J. FIRST.

Re-Sawing Machine.

No. 166,355. Patented Aug. 3, 1875.

Fig. 1.

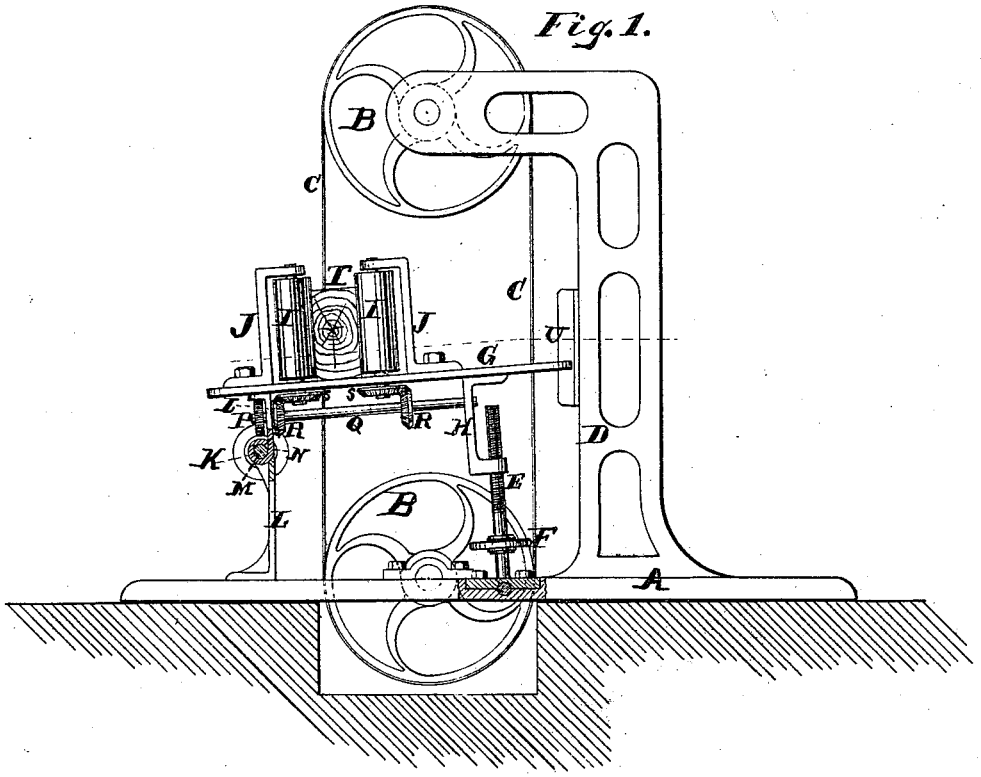


Fig. 2.

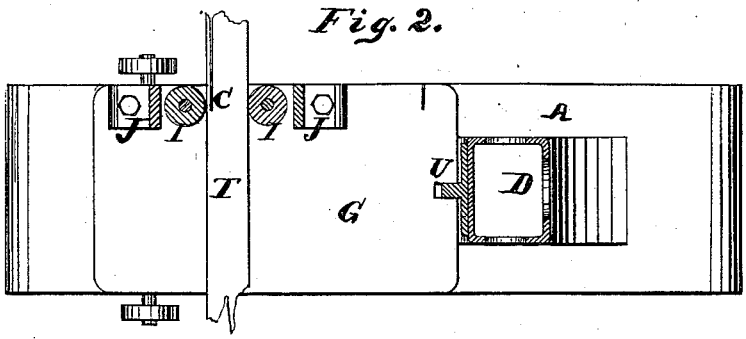
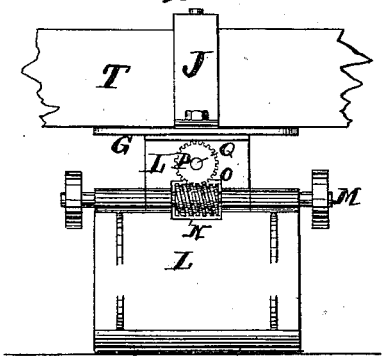


Fig. 3.



Witnesses.
Otto Hufeland
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per
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Attys

UNITED STATES PATENT OFFICE

JOHN FIRST, OF NEW YORK, N. Y.

