

L. H. BIGELOW.
Device for Setting, Jointing, and Gaging Saw-Teeth.

No. 219,438.

Patented Sept. 9, 1879.

Fig. 1.

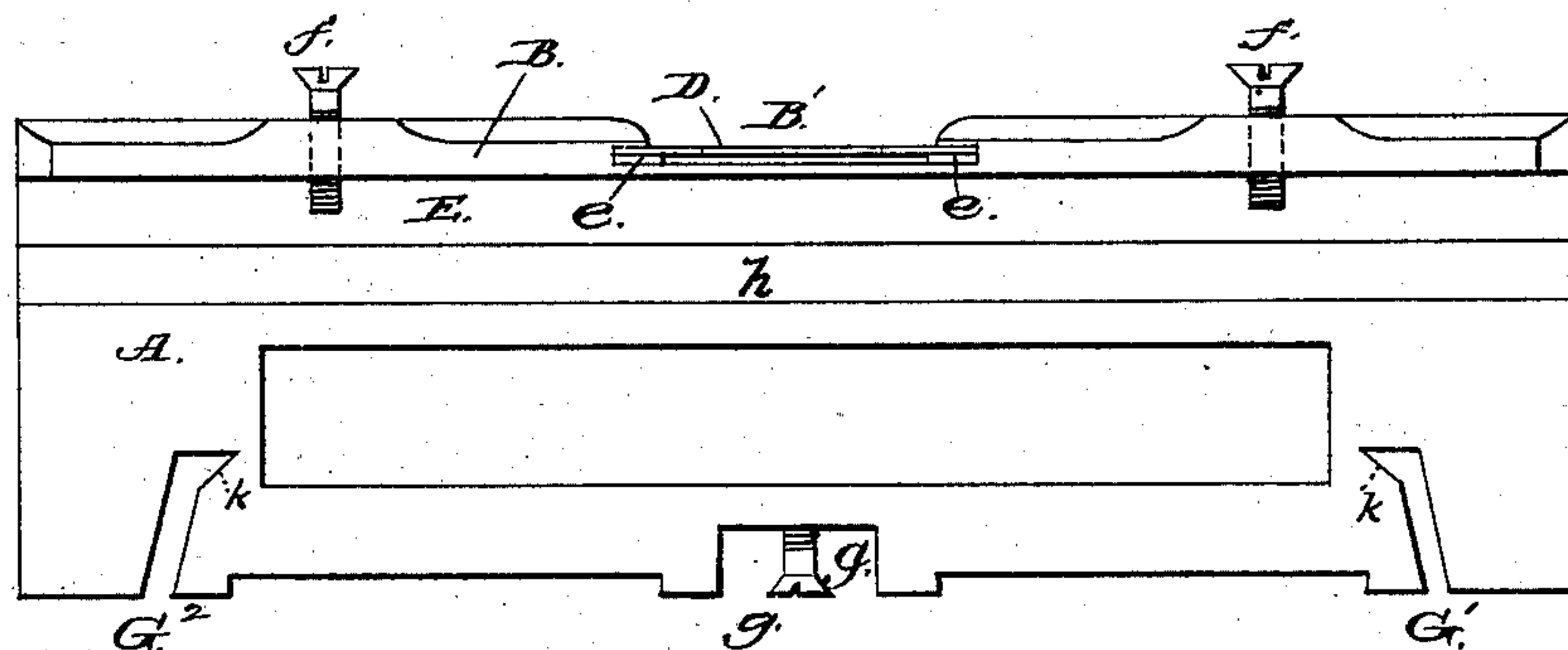


Fig. 2.

