

(No Model.)

H. L. MORRELL.
SAW FRAME.

No. 579,492.

Patented Mar. 23, 1897.

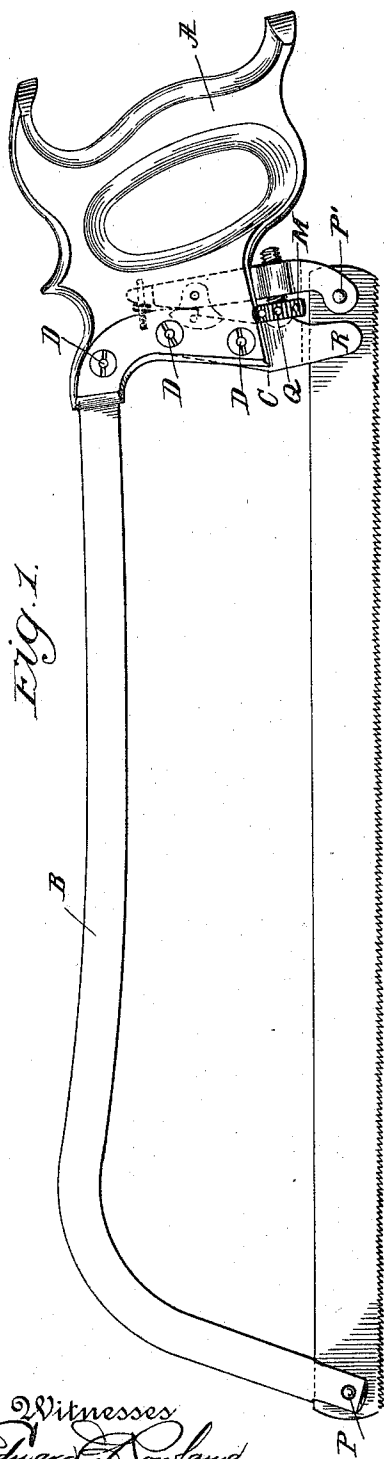


Fig. 1.

Fig. 6.

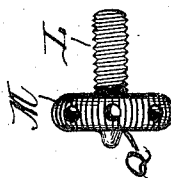


Fig. 4.

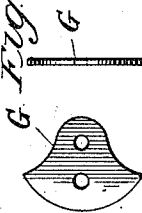
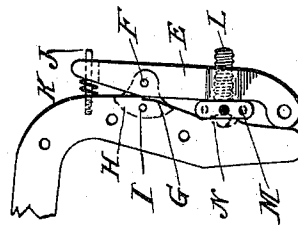


Fig. 3.



Fig. 2.



Witnesses
Edward F. Rowland.
Abdine Morrison

Henry L. Morrell
Inventor
By his Attorneys Phillips Abbott

UNITED STATES PATENT OFFICE.

HENRY L. MORRELL, OF BROOKLYN, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE SPIRAL TOOL AND MACHINE COMPANY.

SAW-FRAME.

SPECIFICATION forming part of Letters Patent No. 579,492, dated March 23, 1897.

Application filed October 20, 1896, Serial No. 609,399. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. MORRELL, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Saw-Frames, of which the following is a specification.

My invention relates to improvements in saw-frames, having for its object new and useful means for tightening the saw within the frame. It is adapted to use in connection with various kinds of saws and their frames. In the drawings hereof I illustrate it as applied to a butcher's saw, since its use is especially applicable thereto.

In the drawings, Figure 1 illustrates a side-wise elevation of the saw embodying the invention. Fig. 2 illustrates a detail of the construction of the operative parts at or near the handle of the saw. Fig. 3 illustrates an edgewise view of the rear end of the frame. Fig. 4 illustrates a side view of the fulcrum-plate. Fig. 5 illustrates an edgewise view of the fulcrum-plate. Fig. 6 illustrates an elevation of the screw and threaded spindle employed to tighten the saw.

