D. S. Shanabrook,

Sewing Machine.

No. 109146. Patented Nov. 8. 1870.

Fig. 1.

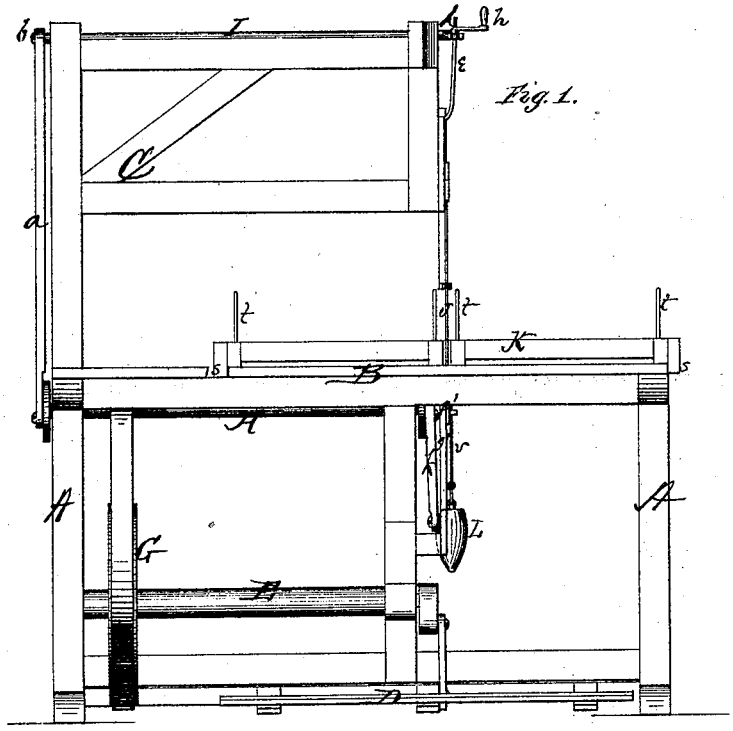


Fig. 4.

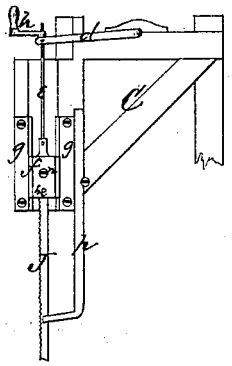


Fig. 2.

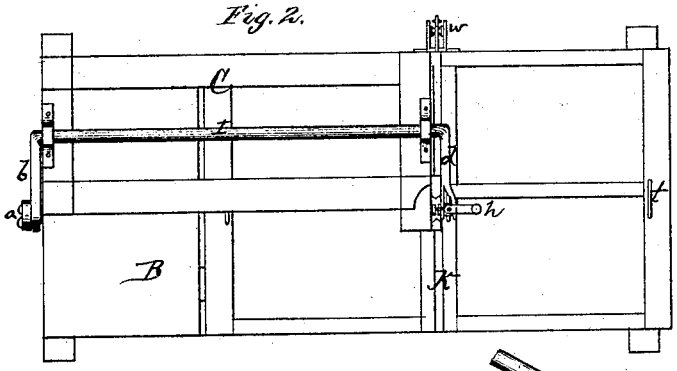
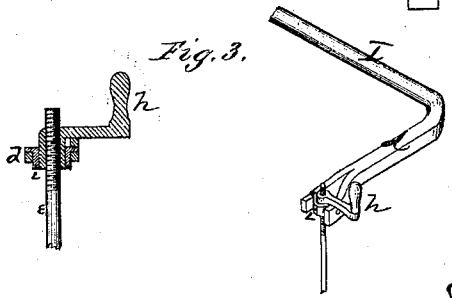


Fig. 3.



Witnesses
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DAVID S. SHANABROOK, OF GREENCASTLE, PENNSYLVANIA.

Letters Patent No. 109,146, dated November 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, DAVID S. SHANABROOK, of Greencastle, in the county of Franklin and State of Pennsylvania, 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 thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a sawing-machine, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a front elevation;

Figure 2 is a plan view; and

Figure 3 are enlarged views of the device, by which the saw is tightened.

Figure 4 shows the upper saw-connection.

A represents the frame-work, which supports the saw-table B.

An additional frame-work, C, is attached to the main frame A, and extends from above one end of the table to the point where the saw is to pass.

In the lower portion of the frame A is hung the treadle D, which, by the usual means of a pitman and crank, operates the shaft E and driving-wheel G on the same.

The wheel G is, by a belt, connected with a pulley on the shaft H, which has its bearings in suitable boxes in the frame A, and runs under the table above and parallel with the main shaft E.

On the outer end of the shaft H is a crank or crank-wheel, connected by a pitman, *a*, with an arm, *b*, extending from a shaft, I, which is placed in suitable journal-boxes on the top of the upper frame C.

This shaft, by the motion of the machine, obtains a rocking motion.

From the inner end of the rocking shaft I extends another arm, *d*, in the same direction, and parallel with the arm *b*.

The outer end of the arm *d* is forked, and in the same is pivoted a small block, *i*, through which a screw-rod, *e*, passes.

The lower end of this rod is attached to the upper saw-connection *f*, while the upper end, above the block *i*, is provided with a crank or thumb-nut, *h*, by means of which the saw J is tightened or loosened at will, as may be necessary, the same as for an ordinary wood-saw.

The lower end of the saw J is attached to a head or connection, *f'*, under the table, and this lower saw-connection is, by a pitman, *k*, connected with a crank on the inner end of the shaft H.

The various shafts, cranks, and pitmen are so arranged that the motion of the pitman *k* and arm *d* will correspond; that is, both will move up and both down together, and operate the saw from both ends thereof.

The saw-connections *f f'* move in guides *g g* and *g' g'*, respectively, arranged on the frames C and A, as shown.

These saw-connections consist of a block which has a pin, *m*, on its outer side.

This pin is passed through a hole in the end of the saw, and then a face-plate attached to the outside of the block covering the end of the saw, by means of a set-screw, *n*, the pin *m* passing through a hole in the face-plate.

p is a guide for the saw, attached to the end of the frame C.

Thus constructed the machine can be used for sawing scroll-work, or other similar work.

For sawing cord-wood I place upon the table a slotted frame, K, provided at its ends with downward-projecting flanges *s s*, the outer one of which fits over the end of the table, while the inner one is placed in a groove or slot made across the table, and the saw moving in the slot on the frame.

On this frame K are small posts or standards *t t*, against which the wood is placed.

To the rear side of the frame K is attached a cord, *r*, so arranged over a pulley, *w*, on the rear edge of the table, and with a weight, L, as to push the frame forward.

The operator, standing in front and working the treadle, pushes the frame K with the wood toward the rear until the saw has passed through the wood, when the weight L moves it forward again.

Having thus fully described my invention,

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

1. The rocking-shaft I, with its arm *d*, block *f*, screw-rod *e*, and nut *h*, all constructed and arranged to operate, substantially as and for the purposes herein set forth.

2. The arrangement of the treadle D, shaft E, wheel G, shaft H, pitmen *a k*, and shaft I with its arms *b d*, all substantially as shown and described.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

D. S. SHANABROOK.

Witnesses:

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