G. E. LINN.

MOLDER'S FLASK.

APPLICATION FILED DEC. 31, 1909.

960,025.

Patented May 31, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

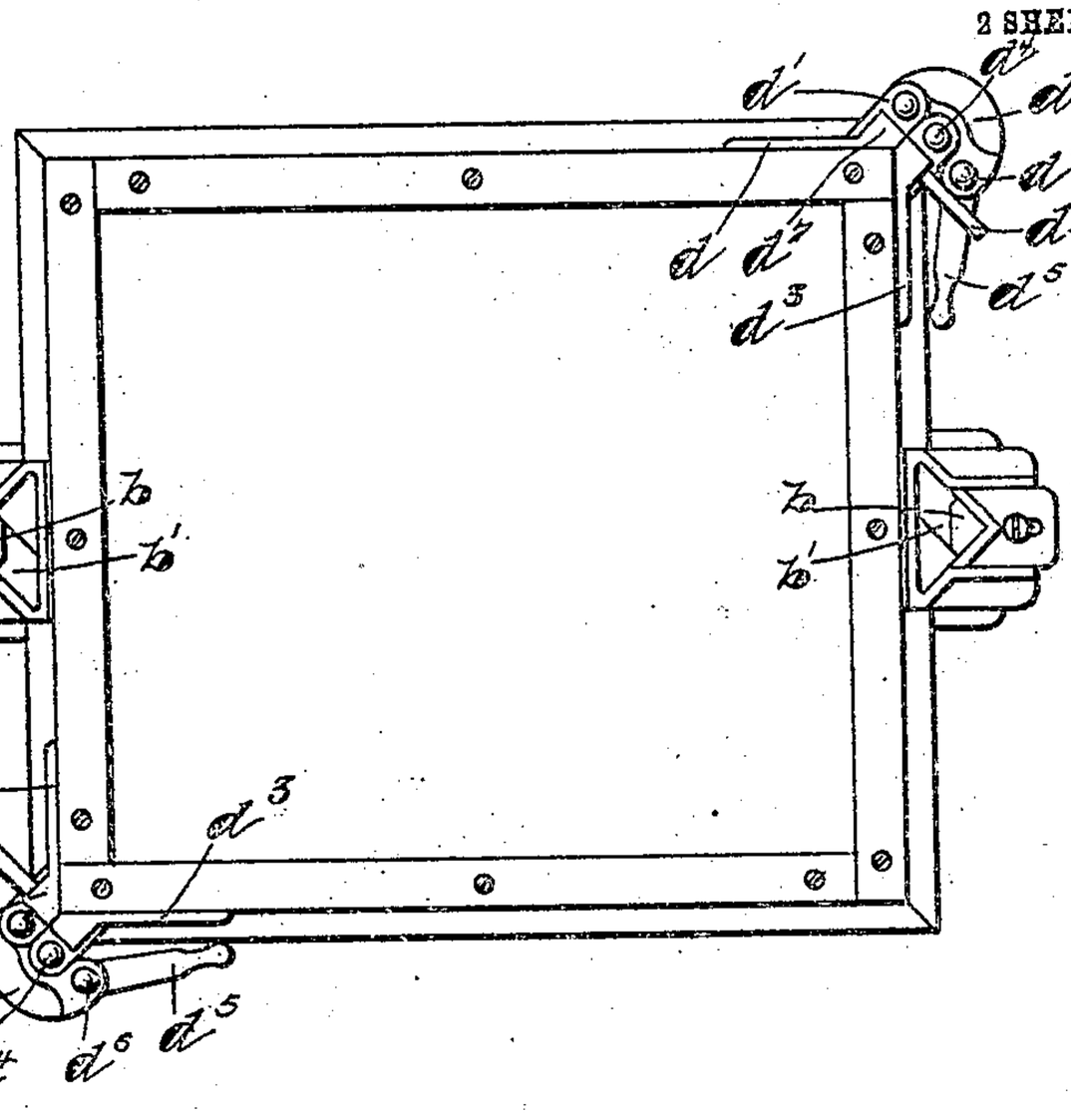
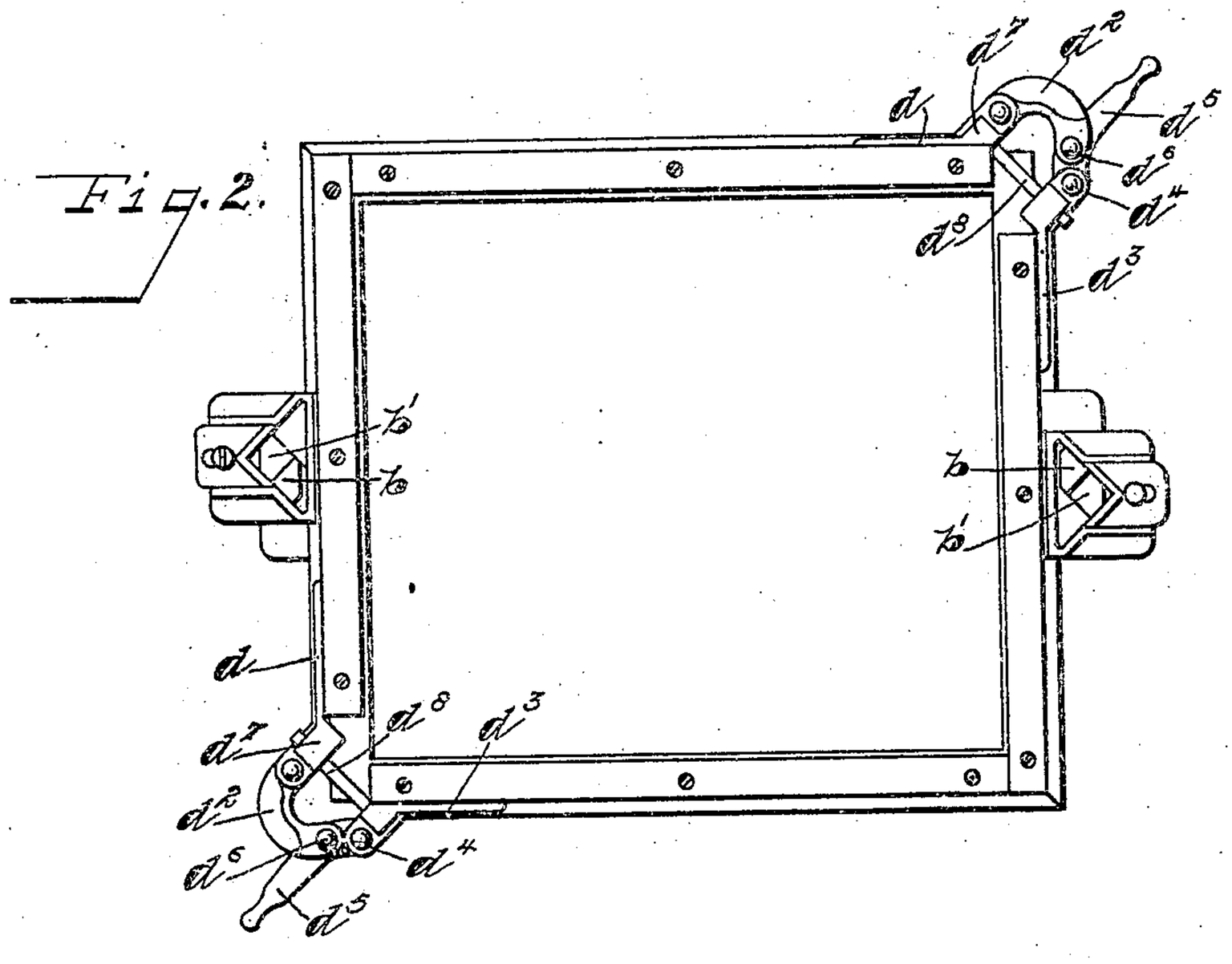


