

S. H. RICHARDSON.

Improvement in Machines for Edging Boards.

No. 122,780.

Patented Jan. 16, 1872.

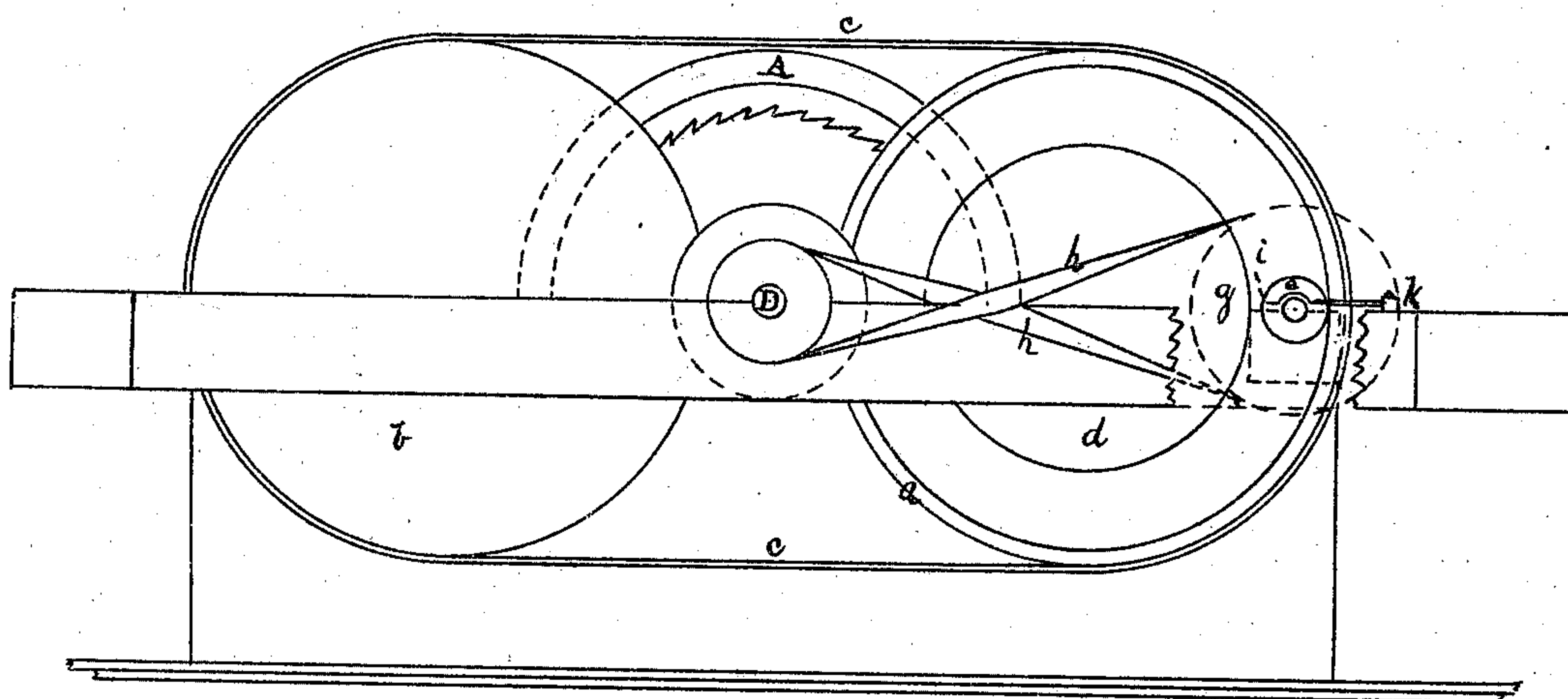


Fig. 2.

