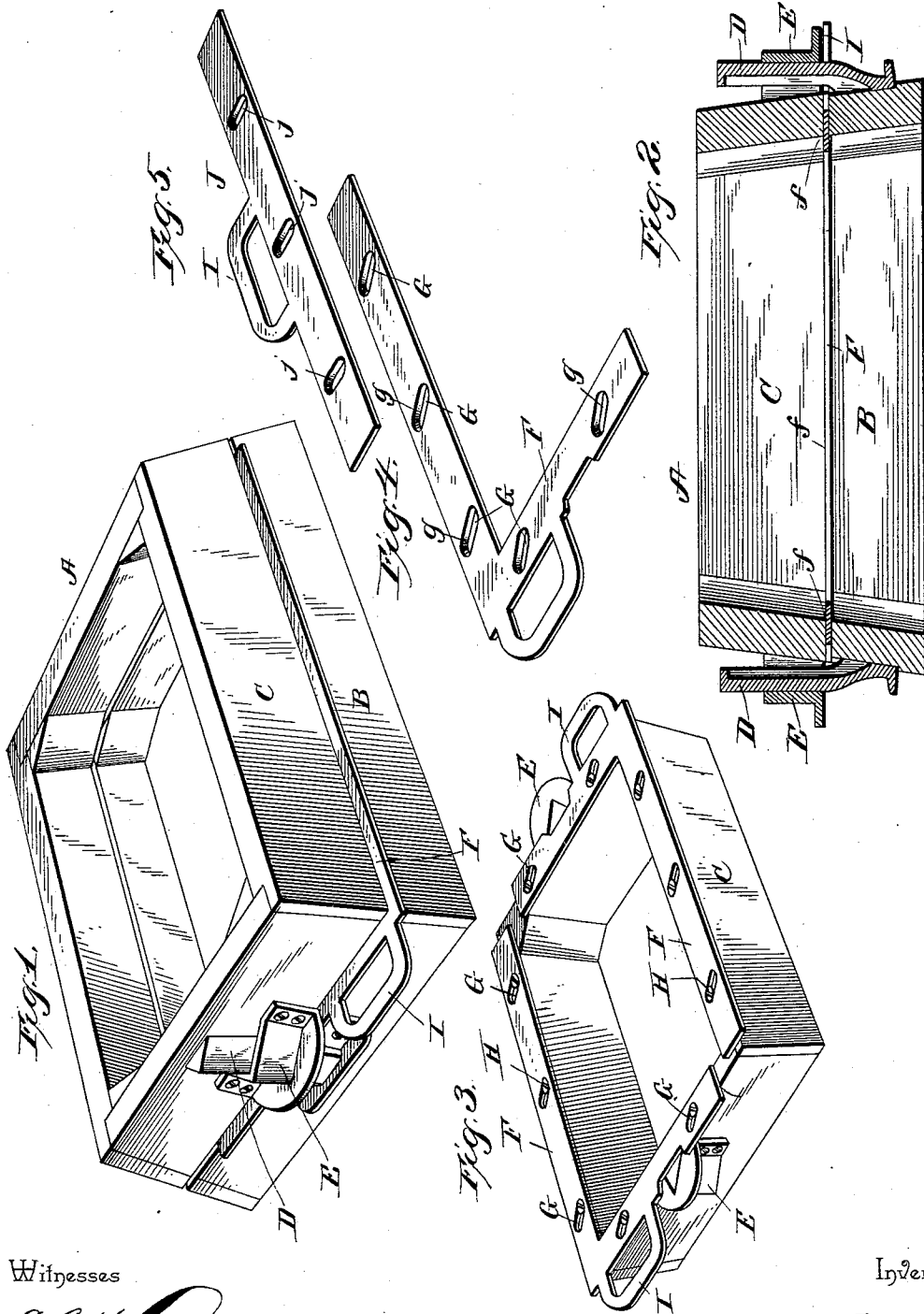


(No Model.)

J. G. NEWBURY.
MOLDING FLASK.

No. 482,063.

Patented Sept. 6, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES G. NEWBURY, OF COXSACKIE, NEW YORK.

MOLDING-FLASK.

SPECIFICATION forming part of Letters Patent No. 482,063, dated September 6, 1892.

Application filed January 7, 1892. Serial No. 417,301. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. NEWBURY, a citizen of the United States, residing at Coxsackie, in the county of Greene and State of New York, have invented a new and useful Molding-Flask, of which the following is a specification.

