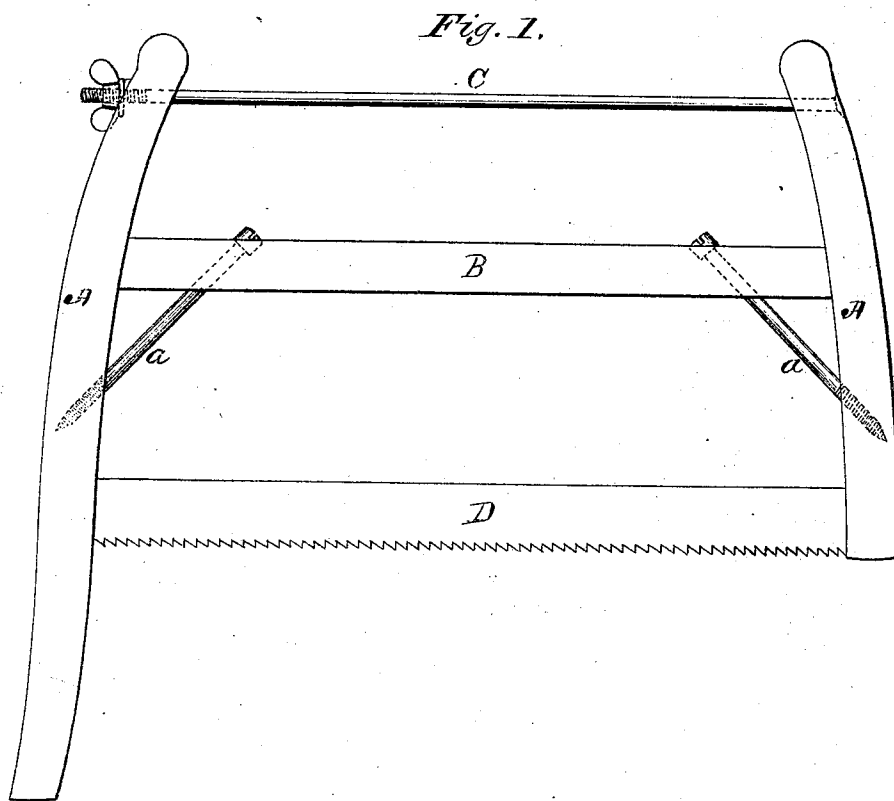


WILLIAM CLEMSON.

Improvement in Frames for Buck Saws.

No. 119,696.

Patented Oct. 10, 1871.



Witnesses:

T. C. Brecht.  
Charles Chimes

Inventor.

William Clemson  
By Newton Cranford  
Atty.

# UNITED STATES PATENT OFFICE.

WILLIAM CLEMSON, OF MIDDLETOWN, NEW YORK.

## IMPROVEMENT IN BUCK-SAW FRAMES.

Specification forming part of Letters Patent No. 119,696, dated October 10, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM CLEMSON, of Middletown, in the county of Orange, in the State of New York, have made certain Improvements in the Frames of Buck-Saws, of which the following is a specification:

The object of this invention is to strengthen the frame of a buck-saw that is in common use, and prevent the frame from becoming weak or loose in the joints which give strength and stiffness to the frame; and it consists in the insertion of two wood-screws diagonally through the fulcrum-brace into the end pieces of the frame.

In the drawing, A A represent the end pieces of the saw-frame; B, the fulcrum-brace; C, the straining-rod with screw and thumb-nut; D, the saw to be strained in the frame. *a a* are two wood-screws passing diagonally through the fulcrum-brace, near each end of said brace, into the end pieces A a little below where the brace B enters the said end pieces A A. These screws *a a* may have nuts set into the end pieces into which they are screwed, or there may also be a jam-nut on the screw to be turned against the under side of the fulcrum-brace B; but preference is given to the wood-screws, which simply go through the fulcrum-brace and screw fast into the end pieces, because it cheapens the construction and answers all the purposes that other and more costly and complicated devices and constructions could do, and the difference in the cost of construction over the old and common saw-frame is what the two wood-screws *a a* would cost and the boring the holes for their reception.

Any of the common frames now in use can have this addition of the screws made to them, as it only requires the proper-sized holes to be made through brace B and into the end pieces A, when the screws can be turned in and the improvement is complete. The simple addition of the screws in the manner described gives great

rigidity to the frame and prevents any tendency of undue strain on the edges of the shoulders of the fulcrum-brace where they join the end pieces. It also compacts the frame, which can in consequence be made lighter, and thereby save enough in the expense of the wood to compensate for the cost of the screws and the putting them into the frame. The saw D being inserted in the frame and the thumb-screw on the strain-rod turned up, as is usual in straining a saw, the screws *a a* are then inserted and turned home into the end pieces, which tends to curve the fulcrum-brace B downward, and the end pieces of the frame between the fulcrum-brace and the saw D being larger and stiffer than the brace will cause the frame to assume a stiffness and rigidity unknown in light saw-frames before this improvement was applied so successfully.

I am aware that braces with simple tenons on their ends and inserted loosely in the end pieces and fulcrum-brace of a saw-frame have been used both above and below said fulcrum-brace; and I do not claim such braces, as they do not effect the result accomplished by my screws, that act not only as braces, but act to draw the end pieces against the shoulders on the ends of the fulcrum-brace and hold them together; and I lay no claim to such brace unless it has the screw above described thereon.

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

The saw-frame above described, composed of end pieces A, fulcrum-brace B, strain-rod C, and brace-screws *a a*, in the manner and for the purposes set forth.

WM. CLEMSON.

Witnesses:

ELISHA P. WHEELER,  
LEMUEL WHEELER.

(96)