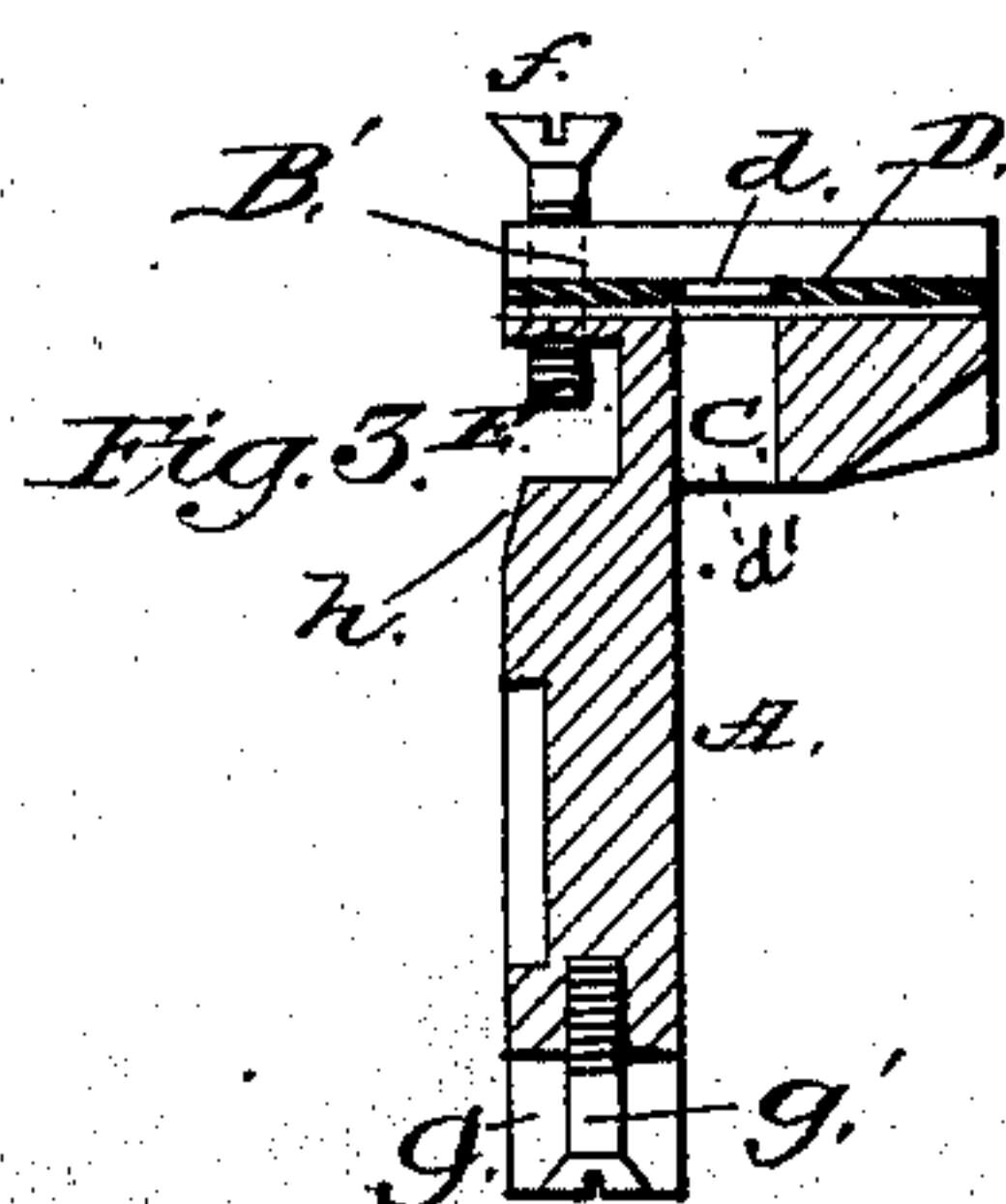
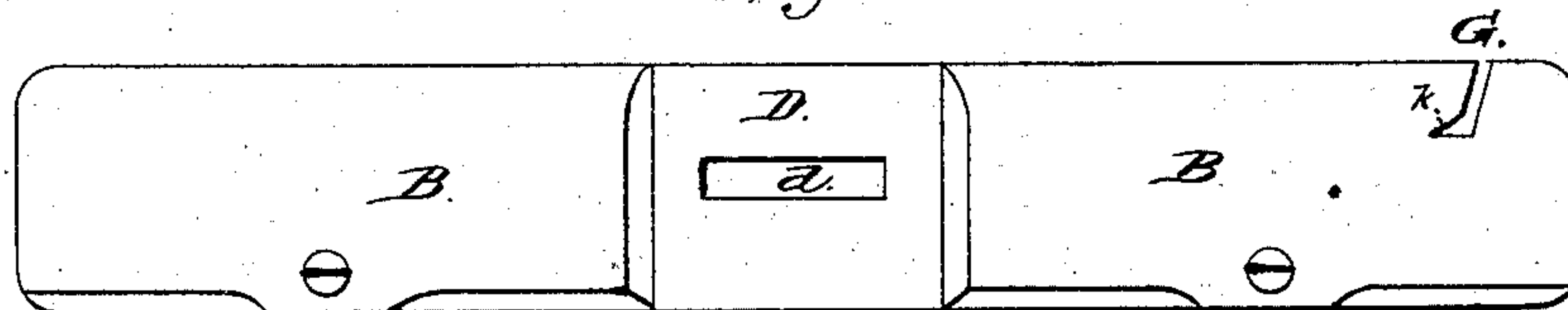


Fig. 3.

