

Orleans Weather Bureau Office. By the aid of this map the Bureau was able to give timely warning of the flooding of parts of the Atchafalaya Basin and towns therein that never before in the 200 years since settlement of the region had been reached by flood waters.

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#### DIVISIONS OF THE DECORAH FORMATION

IN studying the stratigraphy and paleontology of the Ordovician Decorah formation in northeastern Iowa, it has been found advisable to divide the formation into three members, here named and defined. The lowest of the three, the Spechts Ferry member, has as its type locality the ravine southwest of the C. M. and St. P. railroad station of Spechts Ferry, Dubuque County, Iowa, at which place the eight and one half feet of shales and interbedded limestones form a lithologic unit lying above the "Platteville" limestone; the "Platteville" of Iowa does not include the uppermost beds of the typical Platteville of southwestern Wisconsin. The Spechts Ferry member includes the "glass rock" and overlying shales at the top of the typical Platteville. The member is of latest Black River (Watertown) age.

The middle member of the Decorah formation, here named the Guttenberg, consists of about fifteen and one half feet of brownish, fine-textured limestone at its type section in the bluff of the Mississippi River just northwest of the town of Guttenberg, Clayton County, Iowa; northward from this locality this limestone grades into shale. In northwestern Illinois the Guttenberg is the "oil rock" member at the base of the Galena formation.

In the N. W.  $\frac{1}{4}$  of sec. 35, T. 96 N., R. 4 W., the Guttenberg limestone is overlain by sixteen feet of calcareous shale and argillaceous limestone that constitute the type section of the top member of the Decorah, here named the Ion member. The type locality is about a mile southwest of the hamlet of Ion, Allamakee County, Iowa. The Ion beds become more argillaceous to the northward, more calcareous to the southeastward.

The limestones of the two upper members of the Decorah have been irregularly dolomitized in the southeast part of their Iowa outcrop. The Guttenberg and Ion members are of basal Trenton (Rockland) age.

The Decorah formation thus consists of three members, in descending order, the Ion, Guttenberg and Spechts Ferry members, the type localities of which have been designated.

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#### A DAYLIGHT METEOR

I READ with interest the two notes that appeared in *SCIENCE*, entitled "A Daylight Meteor," the one of William L. Bryant which appeared in the issue of July 22, 1927, and that of Frederick H. Getman of October 14, 1927. These recall a daylight meteor which I saw in May, 1890.

I was working in a gravel pit at Maxwell, near Des Moines, Iowa, when my attention was drawn to a streak of bright red which dashed from 15 degrees west of the zenith toward the northeast, like a streak of lightning out of a clear sky, for there was not a cloud in sight. I called other workers' attention to it, all concluding that it alighted six or eight miles about north of us—when the papers the next day gave an account of its falling 400 miles distant, in northern Minnesota. The papers also stated that it exploded just before reaching the ground, and that the concussion caused by same broke out all the window lights in several small settlements in the vicinity of where it fell.

This meteor left a trail of smoke (and dust?) behind it which drifted about in the sky all the rest of the afternoon, not having settled at dark that night. This streak of smoke first appeared in a straight line along the line the meteor had fallen, then became wavy, showing different currents of air acting upon it.

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#### INTERFERENCE?

WHILE on a large forest fire on the Columbia National Forest in Washington, August, 1927, an unusual optical phenomenon was observed shortly after noon one day. The sky was clear save for the smoke column from the fire. This column was very compact, so much so that the upper protuberances had the appearance of burnished metal and the disc of the sun was not discernible through the smoke. The angle of the sun with respect to the observer was slightly below the top of the smoke column. On the N or NNW side of the top of the column there was a broad band of black. This band did not quite touch the smoke column, there was a narrow ribbon of blue sky visible in between, but it extended outward for several hundred feet, assuming that it was a mile or more and a quarter distant. The band did not appear to be a shadow, there could have been nothing behind it but blue sky yet it seemed as opaque as a strip of black cloth hung in the sky. It is unfortunate that a camera was not available as it probably would have photographed with good definition.