

Sheet 1-2 Sheets.

J. B. Schenck.

Sawing Machine.

Nº 99,600.

Patented Feb. 8, 1870.

Fig. 1.

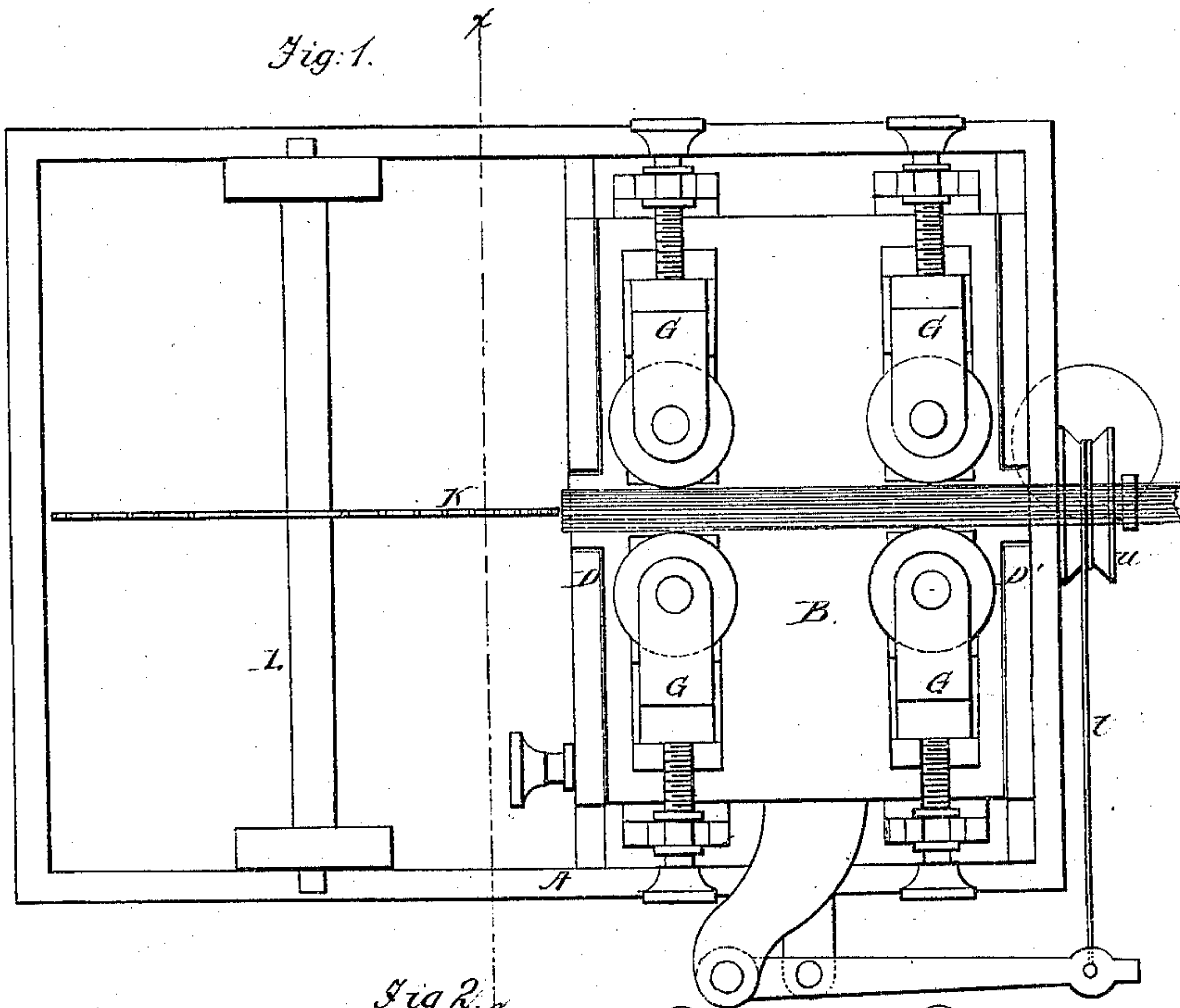
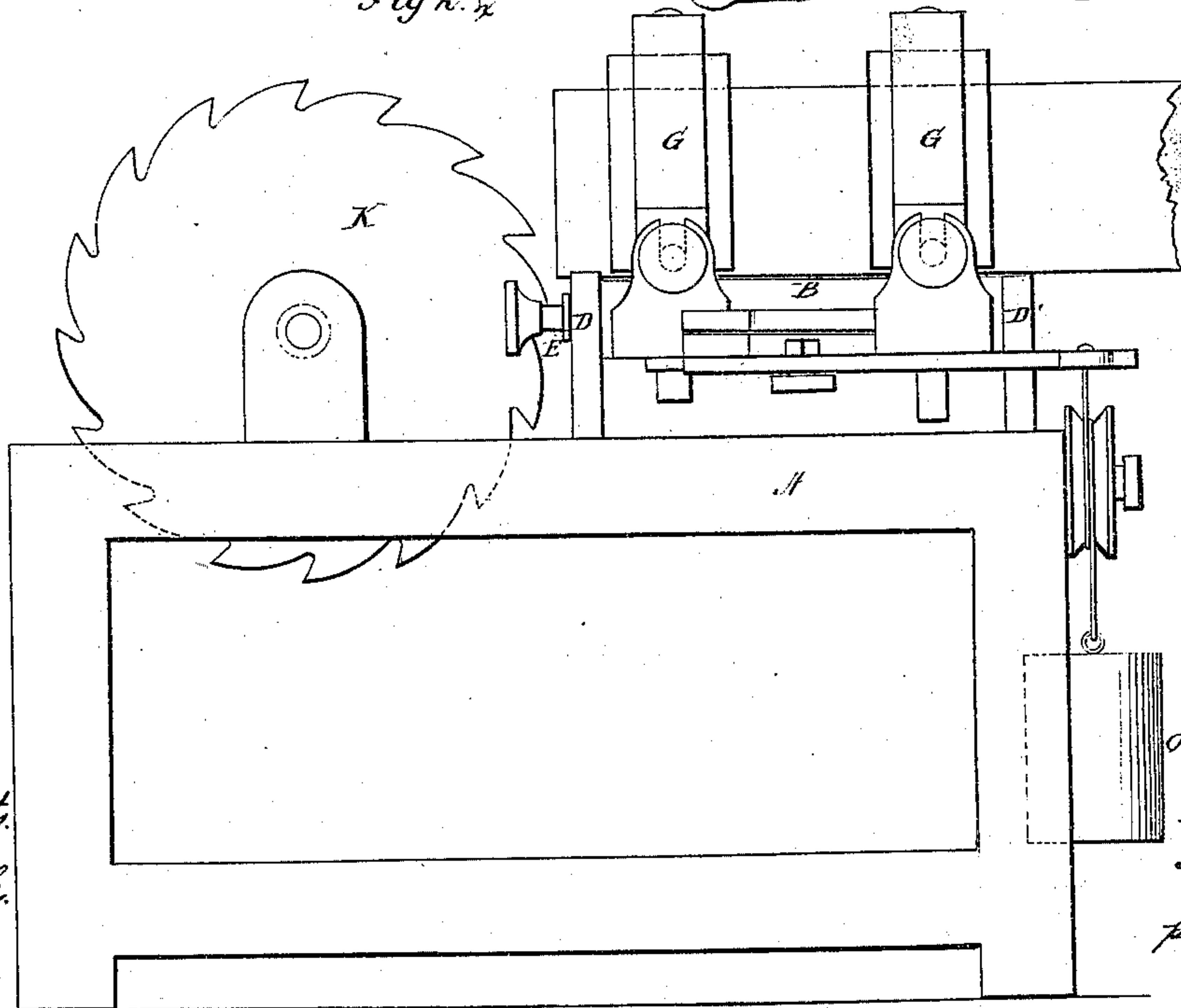


