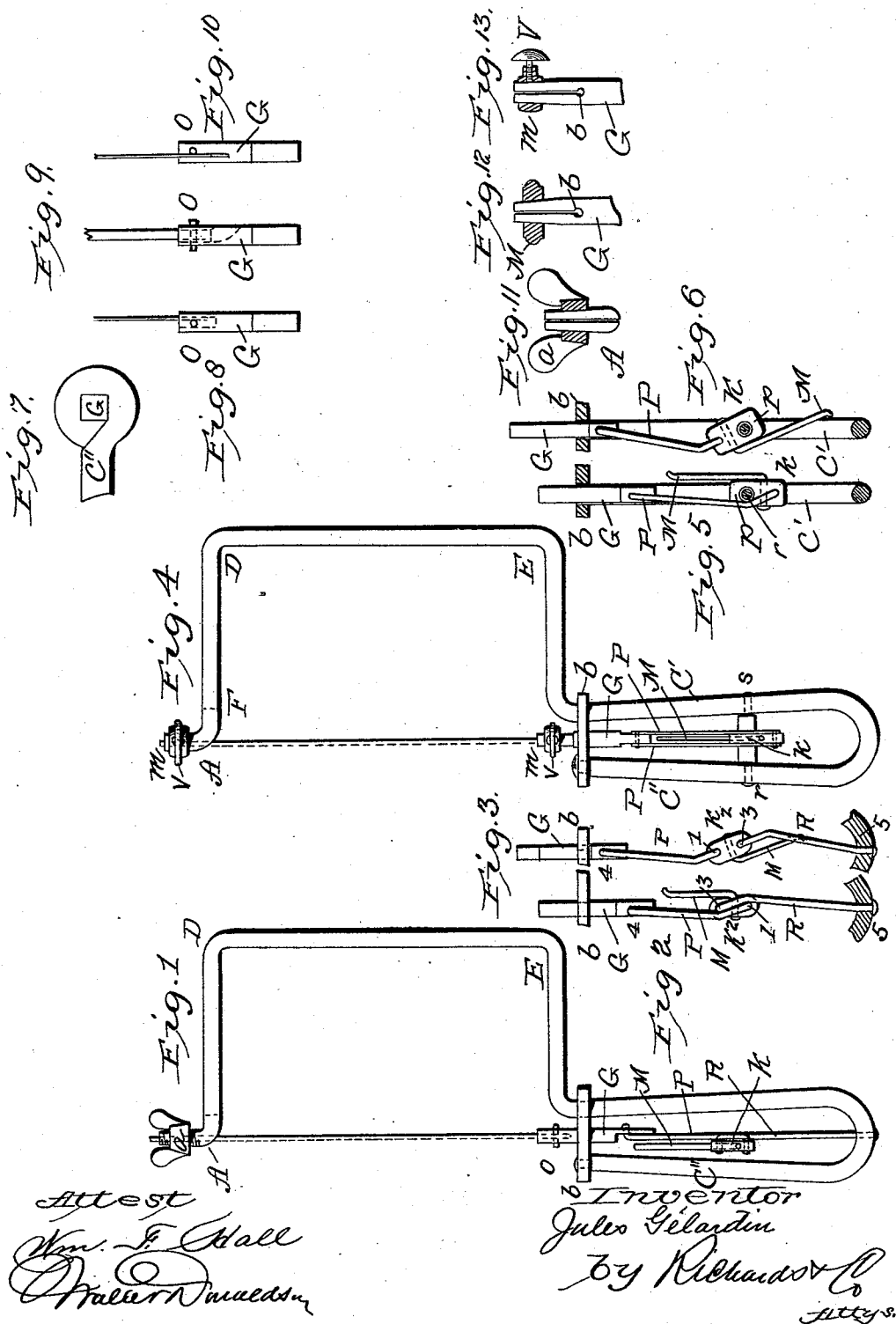


(No Model.)

J. GÉLARDIN.
SAW FRAME.

No. 527,845.

Patented Oct. 23, 1894.



UNITED STATES PATENT OFFICE.

JULES GÉLARDIN, OF PARIS, FRANCE.

SAW-FRAME.

SPECIFICATION forming part of Letters Patent No. 527,845, dated October 23, 1894.

Application filed March 3, 1894. Serial No. 502,258. (No model.) Patented in France August 2, 1892, No. 223,409; in Switzerland February 13, 1893, No. 6,326; in England February 14, 1893, No. 3,318, and in Germany May 18, 1893, No. 68,680.

To all whom it may concern:

Be it known that I, JULES GÉLARDIN, a citizen of the Republic of France, residing at No. 159 Rue du Temple, Paris, France, have invented certain new and useful Improvements in Saw-Frames with New Fastening and New Tension Devices, of which the following is a specification.

