C. MORGAN.

MOLDER'S FLASK.

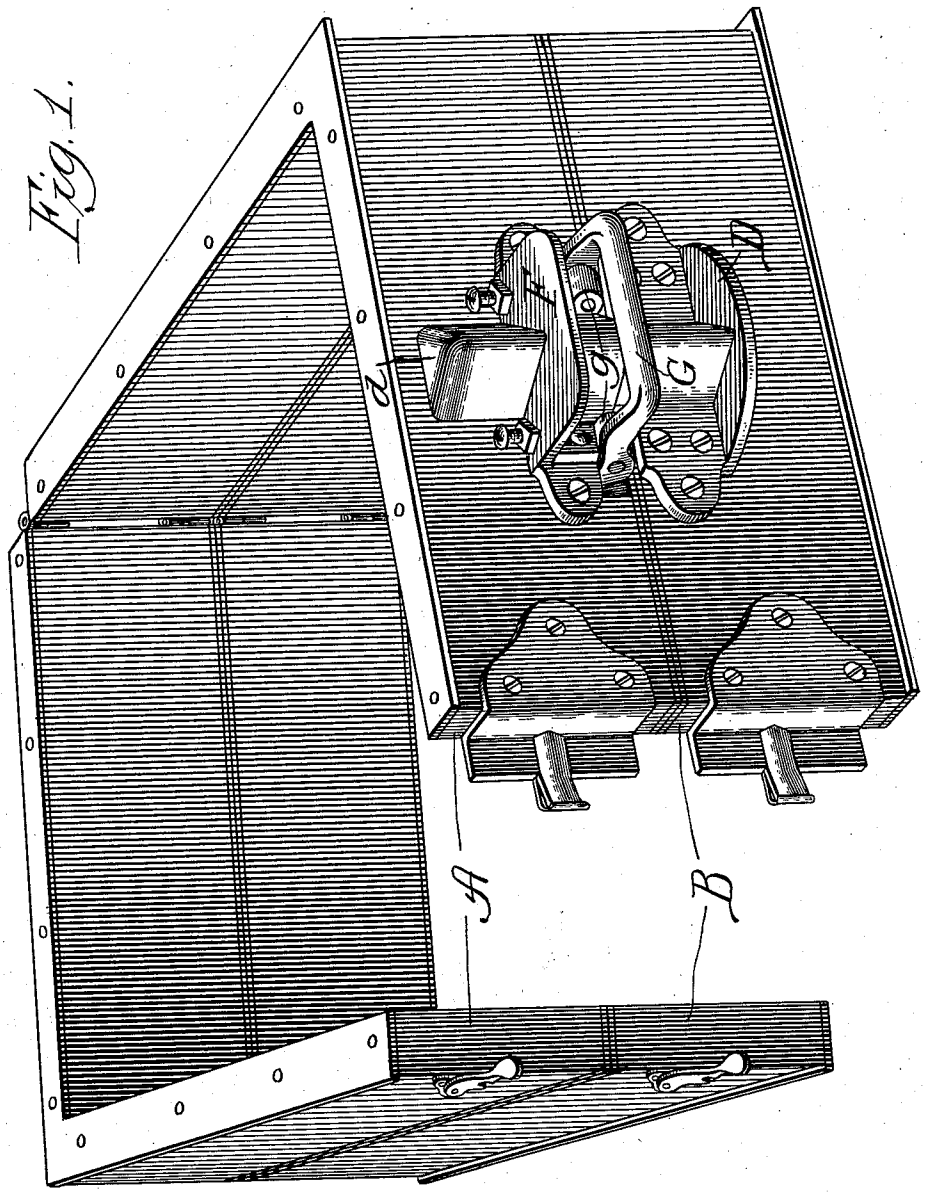
APPLICATION FILED NOV. 8, 1911.

1,028,478.

Patented June 4, 1912.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses:
John Enders
Ralph Schaefer

Inventor:
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3 SHEETS—SHEET 2.

Fig. 2.

