C. REBSTOCK & J. OTTNER.

Mold for Casting Knobs.

No. 134,931. Patented Jan. 14, 1873.

Fig. 1.

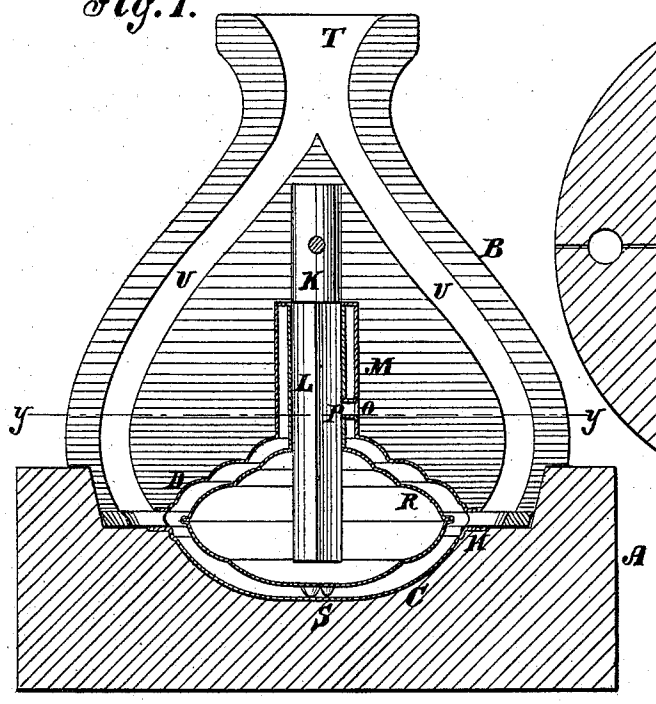


Fig. 2

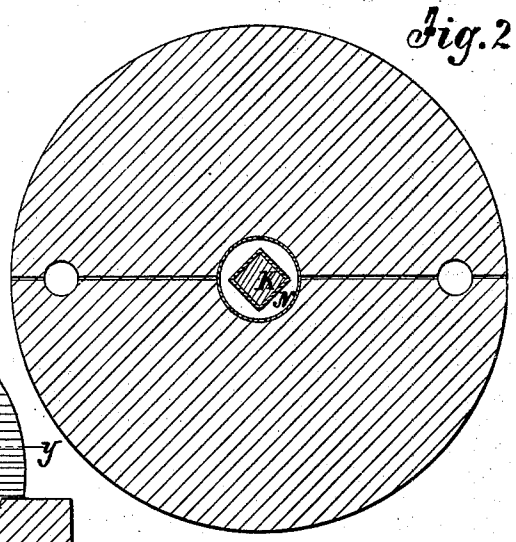


Fig. 3.

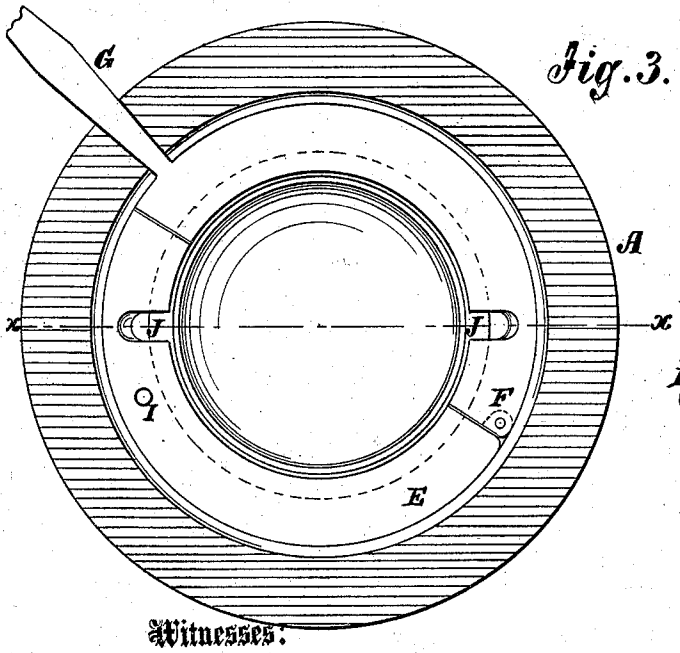
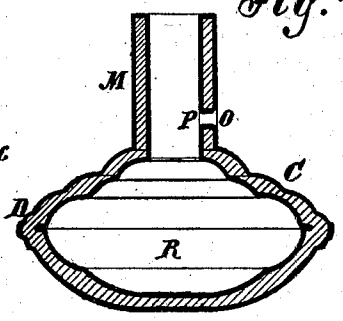


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHRISTIAN REBSTOCK AND JOSEPH OTTNER, OF BRIDGEPORT, CONN.