This invention relates to molding-flasks; and it has for its object to provide an attachment for the cope of the flask which will do away with the cumbersome snap-flasks now in use, which are provided with the snaps and hinges.

It is the main object of this invention to provide for a simple and inexpensive flask having neither hinges nor hooks, and which will at the same time perform more work with less manipulation than the snap-flask, and which will necessarily be cheaper in construction and avoid all the inconveniences encountered in using the said snap-flask.

It is also the object of my invention to provide an attachment whereby the sand which has been rammed in around the upper half of the pattern in the cope will be prevented from dropping out of the cope when the same is being taken off of the top of the drag for the purpose of removing the pattern and then putting the cope back in position again, whereby a number of molds can be formed by same flask without the necessity of having a separate flask for each mold or using the snap-flasks.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a molding-flask provided with a cope attachment constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a bottom perspective view of the cope provided with the sliding sand-supporting plates. Fig. 4 is a detail in perspective of one of the right-angular sliding plates. Fig. 5 is a similar view of a modified form of plate.

Referring to the accompanying drawings, A represents the molding-flask, comprising the lower drag B and the upper cope C, fitting

upon said drag and completing the flask. The said flask may be made of any suitable material firmly joined together and is made in a tapering shape from bottom to top in order to allow the flask-sections to be readily taken off of the sand after the mold has been formed and allow the same to stand firmly in position. Secured to opposite ends of the drag B are the upwardly-extending angular guide-pins D, that are adapted to work within the angular guide-brackets E, secured to opposite ends of the cope, and thus serve to guide the cope into alignment with the top of the drag and form a continuation thereof.

Secured to the bottom edges of the side and ends of the cope C are the sliding sand-supporting plates F. The said sliding plates F are right-angular in shape, and being secured opposite to each other on the bottom edges of opposite sides and ends of the said cope either slide away from or toward each other to either draw the said plates out of the cope or to slide the same into the cope to form a bottom ledge or shelf *f* for the sand to rest upon when it is desired to lift the cope and sand therein off the drag to remove the patterns. The said right-angled plates are provided in each arm thereof with a series of diagonal slots G, countersunk, as at *g*, to receive the retaining-screws H, over which said plates work, and are held in position upon the bottom of the cope. It will thus be seen that by having the diagonally-disposed slots the said right-angle plates, each of which cover the bottom edge of one side and end of the cope, can be drawn out from opposite diagonal corners of the cope or slid in at opposite diagonal corners, as the case may be. Each of the right-angle plates F are further provided with the operating-handles I, projecting beyond the ends of the cope in order to allow for the ready manipulation of said plates.

Instead of having the right-angular plates, single sand-holding plates J may be secured to slide upon the bottom edges of only the opposite sides of the cope, and in such case, as illustrated in the modification of the drawings, the said plates are provided with the straight slots *j*, working over the screws H and allowing for the sliding in and out of the straight plates over the bottom edges of the opposite sides of the cope. The said plates

H are also provided with handles I, whereby the same may be readily manipulated to accomplish the object of the invention in practically the same manner as by the right-angle plates. Now it will be readily seen that, as usual, the bottom drag is placed upon the ordinary flat molding-board and is rammed up with sand in the same manner as in the ordinary flasks. The cope C is now placed in position upon the drag and the opposite right-angle sand-supporting plates are shoved in as far as possible to form a supporting-ledge *f*, surrounding the bottom inner edges of the cope. The sand is then rammed in the cope until level with the top of the same. The cope is now lifted off, the shelf or ledge firmly holding the cake of sand therein, and the pattern, which was of course placed in both sections of the flask, is drawn out, and the cope then returned in position upon the top of the drag. The sliding sand-holding plates are drawn out as far as possible, which leaves nothing to retain the sand in the entire flask, which may be grasped by the hands and lifted up, the tapering of the flask allowing for so doing, and provides for leaving the sand stand-

ing firmly in position upon the bottom molding-board.

The construction, operation, and advantages of the herein-described flask attachment are thought to be apparent without further description.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a molding-flask, the combination, with the cope, of retaining set-screws secured in the bottom edges of said cope, and opposite right-angled sand-supporting plates provided with diagonal slots working over said set-screws, and with handles to slide said plates toward the center of the cope to form an inner sand ledge or shelf or withdraw the same, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES G. NEWBURY.

Witnesses:

A. C. DWIGHT,

H. SALISBURY, Jr.