

W. H. BROWN & D. F. WILLIAMS.
Bench-Planes.

No. 144,381.

Patented Nov. 11, 1873.

Fig. 1.

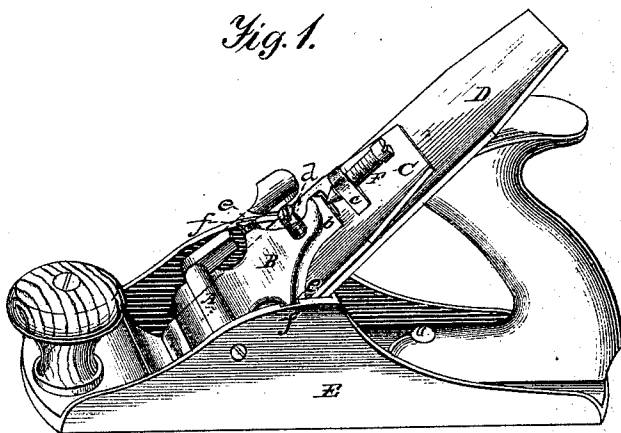
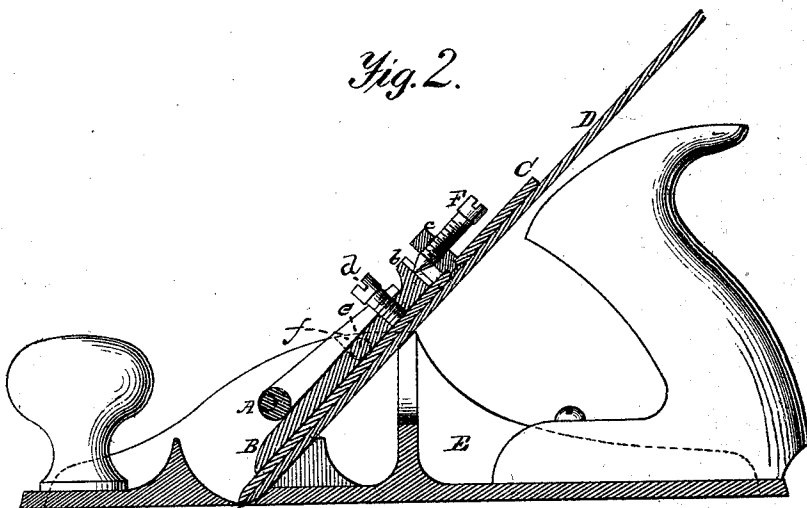


Fig. 2.



Witnesses.

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WILLIAM H. BROWN, OF WORCESTER, MASSACHUSETTS, AND DAVID F. WILLIAMS, OF WOONSOCKET, ASSIGNORS TO BAILEY TOOL COMPANY, OF WOONSOCKET, RHODE ISLAND.

IMPROVEMENT IN BENCH-PLANES.

Specification forming part of Letters Patent No. **144,381**, dated November 11, 1873; application filed April 12, 1873.

To all whom it may concern:

Be it known that we, WM. H. BROWN, of Worcester, in the county of Worcester and State of Massachusetts, and DAVID F. WILLIAMS, of Woonsocket, in the county of Providence and in the State of Rhode Island, have invented a new and useful Improvement in Bench-Planes; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings making a part of this specification, in which—

Figure 1 represents our improved bench-plane in perspective, and Fig. 2 a vertical longitudinal section of the same.

Our invention consists in certain hereinafter-described means provided for the purpose of facilitating the adjustment of the cap, and for regulating the pressure upon the cutting-tool.

The general construction of our bench-plane is like that described in Letters Patent No. 105,767, granted Joseph R. Bailey, July 26, 1870, an eccentric or curved bar, A, being used in conjunction with a presser-plate, B, to secure the plane-iron D and intervening cap C in the stock E. The presser-plate in this case is elongated and provided with a head, *b*, and a set-screw, *d*, the former of which acts in conjunction with other parts presently to be described, while, by means of the lathe, the pressure of said plate against the cam-rod may be adjusted so as to permit of the use of a thick or thin cap or cutting-iron, as desired. It also has lugs *e*, which project into grooves *f* cut in each side of the flanges of the stock, at right angles to the cutting-tool, whereby the slipping or sliding of the plate forward or backward is prevented, while at the same time it is allowed to rise and fall under the ac-

tion of the set-screw *d*. The accurate adjustment of the cap with reference to the cutting-edge of the chisel and the throat of the stock is obtained by means of a set-screw, F, which is carried in a screw-threaded eye in ear *c* of the cap, and bears with its point against the head *b* of the presser-plate. The foot of set-screw F being pointed, as shown, a V-shaped groove is formed in the end of head *b*, to receive such point, and allow the presser-plate to rise and fall and keep it in its exact position.

In the adjustment of the parts, the cap should be properly arranged by adjusting the set-screw F before the eccentric bar is turned down to force the presser-plate against the cap.

We claim as our invention—

1. In a bench-plane of the character described, an adjusting-screw, F, working in an ear, *c*, formed on or attached to the cap, combined with the presser-plate B, provided with the grooved head *b*, substantially as and for the purpose set forth.

2. The eccentric A, presser-plate B with lugs *e e*, grooves *f f*, and set-screw *d*, in combination with the cap or plane-iron.

3. The presser-plate B, with lugs *e e*, in combination with cap C *c*, set-screw F, and grooves *f f*, substantially as described.

In testimony that we claim the above-described improvement we have hereunto signed our names this 5th day of April, 1873.

WM. H. BROWN.
DAVID F. WILLIAMS.

Witnesses:

F. T. BLACKMER,
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