

No. 770,429.

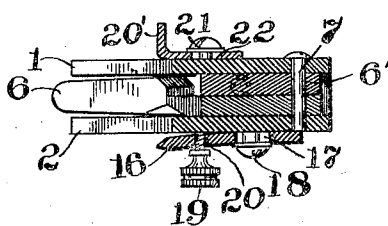
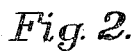
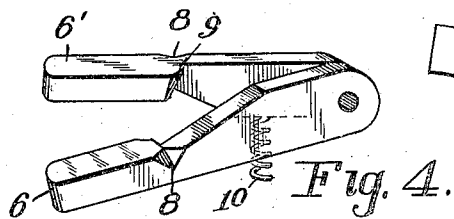
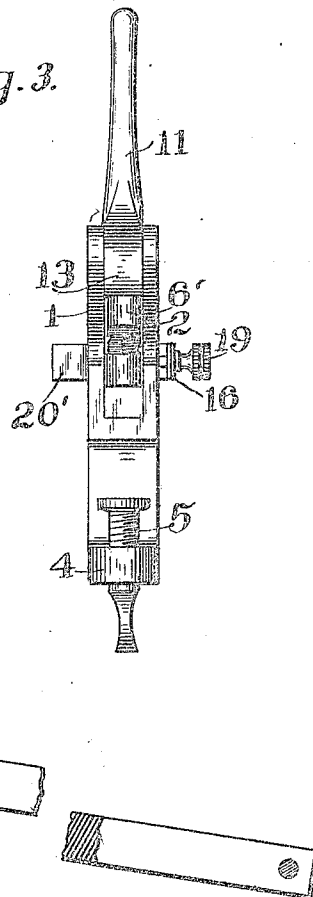
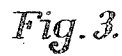
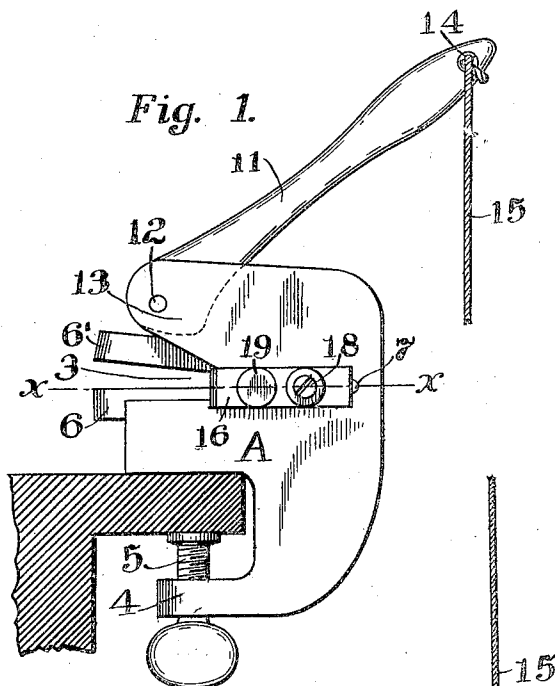
PATENTED SEPT. 20, 1904.

M. HAWKINS & A. T. PERRY.

SAW SET.

APPLICATION FILED MAY 15, 1903.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

MABELLE HAWKINS AND ARTHUR T. PERRY, OF HAMILTON, IOWA

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 770,429, dated September 20, 1904.

Application filed May 15, 1903. Serial No. 157,305. (No model.)

To all whom it may concern:

Be it known that we, MABELLE HAWKINS and ARTHUR T. PERRY, citizens of the United States, and residents of Hamilton, in the county of Marion and State of Iowa, have invented a new and useful Improvement in Saw-Sets, of which the following is a specification.

Our invention relates to an improvement in saw-sets; and the object is to provide a set which can be attached to a work-bench and operated by hand or foot power.

Another object is to provide a set having the jaws in duplicate of each other, so they can be drop-forged from one die, and, further, to so connect and arrange the dies that they can be removed or replaced with facility.

Still another object is to provide a gage for the teeth to straddle, with a thumb-screw adjustment on the gage to provide for adjusting it for coarse or fine saw-teeth and to cause the teeth to take the right position between the dies.

With these objects in view our invention consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation. Fig. 2 is a horizontal section on the line *xx* of Fig. 1. Fig. 3 is a front view with the jaws open; and Fig. 4 is a view in perspective of the jaws detached, showing their relative positions with the spring 10 bearing upwardly upon the upper jaw.

