Titus & Sharp,

Resawing Machine.

No. 20,745. Patented June 29, 1858.

Fig. 2.

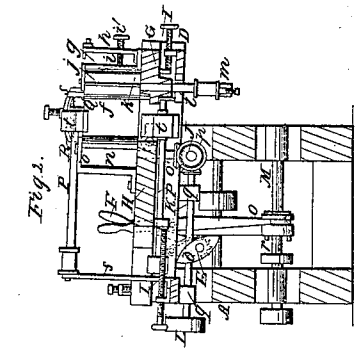


Fig. 1.

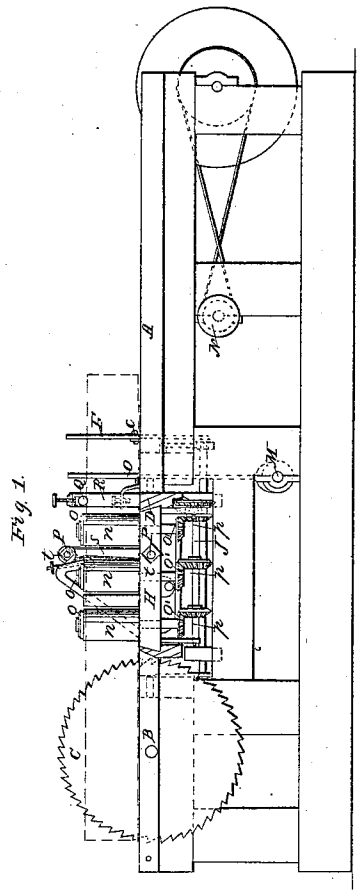
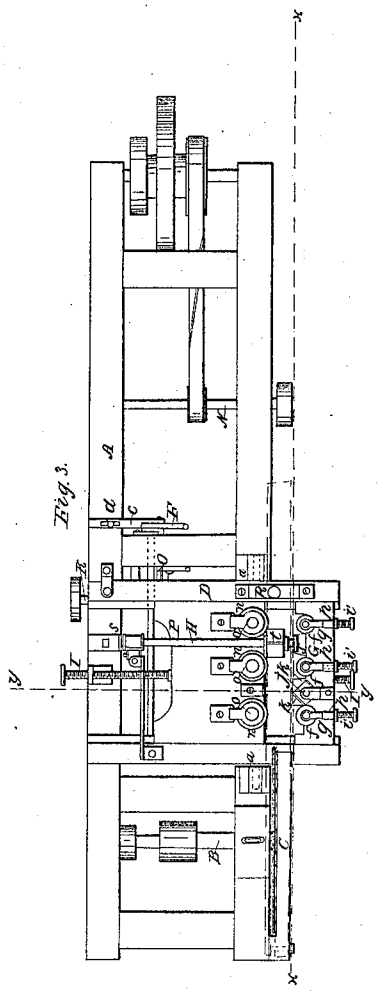


Fig. 3.



UNITED STATES PATENT OFFICE.

E. H. TITUS, OF WILKES-BARRE, PENNSYLVANIA, AND JOHN SHARP, OF PHILLIPSBURG, NEW JERSEY.

MACHINE FOR RESAWING LUMBER.

Specification of Letters Patent No. 20,745, dated June 29, 1858.

To all whom it may concern:

Be it known that we, E. H. TITUS, of Wilkes-Barre, in the county of Luzerne and State of Pennsylvania, and JOHN SHARP, of Phillipsburg, in the county of Warren and State of New Jersey, have invented a new and Improved Sawing-Machine Designed for Resawing; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side sectional elevation of our improvement taken in the line *x*, *x*, Fig. 3. Fig. 2, is a transverse vertical section of ditto, taken in the line *y*, *y*, Fig. 1. Fig. 3, is a plan or top view of ditto.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in the employment or use of a tilting frame arranged and applied to the machine as hereinafter shown whereby the "stuff" may, when desired, be sawed in taper form for weather boards or "siding" and similar purposes.

To enable those skilled in the art to fully understand and construct our invention we will proceed to describe it.

A, represents a rectangular frame, on one end of which a saw mandrel B, is placed, having a circular saw C, at one end of it.

