

COMPARATIVE CRUSHING STRENGTH OF CUBES AND PRISMS OF BEDFORD LIMESTONE. BY W. K. HATT.

[ABSTRACT.]

An examination of the curve representing Baushinger's experiments on the crushing strength of stone cubes as compared with the strength of stone prisms, will show that the law of variation of strength is such that the strength of a prism whose height is $1\frac{1}{2}$, the length of its base will be only 92 per cent. the strength of a cube of equal section. It is a matter of doubt whether such a difference will occur between tests of any given specimens of the variation in height mentioned under the ordinary condition of testing.

Tests of 31 specimens of Bedford Limestone (of rather soft variety) made at Purdue University, show that 17 cubical specimens ($4 \times 4 \times 4$) were slightly weaker than 14 prisms ($4 \times 4 \times 6$) of the same material, subjected to the same conditions throughout. Specimens were bedded in plaster of paris. The average angle of failure in shearing was 64.5 degrees.

SOME MOUNDS OF VANDERBURGH COUNTY, INDIANA. BY A. H. PURDUE.

Exactly in the southeast corner of Vanderburgh County, Indiana, is a collection of mounds and earthworks, which, so far as I am aware, have never been fully described,* and which are doubtless among the most interesting of the State. They are locally known as the Angel Mounds, taking their name from the owner of the land on which they occur.

As the ground upon which they are situated is nearly all under cultivation and the mounds are rapidly disappearing, it is desirable that a description of them be placed in permanent form.

The remains are situated upon the alluvial soil of the Ohio River, north of Three Mile Island, and lie between two bayous, one on the south separating Three Mile Island from the main land, and an older one on the north.

When in a perfect state there was probably an inclosure, formed by the bank of the bayou on the south and an irregularly curved wall, presumably a rampart, either end of which was terminated by the embankment. At present there are about 1,400 yards of this wall remaining. As it now stands it is from 5 to 10 feet wide at the base, and from 1 to 2 feet high. At intervals, usually of from 37 to

*An imperfect description of these mounds will be found in the Smithsonian Report, 1881, p. 591.