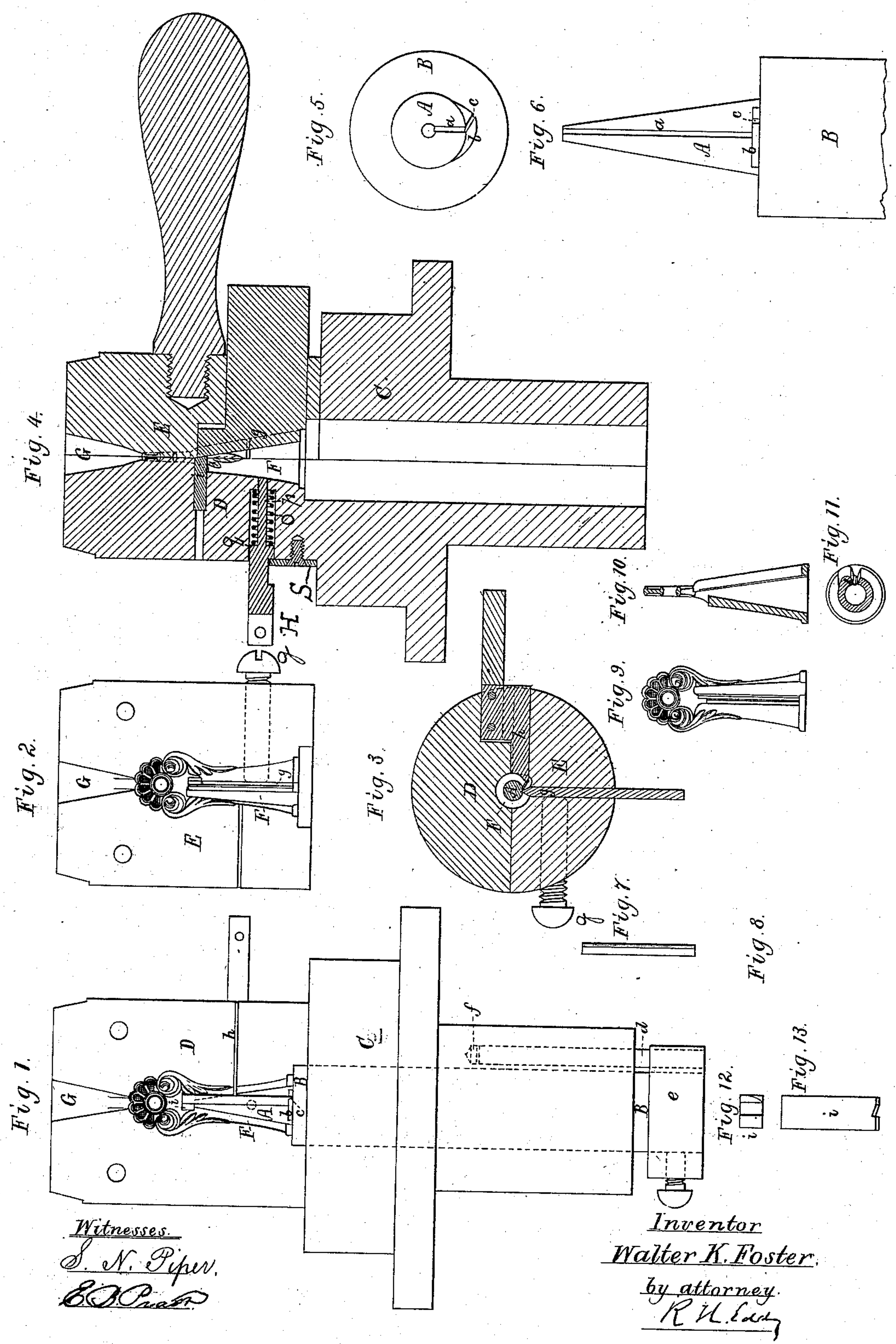


(No Model.)

W. K. FOSTER.
Mold for Casting Pencil Sharpeners.
No. 235,626.
Patented Dec. 21, 1880.



Witnesses.
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UNITED STATES PATENT OFFICE.

