(No Model.)

A. SMITH.

FLASK WEIGHT FOR MOLDS.

No. 342,882. Patented June 1, 1886.

Fig. 1.

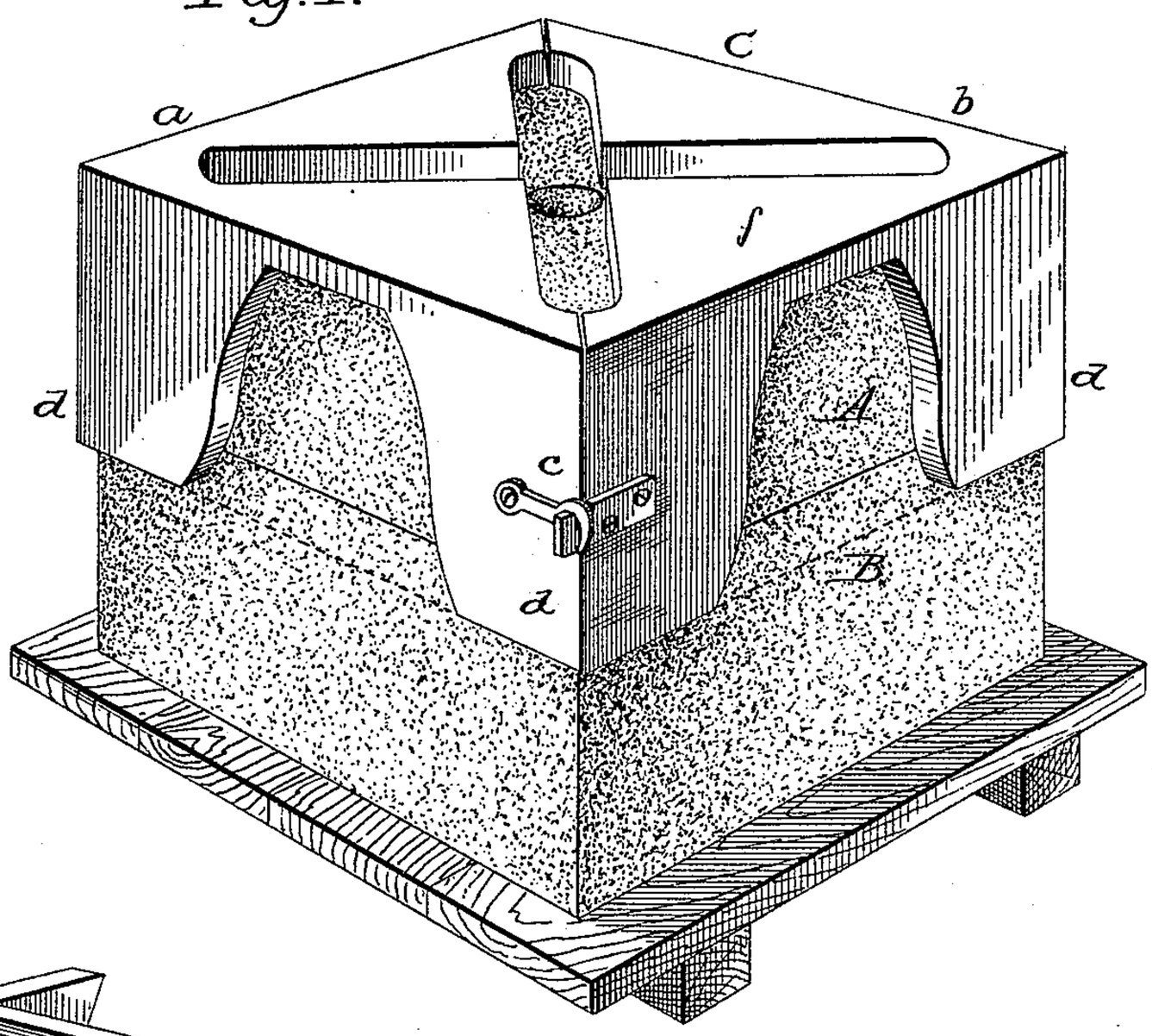
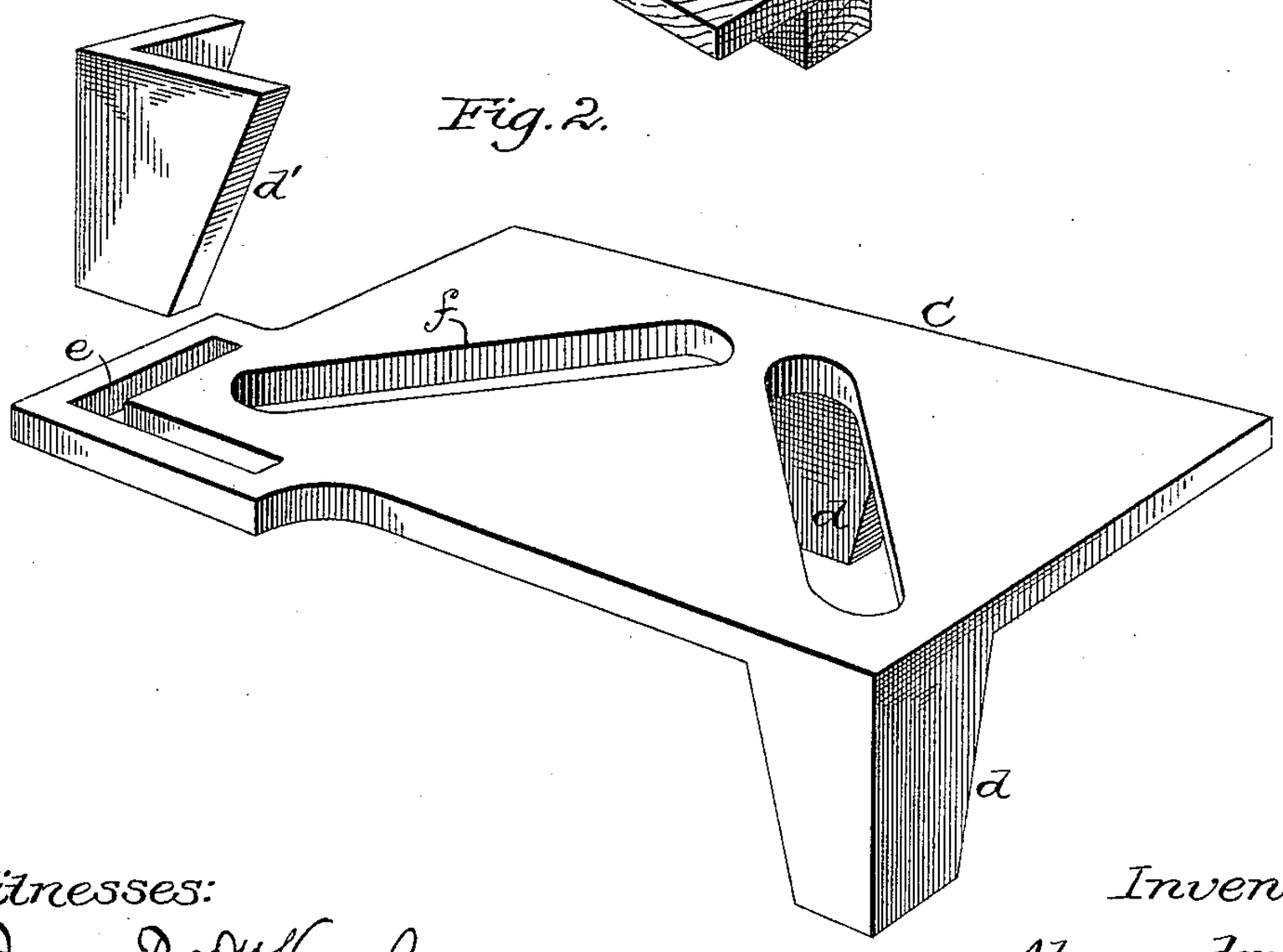