Fig. 4.

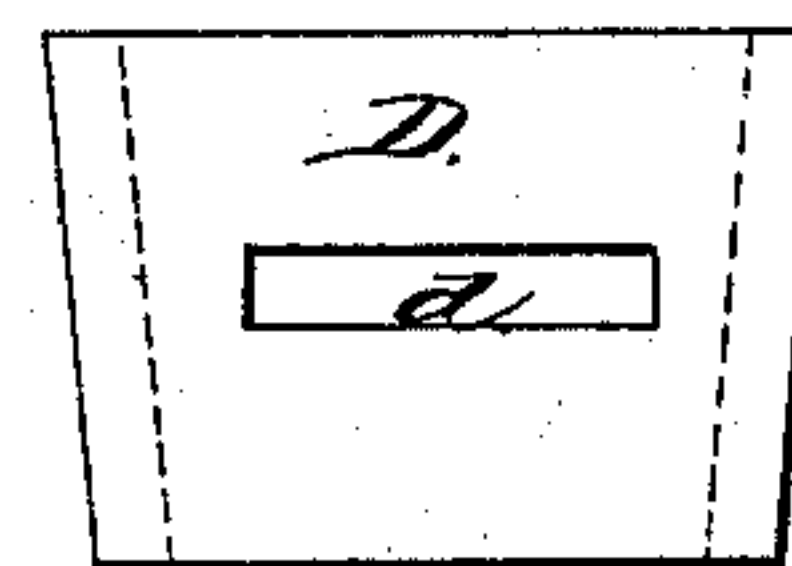
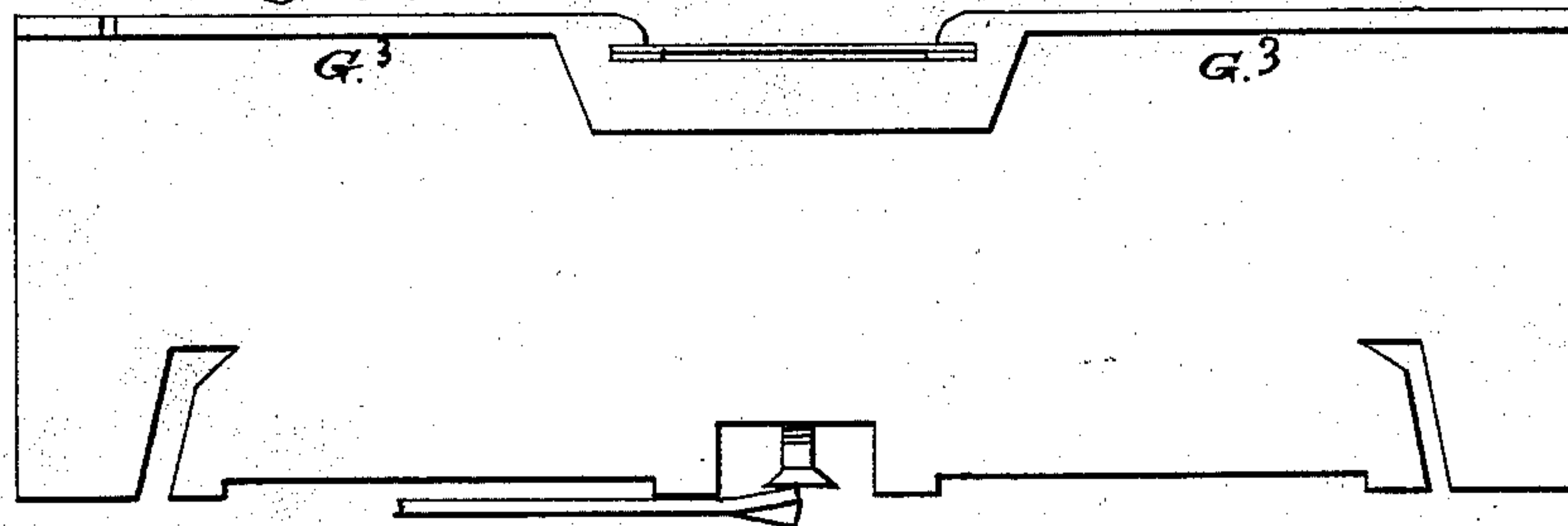


Fig. 5.



WITNESSES

John A. Clegg
J. W. Minter.

INVENTOR

L. H. Bigelow,
by E. W. Anderson
ATTORNEY

UNITED STATES PATENT OFFICE.

LEVI H. BIGELOW, OF FREMONT CENTRE, MICHIGAN.

