(No Model.) 2 Sheets—Sheet 1.

F. MORRIS.

MOLDER'S FLASK.

No. 526,113. Patented Sept. 18, 1894.

FIG. 1.

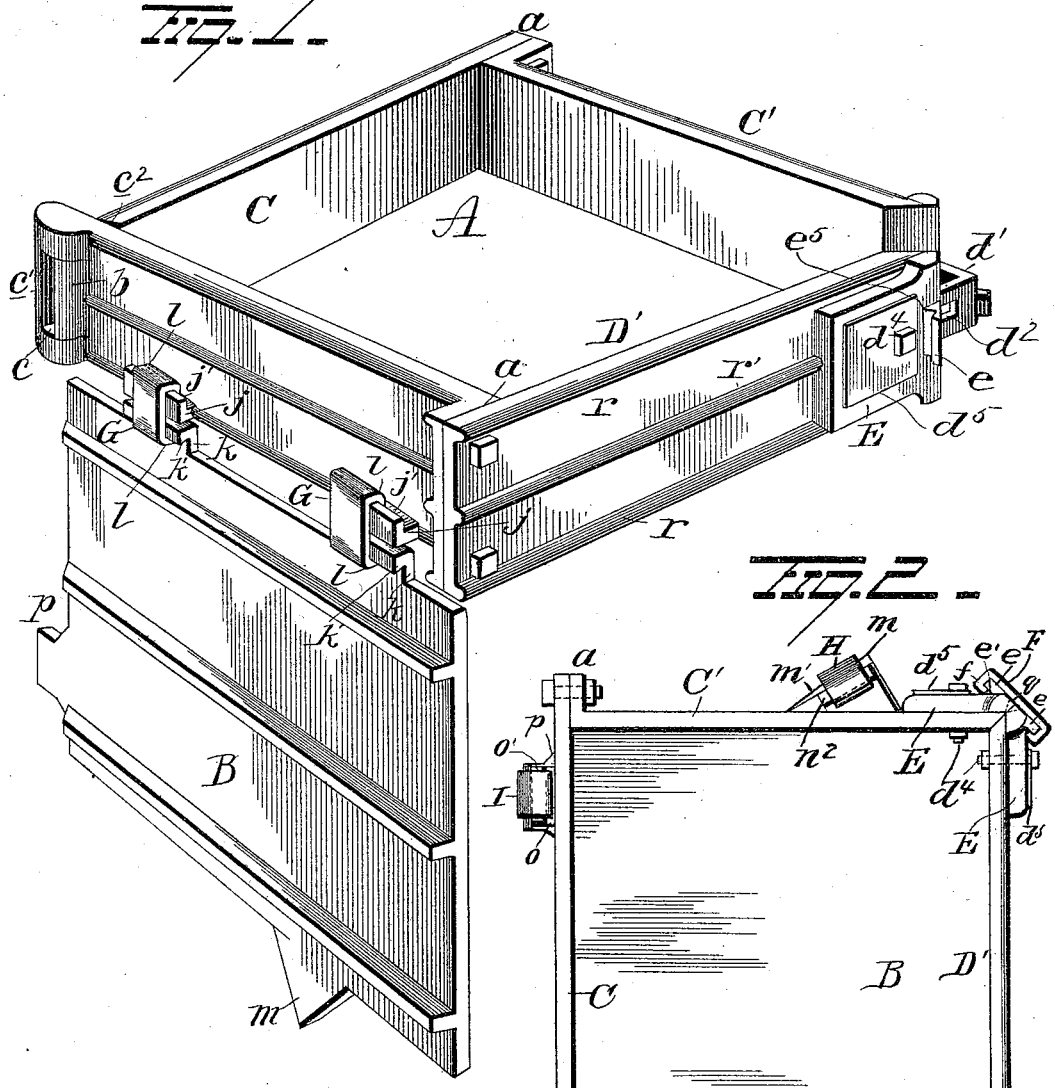

FIG. 2.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

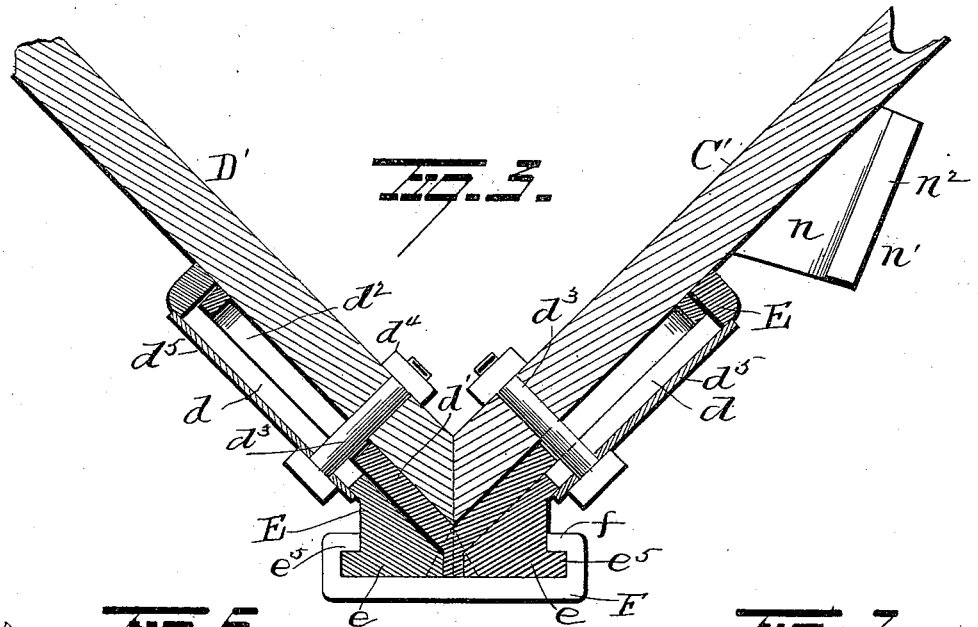


Fig. 6

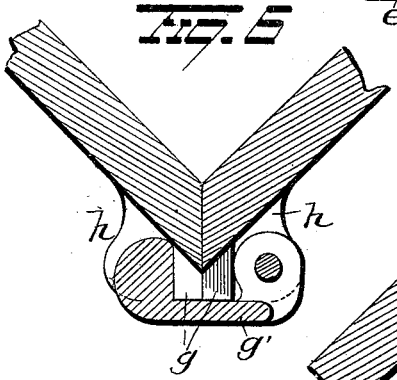


Fig. 4.

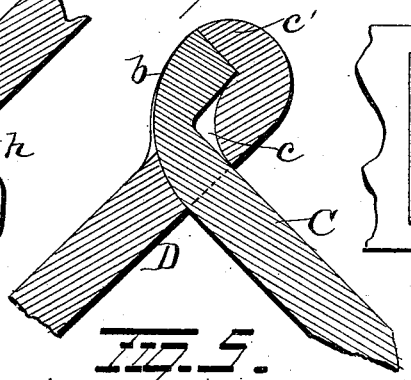


