June 9, 1925. 1,541,611

J. P. ARNOLD

BACKSAW

Filed Dec. 18, 1923 2 Sheets-Sheet 1

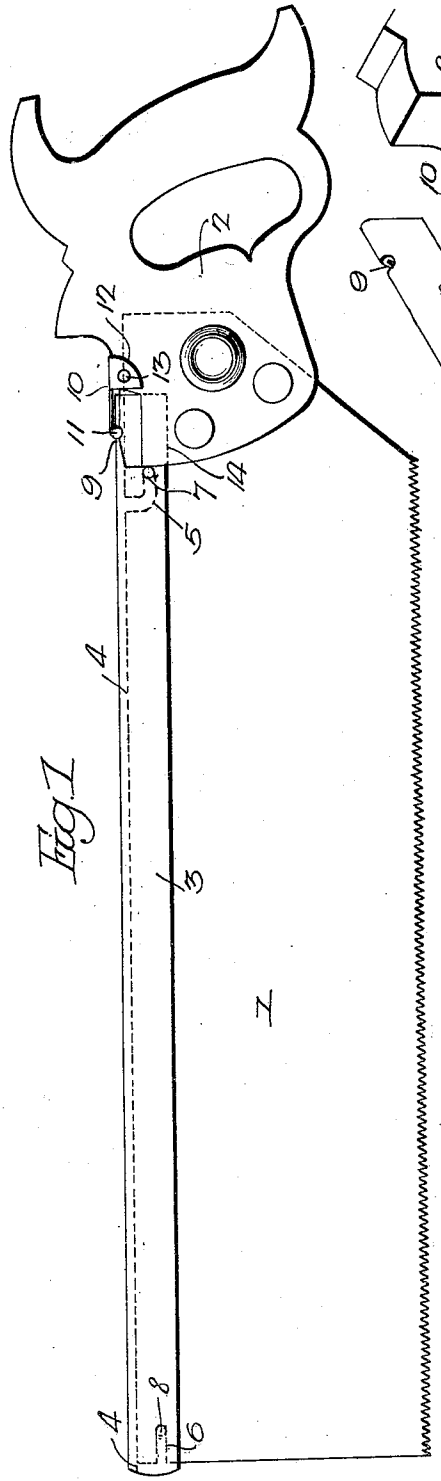

Fig. 1

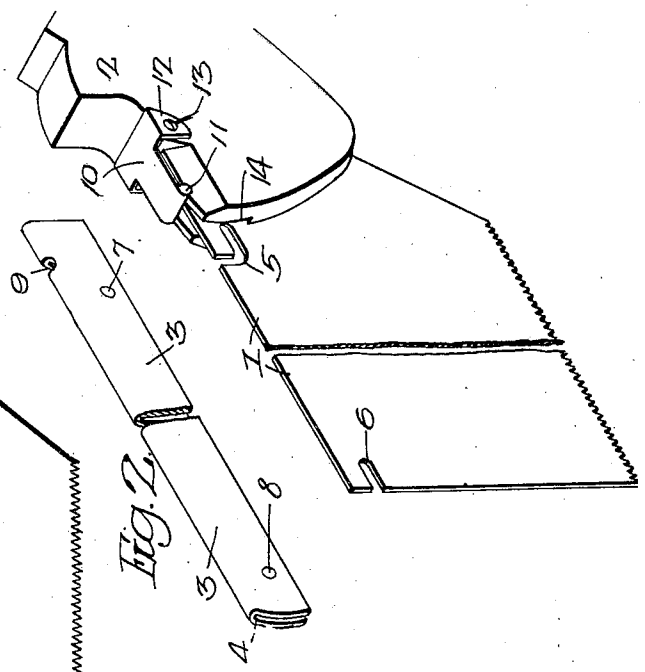

Fig. 2

Inventor.
John P. Arnold
by his Attorneys.
Howson & Howson

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Filed Dec. 18, 1923 2 Sheets-Sheet 2

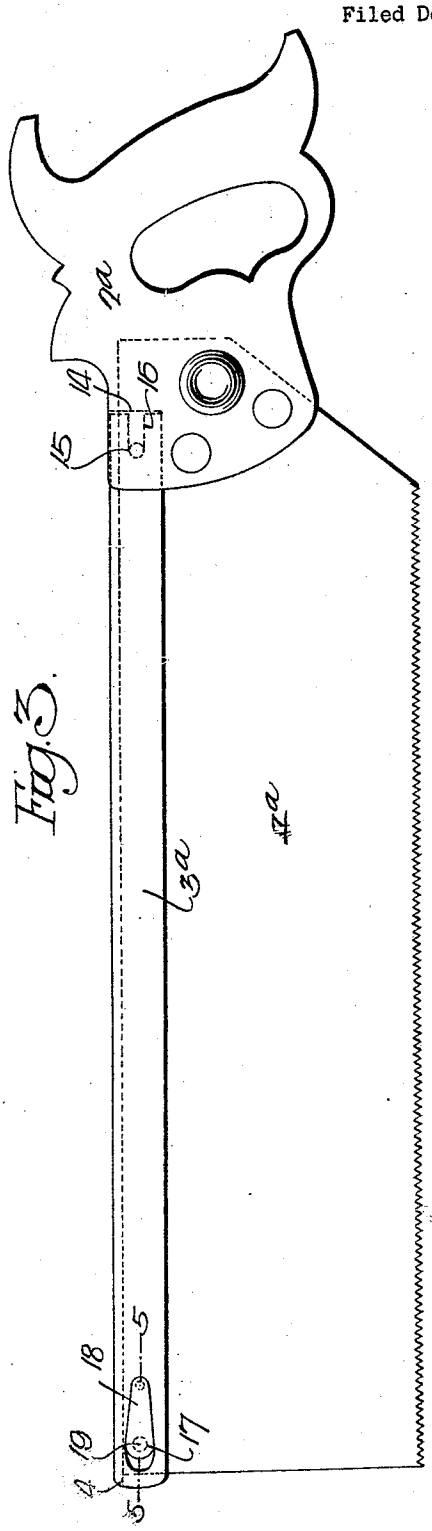

Fig. 3.

