

A. J. HINDS & J. S. HOWE.

Saw-Sharpening Swage.

No. 133,988.

Patented Dec. 17, 1872.

Fig. 1.

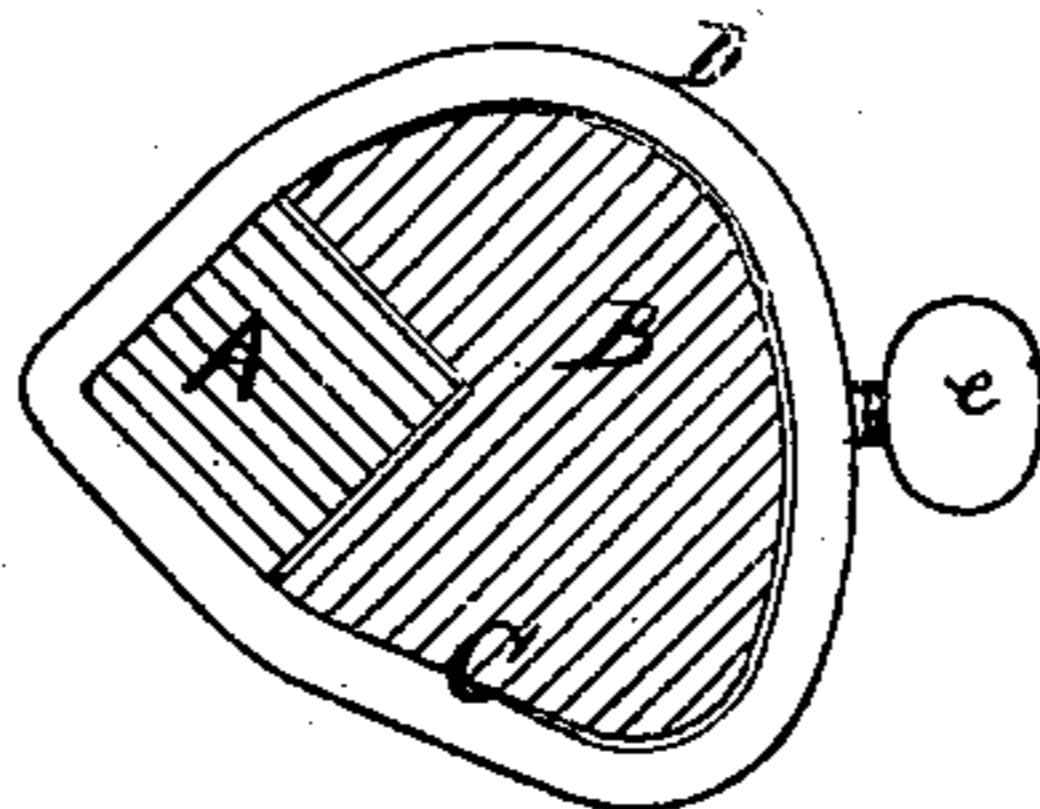


Fig. 2.

