

SEVERAL Bibliographies, lately received, show that serious and increased attention is being given to the organisation of scientific literature. One admirable and very useful work of this kind is a "Catalogue des Bibliographies Géologiques," prepared under the direction of M. Emm. de Margerie, Secretary of the Commission Internationale de Bibliographie Géologique, in conformity with a vote taken during the International Congress at Washington in 1891. The volume is chiefly made up of descriptive lists of publications arranged according to regions, those in each region being in turn classified according to subjects and authors. The contents fill 732 pages. The work is primarily intended for distribution among members of the Geological Congress; so only a few copies are for sale, these being obtainable from either Messrs. Dulau or Messrs. Friedländer. As expressed by the title, it is not a bibliography of geology, but a bibliography of geological bibliographies, using this latter designation in its widest sense. The volume may thus be regarded as the key to geological literature, and it will doubtless prove of great service as the means by which geologists will be able to unlock their stores of knowledge.—The second volume of the "Bibliotheca Geographica," prepared by Herr Otto Baschin, and issued by the Gesellschaft für Erdkunde zu Berlin, has also come to hand. The plan of the work, which refers to the geographical publications of the year 1893, is the same as that of the first volume, except for a few minor changes in the system of classification; but while the previous volume contained 13,800 entries for the years 1891 and 1892, the present has over 10,000 for 1893 alone. Herr Baschin invites the authors of geographical papers published in journals, and in Transactions not restricted to that branch of science, to forward full titles and references to him at "Schinkelplatz 6, Berlin, W."—A répertoire of physiological works published in 1895, has been prepared by Prof. Ch. Richet. In this "Bibliographia Physiologica" (Paris: Felix Alcan) the publications are classified according to Dewey's decimal system, and Prof. Richet urges authors to give their papers numbers based upon this plan. It is proposed to publish very shortly similar bibliographies of physiology for 1893 and 1894. The first part of the bibliography for 1896 was received a few days ago. Authors are requested to send copies of memoirs on physiological subjects to Prof. Ch. Richet, Faculté de médecine de Paris, and so assist to make his catalogues as complete as possible.

THE additions to the Zoological Society's Gardens during the past week include a West African Love Bird (*Agaporis pulchra*) from West Africa, presented by Miss E. M. Tuely; eight Grooved Tortoises (*Testudo calcarata*) from South Africa, a Bearded Lizard (*Amphibolurus barbatus*), seven — Lizards (*Amphibolurus*, sp. inc.), two Great Cyclodus (*Tiliqua gigas*), six Lesueur's Water Lizards (*Physignathus lesueurii*), a Death Adder (*Acanthopis antarcticus*), a Purplish Death Adder (*Pseudechis porphyriacus*), a Short Death Adder (*Brachyaspis curta*), three Brown Death Adders (*Diemenia textilis*) from Australia, deposited.

#### OUR ASTRONOMICAL COLUMN.

THE TOTAL SOLAR ECLIPSE OF AUGUST 9, 1896.—M. Deslandres, who was commissioned by the Bureau des Longitudes to proceed to Japan and make observations of the total solar eclipse visible there on August 9 last year, gives in *La Nature* for December 26 a short account of the expedition in general and a brief description of the results obtained. The station decided upon was the small port known as Yesashi, on the northern side of the island of Yézo, where the Japanese party under Prof. Terao and the American expedition were eventually located. During their stay of six weeks there were only eight fine days, so that the previous meteorological reports, which indicated the bad climatic conditions of the island at this season, were entirely corroborated. As we all know, the sky was

cloudy during the time of totality, but the French party was more fortunate than the Norwegian observers, for their clouds were evidently not so dense as those which obscured the sun at Vadsö and Kiö. M. Deslandres, who was directing the observers under him, saw at a glance that it was useless to proceed in the programme previously arranged for under fine weather conditions. He therefore gave instructions that in the different instruments a single sensitive plate should be exposed for the entire duration of totality. Of the plates exposed, six showed the corona "plus ou moins fort," while on the remainder nothing was seen after development. The negatives indicated dim extensions in the north-west, north-east, and south-west directions, but practically only the general distribution of the coronal light was shown. The images of Venus and Jupiter were also found recorded on two of the negatives. The eclipse of 1896, as M. Deslandres says, confirms the following law, indicated already to a certain extent in previous eclipses, namely, that the periodical variations of the spots which are followed by the prominences extend to the corona, and therefore also to the entire solar atmosphere.

THE MELBOURNE OBSERVATORY.—The thirtieth report (May 1895–June 1896) of the Board of Visitors to the Melbourne Observatory, shows that since the large reduction of the staff which has taken place during the last two or three years, the work of the observatory has had to be necessarily limited. Mr. Baracchi, who is the acting astronomer, has nevertheless been able to cope with the existing circumstances and carry on, at any rate, the most important work and supply the local requirements for meteorological statistics and other scientific matters. Reference is also made in this report to the existence of a large amount of valuable work which is yet unpublished. Besides over thirty years' records in terrestrial magnetism and valuable investigations bearing on the climate of the colony, there is the important work of measurement of the photographic plates of southern zone stars, which is the Melbourne portion of the great international undertaking of the photographic chart of the heavens. There seems also to be a great mass of material unpublished concerning the work done with the great reflector; this consists, as we are told, of finished drawings of nebulae, sketches, notes, and micrometric measurements "only a minute portion of which has been published." It is sad to read that "observations with the great telescope and other equatorials must for the present be abandoned, and that even if the extra assistance asked for be granted, we shall only be able to barely fulfil already accepted obligations." Perhaps some public-spirited person will offer financial aid to tide over the present difficulties.

MISTS ON MARS.—A circular from Kiel, dated December 27, reports the following information received from M. Flammarion:—"M. Flammarion announces mists (brouillards) on Mars extending to various distances round the polar cap. This whitish zone, less brilliant than the polar snow, extends to a great distance from the pole, and finally vanishes. One might easily mistake it for an extension of the polar cap itself, and this is what has occurred in old observations. M. Antoniadi has made some accurate measurements at Juvisy."

#### THE ATMOSPHERIC ABSORPTION OF LIGHT.

IT is well known that there are some circumstances, connected with photometric observations, calculated to make us doubt whether, theoretically or observationally, we have determined correctly the amount of light that is extinguished in its passage through our atmosphere. Foremost amongst these considerations may be mentioned the fact, pointed out some time since by Prof. Seeliger, that the very accurate and trustworthy observations made by Dr. Müller, at Potsdam, with a view to determine this quantity, are not rigorously represented by the theoretical expressions derived by Laplace. The deviations may not be large in amount, but they exhibit a systematic character which is suspicious. In the same connection may be mentioned the initial objection, urged by Prof. Langley, that the fundamental expressions used in those investigations are not equally applicable to light of all wave-lengths. There are, further, in use different numerical values of the coefficient of transmission, pointing either to various degrees of transparency in the atmosphere, or to peculiarities in the instruments themselves, or the methods employed in the reduction of the observations.