

reference containing important constants and facts, and also a diary arranged by Messrs. Charles Letts and Co. The price, bound in leather with gilt edges, is 2s.

MESSRS. J. AND A. CHURCHILL announce for early publication "A History of Chemistry, from the Earliest Times till the Present Day," by the late Dr. J. Campbell Brown; "Notes on Chemical Research: an Account of Certain Conditions which Apply to Original Investigation," by Mr. W. P. Dreaper; "A Text-book of Anatomy for Nurses," by Dr. Elizabeth Bundy; and "Who's Who in Science (International), 1913," edited by Mr. H. H. Stephenson.

#### OUR ASTRONOMICAL COLUMN.

THE ANNULAR SOLAR ECLIPSE OF APRIL 17.—Those interested in the phenomena of the annular eclipse which took place in April last will find forty-eight columns of records and discussion in No. 4615 of the *Astronomische Nachrichten*. Herr Ladislav Beneš describes the observations of contact times, &c., made at the Strassburg Observatory, and, after discussing them, arrives at corrections for the places of the sun and moon; the central line deduced lies between the lines given by the *Connaissance des Temps* and the *Bureau des Longitudes*, rather nearer to the latter.

The observations made at the Leipzig Observatory are described by several observers, and Herr F. Hayn gives a set of curves showing the measured irregularities of the moon's limb. Prof. Luther brings together a very large number of observations made at various stations in the Rhine province, and derives a central line passing through  $\lambda = 6^{\circ} 45' 40.35''$  E.,  $+51^{\circ} 25.6'$ , giving a correction of  $-0.4'$  in latitude to the central line published by Prof. Battermann. He also gives a good photograph taken by Herr P. Bohnen. Prof. Wilkens publishes the results of the Kiel observations, giving the true sun and moon positions for the moment of each observation, and finds the corrections published in the American ephemeris were very near the truth.

An interesting paper by Drs. Elster and Geitel, dealing with the sun's observed light-curve during the eclipse, appears in the *Physikalische Zeitschrift*, pp. 852-855.

A REMARKABLE SHOWER OF METEORIC STONES.—In No. 203, vol. xxxiv., of *The American Journal of Science*, Mr. W. M. Foote gives a preliminary account of the shower of meteoric stones which occurred near Holbrook, Navajo County, Arizona, on July 19. Mr. Foote has collected a large mass of evidence which appears to settle the question of authenticity favourably. A large meteor was seen to pass over Holbrook at 6.30 p.m. on the date mentioned, and created a loud noise, which lasted for half a minute or more. Numerous stones were seen to fall near Aztec, raising puffs of dust for over a mile of the sandy desert, and subsequently a great number of these stones were found by the local people; the largest found weighed more than 14 lb., while several of about 5 lb. each were picked up over an elliptical area about three miles long and half a mile broad. The preliminary physical and chemical tests point to an undoubted meteoric origin, and a sample taken from twelve individual stones was found to contain 3.68 per cent. of nickel-iron, with 96.32 per cent. of silica. The principal constituent appears to be enstatite, olivine and monoclinic pyroxene making up the balance; in one section a patch of spinels set in quartz was found.

Altogether more than 14,000 stones, weighing, in all, more than 481 lb., were picked up and preserved,

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but of these 8000 weighed less than one gram each; 29 stones had weights ranging from 6665 grams to 1020 grams, and some 6000 ranged between 1000 grams and one gram.

THE ORBIT OF COMET 1910a.—In No. 4605 of the *Astronomische Nachrichten* M. S. Mello e Simas publishes definitive elements of the orbit of the bright comet 1910a. The author has discussed an enormous number of observations, and sets out in full detail the numerous points he has taken into consideration, finally arriving at the conclusion that the orbit is a parabola with an inclination of  $138^{\circ} 46' 55.78''$ , the time of perihelion being 1910, January 17.09464 (M.T. Paris). He also discusses the question of the multiple solutions of problems of cometary orbits, which so confused a number of calculators in endeavouring to find a satisfactory orbit for comet 1910a during the time of its apparition.

THE "GAZETTE ASTRONOMIQUE."—It is with pleasure that we learn that the *Gazette Astronomique*, published by the Antwerp Astronomical Society, is again to appear each month. The gazette fulfils a very useful purpose in publishing monthly ephemerides and notes for observers, and, also, in popularising astronomical subjects.

#### THE NEW PHARMACOLOGICAL LABORATORY AT UNIVERSITY COLLEGE, LONDON.

WHEN University College was incorporated in the University of London, a scheme was formed to replace the old laboratories of the medical sciences by more adequate institutes in the south quadrangle. The first part of the plan was completed in 1909, when the Physiological Institute was opened. A second instalment has been rendered possible by a donation of 5000l. by Mr. Carnegie, and the Pharmacological Institute was opened on Wednesday, December 4, by Sir Thomas Barlow, president of the College of Physicians. It is to be hoped that the third institute, for Anatomy and Anthropology, may follow in due course and complete the buildings for the medical sciences.

The new pharmacological laboratory has been built from the plans of Prof. F. M. Simpson, of University College, and occupies an area of 42 ft. by 50 ft. immediately adjoining the physiological building on the east. It contains three complete floors and a mezzanine floor, besides the basement, the actual floor space amounting to about 6000 sq. ft., besides the stairway and passages. The building is lighted on three sides by large windows, which occupy the maximum amount of space permissible under the Building Acts. The ground floor is lined with white glazed brick throughout, and contains a reading-room 24 ft. by 18 ft., and the pharmacological-chemical laboratory, 24 ft. by 30 ft., fitted with two large chemical benches and fume cupboards. It communicates with an open-air balcony on the south side, which is arranged for investigations on noxious gases. On this floor there are also a balance-room, a dark-room, and an attendant's workshop. Between the ground and first floors a mezzanine floor contains lavatories and a hospital-room for animals under observation. The animal houses proper lie behind the building.

The first floor contains private rooms for professor and assistant, and two large experimental rooms, 24 ft. by 18 ft. and 24 ft. by 30 ft. respectively. The smaller of these is designed for work with the large kymograph, while the larger is used for smaller movable apparatus. A heavy beam runs through