A is the handle of the saw. B is the frame thereof.

C is the portion of the frame which is connected to the handle and is attached thereto by the ordinary rivets D D.

E is the stretching-lever. It is pivoted at F to a thin metallic plate G, preferably a piece of saw-blade, which is fastened within a slot or recess H in the rear edge of the part C of the saw-frame. The plate G is fastened within the said slot by a cross-pin I, or it may be brazed or otherwise held.

J is a spindle or pin which may be fixed in the saw-frame C and is surrounded by a spring K, which abuts at one end against the saw-frame and at the other end against the end of the lever E, so that the lever is normally thrown forwardly at its operative end.

The part C of the frame and the upper part of the lever E are both of the same thickness, or substantially so, and are both adapted to enter the saw-kerf in the front edge of the handle, as usual, and the spring K is preferably of not greater width than said saw-kerf,

so that all these parts may be received within, secreted from sight, and protected by the sides of the wooden handle, between which they are embraced when in place.

L is a threaded spindle to which is attached a nut M. One end of this spindle rests in a recess N in the saw-frame C, and the other end passes through a threaded opening made in the lever E, so that when the nut M is turned the lower end of the lever will be crowded rearwardly. The nut and spindle engage with the lever E below the wooden part of the handle.

O is the saw, which is fastened at its forward end to the downwardly-projecting extremity of the frame B by a pin P in the usual manner, and at the opposite end is attached by a similar pin P' to the lower end of the lever E. The threaded thumb-nut is milled upon its exposed edge, which projects laterally beyond the lever E and portion of the frame C, and is preferably provided with holes Q, in which a nail or equivalent device may be thrust to aid in turning it if it be too stiff to turn with the fingers alone.

The lower end R of the part C of the frame has a slit S in it of sufficient size to receive the saw, and the saw passes through that slit and is sustained by its sides.

The operation of the apparatus is as follows: When no saw is in the frame, the spring K on the spindle J normally throws the lower end of the lever E forwardly, so that the saw can be easily inserted. It is preferably fastened at the forward end of the frame by the pin P first, and then, having been set into the slit S, is properly engaged with the lower end of the lever E by the pin P'. Thereupon, in order to stretch the saw, the thumb-nut M, and consequently the spindle L, are revolved, which presses the lever E rearwardly, thus tightly stretching the saw. Any desired tension may be applied to it by increasing the rearward movement of the thumb-nut, and if the strain is too great to permit of the nut being turned by the fingers, then a nail or equivalent device may be inserted in the holes Q in it, and with this aid the saw may be given any desired tension or stiffness; and it will be particularly noticed that the upper

part of the lever E and the spring K and spindle on which it moves are all protected from injury by being inclosed within the handle of the same, and are also secreted
5 from view, so that the tool presents a much better appearance. This feature is of considerable consequence in a butcher's saw, because fat and other adhesive material catch and lodge in all uneven surfaces of butchers'
10 saws and occasion much trouble in cleansing the same, which has to be done daily in order to keep the tool sweet and fit for use.

It will be seen by those who are familiar with this art that modifications in the construction of the parts will be desirable when
15 the invention is applied to saws other than butchers' saws, but such modifications will be obvious. I therefore do not limit myself to the details of construction described and
20 shown.

I claim—

The combination of a saw-frame, a portion of which is attached to the handle and is at substantially right angles to the back of the frame, a lever located within the handle and
25 pivoted to the portion of the frame, which is attached to the handle, a thumb-nut and threaded spindle interposed between said portion of the frame, and the lever at or near its end, and a slit or opening in the lower end of
30 the saw-frame through which the saw passes when attached to said lever, for the purposes set forth.

Signed at Brooklyn, in the county of Kings and State of New York, this 17th day of October, A. D. 1896.

HENRY L. MORRELL.

Witnesses:

JOHN M. E. MORRILL,
WM. J. BROWN.