

No. 689,304.

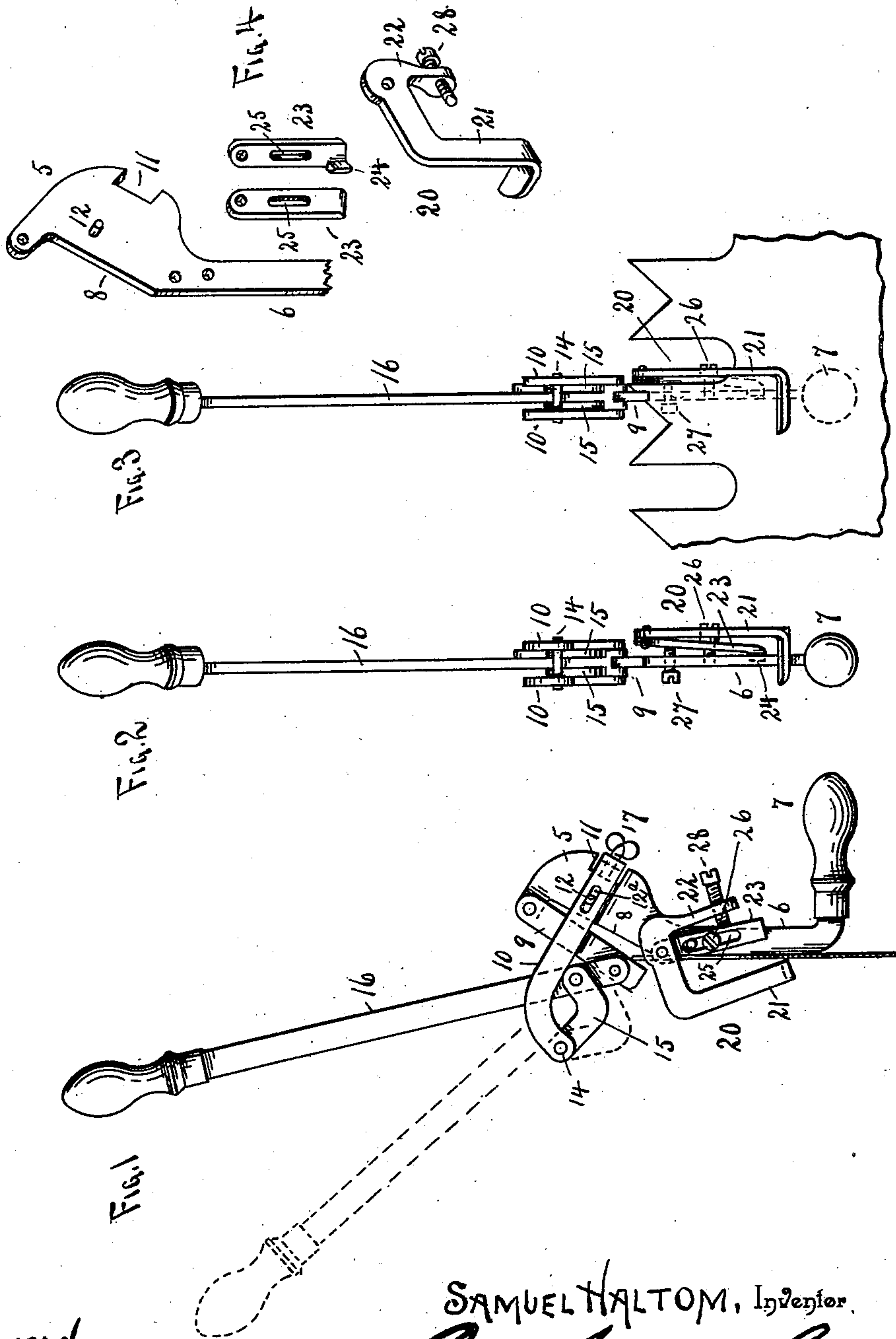
Patented Dec. 17, 1901.

S. HALTOM.

SAW SET.

(Application filed Apr. 19, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL HALTOM, OF HENDERSON, TEXAS.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 689,304, dated December 17, 1901.

