

(No Model.)

E. W. DILLON.
SAW SET.

No. 504,521.

Patented Sept. 5, 1893.

Fig. 1

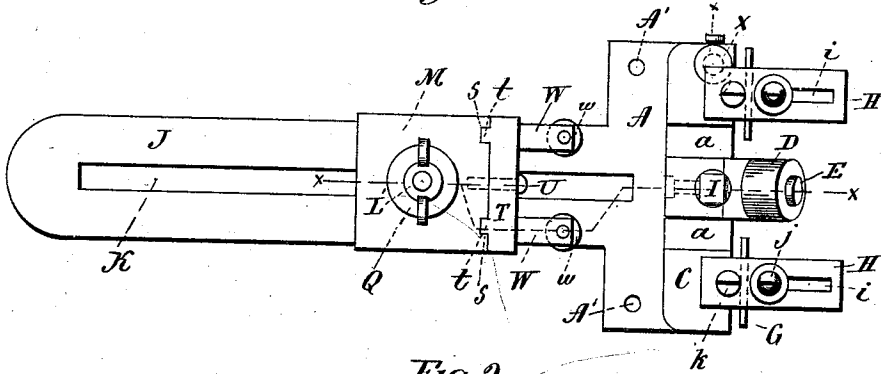


Fig. 2

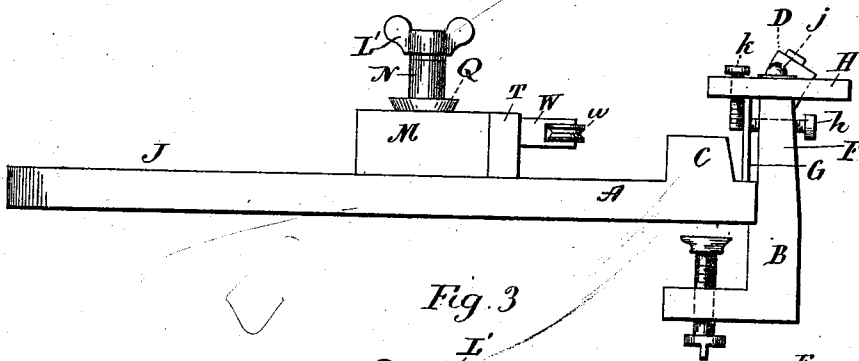


Fig. 3

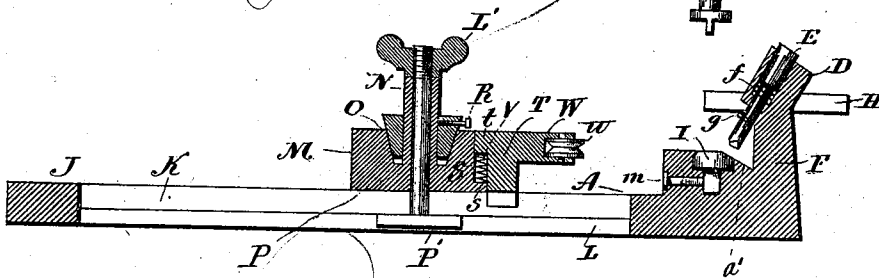
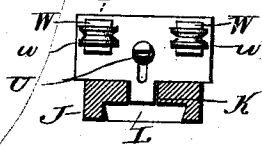


Fig. 4



Witnesses
J. H. Shannon
William D. Kellogg

Edward W. Dillon
Inventor
By Atty. Earl Seymour

UNITED STATES PATENT OFFICE.

EDWARD W. DILLON, OF NEW HAVEN, CONNECTICUT.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 504,521, dated September 5, 1893.

Application filed May 29, 1893. Serial No. 475,946. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. DILLON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Saw-Sets; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full,
10 clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top view of a saw-set embodying my invention; Fig. 2, a side view of the same; Fig. 3, a transverse vertical section,
15 and Fig. 4, a section on line $x-x$ of Fig. 1.

This invention relates to an improvement in saw-sets, and is an improvement upon the invention for which I filed an application for Letters Patent, Serial No. 466,789. In that
20 application the devices for holding the circular saws and guiding the band saws, were practically independent of each other.

The object of this invention is to closely combine the devices for holding circular saws,
25 and the guide for band saws, and it consists in the construction and combinations of parts as will be hereinafter described and pointed out in the claims.

As in my previous construction the bed A,
30 is adapted to be secured to a bench by a depending clamp B, or may be secured thereto by screws entered through screw-holes A' A'. The said bed is also constructed with an anvil C, extending transversely across its upper
35 face, and provided with parallel grooves $a a$, one each side of its center from which the socket D rises, the said socket D being formed as an integral part of the bed. The said socket is inclined to the plane of the bed, and
40 constructed with a bore to receive a plunger E, which has an enlarged head, between which and the bottom of the bore a spring f is arranged, the tendency of which is to normally hold the plunger in its raised position. The
45 plunger is held in the bore of the socket against removal, by a pin g , which extends through it in position to engage with the lower end of the socket. By removing the pin the plunger may be removed, and one of different
50 size substituted therefor. At each side of the front of the bed a post F, is arranged, offset from the bed so as to leave a space be-

tween the post and the anvil. In the spaces thus formed, plates G, are arranged, to which
adjusting-screws h , are attached, the said
55 screws passing through the posts F F, and so that the said plates may be moved toward or from the anvil. On the top of each post an arm H, is arranged, each of which is constructed with a longitudinal slot i , through
60 which a screw j passes, into the top of the post, and so as to clamp the arms to the posts in various positions. The inner end of each arm is provided with a set-screw k , which extends
65 downward over the anvil, and is adjustable up and down with relation thereto. The forward end of that portion of the anvil between the grooves $a a$ is cut away, forming an incline A' beneath the socket D, upon which
70 the plunger E, will strike when forced downward.