IMPROVEMENT IN MOLDS FOR CASTING METAL KNOBS.

Specification forming part of Letters Patent No. **134,931**, dated January 14, 1873.

To all whom it may concern:

Be it known that we, CHRISTIAN REBSTOCK and JOSEPH OTTNER, of Bridgeport, in the county of Fairfield, and State of Connecticut, have invented a new and useful Improvement in Molds for Casting Metal Knobs, of which the following is a specification:

The object of this invention is to improve the means for casting metallic door and other knobs, whether such knobs are ornamented or made plain on the face; and it consists in providing for a hard-metal tube for bushing the spindle-hole in the knob-shank, and for a hard-metal eyelet in the same for the shank-screw, the construction being as hereinafter described.

In the accompanying drawing, Figure 1 is a longitudinal section taken on the line *x x* of Fig. 3. Fig. 2 is a cross-section on the line *y y* of Fig. 1. Fig. 3 is a top view with the upper part of the mold removed. Fig. 4 is a section of a knob cast in our improved mold.

Similar letters of reference indicate corresponding parts.

A is the lower or bed portion of the mold. B is the upper part, through which the melted metal is poured. C represents the knob. D is the shell of the knob, made of sheet metal, struck up or swaged in two parts. The face part of the knob fits the lower part of the mold, and the other part of the shell fits the upper part of the mold, as seen in Fig. 1. E is a removable ring, by which the two parts of the shell are separated when they are placed in the mold. This ring is jointed, as seen at F, and has a handle, G, by means of which it is properly adjusted in the lower part of the mold, and on the projecting flange H of the lower shell, and also on the guide-pin I. J J are gate-recesses in the ring, which receive the melted metal from the gate-passages in the upper part of the mold. K represents the knob-spindles. L is the upper part of the shell D, which surrounds the shank M of the knob. N is a small tube, made of hard metal, which is placed in the mold, around the spindle at the end of the shank, and within the shell. This tube is seen in the section, Fig. 2. O is an eyelet, made of hard metal, which is set in the mold to bush the hole P for the fastening-screw. The upper part of the shell rests, when in the mold, on the ring E with a projecting flange, the same as is on the lower part. R is the core of the mold. This core may be made of any suitable material; but we prefer to make it of sheet metal, struck up to any desired shape, in two parts, with their edges clasped together, so as to form a single piece, as seen in Fig. 1. The spindle passes through and into the interior of the core, but is held or fastened in the knob by the metal which surrounds the shank. On the bottom of the core are one or more projections or teats, S, made by punching from the inside. These little projections serve to keep the core up from the outer or face shell, and to govern, by their length, the thickness of the cast metal. T is the sprue, where the metal is poured in. U U are gate-passages, by which the metal is conveyed to the ring E, into the mold. There may be more or less of these gates, as may be desired. The outside shell of the knob may be made of sheet silver, brass, or nickel; and when the molten metal has been poured in and the knob removed from the mold the projecting outer flanges H on each part of the shell are folded over each other, and finished so as to present a neat and finished appearance. The upper part B of the mold is made in two parts, divided vertically, and doweled together, the construction being, as seen in Fig. 2, with the gate-passages between the two parts.

With this mold a knob of the most durable character may be made with an outside surface of any fine metal, as silver, nickel, or fine brass, while the interior of the knob may be of baser and cheaper metal; but by means of the core they are made hollow, and, consequently, light in weight, handsome, and durable.

Having thus described our invention, we claim as new, and desire to secure by Letters Patent—

1. A mold for casting knobs, so constructed that a bushing-tube around the spindle and an eyelet for bushing the fastening-screw hole may be set, substantially as shown and described.

2. In combination with a mold for casting knobs, the removable ring E, substantially as and for the purposes described.

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