(No Model.)

T. GIBBONS.

SAW SETTING DEVICE.

No. 318,976. Patented June 2, 1885.

Fig. 1.

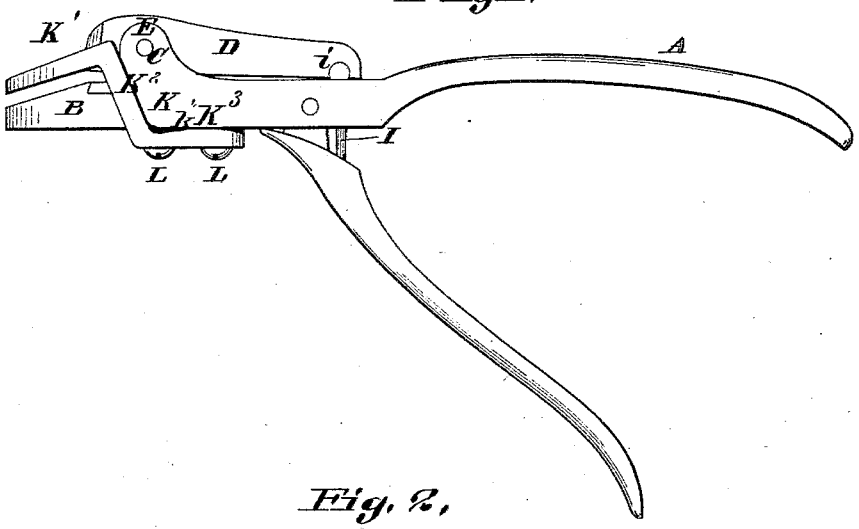


Fig. 2.

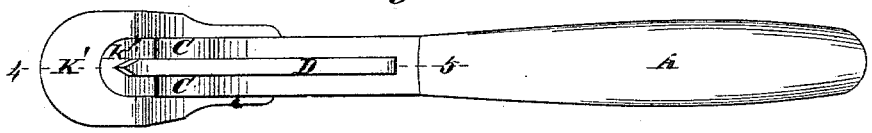


Fig. 3.

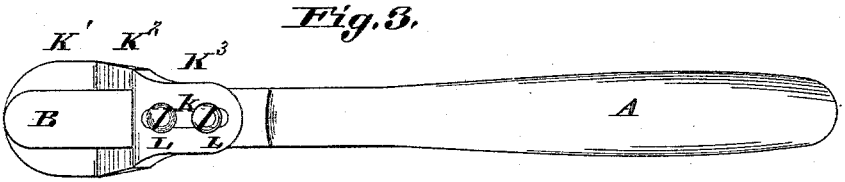


Fig. 4.

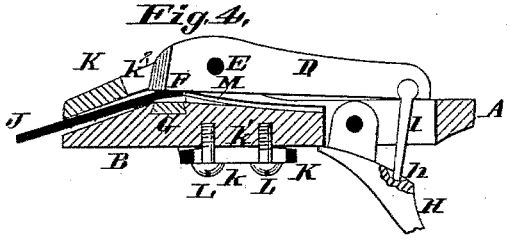


Fig. 5.

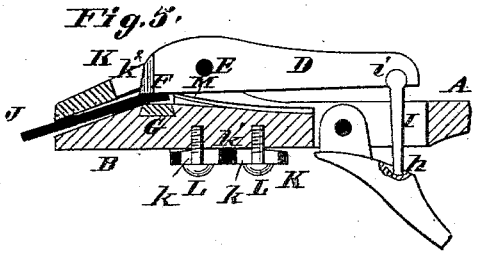
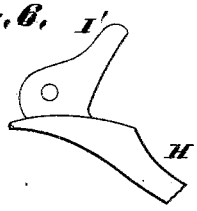


Fig. 6.



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UNITED STATES PATENT OFFICE.

THOMAS GIBBONS, OF ST. LOUIS, MISSOURI.

SAW-SETTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 318,976, dated June 2, 1885.

Application filed February 14, 1885. (No model.)

To all whom it may concern:

Be it known that I, THOMAS GIBBONS, of the city of St. Louis and State of Missouri, have invented a certain new and useful Improvement in Saw-Sets, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a side view of the instrument in position to be applied to the blade of a saw. Fig. 2 is a top view, and Fig. 3 a bottom view. Figs. 4 and 5 are longitudinal sections at 4 5, Fig. 2, showing the setting jaw or lever in different positions. Fig. 6 shows a modification of the lever by which the setting-jaw is operated.

