(No Model.) 2 Sheets—Sheet 1.

J. V. DURAND.

METAL FRAME FOR SAWS.

No. 458,827. Patented Sept. 1, 1891.

Fig. 2a. Fig. 2.

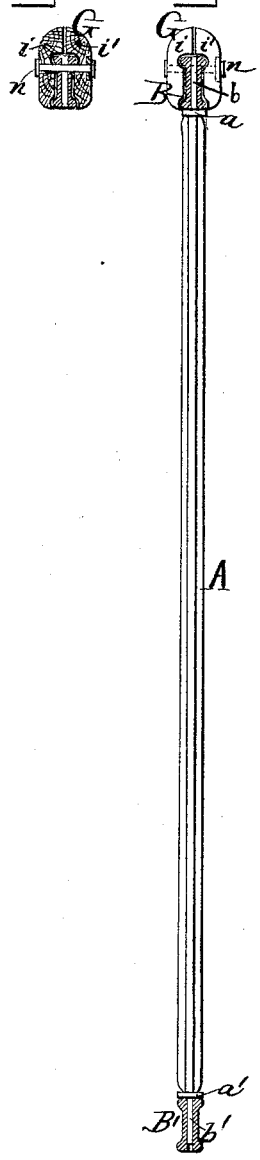


Fig. 1

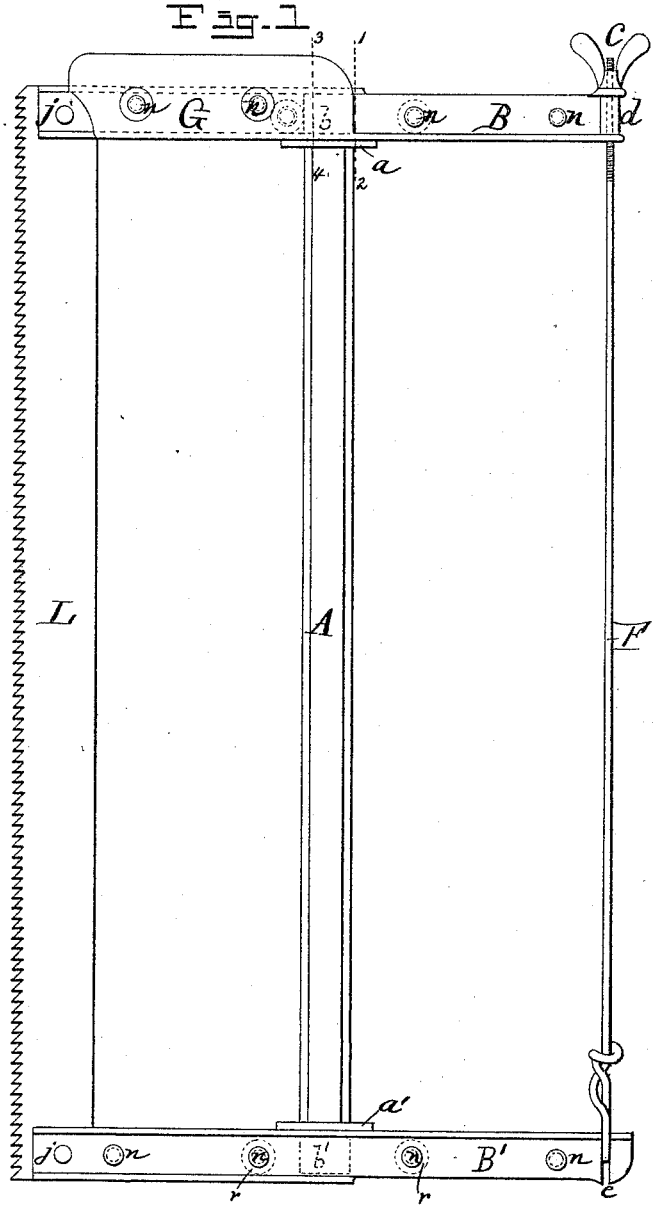
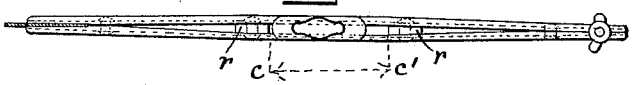


Fig. 3.



WITNESSES:

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(No Model.)

