

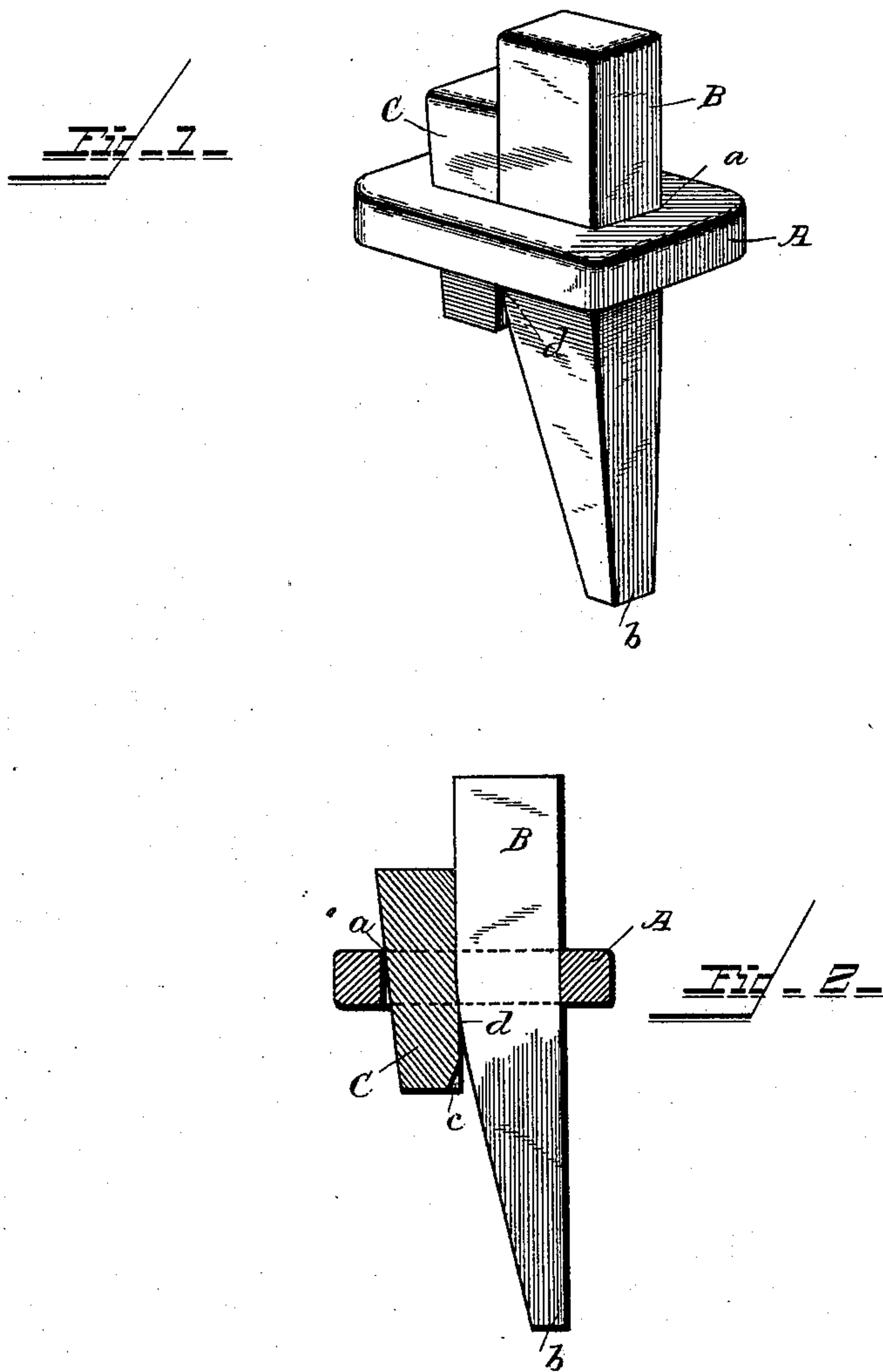
(No Model.)

H. GATES.

SAW SET.

No. 389,644.

Patented Sept. 18, 1888.



Witnesses

*Albert Speiden*

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By *his* Attorney

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# UNITED STATES PATENT OFFICE.

HOWARD GATES, OF ELK RAPIDS, MICHIGAN.

## SAW-SET.

SPECIFICATION forming part of Letters Patent No. 389,644, dated September 18, 1888.

Application filed June 21, 1888. Serial No. 277,799. (No model.)

*To all whom it may concern:*

Be it known that I, HOWARD GATES, a citizen of the United States, residing at Elk Rapids, in the county of Antrim and State of Michigan, have invented certain new and useful Improvements in Saw-Sets; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in devices for setting saws; and it has for its objects simplicity and economy of construction and to render the device more durable and efficient in operation.

To these ends and to such others as the invention may pertain the same consists in the peculiar combinations and in the novel construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a vertical end elevation of my improved saw-set. Fig. 2 is a similar view with the parts separated, but shown in their relative positions.

Referring now to the details of the drawings by letter, A designates a slide, loop, or band, the opening *a* in which is rectangular in form.

B is the body of the punch or plane, which from the point *b* upward is wedge-shaped both in horizontal cross-section and transverse cross-section, and from the point *b* to the point *d* is inclined in the opposite direction at a greater angle.

C is a block or die, wedge-shaped, as shown, and formed on its lower inner face with a notch, *c*, designed to fit over the point of the saw-tooth. In practice the block C can be placed anywhere on the plane portion of the die, according to the width of the set desired, and there fastened by the band A, which is put on from the lower end of the die. It will be readily seen that the block C being an inclined plane, putting the band A from the lower end of the die, the block can be fast-

ened wherever wanted on the plane portion of the die, according to the width of the set desired. The nearer the top the band is set the wider the set produced upon the saw-tooth, and toward the bottom a narrower set is obtained. The saw must be secured in a vise or similar holder. The saw-set is placed perpendicularly upon the point of the tooth, so that the lower inclined portion of the die comes against the side of the saw, the point of the tooth fitting into the notch *c* in the lower end of the block C, when by striking lightly with a hammer or other suitable device the point of the tooth is bent laterally and the set formed.

Importance is attached to the peculiar arrangement and adaptation of parts, there being less elements to the set than in those previously devised, making it less liable to get out of order and rendering it less liable to injury by breakage, dispensing with the screw heretofore necessary as a gage, and providing a firm bearing for the tooth of the saw throughout its entire length at all times, the die itself acting as a gage, being regulated by the adjustable block. Furthermore by my construction the wider the set needed the greater the length of angle from the point of the tooth, which is an important feature, insuring much better work, for when the length of angle is not changed as the set is changed, especially when setting very wide, it bends the tooth too much on the point.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. The combination, with the band, of the die and the block formed with the notch in the lower inner face and made wedge-shaped, substantially as described.

2. The combination, with the band having rectangular opening *a*, of the wedge-shaped block having a notch, *c*, in its lower inner face, and the die having plane portion and formed with a sharp inclined portion below the plane portion, substantially as described, and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

HOWARD GATES.

Witnesses:

R. W. BAJOT,

H. W. NEWKIRK.