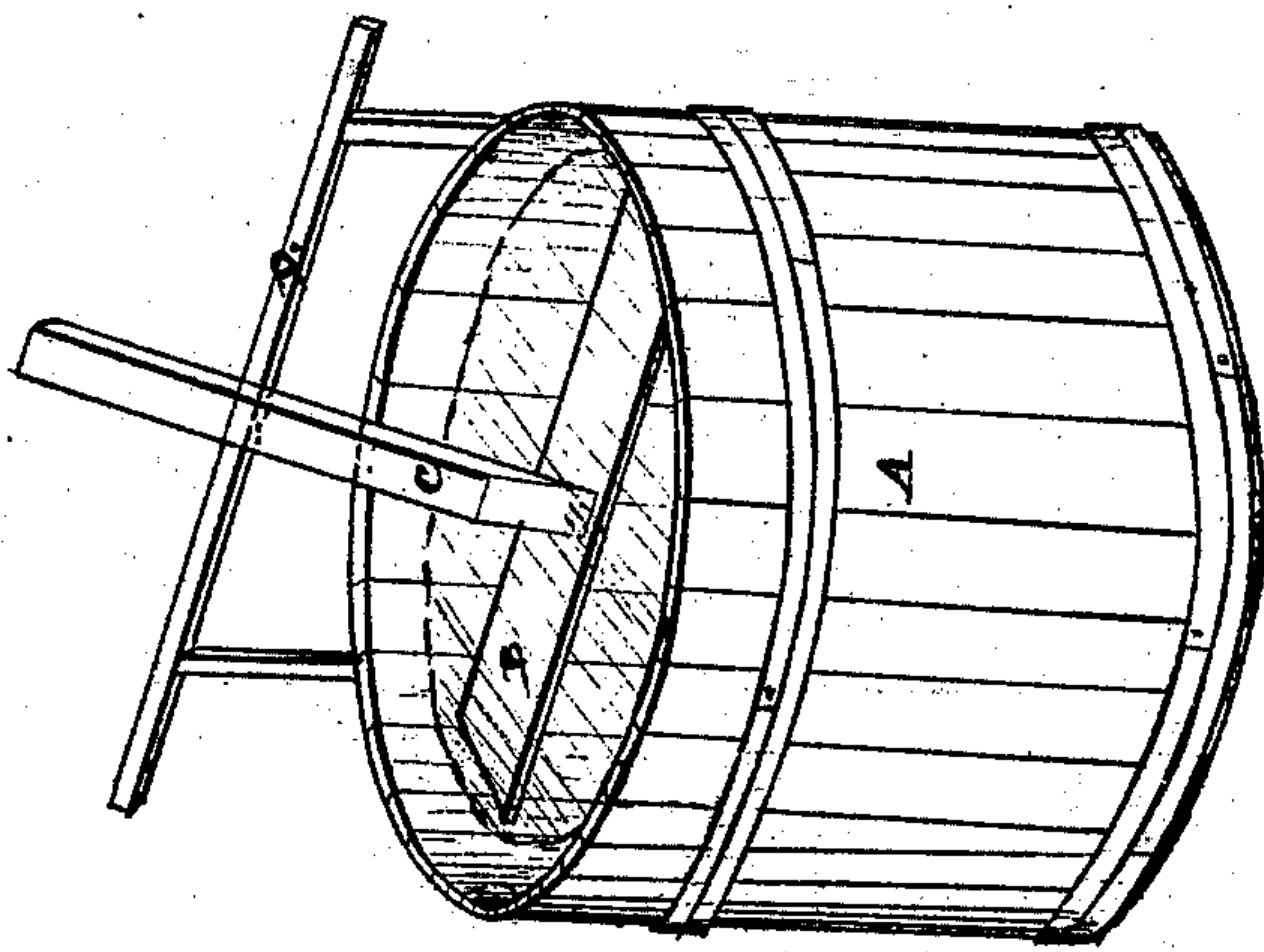


*W. M. Everitt,*  
*Tempering Chisels.*  
*No. 56,916.* *Patented Aug. 7. 1866.*

*Fig. 1.*



*W. M. Everitt*  
*Nov 15 1865*

*{ Witnesses*  
*{ J. S. Van Housen*  
*{ C. A. Hummel*



# UNITED STATES PATENT OFFICE.

WM. M. EVERITT, OF MALDEN, NEW YORK.

