

No. 809,485.

PATENTED JAN. 9, 1906.

F. A. WUEST,

SAW.

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FIG. 1.

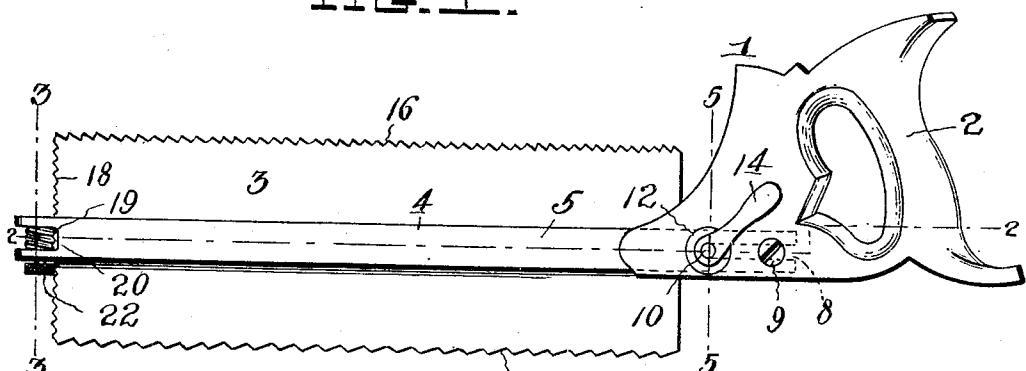


FIG. 2.

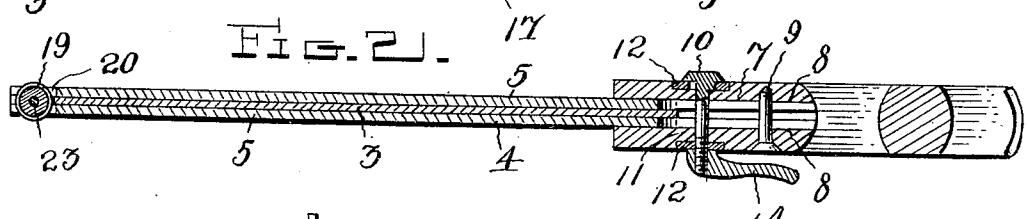


FIG. 3.

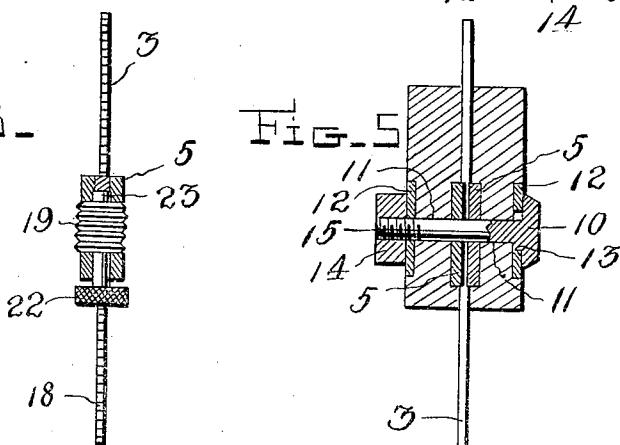


FIG. 5.

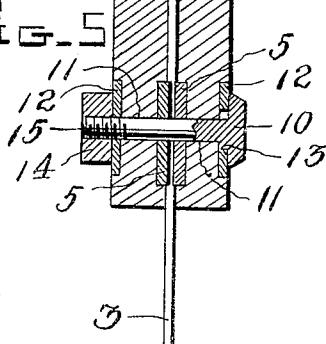
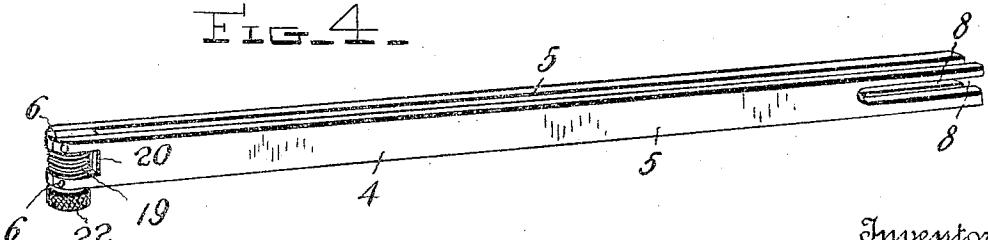


FIG. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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To all whom it may concern:

Be it known that I, FREDERICK A. WUEST, a citizen of the United States, residing at Lawrenceburg, in the county of Dearborn and State 5 of Indiana, have invented certain new and useful Improvements in Saws; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains 10 to make and use the same.

My invention relates to improvements in saws, and more particularly to a tenon or back saw in which the blade is adjustably mounted.

The object of the invention is to provide a 15 simple, convenient, and comparatively inexpensive means for quickly adjusting the blade in the back.