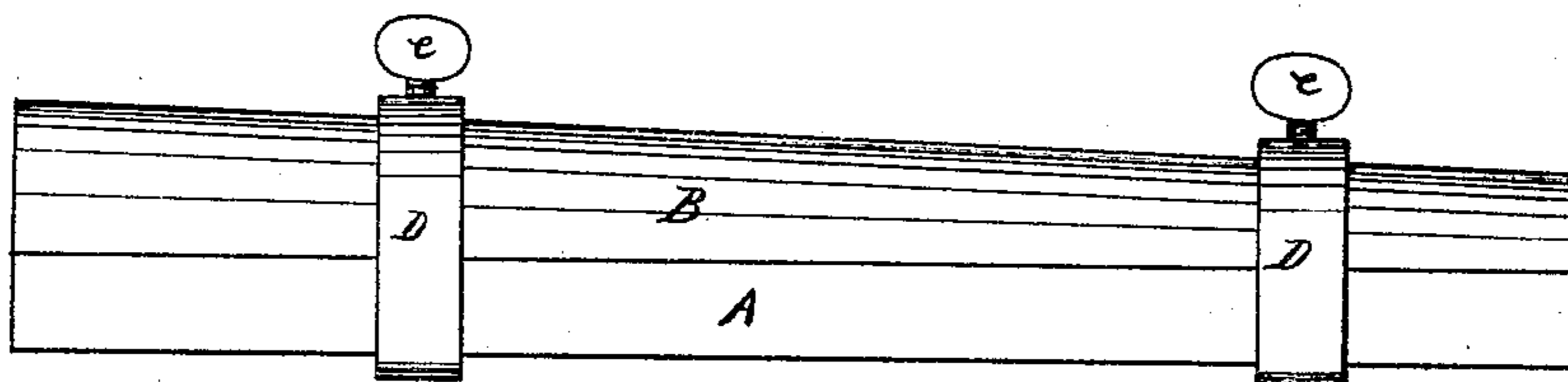
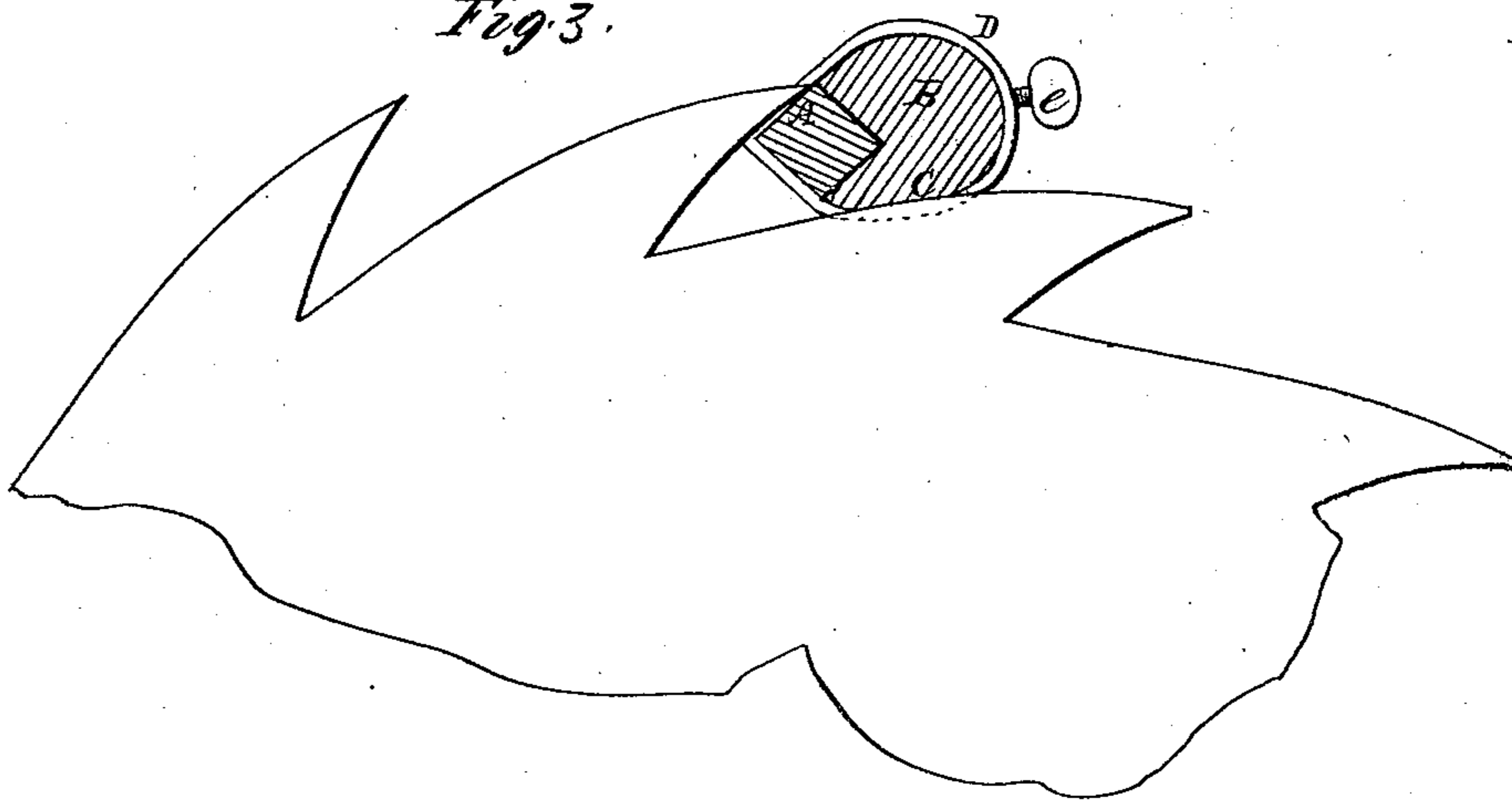


