

## INTERESTING DEPOSIT OF ALUMINA OXYHYDRATE. BY GEO. W. BENTON.

[ABSTRACT.]

1. Report of trip to Southwest Missouri, March, 1894.
2. Alumina found in pool of spring water.
3. The springs brought in the deposit.
4. A careful survey of the region proved that the deposit is forming, and is not stored up in quantity.
5. The source a pure aluminum silicate which abounds in quantity in that region.
6. Some possible uses of the deposit and the silicate.
7. Theory of the decomposition.

## OBSERVATIONS ON THE GLACIAL DRIFT OF JASPER COUNTY, BY A. H. PURDUE.

The writer begs to state that his experience in glacial geology, the time spent in field work on the material herein presented and the territory explored are all limited; and that he does not claim for the paper any more than its title indicates, viz.: observations on the glacial drift of the locality named. It is proper to state further that these observations have been confined mainly to that part of the county lying south of the Iroquois River.

Jasper County is situated in the northwestern part of the State, with Porter County intervening between it and Lake Michigan, and is separated from the State of Illinois by Newton County. It is, therefore, in one of the most active fields of all the glacial epochs. Mr. Collett claims (Twelfth An. Report Geol. and Nat. Hist. of Ind., page 66,) that glacial erosion has removed from fifty to two hundred feet of rock from the entire surface of the county. This great erosion, and subsequent glacial action, has left it practically level, and with poor drainage, so that numerous peat marshes abound in all parts of the county, varying in size from a half acre and less to several thousand acres. Notably among the larger ones are "Gifford Marsh," a swamp of 12,000 or 15,000 acres, lying twelve miles northeast of Rensselaer, and the "Blue Sea," a similar marsh, lying in the southeastern part of the county. Only the former of these has been visited by the writer. It is an old glacial lake filled up with peat and muck, varying in depth from three to fifteen feet, the monotony of which is broken by numerous accumulations of sand, which in form imitate drumlins.

Many wells have been drilled in all parts of the county, but no compilation of the data furnished by them has been made, so that nothing is known of the subglacial topography. It might be stated, however, that the drift varies in depth