to those instruments, and to early descriptions of instruments, by which scientific studies in the university have been advanced.

Dr. D. H. Scott is bringing out through Messrs. Macmillan and Co., Ltd., "Extinct Plants and Problems of Evolution," a volume founded on a special course of lectures given in 1922 at the University College of Wales, Aberystwyth, the object being to sketch, in broad outline, the geological history of the plant-kingdom, in its bearing on the theory of descent. Messrs. Macmillan also announce "Life in Southern Nigeria : The Magic, Beliefs, and Customs of the Ibibio Tribe," by Amaury Talbot,

Resident, Nigeria ; vol. iii. (Mammalia) of Prof. von Zittel's "Text-book of Palæontology," revised by Dr. Max Schlosser, translated under the direction of the late Dr. C. R. Eastman, by Marguerite L. Engler and Lucy P. Bush, and revised by Dr. A. Smith Woodward ; and a new and revised edition of Prof. W. J. Sollas's "Ancient Hunters."

Errata :—In the article on "The Earth's Magnetic Field for 1922," by Dr. Louis A. Bauer, in our issue of August 25, the formula on p. 295 should be given the number (1) ; the second author mentioned in the fourth paragraph, third line, p. 296, should be Mr. H. Furner instead of Prof. H. H. Turner.

Our Astronomical Column.

The Solar Eclipse of 1922 and Einstein's Theory.—The current number of the Lick Observatory Bulletin, No. 346, contains the results of the observations on the deflexion of light in passing through the sun's gravitational field made during the total solar eclipse of September 21, 1922, at Wallal, Western Australia. The authors, Prof. W. W. Campbell and Mr. R. Trumpler, give all details for this particular research, which represents only a part of the programme of the William H. Crocker Eclipse Expedition from the Lick Observatory. Two very interesting diagrams show at a glance the type of the results obtained. The first of these is a star chart of the neighbourhood of the eclipsed sun containing the 92 stars actually measured for the investigation. The observed relative displacements of the stars are indicated by short lines oriented according to the directions of displacements. The outline of the brighter parts of the corona as well as the limit of the faintest traces of coronal light are indicated. The second instructive diagram shows the observed radial displacements for each star as a function of the star's angular distance from the sun's centre, while for comparison sake a curve is given indicating the values predicted by Einstein's theory. This graphical representation demonstrates the coincidence between the observed and the predicted light deflexions. By arranging the stars in groups according to their distance from the sun's centre the observed relative radial displacements can be seen from the accompanying table.

Group.	No. of Stars.	Weight.	Mean Dist. from Sun.	Obs. Rad. Displ.	Theoretical Rad. Displ.
			°	"	"
1	8	9·09	0·64	+0·64	+0·70
2	11	19·42	1·06	+0·35	+0·37
3	10	20·15	1·40	+0·30	+0·24
4	8	22·41	1·66	+0·16	+0·17
5	9	21·10	1·90	+0·17	+0·13
6	8	24·67	2·00	+0·15	+0·11
7	11	21·32	2·22	+0·08	+0·08
8	13	21·37	2·55	−0·09	+0·02
9	14	22·78	2·97	−0·04	−0·03

It will be noted that the observed radial displacements given in this table are in remarkably good agreement with the values predicted on the basis of Einstein's theory. The authors point out also that even the stars between 1·25° and 2·25° from the sun's centre, which lie entirely outside of any trace of the corona,

show the light deflexion well marked, an effect that would be difficult to explain by an extended solar atmosphere.

Ephemerides of Algol Variable Stars.—At the meeting in Rome of the International Astronomical Union in 1922, the representatives of the Cracow Observatory undertook the calculation and publication of these ephemerides. No. 1, containing these calculations for the second half of 1923, has lately come to hand, edited by Th. Banachiewicz. The explanatory matter is printed both in Polish and in Peano's flexionless Latin, the latter being easy to read.

Comment is made on the fact that from the date January 1, 1925, the astronomical day will begin at midnight, which will cause a break of continuity in formulæ that use the Julian day (beginning at noon). To avoid confusion, it is suggested that a new cycle of days be employed for this purpose, the zero date being the midnight at the beginning of January 0, 1801 (Greenwich). This is adopted in the present work, and tables are given to reduce calendar dates to it. Tables are given for 31 stars, including Algol, the adopted elements being corrected by recent observations, made in several cases by J. Gadomski at Cracow. The times of minimum are given to the third decimal of a day (about 1½ minute).

Since all the minima occurring on each day are arranged on the same page and in the same line, it is a very simple matter to draw up a programme of work on any given night.

Further Search for Intra-Mercurial Planets.—Though we know from the presence of the Zodiacal Light that there is a considerable amount of scattered matter inside the orbit of Mercury, it becomes more and more unlikely with each total eclipse that there is any single body of sufficient size to be separately discerned or photographed. Prof. Campbell and Mr. Trumpler have made a careful search on the large plates (17 inches square) taken for the Einstein problem in the eclipse of September 1922. They embrace an area of 15° × 15°, and show 550 stars, the faintest being of magnitude 10·2. They were compared, star by star, with the comparison plates taken in Tahiti four months earlier. Nothing was detected in the search ; it is noted that rapid motion might weaken a planet's image, but, allowing for this, there could not have been any planet as bright as magnitude 8·5 in the region of the plates, unless it was in the denser parts of the corona. Perrine's search in 1908 covered a region 25° × 8¼°, but did not reach quite such faint stars as the present series.