

EROSIONAL FREAKS OF THE SALUDA LIMESTONE.

ELMER G. SULZER, Madison.

In the Madison region, the Saluda Limestone presents many peculiar freaks of erosion. The best exposures of these peculiarities are on the Hitz Hill, immediately northwest of Madison.

There is exposed in part of the quarry (extreme east part) about ten feet of typical limestone. Its top is distinctly formed and above it are several feet of white, chalky clay, doubtless formed by the decomposition of this same formation. The section as above described extends for about thirty feet. Beyond there is a sharp, clean-cut projection of the rock. Where this projection is supposed to join the



Figure showing the irregularity of erosion of the saluda limestone.

main body, however, a crack from one to three inches wide intervenes. This gives rise at first to the supposition that there may be a fault, but this possibility is speedily ruled out when, by minutely tracing the rock courses, similar occurrences of them on a smaller scale are found.

Probably the most wonderful thing about this section and many similar ones in this locality is the presence of this chalky stratum at different levels. This stratum is at times both overlaid and underlaid by limestones and does not blend into them but is separated from them by distinct lines of contact. In the section discussed above chalky strata also occur in the projection but at a very different level. At the same level in the main quarry is the solid limestone.

REMNANT MONUMENT NEAR MADISON.

ELMER G. SULZER, Madison.

In 1898 Dr. Chas. R. Dryer* described Jug Rock, a peculiar example of erosion in Martin County, Indiana. The existence of monuments of a similar character near Madison is well known to only the few scien-



Fig. 1. Complete pinnacle.



Fig. 2. Wide monument with cave formation.

* Proc. Ind. Acad. Sci., 1898, p. 268.

tists who have had occasion to do work there. These curiosities have been formed from the Laurel Limestone of the Niagara series. The most eastern exposures of this formation on the Ohio River occur only about two miles east of Madison. By the time the formation reaches Madison practically its entire thickness is exposed. The monuments are first found, going west, in Wilburs Woods, one-half mile north of Madison. The accompanying illustrations serve to give some idea of their



Fig. 3. Isolated monument.

character. They are a very noticeable feature along the river some distance below Hanover Landing, but their full development is found in the above mentioned locality. I have noticed these monuments in Jefferson County at times standing individually as Jug Rock, at times maintaining a partial connection with the mother rock, and again being only a pinnacle. They can be seen in all stages of development in this locality.