R. Washburn,

Bench Plane.

No. 43,053. Patented June 7, 1864.

Fig: 1.

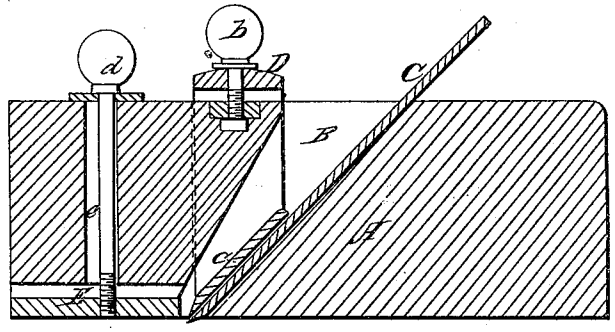


Fig: 3.

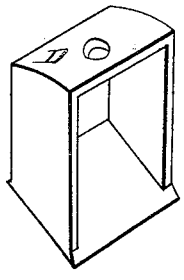
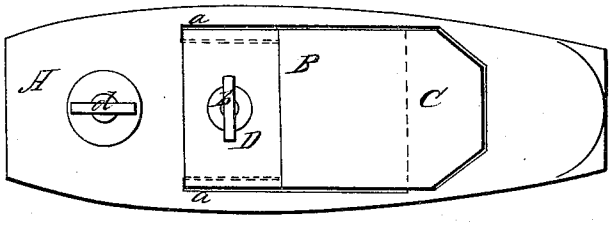


Fig: 2.



Witnesses:

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RICHARD WASHBURN, OF RAMAPO, NEW YORK.

IMPROVEMENT IN BENCH-PLANES.

Specification forming part of Letters Patent No. **43,053**, dated June 7, 1864.

To all whom it may concern:

Be it known that I, RICHARD WASHBURN, of Ramapo, in the county of Rockland and State of New York, have invented a new and useful Improvement in Bench-Planes; 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, forming a part of this specification, in which—

Figure 1 is a longitudinal vertical section of my invention. Fig. 2 is a plan or top view of the same. Fig. 3 is a detached perspective view of the slotted wedge which I use to secure the plane-iron.

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

This invention consists in the employment or use of a slotted wedge inserted in suitable guide-grooves in the front side of the throat of a plane, and adjustable by means of a set-screw, in combination with the plane-iron in such a manner, that by means of said slotted wedge and set-screw the plane iron can be firmly secured in the desired position, and by the point of the wedge the shavings are thrown off from the cutting-edge of the iron and caused to pass up through the throat of the plane with ease and facility, and the use of a double iron can be dispensed with.

A represents the body of my plane, which is made of wood or any other suitable material, and provided with a throat, B, through which the plane-iron C passes in the usual manner. The plane-iron is secured in the throat by means of a slotted wedge, D, a detached perspective view of which is shown in Fig. 3. This wedge is guided in grooves *a* in the front side of the throat, and it is secured in its place by means of a set-screw, *b*, which passes freely through its top and screws into a nut fastened in the upper surface of the body A of the plane. The lower inclined surface, *c*, of the slotted wedge fits nicely on the upper surface of plane-iron, as clearly shown in Fig. 1, and its front edge is chamfered off in the opposite direction to that of the plane-iron, so that the shavings are thrown off from said cutting-edge, and that the inclined plate *c* of the slotted wedge takes the place of the ordinary double iron. By releasing the set-screw *b* the plane-iron can be easily adjusted up or down without the use of the hammer, and by tightening said set-screws the slotted wedge is firmly pressed down on the plane-iron and the latter is securely held in the required position. The sole of the plane is protected by a plate, E, secured to the front edge of the same by means of set-screw *d*. This screw passes through an oblong hole, *e*, in the body of the plane, so that the plate E can be easily adjusted backward or forward and that by these means the mouth of the plane can be enlarged or diminished at pleasure. The plate E therefore serves the double purpose of protecting the sole of the plane and of making its mouth adjustable.

The improvements herein described are applicable to planes of every description, and it is obvious that the slotted wedge can be used independent of the adjustable plate E, or in combination with the same, as may be desired.

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

The slotted wedge D, secured in the throat of a plane, A, by means of a set-screw, *b*, and operating in combination with the same and with the plane-iron C, substantially in the manner and for the purpose specified.

RICHARD WASHBURN.

Witnesses:

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