

the fourth edition of the late Miss Agnes M. Clerke's "History of Astronomy in the Nineteenth Century."

THE Bibliographischen Institut of Leipzig and Vienna has sent us the first part of a second revised and enlarged edition of Dr. M. W. Meyer's popular work on general astronomy entitled "Das Weltgebäude." The edition will be completed in fourteen parts, to be published at the price of one mark each.

It is announced that papers on parasitology, which have hitherto appeared in the *Journal of Hygiene*, will in the future be published in a separate volume to be entitled *Parasitology, a Supplement to the Journal of Hygiene*. The publication will be edited by Prof. Nuttall and Mr. Shipley.

A THIRD edition of Mr. Douglas English's "Wee Tim'rous Beasties" has been published by Messrs. Cassell and Co., Ltd. These studies of animal life and character were reviewed in the issue of NATURE for December 24, 1903 (vol. lxi., p. 176), on which occasion we reproduced one of the excellent illustrations with which the volume is plentifully supplied.

WE have received a copy of an interesting and fairly complete international catalogue of the more important periodical publications of the world, which has been compiled by Prof. Emile Guarini, and published in Paris by MM. H. Dunod and E. Pinat. The price is 3 francs, and the catalogue gives the address, publisher, and price of 4063 reviews and journals classified according to countries.

MESSRS. PAWSON AND BRAILSFORD, of Sheffield, have published a third edition of Mr. J. Simpson's "The Wild Rabbit in a New Aspect, or Rabbit Warrens combined with Poultry Farming and Fruit Culture." The book has been revised and enlarged, contains several illustrations, and will probably assist the encouragement of rabbit warrens and rabbit farming, whether conducted for sport or profit.

ANOTHER volume has been added to the series dealing with the fauna of British India, including Ceylon and Burma, edited by Lieut.-Colonel C. T. Bingham, and published under the authority of the Secretary of State for India by Messrs. Taylor and Francis. The new volume continues the consideration of the Coleoptera, and is concerned with a portion of the family Chrysomelidæ. It is the work of the late Mr. Martin Jacoby. In a short preface the editor expresses the hope that the book will direct the attention of collectors in India to this somewhat neglected but important group of phytophagous beetles, and prove of assistance to them in their study.

OUR ASTRONOMICAL COLUMN.

WATER VAPOUR IN THE MARTIAN ATMOSPHERE.—A glance at a print from a series of spectrograms taken by Mr. Slipher on January 15, which Prof. Lowell has kindly sent to Sir Norman Lockyer, leaves but little doubt that water vapour is present in the atmosphere of Mars. This print includes two spectra of the moon and one of Mars, and whilst the *a* band is absent from the former, it is quite a marked feature of the latter spectrum. The exposure for the spectrum of Mars was from 5h. 35m. to 8h. 30m., the mean altitude of the planet being 43°, whilst those for the moon were made at 15h. 26m., the altitude being 30°; the aqueous vapour per cubic foot of air, during the exposures, was found to be 1.25 grains.

THE DISPERSION OF LIGHT IN INTERSTELLAR SPACE.—II, No. 6 (February 10, p. 266) of the *Comptes rendus* Dr. C. Nordmann described a method whereby the dispersion of light in interstellar space might possibly be determined. Briefly, the method consists in making photometric observa-

tions of quickly changing variable stars, the light of the star being first passed through different coloured screens for each observation. If all radiations traverse space with equal velocities, such observations should give light-curves agreeing in phase among themselves and with those determined in the ordinary method; but if some radiations are relatively retarded, then the light-curves so determined should exhibit marked deviations of phase. Three liquid screens transmitting only radiations of $\lambda\lambda=5900$ to the extreme red, 5900 to 4900 and 4900 to the ultra-violet, respectively, were prepared, and Dr. Nordmann's preliminary results are published in No. 8 (February 24, p. 383) of the *Comptes rendus*.

Algol and λ Tauri were the stars examined, and in both cases it was found that, whilst the light-curves obtained when the several screens were successively employed agree in amplitude and form with the ordinary light-curves, there is a measurable difference in the epoch of any specific phase. With Algol the difference in time for the red and blue screens amounted to sixteen minutes, whilst for the red and green screens the difference was nine minutes; these preliminary values are probably correct to within about three minutes. The difference between red and blue for λ Tauri was about forty to sixty minutes, i.e. approximately three times the analogous difference in the case of Algol; that is to say, the parallax of λ Tauri is, presumably, about one-third that of Algol. Combining these results with Pritchard's value for the parallax of Algol, 0".0556, it follows, assuming space to be homogeneous, that the difference between the velocities of the extreme ends of the visible spectrum amounts to something of the order of 150m. per second.

Dr. Nordmann points out that this method of investigation offers great possibilities in several lines of research, among which the determination of the parallaxes of variable stars and the gauging of space for dark absorbing material would not be the least interesting from a cosmological point of view.

THE MOVING OBJECT NEAR JUPITER.—Some revised Greenwich positions for the suspected new Jovian satellite are given in No. 4239 of the *Astronomische Nachrichten* (p. 235). This object was observed by Prof. Albrecht at the Lick Observatory on March 8, and its visual magnitude was recorded by Prof. Aitken as 15.0.

DISTRIBUTION OF STANDARD TIME IN EGYPT.—The February number of the Cairo Scientific Journal (vol. ii., No. 17, p. 50) contains a very interesting account, by Captain H. G. Lyons, of the methods of determining and distributing standard civil time in Egypt. The standard now used is the East Europe Time of the thirtieth meridian E. of Greenwich, and Captain Lyons's history of the long sequence of events which led to its adoption is of great interest. The organisation for the distribution appears now to be efficient, and is described and illustrated in the article under notice.

OBSERVATIONS OF ALGOL VARIABLES.—The results of a systematic investigation of the light-changes of ten Algol variables are published by Dr. K. Graff in No. 11 of the *Mitteilungen der Hamburger Sternwarte*. The observations were made during the years 1905, 1906, and 1907, and Dr. Graff, in addition to giving the observational and derived values and the method of reduction, gives charts of the regions surrounding the variables, and a light-curve for each. The stars observed were W Delphini, SW, SY, UW, VW, and WW Cygni, U Sagittæ, Z Persei, Z Draconis, and RW Tauri.

NEBULÆ AND NEBULOSITIES OBSERVED BY PROF. BARNARD.—The purity of the atmosphere at the Mount Wilson Observatory is once more emphasised by some results described by Prof. Barnard in No. 4239 of the *Astronomische Nachrichten* (p. 231, March 17). Nebulosities suspected on earlier photographs are shown unmistakably on those taken during Prof. Barnard's sojourn at Mount Wilson; considerable extensions are shown on others. Messier 8, 16, 17, and 20 are amongst those now described, and in the case of the last-named, the Trifid nebula, extensions appear which have not been seen before by Prof. Barnard; the greatest diameter is 36' long, in a S.E. and N.W. direction, and the numerous black lanes, which have made this nebula celebrated, are beautifully shown.