IMPROVEMENT IN DEVICES FOR SETTING, JOINTING, AND GAGING SAW-TEETH.

Specification forming part of Letters Patent No. **219,438**, dated September 9, 1879; application filed June 7, 1879.

To all whom it may concern:

Be it known that I, LEVI H. BIGELOW, of Fremont Centre, State of Michigan, have invented a new and valuable Improvement in Devices for Setting, Jointing, and Gaging Saw-Teeth; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my invention. Fig. 2 is a plan view thereof. Fig. 3 is a transverse section of the same, and Fig. 4 is a detailed view of the gage-plate. Fig. 5 is a view of the flanged side of the plate.

This invention has relation to means for setting, jointing, and gaging saw-teeth, being an improvement on the instrument for which Letters Patent were granted to me May 8, 1877, and consisting, mainly, in the general form of the body-plate, omitting the recesses between the flange and body; in the offsets of the gage-plate, whereby it is rendered reversible; in the form of the setting-slots, whereby they are provided with lateral extensions or recesses at the inner ends to receive the points of the teeth and protect them, and in the adjustable screw arranged in a recess at the bottom of the plate for gaging the set and the set-screws of the file-groove, all as hereinafter shown and described.

In the accompanying drawings, the letter A represents an oblong rectangular plate, made of metal, and having a projecting rib or flange, B, extending along one of its edges, the face of which is thereby made broader, said rib being at right angles with the body portion of the plate and at about the middle portion of the rib B', below which is a depending brace portion or lug, C, supporting the central recessed portion of the rib and forming the floor of the recess. This lug is slotted longitudinally at *d'*, next the body-plate, and is provided at each end of its upper surface with interior ways to receive the ends of the gage-plate.

On each side of the depending lug the flange is thin, being rabbeted, so that its lower face

is above the gage-plate in the central recess above the lug C. By using the rabbeted ends *G*³, I am enabled to use the gage-plate for the clearing-teeth on saws which have their teeth differently spaced.

D represents the gage-plate, which has its side edge tapering, so that it will be held in place against the action of the file. This plate is provided with a slot, *d*, coinciding with the slot of the center lug, C, and is also made with offsets *e* at each end on one side.

As the clearing-teeth are turned toward the rabbeted portion of the flange C, it is apparent that they can be filed down shorter than the cutting-teeth, and that by reversing the gage-plate D their length can be made still shorter, as is required in saws for cutting soft timber, the clearing-teeth for hard timber being longer.

In the opposite side of the plate A is the longitudinal file-groove E, into which project the set-screws *f*, whereby the file is held steadily and firmly with its surface at right angles with that of the body of the plate, so that the ends of the teeth can be evenly jointed. The surface of the plate at *h*, next the file-groove, is somewhat beveled, so that the set of the teeth of the saw will not be disturbed in the filing operation.

G *G*¹ *G*² refer to setting-slots of different thicknesses, each slot having at its inner end a lateral enlargement or toe, *k*, which receive the point of the tooth and prevent it from being bent or injured in the setting operation, which is very important, as otherwise the tooth would work with difficulty and the efficiency of the saw be impaired.

In the lower edge of the body portion of the plate A is made a rectangular recess or notch, *g*, in the bottom of which is set a screw, *g'*, which serves to measure the set of each tooth, as it can be adjusted to the set required for the saw, and each tooth of the saw can be tried against it, as shown in Fig. 5, until its set is correct.

Having explained this invention, what I claim, and desire to secure by Letters Patent, is—

1. The flanged jointing-plate A, having the central depending slotted lug C and the rabbeted flange ends *G*³ on each side thereof, in

combination with the slotted gage-plate D, substantially as specified.

2. The combination, with the flanged jointing-plate A, having the slide-recess B', of the reversible gage-plate D, having at its ends on one side the offsets *e e*, whereby a jointing-gage for clearing-teeth of different lengths is formed, substantially as specified.

3. In the plate A, the setting gage recess *g*, having the adjustable screw *g'*, for gaging the set of the teeth uniformly, substantially as specified.

4. In the jointing-plate A, the file-groove E, in combination with the clamp-screws *f*, whereby the file is firmly secured at right angles to the body of the plate, substantially as specified.

5. A saw-tooth setter and jointer consisting of the plate A, having the edge flange B, with central slotted lug, C, and rabbeted flange ends G³, the gage-notches G G¹ G², the reversible slotted gage-plate D, the gage-notch *g*, and adjustable gage-screw *g'*, and the file-clamp screws *f*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

LEVI H. BIGELOW.

Witnesses:

EUGENE W. FORTUNE,
GEORGE TAITE.