S. W. Woodward,

Bench Plane.

No. 89,369. Patented Apr. 27. 1869.

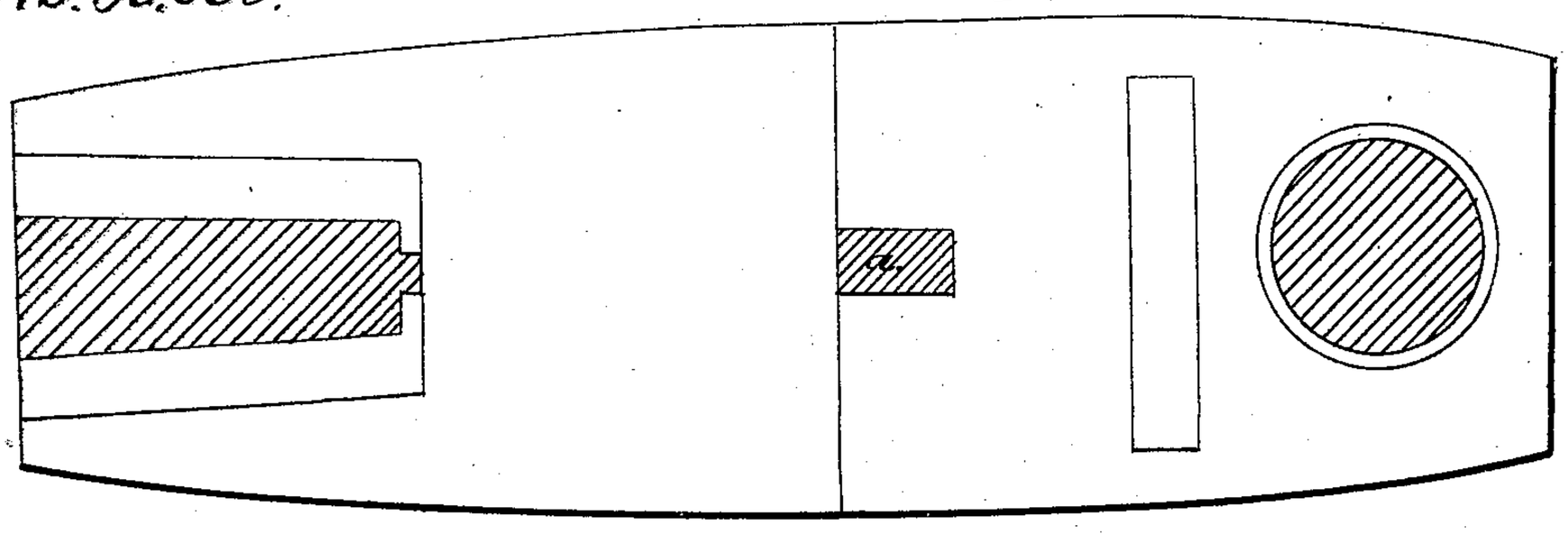


Fig. 1.