## IMPROVED APPARATUS FOR TEMPERING CHISELS.

Specification forming part of Letters Patent No. 56,916, dated August 7, 1866.

*To all whom it may concern:*

Be it known that I, WILLIAM M. EVERITT, of Malden, Ulster county, State of New York, have invented certain new and useful Improvements in Tempering or Hardening the Edges or Points of Chisels for Planing or Cutting Stone; and I do hereby declare that the following is a full description of the same.

The object of my invention is to obviate the great difficulty heretofore experienced by stone-cutters in dressing or cutting stone by machinery in preserving the cutting edges or points of the chisels from breaking immediately on being subjected to any unusually hard labor. The common practice of preparing the chisel for such work has been to harden or temper the chisel as far as red-hot. Experience, however, has shown that when they have been tempered in this manner they will not endure any labor; but, on the contrary, when coming in contact with any hard substance or seam in the stone, the end of the chisel is immediately broken at a point varying from half an inch to one inch from the cutting-edge. The consequence of this is not only the greater labor of drawing down the point of the chisel again, but also the loss of the metal thus broken off, as it is found practically impossible to weld the short end of the chisel on the stock again to make anything like a durable chisel.

My invention, therefore, is to overcome these objections; and the nature of my invention consists in hardening or tempering the point or edge of the chisel for about one-eighth to half an inch deep only, while leaving the stock or body of the chisel untempered, or in its natural state, thereby retaining all the toughness of the fiber of the metal, to prevent its being broken when coming in contact with hard obstructions in the stone, which operation is effected by means of a rack adjusted in a tub of water that suspends or holds the chisel in a vertical position, or nearly so, with the point of the chisel immersed in the water to a depth not exceeding one-eighth of an inch, or one-half an inch at the outside.

But to describe my invention more particularly I will refer to the accompanying drawing, forming a part of this specification, the same letters of reference, wherever they occur, referring to like parts.

Figure 1 is a perspective view of the tempering-bath and rack for supporting the chisel with the chisel arranged thereon.

Letter A is an ordinary tub or bath of water. Across the inside of it, near its upper edge, is secured a table, B, which is just submerged in the water—that is, the water is never to be more than about one-eighth to half an inch deep on it. The object of this is to prevent the point of the chisel C from being chilled or hardened to a greater depth than the depth of the water covering the table.

To keep the chisel in a vertical position, or nearly so, a rack, D, is secured to the side of the tub and sufficiently elevated to allow the stock of the chisel to rest against it until the point is hardened.

By this arrangement it will be perceived that the point of the chisel only is tempered, and at the same time with the greatest uniformity of temper and depth to which the point is hardened, as well as with great rapidity, as the tempering-man has only to obtain the proper heat of the chisel in the forge and place on the rack in the bath to obtain the temper of the chisel; whereas, if attempted to be tempered at the point not exceeding in depth an eighth of an inch or more than half an inch by dipping by hand in the water, it would not only be exceedingly difficult to limit the immersion of the chisel to the proper depth, but also would take up a great deal of time where many chisels are required to be sharpened.

These chisels are more especially intended for use in stone-dressing machinery as applied to planing the blue flag-stone, but may be used in any machinery for planing sandstone or marble with equally good result, as all chisels used in machinery for such purposes are subject to constant breakage from the same causes that operate to break them in planing the blue flag-stone—that is, having the stock of the chisel hardened throughout its entire length, instead of being hardened only at the point, as invented by me.

Having now described my invention, I will proceed to set forth what I claim and desire to secure by Letters Patent of the United States:

The combination of the table B and rack D with the tub or water-bath A, for the purposes hereinbefore set forth.

WM. M. EVERITT.

Witnesses:

WM. S. VAN HOESEN,  
C. N. HUMMEL.