

SCIENTIFIC JOURNALS.

JOURNAL OF GEOLOGY, AUGUST-SEPTEMBER.

James Dwight Dana and His Work as a Geologist: By H. S. WILLIAMS. Prof. Dana's contributions to the geology of this country are so many and so varied, they are such a fundamental part of our knowledge, that so long as the science endures he cannot be forgotten. Prof. Williams has succeeded in bringing together the salient features of his work in a very satisfactory manner.

Glacial and Interglacial Deposits near Toronto: By A. P. COLEMAN. The question whether there was one or two or more glacial epochs has been so long and earnestly discussed that we hail with pleasure any decisive and positive contributions to the subject. Such is this article by Mr. Coleman. He finds in the cliffs near Toronto three beds of till separated by stratified material. Between the lower and middle till the stratified material is 140 feet of laminated clay and sand, while between the middle and upper till there is seventy to one hundred feet of sand and clay. In the first of these a larger collection of fossils has been found than in any like deposit in the world. Among insects five families, fifteen genera and twenty-nine species are represented. These are all extinct forms and may be considered as indigenous to the locality and not decidedly boreal. Of vegetable remains fifteen species were represented. These, according to Dr. Macoun, indicate a climate like that of the northern part of the Gulf of St. Lawrence or southern Labrador. There was no sign of ice action, but rather of quiet water conditions. In the valley of the Don, a few miles away, apparently in the same relations to the till, many unios were found, a few gasteropods and specimens of the wood of Oak, Ash, Elm, Pawpaw and Osage Orange were found. These point to a climate as warm as that of Toronto at present, if not as warm as Ohio. The unios are such as chiefly now belong to the Mississippi basin and not to the St. Lawrence. In addition to the lapse of time indicated by the deposit of these one hundred and forty feet of fine sediments he finds an erosion interval represented by ninety feet deep and one-half mile wide cut in the deposits after

their emergence and before the succeeding beds were formed. Above these beds is thirty feet of till consisting of a blue calcareous clay with striated erratics of limestone and Utica shale, together with Laurentian boulders. Then follows about one hundred feet of stratified sand and gravel, which has no fossils and shows evidence of the not-distant presence of the ice. The upper till is twenty to thirty feet thick and contains striated erratics of limestone, shale and gneiss. Mr. Coleman seems to make a very strong case for one important interglacial epoch and one subordinate interglacial episode.

Origin of Certain Features of Coal Basins: By H. F. BAIN. A description of the coal basins of Iowa as throwing light on coal horizons in general.

Preglacial Gravels on the Quartzite Range Near Baraboo, Wis.: By R. D. SALISBURY. Certain peculiar gravels are found at high levels in Wisconsin and surrounding States which differ from all glacial gravels. The author discusses the significance of these, suggests a correlation and concludes that the area indicated was submerged much later than had been supposed, possibly as late as the Cretaceous or Tertiary.

Glacial Studies in Greenland: By T. C. CHAMBERLIN. This is one of a series of papers founded on the personal observations of the author during the last summer. They embody some rather unique additions to our knowledge of the formation and work of glaciers.

The Upper Paleozoic Rocks of Central Kansas: By C. S. PROSSER. This is a description and correlation of the rocks of Kansas.

Summary of Current Pre-Cambrian North American Literature: By C. R. VAN HISE. Since the introduction of the microscope into geological study a flood of light has been thrown upon this difficult field—the pre-Cambrian rocks. Many investigators are working and there has come to be an extensive literature. Prof. Van Hise brings together this literature and endeavors to interpret it.

THE AMERICAN GEOLOGIST, OCTOBER.

The Synchronism of the Lake Superior Region with other portions of the North American Continent: By N. H. WINCHELL. The author shows that a close similarity exists between the pre-

Silurian strata of the Lake Superior region and eastern New York (including adjacent areas in Canada and New England). This similarity is expressed in the lithological structural and faunal character of the rocks of the two regions. Strata of the Lower, Middle and Upper Cambrian are recognized in both districts. A plea is made for the use of lithological constants in correlating rocks belonging to the earlier epochs of geological history when similar oceanic and physical conditions spread over vast expanses of the earth's surface.

Brachiocrinus and Herpetocrinus: By F. A. BATHER. The generic terms *Brachiocrinus* and *Myelodactylus* were early applied to so-called arm fragments of crinoids. These seem to have been really stem fragments, and as such were later correctly described as *Herpetocrinus*, which term the author thinks wise to retain in place of the others. A revised diagnosis of *H. nodosarius* is presented.

Description of a New Genus and Five New Species of Fossils from the Devonian and Sub-Carboniferous Rocks of Missouri: By R. R. ROWLEY. The new genus is *Aristocrinus*, and the new species belong to the genera *Allagecrinus*, *Granatocrinus*, *Goniatites*; *Pleurotomaria* and *Murchisonia*.

The Elective System as Adopted in the Michigan Mining School: By M. E. WADSWORTH. The Michigan Mining School has recently adopted an elective system which allows more freedom of choice than that in any other mining or technical school. Two studies only—elementary geology and the elementary principles of mining—are required of all students, but there is in some cases a natural sequence of studies, so that students, in order to pursue advanced work in certain lines, must first complete the earlier work in the sequence.

Rock Hill, Long Island, N. Y.: By JOHN BRYSON. An immense boulder on the summit of Rock Hill is described and figured. This boulder is now about 50 by 20 feet, but the author thinks that it was originally, before being quarried for stone, more than 125 by 20 feet. Several other glacial features of the region are discussed.

The Geological Society and American Association Meetings: By WARREN UPHAM. An ex-

tended and complete account of the recent meetings at Springfield, Mass., is given. Abstracts of all the papers (and discussions) read before the Geological Society and before Section E of the A. A. S. are included.

The International Geological Congress.—A Correction: By ALBERT HEIM. Prof. Heim calls attention to some misstatements concerning himself which appeared in the account of the last meeting of the Congress.

NEW BOOKS.

The Manufacture of Explosives. OSCAR GUTTMANN. 2 Volumes. New York, Macmillan & Co. London, Whittaker & Co. 1895. Pp. xiii+348, xii+444. \$9.00.

Solution and Electrolysis. W. C. D. WHETHAM. Cambridge University Press. New York, Macmillan & Co. 1895. Pp. viii+296. \$1.90.

A Laboratory Manual of Organic Chemistry. DR. LASSAR-COHN. Translated by ALEXANDER SMITH. London and New York, Macmillan & Co. Pp. xix+403. \$2.25.

Bulletins of the U. S. Geological Survey, No. 118. Pp. vi+131. *A Geographic Dictionary of New Jersey*. HENRY GANNETT. No. 119. *A Geological Reconnaissance in Northwest Wyoming*. GEORGE HOMANS ELDRIDGE. Pp. vi+72. No. 120. *The Devonian System of Eastern Pennsylvania and New York*. CHARLES S. PROSSER. Pp. vi+81. No. 121. *A Bibliography of North American Paleontology*. CHARLES ROLLIN KEYES. Pp. vi+251. No. 122. *Results of Primary Triangulation*. HENRY GANNETT. Pp. vi+412. Government Printing Office, Washington, D. C. 1894.

Lakes of North America. ISRAEL C. RUSSELL. Boston and London, Ginn & Co. 1895. Pp. x+125. \$1.65.

Greenhouse and Window Plants. CHARLES COLLINS. London and New York, Macmillan & Co. 1895. Pp. x+160. 40 cts.

The Production of Coal in 1894. EDWARD WHEELER PARKER. From the Sixteenth Annual Report of the Director of the U. S. Geological Survey, Washington, 1895. Pp. 224.