Application filed April 19, 1901. Serial No. 56,612. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL HALTOM, a citizen of the United States, residing at Henderson, in the county of Rusk and State of Texas, have invented a new and useful Saw-Set, of which the following is a specification.

This invention relates to saw-sets; and it has for its object to provide a device of this nature wherein there will be so great a leverage as to require little effort to set the heaviest and stiffest saws and which may be operated to set the teeth all to the same degree, so that the cut made by the saw will be smooth and the saw will have an easy and even movement, a further object of the invention being to provide a construction wherein the several parts may be accurately and easily adjusted for operation under different conditions.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation showing the set in engagement with a saw. Fig. 2 is an elevation looking at right angles to Fig. 1 and with the saw removed. Fig. 3 is a view similar to Fig. 2 with the saw in place. Fig. 4 is a view showing the parts of the saw-guide and that portion of the body to which they are attached.

Referring now to the drawings, the present saw-set comprises a body portion, including a head 5 and a stem 6, the end of which farthest from the head is bent rearwardly and is provided with a handle 7. The body is formed of a metal plate and the head is broadened and has a straight side edge 8, which lies at an obtuse angle to the adjacent side edge of the stem, and at the outer end of this edge 8 is a lug, to which is pivoted the laterally offset end of the setting-jaw 9, which latter by means of this offset portion is brought to move pivotally in the plane of the head, it being understood that the setting of the saw-teeth is accomplished by bending the teeth by pressing them with this jaw 9 in the direction of the edge 8, which latter might be termed the "anvil," against which the teeth are bent, the body of the saw being held, in the manner hereinafter described, against the side edge of the stem 6 adjacent to the edge 8 of the head.

To move the setting-jaw 9 toward and away

from the anvil, a hanger 10 is provided and consists of a metal strap, which is bent upon itself to form spaced legs and a connecting-web, this strap being disposed to straddle the head 5 and lying with its web in a recess 11 in the back of the head, the strap being held against total displacement from the head by means of a pin 12 passed transversely through the head and lying with its ends in slots 12^a, formed longitudinally of the legs of the strap. The ends of the legs of the strap are curved slightly in the direction of the stem 6, the upper portions of the legs extending at right angles from the face 8, as shown, and connecting the extreme end portions of these legs is a pivot-pin 14, on which are mounted the parallel toggle-links 15 between the legs. The ends of the links 15 are turned in the direction of the legs of the strap or hanger 10, and between these turned ends is pivoted the lever 16, forming also a toggle-link and having its end bifurcated to receive the end of the jaw 9, which is pivoted thereto. Thus by moving the lever in one direction the toggle is straightened to force the jaw 9 in the direction of and against the edge 8, and when the lever is moved in an opposite direction the jaw 9 is drawn away from the edge 8. Thus if a saw be held with its body close against the stem 6 and the jaw 9 be operated it may be brought against a tooth to bend it in the direction of the edge 8 to lie at an angle to the body of the saw, the degree to which it is bent depending upon the movement of the jaw in engagement with the tooth, or, in other words, the proximity of the engaging portion of the jaw to the edge 8 when the movement of the operating-lever is completed. To vary this terminal position of the engaging portion of the jaw 9, it is only necessary to shift the hanger 10, and for this purpose a set-screw 17 is engaged with the web of the hanger and is brought to impinge against the bottom of the slot in the head 5, in which the web is disposed, the strain of the lever acting to hold the hanger with the screw against the bottom of the slot. If the screw be loosened, the hanger will be drawn forwardly, and when the lever is at the limit of its bending movement the jaw 9 will lie at a greater angle to the edge 8 and the tooth will be given a lesser degree of set than when the set-screw is turned up.

