time to invoke the

Code Napoléon and put a ban on any further "recherche de la paternité."

IN a recent paper before the American Chemical Society, Dr. W. Blum, electro-chemist to the U.S. Bureau of Standards, stated that the manufacture of metal tubes and sheets by electrolytic means is fast becoming a reality. Although no details are given in the announcement before us, Dr. Blum is reported to have said that the possibility of continued manufacture on a commercial scale was not yet proven. In the past large sums of money have been spent on working out such a process, but the results have hitherto been disappointing, largely owing to the difficulties experienced in obtaining impervious deposits and uniform distribution of metal of the required structure and quality. These obstacles are now stated to have been overcome. Advantages claimed for the new process are ease in making complicated forms, and, unlike the rolling and drawing processes, thin-walled tubes are cheaper to manufacture than heavy ones.

THE future of petroleum supply is a problem that is interesting many countries to-day, and none more than the United States, which has been the chief producer and consumer since the industry began, and, it is said, is likely to be the first to have the wolf at the garage door. Nineteen years has of late been the accepted probable life of the known petroleum deposits in that country, but a more pessimistic view was expressed by Dr. A. C. Fieldner, chief chemist to the Pittsburgh Department of the U.S. Bureau of Mines, in a recent address to the American Chemical Society at Philadelphia. According to this authority, the United States owns five-sixths of all the motor cars and trucks in the world, and consumes 80 per cent. of all the motor-fuel, mainly petrol. The oil-wells of proved extent are estimated to contain 5 billion barrels of readily available petroleum, a quantity which, at the present rate of consumption, would last only until 1936; the amount left in the oil-sands, which may be recovered when ordinary pumping is finished, is about 26 billion barrels. Supplies of proved extent could be made to last until 1943 if the yield of petrol from 'cracked' oils were increased from the 35 per cent. obtained in 1925 to 55 per cent., which is regarded as a likely figure; and they could also be conserved by using engines with a higher compression-ratio than that now in vogue in the United States (about 4 : 1). Looking to the future, Dr. Fieldner foresees the use of alcohol, derived from vegetation or obtained by synthesis, for mixing with petrol, but ultimately, he thinks that oil-shale, soft coal, and lignite will be the main sources of motor-fuel. Failing these, we may have to use a light electric storage-battery, or revert to Diesel's original idea and use coal-dust in our motor-engines.

PROF. SCHWARZ, in an undated volume, "The Kalahari or Thirstland Redemption," proposed an ingenious scheme for the development of the Kalahari Desert by flooding depressions to the west and east

of Lake Ngami by dams across the Cunene River and the Chobi River above its confluence with the Zambezi. The southern Kalahari was expected to benefit by two overflow channels from the projected lake near Ngami to the Orange River, and the whole climate of South Africa to be improved by the moistening of the atmosphere by evaporation from the large water surfaces. To test this project the South African Government last year sent out an expedition under Dr. Du Toit, whose opinion will carry much weight. His report, of which an abstract was published by the *Times* of September 10, declares Prof. Schwarz's scheme impracticable, and emphatically rejects its axioms that there has been a progressive desiccation of South Africa within the last century, and that the reduction in the size of Lake Ngami was the result of that change. The new report concludes that the climate has not altered appreciably within historic times. Owing to heavy rains Lake Ngami, according to recent reports, is as large as it has been ever known.

THE Commission concludes that owing to the high rate of evaporation the water supplies on which Prof. Schwarz relies would be inadequate, and that for the establishment of any extensive permanent lakes the main flow of the Zambezi would have to be diverted by the erection of a dam 60 ft. high across the Zambezi at Katombora, which would submerge 4,600 sq. miles. A rejoinder by Prof. Schwarz severely criticises the report on the unconvincing grounds that the expedition did not go near the Kalahari and was not led by an engineer. He declares that damming the Zambezi is "not practical politics," as the submergence of half Barotsiland and some native towns would be opposed to the Colonial Office insistence that there must be no interference with native rights. Considering, however, what has been submerged by the Nile dams, the transference of native settlements would not be a serious objection to any scheme for the better utilisation of the waters of South Africa, especially as due compensation to the natives, apart from the improved value of the rest of their land, would no doubt satisfy the Colonial Office stipulations as to native rights. The report of Dr. Du Toit, as one of the leading geologists and geographers in South Africa, will doubtless receive careful consideration.