Fig. 2.



Witnesses

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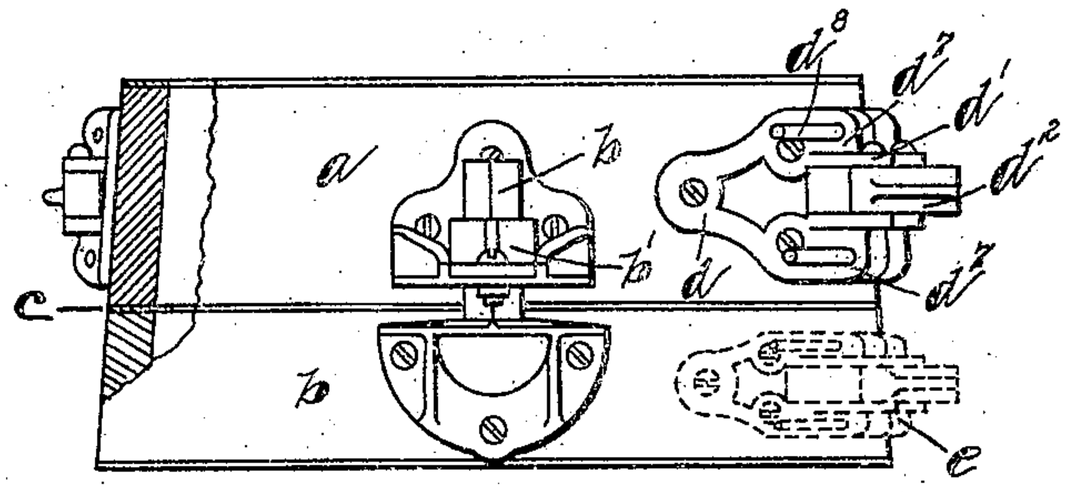
2 SHEETS—SHEET 2.