To provide for angles of various degrees, the anvil is recessed beneath the socket, and adapted to receive an auxiliary anvil I, consisting of a circular beveled head and an angular
75 body. The top of the head will, when in position, stand flush with the upper surface of the anvil, and its edges are beveled on four sides at different angles, so that as it is turned it will present surfaces of different
80 inclinations under the plunger. To hold the auxiliary anvil in position, a screw m is inserted transversely through the central portion of the anvil C, so as to extend into the recess formed to receive the said auxiliary
85 anvil, and against the angular body thereof, whereby the said auxiliary anvil is held against vertical or rotary movement. The rear of the bed is extended to form a long
90 arm J, which is constructed with a longitudinal slot K, the said slot being under-cut to form a groove L, upon the under side of the arm.

The holder for circular saws consists of a slide M, which is constructed with a sleeve
95 N, as an integral part thereof, the portion of the slide around the sleeve having formed in it a tapering recess O. A bolt P, passing through the sleeve and slide, as shown by
Fig. 3, is furnished at its lower end with a
100 rectangular head P' which fits into the groove L, before mentioned, while its upper end projecting above the slide is threaded and receives a thumb-nut L', by which the slide

and its sleeve are clamped to the arm J. A wedge Q, corresponding in taper to the tapering recess O, so that it may fit therein, is located upon the said sleeve and provided with a set screw R, by which it is clamped thereto. The forward end of the slide M, is constructed near its edges with two vertical grooves S, opening outward, and extending nearly to its base, leaving stops s s.

The guide for band saws consists of a plate T, corresponding in size to the front face of the slide M, and constructed with lugs t t, corresponding to the grooves s s. The plate T, is secured to the base M, by a screw U, the opening for the screw in the plate T, being elongated, and so as to allow the plate to be moved up and down upon the face of the slide M. Between the lugs t, and the stops s, spiral springs V, are arranged, the tendency of which is to raise the plate T. From the outer face of the said plate T, at each side, arms W, extend, the position of the arms corresponding to the grooves a a in the anvil. In the end of each arm W, is a grooved roller w, arranged on a vertical axis.

In operation the auxiliary anvil I, is turned to present the desired bevel under the plunger, which is of the required size and the plates G, moved forward and back, so that when the teeth of the saw to be set are placed against them, the said teeth will stand in proper position over the anvil. The arms H H are then adjusted, so that the screws k k will stand over the saw upon which they should rest so as to hold the saw upon the anvil, yet permit it to be moved transversely over the same. If a circular saw is to be set, the guide for band saws is arranged so that its upper face will be flush with the top of the slide M, and as shown in Fig. 3. The nut L' is then removed from the bolt P, permitting the wedge Q, to be removed. The circular saw is then placed over the sleeve N, and the wedge Q, replaced, and entered as far as may be into the arbor opening of the saw, and fixed upon the sleeve by the set-screw R. The base is now moved forward until the teeth of the saw stand in right position, beneath the plunger E. The nut L is then replaced, and turned downward upon the sleeve until the slide is firmly clamped upon the arm J. If a band saw is to be set, the screw U is loosened, permitting the plate T, to rise, so as to raise the arms carrying the pulleys w, to the required position to engage

the back of a band saw and hold it in right position beneath the plunger E, the plate then being clamped to the slide M, by the screw U, as before described.

As in my previous device, I provide a second anvil X, at one end of the anvil C, which is similar to the auxiliary anvil I before described, and held in position by a screw x, entering through the end of the anvil C, and so that as the circular saw is revolved, the teeth will stand over the said anvil X, which may be turned to present various bevels, and so that the said teeth may be struck directly with a hammer.

By an improved construction, whereby I combine the holders for circular and band saws, I secure compactness and simplicity of construction, and convenience of operation.

I claim—

1. In a saw-set, the combination with a base having an anvil and a long arm, of a plunger located above the said anvil, a slide mounted on the said arm, and constructed with a vertical sleeve, and with a tapering recess surrounding the same, a wedge adapted to be mounted on the sleeve, and to enter the said recess, and a bolt passing through the sleeve, whereby the slide is secured to the said arm, substantially as described.

2. In a saw-set, the combination with a base having an anvil and an arm, of a plunger located above the anvil, a slide mounted on the said arm and constructed with a sleeve and a tapering recess surrounding the sleeve, an adjustable wedge on the sleeve, adapted to enter the said recess and being provided with a set-screw for securing it thereto, a bolt passing through the sleeve and the said arm, and a nut for securing the bolt to the arm, substantially as set forth.

3. In a saw-set, the combination, with a base having an anvil and a long arm, of a plunger, located above the said anvil, a slide mounted on and adapted to rest upon the upper side of the said arm, and a vertically adjustable band-saw guide attached to the forward end of the said slide, and having tongue and groove connection therewith, substantially as described.

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

EDWARD W. DILLON.

Witnesses:

FRED C. EARLE,

LILLIAN D. KELSEY.