IN the *Wireless World* for September 1, Col. Crawley gives a survey of the overseas radio services in Great Britain. He proves that, so far as radio communication is concerned, the position is satisfactory. We are now on the eve of a complete system of Imperial radio communication. The control of all the overseas commercial messages is in the hands of the Government and the Marconi Company, but the military messages are controlled by the three fighting services. The Post Office services are operated from the London General Post Office, on the roof of which eight receiving aerials are installed. To obviate the effects of local electrical interference, however, this receiving station will shortly be transferred to St. Albans. The messages

received are relayed to the recording machines in the same building. These machines are placed alongside the transmitting machines which actuate the sets at Rugby, Oxford, Northolt, Stonehaven, Dollis Hill, and Caister. When the St. Albans station is ready the received signals will be relayed to the General Post Office.

THE Rugby station, with a frequency of 16 kilocycles, transmits messages to stations and ships all over the world. It is hoped also to inaugurate shortly long-range radio telephone services. The station at Leafield, near Oxford, communicates with Halifax and Cairo, both by an electric arc (24·21 kilocycles) and by a valve set (6000 kilocycles). The station at Cairo is operated by the British Post Office and communicates with Oxford, Germany, France, Italy, and Basra. At Northolt there are two aerial systems, one a valve set and the other an arc set. This station communicates with Czechoslovakia, Italy, and Hungary. Stonehaven communicates with Germany, Norway, Iceland, Poland, and Esthonia. Caister communicates with Holland when the cable service is interrupted, but it is normally closed. Dollis Hill is the Government experimental station. Last year the Post Office point-to-point services dealt with over ten million words of paid traffic. The Marconi Company operate an alternator station at Carnarvon and a group of valve stations at Ongar. They have a large receiving station at Brentwood. Considerable extensions are in progress. They erect the beam sending and receiving stations for the Post Office; the transmitting station at Bodmin and the receiving station at Bridgwater are practically completed.

THE Royal English Arboricultural Society held its summer meeting recently at Newcastle, with Mr. Leslie S. Wood as president and Mr. Gerald W. E. Loder, vice-president. The secretary, Mr. Edward Davidson of Haydon Bridge, had arranged a programme of excursions to Middleton Hall, Chopwell, and Healey. The woodlands were evidence of the energy of those responsible—Messrs. Gerard F. T. Leather, A. D. Hopkinson, and W. St. A. Warde-Aldam. Outdoor discussions were shared by foresters, estate agents, timber merchants, nurserymen, and university lecturers. South country visitors were surprised to see little planting of ash, elm, sycamore, though these with birch and mountain ash come by natural regeneration. The timber merchants' control demands conifers for pit props, especially larch, Sitka, Douglas, Corsican, Japanese larch are being tested by the acre. Pre-War plantations are thriving. Even in war-time some planting was achieved. Post-War planting has struggled against increase of rabbits and a legacy of forst weeds, gorse, bracken, and bramble. Gorse has been twice cut, and the trees may now outgrow it. Bracken has grown apace this year, cutting seems necessary. The blackberry-picking problem is accentuated when the forest is on the edge of an unemployed mining village. One estate was remarkable for continuity of management—only three foresters in a century; another for the

high qualifications of its officers although their reigns have been short; a third for the skilfully arranged economies of an estate railway, sawmill and woodwork shops, the engine fed by gas generated from scrap and sawdust.