Fig. 7.

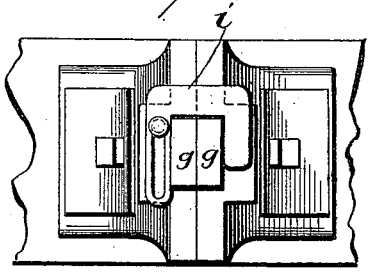
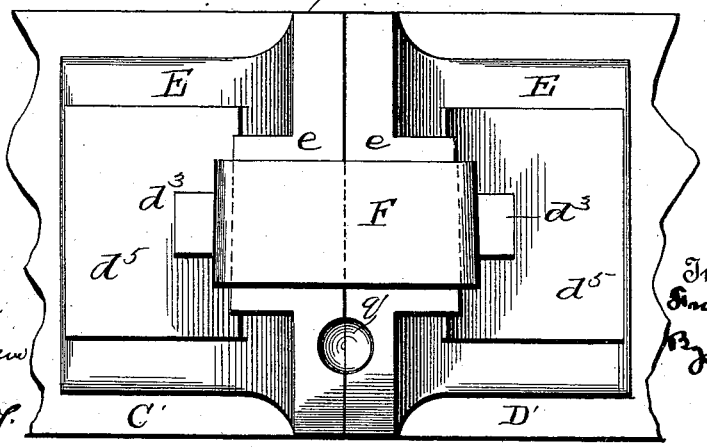


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK MORRIS, OF ALLIANCE, OHIO.

MOLDER'S FLASK.

SPECIFICATION forming part of Letters Patent No. 526,113, dated September 18, 1894.

Application filed May 6, 1893. Renewed March 24, 1894. Serial No. 505,014. (No model.)

