

J. HOLDEN.

Improvement in Saws.

No. 124,268.

Patented March 5, 1872.

Fig. 1.

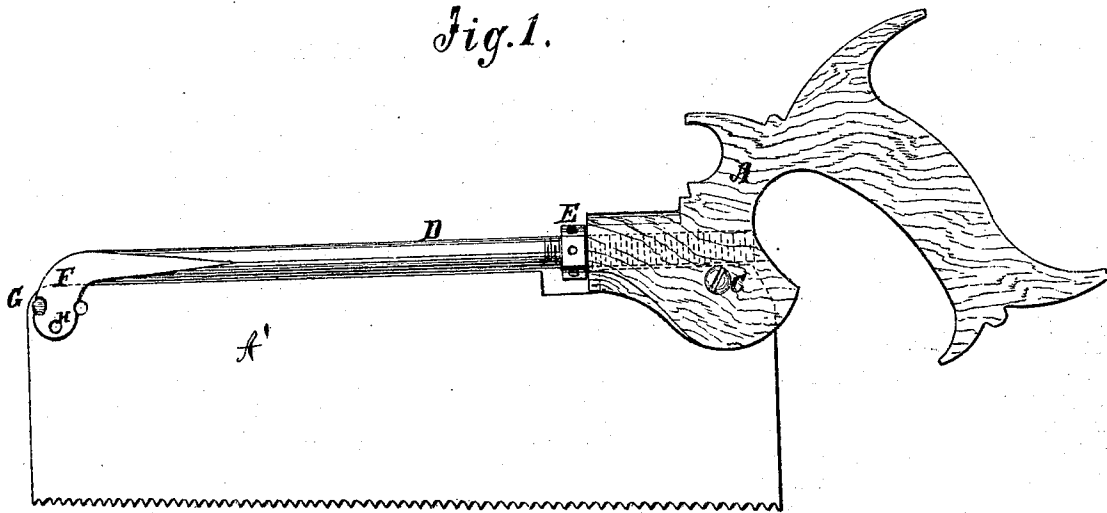
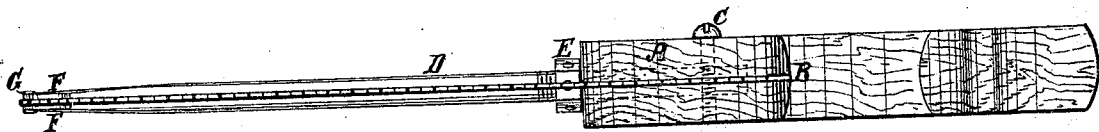


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH HOLDEN, OF MIDDLETOWN, NEW YORK.

IMPROVEMENT IN SAWS.

Specification forming part of Letters Patent No. 124,268, dated March 5, 1872.

Specification describing a new and Improved Joiners' Back-Saw, invented by JOSEPH HOLDEN, of Middletown, in the county of Orange and State of New York.

My invention consists in having the back formed of a bar or rod of iron, preferably round, with one end fitting in a hole in the handle, so as to shift forward and back, with a nut screwing onto it against the handle to force the back outward, to strain the saw, which is connected to the handle in the ordinary way, the other end of the back being extended to or toward the outer end of the saw-blade, and connected to it for straining it. The rod or bar forming the back is not grooved, and the back edge of the saw let into it, as in the case of the ordinary back-saws; but the said back edge of the saw is intended to fit as snugly against the side of the back as it may and be free of it.

The principal object of the invention is economy in the expense of the construction; but it has other advantages, which will be pointed out.

Figure 1 is a side elevation of my improved saw, and Fig. 2 is a view looking toward the cutting-edge.

Similar letters of reference indicate corresponding parts.

The handle A has a slit, B, sawed in it to receive the end of the saw-blade, as in other saws, for fastening by the screws; but, instead of two screws, C, as commonly required, I use but one, being all that is needed to hold the saw tight, owing to the adjustable back. The back D, which consists of a bar or rod of iron is fitted into a hole in the handle, bored for it, as indicated by the dotted lines, and the part fitting said hole, together with a part beyond the handle, is screw-threaded, and has a nut, E, fitted on it to screw against the end of the handle to strain the saw. The outer end F is flattened and bent around toward the saw, and nicked to receive it sufficiently to be connected to it by a pin or rivet, G, passing through a hole in the saw, and either resting in a notch in the outer end or passing through a hole, H, in said end.

This mode of attaching the back to the wood handle is much cheaper than the connection of the ordinary flat back, for the hole is formed by boring, while a recess or cavity must be worked into the handle by chisels for

the flat back, which requires much more labor and time. The flat backs are very expensive to make, whereas I take any suitable bar or rod of the right size, and complete it by forming the screw-thread for the nut and shaping the outer end for connecting the saw-blade to it, both of which are simple operations.

Again, when the back is formed in the old way, the saw, being placed in the groove in the back for it, is secured by hammering the sides of the back to pinch them upon the blade to hold it. This warps and buckles the saw to a considerable extent, for it is impossible to hammer the sides alike throughout their length, and this buckling of the saw must be hammered out after it is connected to the back, all of which is avoided by my improvement.

When the saw is once connected to the back in the old way it cannot be disconnected for filing and setting, which is objectionable, because the back and the handle interfere greatly with placing the blade in a vise or clamp for filing, or on a plank in a setting apparatus for setting; whereas, by this plan, the pin G being removed, the blade can be wholly detached, or be swung away from the back on the screw C, to be placed in the vise.

After the wood handle has shrunk the blades get loose and shift about in the handle so as to interfere considerably with doing work well by them when connected in the old way; whereas, when arranged according to my improvement, they can be kept tight by the adjusting-nut E, although the handle shrinks to any extent it is liable to.

It will be seen that the back may be adjusted readily for saws, varying considerably in length, for it may extend into the handle more or less within a considerable range of variation.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The back-saw, herein described, when formed with the saw-blade A', back-bar D, and handle A, and connected together in the manner herein described.

The above specification of my invention signed by me this 26th day of August, 1871.

JOSEPH HOLDEN.

Witnesses:

GEO. W. MABEE,
T. B. MOSHER.