Fig. 2.



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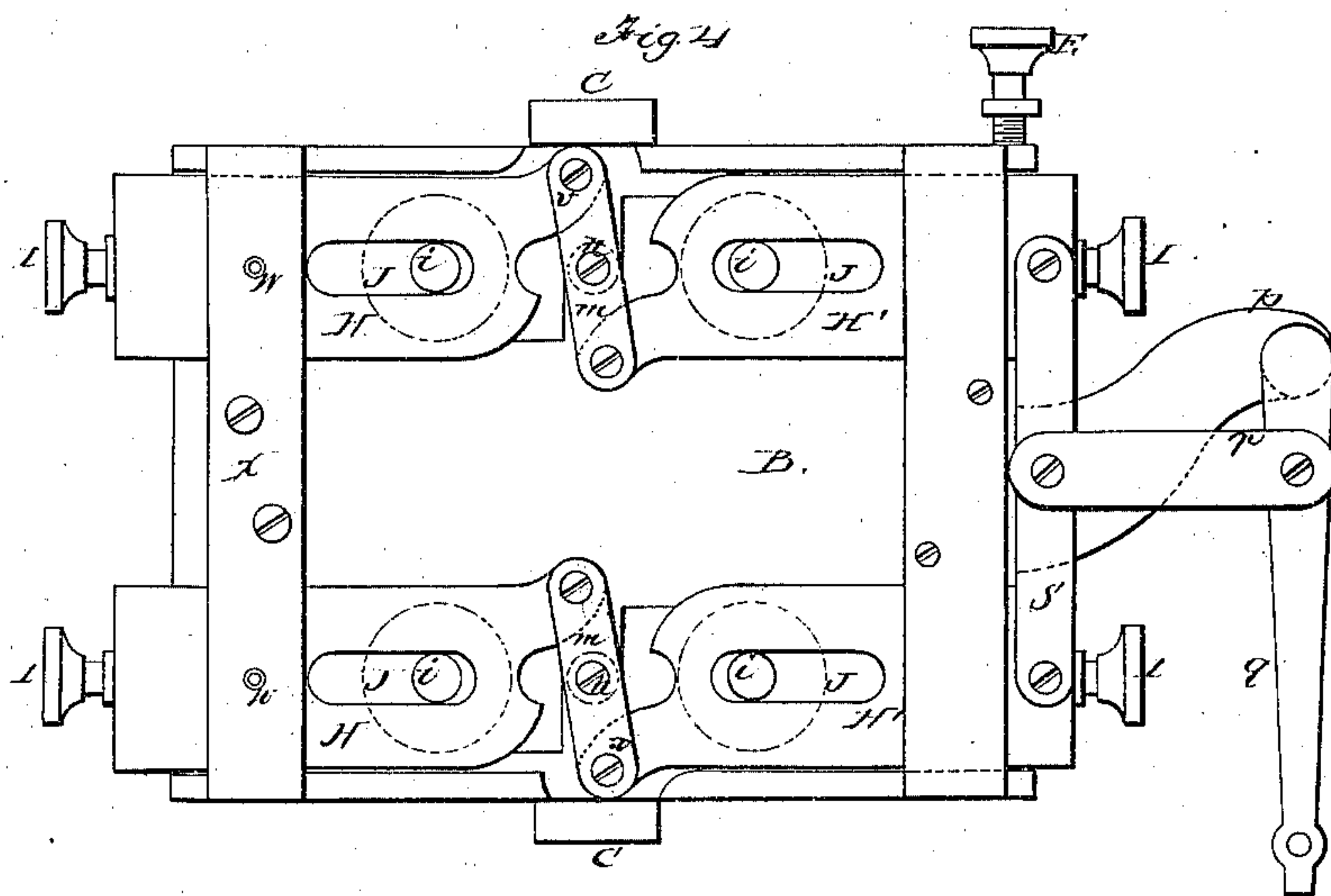
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JOHN B. SCHENCK, OF MATTEAWAN, NEW YORK.

Letters Patent No. 99,600, dated February 8, 1870.

IMPROVEMENT IN SAWING-MACHINES.

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

To all whom it may concern:

Be it known that I, JOHN B. SCHENCK, of Matteawan, Dutchess county, New York, have invented a new and useful Improvement in Sawing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to new and valuable improvements in machines for sawing clapboards, and other description of lumber, whether to be sawed on a bevel, or at right angles with the table; and

It consists in supporting the table, upon which the feed-rolls are arranged, and over which the lumber passes in being sawed, on pivots or trunnions, the axes of which are always on the saw-line, and on the top of the table, so that the table, with the rolls, may be tipped or turned from a horizontal position to any desired angle with the saw, when bevelled lumber is to be sawed, and, by tipping the table, the saw-line, at the top of the table, will not be changed with relation to the saw.

