A Fossil Pine Cone from Drift of Northern Iowa

A. O. Thomas
East of the Des Moines river these moraines are poorly defined in many places. In Webster county they are low gravelly or sandy hills or knolls having a general trend from southwest to northeast. This trend continues in Wright and Hancock counties to the places where they respectively join the Gary moraine. In many localities in these counties the moraines occur as broad, low swells. The Humboldt stages correlate with the Antelope moraines described and mapped by Professor J. E. Todd in the Aberdeen-Redfield area in South Dakota.

IOWA STATE COLLEGE.

THE ALGONA RECESSIONAL STAGES OF THE WISCONSIN TILL IN IOWA

JOHN E. SMITH

The principal moraine of this Wisconsin group in Iowa extends from the northeastern corner of Winnebago County in a southwesterly direction, passing just west of Forest City into Kossuth County, in a large rounding curve whose margin is near Irvington south of Algona. This margin swings northwestward from the Des Moines River, crosses into Palo Alto County just north of Whittemore and passes a mile or more north of Medium Lake reaching the west fork of the Des Moines River about a mile north of Osgood. This moraine is much larger in Kossuth and Hancock counties than in the other counties through which it extends.

Other moraines of this group lie north of the principal one and are arranged somewhat concentrically parallel to it. Typical ones are to be seen just east of Thompson, one east and one west of Buffalo Center, near Lakota, Burt, Swea City and Armstrong. In all of these moraines the material and structure is typical of that which characterizes deposits along the margin of a retreating glacier. In some localities the till of the moraines is somewhat irregularly distributed.

DEPARTMENT OF GEOLOGY,
IOWA STATE COLLEGE.

A FOSSIL PINE CONE FROM DRIFT OF NORTHERN IOWA

A. O. THOMAS

A cast of a pine cone composed of limonite was recently found in a gravel pit near Britt. Its composition and appearance sug-
gest considerable antiquity. It is thought to belong to a Mesozoic or Tertiary *Sequoia*.

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SOME GONIATITES FROM THE PALEOZOIC OF IOWA

A. O. THOMAS

This type of cephalopod began in the Devonian and became the fore-runner of the Mesozoic ammonites. A few species occur in the Devonian, Mississippian, and Pennsylvanian rocks of Iowa. The relationships and significance of these are pointed out.

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PLEISTOCENE MAMMALIAN REMAINS RECENTLY FOUND IN IOWA

A. O. THOMAS

This is a continuation of the report made to the Academy two years ago. Some large limb bones from Clinton county, a few ribs from Shell Rock, and a toe bone from Salem belong to either the elephant or mastodon; a fine elephant tooth from Mason City and another from Melvin and in addition a remarkable dorsal spine from Salem complete the proboscideans. Part of a *Cervalces* skull from Langworthy, the molar of a horse from Missouri Valley, and a few slender limb bones of a deer from Spencer complete the list.