H. NIELSEN.

SAW FRAME.

APPLICATION FILED DEC. 19, 1911.

1,115,858. Patented Nov. 3, 1914.

Fig. 1.

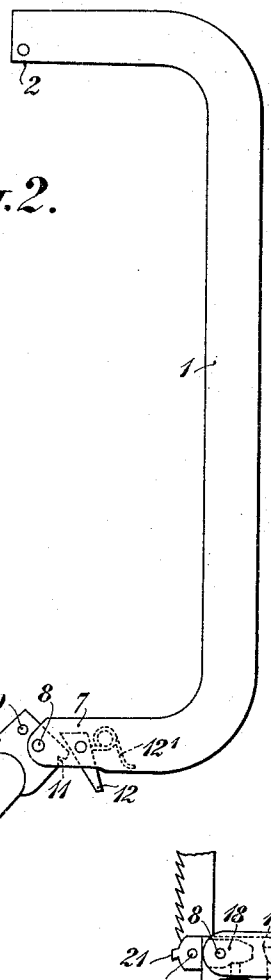


Fig. 2.



Fig. 3.

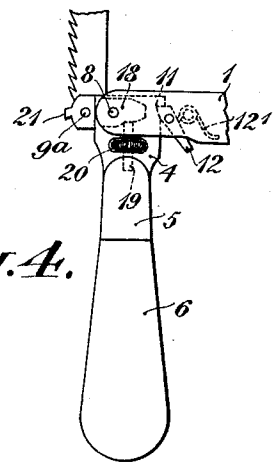


Fig. 4.

WITNESSES.

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SAW-FRAME.

1,115,858. Specification of Letters Patent. Patented Nov. 3, 1914.

Application filed December 19, 1911. Serial No. 666,680.

To all whom it may concern:

Be it known that I, HERMAN NIELSEN, a citizen of the United States of America, residing in Frederiksberg, in the Kingdom of Denmark, have invented certain new and useful Improvements in Saw-Frames, of which the following is a specification.

This invention relates to certain improvements in saw-frames, principally of that kind which are made of tubular material, and in which the handle is pivoted to the lower end of the frame and adapted to lock the blade firmly in position.

For this purpose the invention consists of a saw-frame, which is provided with a handle pivoted to its lower end and adapted to be locked, at a point eccentrically to the pivot of the handle, by spring-actuated locking means as will be fully described hereinafter and finally pointed out in the claim.

In the acompanying drawings two forms of construction are shown, in which—

Figure 1 represents a side-view of my improved saw-frame, showing the handle in position for inserting the blade, Fig. 2 is an end-view of the upper extreme end of the frame, Fig. 3 is a side-view of the handle, showing its flat-portion from its narrow side, and Fig. 4 shows means for adjusting the attachment point of the blade.

Similar letters of reference indicate corresponding parts throughout the several figures of the drawings.

In the drawings 1 is the frame which is preferably made of a tube having a flattened, oval cross-section, as shown in Fig. 2. The frame has a slit 2 in the extreme upper end, into which the upper end of said blade is inserted and held by a pin 3 which passes through openings near the slitted portion of the end.

4 represents the flat-pressed portion of the tube 5 which may either serve directly as a handle or be combined with a wooden handle 6, as shown in Fig. 3.

7 is the fork-shaped lower end of the frame 1 and 8 a cross-pin on which the part 4 of the handle is pivoted in the fork-shaped end of the frame 1. Eccentrically to said pivot-pin 8 is arranged a hole 9 for attaching the lower end of the blade by means of a transverse pin 10 (Fig. 3). At the opposite side on the flat-pressed portion 4 is arranged a notch 11. Adjacent to the flat-pressed portion 4 is pivoted, in the lower end of the frame, a pawl 12, which is acted upon by a wire or other spring 12′ so that when the handle is moved into working position, the pawl will be pressed into the notch 11 and the handle locked firmly to the frame. In the spaces 13 and 14, shown in Figs. 2 and 3, are inserted suitable hooks for holding the blade at right angles to the plane of the frame.

As the distances between the holes at the ends of standard saw blades of the same length often vary slightly due to inaccuracies in the manufacture, the fixing point at 9 can be made adjustable as shown in Fig. 4. While in Fig. 1 the lever arm 8, 9 has a constant length and position in relation to the other parts of the handle the form of construction shown in Fig. 4 shows a special lever 18 arranged inside the portion 4 of the handle. This lever may preferably be made to pivot on the same pin 8 serving to connect the handle with the frame 1. At the outer end of this lever is arranged a hole 9^a for fixing the blade, while its inner end abuts against a screw 19 placed inside the handle 4, 5, 6, the position of this screw being adjusted by means of a nut 20 arranged to turn in a slot in the flat portion 4.

21, Fig. 4 is a hook arranged at the free end of the lever 18 and which is used when it is desired to place the blade at a right angle with the frame.

When using a special wooden handle 6 in connection with the piece 4, 5 the handle may be suitably provided with a notch 22 as shown in Fig. 3 into which for instance a U-shaped spring 23 is inserted and which tends to press the handle firmly into the portion 5.

I claim:

A saw-frame, comprising a bow, a saw-guiding and blade-tensioning handle pivoted on a transverse axis to the inner end of the same, and extending therefrom in the direction of motion of the saw, means for connecting a saw-blade with the outer end of the bow, a lever pivoted to the inner end

of the bow, means for connecting the saw-blade with the outer end of said lever, a thumb-screw adjustable between the handle and the inner end of said lever, and a releasable catch between the handle and the bow for holding the handle in position with the thumb-screw engaging the lever.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

HERMAN NIELSEN.

Witnesses:

P. HOFMAN-BANG,

ERNEST BOUTARD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."