

HENRY S. MILLER.  
Improvement in Saw-Frames.

No. 115,500.

Patented May 30, 1871.

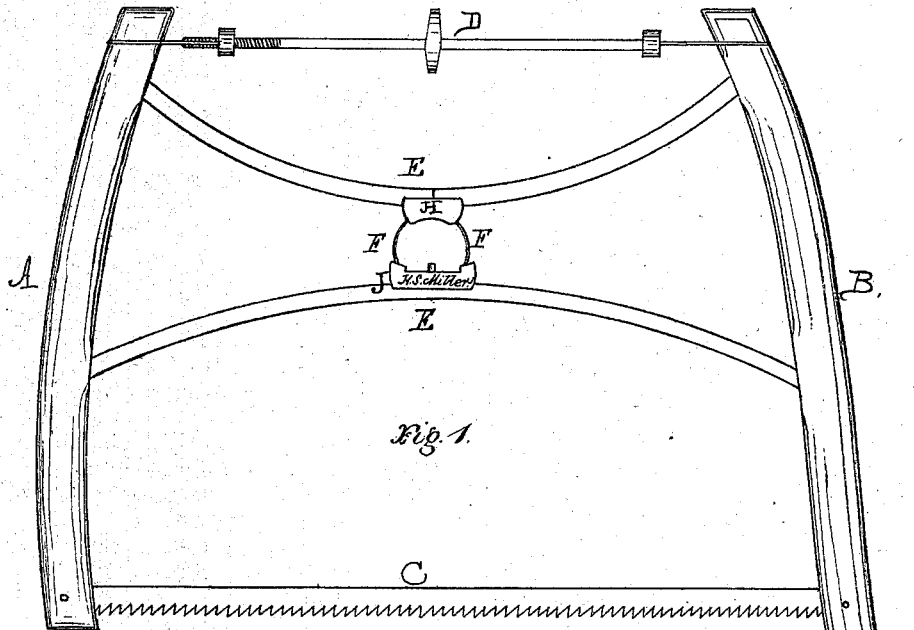


Fig. 1.

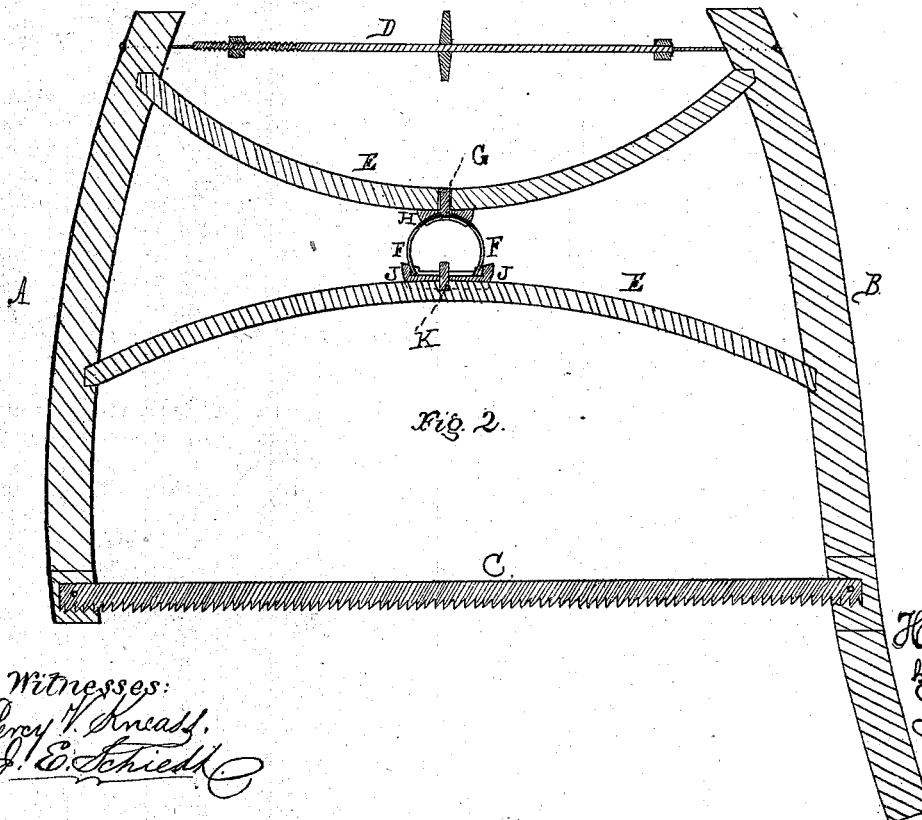


Fig. 2.

Witnesses:  
Cory V. Kneass,  
J. E. Schiedt.

Inventor:  
Henry S. Miller  
by John A. Deane  
Att'y

# UNITED STATES PATENT OFFICE.

HENRY S. MILLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO SAMUEL H. DAVIS, JR., OF SAME PLACE.

## IMPROVEMENT IN SAW-FRAMES.

Specification forming part of Letters Patent No. 115,500, dated May 30, 1871.

*To all whom it may concern:*

Be it known that I, HENRY S. MILLER, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Saw-Frames; and I do hereby declare the following to be a full, clear, and exact description of the nature thereof sufficient to enable others skilled in the art to which my invention appertains to fully understand and use the same, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side view of a device illustrating my invention. Fig. 2 is a central vertical longitudinal section thereof.

Similar letters of reference indicate corresponding parts in the two figures.

My invention relates to a saw-frame; and consists in the arrangement, between the stretchers of said frame, of a spring, whereby, while the blade may be firmly and uniformly strained, the elastic connection between the stretchers lessens shocks to the frame in cases of obstacles to the teeth while sawing, thereby also relieving the yoke of direct strain.

In the drawing, A and B represent the side pieces of the frame of a buck or other saw; C, the blade, and D, the tightening-yoke thereof, all of which may be of ordinary form and construction. E E represent stretchers, which extend from the side pieces A B, and, in the present case, consist of two arches, the crowns of which face each other. Between these crowns I arrange a curved or other spring, F, the central portion being secured to a pin, G, on the bearing-plate H, against which rest the upper stretchers, the pin passing through the latter, and by means of suitable flanges said plate is prevented from lateral displacement. J represents the other bearing-plate, which rests on the lower stretcher, and against which bear the ends of the spring F. A pin, K, is fixed

in the lower stretcher and passes through the plate J, which, by means of flanges formed upon it, is retained in place and prevented from moving laterally.

When the parts are in position and the yoke tightened, the tendency is to press down the center of the upper stretcher. This bears against the spring, and in return forces down the center of the lower stretcher, whereby the lower portions of the saw-frame are pressed apart and the saw-blade is strained. The connection between the stretchers being elastic, all shocks to the frame, owing to knots and other obstacles acting against the saw-teeth, will be broken, and the strain on the yoke greatly eased. There will not be the "dead" thrusts between parts as where the stretchers are in direct contact, and while in my invention the connection between the stretchers is elastic, the straining of the blade will, nevertheless, be firm and uniform.

The saw can be operated with ease, since the arms of the sawyer will not receive the full force of blows or shocks from obstacles in the wood, and thus simplicity, reliability, and practicability are combined in my invention.

I am aware that stretchers have been applied to saw-frames, and I am also aware that such stretchers consist of two arches having their centers or crowns arranged to face each other. I therefore do not claim such parts; but

I do claim—

The spring F, as arranged with the stretchers E E of the saw-frame, substantially as and for the purpose described.

The above signed by me this 26th day of April, 1871.

HENRY S. MILLER.

Witnesses:

JOHN A. WIEDERSHEIM,  
A. H. SHOEMAKER.