W. P. Barr,
Type Machine.,

No. 9177 Patented Aug. 10. 1852.

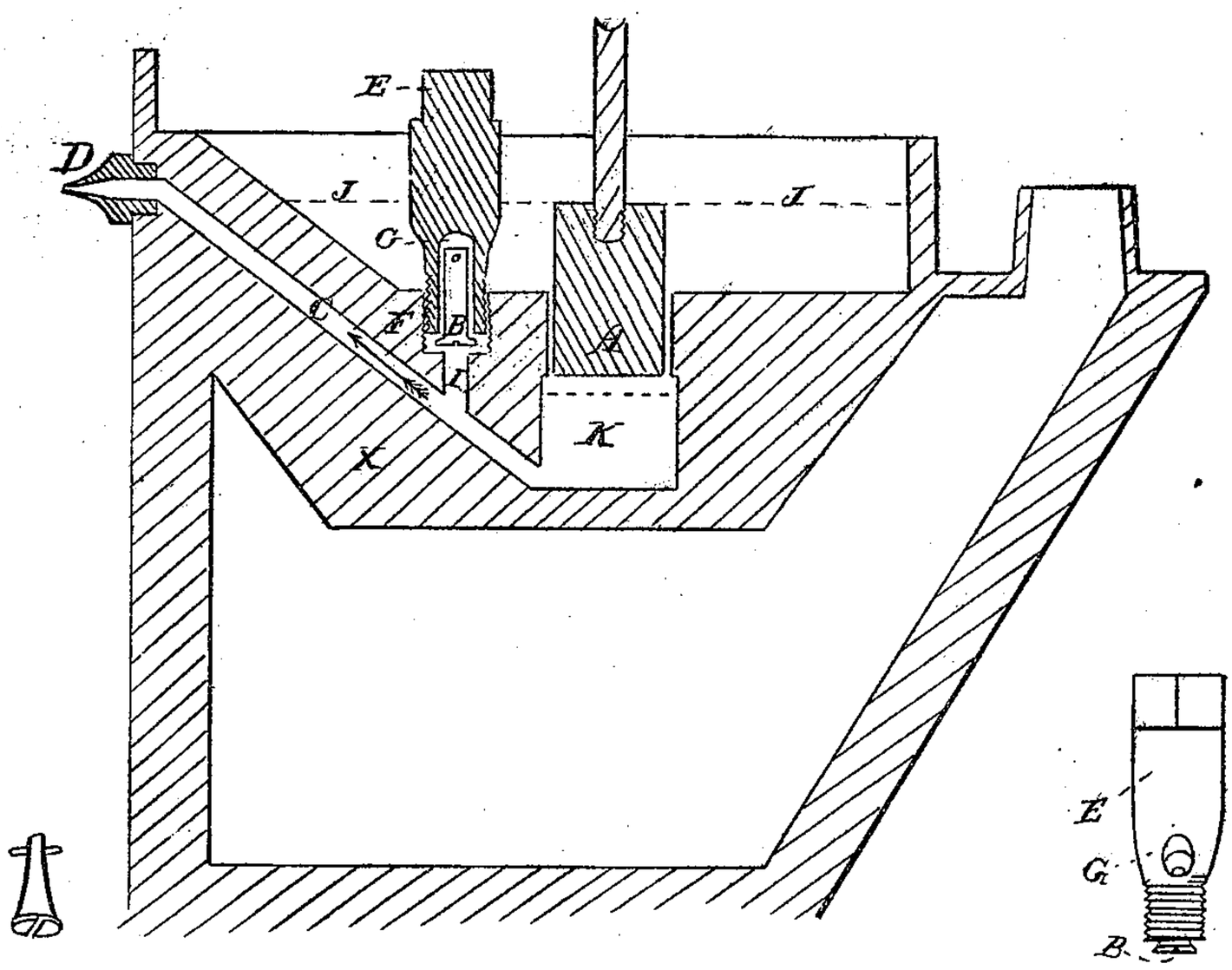

Fig 4

Fig 1

Fig. 2

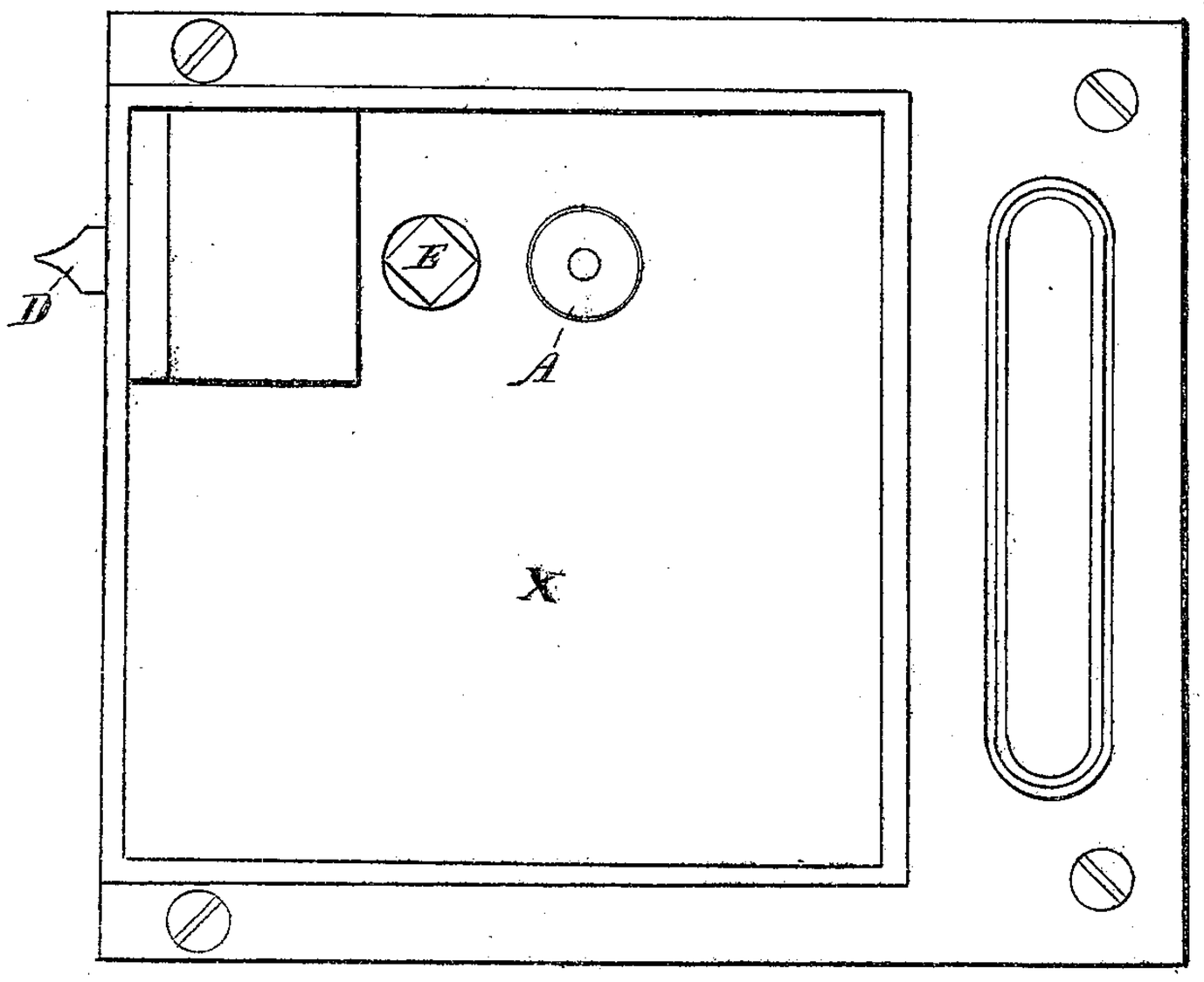

FIG. 3.

Witness
J. D. Whitney
James Lindsay

W. P. Barr

UNITED STATES PATENT OFFICE.

WILLIAM P. BARR, OF NEW YORK, N. Y., ASSIGNOR TO GEORGE BRUCE, OF SAME PLACE.

IMPROVEMENT IN CASTING TYPE.

Specification forming part of Letters Patent No. **9,177,** dated August 10, 1852.

To all whom it may concern:

Be it known that I, WILLIAM P. BARR, of the city, county, and State of New York, have invented a new and Improved Valve, which I denominate "an adjustable type-casting valve;" and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a transverse sectional view of the pot X, showing the relative position of the pump A, pump-chamber K, valve B, vertical valve-channel I, and channel C, leading from pump-chamber K to the spout D. The dotted line J J represents the height of metal in the pot. Fig. 2 represents the adjustable screw-plug E, with transverse hole G and valve B. Fig. 3 is a plan of the pot X, with pump A, adjustable screw-plug E, and spout D.

The object of this adjustable valve is to regulate the induction of the precise quantity of melted metal into the chamber of the pump, hence to be ejected into the type-mold, and by its adjustable capability to prevent what is technically known as "reaction" and "dragging out" on the removal of the mold from the spout—a very serious obstacle in the working of type casting machines.