Fig. 3.



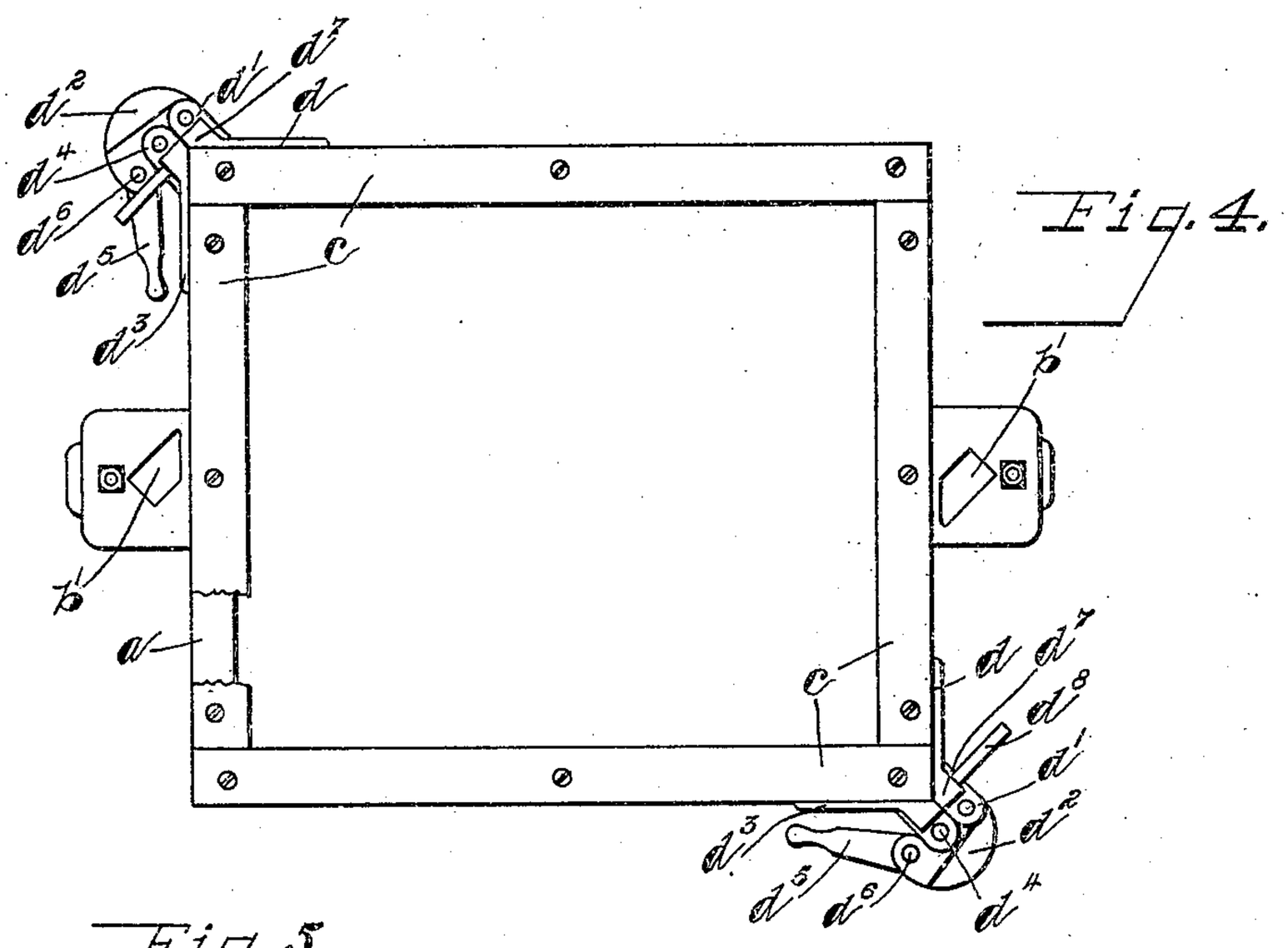


Fig. 4.

Fig. 5.

