GYPSUM CRYSTALS FROM ALFALFA COUNTY, OKLAHOMA

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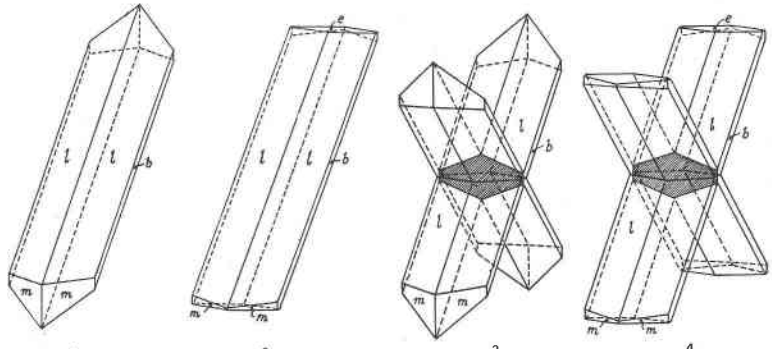
The gypsum crystals described in this article were found in Sec. 36, T. 26 N., R. 10 W., in the Salt Plains of Alfalfa County, Oklahoma. They were presented to the writer for identification by Dr. Ralph Bird.

The Salt Plains is a saline marsh, of approximately sixty square miles, in the central part of the county. The floor of the plain is composed of silt and fine sand, covered with a thin layer of salt crystals. The salt crust has been formed by the evaporation of saline solutions, which probably obtained their constituents from the underground salt beds of the Enid formation (Permian).

A few scattered gypsum crystals are found in the salt layer. These crystals vary in length from one-half to two inches and have a brown color, due to impurities of iron oxides.



The gypsum has four distinct crystal habits, namely:

1. Crystals with well developed $l(111)$ and smaller $e(\bar{1}03)$ and $b(010)$ forms. Fig. 2.

2. Crystals with well developed $l(111)$ and small $m(110)$ and $b(010)$ forms. Fig. 1.

3. Penetration twins of the $l(111)$, $e(\bar{1}03)$ and $b(010)$ habit; twinning plane (100). Fig. 4.

4. Penetration twins of the $l(111)$, $m(110)$ and $b(010)$ habit; twinning plane (100). Fig. 3.