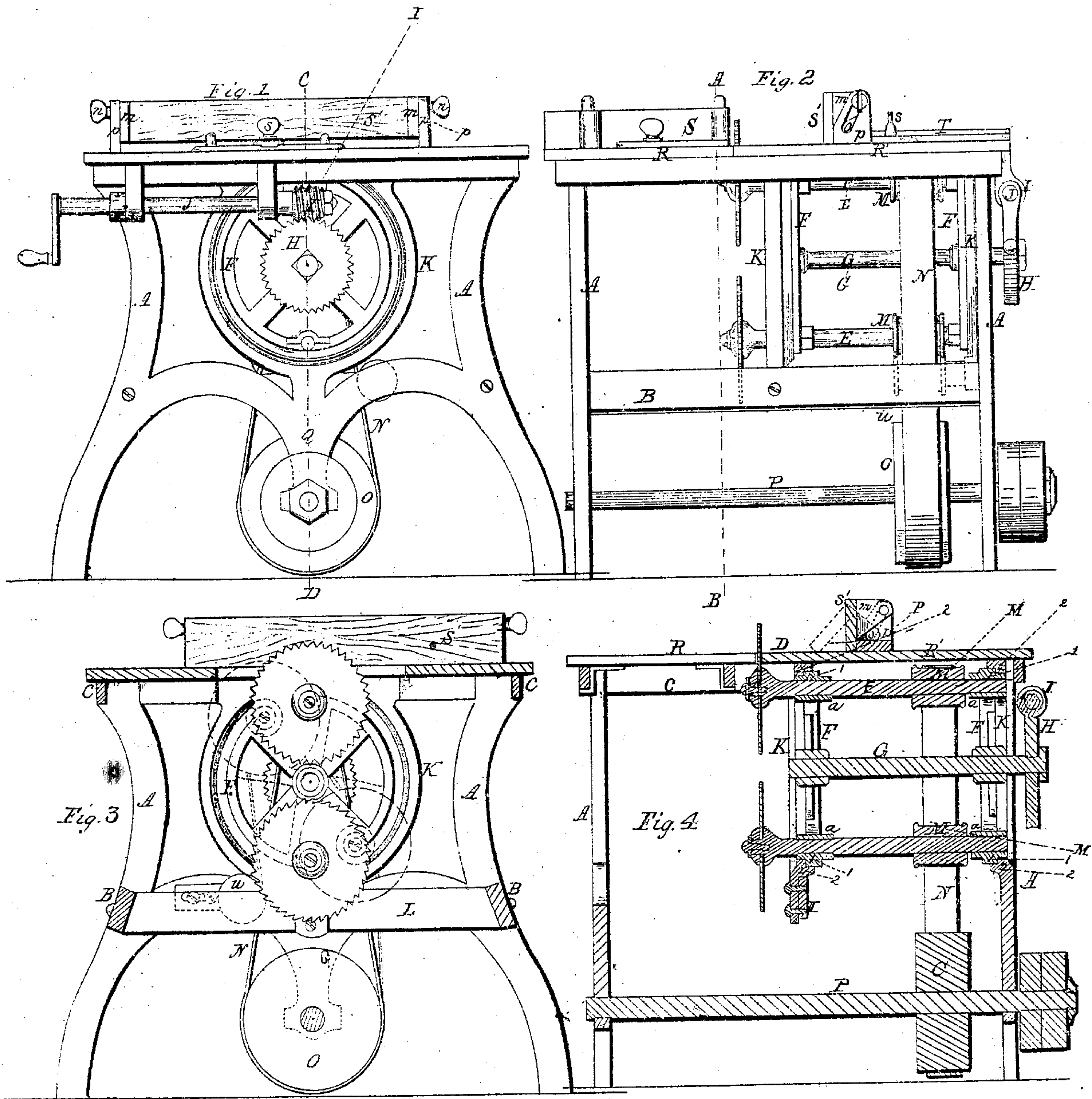


H. Thompson.

Sawing-Machine.

