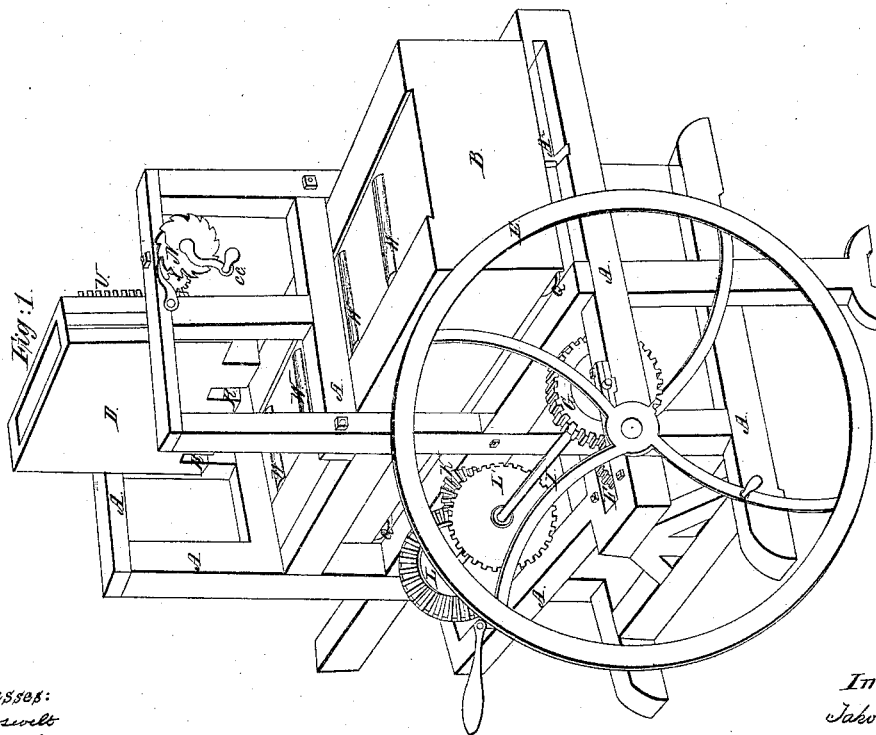
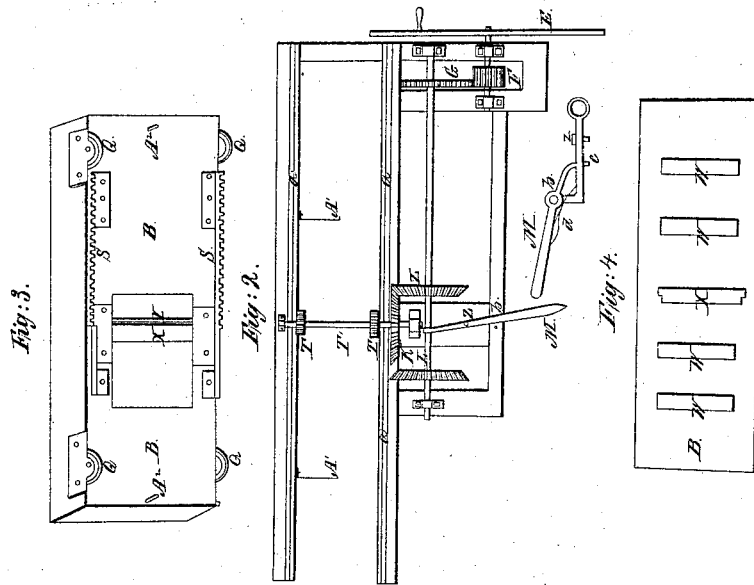


J. Bentz,
Making Wooden Boxes.

N^o 1332.

Patented Sep. 20, 1839.



Witnesses:
Samuel Roswell
Clinton Roswell

Inventor:
Jacob Bentz

UNITED STATES PATENT OFFICE.

JACOB BENTZ, OF NEW YORK, N. Y.

MACHINE FOR PREPARING WOOD FOR MAKING WOODEN BOXES.

Specification of Letters Patent No. 1,332, dated September 20, 1839.