WALTER K. FOSTER, OF STONEHAM, MASSACHUSETTS.

MOLD FOR CASTING PENCIL-SHARPENERS.

SPECIFICATION forming part of Letters Patent No. 235,626, dated December 21, 1880.

Application filed November 6, 1880. (No model.)

To all whom it may concern:

Be it known that I, WALTER K. FOSTER, of Stoneham, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Molds for Casting Pencil-Sharpener; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figures 1 and 2 are inner side elevations, and Fig. 3 a horizontal section, of the two main parts of a mold provided with my invention. Fig. 4 is a vertical section of the mold, taken at right angles to the medial joint of its two main parts or sections. Fig. 5 is a top view, and Fig. 6 a side elevation on an enlarged scale, of the upper portion of the plunger and its cone or core. Fig. 7 is a side view, and Fig. 8 a transverse section, of a blade as used with the mold, and to have cast on it by means of such mold a body having a conical mouth and a chip throat or passage leading out of such mouth. Fig. 9 is a front view of one of the pencil-sharpener, and Fig. 10 is a vertical, and Fig. 11 a transverse or horizontal, section of it.

My invention is to support the blade in and give to it in the mold its true position preparatory to casting the molten metal into the mold.

The invention is also to support the blade while the molten metal is being poured into the mold, and is cooling or hardening therein.

In carrying out my improvement I combine with the cone or core A, at its base and at the lower part of the blade-edge-receiving groove *a*, a projection, *b*, having in it an oblique slot, *c*, as shown, to receive the lower end of the blade.

In the drawings the mouth-forming cone is shown at A as projecting up from a bolt or cylindrical carrier, B, which is adapted to slide vertically within the base portion C of the mold, a pin, *d*, being extended up from the head *e* of the bolt, and to slide within a guide-hole, *f*, made in the said base part C. The said pin and guide-hole serve to adjust the cone or core to its proper position for its blade-edge-receiving groove to take its place in the mold.

The two halves or main parts of the mold are shown at D and E, that marked D being extended upward from and attached to the base C. The matrix, formed partly in each of the parts D E, is shown at F. The portion of the matrix in the mold part E has projecting from it a rib, *g*, to form the chip-throat in the body of the sharpener, and also to answer as an abutment to support the blade, a slider, *h*, adapted to slide in the part D and E, and arranged as shown, serving to hold the blade up to the abutment. Said rib or abutment is held in position by a set-screw, *g'*. The sprue-hole for casting the metal into the mold is shown at G as made partly in each of the mold-sections.

The projection *b*, with its oblique slot, receives the foot or lower end of the blade, and properly inclines the blade and aids in holding it in place. Were it not for the said slotted projection, the blade would be liable to slip or turn more or less around out of its proper position.

There is in the mold-section D a projection, *i*, grooved to receive, and, with the projection *b*, oblique slot *c*, rib *g*, and slider *h*, is to aid in supporting the blade while the molten metal is being poured into the mold and is cooling or hardening therein.

Fig. 12 is a front view, and Fig. 13 a top view, of the projection *i*, on an enlarged scale.

The part D of the mold is provided with a bar, H, which is so applied to the said mold-section as to be capable of being slid therein. After a pencil-sharpener has been cast and the mold-section E has been removed from the part D, the bar H, by being moved toward the mold, will expel the sharpener therefrom, and said bar will be returned to its proper position by the spring O, which encompasses the part *p* of the bar and bears against the shoulder *q* thereof and the inner end of the chamber in which said bar slides. The bar H is held in place in its chamber by a plate, *s*, and a screw, as shown in Fig. 4.

I claim, in the pencil-sharpener mold—

1. The combination of the slotted projection *b* with the cone or core, and with the matrix provided with the rib *g*, for forming the chip-throat and supporting the blade, as set forth.

2. The combination of the slider *h* with the matrix or mold provided with the rib *g*, and with the blade-supporting slotted projection *b*, all arranged and applied substantially in
5 manner and for use as set forth.

3. The combination of the slider *h* with the matrix or mold provided with the rib *g*, the

slotted projection *b*, and the projection *i*, all being arranged and applied substantially as and for use as set forth.

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