To all whom it may concern:

Be it known that I, FRANK MORRIS, a citizen of the United States, residing at Alliance, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Molders' Flasks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in molder's flasks. As heretofore constructed, when it was desired to "knock-down" the flask to release the contents, it was customary to forcibly remove the wedges employed to hold the flask intact, by means of tools, usually sledge hammers. With such constructions of flasks the wedges or clamps were entirely removed from the flask and permitted to fall into the sand and become lost, thus necessitating the provision of new ones, which adds materially to the expense of the use of the device. The wedges or clamps being thus removed from the flask, the bottom thereof was completely liberated and allowed to fall into the sand. This is undesirable and inconvenient. Flasks as heretofore constructed are further objectionable from the fact that, as the wedges or clamps must be forced off one at a time, when all the wedges or clamps but one have been forced off, the weight on the bottom of the flask is apt to cause a breakage, either of the remaining wedge or clamp or a corner of the flask.

The object of my invention is to obviate the objections heretofore encountered and to construct a molder's flask in such manner that the bottom of the flask can be operated to release the contents of the flask without the necessity of permitting the escape, either of the clamps or the bottom of the flask.

A further object is to construct a molder's flask in such manner that it can be easily and quickly opened.

A further object is to produce a molder's flask which shall be strong, simple in construction and effectual in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings: Figure 1 is a view of my improved flask, open. Fig. 2 is a view showing the flask closed. Figs. 3, 4 and 5 are detail views. Figs. 6 and 7 are views of modifications.

A represents the flask, comprising a bottom B and sides C, C′ and D, D′,—each pair of sides being, respectively, secured together as at *a*. The free end of the side C (or D) is provided with a curved or bent tongue *b* adapted to enter a similarly shaped opening or mortise *c* in the free end of the side D (or C), the end of said tongue, when the sides C, D, are in their normal positions at right angles to each other, being adapted to abut against a shoulder *c′* at one edge of the mortise *c*. From this construction and arrangement of parts it will be seen that the sides C, D, will be hinged together, and that said sides cannot produce, at any time, an angle less than a right angle. At the free end of the sides C′, D′, plates E, E, are secured, each plate E being made, on its inner face, with an elongated slot *d* for the accommodation of an angular sliding corner piece *d′*, having elongated slots d^2, through which bolts d^3 pass, said bolts also passing through the sides C′, D′, of the flask and the plates E, E. The heads d^4 of the bolts d^3 serve to retain flat plates d^5 normally in position to prevent the admission of sand to the sliding parts. From each plate E, a lug *e* having a recess *e′* projects. A clamp F is adapted to extend across the meeting ends of the plates, said clamp being provided with lips *f* (preferably inclined at their free ends) adapted to embrace the lugs *e* and thus hold the meeting ends of the sides C′, D′, tightly together when the flask is closed. Instead of the plates E, E, the meeting ends of the sides C′, D′ may be provided with lugs *g*, adapted, when the flask is closed to abut against each other as shown in Fig. 6. In this form of construction, ears *h* are made to project from the sides C′, D′, above and below the lugs *g* and between one pair of said ears a clamp *g′* is pivotally connected, said clamp being adapted to be swung around to embrace the lugs *g* or away from said lugs to permit the flask to be opened.

In the form of connection shown in Fig. 7 a sliding clamp *i* may be employed, instead of the pivotally connected clamp shown in Fig. 6.

Projecting from the side D at its lower edge and preferably in proximity to its ends, are inclined lugs *j* having flanges *j'*. Similar lugs *k* project from the bottom B, of the flask immediately under the lugs *j* and projecting downwardly from the lugs *k* are inclined or beveled flanges *k'*. Clamps G, having beveled lips *l* are made to embrace the lugs *j*, *k*, the lips *l* projecting behind the flanges *j'*, *k'*, of the lugs *j*, *k*. From this construction it will be seen that the clamps G can be wedged into place and thus tightly clamp the side D and bottom B of the flask together. Projecting from bottom B of the flask directly below the side C', is a lug *m* having an inclined face *m'*. Directly above the lug *m*, a lug *n* projects from the side C' of the flask, said lug *n* having an inclined or beveled edge *n'* parallel with the inclined or beveled edge *m'* of the lug *m*, and is made somewhat shorter than the lug *m*. The upper face of the lug *n* is inclined or beveled, as is a flange n^2 projecting upwardly from said lug. A clamp H is adapted to embrace the lugs *m*, *n*, and clamp the bottom B to the side C' of the flask, said clamp, when the flask is closed, being in an inclined position,—that is to say, when the flask is closed the lower end of the clamp H is farther removed from the body of the flask than the upper end. A lug *o* projects from the side C of the flask at its lower edge and in proximity to the rigid end of said side, said lug being made inclined or beveled on its top face, as is also a flange *o'* projecting from said lug. A lug *p* projects from the bottom B directly under the lug *o*, the lug *p* projecting farther laterally from the flask than the lug *o*, so that when the clamp I is made to embrace said lugs, it will be disposed in an inclined position.