A REMARKABLE find of Mycenæan treasure is described by Mr. A. J. B. Wace in the *Times* of September 10. The Swedish Archæological Expedition to Greece, in excavating a beehive tomb near the village of Dendra, which lies at the foot of the acropolis of the Homeric Midea in the neighbourhood of Nauplia, has discovered four grave-pits, two of which are undisturbed. This is the only untouched burial hitherto found in a beehive tomb, excepting that at Vaphio from which the famous Vaphio cups were obtained. In one of the undisturbed pits lay two extended skeletons, one male, the other female. In the second was a female skeleton. The 'king' was covered almost from head to foot with gold, silver, and other riches. On his breast was a magnificent golden cup, 18 cm. in diameter, cunningly chased with what is described as "almost . . . a submarine seascape," the figures including argonauts, dolphins, and four octopuses. Artistically and technically the cup is a masterpiece. In the cup were the king's seals, and on or by his body were bronze swords with hilts of gold, or ornamented in gold, silver vases, a gold cup sheeted with silver, a bronze vessel, knives and spearheads. With the 'queen' lay a splendid gold cup sheeted outside with silver inlaid in gold, bronze, and black silver. Other treasures were a necklace of 61 gold beads, a lamp of steatite and a vase of ostrich-egg with applied ornament in gold, silver, and bronze. The 'princess' was less richly supplied, but had a gold ring, a necklace of 38 gold beads of rosette form, and the remains of a girdle. All the finds, excepting the 'king's cup,' are of a comparatively late date, on the ceramic evidence scarcely earlier than 1350 B.C. The older cup, it is suggested, may be an instance of the burial of an heirloom or antique, in which case, Mr. Wace points out, it indicates caution in accepting theories recently put forward that the beehive tombs should be dated much earlier than they usually are.

PROF. V. H. BLACKMAN, Prof. F. G. Donnan, and Prof. F. A. Lindemann, have been appointed by Order of Council dated August 20, 1926, to be members of the Advisory Council to the Committee of the Privy Council for Scientific and Industrial Research, in succession to members who have retired on the completion of their terms of office.

THE ninth International Congress of Zoology, held at Monaco in March 1913, decided that the tenth Congress should take place in 1916 at Budapest, with Dr. G. Horváth, Hungarian National Museum, Budapest, as president. The War rendered the meeting impossible. The international situation, however, has now so much improved that the Congress need no longer be postponed. After due consultation with members of the permanent committee of the international congresses of zoology,

Dr. Horváth is able to announce that the tenth Congress will meet at Budapest on September 4-9, 1927, and he cordially invites all zoologists and friends of zoology to attend. The detailed programme of the Congress will shortly be issued and sent to all who are interested.

A SERIES of Sunday afternoon addresses under the general title of "The Contribution of Science to Human Life" is to be given during the autumn at the Guildhouse, Eccleston Square, London, W. The lectures are free, and no tickets are required. The lecturers and their subjects are as follows: Oct. 3, Sir Richard Gregory, the worth of science; Oct. 10, Dr. Bernard Hollander, sound and unsound mind; Oct. 17, Sir Sefton Brancker, the scientific problems of commercial aviation; Oct. 24, Dr. W. A. Bone, the economic aspects of coal; Oct. 31, Prof. H. H. Turner, the fight against fear; Nov. 7, Dr. W. H. Eccles, the influence of wireless on modern life; Nov. 14, Dr. E. E. Fournier d'Albe, eyes and ears of the future; Nov. 21, Dr. G. C. Simpson, meteorology in the service of man; Nov. 28, The Right Hon.

Viscount Haldane, the wider meaning of relativity; and Dec. 5, Sir George Newman, the contribution of medical science to human life.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—An assistant in the anatomy department of the University of Aberdeen—The Secretary (September 27). A head master for the Eye Grammar School, graduate, science preferred (with agricultural bias)—W. E. Watkins, Hon. Clerk to the Governors, County Hall, Ipswich (September 29). A joint keeper of archæology in the National Museum of Wales and lecturer in archæology in the University College of South Wales and Monmouthshire—The Director, National Museum of Wales, Cardiff (October 16). A senior lecturer in zoology and physiology at Huguenot University College, Wellington, Cape Province, South Africa—The High Commissioner for South Africa, Trafalgar Square, W.C.2. A laboratory attendant for histology in the anatomy department, University College, London—Prof. J. P. Hill, Anatomy Department, University College, Gower Street, W.C.1.

