

J. J. TOWER.
BENCH-PLANES.

No. 179,494.

Patented July 4, 1876.

Fig. 3.

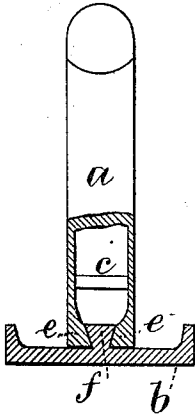


Fig. 1.

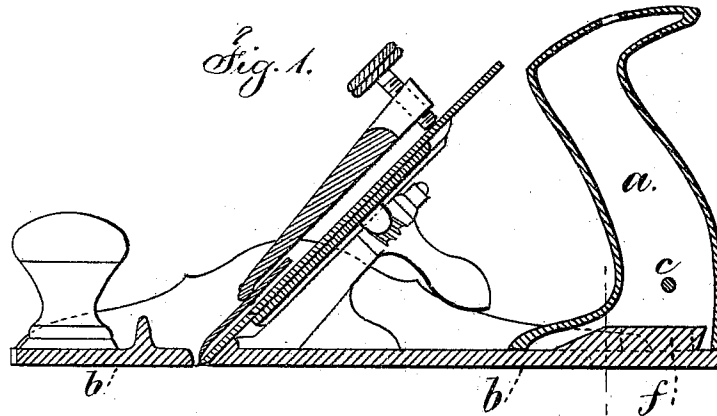
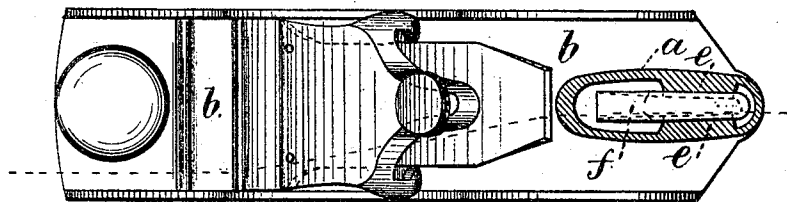


Fig. 2.



Witness

Charles Smith
Harold Perrell

Inventor

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per Lemuel W. Perrell
att'y.

UNITED STATES PATENT OFFICE.

JOHN J. TOWER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BENCH-PLANES.

Specification forming part of Letters Patent No. **179,494**, dated July 4, 1876; application filed May 29, 1876.

To all whom it may concern:

Be it known that I, JOHN J. TOWER, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Metal Plane-Handles, of which the following is a specification:

Metal planes have heretofore been constructed with handles of wood, and also with globular knobs at the forward end of the plane.

My improvement relates to a hollow cast-metal handle, secured to the plane by dovetailed projections, so that the connection is very strong and durable, and at the same time the handle is very light, and of a size and shape to be grasped by the hand.

The handle is represented in the drawing by a vertical section, Figure 1, horizontal section, Fig. 2, and cross-section, Fig. 3.

The handle *a* is of cast metal, preferably of iron. It is made hollow, so as to be as light as possible and maintain the requisite strength. The general shape of this handle is similar to those made of wood, and hence it is as convenient in use. In order to strengthen the lower part of the handle, and prevent the same being bent by the attachment to the plate *b* of the plane, I introduce the cross-bar *c*, cast with the rest of the handle. Dovetails that taper slightly are employed for fastening the base of the handle to the plane-stock. These dovetails are made by lips inside the base of the handle, as seen at *e*. The dovetail block *f* upon the plane-stock *b* is shorter than the base of the plane-handle *a*, and the dovetail portions *e* do not extend the whole distance along the inner edges of the handle,

so that the handle *a* can be put over the dovetail-block *f* by slipping it from the back forward, and keeping the back edge down, in order that the handle may receive the dovetail-block, and the parts tapering, the handle may be secured firmly by driving it forward upon the dovetail block. By this construction it is not necessary to have any opening at the forward part of the base of the handle, as such base sets down flat upon the plane-stock, and makes a neat, handsome, and durable connection, the dovetail not being visible.

This hollow cast-iron plane-handle may be plated or otherwise finished, and as the handle extends to the upper surface of the bottom of the plane, the hand of the operator can be as near to the surface of the wood as possible, so that the power can be exerted to good advantage.

I do not claim a plane with a hollow knob or handle with dovetail projections for holding the plane-iron to the stock, as this has been used; neither do I claim a hollow metal plane-handle.

I claim as my invention—

The metallic plane-handle cast hollow, with a cross-bar, *c*, and dovetail lips *e* extending a part of the distance along the inner portion of the base, in combination with the dovetail block *f* upon the stock of the plane, substantially as set forth.

Signed by me this 22d day of May, A. D. 1876.

JOHN J. TOWER.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.