A represents a casting cored out at the top to form the two side plates 1 and 2 and provided with a V-shaped notch 3 at the forward edge. At the lower end the casting is provided with a clamp 4 and a screw 5, by which the set is securely clamped to a work-bench or other suitable support.

A pair of jaws 6 6' of similar construction are provided, the upper jaw 6' being pivoted at its rear end on a pin 7 between the side plates 1 and 2 with its forward or operating end extending into the V-shaped notch 3. The pin 7 passes through the rear end of each jaw and is provided with a headed end, the

opposite end lying beneath and guarded by a gage 16, hereinafter described, the gage preventing the free end of the pin from being accidentally hit. When it is desired to remove the jaws, all that is necessary is to release the gage 16, so that it may be moved away from the end of the pin, and then knock out the pin. These jaws are preferably made precisely alike, so both can be made in the same dies and also for convenience in replacing them should one become impaired or broken. Along the transverse median line these jaws are offset in opposite directions, as at 8 and 9, to give the required set to the saw-teeth which are engaged between them, one tooth being set in one direction and the next one in the opposite direction, two teeth being set at a time, the jaws forming complements of each other. A spiral-spring 10 is made to bear upwardly on the upper jaw, whereby to normally maintain it in an elevated position.

An operating-lever 11 is pivoted between the forward ends of the side plates 1 and 2 on a pin 12, and this lever is provided with a cam 13, adapted to bear on the upper jaw, whereby to force the jaws together with the required pressure to effect the setting of the saw-teeth. This lever may be operated by hand or by foot power, and for that purpose the lever may have a hole 14 in its outer end adapted to receive a wire or other connection 15, whereby to attach it to a treadle, so that the operator can work the set by pressing his foot and use both hands to guide and control the saw.

On one side of the casting a gage 16 is located. This is preferably beveled at its forward end, which is adapted to be straddled by the saw-teeth, and at the rear end it has an elongated slot 17, through which a screw 18 passes into the side of the casting to admit of the gage being adjusted endwise or outwardly and inwardly. This gage is made of spring metal, and a set-screw 19, turning in a threaded hole 20, bears at its inner end on the casting and affords a means for adjusting the gage laterally for different sizes of teeth and to insure centering them at the proper point between the jaws. An adjustable L-

shaped guide 20' on the opposite side of the saw is adjustably held in place by screw 21 passing through the elongated slot 22.

The operation is of course perfectly clear.

- 5 The set is clamped to a work-bench or other support with the forward end away from the operator, with the lever extending rearward or toward the operator. The gage is then set in accordance with the size of the teeth to be
10 set and so as to center the teeth between the setting-jaws. The saw is placed so that two teeth straddle the end of the gage, and when the saw is held in place the operator merely depresses the lever, either by hand or by foot
15 power, thus forcing the jaws together upon the teeth and giving the latter the required set. The moment he releases the pressure, the spring acting on the upper jaw forces it upward, and with it the lever, for another operation. Then by moving the saw along two
20 more teeth are set, as before.

- The machine is a simple and inexpensive one and effectually performs its functions. At the same time it is easily operated, the
25 jaws can be readily replaced, and their initial cost is measurably reduced by the fact that they are exact duplicates of each other.

- It is evident that slight changes might be resorted to in the form and arrangement of
30 the various parts described without departing from the spirit and scope of our invention, and hence we do not wish to limit ourselves to the exact construction herein set forth; but,

- 35 Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A saw-set comprising a body portion, saw-setting members carried thereby, means

for operating the setting members, a gage comprising a resilient plate adjustably secured to the body portion, one end of the gage-plate adapted to take into the teeth of a saw and an independent adjusting means rotatably carried by the plate, the adjusting means abutting against the body portion of the saw-set and adapted when operated to move the plate toward or from the body portion.

2. A saw-set comprising a main frame, a pair of counterpart interchangeable jaws attached to the frame at a common point, one of which at least is pivoted therein, said jaws shaped to give the required set to the saw-teeth, and means supported in the frame independent of the jaws located in position when moved in one direction to force one jaw toward the other.

3. The combination in a saw-set, of a pair of jaws, each jaw comprising a rear portion, one surface of the rear portion provided with a downwardly-inclined wall, the forward portion joined to the rear portion at the base of the inclined wall, the forward portion provided with an oppositely-inclined wall offset from the rear portion, the two jaws intermeshing with each other, the forward ends of the jaw members adapted to engage the saw-body, the inclined walls of the jaw members engaging the saw-teeth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

MABELLE HAWKINS.
ARTHUR T. PERRY.

Witnesses:

ANGELO ELDER,
GEORGE W. BOOTH.