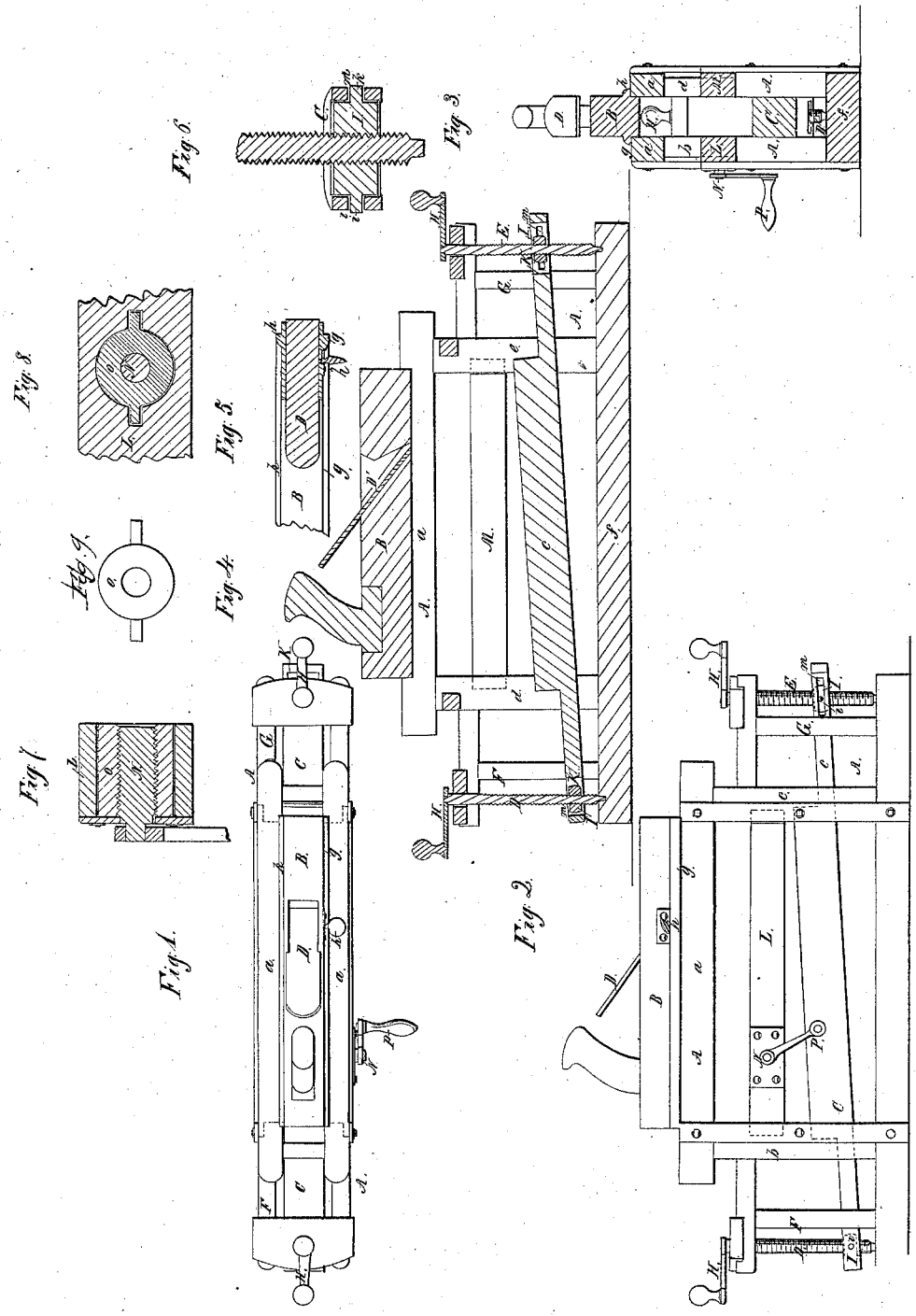
A. Blanchard,

Wood Planing Machine,

No. 7,392, Patented May 28, 1850.



UNITED STATES PATENT OFFICE.

A. BLANCHARD, OF WEST CAMBRIDGE, MASSACHUSETTS.

APPARATUS FOR JOINTING SLATS, BOARDS, &c.

Specification of Letters Patent No. 7,392, dated May 28, 1850.

To all whom it may concern:

Be it known that I, ALANSON BLANCHARD, of West Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful or improved machine to be used by carpenters, and for the purpose of facilitating the reduction of boards to a desirable shape or width; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1, denotes a top view. Fig. 2, a side elevation; Fig. 3, a transverse, central, and vertical section, and Fig. 4, a longitudinal, central, and vertical section, of my said machine. Fig. 5, is a section of the plane stock, and cutter, taken in the plane of the said cutter.