D, is a frame which is placed transversely on the frame A, and attached thereto by pivots *a*, *a*, the frame D, being allowed to work freely on said pivots, see Fig. 3. In the frame A, and underneath the frame D, a shaft E, is placed. This shaft has two cams *b*, *b*, placed on it, said cams being directly under the frame D, and near its right hand end. To one end of the shaft E, a lever F, is placed, said lever having a slotted arm *c*, attached to it, which arm may be secured by a screw *d*, at any desired point on the frame. By turning the shaft E, the cams *b*, *b*, will raise the right hand end of the frame D, and the frame may be secured in an inclined position when required, by fastening the lever F, at the proper point by means of the arm *c*, and screw *d*.

In the frame D, two sliding plates G, H, are placed. These plates are allowed to slide longitudinally in the frame D, and consequently in a transverse direction with the frame A, each plate being adjusted by a screw rod I. On the plate G, there are placed three vertical rollers *f*, *f*, *f*. These rollers have their bearings in arms *g*, which pass through uprights *h*, attached to the plate G, and each roller has a spring *i*, bearing against it, the pressure of which may be graduated by screws *i'*. On the plate G, a vertical cutter head *j*, is placed, said cutter head being provided with necessary cutters *k*, and forming a rotating planer. The lower end of the shaft *l*, of this planer is stepped in a stirrup *m*, which is attached to the under side of the plate G, see Fig. 2. On the plate H, there are placed three rollers *n*, *n*, *n*. The upper ends of these rollers have their journals fitted in suitable bearings *o*, attached to the plate H, and the lower ends of the axes of the rollers pass through the plate H, and have each a bevel wheel *o'*, on them. These bevel wheels gear into corresponding wheels *p*, which are placed on a shaft J, the bearings of which are attached to the plate H. K, is a shaft which is placed in suitable bearings *q*, also attached to the under side of plate H. The shaft K, is allowed to slide in its bearings *q*, and on the shaft K, a pulley L, is placed, so that the shaft K, may slide through it, and the pulley at the same time rotate the shaft, a feather on the shaft fitting in a groove in the edge of the pulley. The shaft K, is driven by a belt from a shaft M, which is placed in the lower part of the frame A, the shaft M, being driven from a shaft N, by means of a belt passing over a loose pulley *r*, on shaft M, the pulley being connected to, or detached from said shaft by a lever and clutch O.

P, P, are two shafts which are placed, one above and the other below the frame D, the journals of said shafts being fitted in suitable uprights *s*, attached to the frame. On each shaft P, a cutter head *t*, is attached. These shafts P, are rotated by a belt from the saw mandrel B.

Q is a horizontal roller which is placed in an upright bow frame R, attached to the frame D.

The operation is as follows: The board or "stuff" to be sawed is placed between the rollers *f*, *n*, and underneath the roller Q, and power being applied to the shaft N, in any proper way, the board or stuff will be fed toward the saw C, the plates G, H, being properly adjusted so that the stuff may be fed to the saw as required, the rollers *f*,

being allowed to give or yield to its inequalities as regards thickness. The rotary planer *j*, planes the face side of the stuff, while the rotary cutters *t*, *t*, joint its top and bottom edges. In case the stuff is to be sawed with parallel sides, the frame D, is in a horizontal position, but in case the stuff is to be sawed obliquely or diagonally with its sides, the frame D, is tilted by adjusting the lever F, and as the rollers *f*, *n*, planer *j*, and jointing cutters *t*, *t*, are all attached to the frame D, the relative position of said parts will remain unchanged, however much the frame D, may be tilted, the position of the stuff and saw only being changed relatively with each other.

This machine is chiefly designed for sawing boards into narrow clapboards or "siding" as it is technically termed, siding being generally sawed in bevel or taper form so that they may form a good lap joint. The machine however will saw stuff into boards with parallel sides.

We are aware that boards or "stuff" have been presented and fed obliquely to saws for the purpose of sawing in taper form, and we therefore do not claim broadly such operation, but

Having thus described our invention what we claim as new and desire to secure by Letters Patent, is—

The tilting frame D, provided with the feed and pressure rollers *f*, *n*, and also with the planer *j*, and jointing cutters *t*, *t*, if desired, the frame being applied to the machine and arranged to operate substantially as and for the purpose set forth.

E. H. TITUS.
JNO. SHARP.

Witnesses:
CHARLES SEGRAVES,
JACOB SEIGLE.