To hold the saw in position to be operated upon, a guide is provided and consists of an angular plate 20 of substantially U shape and having the spaced arms 21 and 22. Pivoted to this plate 20, at one end of the web thereof, is a plate 23, which is disposed flat against the stem 6 and has a finger 24 at its free end, which lies against the edge of the stem at the opposite side from the edge 8 of the head. The plate 23 has a slot 25 formed longitudinally thereof, and through this slot is passed a screw 26, which is engaged with the stem 6. A set-screw 27 is also engaged with the stem 6 at the opposite side from the plate 20 and its end impinges against the plate 23, so that when this set-screw is turned up and the attaching-screw 26 is loosened the plate 23 is moved to lie at a broader angle to the stem 6, and the web portion and entire plate 20 is moved laterally. The end of the arm 21 is turned laterally to lie against the edge of the stem 6 to limit the pivotal movement of plate 20 in one direction, and engaged with the end of the other arm 22 is a stop-screw 28, adapted to strike the plate 23 and limit the movement of plate 20 in the opposite direction. When a saw is to be set, it is disposed against the edge of the stem 6 and between it and the laterally-turned end of the arm 21 and is slid up until the web of plate 20 lies between two teeth and one of the teeth projects over the edge 8. The lever is then operated and the jaw 9 is brought down against the tooth and it is bent toward the edge 8. As shown in Fig. 3, the saw-set is used in connection with a crosscut-saw where the teeth are disposed in pairs, and during the setting operation the straight side of the tooth is rested against the web of plate 20. If the tooth to be set is wide, the screws are adjusted to move the web laterally, so that the saw may be adjusted to bring the tooth to be bent in position to be engaged at the proper point by the jaw 9. To hold saws of different thicknesses against the stem 6, the plate 20 is moved pivotally by adjustment of its set-screw.

With this construction it will be seen that the device may be adjusted to operate with the greatest efficiency upon saws having different dimensions and that all of the teeth will be bent to the same degree, the different sets of different saws being secured by adjusting the hanger 10.

What I claim is—

1. A saw-set comprising a body portion including a head and a stem provided with a handle, means for holding a saw against the stem, a jaw pivoted to the head for operative engagement with a saw-tooth to set it, a hanger on the head, and a toggle connection between the hanger and jaw and having means for operating it to move the jaw in the direction of the head.

2. A saw-set comprising a body including

a stem and a head, said stem being adapted to receive a saw thereagainst, a movable jaw disposed to engage and set a tooth of the saw, and toggle connections between the jaw and head for actuating the jaw, said connection including an adjustable member for changing the path of movement of the jaw.

3. A saw-set comprising a body including a stem and head, said stem being adapted to receive a saw against an edge thereof, said edge of the stem lying at an angle to the head to permit of projection of a tooth of the saw over the edge of the head and spaced therefrom, and a jaw pivoted to the head for movement toward and away from said edge of the head to engage and bend the tooth in the direction of the head, and toggle connections between the jaw and head and including a lever for operating it.

4. A saw-set comprising a body including a stem and head, a hanger adjustably connected with the head, a setting-jaw pivoted to the head, and toggle connections between the hanger and jaw and including an operating-lever.

5. A saw-set comprising a body including a stem and head, a hanger adjustably connected with the head, a setting-jaw pivoted to the head, toggle connections between the jaw and hanger and including an operating-lever, and means for holding a saw against the stem with its tooth in operative relation to the jaw.

6. A saw-set comprising a body portion including a head and stem, a hanger adjustably connected with the head a jaw pivoted to the head, a toggle-link pivoted to the hanger, a toggle-link pivoted to the jaw and the first link and extending beyond the latter to form an operating-handle, and means for holding a saw against the stem with its tooth in position for engagement by the jaw.

7. A saw-set comprising a body including a head and stem, a jaw connected with the head and having means for moving it toward and away from the head, and a plate mounted upon the stem for pivotal and lateral movement to hold saws of different thicknesses and teeth of different widths in position for operation thereon by the jaw.

8. A saw-set comprising a body including a stem and a head, having adjacent edges lying at an angle to each other, means for holding a saw against said edge of the stem at different angles to said edge of the head, and a jaw mounted for movement toward said edge of the head to engage a saw-tooth and bend it.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL HALTOM.

Witnesses:

R. H. THOMPSON,
A. T. GLADNEY.