

No. 653,947.

Patented July 17, 1900.

H. F. CONDON.
SAW.

(Application filed Nov. 7, 1898.)

(No Model.)

Fig. 1.

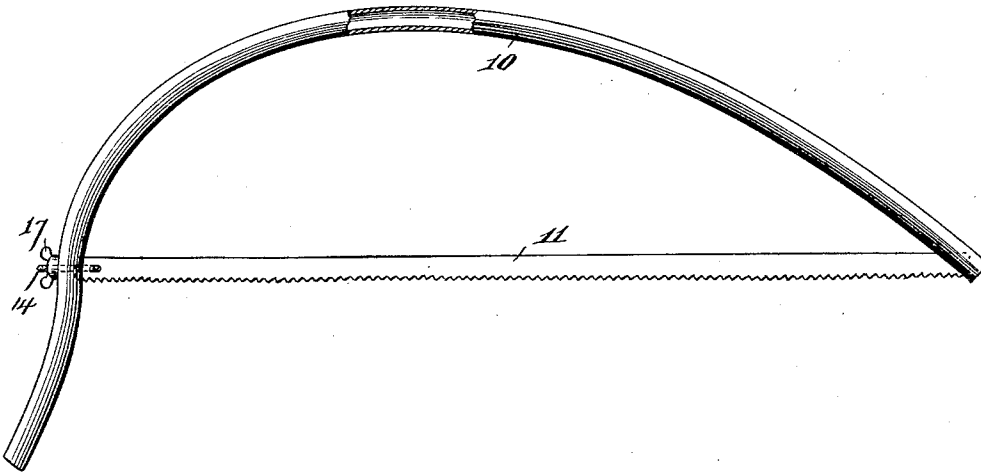


Fig. 2.

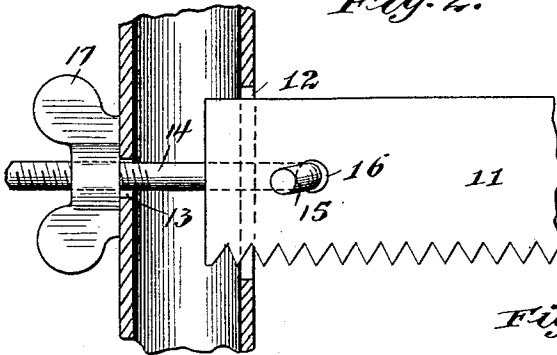


Fig. 3.

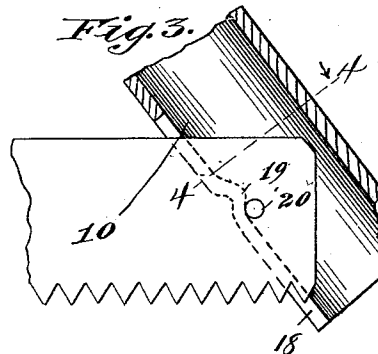
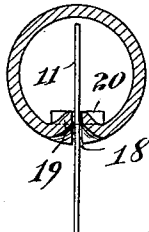


Fig. 4.



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UNITED STATES PATENT OFFICE.

HENRY F. CONDON, OF DE KALB, ILLINOIS.

SAW.

SPECIFICATION forming part of Letters Patent No. 653,947, dated July 17, 1900.

Application filed November 7, 1898. Serial No. 695,743. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. CONDON, of De Kalb, in the county of De Kalb and State of Illinois, have invented certain new and useful Improvements in Saws, of which the following is a specification.

This invention relates to saws, and has for its object to provide a simple, strong, and durable and at the same time inexpensive saw-frame to which the saw-blade may be readily and firmly connected; and to these ends my invention consists in certain novel features, which I shall now proceed to describe and will then particularly point out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of a structure embodying my invention, a portion of the frame being broken away to show the internal construction. Fig. 2 is a detail view, in vertical section and on an enlarged scale through the saw-frame, illustrating the mode of connecting the rear end of the saw-blade to the frame. Fig. 3 is a similar view through the front end of the saw-frame, illustrating the mode of connecting the front end of the blade to the frame; and Fig. 4 is a detail sectional view taken on the line 4 4 of Fig. 3 and looking in the direction of the arrow.