To all whom it may concern:

Be it known that I, JACOB BENTZ, of the city, county, and State of New York, have invented a new and useful Machine for the Manufacture of Small Wooden Boxes for Pills, Matches, and other Purposes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the whole machine; Fig. 2 is a bird's-eye view of the ways on which the plane stock traverses, together with the wheels, shaves and lever which give the plane stock its reciprocating motion; Fig. 3 the under surface of the plane; and Fig. 4 the upper surface of the same plane shown as B in perspective; and Fig. 5 a side view of the forked lever which operates on the main shaft and gives the plane stock its reciprocating motion.

The nature of my invention consists in combining a press with a plane stock having a rectilineal reciprocating motion given by any well known arrangement of machinery, so that the block from which the thin boards or shaving are to be cut, can be pressed on to the surface of the plane stock and retained in its place.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation as follows, referring to the drawings above mentioned, in which the same letters refer to similar parts in all the figures in which they are represented.

The various parts of the machine are arranged in a suitable frame A A A. On the part of the frame where the plane stock hereafter described traverses are placed the ways *a a a*. This plane stock B is a solid block of wood of any desired size mounted on four rollers Q Q, with flanches, which travel on the ways *a, a*, and is provided with a cutter X across its face (having a mouth for discharging the thin boards or shavings) arranged in any of the well known ways of regulating or setting and also with four or more rollers W, W, W, to obviate the friction which otherwise would take place between the face of the plane stock and the block of wood. On the underside of the stock are affixed two racks S, S, which mesh into two pinions T, T, on the shaft T',

which is placed across, and has its bearings in the ways *a, a*. The inner end of this shaft passes through one of the ways into the other part of the frame A, and has a bevel cog wheels L, L, which mesh at right angles to the shaft T' in another shaft I, which slides in its bearings by means of a forked lever M, arranged in the usual manner; toward one end are affixed the two bevel cog wheels L, L, which mesh alternately into the cogs wheel K, their distance apart being sufficient to allow one to be out of gear while the other is in play for the purpose of giving to the plane stock a reciprocating motion. They are thrown in and out of gear by means of the forked lever M. On the other end of the shaft I is placed a spur wheel G, which meshes into a pinion F, on the shaft of the fly-wheel E, to which the crank for working the machine is attached. The pinion F, must be of sufficient length to prevent the wheel G from being thrown out of gear by the play of the shaft I.

In the upper part of the frame A, A, is grooved the press D, which is intended to hold firmly the block, which is to be shaved or cut into thin boards, down to the plane stock B. The press D, is made in the form of a box to contain any heavy material and thus fulfil the purpose of a press. To allow the admission of the block to be shaved, the press D, is raised by means of the crank *c, c*, on a shaft placed parallel with the side of the press D, with a pinion near each end, the one meshing into the rack of cogs V, and the other into a similar rack at the opposite end of the press D. The ratchet wheel N, is also placed on the same shaft having a pawl O, to hold the press D, at any desired elevation. Through the lower part of the press D, are cut grooves R, to allow wedges to be driven to hold the block which is to be shaved the more steadily in its place.

At the bottom or underside of the plane stock B are placed stops A², A², to strike the springs A¹, A¹, which prevent the racks of cogs S, S, being thrown out of play with the pinions T, T.

The machine of which the above is a description is to operate as follows, first place a block of wood (of pine or maple) of proper size under the press D, and wedge it firm having the grain of the wood parallel with the plane, then press the handle of the

lever M from the fly wheel E, E. This brings one of the bevel wheels L into play with the bevel wheel K, then turn the fly wheel E, and drive the plane stock backward until the edge of the cutter takes hold at the end of the block to be shaved, which being done press on the handle of the lever M, and move it toward the fly wheel E, which throws the one wheel L, out of play and the other in gear with K, then by turning the fly wheel E in the same direction as at first the plane stock is driven forward and the cutter operates like an ordinary spokeshave making a shaving corresponding with the surface of the block and of thickness to be regulated by raising or depressing

the cutter. To repeat the operation, turn the fly wheel E, and work the lever M, as above directed. Thin boards or shavings being thus procured, they are dampened by steam or water and pressed to make them flat, they are then formed into boxes by hand and covered with thin paper.

What I claim as new and useful is—

The combination of the plane and stock having a rectilineal reciprocating motion, with the press for holding the block in the manner described.

JACOB BENTZ.

Witnesses:

WASHN. JUDAH,
ISAAC ROOSEVELT.