

J. E. EMERSON.
Saw-Swages.

No. 151,370.

Patented May 26, 1874.

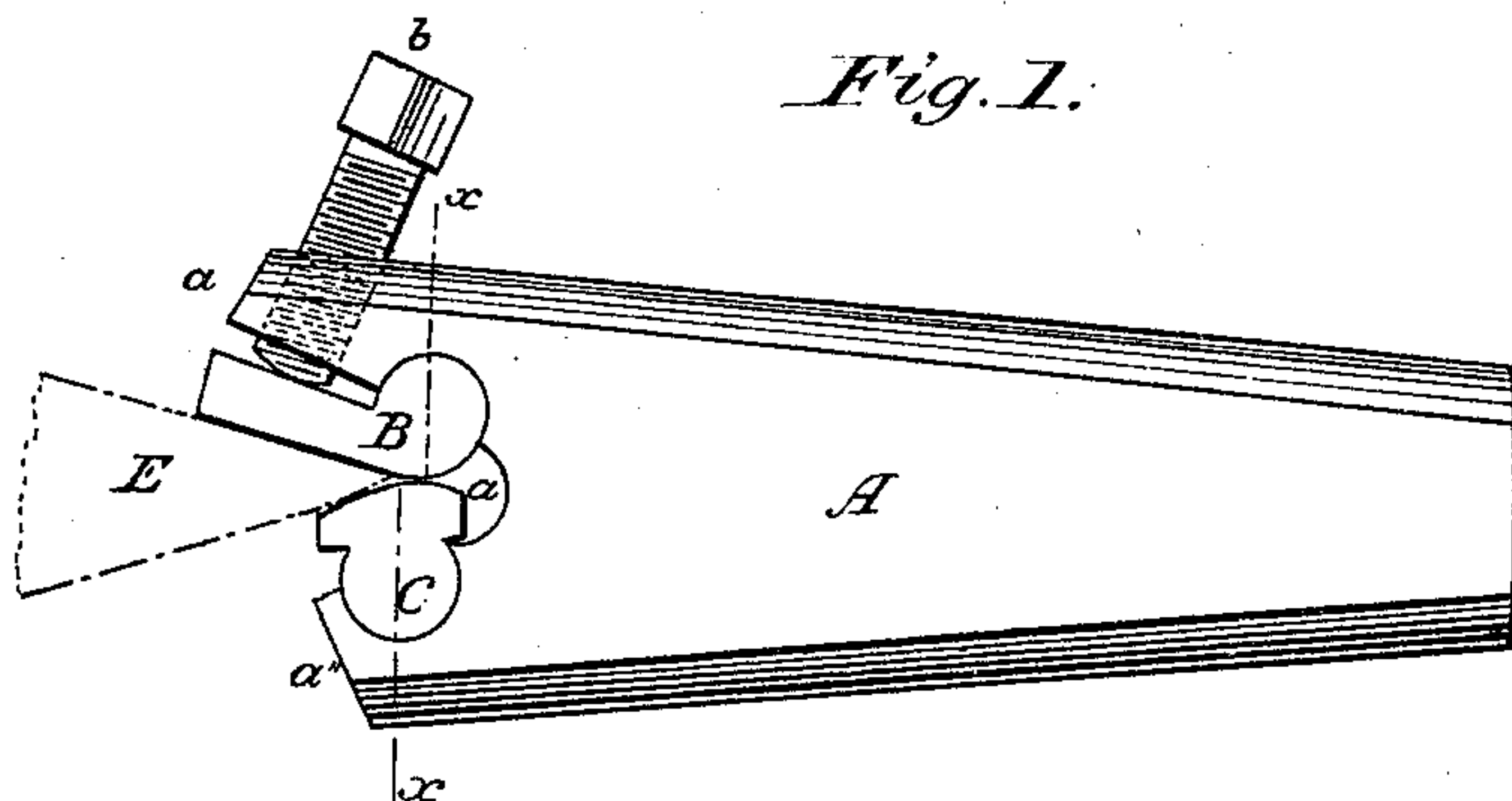


Fig. 2.

