the gasket was removed from the outside and the clay from the inside.

The work of calking was then begun. The first tool used was an ordinary cold chisel, which partially drove the lead away from the pipe, after which three different sizes of calking tools were used to drive the lead tightly into the joint. It can readily be seen that calking the side and top of the pipe would be comparatively easy, but it is just as necessary that the under side of the pipe should be calked tight, and that it is much more difficult work. It was accomplished by two workmen, both lying alonside of the pipe on opposite sides, and each clasping the other's arm. The one held the chisel and different calking tools while the other used the hammer. By this means the work is made comparatively easy and a strong, safe joint is secured.

### CRUSHING STRENGTH OF STONE.

The universal custom in determining the stability of the stone to resist pressure is to test the comparative resistance of small cubes. The results obtained by testing small specimens of stone are very useful in determining the relative strength of different kinds of stone, but such results are of no value in determining the ultimate strength of the same stone when built into a masonry structure. The strength of a mass of masonry depends on the strength of the stone, on the size of the blocks, on the accuracy of the dressing, on the proportion of headers to stretchers and on the strength of the mortar. A variation in one of these items may greatly change the strength of the masonry. The importance of the mortar as affecting the strength of masonry to resist direct compression is generally overlooked. The mortar acts as a cushion between the blocks of stone, and if it has insufficient strength it will squeeze out laterally and cause a tensile strain; therefore, weak mortar causes the stone to fail by tension instead of by compression. Stone is several times stronger to resist compression than tension, and hence, where great strength is required it is necessary that the mortar should be of the best.—Stone.

An extremely hard coating for wood is made by heating 50 parts resin together with 50 parts chalk, 50 parts sand and 4 parts linseed oil in an iron kettle; add 1 part oxide of copper and 1 part sulphuric acid (the latter with caution). After mixing it carefully, the mass is spread, while hot, upon the wood by means of a hard paint brush. Add more linseed oil if too thick.

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