In carrying out my invention I construct the saw-frame 10 from a single piece of metal tubing or pipe bent to shape. The form which I prefer to give is that shown in the drawings, wherein the curvature is slight toward the front end of the frame and much more marked toward the rear end. By reason of this construction the forward end of the frame meets the saw-blade at an acute angle, and the frame is thus better adapted to resist the strains placed thereon by the tensioning of the saw-blade and by the resistance of the work, which would otherwise tend to bring the two points of the frame to which the blade is attached toward each other, thereby slacking the tension on the blade. The increase in curvature at the rear end of the frame brings the axis of this latter at about a right angle to the line of the blade, so that the straining-nut, hereinafter mentioned, has a proper bearing on the frame relatively to the blade.

The blade, which is indicated at 11, is inserted at its ends within the saw-frame, the tubular body of which is slotted, as indicated at 12, to receive the rear end of the saw-blade, as indicated in Fig. 2. This slot is located directly opposite an aperture 13, through which passes a threaded bolt 14, one end of which is provided with a hook 15 to engage an aperture 16 in the end of the saw. 17 indicates a straining-nut which screws upon the threaded end of the bolt 14 and bears against the outer or rear surface of the frame at a point where it is substantially at right angles to the blade. At its forward end the frame is slotted, as shown at 18, from its end upward and rearward, and a portion of the metal at the margins of the slot is forced upward and inward, as indicated at 18, by means of a punch or otherwise, to form a projection or stop. The blade is provided at its forward end with a transverse pin 20, which bears against the stop 19 and firmly holds the front end of the blade against the strain placed upon it by the nut 17 at the rear end. By loosening the nut 17 the front end of the blade may be readily slipped out of the frame, and the rear end may be readily detached from the hook at the end of the bolt 14. The blade may be as readily reinserted in the frame by a reversal of these movements.

A saw-frame constructed in the manner described is strong and durable, being particularly adapted for shipment to foreign countries and for use in climates which very seriously affect the ordinary wooden saw-frame. The frame is, moreover, light and comparatively inexpensive, and particularly adapted to resist the strains placed upon it while in use. Moreover, the frame is easily adapted to receive the saw-blade, and this latter may be readily placed in position or removed. It will also be observed that the tubing or pipe of which the frame is composed is extended in a continuous and integral piece downward beyond the point where the rear end of the saw-plate is connected with said frame, so as to form therewith an integral handle, thereby materially cheapening and strengthening the construction.

I do not wish to be understood as limiting myself to the precise details of construction

shown and described, as it is obvious that these details may be varied without departing from the principle of my invention.

I claim—

- 5 1. A saw-frame, composed of a single piece of metallic tubing or pipe bent as described and having slots to receive the ends of the saw-blade and an aperture to receive a straining-bolt, substantially as described.
- 10 2. A saw-frame, composed of a single piece of metallic tubing or pipe bent as described and having slots to receive the ends of the saw and an aperture for the straining-bolt, in combination with a saw-blade, means for connecting the front end of said blade with the front end of the frame, and a straining-bolt adapted to be connected to the rear end of the blade, extending through the aperture in the frame and provided externally thereof with a straining-nut, substantially as described.
- 20 3. The combination, with a saw-frame composed of metallic tubing or pipe having a slot extending upward from its forward end and

an inward projection, of a saw-blade adapted to enter said slot and provided with a pin to engage said projection, and means for connecting the rear end of the blade to the frame, substantially as described.

4. A saw-frame, composed of a single piece of metallic tubing or pipe bent as described, having a slot extending upward from its front end and an internal projection, and a second slot and aperture near its rear end, in combination with a saw-blade having an aperture near its front end, a pin in said aperture, and a second aperture near its rear end, and a straining-bolt provided with a hooked forward end to engage the saw-blade, extending through the aperture in the frame and provided at its rear threaded end with a straining-nut which bears against the frame, substantially as described.

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