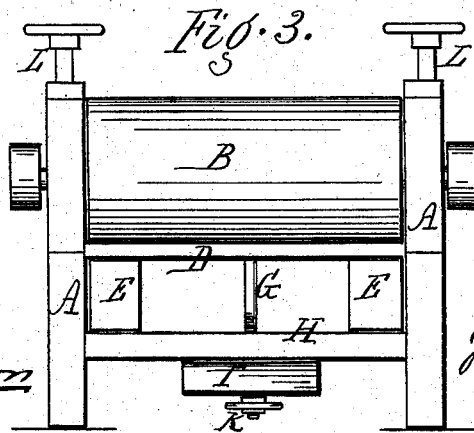
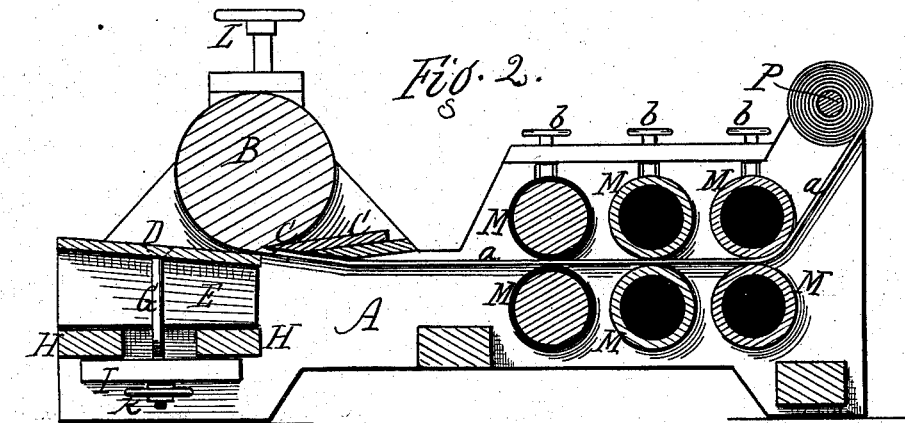
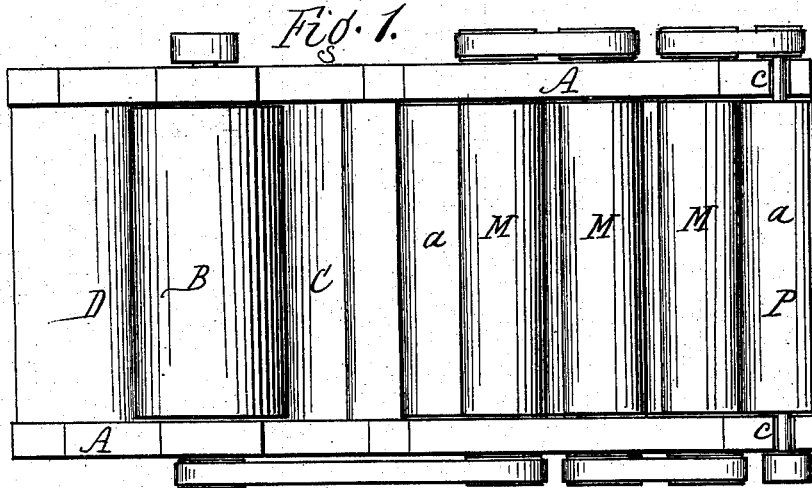


T. HANVEY.
Veneer-Cutting Machine.

No. 205,382.

Patented June 25, 1878.



Witnesses.
E. B. Scott
Wm. J. Witherson

Inventor.
Thos Hanvey,
per R. L. Bogard,
Atty.

UNITED STATES PATENT OFFICE.

THOMAS HANVEY, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN VENEER-CUTTING MACHINES.

Specification forming part of Letters Patent No. 205,382, dated June 25, 1878; application filed April 24, 1876.

To all whom it may concern:

Be it known that I, THOMAS HANVEY, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Cutting, Seasoning, and Winding Wood; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of the machine. Fig. 2 is a longitudinal vertical section. Fig. 3 is a rear elevation.

My improvement relates to cutting thin strips or sheets of wood from around a log for the purpose of forming barrels, &c.