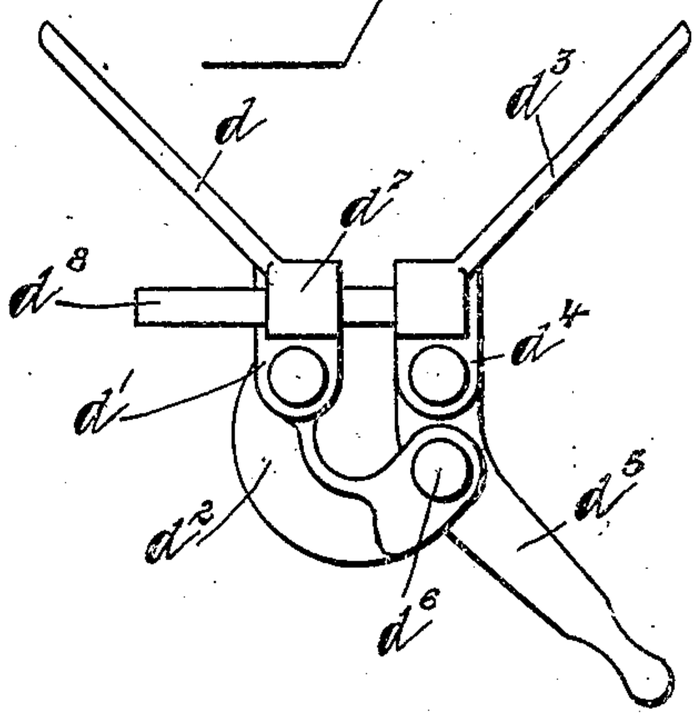
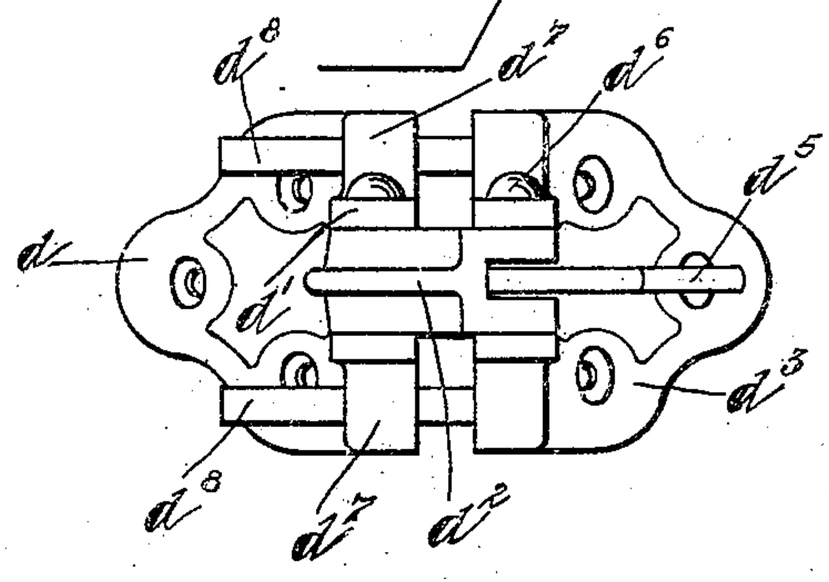


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE E. LINN, OF SPRINGFIELD, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO LILLIAN M. MITCHELL, OF SPRINGFIELD, OHIO.

MOLDER'S FLASK.

960,025. Specification of Letters Patent. **Patented May 31, 1910.**

Application filed December 31, 1909. Serial No. 535,881.

To all whom it may concern:

Be it known that I, GEORGE E. LINN, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Molders' Flasks, of which the following is a specification.

This invention relates to improvements in molders' flasks and especially relates to improvements in flasks of the snap type.

The object of the invention is to provide a flask which may be quickly and easily removed from the sand after the mold has been made.

The invention consists in the construction and combinations of parts hereinafter described and set forth in the claims.

In the accompanying drawings: Figure 1 is a top plan view of a device embodying the invention showing the walls of the cope in closed position. Fig. 2 is also a top plan view of the device showing the walls of the cope in open position. Fig. 3 is an end view of the device partly broken away and shown in section. Fig. 4 is a bottom plan view of the cope. Fig. 5 is a top plan of one of the operating devices for opening and closing the walls of the cope. Fig. 6 is a side elevation of the same.

Like parts are indicated by similar characters of reference in the several views.

In the said drawings, *a* represents the cope and *b* the drag which are tapered from top to bottom in the usual manner and which are provided at each end with a pin *b* on the drag and a socket *b'* on the cope to receive said pins and hold the parts in their proper relative positions.

