

WILLIAM W. LE GRANDE.

Improvement in Sawing-Machine.

No. 127,697.

Patented June 11, 1872.

Fig. 1.

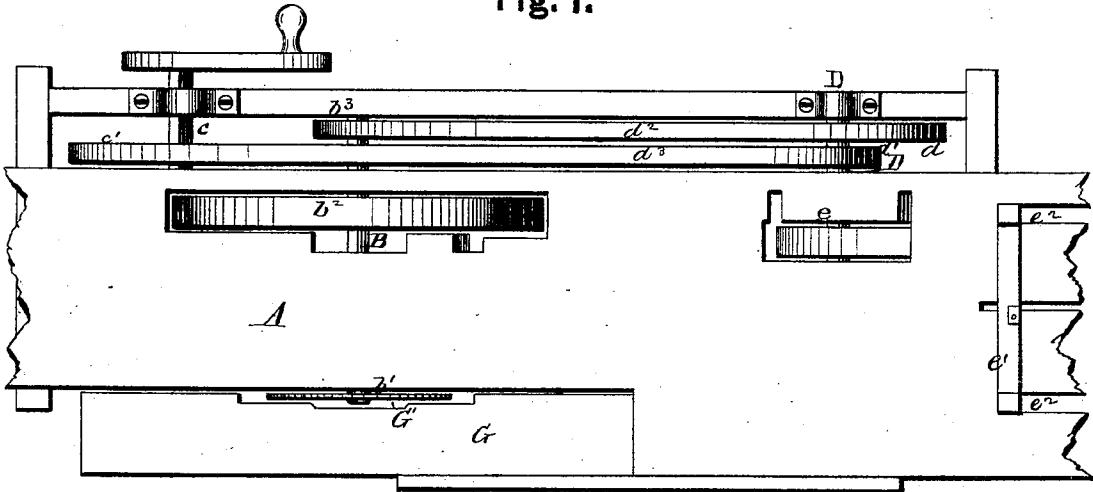
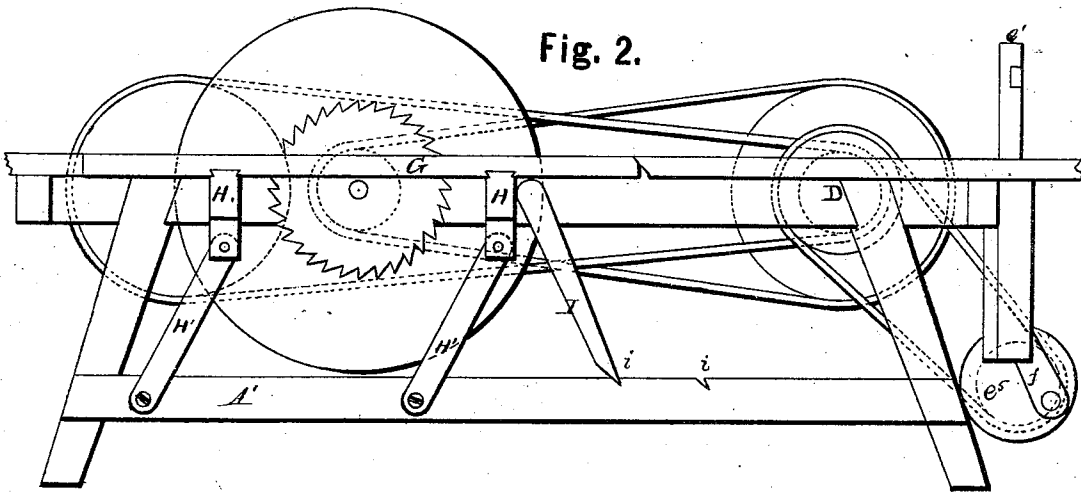


Fig. 2.



WITNESSES.

*E. A. Bates.*  
*J. E. Upham.*

INVENTOR.

