B. B. BUNNELL & G. T. B. HOSLEY.

Molding-Flask.

No. 167,298. Patented Aug. 31, 1875.

fig. 1.

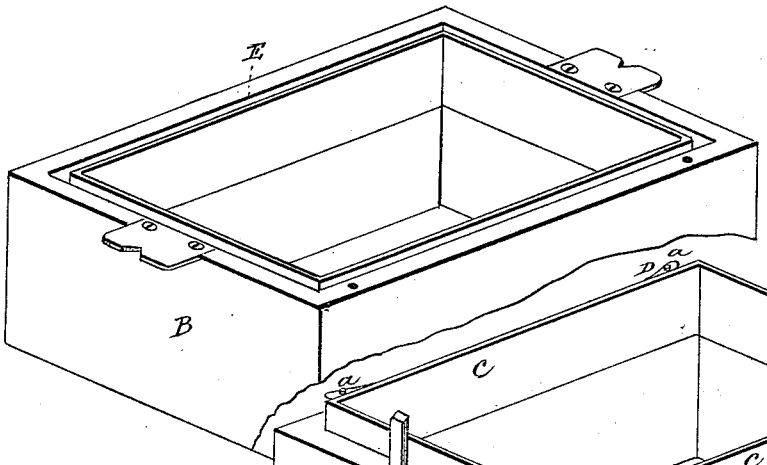


fig. 2.

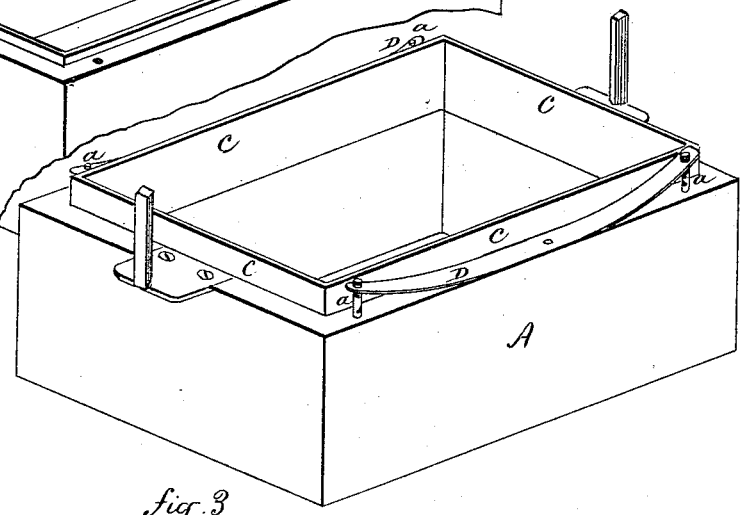


fig. 4

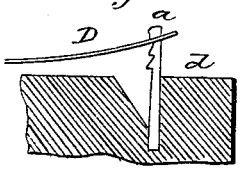
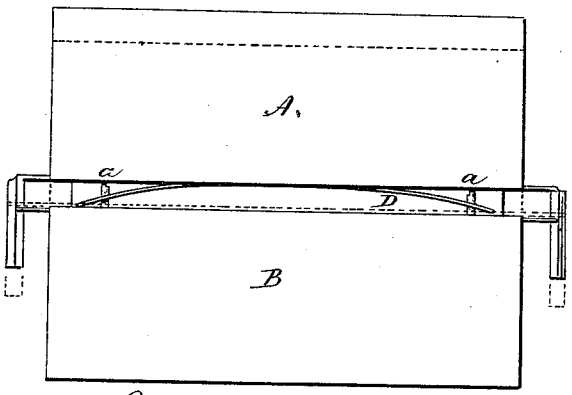


fig. 3.



Witnesses.
H. Shumway
Clara Broughton.

Benj. B. Bunnell & Geo. T. B. Hosley.
Inventors
By Atty. John E. Earle

UNITED STATES PATENT OFFICE.

BENJAMIN B. BUNNELL AND GEORGE T. B. HOSLEY, OF BRANFORD, CONN.

IMPROVEMENT IN MOLDING-FLASKS.

Specification forming part of Letters Patent No. **167,298**, dated August 31, 1875; application filed April 27, 1875.

CASE A.

To all whom it may concern:

Be it known that we, BENJAMIN B. BUNNELL and GEORGE T. B. HOSLEY, of Branford, in the county of New Haven and State of Connecticut, have invented a new Molding-Flask; and we do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, perspective view of one part; Fig. 2, perspective view of the other part; Fig. 3, side view of the two parts set together; Fig. 4, detached view.

This invention relates to an improvement in flasks, such as are employed for molding small articles, the object being to adapt the flask to mechanical compression after it has been filled with the requisite quantity of sand. It consists in providing one part of the flask with a flange around the inside, projecting from the flask at least the extent of compression required, combined with springs to support the flask elevated from the second part, but so that when pressure is applied, the said springs will yield, and allow the said flange to pass down into the other part of the flask until it is completely closed.

The principal parts of the flask A B are of the usual construction. Around the inside, at the meeting edge of the part A, is a flange, C, preferably made from sheet metal, and projecting from the flask to an extent, at least, as great as the compression of the sand to be made. On two edges of the flask a spring, D, is arranged, its two ends turned up beside the flange, as seen in Figs. 2 and 3, each end preferably guided by a stud, *a*. The other part, B, of the flask is preferably formed with a groove, E, around its inner edge, corresponding to the flange C, and so that when the flask is closed tight together, the flange will pass into the said groove, but the flange C may pass down into the lower part between the sand and the flask. The two parts are set together, as seen in Fig. 3. The pattern having first been arranged in the lower part, in the usual manner, the springs D bear upon the edge of the lower part, and support the upper part. In this condition the part A is filled with sand, and pressure brought to bear upon the sand and the flask, until the two parts are brought close together, as denoted in Fig. 3, which compresses the sand to the necessary extent to form the mold. The studs *a* are made elastic, and provided with a notch, *d*, so that when the two parts are pressed close together, the spring D will be caught beneath the notch *d* and there held, the studs entering cavities in the other part of the flask, thus preventing the reaction of the springs to open the flask, which they would do unless the flask was clamped together. Clamps may, therefore, be substituted for the studs *a*, if preferred. The springs are released, when the flask is again required, by simply pressing the studs *a* away from their connection to the springs, so as to allow the springs to escape from the notch in the studs.

Several notches may be made in the studs *a*, so that the springs may be compressed to different positions, and thus graduate the amount of compression to which the sand may be subjected—that is, so as to hold the parts distant from each other to a variable extent.

Otherwise than the compression, the flasks are used in substantially the usual manner for what are known as snap-flasks.

I claim—

1. The herein-described improvement in molding-flasks, consisting of the arrangement of the flange C upon one part, and means, substantially such as described, for supporting the two parts of the flask from each other, so that when compression is applied the said flange will pass into the other part of the flask.

2. In a molding-flask, the combination of the projecting flange C on one part, and a corresponding groove, E, in the other part, substantially as described.

3. In a molding-flask, the combination of the flange C, the spring D, and elastic studs *a*, provided with one or more notches, substantially as and for the purpose specified.

BENJ. B. BUNNELL.
GEO. T. B. HOSLEY.

Witnesses:
JOHN E. EARLE,
CLARA BROUGHTON.