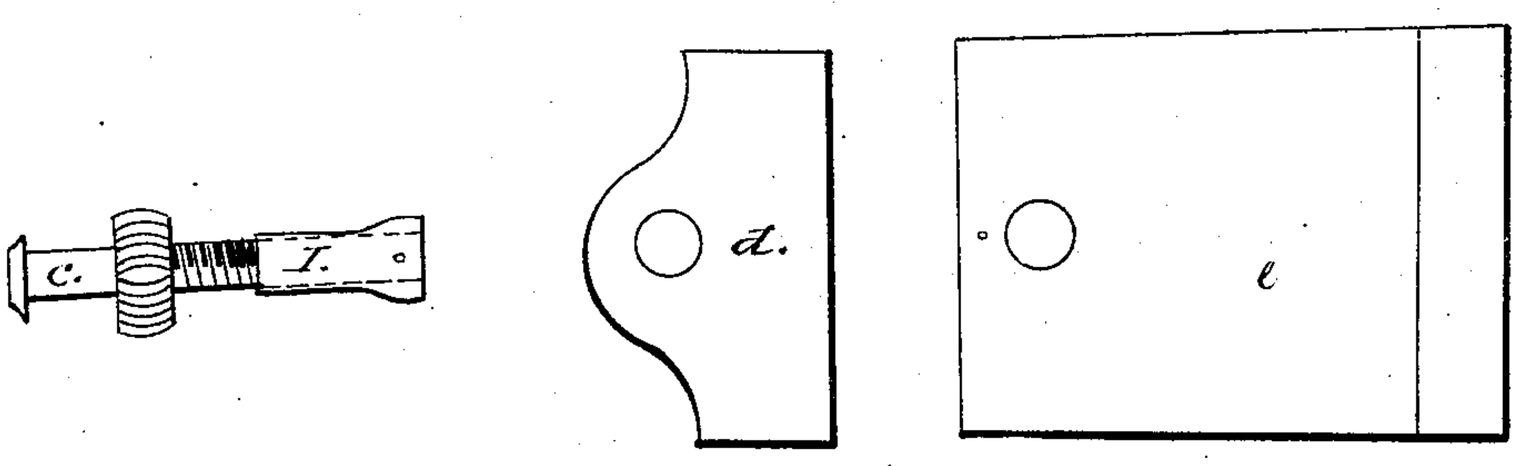
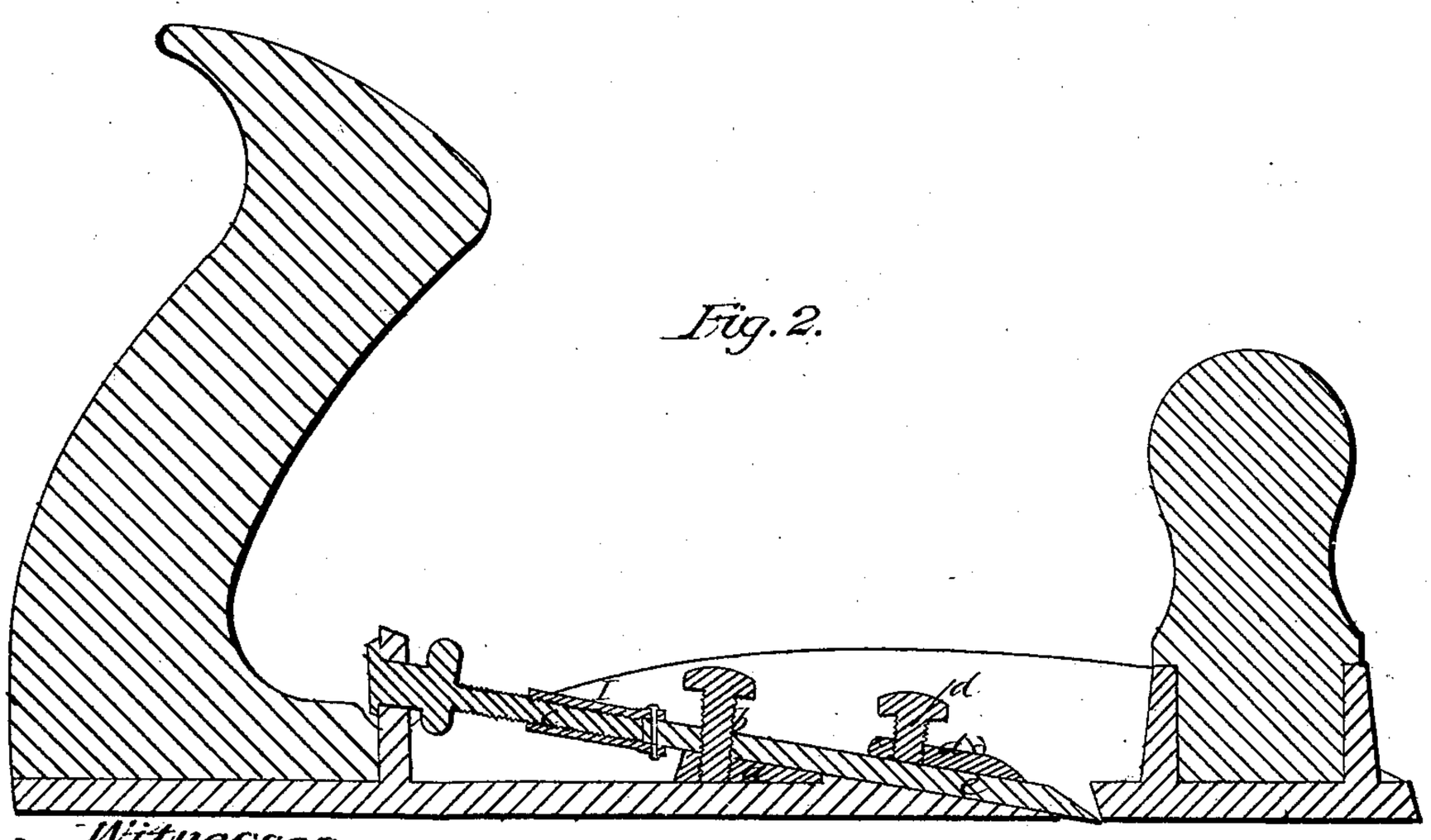


Fig. 2.



Witnesses:

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STEPHEN W. WOODWARD, OF BUFFALO, NEW YORK.

Letters Patent No. 89,369, *dated April* 27, 1869; *antedated April* 16, 1869.

IMPROVEMENT IN PLANE FOR CARPENTERS' USE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, STEPHEN W. WOODWARD, of the city of Buffalo, in the county of Erie, and State of New York, have invented certain new and useful Improvements in Planes for Carpenters', Joiners', or Cabinet-Makers' Use; and do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the manner of placing the plane-iron with its face downward, holding the cutting-edge of the same firmly in any required position, and elevating or lowering, forcing outward or withdrawing the same, by means of screws and pins.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a dissected view of the plane, and

Figure 2 is a sectional view of the same.

Fig. 1 represents a cast-iron plane, with a slot marked *a* cast in the body of the plane, for the purpose of guiding and holding a screw marked *b*, the operation of which screw is intended to elevate or depress the cutting-edge of the plane-iron, at the same time opening and closing the throat of the plane, so as to gauge the thickness of the shaving or cut.

C represents a thumb-screw attached to the plane-iron, for the purpose of forcing outward, withdrawing, and at the same time assisting to hold in any required position, the cutting-edge of the plane-iron.

This screw C enters the sleeve I, which is hinged or pivoted in such a manner to the rear end of the plane-bit E, that said end may be adjusted vertically without affecting the screw.

The screw C not being cramped by the movement of the rear end of the plane-bit, is left free to act upon said bit, for giving it an endwise adjustment at any angle it may assume.

d represents the cap, with screw *d'*, holding the plane-iron firmly in its place.

This cap is caught beneath two pins, or lugs J, on the inner faces of the flanges, forming the sides of the plane, and, with its screw *d'*, serves to press down and hold in position the forward end of the same bit.

Having thus fully described my invention,

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

The sleeve I, provided with jaws, and pivoted to the bit E, arranged with the screws C and *b*, to operate as set forth.

STEPHEN W. WOODWARD.

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