*William W. Le Grande*  
*Chipman, Osburn & Co*  
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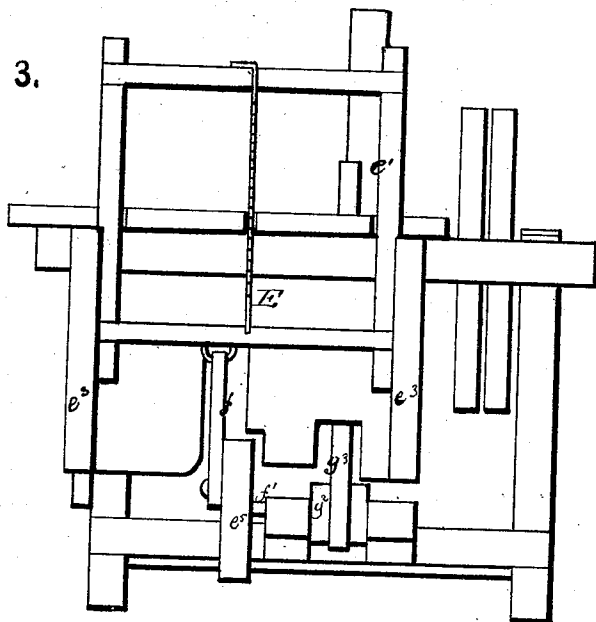
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Fig. 3.



WITNESSES.

*J. E. Upham,*  
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INVENTOR:

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# UNITED STATES PATENT OFFICE.

WILLIAM W. LE GRANDE, OF ELKTON, KENTUCKY, ASSIGNOR TO JEROME S. RIDLEY AND J. H. LOWRY, OF SAME PLACE.

## IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 127,697, dated June 11, 1872.

Be it known that I, W. W. LE GRANDE, of Elkton, in the county of Todd and State of Kentucky, have invented a new and valuable Improvement in Sawing-Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my invention, and Fig. 2 is a side view of the same. Fig. 3 is an end view of the same.

This invention has relation to sawing-machines; and the novelty consists in the construction and novel arrangement of the parts of the frame carrying a circular saw and reciprocating scroll-saw, with their operative mechanism, constructed and arranged as hereinafter described. The novelty of this invention also consists in the construction and arrangement of a bench attached to the main frame of the sawing-machine by means of pivoted arms, and adapted to be lowered in order to enable other tools, such as grooving-burrs, to be substituted for the circular saw, and to allow the work to be properly adjusted, all as hereinafter described.

In the drawing, A represents the main frame or bench of a sawing-machine. B is a transverse shaft holding a circular saw,  $b^1$ , a fly-wheel,  $b^2$ , and a belt-pulley,  $b^3$ . Behind the shaft B is arranged another transverse shaft,  $c$ , to which the driving-power is connected, and which holds a large belt-wheel,  $c'$ . D represents another transverse shaft journaled in front of the shaft B, and holding a large belt-wheel,  $d$ , a small one,  $d^1$ , and a medium-sized wheel,  $e$ . The wheels  $d$   $d^1$  are connected, respectively, to the wheels  $b^3$   $c'$  by belts  $d^2$   $d^3$ , as shown. E designates the scroll-saw fitted in a frame,  $e^1$ , arranged to reciprocate in the ordinary manner, the side bars passing through slots  $e^2$  in the saw-table and

between vertical guides  $e^3$ . The scroll-saw is driven by means of a crank-arm or pitman,  $f$ , connected to a crank-wheel,  $e^5$ , on the end of a transverse shaft,  $f'$ , journaled to a bracket secured to one of the cross-beams connecting the legs of the table. On the shaft  $f'$  is placed a belt-pulley,  $g^2$ , connected to the wheel  $e$  by means of a belt,  $g^3$ .

The two saws operate at the same time, and are driven by the same power.

At the side of the table near which the circular saw is placed a movable bench, G, is arranged. A recess at G' is formed to receive the saw or other rotating tool. To the under side of this bench brackets H are secured. These brackets are slotted, and have pivoted to them the arms H', which are also pivoted to a longitudinal bar, A', secured to the legs of the saw-table, as shown. This bench may be held at any desired position by means of a brace, I, running diagonally from its under side to one of the notches  $i$  in the bar A'. This bench is rendered movable, so that it may be lowered to enable the saw to be removed, and tools for grooving, tonguing, rabbeting, &c., substituted, and also to enable the work to be adjusted to the proper positions for the action of said tools.

The scroll-saw frame is designed to be removable, so as not to encumber the machinery when the scroll-saw is not in actual use.

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

The saw-frame, having the movable bench G connected to the bar A' by means of pivoted arms H', and supported by brace I, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM WALLACE LE GRANDE.

Witnesses:

J. H. LOWRY,  
SETH LOWRY.