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Stalactitic-like Deposits Found in a Gravel Pit in Black Hawk County

By E. J. CABLE

Stalactites are formed in caverns and are generally attached to the roof of caverns or to some projecting edge. They may assume many shapes which is largely determined by the manner in which the water trickles over them, and also the amount of water present.

A stalactite which is broken across reveals a radial structure with fibrous crystals often passing across concentric zones of growth. The stalactite grows by calcium-bearing waters trickling over the surface. It is lengthened and extended from the center of the stalactite. Stalactites have their starting points on the wet roof of caverns where drops of water gather and begin to evaporate, losing the carbon dioxide. The drops are thus saturated with carbonate and thus deposit the excess carbonate around the water drops. Continuous drops lengthen the rings into icicle-like pendants which generally become a solid stalk.

The icicle-like forms shown in Figure 1 were brought to me as fulgurites. They are not fulgurites nor are they stalactites. Fulgurites are hollow and these icicle-like forms do not show the structure of stalactites.

The writer is of the opinion that they are some form of "rock-

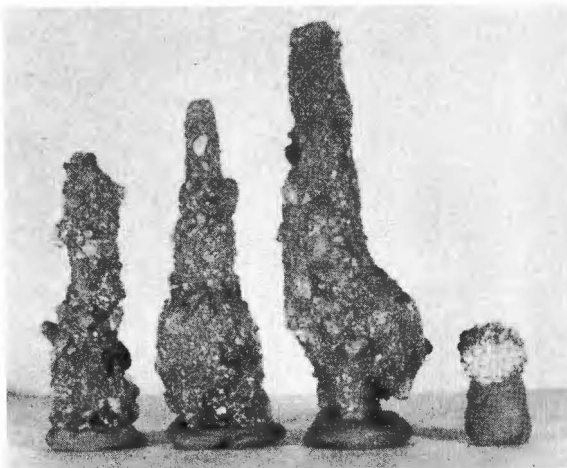


Figure 1. Stalactitic-like deposits found in gravel pit in Black Hawk County.

concretions" formed in the gravel. Such concretions are quite common in sand and clay, but it seems quite possible that roots from growing vegetation could work their way down to some depths in the gravel and sand. Later, the roots die and then water could find its way down the decomposed root stems carrying cementing substances, in this case, iron that would knit together the sand and gravel particles surrounding the roots, thus giving them the shapes shown in Figure 1.

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