

sions from the technical journals and from many experts among business men.

R. H. THURSTON.

#### GENERAL.

MESSRS. GAUDRY AND BARROIS and their confrères in France have brought out in the form of a guide-book to the geological excursions undertaken this summer under the auspices of the International Congress of Geologists, a veritable hand-book of the geology of France, entitled 'Livret-guide des Excursions en France du VIII<sup>e</sup> Congrès Géologique International.' The work is beautifully illustrated with reproductions from photographs, with cuts of sections and colored maps, making the collection of papers on the different geological provinces of the Republic by far the most complete publication of the kind for any country. The matter is presented in such a form that it will serve the reader as well as the geological traveler. Paper and press-work are of the best quality.

J. B. W.

In the first part of his work 'Ueber Museen des Ostens der Vereinigten Staaten von Nord Amerika,' Dr. A. B. Meyer, the director of the Dresden Museum, describes the museums of New York City, Albany and Buffalo.

#### BOOKS RECEIVED.

*Status of the Mesozoic Floras of the United States.*

LESTER F. WARD, with the corroboration of WM. M. FONTAINE, ATREUS WANNER and F. H. KNOWLTON. Washington, Government Printing Office. 1900. Pp. 213-430. Plates XXI-CXLIV.

*A Practical Course in Mechanical Drawing.* WILLIAM FOX and CHARLES W. THOMAS. New York, D. Van Nostrand Co. 1899. Pp. vi + 98.

*Chemical Technology.* Edited by C. E. GROVES and WILLIAM THORP, Vol. III. *Gaslighting.* CHARLES HUNT. Philadelphia, P. Blakiston's Son & Co. 1900. Pp. xviii + 312.

#### SCIENTIFIC JOURNALS AND ARTICLES.

The *Botanical Gazette*, October, contains an important paper by Dr. R. A. Harper, of the University of Wisconsin, on 'Cell and Nuclear Division in *Fuligo varians*,' a common slime mold. The results have led Dr. Harper to discuss in a general way the processes

of cell division, and he discovers no such definite rules of cleavage as have been urged by authors. Mr. W. J. G. Land, of the Hull Botanical Laboratory, describes cases of double fertilization in *Erigeron* and *Silphium*, in both of which cases he discovered the second male cell conjugating with the endosperm nucleus or with one of the polar nuclei. The male cells of *Silphium* are remarkable in that they are much elongated and spirally coiled. Miss Mary Hefferan, of the Bacteriological Laboratory of the University of Chicago, describes 'A New Chromogenic Micrococcus,' discovered in the course of an examination of river water for the Sanitary District of Chicago. Mr. E. R. Hodson, of the Iowa Agricultural College, describes 'A New Species of *Neovossia*,' a smut affecting the ovaries of *Phragmites communis*. Mr. Henry Kraemer, of the Philadelphia College of Pharmacy, writes concerning the origin of tannins in galls, coming to the conclusion that the crystalline compound found in the galls which he examined is gallic acid, which becomes transformed into tannin.

*The Auk*, for October, has for its first article an account of 'A Nuptial Performance of the Sage Cock,' with a plate showing how the bird slides along on its breast with distended air sacs. J. A. Allen discusses 'Aptoso-chromatism,' reviewing the most recent articles on alleged change of color in feathers without moult, changes which Dr. Allen does not consider as taking place. James J. Carroll presents 'Notes on the Birds of Refugio County, Texas,' giving a list of 185 species, and William H. Kobbé in 'The Birds of Cape Disappointment, Washington,' gives an annotated list of 63 species. W. E. Saunders describes the 'Nesting Habits of the Cerulean Warbler.' J. A. Allen under 'North American Birds Collected at Santa Marta, Colombia,' presents a list of 43 species. Finally Jonathan Dwight, Jr., makes another of his important contributions to ornithology in 'The Moults of the North American Shore Birds (*Limicolæ*),' which has a very direct bearing on the question of change of color without moult. Dr. Dwight emphatically states that changes of color in plumage are the results of moulting and wear. There are the customary General Notes and Reviews of Recent Literature.