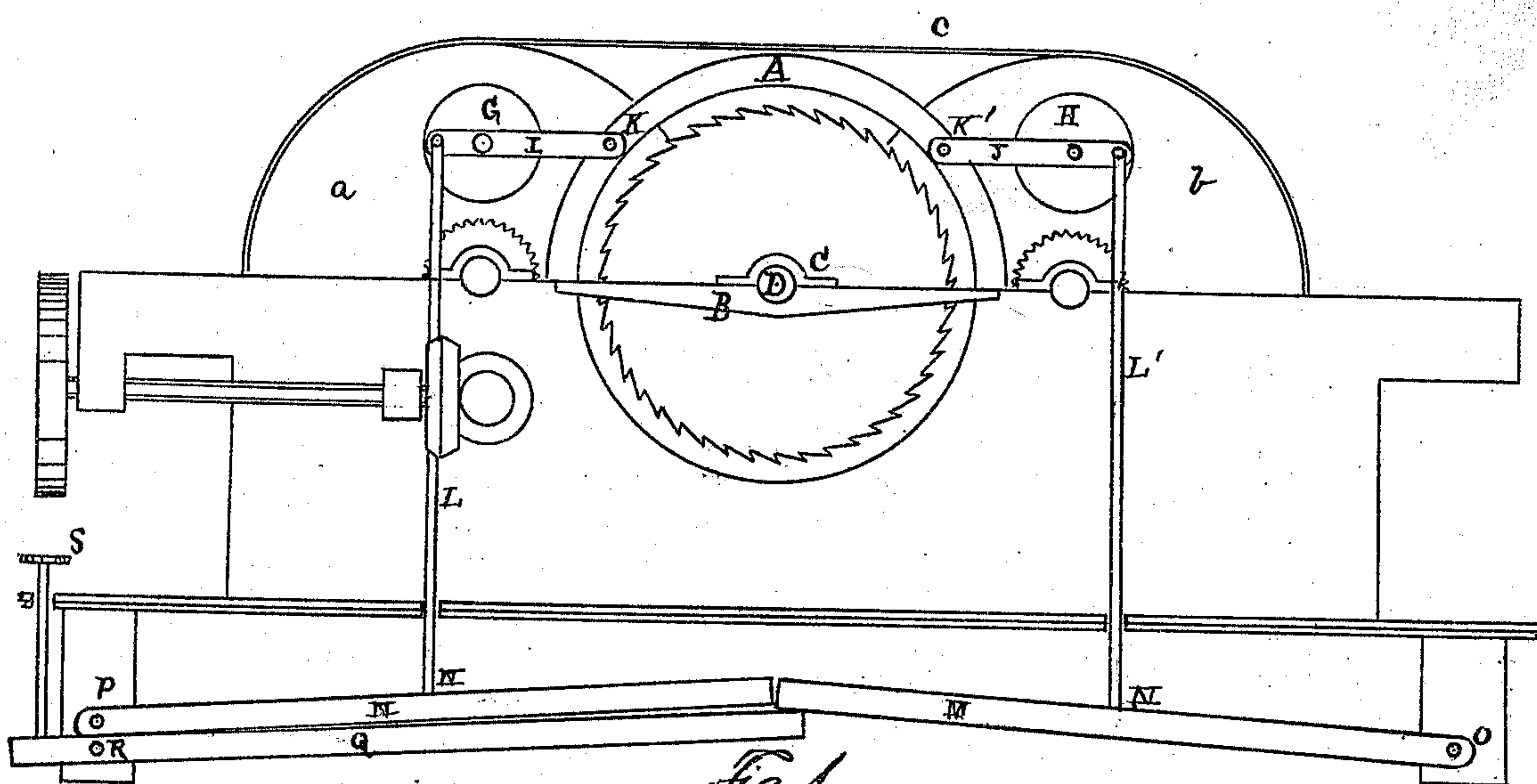


Fig. 1.

Witness

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John Williams

Inventor

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Per Atty. Wm. Franklin Sawyer

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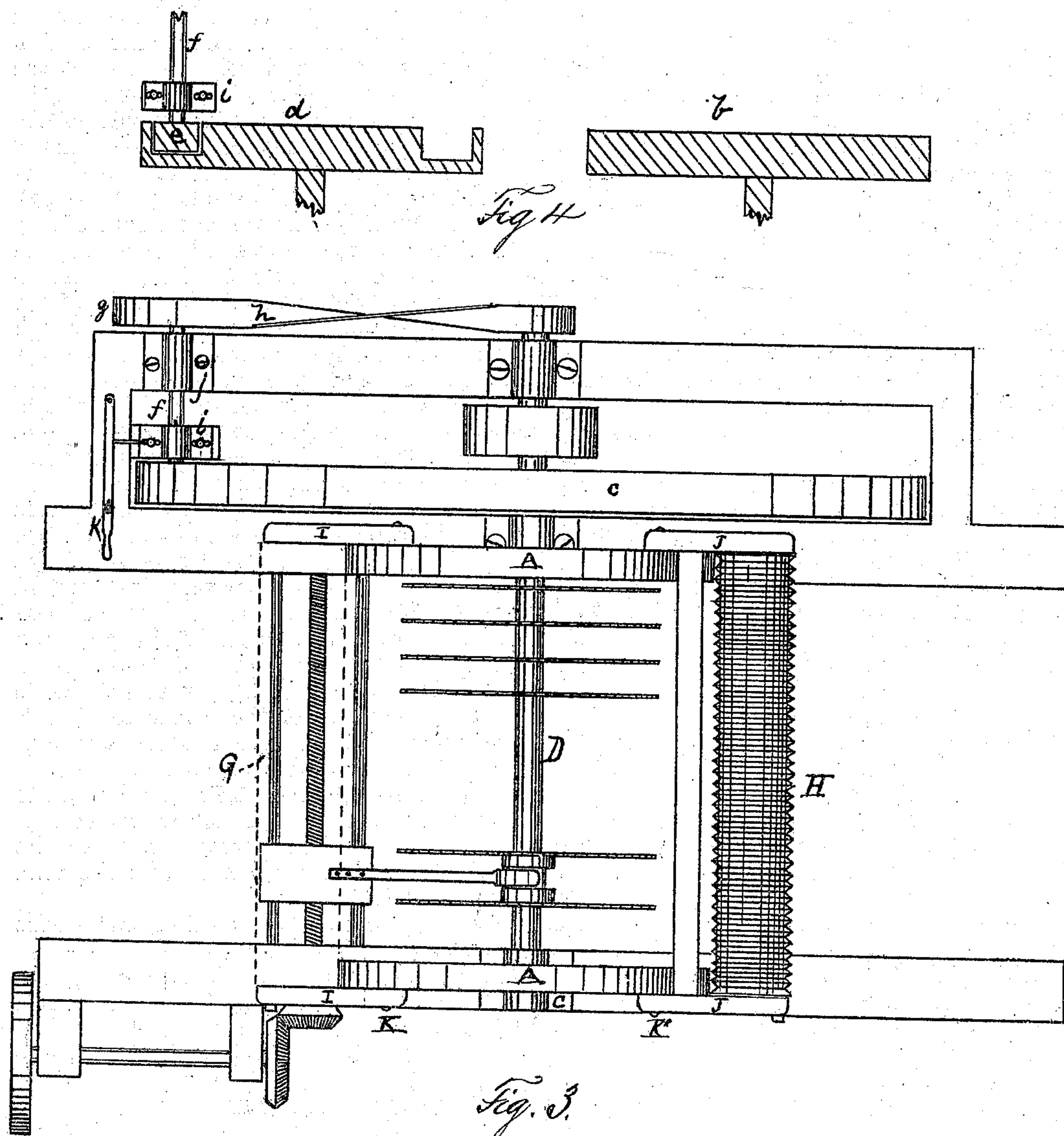
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# UNITED STATES PATENT OFFICE.