With the above and other objects in view the invention consists of certain novel features 20 of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of the saw constructed in accordance with my invention, the blade being 25 adjusted so that its two cutting edges are exposed on both sides of the back. Fig. 2 is a longitudinal sectional view taken on the plane indicated by the line 2 2 in Fig. 1. Fig. 3 is 30 a detail transverse sectional view taken on the plane indicated by the line 3 3 in Fig. 1. Fig. 4 is a perspective view of the back removed from the handle, and Fig. 5 is a detail transverse section taken on the plane indicated by 35 the line 5 5 in Fig. 1.

Referring to the drawings by numerals, 1 denotes my improved tenon or back saw, which comprises a handle 2 of the usual form, a double-edged blade 3, and a back 4 for adjustably 40 securing the blade to said handle. The back 4 is preferably formed of two metal bars or strips 5, which are spaced apart and secured together at their outer ends, as shown at 6, and which have their inner ends seated in a 45 recess 7, formed in the handle 2. Said inner ends of the bars 5 are formed with registering longitudinally-extending slots 8, which engage a screw 9 and a bolt 10, provided in the handle for the purpose of securing the 50 latter to the back and the saw-blade between the bars of the back. The screw 9 may be a stop-pin of any kind; but I preferably employ a wood-screw, as clearly shown in Fig. 2. The bolt 10 extends through the slot 8 55 and alining openings 11, formed in the handle, and has its flattened head engaged with

one of the two wear-plates 12, which are countersunk in the opposite sides of the handle concentric with the openings 11. The bolt 10 has an enlargement or lug 13 formed 60 on the under side of its head and adapted to engage one of the notches formed in the openings in the wear-plates or washers 12, as shown in Fig. 5 of the drawings, so that said bolt will be prevented from turning when the 65 wing-nut 14 is screwed upon the threaded end 15 of said bolt to clamp the parts together. The blade 3 has each of its longitudinal edges 16 17 formed with cutting-teeth, which are preferably of different size or construction, 70 so that the saw may be used either as a rip or a crosscut saw. The outer end of the blade 3 is also formed with notches or teeth 18, which provide a rack which coacts with a worm 19, mounted in the outer end of the 75 back 4. This worm 19 is revolvably mounted, as shown in Fig. 5, in a recess 20, formed in the outer ends of the bars 5, and it is adapted to be conveniently rotated to adjust the blade between the bars by means of a circular 80 knob or head 22, which is formed or secured upon one end of its shaft or pivot 23. This finger-piece or knob 22 has its periphery roughened, as shown, to permit it to be readily turned. 85

By mounting the blade in the manner shown it may be readily adjusted in the back 4 by loosening the wing-nut 14 and turning the knob or finger-piece 22 in the proper direction to cause the worm which engages the 90 teeth 18 on the outer end of the blade 20 to move the latter transversely in the desired direction. When the outer end of the blade has been thus adjusted, its inner end is then shifted to the desired position and clamped 95 by tightening the nut 14, the blade being securely clamped between the spaced bars 5 and in the slotted portion of the handle, as shown. By adjustably mounting the blade it may be shifted to any position in the back, so as to 100 act as a gage for cutting tenons or the like of uniform depth, and by providing different forms of cutting-teeth on the opposite edges of the blade the latter may be reversed and used either as a rip or a crosscut saw. 105

I claim—

1. A saw having a slidably-mounted blade provided with rack-teeth along one edge, and a screw having its thread engaged with said teeth for adjusting said blade. 110

2. A saw comprising a handle, a back, a blade slidable in said back and having rack-

teeth, a worm-screw having its thread engaging said rack-teeth for adjusting one end of said blade, and means for clamping the other end thereof.

5. 3. A saw comprising a handle, a back, a blade having rack-teeth upon its outer end, a worm-screw mounted in the outer end of said back and having its thread engaged with said rack-teeth, and means for clamping the inner 10 end of said blade.

4. A saw comprising a handle, a slotted back, a saw-blade slidable in the latter and having its outer end formed with rack-teeth, a worm-screw journaled in the recessed outer 15 end of said back and having its thread engaged with said rack-teeth, a finger-piece for operating said worm-screw, and means for clamping the inner end of said blade.

5. A saw comprising a handle formed with 20 a recessed portion, a back consisting of two spaced members connected together and re-

cessed at their outer ends and formed with alining longitudinal slots at their inner ends, a guide-screw in said handle extending through said slots, a clamping-bolt in said handle and 25 extending through said slot, a blade slideable between the members of said back and having cutting-teeth on its longitudinal or side edges and rack-teeth on its outer end, a worm-screw in the recess in the outer end of said 30 back and having its thread engaged with said rack-teeth, and a knob or finger-piece for rotating said worm-screw, substantially as described.

In testimony whereof I have hereunto set 35 my hand in presence of two subscribing witnesses.

FREDERICK A. WUEST.

Witnesses:

GEORGE FEDERLE,
RUDOLPH KOHLERMANN.