Arranged about the bottom edges of the sides and ends of the cope, *a*, are sand strips, *c*, which project for a slight distance over the edges so as to provide a shelf for the purpose of lifting the sand when the cope is removed. In the present device these sand strips are secured permanently to the cope and also act as projecting strips for the bottom edges of said cope. In order to remove the cope from the sand after the mold has been made I have provided means for separating the ends and sides of said cope by forcing the same bodily outwardly so as to remove the projecting shelves from the sand, which means also serve to close the walls of said cope and hold same securely in closed position. Two sets of these opening and closing devices are employed arranged at diametrically opposite corners of the cope, and, as these devices are exactly alike in their construction and operation, I will describe but one of them. A plate, *d*, secured to the side of the cope, has pivoted between projecting ears *d'* thereon, a curved link d^2. A second plate d^3 secured to the end of the cope has pivoted between projecting ears d^4 thereon an operating lever d^5. This operating lever is pivoted at d^6 between the bifurcated outer end of the link d^2. The plate, *d*, has on each side thereof sockets or guides d^7 to receive guide pins d^8 projecting from the plate d^3. As the operating levers d^5 are swung outwardly, they will, through the medium of the links d^2, cause the walls and ends of the cope to be separated in the manner shown in Fig. 2. The throwing the operating levers back again to the positions shown in Fig. 1 serves to close the walls to the position illustrated in Fig. 1. The guide pins, d^8, and sockets d^7 serve to guide the walls of the cope to proper position. When the operating levers have been thrown to their extreme closing position, it will be seen from Figs. 1 and 4 that the pivotal point d^6 between each operating lever d^5 and link d^6 come slightly past a straight line drawn through the pivots for the link and lever, which serves to yieldingly lock these levers in closing positions. In order to permit for this movement of the walls of the cope with respect to the drag, the sockets *b'* of the ends of the cope which receive the pins *b* on the drag, are elongated in the direction of movement of the cope walls while opening outwardly. In some cases the drag may be constructed in a similar manner to the cope and provided with these opening and closing devices at diametrically opposite corners, as indicated at *e* in dotted lines, Fig. 3. Also, where an intermediate part or cheek is used, this also may be constructed in a similar manner.

Having thus described my invention, I claim:

1. In a molder's flask, a plurality of members, means for removably securing said members together, and means for separating the walls of one of said members independently of the other member or members when in assembled condition, said separating means comprising pivoted operating levers

located at diametrically opposite corners, substantially as specified.

2. In a molder's flask, a plurality of members, means for removably securing said members together, sand strips on one of said members, and means for separating the walls of said sand strip member independent of the other member or members when in assembled condition, said separating members comprising pivoted operating levers, substantially as specified.

3. In a molder's flask, a plurality of members, means for separating the walls of one of said members independently of the other member or members when in assembled condition, said separating members comprising pivoted operating means, and interengaging parts between said members for removably securing the same together, said interengaging parts being so constructed as to permit the separating of said separable member, substantially as specified.

4. In a molder's flask, a plurality of members, elongated guide sockets on one of said members and guide pins on the other of said members, a sand strip on one of said members, and means for separating the walls of said member, substantially as specified.

5. In a molder's flask, a plurality of members and interengaging parts for removably securing said members together, and means for separating the walls of one or more of said members independent of said securing means when in assembled condition, substantially as specified.

6. In a molder's flask, a plurality of members, a sand strip on one of said members, devices arranged at diametrically opposite corners of one or more of said members for separating the walls thereof, and interengaging parts for removably securing said members together so constructed as to permit the separation of the walls of one member independently of the other member or members when said members are in assembled condition, substantially as specified.

7. In a molder's flask, a plurality of members and devices for separating the walls of one or more of said members comprising a link pivoted to one wall and an operating lever pivoted to an adjacent wall and also pivotally connected with said link, substantially as specified.

8. In a molder's flask, a plurality of members and devices for separating the walls of one or more of said members comprising a link pivoted to one wall and a lever pivoted to an adjacent wall and also pivotally connected to the said link, and guides on the respective walls, substantially as specified.

9. In a molder's flask, a plurality of members, devices for separating and closing the walls of one of said members comprising a link pivoted to said wall and an operating lever pivoted to an adjacent wall and also pivotally connected with said link, the pivotal connection between said lever and link being adapted, when the walls are closed by said device, to be thrown past a line passing through the pivotal connections of said link and lever with said walls to yieldingly lock said lever in closed position, substantially as specified.

In testimony whereof, I have hereunto set my hand this 27th day of December 1909.

GEORGE E. LINN.

Witnesses:
OLIVER T. CLARKE,
CHAS. I. WELCH.