This invention has been patented to me in France, No. 223,409, dated August 2, 1892; in Switzerland, No. 6,326, dated February 13, 1893; in England, No. 3,318, dated February 14, 1893, and in Germany, No. 68,680, dated May 18, 1893.

My invention relates to saw frames and is designed to dispense with the locking screws of the ordinary jaws which are difficult to operate and wear out very rapidly and to render unnecessary a nut screw for adjusting the tension of the blade.

My saw frame includes a fastening device for the top of the blade and a tension device which furnishes an almost instantaneous tension by the swinging of a lever.

In the accompanying drawings Figure 1, is the saw frame with blade, the saw being stretched. Figs. 2 and 3 show different positions of the tension device. Fig. 4, shows a modification of the stretcher; Fig. 5, a profile view when stretched, and Fig. 6, a similar view when not stretched of the mechanism of Fig. 4. Fig. 7, is a sliding eye guiding the piece to which the lower part of the blade is fastened. Figs. 8, 9, 10, 11, 12 and 13 are the various modifications used for holding the upper and lower portions of the blade, according to its size.

The saw frame consists of a body of iron or steel wire, round, square or flat. It can be of one or more pieces according to the shape or the quality of the material. The prolongation of the body is suitably bent to form the handle of the saw frame. At the angles D and E or over the whole of the frame the material can be hammered so as to make it stiffer and when the body is made of steel the latter can be tempered. A cross piece *b-b* provided with three holes is located on top of the handle. The arms, C' C'' pass through the first and through the last of said holes

while the third, at the center is square acting as a guide for the piece G which slides through the same. The cross piece *b-b*, can be replaced by a sliding eye, Fig. 7, which can be constructed by turning the extremity of the arm C'' of the handle over a square mandrel.

The lower part of the blade is fastened to the piece G. When the saws are narrow said piece G is provided with a tapering hole to receive the end of the saw where it is held by means of a conical pin O (Figs. 1 and 8) which locks it in place. For wider blades (Figs. 9 and 10) a slit is formed in the end of the part G and the saw end is locked upon its face by the conical pin O.

For narrow blades or for those with stronger teeth, the extremity of the piece G is slightly conical and split in the center and encircled by the ring *m* which brings the separated parts together by its being pushed in and squeezes the blade between the said parts separated by the split. The ring *m* being wedged upon the cone of the piece G stays in its place where it has been pressed down but for safety a pressure screw V can be added. (See Figs. 4 and 13.)

The top of the blade is secured as follows: The extremity of the body ends in A by a conical part split in the center, Fig. 11. The width of the split is regulated by a nut *a* the pressing or screwing down of which (Figs. 1 and 11) secures the blade.

The tension of the blade is obtained by a swinging tightener following the axle of the blade. It can be constructed with two or three arms. In Figs. 1, 2 and 3 it is formed of three arms P. R. M. the extremities of which are fastened to a runner K. The other extremity 5 of the arm R is fixed to the handle while the extremity 4 of the arm P is connected with the piece G. The result of the construction is that by turning the lever M (Figs. 2 and 3) I displace the inner extremities 1 and 3 of the arms P. R bringing them into the position of Fig. 2 to tighten the blade and to the position of Fig. 3 to loosen the blade.

In the modification of Figs. 4, 5 and 6 the arm R of Figs. 1, 2 and 3 is dispensed with and the runner K finds its resting point upon

the axle *r-s* upon which it pivots said axle extending between the two sides *C' C''* of the handle.

5 Figs. 5 and 6 show the change of position of the parts the lever *M* being turned to swing the runner *K* upon its pivot.

I claim as my invention—

10 1. In combination in a saw, the frame, the saw blade, the piece *G* secured to one end of the blade, said frame having a slitted forwardly extending end *A* provided with a screw thread, and the nut thereon to clamp the slit end and the end of the saw blade together, substantially as described.

15 2. In combination in a saw, the frame comprising the bends *D E*, the forwardly bent end *A*, and the handle comprising a prolongation of the frame formed of the sides *C' C''*,

the saw blade secured at its forward end to the forwardly bent end *A*, the piece *G* intermediate of the sides *C' C''* the latter of which is bent back along the former, the guide for said piece and the straining device located between the sides *C' C''* and connected to the handle, said straining device comprising the oscillating runner *K* connected with the handle of the saw between the sides *C' C''*, the link *P* connecting the same with the piece *G*, and the handle connected to the runner substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JULES GÉLARDIN.

Witnesses:

MAURICE TIEPLER.

CLYDE SHROPSHIRE.