

963,848.

Patented July 12, 1910.

Fig. 1.

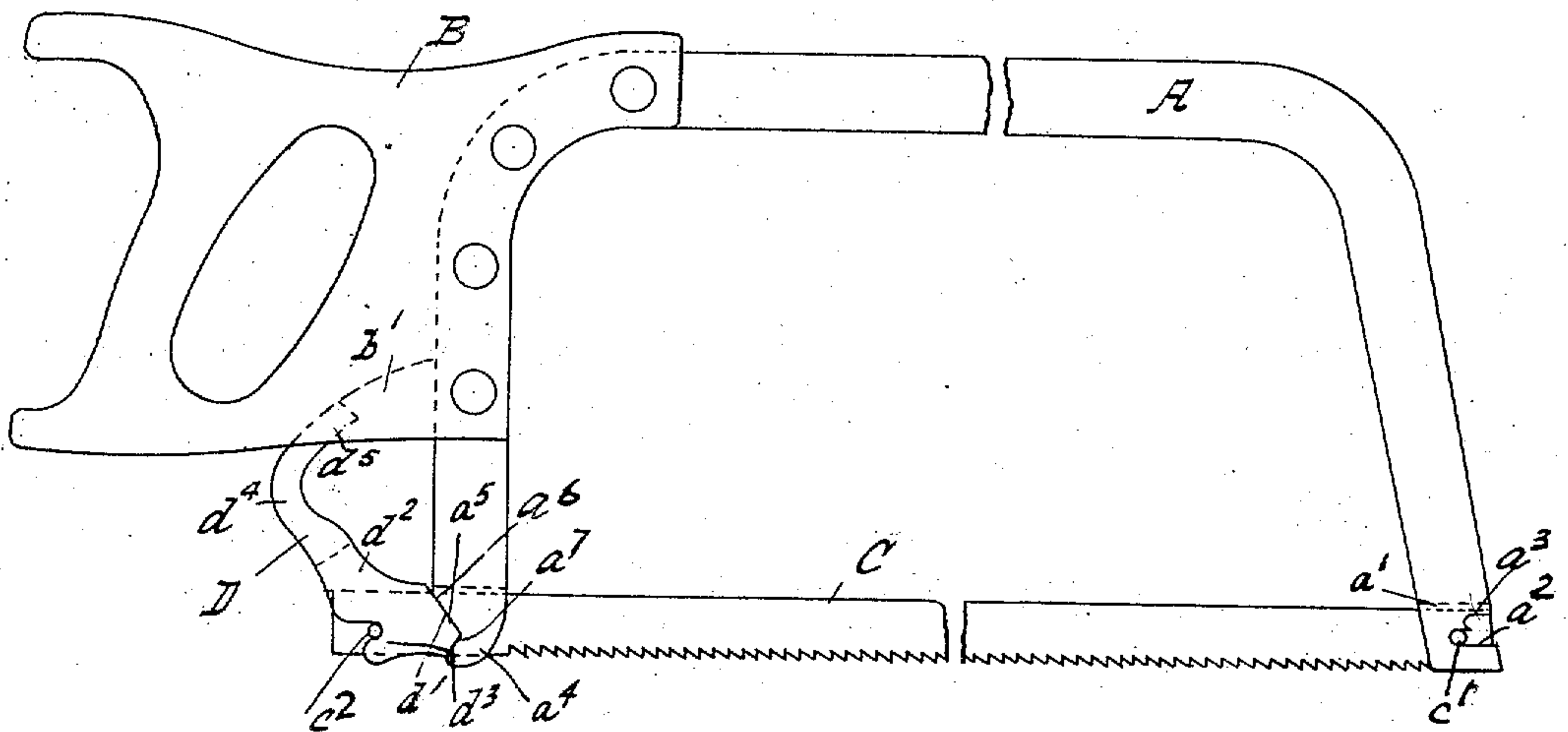
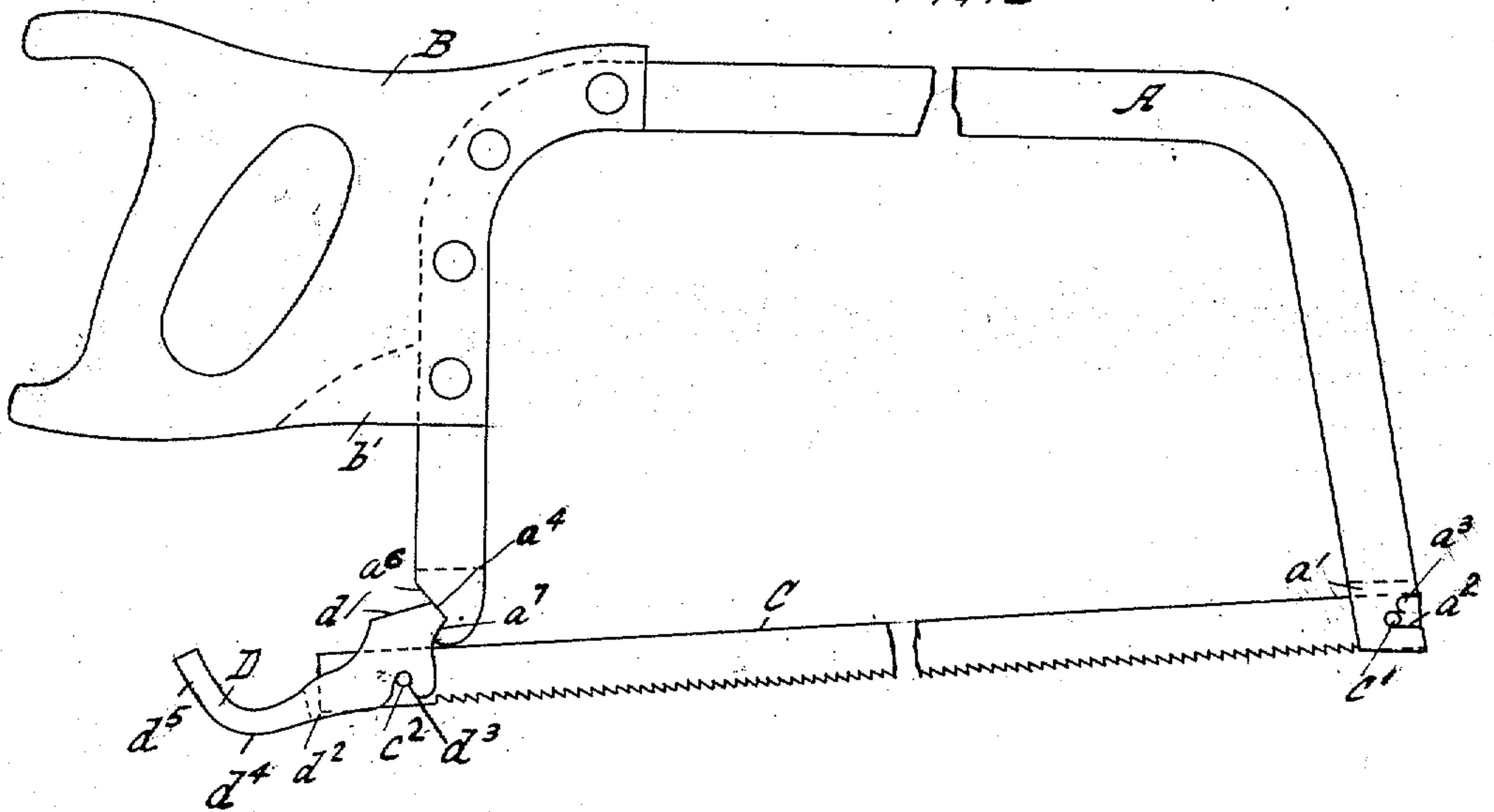