A is a handle ending at front in a jaw, B, and having ears C, to which the setting jaw or lever D is fulcrumed by a pin, E, passing through it near its front end. The front end of the setting-jaw is suitably shaped to bear upon the saw-tooth F and press it down upon the anvil G, imparting the set to the tooth. The anvil and the bearing part of the setting-jaw should be made of hardened steel. The rear or long end of the setting jaw or lever is raised to depress the front end by means of a hand-lever, H, whose front end is hinged to the handle A, and which has a device acting upon the setting-lever. In Figs. 1, 4, and 5 this device consists of a bar, I, whose head *i* has bearing in a socket made in the under side of the setting-lever and embracing somewhat more than the semi-circumference of the head, so as to prevent the escape of the head from the socket, the head being so formed as to permit a sufficient vibratory movement of the bar. The lower end of the bar I has bearing in a recess, *h*, of the hand-lever H. In Fig. 6 the hand-lever has a cam, I′, upon its upper side, which has direct bearing beneath the rear end of the setting-lever, so as to cause the depression of the jaw or fore end of the same when the handle H is raised. The blade J of the saw is held between the fixed jaw B and an adjustable jaw, K. The jaw K is made with a central aperture, through which the jaw B passes. Its outer end or lip, K′, is nearly or quite parallel with the bearing-face of the fixed jaw B. The sides K^2 of the adjustable jaw extend beside the jaw B. The inner end, K^3, extends beneath the jaw B, and is secured thereto by screws L, which pass through a slot or slots, *k*, and screw into the fixed jaw. The face of the lip K^3, which bears against the fixed jaw B, has a central prominence, *k*′, so that by means of the screws L the lip K′ may be fixed nearer to or more distant from the jaw B. This adjustment is needed for two reasons: first, the blades of saws vary in thickness, and so require more or less space; secondly, more set is required in some saws than others, and the degree of set may be increased by fixing the movable lip K′ nearer to the jaw B. This will be evident, as the three points of bearing when the tooth is bent are the outer end of lip K′, the anvil, and the setting-jaw. It will be seen that the slot *k* (see Fig. 4) allows the endwise adjustment of the movable jaw K upon the fixed jaw B, because the jaw may be moved on the screws when they are slacked up. The two slots *k* (shown in Fig. 5) allow a like endwise movement. This endwise adjustment of the jaw K is called for owing to the variation in length of saw-teeth, the parts K^2 forming guides against which the ends of the teeth rest upon each side of the tooth which is being set. To allow a clear view to be had of this tooth, the lip K′ is made with an aperture at k^2, and the end of the setting-jaw is beveled off at the sides.

M is a spring beneath the setting-jaw, to lift its point from the saw-tooth after setting.

It is evident a simple bar upon the part K^3 or the part A B between the screws L would be the equivalent of the crowned bearing-face, and that this rounded face may be made upon either piece without any essential change in construction or in any way changing the principle of the device.

It will be seen that by securing the movable jaw K to the straight back of the rigid jaw B, no matter in which direction the former is moved on the latter, the angle between them will remain unchanged, and that by forming the face of the rigid jaw at an angle to its back and once arranging the faces of the two jaws parallel with each other, their distance asunder may be changed at pleasure by simply sliding the one on the other, while the angle between their faces will remain unchanged.

I claim—

1. The combination, in a saw-set with a rigid jaw having an anvil secured thereto and a set-

ting-lever, of a jaw having its face located at an angle to the face of the said anvil, said jaw being movable on the rigid jaw in a plane parallel with the face of said anvil, substantially as set forth.

2. The saw-set having an adjustable jaw, K, with lip overlying the saw, side pieces or bars, K^2, forming guides, and slotted part K^3, having rounded upper side attached to the fixed jaw by screws, substantially as set forth.

3. The adjustable jaw K, having a lip, K′, overlying the saw, side bars, K^2, and a slotted lip, K^3, made crowning, so as to have the described adjustment by means of the attaching-screws L.

4. The combination of jaw and handle made in one piece and having an anvil, G, a movable handle or lever, H, a setting-lever, D, actuated by the handle H, and an adjustable jaw having a lip, K′, overlying the saw.

5. The combination of the piece A B with fixed anvil, setting-lever D, and hand-lever H, fulcrumed to the piece A B respectively above and beneath said piece, a spring beneath the setting-jaw, an adjustable jaw with a lip to overlie the saw, with an opening therein to reveal the teeth, side bars, K^2, a slotted lip, K^3, having a rounded bearing on the under side of part A B, and attaching-screws L, for the purpose set forth.

6. In a saw-set, the combination, with the rigid jaw having a straight back and a face formed at an angle thereto, of a movable jaw secured adjustably to the back of the rigid jaw, the faces of said jaws being parallel, as and for the purpose set forth.

7. In a saw-set, the combination, with a rigid jaw, of an adjustable jaw movable relatively to the rigid jaw in such a plane that the angle between the faces of the jaws shall remain unchanged, substantially as set forth.

THOMAS GIBBONS.

Witnesses:
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BENJN. A. KNIGHT.