I prefer to recess the meeting edges of the plate E, E, so that when said plates are together a recess *q* will be formed, for the reception of a suitable tool by means of which to force the flask open as will be presently explained. All the clamps will be made of the same size and of the same shape so that they will be interchangeable.

When it is desired to open the flask to discharge the contents thereof, the clamp F will be first removed. A pointed or wedge shaped tool will then be inserted into the recess *q* whereby to force the meeting ends of the sides C', D', apart, such movement being permitted by the hinge at the meeting ends of the sides C, D of the flask. As the sides C', D', thus move away from the other, the clamps H and I will be made to assume a vertical position, thus loosening their hold on the lugs *m*, *n* and *o*, *p*, respectively,—and as the said sides of the flask continue to move away from each other, the lower ends of the clamps H, I, will release the bottom B and remain hanging on the lugs *n*, *o*, while the bottom B will swing down and remain supported or suspended on the clamps G, which latter will not become disengaged from the lugs on the side C' or the bottom B. Thus it will be seen that the flask can be upset or opened to release its contents without permitting any of the clamps to escape and without permitting the bottom B of the flask to fall into the sand.

In order to add strength to the sides of the flask they will be provided at their edges with ribs *r*, *r* and a rib *r'* at the center.

My improvements are very simple, economical, easy to operate and effectual in the performance of their functions.

Various slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope, and hence I do not wish to limit myself to the precise details of construction herein set forth, but,

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

1. In a molder's flask, the combination with two sides thereof, of a curved tongue projecting from one end of one of said sides, the end of the other side having a mortise for the reception of said tongue, and a shoulder at the end of said mortise to receive the end of the tongue, substantially as set forth.

2. In a molder's flask, the combination with two sides thereof, of recessed plates secured to the meeting ends of said sides, an angular corner piece adapted to slide in said recessed plates, said angular corner piece having elongated slots, and bolts passing through said elongated slots, the plates and sides of the flask, substantially as set forth.

3. In a molder's flask, the combination with two sides thereof, of recessed plates secured to the meeting ends of said sides, an angular corner piece adapted to slide in said recessed plates, said angular corner piece having elongated slots, bolts passing through said elongated slots, the plates and sides of the flask, and plates placed against the first-mentioned plates to prevent sand from contact with the sliding parts, substantially as set forth.

4. In a molder's flask, the combination with the sides and bottom, of lugs projecting from one edge of said bottom and disposed parallel therewith, similar lugs projecting from one of said sides, clamps adapted to embrace said lugs, lugs projecting from two other sides of the flask, lugs projecting from the bottom of the flask beyond the ends of said last mentioned lugs, and clamps embracing said lugs, substantially as set forth.

5. In a molder's flask, the combination with the sides and bottom, of lugs projecting from one side of the flask and parallel therewith, lugs projecting from the bottom of the flask directly under said first-mentioned lugs, the lugs on the side of the flask having beveled tops and the lugs on the bottom of the flask having a beveled flange, clamps adapted to embrace and wedge on said lugs, lugs on two

other sides of the flask, lugs on the bottom and projecting beyond the last-mentioned lugs on the sides, and clamps adapted to embrace said last mentioned lugs, substantially as set forth.

6. In a molder's flask, the combination with the bottom and sides thereof, of lugs projecting from one side and the bottom of the flask, clamps embracing said lugs, a beveled lug projecting from another edge of the bottom of the flask, a beveled lug projecting from one side of the flask over the beveled lug on the bottom and made shorter than the same, and a clamp adapted to embrace said beveled lugs, substantially as set forth.

7. In a molder's flask, the combination with a side and the bottom, of a lug projecting from the side and having a beveled face, a beveled lug projecting outwardly from the edge of the bottom and clamp having beveled ends adapted to embrace said lugs, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANK MORRIS.

Witnesses:
H. W. HARRIS,
D. FORDING.