IMPROVEMENT IN RESAWING-MACHINES.

Specification forming part of Letters Patent No. **166,355**, dated August 3, 1875; application filed June 30, 1875.

To all whom it may concern:

Be it known that I, JOHN FIRST, of the city, county, and State of New York, have invented a new and useful Improvement in Resawing-Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side elevation, partly in section. Fig. 2 is a sectional plan or top view. Fig. 3 is an end view.

Similar letters indicate corresponding parts.

My invention relates to certain improvements in machines for sawing wood and other materials; and has for its object to permit of bringing the table that supports the log of wood to be cut in an inclined position without throwing the feed mechanism out of gear.

The novel feature of my invention consists in an adjustable table, supporting two or more feed-rollers, and connecting with a hinge-joint, the center of which coincides with the center of a shaft, from which motion is transmitted to the feed-shaft and feed-rollers. The table connects, moreover, with a screw-spindle, in such a manner that, by turning the spindle in the proper direction, the table, with the feed-rollers, may be brought in an inclined position without interrupting the movement of the feed-rollers, or of the mechanism that drives them, while at the same time an oblique cut of the log of wood may be obtained.

In the drawing, the letter A designates the base-piece of my machine, forming the bearings for one of two wheels, B B, that carry the saw C, and the other of which wheels has its bearings in a standard, D, which rises from the base-piece. In the base-piece A is swiveled the lower end of a screw-spindle, E, which carries a hand-wheel, F, and which is connected with the table G at or near its one end, the spindle being connected with the table through the medium of a bracket, H, in which the spindle turns. The table G carries feed-rollers I I, one end of whose shafts turns in brackets J, attached to the table G, while the other end of the shafts passes through the table. At or near the end opposite to the screw-spindle E the table G is connected with a hinge-joint, K, whose leaves L L are fastened, respectively, to the table and to the base-piece A. The pin M of this hinge-joint forms the center of a worm, N, which is situated in an opening, O, made between the leaves L L, as shown in Fig. 3. Contiguous to the worm N is a worm-wheel, P, which is mounted on a shaft, Q, that has its bearings in the upper leaf L and in the bracket H. This shaft Q, moreover, carries bevel-wheels R R, that engage corresponding wheels S S, mounted on the shafts of the feed-rollers I I.

Between the feed-rollers I I, I have represented a log of wood, T, in juxtaposition to the saw C.

Now, if the screw-spindle E is turned, the end of the table G near which the spindle is located partakes of an up or down movement, as the case may be.

It is obvious that the table may thus be made to assume any desirable angle of inclination, together with the feed-rollers I I and the log T, and if the log is then presented to the action of the saw C an oblique cut is obtained. If it is desirable to have a straight cut, it is only necessary to move the table to a level position.

The table is guided in its up and down movement by a guide-piece, U, applied to the side of the standard D.

It will be noticed that when the table G is adjusted in its different positions the worm and worm-wheels N P, as well as the bevel-wheels R S, preserve their relative positions toward each other, and thus the movement of the feed-rollers I I remains undisturbed.

It may be remarked that other rollers may be added to the feed-rollers I I, and geared therewith, if seen fit.

To adapt the feed-rollers to different-sized logs, I contemplate making the same and their adjacent parts adjustable. This may be effected in various ways well known to those skilled in the art, and I have not shown or described any particular method of carrying out this object.

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

1. The combination, substantially as hereinbefore set forth, of a hinged log-supporting table, G, with the fixed rollers I I, and mechanism, as described, for rotating the rollers, and for inclining the table without disconnecting the gear-wheels, substantially as set forth.

2. The log-supporting table, provided with feed-rollers, and carrying the shaft and gear for operating the same, and connected by a hinge with its supporting-frame, in combination with an adjusting mechanism, substantially as described, whereby the table, its feed-rollers, and gear can be inclined without disconnecting said gear, as set forth.

3. The combination of the table G, feed-rollers I I, screw-spindle E, hinge-joint K, worm N, worm-wheel P, driving-shaft Q, and bevel-wheels R R S S, all combined and operating substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 25th day of June, 1875.

JOHN FIRST. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.