

that a high area acts as a carrier to a cold wave. The most severe cold waves are those in which the low area extends in a long and narrow, trough-shaped depression from the northeast to the southwest.

Dr. Frankenfield regarded the question of drought purely as one of distribution. The rainfall might be normal during a year, yet there would be a severe drought at a certain season of the year, simply because the rainfall was unevenly distributed, being excessive in some months and deficient in others.

Its effect upon the corn crop was illustrated in the case of the present year, where there was a general deficiency of rainfall and yet sufficient precipitation in the late spring and early summer to insure the safety of the crop. Commencing in August, there was an abnormal deficiency, but this was too late to affect the crop.

Mr. Allerton S. Cushman gave an informal talk on the present state of our knowledge regarding Helium, showing that it has been definitely proved that Helium is not a simple elementary gas, but in all probability a composition of two or more elementary gases.

A. W. DOUGLAS,
Recording Secretary.

SCIENTIFIC JOURNALS.

THE AMERICAN GEOLOGIST, DECEMBER.

THE first article is by Prof. N. H. Winchell, and is devoted to the comparative taxonomy of the rocks of the Lake Superior region. This is the last in a series of ten papers under the heading 'Crucial Points in the Geology of the Lake Superior Region,' the object of which has been to review and criticise the Correlation Papers on 'Cambrian' and on 'Archean and Algonkian,' by Messrs. Walcott and Van Hise respectively. Aside from questions of nomenclature, in which, as noted in these columns before, Prof. Winchell differs from those authors, he emphasizes two fundamental differences between his classification and that proposed in the Correlation Papers. First, he maintains the *absence* of a great erosion interval between the upper sandstones of the Keweenawan and the horizontal sandstones (Upper Cambrian) of this region; and secondly, he separates from the Keweenawan certain

igneous rocks, especially the gabbros, which have usually been included in that formation. The paper is accompanied by a table giving a comparison between the classification adopted by the author and that used by the United States Geological Survey.

Mr. Oscar H. Hershey discusses the history of the river valleys of the Ozark Plateau from Jurassic time to the present day. He recognizes several periods of depression and deposition and of elevation and erosion, and summarizes these periods as follows: 1, Jura-Cretaceous peneplain; 2, Tertiary valleys; 3, Lafayette formation; 4, Quaternary valleys; 5, Columbia formation; 6, the present valleys.

Prof. F. W. Cragin, in a paper of nearly thirty pages, gives a careful account of the Belvidere (Comanche Cretaceous) beds of southern Kansas. The typical section noted is called the Elk-Otter section, and this is described in detail, and the fossils characterizing the different beds are listed. The paper includes a statement of the classification of the Comanche divisions and terranes as adopted by the author.

Under 'Correspondence' Prof. G. Frederick Wright presents the views of Dr. N. O. Holst on the continuity of the Glacial period as expressed in a recent paper by that author entitled 'Has there been more than one Ice age in Sweden?' The usual reviews of current geological literature, list of recent publications, and personal and scientific news are given; under the latter is a statement concerning the operations of the Geological Survey of New York during the year.

NEW BOOKS.

Lehrbuch der Botanik. DRS. STRASBURGER, NOLL, SCHENCK and SCHIMPER. Second edition revised. Jena, Gustav Fischer. 1895. Pp. vi + 556. M. 6.50.

Lehrbuch der Entwicklungsgeschichte des Menschen und der Wirbelthiere. OSCAR HERTWIG. Fifth edition revised. Jena, Gustav Fischer. 1895. xvi + 612. M. 11.50.

Geological Survey of New Jersey: Annual Report of the State Geologist for 1894. Trenton, The John L. Murphy Publishing Company, Printers. 1895. Pp. ix + 303.