SIMON H. RICHARDSON, OF BANGOR, MAINE.

## IMPROVEMENT IN MACHINES FOR EDGING BOARDS.

Specification forming part of Letters Patent No. 122,780, dated January 16, 1872.

*To all whom it may concern:*

Be it known that I, SIMON H. RICHARDSON, of Bangor, in the county of Penobscot and State of Maine, have invented a new and useful Improvement in Machines for Edging Boards; and I hereby declare the following to be a full, clear, and exact description of the same, which will enable others to make and use my invention, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 shows a side elevation of same; Fig. 2, view of opposite side; Fig. 3, a plan; Fig. 4, a section of driving-pulleys.

Same letters show like parts.

The object of my invention is to produce an edger from which the saw or saws can be quickly and easily removed, and in which the feed can be run in either direction in a simple and effectual manner.

Referring to the drawing, I will first explain my device by which the saws are made removable. A shows a circular frame secured to the edger-table, its opening being large enough to admit of the passage of the saws through it. B is a cross-bar resting in sockets on each side of this frame, and having bearings C in which the saw-shaft D runs. Said cross-bar is secured to the frame A by bolts and nuts, or other convenient device, in such a way that it can be readily removed and slipped from the end of the shaft when the saws may be withdrawn from said shaft through the opening in the circular frame A without removing the shaft from its boxes, as must be done now in edgers of the ordinary construction.

The device by which the feed-rolls are run is as follows: Upon the ends of the under rolls E F are pulleys *a b*, connected by a belt, *c*. The pulley *a* is a box-pulley, and has within its rim a second smaller pulley, *d*, run by friction, and the inside of its rim also forms a friction-pulley, between which and the pulley *d* runs a friction-truck, *e*, upon a shaft, *f*, which has upon its other extremity a band-pulley, *g*, run by a cross-belt, *h*, attached to a pulley up-

on the main shaft D. The shaft *f* has bearings *i j*, of which *j* is stationary and *i* movable, as shown, so as to give its end of the lever a slight side motion. When a forward motion is required for the feed-rolls to present the plank to the saws the truck *e*, by means of the lever *k*, is pressed against the inside of the box-pulley *a*. When a reverse motion is wanted the truck *e* is pressed against the outside of the pulley *d*, within the periphery of the pulley *a*. To furnish a convenient means of regulating this motion a second lever may be connected with the lever *k*. This second lever may be placed beneath the floor of the mill and operated by a stump rising through the floor, and situated near the position of the operator. The speed of the feed-rolls may be regulated when the lumber is hard or tough, a slight motion of the lever *k* lessening the amount of friction between the truck *e* and pulley *a*, and so to any extent desired.

My device for raising the presser-rolls is as follows: Said rolls G H are supported by two frames, I J, pivoted to the frame A of the edger at K K'. The other extremities of said frame are pivoted to rods L L, which pass downward through the floor of the mill, and are attached at N to levers M M pivoted at O and P. A second lever, Q, pivoted at R acts upon the free ends of the levers M M, this second lever, for convenience, being acted upon by a stump, S, rising through the floor of the mill. Now, the pressure being applied to this stump, the lever Q raises the free ends of the levers M M, which carry with them the rods L L and lift the frames I J and the rolls G H attached thereto.

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

The removable cross-bar B supporting the end of the saw-shaft and the box in which said shaft runs, substantially as set forth.

SIMON H. RICHARDSON.

Witnesses:

CHESTER BRADFORD,  
ALVAH OSGOOD.

(130)