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

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SAW.

963,848.

Specification of Letters Patent.

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Application filed July 30, 1908. Serial No. 446,198.

To all whom it may concern:

Be it known that I, EUGENE G. ANDERSON, a citizen of the United States, and a resident of the city of Erie, county of Erie, and State of Pennsylvania, have invented a new and useful Improvement in Saws, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

This invention relates to saws, and consists in certain improvements in the construction thereof as will be hereinafter fully described and pointed out in the claims.

More particularly the invention relates to that class of saws used by butchers in which there is a frame which holds the saw blade under tension.

The invention is illustrated in the accompanying drawings as follows:

Figure 1 shows a side elevation of the saw with the blade in place. Fig. 2 a similar view with the blade partly removed from the frame.

A marks the saw frame; B the handle, and C the saw blade. The front end of the saw frame is provided with a slot a' in which the blade C may be placed. There are also the notches a^2 and a^3 of different depths. There is a similar slot a^4 at the handle end of the frame, and also a notch, the upper side of the angle being somewhat longer than the lower side of the angle a^1 . A lever D has an angular face d' adapted to fit the notch a^1 . This handle or lever has a slot d^2 through it into which the saw extends, and a notch which is engaged by a pin e^2 in the saw. The lever has a curved handle d^4 , and the end d^5 of the handle will pass into a slot b' into the handle of the saw.

I am aware that saws of this character have been provided with a lever for straining the saw blade, but in all of these so far as I am aware the notch in the frame is circular, and the surface on the lever is circular, so that the swinging center or axis of the lever as it is swung remains constant. It is also necessary to provide a supplemental stop for the lever where this construction is to

be used. In the present invention the notch a^1 is angular. By observing Fig. 1 it will be noted that with the first outward movement of the lever the swinging center or axis of the lever will be practically at the lower end of the angle face d' . With the initial movement of the lever therefore there is a marked resistance due to the rapid outward swinging of the part of the lever engaging the pin e^2 . As the movement of the lever continues, the swinging center or axis of the lever shifts, so that just prior to the time the parts assume the position shown in Fig. 2 the apex of the angle d' practically becomes the swinging center. By this construction a very short pull is required to start the releasing movement, but the outward movement of the lever is materially decreased from what would be necessary to get the same result with a curved surface by reason of the shifting of the center with the movement. It is therefore possible to use a comparatively stiff back and still accomplish the insertion of the saw with a pronounced locking movement at the end of the insertion movement. It will also be observed that the angle surfaces form their own stop to limit the movement of the lever.

It will be noted that with the initial swinging of the lever, the fulcrum is at the outer end of the lower angle; while the upper surface being practically tangent to the circle formed by the path of movement on this center, swings very rapidly. As the motion continues, however, the center swings to the upper surface and at the completion of the movement the center of movement is practically on the upper surface. This changing center gives sufficient leverage to prevent an accidental unlocking movement, but releases the parts quickly after the unlocking movement is started.

What I claim as new is:

1. In a saw, the combination of a frame having a notch formed with two surfaces at an angle to each other inclined to the line of strain; a saw blade lever having an end in the form of an angle for engaging said surfaces; and means on the lever for securing a saw blade.

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2. In a saw, the combination of a frame having a notch formed with two surfaces at an angle to each other inclined to the line of strain; a saw blade lever having an end in the form of an angle for engaging said surfaces, the surfaces of said notch, and the surfaces of the lever engaging the notch

forming a stop for the lever; and means on the lever for securing a saw blade.

Signed by me this 25 day of July 1908.
EUGENE G. ANDERSON.

Attest:

CHARLES WHITEHEAD,
HIRAM BOYD.