E. Rhodes,

Reciprocating Saw Mill.

No. 105,370. Patented July 12. 1870.

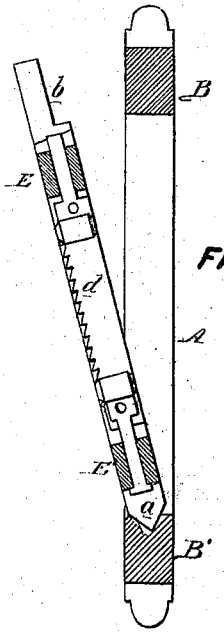
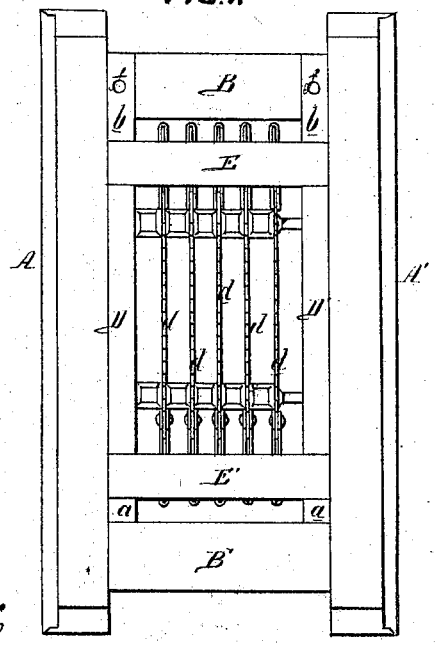


FIG. 2.

FIG. 1.



WITNESSES

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EDWARD RHODES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND HENRY DISSTON & SON, OF SAME PLACE.

Letters Patent No. 105,370, *dated July* 12, 1870.

IMPROVEMENT IN RECIPROCATING SAW-MILLS.

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

I, EDWARD RHODES, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improvement in Reciprocating Saw-Mills, of which the following is a specification.

Nature and Object of the Invention.

My invention relates to improvements in gang-saws, and in the reciprocating sliding frames by which the saws are usually carried; and

My invention consists in securing the saws to a sash or frame, so adapted to the main reciprocating frame, as fully described hereafter, that it can, with the gang of saws, be readily removed from the said main frame, to make way for a similar sash carrying a gang of perfect saws.

The object of my invention is to avoid the loss of time incurred in repairing one or more damaged saws of a gang, when they are secured directly to the main frame, in the usual manner.

Description of the Accompanying Drawing.

Figure 1 is a front view of my improved gang-saw frame, and

Figure 2 a vertical section of the same.

General Description.

In carrying out my invention, I employ two frames, namely, a main frame arranged to slide in guides, and a supplementary frame or sash, to which the saws are secured, and which is so fitted to the main frame that it can be readily detached therefrom.

The main frame is composed of two vertical bars, A and A', connected together by the upper cross-bar B and lower cross-bar B'.

To this frame is fitted the sash, composed of the vertical bars D and D', connected together by the cross-bars E and E'.

The manner of fitting the sash to the frame will be best observed on reference to fig. 2, where it will be seen that the V-shaped projecting lower ends *a a*, of the bars D and D' of the sash, are adapted to a V-shaped bearing or groove in the upper edge of the lower cross-bar B' of the main frame, while projections *b b*, at the upper ends of the vertical bars of the sash, fit into slots in the upper cross-bar B of the main frame.

The sash may be readily introduced into its place in the main frame, by first holding it in the inclined position shown in fig. 2, its V-shaped projections *a* resting in the similarly-shaped groove in the cross-bar B' of the main frame, and then pushing the upper end of the frame back until its projections *b b* fit into the slots of the cross-bar B of the main frame, the lower edge of said cross-bar forming a bearing for shoulders on the said projections, after which the sash may be secured in its place by bolts or screws passed through holes *f f*, in the projections *b b* of the sash, and into and through the cross-bar B of the main frame.

It will be unnecessary to explain how this sash may be readily detached from the main frame.

A gang of saws, *d d*, &c., is secured to the sash in the same manner as they are usually secured to the ordinary sliding frame.

The advantages of my invention may be described as follows:

It is usual to connect a gang of saws to a single frame caused to reciprocate in guides. Hence, when one or more of the saws is damaged, (an accident which frequently occurs,) the movements of the frame must be stopped, the process of sawing must be discontinued, and the remaining whole saws of the gang rendered inactive, until the damaged saws are removed and replaced by new ones, an operation demanding tedious manipulation.

The delay caused by these accidents to saws secured in a gang, directly to the reciprocating frame, is avoided by my plan of securing the saws to a frame or sash detachable from the main reciprocating frame, for, in this case, should one or more of the saws be rendered unserviceable, the entire gang of saws, with the sash, may be detached from the main frame, to be instantly replaced by a similar sash, containing a complete gang of saws, which should be always on hand, so that no delay is incurred, other than the few minutes required in removing and replacing a sash.

After the saws of the new sash have been put in operation, the saws of the detached sash may be repaired at leisure, so as to form a perfect gang to be adjusted to the main frame, whenever it be necessary to do so. The time and labor-saving advantages of my invention will become more apparent when it is borne in mind that in all saw-mills there are gangs of men engaged, during a part of their time only, in adjusting logs, and other duties, and much of their time which is at their disposal, could be devoted to leisurely repairing gangs of saws.

Claim.

The frame B, with its groove, adapted for the reception of the lower edge of a detachable saw-frame, E, having, at the upper end, projections *b b*, fitting slots in the said frame B, as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD RHODES.

Witnesses:

A. H. SHOEMAKER,

WM. H. WRIGHT.