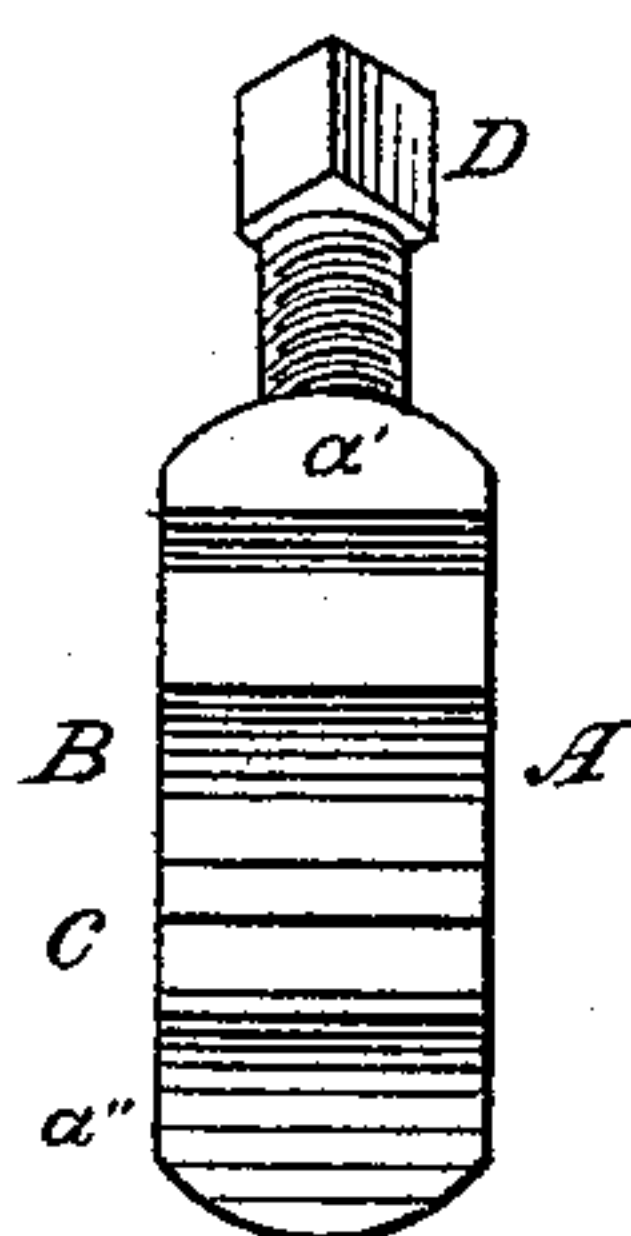
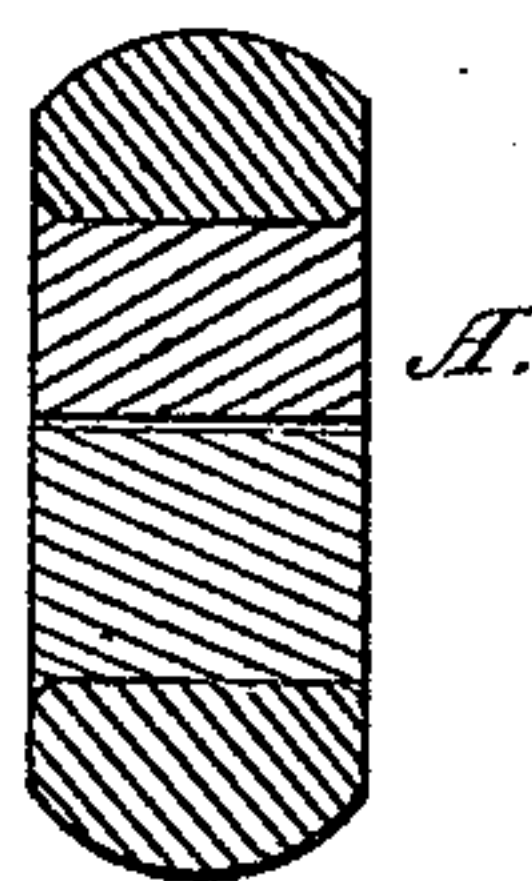


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES E. EMERSON, OF BEAVER FALLS, PENNSYLVANIA.

IMPROVEMENT IN SAW-SWAGES.

Specification forming part of Letters Patent No. **151,370**, dated May 26, 1874; application filed April 22, 1874.

To all whom it may concern :

Be it known that I, JAMES E. EMERSON, of Beaver Falls, in the county of Beaver, in the State of Pennsylvania, have made certain Improvements in Swages for Shaping and Dressing the Cutting-Edges of Saw-Teeth, of which the following is a specification :

The object of this invention is to improve upon the one patented to me September 16, 1873; and it consists in the construction of the parts of the swage that act upon the saw-teeth in swaging, to do away with the friction between the compressing parts and the tooth, as will be fully hereinafter described.

In the drawings, Figure 1 represents a side view of the swage; and Figs. 2 and 3, transverse sections; and in which—

A represents the body of the swage; *a*, the mouth or angular opening in its end to receive the movable compressing faces or anvils. *a'* and *a''* are the two jaws in which the compressing faces or anvils are hinged. B is a movable compressing face or anvil, and against which the under side of the tooth to be swaged is placed, and has a kind of knuckle-joint of more than half of a circle projecting from the side opposite the face, or that part that is placed against the under side of the tooth, which round projection fits into a recess in the jaw *a'*; that at each side of the body of the swage is countersunk so that the ends of the hinge or round projection may be slightly riveted or upset into the countersinks, and prevent the anvil or face from becoming detached

from becoming detached from the jaw *a'*, but not to be set in its position, as it must vibrate in the jaw freely, so as to receive the teeth of saws having differing angles, and fit upon all. This adjustable anvil B is adjusted to differing angles, and held by the temper-screw *b*. C is another slightly-moving anvil or compressing face inserted and held in jaw *a''* in a similar way that B is, but is not adjustable, and is left free to travel with the tooth as the swage is forced onto the tooth by the blow of the hammer. The face of anvil C, where the tooth comes in contact, is circular and nearly concentric with the center of its vibration in jaw *a''*. E is a tooth, upon which the swage is placed, and it can be readily seen that, by striking the swage A with a hammer to drive it upon the tooth, anvil B will give way to the shape of the tooth, while anvil C will vibrate in its seat as much as the swage is driven upon the tooth, and thereby form a non-frictional swage, because there is no sliding of parts upon the tooth in the act of swaging.

Having so described my improvement, what I claim is—

In a saw-swage, the combination of the vibrating anvil C with the adjustable vibrating anvil B, constructed and operating substantially as and for the purpose described.

JAMES E. EMERSON.

Witnesses:

A. G. MCCREARY,
IRA RANSOM, Jr.