It also consists in simultaneously and automatically adjusting the feed-rolls to the centre of the saw-line; and

It finally consists in a device for rendering two of the feed-rolls stationary, in any desired position, while the other two remain adjustable, as before mentioned.

In the accompanying plate of drawings—

Figure 1 represents a top or plan view of the machine.

Figure 2 is a side elevation.

Figure 3 is a vertical section on the line *xx* of fig. 1.

Figure 4 is a view of the reverse or under side of the table, showing the mechanism for centring the rolls, and the method of rendering two of them stationary, while the other two are left adjustable.

Similar letters of reference indicate corresponding parts.

A represents the frame, by which the saw, and the table and rolls, are supported.

B is the table, which rests upon pivots or trunnions C C, on the bearers D D', at each side, these bearers being rigidly fixed to the frame. On these pivots the table may be turned from a horizontal or level position, at an angle differing more or less from a right angle with the saw, as may be required.

E represents the adjusting-screw, which passes through a slot in the bearer D, and engages with a screw-nut in the table. The slot in the bearer is sufficiently long to allow the table to be tilted as much as may be desired.

When the table is properly adjusted, it is held in position by the screw, which has a collar which bears against D, as the screw is turned in.

F F' represent the rolls, which revolve on pivots or central arbors in the sliding blocks G.

These blocks, with the rolls, slide to and from the centre in slots in the table, but they are connected with, and their movements are controlled by the slides H H', on the under side of the table.

The blocks G are connected with the slides H H' by the screws I, which are secured to and turn in ears I', which project upward, at right angles, from the slides, and engage with screw-nuts in the blocks.

The pivots or central arbors *i*, of the rolls F, pass down through slots J, in the slides H H', as seen in fig. 4. The rolls are thus allowed sufficient play laterally, to admit any required size or thickness of lumber. In the drawing, the lumber is seen in red color.

K represents the saw.

L is the saw-arbor.

To produce a simultaneous self-centring movement in the feed-rolls, I connect the slides H by the oscillating bars *m*, which are fixed to the bottom of the table by the central pivot-screws *n*.

The slides H H' are constructed with a view to this connection, as they are provided with projecting ears, on which the jointed connection is made, as seen in fig. 4.

As the rolls are spread apart by the insertion of varying thicknesses of lumber, they are forced simultaneously toward the saw-centre, by means of a weight, O, operating upon the lever *q*.

The fulcrum of this lever is on the arm *p*, which is attached to and projects from the table.

The connection with the slides H' is made by means of the connecting-bar *r*, and the cross-piece *s*, which latter connects the two slides H'.

It will be seen, that as the points *n*, of the bars *m*, are fixed and central, the rolls, when forced asunder, will move simultaneously in opposite directions, but will be drawn toward the centre by a constant force exerted by the weight O on the lever *q*, by means of the cord and pulley *t u*.

In sawing lumber, it is sometimes necessary to have two of the feed-rolls stationary, while the others are left to press against the lumber.

For accomplishing this, I change two of the pivot-screws (say the screws marked *v v*) to the holes *w w*, in the cross-piece *x*. By this means the slides H are fixed to the table.

I do not confine myself to the use of a weight for the self-centring movement; a spring or springs may be used, with the same or similar result; nor to the particular method of adjusting and holding the table in position.

I claim as new, and desire to secure by Letters Patent—

1. The tipping-table B, supported on the half-round trunnions C C, whose axial line is coincident with the

saw-line and the top of the table, which line is not changed by the tipping of the table, and carrying the adjustable feed-rolls F F', and the means of adjusting them, so that the table and rollers may all be tipped, and held in an inclined position, as herein described.

2. The combination of the centrally-pivoted bar *m*, connected, at its ends, to the slides H H', having ears I', with the screws I, roll-carriers G, and rolls F F', constructed and operating in the manner and for the purpose herein described.

3. Rendering stationary the slides H and feed-rolls F, by removing the screws *v*, and inserting them in the holes *w*, while the feed-rolls F' remain free to adapt their positions to the varying thicknesses of the lumber to be sawed.

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