N^o 82257

Patented Sept. 15, 1868.



Witnesses

Thos H. Dodge
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HIRAM THOMPSON, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO R. BALL & CO., OF SAME PLACE.

Letters Patent No. 82,257, dated September 15, 1868.

IMPROVEMENT IN SAWING-MACHINES.

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

KNOW ALL MEN BY THESE PRESENTS:

That I, HIRAM THOMPSON, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Sawing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents an end view of my improved sawing-machine.

Figure 2 represents a front view of the same.

Figure 3 represents a section on line A B, fig. 2; and

Figure 4 represents a section on line C D, fig. 1.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

The nature of my invention consists in the particular mode of supporting both ends of one or more of the saw-arbors, as shown in the drawings. Also, in the use of a binding-pulley in combination with the mechanism for supporting one or more saw-arbors, as shown in the drawings. Also, in the peculiar mode of making the metal end-pieces of the main frame, whereby the driving-shaft can be supported free from the floor, and in a secure and convenient position upon the main frame, as shown in the drawings. Also, in the peculiar mode of making and supporting the side-guide, as will be hereafter more fully explained.

In the drawings, A A are the metal end-pieces of the main frame, united by cross-pieces B and C.

D is the top or saw-table, upon which the material is placed to be sawed, and through which the saws work.

The saw-arbors E E are supported in bearings *a a a*, fastened to the disks F F', which are in turn fastened to the shaft or spindle G, to the outer end of which a gear, H, is secured, and which gear H is operated by a worm-gear, I, on the crank-shaft J.

The disks F F' are provided with shoulders or grooves 1 1, which fit corresponding grooves or shoulders 2 2, formed in the stationary disks K K, the outer disk, K, being supported by the end-piece of the frame, while the inner one is supported by the cross-piece L.

Disks K are also made fast at the top, whereby the disks F are supported in a secure and firm manner between the disks K, while at the same time they can be revolved to bring either saw above the top of the table, as shown, for use.

The saw-arbors are provided with driving-pulleys M, around which the driving-belt N passes from the pulley O on the main driving-shaft P, which is supported in bearings in the downwardly-projecting arms Q Q of the end-pieces A A, thus being free from the floor upon which the saw-frame stands.

R is the sliding part of the saw-table, having attached to its top the usual mitre-guide, S, while upon the stationary part, R', of the saw-table, is supported the adjustable guide S', which has an ear-piece, *m*, fastened at each end, into which screws *n* are screwed, the screws passing through the inclined slots *o* in the stands *p*, fastened to the slide part T, which can be moved in or out, and then fastened by a thumb-screw, *s*, in the usual manner.

The guide S' can be set at any desired angle, and then secured in such position by means of the screws *n*. An illustration is given in red lines, fig. 4.

This is a very convenient arrangement, since it enables the guide S' to be set in a very simple manner to fit the bevel or inclined sides of articles or material to be sawed.

The device is simple, strong, and not liable to become deranged by use.

When the disks F F' are turned to change the position of the saws, as indicated in red lines, fig. 3, the belt N becomes slack during the operation of reversing the position of the saws, so much so as to be liable to become displaced. To obviate this difficulty, I arrange a binding-pulley, U, shown in full and dotted lines, figs. 2 and 3, whereby the slack of belt N will be taken up, in a measure, while the positions of the saws are being changed, as indicated in red lines, fig. 3.

It will be observed that the saws may run close together, since the disks F have no central supports to interfere with the saws or the gear H.

My improved sawing-machine has been tested practically, and has been found to work exceedingly well.

Having described my improved sawing-machine, what I claim therein as new and of my own invention, and desire to secure by Letters Patent, is—

1. The combination and arrangement, with the saw-arbors E E, or either, and the stationary disks K K, of the movable disks F F, substantially as and for the purposes set forth.
2. The arrangement of the binding-pulley U, in relation to the belt N, pulley O, and saw-arbors E E, substantially as and for the purposes set forth.

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Witnesses:

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