The invention consists in the construction and arrangement of parts hereinafter more fully described.

A is the frame of the machine, which may be of any convenient form. B is the log from which the sheet or strip is cut. C is the knife or cutter. D is the bed upon which the log rests. The knife is stationary, and is located centrally beneath the log, so that the sheet which is cut passes under the knife, and then extends back to the compressing-rollers. The bed D is adjustable up and down to enlarge or narrow the throat between it and the edge of the knife.

The adjustment is produced by the following means: E E are two wedge-shaped movable blocks, which rest under the opposite sides of the bed. By sliding in or out they raise or lower the bed. G is a screw secured to the bed, and extending down between fixed bars H H of the frame. I is a loose block, forming a fulcrum, which rests under the bars H H, and through which the screw passes. K is a nut screwing on the lower end of the screw. By loosening the nut the blocks E E can be moved forward or back, and then, by tightening the nut again, they are clamped in place in the new position. By this means very accurate adjustment of the bed D is obtained, and it has a firm support at all positions, being in this respect superior to a bed which is adjusted by screws.

The knife and bed lie inclined toward each other, thereby forming a hollow or trough, into which the log falls, thereby centering itself.

A particular advantage of the blocks E E is, being edge beveled, they always preserve the same

incline of the bed D at whatever adjustment they are placed, and this incline of the bed is the same as is approximately that of the bevel on the under side of the knife, so that the cut strip of wood, as it enters the throat between the bed and knife, passes through straight, and is not subjected to undue strain and twist.

The log is first thoroughly boiled to soften the same and expel all the sap from the pores. Removable dogs are then driven into and secured to the ends, and these dogs, forming the journals, are placed in boxes resting in vertical guide-slots of the main frame, so that the log will feed itself down accurately to the knife.

L L are following-screws, which pass down through the guide-slots and rest over the boxes. Their object is not to produce pressure upon the log, but to follow up and hold the journals of the log steady and prevent any irregular action. They may be driven by gearing, which will feed them down accurately. Instead of these screws, any equivalent device may be used—for instance, a lever which bears on top of the log.

M M are the compressing-rollers, of which two or more pairs may be used. The sheet or strip *a* passes between these rollers, and is powerfully compressed.

The first pair of rollers are preferably covered with rubber, so as to readily express the great excess of water. The succeeding pairs of rollers (one or all) are preferably hollow for the admission of steam, to produce, in addition to compression, a heating and drying action, by which all the water is finally removed, and, besides, a smooth and finished surface is given to the sheet.

In the primary boiling of the log all the natural sap of the wood is expelled, and all that the rollers do is to express and remove the water that enters the wood in the act of boiling. When the sheet has passed the rollers it is perfectly seasoned and dried, and, having none of the natural sap remaining, it will neither shrink, swell, nor crack, being in perfect condition for use. I thus avoid the waste of time in open-air seasoning, and obviate the warping, cracking, and splitting of the wood, and, furthermore, produce a solid, smooth, and highly-finished surface, which cannot be produced by any ordinary means.

Steam-pipes may connect with the journals of the hollow rollers in any of the well-known ways. The pressure of the upper rollers is adjusted by screws *b b b*.

P is the winding-mandrel. It is simply a small shaft placed in open bearings *c c* of the frame, so as to be easily removable. The end of the sheet *a* is attached to it, and the turning of the mandrel winds up the sheet as fast as it passes the rollers, thus forming the sheet into a compact roll or coil. The cutting of a whole log may be wound up in a single coil in this manner. After the winding is completed the shaft is removed, the coil is bound, and in this condition it can be transported or packed away for storage with great facility and ease.

One great advantage is that the wood may be cut and prepared in lumber regions, and

then transported in compact coils to cities or other points of manufacture.

I claim—

In a machine for cutting, seasoning, and winding wood, consisting of the knife *C*, rollers *M M*, and mandrel *P*, the combination, with the inclined bed *D*, of the wedge-shaped adjusting-blocks *E E*, the screw-shaft *G*, with tightening-nut *K*, and the fulcrum block *I*, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

THOS. HANVEY.

Witnesses:

R. F. OSGOOD,

E. B. SCOTT.