In the said drawings, A, represents a strong wooden frame composed in part of two horizontal and parallel rails or timbers, *a*, *a*, supported at a suitable distance apart, by means of four posts *b*, *c*, *d*, *e*, which are erected perpendicularly upon a base board *f*. The said rails *a*, *a*, are arranged at a suitable distance apart, and sufficient to receive and guide between them, a carpenter's hand plane B, which when placed between them, is supported on them by means of two ledges, *g*, *h*, affixed to its opposite sides. The bottom surface of the plane B, is made to extend a short distance below the top surface of the rails. D, exhibits the cutter iron of the plane stock. Instead of being confined in the stock by means of a wedge, driven on the front side or face of it, in the usual way, I fix the same in position by means of a set screw *h*, made to screw and extend through or into the side of the plane stock, and so as to be capable of being screwed hard against the edge of the cutter rim, as seen in Fig. 5. By such means of confinement of the cutter iron, and such an arrangement of the same, the iron can be much more readily and perfectly adjusted in a correct position, than it can when a wedge is used, as in the common jack plane.

Between the posts of the frame, and underneath the plane B, is what I term the adjustable support bed or bar C. It consists of a long beam, supported by means of two or any other suitable number of upright screws D, E, each of which is held in position, (as seen in the drawings,) by means of suitable frame work F or G, extended from the end of the main frame. Each screw has a winch or handle H, by which it may be turned in a direction so as to either elevate or depress the connected or adjacent end of the support bar C.

A screw nut L, is adapted to each screw, and is placed within a recess or opening K, made through the end of the bar C. From the two opposite sides of the screw nut, ears or projections *i*, *k*, (see Fig. 6, which denotes a central cross section of the nut, screw, and the support bar C,) are made to extend respectively into two slots, or passages, *l*, *m*, made in the opposite edge of the support bar, and extending through it to meet the opening K. Such contrivances connecting the support bar, and each of the screws, are to enable the support bar, to be readily raised or lowered at one or both ends, and by either one or both of the screws as occasion may require.

Besides the support bar C, there are two lateral sustaining or clamping bars, L, M, each of which is arranged between the two posts, of either side of the frame, and so applied to the posts as to be capable of being freely raised up, or lowered down, as circumstances may render necessary. To one of these bars (viz L,) a clamping contrivance is fixed, the same consisting of a screw N, and a nut O. The screw N, is so applied to the bar, as to admit of being freely rotated on its axis, but not of being moved in a longitudinal, or lengthwise direction. The nut should be so applied to the screw and the bar, as to be capable of moving freely back and forth on the screw in a longitudinal direction, (that is in a direction of the axis of the screw,) while it is prevented from rotating on the screw. By such an application it will be seen, when the screw is rotated by the hand applied to its handle *p*, and the clamp nut and the screw rotated, will cause the clamp nut to be either forced or moved, in one direction or the other on its screw.

Fig. 7, denotes a longitudinal section of the screw, and clamp nut as applied to the bar L. Fig. 8, is a vertical section of them. Fig. 9, is an end view of the said nut.

In the operation of this machine, two or more boards may be reduced to any determinate width at once, they being placed between the rails *a*, *a*, and suffered to rest on the supporting beam C, and being held in

place by means of the clamp screw and nut, and clamping bars. In order to make them of an equal width throughout, the workman first regulates the depth of both ends of the supporting bar C, in such manner as not only to bring its upper surface parallel to the plane of the upper surfaces of the rails *a*, *a*, but at the same time to bring it to a depth below the same, equal to the width required for the boards, added to that of the projection of the bottom of the plane below its ledges or its sides. So when boards are to be reduced to a greater width at one end than they are at the other, the bar C, is brought into an inclined position, and to the depth required to give to the boards their proper widths. When so fixed in position the workman applies the plane to the upper edges of the boards, and planes them down, or operates it thereon, until he is prevented from further reduction of them, by means of contact of the ledges of the plane, with the top surfaces of the rails, *a*, *a*, the said top surfaces serving to so regulate the final cut of the plane iron, as to gage the boards to the required widths.

The object of this machine, is to enable carpenters to reduce with great facility, and little care, blind stuff, stair treads, or various other boards, to equal or, unequal widths.

What I claim as my invention, is—

The combination of the frame A, with its supporting rails *a*, *a*, the adjustable support or bed bar C, its supporting, and elevating screws and contrivances, and the movable clamping bars L, M, with their clamp screw mechanism, the whole being applied, and made to operate together, and in connection with the plane, substantially as above specified.

In testimony whereof, I have hereto set my signature this twenty seventh day of March A. D., 1850.

ALANSON BLANCHARD.

Witnesses:

GEORGE C. RUSSERE,

JAMES RUSSELL.