Fig. 2.



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UNITED STATES PATENT OFFICE.

ALEXANDER SMITH, OF PALMYRA, NEW YORK.

FLASK-WEIGHT FOR MOLDS.

SPECIFICATION forming part of Letters Patent No. 342,882, dated June 1, 1886.

Application filed March 24, 1886. Serial No. 196,405. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER SMITH, of Palmyra, in the county of Wayne and State of New York, have invented certain new and useful Improvements in Flask-Weights for Molds in Casting, of which the following is a specification.

My invention consists in a weight for use with snap-flask or bench molds, to prevent the upper part of the mold from lifting or breaking out when the iron is poured in.

In the drawings hereto annexed, Figure 1 is a perspective view of a mold with my improved weight applied; Fig. 2, a perspective view of the weight, showing at one corner a movable flange.

As is well understood by those familiar with this class of work, a snap-flask is employed which is "molded up" in the usual way, after which the patterns are drawn, the flask and mold closed again, and then the flask is unsnapped and taken off the mold, leaving the latter on the bottom board. The molder then lifts the bottom board with the mold upon it and places them upon the floor, and before pouring iron into the mold he places a weight thereon to keep the upper part of the mold from lifting. The weights now generally used for this purpose consist merely of a flat body or plate of iron, which, while answering to hold down the upper part of the mold leaves the sides unprotected, and as a consequence it often happens that the iron in being poured into the mold breaks away at or from the sprue or through the sides, particularly if there be a thin place or places in the mold. Such breakage of course involves a loss of time, labor, and material, with consequent expense, and it is a matter of importance to prevent its possibility. This I accomplish by forming the weight with a downwardly-extending flange or flanges, which may extend entirely around the mold, or may cover only the point or points where there is danger of the mold giving away. This is the essential feature of the invention, the practical application or embodiment of which may be varied considerably, according to the size, shape, and character of the mold.

The flange or flanges may be fixed removable, and they, as well as the body of the weight, may be made in one piece or in separate pieces, as found expedient. The size, shape, and location of the flange or flanges may likewise be varied at will.

In the drawings, A indicates the upper, and B the lower, part of a sand-mold; and C indicates my improved weight.

In Figure 1 the weight is represented as formed in two parts, *a* and *b*, divided on a line passing longitudinally across the top of the mold or the top of the weight, and secured at the meeting corners by hooks *c*. In said figure the flanges *d* of the weight are shown at the corners only, but they may be carried entirely around the weight, as indicated by dotted lines, or along one or more sides or corners only.

In practice I prefer to extend the flanges down beyond the parting-line of the mold, as shown in Fig. 1; but this is not essential.

In Fig. 2 the body of the weight is represented as made in one piece, and is shown with one fixed and one movable corner flange. The movable flange *d'* is made slightly tapering, and enters or passes through a slot or opening, *e*, in the body C, which construction permits the flange to be applied after the weight is in position, and to be pressed down until its tapering edges bear at the ends of the slots, and are thus prevented from moving farther.

The movable flanges may be used at any desired point or points, or may extend entirely around the mold, or, finally, they may be used in connection with a fixed flange or flanges, as indicated in Fig. 2.

Whatever the construction, it is desirable that the flanges be so made, or that they be placed at such distance apart, that in applying the weight to the mold they shall shear or slice off a thin layer of the sand, thus insuring actual and close contact with the mold, and giving firm support thereto.

The top of the weight is provided with openings *f*, through which to pour the metal. These openings will of course be located to suit the mold or molds for which the weight is designed.

I am aware that it is not new to use in connection with a tapering sand-mold a tapering sleeve or jacket, and I make no claim to any such construction.

Having thus described my invention, what I claim is—

1. A weight for use in snap-flask molding and casting, consisting of a flat body and a

downwardly-extending lip or flange adapted to bear against the side face of the sand-mold.

2. In combination with a sand-mold, a weight applied to its top and provided with a flange or flanges extending downward and bearing against the upright face or faces of the mold.

3. A weight for molds provided with a movable vertical flange, one or more, to bear against the upright face of a mold.

4. In combination with a weight, C, having opening *e*, flange-plate *d'*, passing through said opening and tapered vertically, substantially as shown and described.

5. In combination with a sand-mold, a weight made in sections applied to its top, and provided with a flange or flanges extending downward at the corners and held firmly in place by a clasp or other fastening, substantially as shown and described.

ALEXANDER SMITH.

Witnesses:
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