The arrangement, construction, and operation of this valve are as follows: The valve-seat E is a plug of steel or other suitable metal about half an inch in diameter and three inches in length, whose lower end is cut as a screw about three-fourths of an inch up. This screwed end is bored out longitudinally to receive the valve B, whose stem passes up through the plug about three-fourths of an inch. The plug E is here intersected by a transverse hole, G, passing through it, which serves as a channel for the passage of the melted metal to the valve B. The valve-chamber F, as shown in Fig. 1, is bored and threaded correspondingly to receive the plug E with the valve B. The operation of the adjustment is simply by turning with a wrench the plug E, containing the valve B, so as to leave a greater or less space for the valve to play in between its seat in the plug E and the bottom of the chamber F. The bottom of the valve B, Fig. 4, has a transverse groove on its lower surface, to prevent its shutting off all the metal at the raising of the pump. It might be stated that the pump in this plan requires no other valve. The effective operation of this arrangement of the valve is this: By raising the pump A the melted metal is drawn down through the transverse openings in the plug E, past the valve B, into the chamber F, from which it is ejected by the descent of the pump and forced into the mold through the channel C and spout D, as indicated by the arrow.

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

The employment in type-casting machines of an adjustable valve, substantially in the manner described.

WM. P. BARR.

Witnesses:

D. W. BRUCE,

JAMES LINDSAY.