2 Sheets—Sheet 2.

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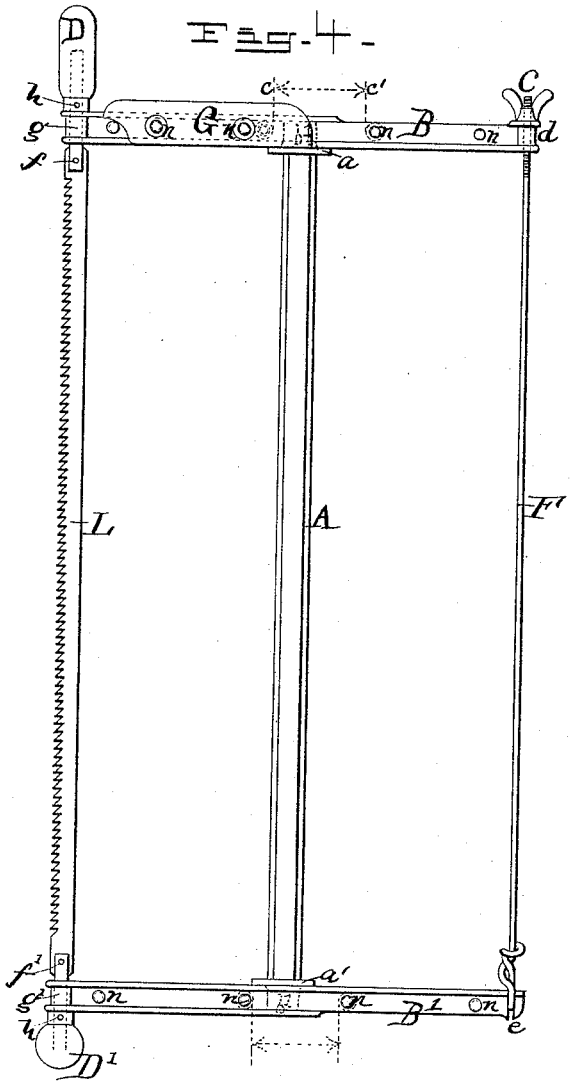
Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JULES VICTOR DURAND, OF ST. CHAMOND, FRANCE.

METAL FRAME FOR SAWS.

SPECIFICATION forming part of Letters Patent No. 458,827, dated September 1, 1891.

Application filed April 20, 1891. Serial No. 389,721. (No model.) Patented in France January 23, 1890, No. 203,319.

To all whom it may concern:

Be it known that I, JULES VICTOR DURAND, a citizen of the Republic of France, residing at Pré-Chateau Tzieux, near St. Chamond, (Loire,) France, have invented an Improved Arrangement of Metal Frames Applicable to All Kinds of Saws, (for which I have obtained a French patent, dated January 23, 1890, No. 203,319,) of which the following is a specification.

My invention relates to an improved construction of metal frames applicable to all kinds of saws—such, for example, as tenon-saws, bow-saws, molding-saws, and the like—whereby facility is afforded for setting up or mounting saws, the frames being solid, light, rigid, and of small cost, owing to the fact that all the parts thereof can be readily made in considerable numbers.

In order that the invention may be well understood, I will describe the same with reference to the accompanying drawings, in which—

Figure 1 is an elevation of a tenon-saw. Fig. 2 is a cross-section on the line 1 2, Fig. 1. Fig. 2ª is a cross-section on the line 3 4, Fig. 1. Fig. 3 is an end elevation, and Fig. 4 is an elevation of a bow-saw with my improved frame.

A is a tubular cross-piece formed by two pieces of stamped metal—such as iron, for instance—riveted together, thus affording great rigidity to the apparatus and preventing distortion. The said cross-piece has shoulders *a a'* and tenons *b b'*, which tenons enter recesses in the arms B B', so as to slide therein. The shoulders and the tenons may be made of one piece of metal firmly attached to the tubular cross-piece A.

The arms B and B' are each constructed of two sections of metal placed face to face and joined by bolts or rivets *n*. For the distance *c* to *c'*, Figs. 3 and 4, the two sections of metal are retained in a parallel position by means of metal washers *r*, through which pass the shanks of the joining-rivets *n*. Between the double ends of the sections forming sockets are mounted the saw-blade L and the tension-wire F, respectively. The said tension-wire is hooked at one of its ends into the groove or notch *e* on the arm B', and is held at the other end, after passing through the socket *d* of the arm B, by means of a thumb-screw C. One of the arms—for example, that marked B—is veneered or covered with wood or like material, so as to form a handle G of two sections *i i'*, Figs. 2 and 2ª, suitable for being grasped by the hand, the said wood or the like being secured by the rivets *n*.

The saw-blade L may be secured by ordinary pins or bolts *j'* between the arms B B', Fig. 1, when a tenon-saw is used, or by two pivots *f f'*, turning freely in the sockets *g g'*, formed at the extremities of the arms B B', when a bow-saw is used, Fig. 4. In the latter case the pivots *f f'* are supported in a metal tube and provided with handles D D', of wood or other suitable material, to which they are secured by means of a rivet or the like, which also passes through a ferrule or collar *h*, preferably of copper.

From the foregoing description it will be clear that the different parts constituting the saw and frame arranged according to my invention may be readily separated, as to accomplish this it is only necessary to unscrew the thumb-screw C and remove the pins or bolts which fasten the saw-blade. The cross-piece A is made to slide from *c* to *c'*, when desired, after the thumb-screw has been loosened, so as to change the fulcra of the lever-arms.

The frame can be tinned, galvanized, or protected by any other suitable means. It may be constructed of any suitable size and of any desired strength by using metal of the necessary quality or description.

I claim as my invention—

A metal frame for saws, consisting of a cross-piece with shoulders *a* and *a'* and tenons *b* and *b'*, arms B B', of metal sections secured together, having a space from *c* to *c'* left between them, forming a mortise for the play of the tenons, and a tension-wire and tightening-screw, all substantially as described.

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

JULES VICTOR DURAND.

Witnesses:

PANRIER,

B. BOUGEF.