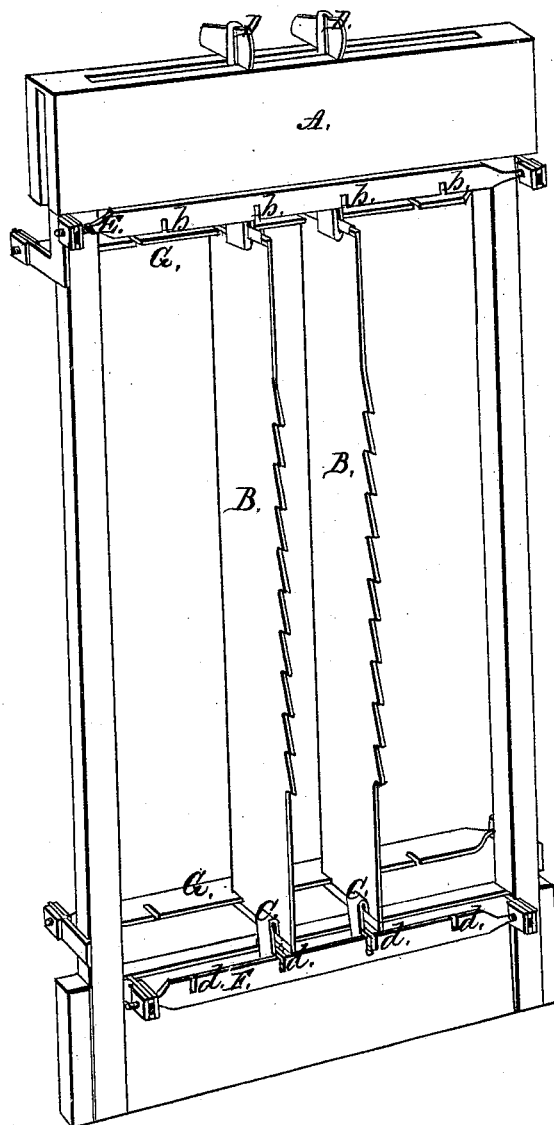
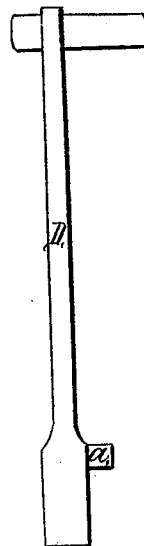


*E. Andrews,*  
*Hanging Saws.*  
*No. 112,883. Patented Mar. 21. 1871.*

*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



*Witnesses:*

*Harry S. Sprague*  
 *Jas. J. Day*

*Inventor:*

*E. Andrews*

*By* *Thos. S. Sprague*  
*att.*

# United States Patent Office.

EMANUEL ANDREWS, OF WILLIAMSPORT, PENNSYLVANIA.

Letters Patent No. 112,883, dated March 21, 1871; antedated March 10, 1871.

## IMPROVEMENT IN SAW-MILLS.

The Schedule referred to in these Letters Patent and making part of the same.

### *To whom it may concern :*

Be it known that I, EMANUEL ANDREWS, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Improvement in Mode of Gauging Reciprocating Saws in Saw-Mills; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification.

Figure 1 is a perspective view of a saw-gate with my improvement attached.

Figure 2 is a detached view of the hook by means of which the lower ends of the saws are secured.

Figure 3 is a similar view of the stirrup which secures the upper end of the saws.

Like letters refer to like parts in each figure.

The nature of this improvement relates to the construction of reciprocating saw-hangings in saw-mills, so that the saws may be readily and accurately gauged to cut any desired thickness of lumber, and consists in the arrangement of certain slotted gauge-bars, the slots of which are designed to engage with the projections heretofore mentioned, thereby gauging the saws to cut any desired thickness of lumber from the log on the carriage, and holding the saws firmly in place, as more fully hereinafter described.

In the accompanying drawing—

A represents a saw-sash, with two saws, B, secured in place at their bottom ends by means of the hooks C, while the upper ends are secured by the stirrups D in the manner fully described in a patent granted to me on the 21st day of April, 1868.

The hooks C and stirrups D are provided with projections *a* from their front faces, for the purpose hereinafter described.

E is a gauge-bar, provided with slots *b*, which are cut into the lower edge of said bar equidistant from each other. This gauge-bar is secured to the front of the sash A by means of any proper device, so that the bar may be easily placed or removed, and, when in place, held securely.

There should be a series of these gauge-bars, with slots, as described, at such distances apart as will be coincident with the various thicknesses of lumber required.

The gauge-bar shown in the drawing represents the slots at proper distances for inch lumber, and the saws are held to their position, relative to the thickness of lumber required to be cut, by the projections *a* upon the stirrups D entering the slots *b* in said gauge-bar.

F is another gauge-bar, provided with similar slots *d*, which engage with the projections *a* upon the hooks C, thereby holding the bottom ends of the saws in place and in line vertically with the tops of the same, and keeping the saws parallel with each other.

The gauge-bar F is secured to the sash A by any suitable device, so that said bar may be removed and replaced readily, and at the same time the bar will be immediately in front of the slide upon which the hooks C are placed and secured in such a manner as to hold the hooks C from disconnecting themselves from said slide.

G are other gauge-bars, secured to the rear side of the sash so as to be easily detached and replaced, and provided with similar slots coincident with the corresponding slots in the gauge-bars E and F, and which engage with the saw backs near the upper and lower ends of said saws and assist in keeping the saws rigidly in place.

Series of all these gauge-bars should be provided, with slots to secure the various thicknesses of lumber desired to be cut, so that by changing said gauge-bars the saws may be easily set and firmly held to do the required work.

What I claim as my invention, and desire to secure by Letters Patent, is—

The gauge-bars E and G, arranged substantially as and for the purposes set forth.

EMANUEL ANDREWS.

Witnesses:

H. S. SPRAGUE,  
JAS. I. DAY.