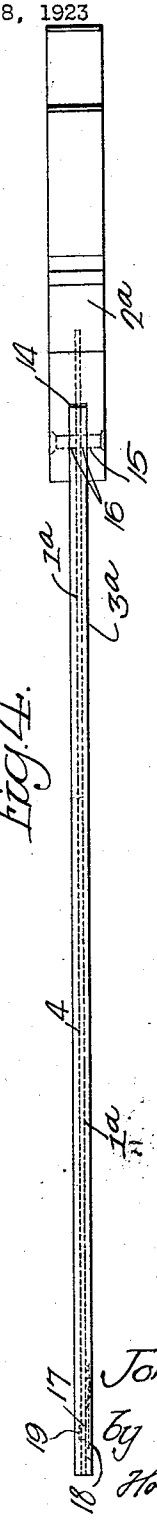

Fig. 4.

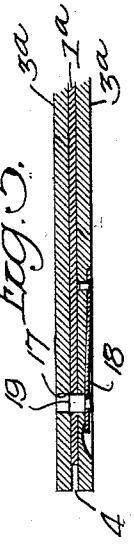

Fig. 5.

Inventor.
John P. Arnold.
by his Attorneys
Howson & Howson

Patented June 9, 1925. 1,541,611

UNITED STATES PATENT OFFICE.

JOHN P. ARNOLD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HENRY DISSTON & SONS, INCORPORATED, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

BACKSAW.

Application filed December 18, 1923. Serial No. 681,401.

To all whom it may concern:

Be it known that I, JOHN P. ARNOLD, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Backsaws, of which the following is a specification.

My invention relates to certain improvements in saws known as "back saws," in which the blade is stiffened by a heavy back member.

In the general construction of saws of this type, the back is secured to the blade throughout its entire length. This is objectionable for two reasons. First, in the event of the saw being bent out of "true," the heavy back, which clamps the blade the entire length, will hold the blade in the bent position. Second, when the saw is used as a mitre saw, the cut is limited to the depth of the blade.

One object of the invention is to make the back of the saw movable, or detachable, so that, when a deep mitre is being cut, the back can be removed, or shifted, to allow the blade of the saw to cut the full depth of the mitre.

A further object of the invention is to make the back independent of the blade and to attach it to the blade at the ends so that, if the blade bends slightly, the back will not be affected.

In the accompanying drawings:

Fig. 1 is a side view of a back saw, illustrating my invention;

Fig. 2 is a perspective view of a portion of the saw with the back removed;

Fig. 3 is a side view illustrating a modification;

Fig. 4 is a plan view of the modification illustrated in Fig. 3; and

Fig. 5 is a sectional view on the line 5—5, Fig. 3.

Referring to the drawings, 1 is the blade of a saw. 2 is the handle, which is secured to the blade in the ordinary manner. 3 is a back, which has a groove 4 therein that extends throughout its length and is arranged to fit snugly over the back of the saw blade. This back stiffens the blade and is secured thereto, at each end, to allow the blade slight independent movement sidewise. The blade has an undercut notch 5 at the handle end, and a slot 6 at the outer end. The back has two pins 7 and 8. One pin is at one end of the back and the other pin is at the opposite end.

To apply the back to the saw blade, the pin 7 is introduced into the undercut slot 5 and the back is brought down onto the blade until the pin 8 is opposite the slot 6. The back is then moved longitudinally so that the pin 8 will enter the slot 6, the pin passing farther into the undercut notch 5.

The back is notched at 9. A spring catch 10, which has a rounded portion 11, enters the notch 9, as shown clearly in Fig. 1, and holds the pins 7 and 8 in their respective slots, retaining the back firmly to the blade. The catch is made as shown clearly in Fig. 2, and has portions 12, which extend on each side of the handle 2. Screws 13 extend through openings in these portions and into the handle, securing the catch firmly onto the handle. Other means of attaching the catch to the handle may be used without departing from the essential features of the invention. The catch may also be modified, if desired.

It will be noticed, on referring to Fig. 2, that the end of the handle is cut away at 14 to allow for the free movement of the back when it is applied to the blade or is removed therefrom.

In Figs. 3 and 4, a modification is illustrated, in which there is a transverse pin 15 that extends across a slot in the handle and through the blade. The back is notched at 16 to receive the pin. The outer end of the blade is perforated, as at 17, and a spring catch is secured to the back 3^a and has a pin 19 that enters the perforations 17 in the blade to hold the back firmly to the blade 1^a. By raising the catch 18, the back can be removed easily.

I claim:

1. The combination in a back saw, of a blade; a handle secured to the blade; a back having a longitudinal groove to receive the blade, the blade having a slot at each end; pins on the back arranged to enter the slots, the back having a notch; and a catch on the handle arranged to enter the notch in the back when said back is in position on the blade.

2. The combination in a backsaw, of a blade; a handle secured to the blade; a back having a longitudinal groove to receive the

blade; a pin connecting the inner end of the back to the blade; and a spring catch detachably securing the opposite end of the back to the blade.

3. The combination in a back saw, of a blade; a handle secured thereto; a back grooved to receive the edge of the blade, the blade having an undercut notch at one end and a slot at the opposite end, the back having pins arranged to enter the notch and the slot; and a spring catch on the handle, the back also having a notch to receive the catch to hold the back to the blade.

JOHN P. ARNOLD.