### Our Astronomical Column.

THE METEORIC PHENOMENA OF SEPTEMBER 6.—Mr. W. F. Denning writes that a large number of observations have been received of apparently two large fireballs which illuminated the sky in many parts of England on the evening of September 6 at about 20<sup>h</sup> 30<sup>m</sup> and exactly at 20<sup>h</sup> 45<sup>m</sup> G.M.T. respectively. The data collected have not yet been thoroughly discussed and will necessarily take some time. The first meteor appears to have travelled from a southern radiant northwards and was observed at places so distant as Wanstead, near London, Durham, the south-west of England, and Sunderland. It gave a considerable light and some persons mistook it for lightning, but its motion to north dispelled the idea.

The second meteor made its apparition about 10 or 15 minutes later, and was no doubt the most brilliant object of the pair. Its path was also to the northwards, and it terminated its career by a series of loud detonations when it was some miles south of York. This meteor appears to have given several flashes of dazzling brilliancy; for some observers compared its light with that of the sun. For a moment or two it illuminated the landscape as it is at noonday. Some fragments of this object may possibly have fallen to the ground unobserved in the north-east region of Yorkshire, but no evidence of actual stonefalls has been received. In the district of Selby, and Goole, Yorkshire, the height of the fireball was about 26 miles, and it was decreasing.

The first object seen on September 6 appears to have been of very unusual size and aspect. Did it represent anything of similar nature to the auroral beam which passed over England on November 17, 1882?

THE UNIFORMITY OF THE EARTH'S ROTATION.—M. Bigourdan, of the Paris Observatory, contributes an article to *Comptes rendus de l'Académie des Sciences* for August 30, in which he points out that the comparison of the clocks of a large number of observatories by the aid of wireless time-signals distributed from Bordeaux-Lafayette, Saigon, Honolulu, and Washington, should afford a very delicate test of the uniformity

of the rotational movement. It is not even necessary for this purpose to await the determination of the errors of the different clocks, provided that their daily rates are uniform to 0.01 sec. or thereabouts. Comparison of 100 such clocks will permit the testing of the uniformity of rotation to the order of 0.001 sec. The present time is particularly appropriate, as the International Astronomical Union has arranged for a general series of wireless longitude determinations to be made between October 1 and November 30 next.

A very large number of signals will be recorded at each observatory, but a small number will suffice for M. Bigourdan's purpose, and he asks that observers will communicate to him the Bordeaux-Lafayette signals Nos. 113-122 and 235-244, that is, those just preceding 20<sup>h</sup> 3<sup>m</sup> 0<sup>s</sup> and 20<sup>h</sup> 5<sup>m</sup> 0<sup>s</sup> of Universal Time. The uncorrected clock times of reception of the signals will suffice, and they need only be sent for the period of 30 days, commencing on October 15. It will be remembered that many astronomers, including Prof. E. Brown, now attribute the unexplained irregularities in the moon's motion to changes in the earth's rate of rotation. The inequalities that M. Bigourdan wishes to examine are of much shorter period than these, but analogy leads one to expect that if inequalities are present at all they may have many different periods.

MR. WILK'S COMET ANNOUNCEMENT.—It has now been confirmed that a motion among the stars of a degree in 4 minutes of time was the correct interpretation of the telegram from Cracow Observatory referred to last week, p. 388. Since no further observations have been received, it is evident that the material is insufficient to pronounce definitely in favour of the cometary nature of the object. It may have been a patch of aurora or the trail of a meteor in the upper atmosphere.

Prof. Perrine and his assistants observed a somewhat similar object at Cordoba in May 1916. In that case also its nature remained doubtful, but Miss Glancy showed that, if a comet, it must have approached very near to the earth (even closer than the moon).