('Examen de la méthode de la prédiction du temps de M. N. Demtschinsky,' Odessa, 1903, 8vo, pp. 74). The conclusions reached by Professor Klossovsky are distinctly unfavorable, as was to be expected. The author suggests that if M. Demtschinsky persists in issuing these forecasts, the whole matter should be taken up by the International Meteorological Committee. Dr. Klossovsky, in connection with his study of the Demtschinsky forecasts, summarizes briefly the present state of weather forecasting, and outlines the older method of mean values, the new method of synoptic meteorology, the use of analytical methods and the question of periodicity.

THE 'LINE STORM' FALLACY.

In the annual summary of *Climate and Crops, New England Section,* a tabulation of daily precipitation between September 14 and 28 at Boston, during 32 years (1872–1903) is given, with a view to throwing light on the popular belief in the equinoctial storm. On September 21 measurable amounts of precipitation occurred but six times during the period, and for the week of which September 21 was the middle day, there have been but twelve years in which the total weekly precipitation was over one inch.

THE CLIMATE OF IOWA.

The 'Annual Report of the Iowa Weather and Crop Service' (Des Moines, 1903) contains an appendix on 'Iowa Climate and Crops,' in which there is a good brief account of the climate of the state (pp. 11–23).

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RECENT ZOOPALEONTOLOGY.

REVISED EDITION OF ZITTEL'S PALEONTOLOGY.

The first volume of the revised edition of von Zittel's 'Grundzüge der Paläontologie,'* which has just made its appearance, is a work of 558 pages covering the whole field of fossil invertebrates. It represents an enlargement of about forty pages over the original edition, with twenty new figures, but except for certain portions relating to the corals and echinoderms, there is essentially no change either in subject matter or in classification. The author remarks in the preface that he has duly considered the merits of the new system adopted in the English version, but has chosen to abide by the older established usage. In the case of the brachiopods and trilobites at least, there are many who will regard this as a backward step, where the studies of Beecher and others have resulted in as satisfactory a classification as exists in the animal kingdom, and it is rather a pity that in the choice of new figures, none of the classic illustrations showing stages of development in these groups were selected. Whether the vertebrate classes will be treated with equal conservatism remains to be seen when the second volume appears.

* 'Grundzüge der Paläontologie,' by K. A. von Zittel, Abth. I., 1903, R. Oldenbourg, Münich and Berlin.

TERTIARY ELASMOBRANCHS FROM SOUTHERN ITALY.

Those interested in the distribution of Tertiary elasmobranchs will find this memoir of Dr. Pasquale,* a student of Professor F. Bassani at Naples, particularly useful, not only on account of the new data it contains, but also because of the careful comparisons the author has made with the type specimens of older writers, resulting in many cases in revised determinations. The various tables given at the end of the memoir are of great convenience. Signorina Pasquale has done for the Italian faunas what Leriche has recently accomplished in praiseworthy manner for the Belgian, in his memoir published by the Brussels Museum, and it is to be hoped that other localities will be taken up by paleichthyologists in similar close detail.

JURASSIC FISHES FROM SPANISH LITHOGRAPHIC LIMESTONE.

Since the discovery made by L. Vidal a year or two ago of the occurrence of lithographic stone in northeastern Spain exactly comparable to that found in Bavaria and central France, a number of fossil remains have been

* 'Revisione dei Selaciane Fossili,' by Maria Pasquale, *Atti Accad. Sci. Napoli,* Vol. XII., No. 2, 1903.

described proving this formation to be contemporaneous with that of Cerin in the Bugey, which is referred by Lapparent and Haug to the summit of the Virgulien. Professor Sauvage,* the eminent director of the Boulogne Museum, now gives us an account of the piscine fauna so far as known from the new locality, which comprises in all thirteen species. The more important of these are illustrated in four photographic plates, amongst the number being a supposed chimæroid egg-case, certainly a very rare petrifaction. It is also interesting to note the presence of *Palæobatrachus* and ichthyosaurs in these beds.

FURTHER LIGHT ON THE TREMATASPIDÆ.

IN an interesting memoir of thirty-three pages published by the St. Petersburg Academy, Professor William Patten,† of Dartmouth, discusses the structure and classification of the primitive family of ostracaphores known as the Trematapidæ. He describes with painstaking minutiæ the cephalic shield of *Trematapis schmidti,* illustrating the same with two excellent plates. Our knowledge of this form has been increased by Patten's studies in several important particulars, such as regards the sensory canal system, arrangement of ventral plates, and number of incisions which are commonly regarded as branchial openings, but are interpreted by Patten as having served for the attachment of swimming appendages. Professor Patten's views in regard to arthropod affinities of ostracophores have recently been discussed by Dr. O. Jaekel in the *Zeitschrift der deutschen geologischen Gesellschaft,* and by the reviewer in the *American Naturalist.*

C. R. EASTMAN.

SCIENTIFIC NOTES AND NEWS.

THE University of Pennsylvania has conferred its Doctorate of Science on William Healey Dall, of the U. S. Geological Survey and the U. S. National Museum.

DR. CHARLES S. MINOT, of Harvard Medical School, and Dr. Franklin P. Mall, of Johns Hopkins University, have been made members of the commission for Neurological Research, appointed by the International Association of Academies.

EDINBURGH UNIVERSITY will confer the honorary LL.D. on Dr. Alexander Macalister, professor of anatomy at Cambridge, and on Dr. Hannis Taylor, professor of constitutional and international law at Columbian University.

ST. ANDREWS UNIVERSITY will confer the degree of LL.D. on Dr. J. N. Langley, professor of physiology at Cambridge University.

THE French Geographical Society has awarded its great gold medal for 1904 to Sven Hedin, the Swedish explorer.

DR. NICHOLAS SENN, of Chicago, has been elected a member of the Swedish Medical Association.

ARRANGEMENTS are being made to celebrate the seventieth birthday of Professor Hugo Schiff, the Italian chemist.

PRESIDENT ROOSEVELT has received acceptances from five of those appointed as members of the Isthmian Canal Commission, namely, Rear Admiral John G. Walker, United States Navy, retired; Gen. George W. Davis, United States Army, retired; Col. Frank Hecker, of Detroit, director of transportation during the Spanish-American war; William Barclay Parsons, engineer of the New York subway, and William H. Burr, professor of engineering at Columbia University.

THE Royal Commission on London Traffic have nominated Sir John Wolfe Barry, one of the royal commissioners, Sir Benjamin Baker and Mr. W. Barclay Parsons, consulting engineer to the Board of Rapid Transit Railroad Commissioners of New York, to advise the commission on certain important technical questions connected with locomotion and transport in London.

DR. JAMES CRAUFORD DUNLOP has been appointed superintendent of statistics in the office of the registrar-general for Scotland, in place of the late Dr. Blair Cunyngham.

* 'Noticia sobre los Peces de la Caliza litográfica de la Provincia de Lérida,' by H. E. Sauvage. *Mem. R. Acad. de Ciencias y Artes de Barcelona,* Vol. IV., No. 35, 1903.

† 'On the Structure and Classification of the Trematapidæ,' by William Patten, *Mém. Acad. Imp. Sci. St. Petersb.,* Vol. XIII., No. 5, 1903.