(No Model.)

H. M. CHAMBERLIN.

SAW SET.

No. 325,052. Patented Aug. 25, 1885.

Fig 1

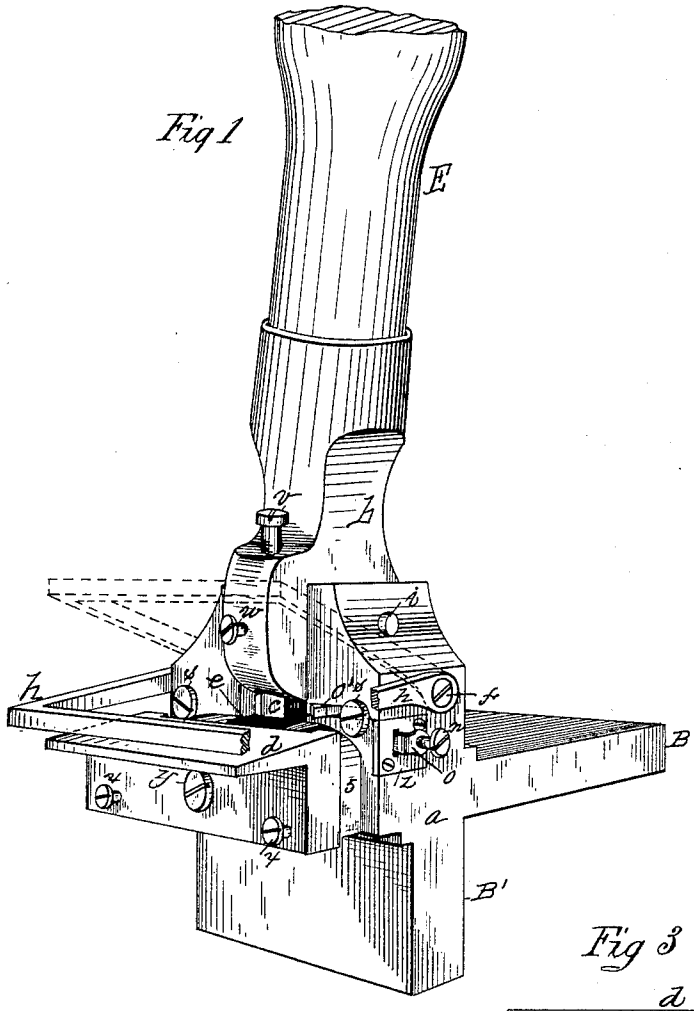


Fig 3

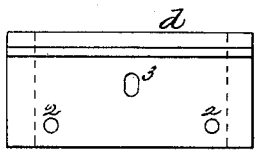
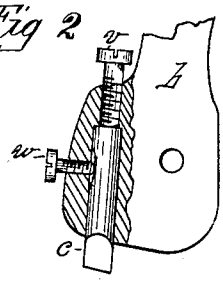


Fig 2



WITNESSES:

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HIRAM M. CHAMBERLIN, OF WALTHAM, MASSACHUSETTS.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 325,052, dated August 25, 1885.

Application filed July 13, 1885. (No model.)

To all whom it may concern:

Be it known that I, HIRAM M. CHAMBERLIN, a citizen of the United States, residing at Waltham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Saw Sets, of which the following is a specification.

This invention relates to improvements in saw-sets, the object being to provide therein improved devices for operating the tooth-setting jaw and holding the same, and for adjustably securing it to its operating-lever, and to provide in such an implement improved means for supporting the saw in proper position at the side of the anvil, and for gaging its movement to bring the teeth to a proper position under the jaw.

In the drawings forming part of this specification, Figure 1 is a perspective view of a saw-set embodying my improvements, showing a part of the saw-yoke and of the handle broken away. Figs. 2 and 3 are detail parts, which are hereinafter fully explained.

In the drawings, *a* is the base or body of the tool, made by casting or forging, as may be preferred, and having the projections B B′ thereon, by means of which the set may be held in a vise in an upright or in a horizontal position for use. The base *a* has two upright jaws thereon, as shown, between which the lever *b* is pivoted by the pin *i*. A chamber is made in one side of the base to receive the gage *o*, which is a metal bar having the tooth *o′* on it, which projects through a slot in the front side of one of said jaws. The outer end of said gage *o* projects through the plate *z*, which covers said chamber, and is bent at right angles, as shown. A screw, *n*, engages with the end of the gage, whereby the latter and its tooth *o′* are moved in a direction across the base *a*.

A suitable anvil, *e*, of hardened steel, preferably, is fixed in the base *a*, between and extending a little in advance of said jaws, a part thereof being in the projection 5 on the base.