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

ALFRED J. HINDS AND JAMES S. HOWE, OF SANTA CRUZ, CALIFORNIA.

## IMPROVEMENT IN SAW-SHARPENING SWAGES.

Specification forming part of Letters Patent No. 133,988, dated December 17, 1872.

*To all whom it may concern:*

Be it known that we, ALFRED J. HINDS and JAMES S. HOWE, of Santa Cruz, county of Santa Cruz, and State of California, have invented an Adjustable Swage for Saw-Teeth; and we do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use our said invention without further invention or experiment.

Our invention relates to an improved swage for widening and sharpening the points of saw-teeth. Usually the points of saw-teeth are widened so as to cut a kerf wider than the saw-blade by means of an upset and the tooth afterward sharpened by a file. Sometimes a tapering swage made of steel in the form of an octagon is used, but this swage is apt to mar the edge of the saw-plate upon which it bears. Our improvement consists in combining a steel bar, upon which the tooth to be widened is hammered, with a wooden stock or base in such a manner that the wood will rest upon the edge of the saw-plate while the tooth is hammered upon the steel bar in order to flatten and sharpen it.

In order to more fully illustrate and explain our invention, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an end view of my swage; Fig. 2 is a side elevation; and Fig. 3 shows the swage in position for sharpening the saw-teeth.

A represents a square steel bar of the desired length. The stock B is made of the same length as the bar A, and tapers gradually from one end to the other. The particular form or shape of this stock is immaterial, but we prefer to make it with a cross-section somewhat in the shape of an egg, with one

side, C, slightly flattened. The pointed or narrow edge of this stock is provided with an angular groove or recess extending its entire length, into which the bar A fits in the manner shown at Fig. 1, thus exposing two sides of the bar A. The two parts are then bound together by means of bands D D, which slide on over the two from the smaller end, and which can be secured at any point desired by set-screws e, which turn down against the wood. Other clamping devices can be used if found more convenient for retaining the two parts together.

In using the swage, the flattened portion of the wood or stock B will rest upon the edge of the saw-plate, so that the point of the tooth will bear upon the side of the steel bar A, in which position the tooth can be widened and sharpened by hammering in the usual way.

By this means the tooth is better and easier swaged, and in much less time than when the ordinary swage is used. The steel bar can be adjusted back and forth either way, as desired, so as to retain the middle portion of the steel bar against the tooth, affording nearly an even balance, which is an important consideration.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

A swage for widening and sharpening saw-teeth consisting of the steel bar A and wooden stock or base B, substantially as and for the purpose above described.

In witness whereof we have hereunto set our hands and seals.

ALFRED J. HINDS. [L. S.]  
JAMES S. HOWE. [L. S.]

Witnesses:

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