IV. AN UNEXPLAINED FORM FROM THE RED BEDS

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The specimen is a cube of red shale 3¼ inches on a side which was taken from the bottom of a ravine 12 feet deep in the SE. 1-4 of sec. 27, T. 24 N., R. 8 W. Water flows in the ravine at times and when found the cube had been partly uncovered by the recent rains. Another similar cube about 1¼ inches square was near this one, but it was impossible to get it out. The material of both the cube and its surroundings is of ordinary red sandy shale. The form of the cube bears a great resemblance to a halite crystal and has the skeletal or hopper shaped sides so often seen in that mineral. The interior of the form, however, does not show crystal structure.

Two other similar forms are in the Oklahoma State Geological Survey collections. One is in a gray shale from sec. 24, T. 21 N., R. 15 W., the other in a pinkish shale from sec. 34, T. 22 N., R. 1 W.

Two somewhat reasonable explanations of the form have been suggested. One is that they are the result of slow crystallization of a mineral from a solution containing a great deal of mud. This would be somewhat like an explanation that has been given for the formation of the barite rosettes of Oklahoma and the sandstone crystals of South Dakota.

The other explanation is that a crystal of salt was first formed and embedded in the shale, then later dissolved out and the mud deposited in the cavity.