The saw-rest *d* is adjustably secured on the end of said projection 5 by the central screw, *y*, which passes through the oval-shaped hole 3 therein, (see Fig. 3,) whereby said rest is adjusted vertically on the base and relative to the face of the anvil *e*. Two screws, *x x*, in said rest, near its lower edge, pass through the latter, and their ends have a bearing against the end of projection 5. The rest has its rear side formed, as shown, to receive the end of said projection, whereby it is caused to maintain such a position as keeps its upper face parallel (excepting as to its incline outward) with the face of the anvil *e*. The said incline of the upper face of the rest *d* provides for holding the saw in such position, when lying on the rest and its teeth are brought between the jaw *c* and the anvil *e*, as will, after the teeth are acted on by the jaw, impart the desired degree of set to the teeth, and for the purpose of varying the degree of said incline, so as to change the set of the teeth of the saw, the said screws *x* are provided in rest *d* and co-operate with screw *y*, as follows:

To give less incline to the rest, screw *y* is turned out more or less, and screws *x* are turned against the end of the projection 5, and to increase the incline of the saw when laid on the rest the latter is adjusted below the level of the face of anvil *e*, as above described, moving on the end of projection 5.

A yoke, *h*, is pivoted by a screw, *f*, in each of said jaws to the latter, and may be swung upward, if desired, as shown in dotted lines in Fig. 1, clear from the rest *d;* but the purpose thereof is to provide means for aiding in holding the saw in a true or flat position on the inclined face of the rest, and its pivoted feature provides for adjusting it relative to the latter, so that the space between the yoke and the rest shall be of such width as may be demanded, be the saw which is to be operated on thicker or thinner.

The heads of the screws *s s* at the rear of the rest *d* in the base *a* provide an adjustable gage to regulate the degree of the projection of the saw-teeth between the jaw *c* and the anvil, as when the saw is being operated on its teeth are held against said heads as it is moved along.

The tooth *o′* on the gage *o* is adapted to engage between the teeth of the saw when they are being set, so as to insure the presentation of each tooth exactly under the jaw *c;* and to this end the said tooth is made adjustable relative to the jaw, in order to accommodate the variable spacing of the teeth in coarse and fine saws. The said lever *b* is provided with a suitable socket to receive a suitable handle,

E, whereby the lever is operated. Said lever is of proper metallic construction, and is provided on its front side with a socket to receive the jaw *c*, and has the adjusting-screw *v* entering the upper end of said socket, and the set-screw *w* passing through the front side thereof.

The jaw *c* is made, preferably, of round steel wire properly hardened, its lower end being of triangular form in cross-section to adapt it to the form of the saw-teeth, and having a flat seat on one side, against which the end of the screw *w* bears, which construction is clearly shown in Fig. 2, which illustrates the lower end of lever *b*, with its side partly broken away, showing jaw *c* therein.

The lever *b* is pivoted, as aforesaid, between the jaws on the base *a*, and in such position as to bring the lower end of jaw *c* over the anvil *e*. Thus in setting the teeth of a saw the lever is given a vibratory motion to force the jaw *c* against the sides of the teeth, and said jaw is adjustable endwise by the screw *v*, as may be demanded by the varying thickness of saw-teeth, and is firmly held in position by the screw *w* to prevent it from turning in its socket.

What I claim as my invention is—

1. In a saw-set, the combination, with the base *a*, having a suitable anvil therein, of the vibrating lever *b*, pivoted to said base, and the jaw *c*, adjustable in the direction of its length in a socket in said lever, substantially as set forth.

2. In a saw-set, the combination, with the base *a*, of the saw-rest *d*, adjustable at right angles to the face of the anvil *e*, and vibratorily on the end of the base *a* to change the degree of the incline of its face relative to the face of the anvil, substantially as set forth.

3. In a saw-set, the combination, with the base *a*, of the saw-rest *d*, having its face inclined and adjustable at right angles to the face of the anvil *e*, substantially as set forth.

4. In a saw-set, the combination, with the base *a*, of the saw-rest *d*, adjustable at right angles to the face of the anvil *e*, and the steadying-yoke *h*, pivoted to said base, and adjustable relative to the inclined face of said saw-rest, substantially as set forth.

5. In combination, the base *a*, having a suitable anvil therein, the lever *b*, pivoted to the base, the jaw *c*, adjustably secured in said lever opposite the anvil, the saw-rest *d*, adjustably attached to the base *a*, and the steadying-yoke *h*, pivoted to the latter and adjustable relative to the face of said rest, substantially as set forth.

6. In a saw-set, the combination, with the tooth-setting jaw thereof, of the gage *o*, adjustable toward and from the anvil, substantially as set forth.

7. The combination, with the base *a*, provided with the anvil *e*, of the vibratory lever *b*, having the jaw *c* attached thereto, the gage *o*, and the screw *n*, substantially as set forth.

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Witnesses:
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