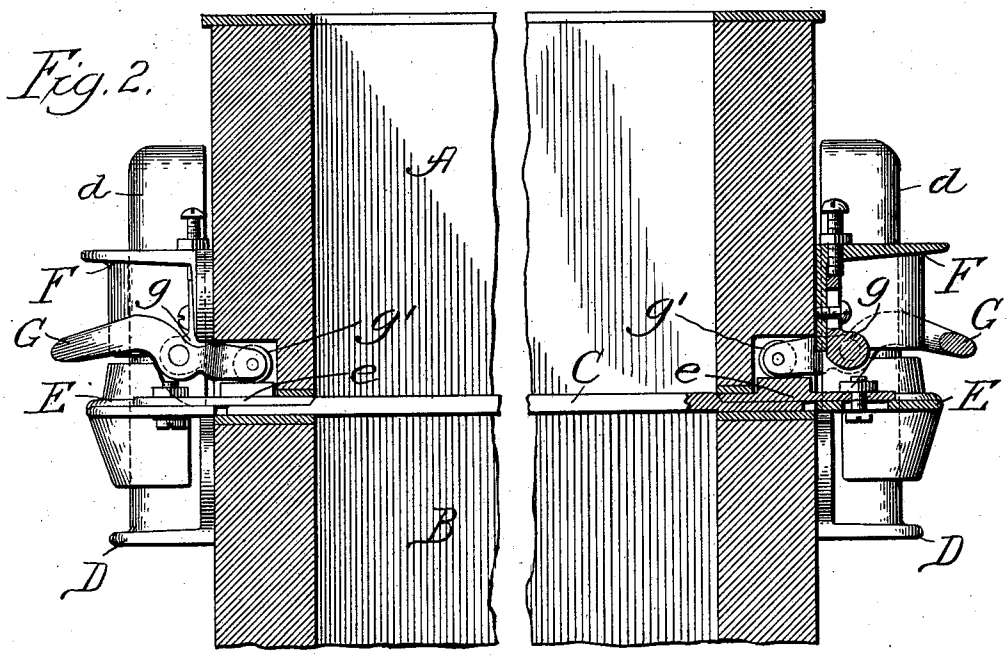
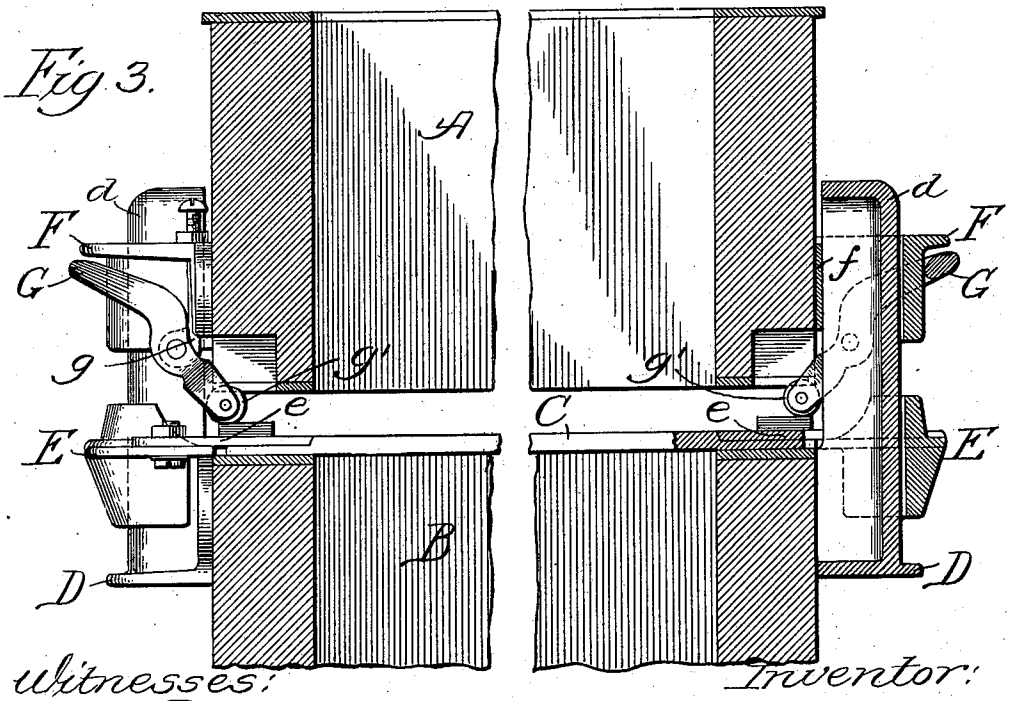


Fig. 3.



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3 SHEETS—SHEET 3.

Fig. 4.

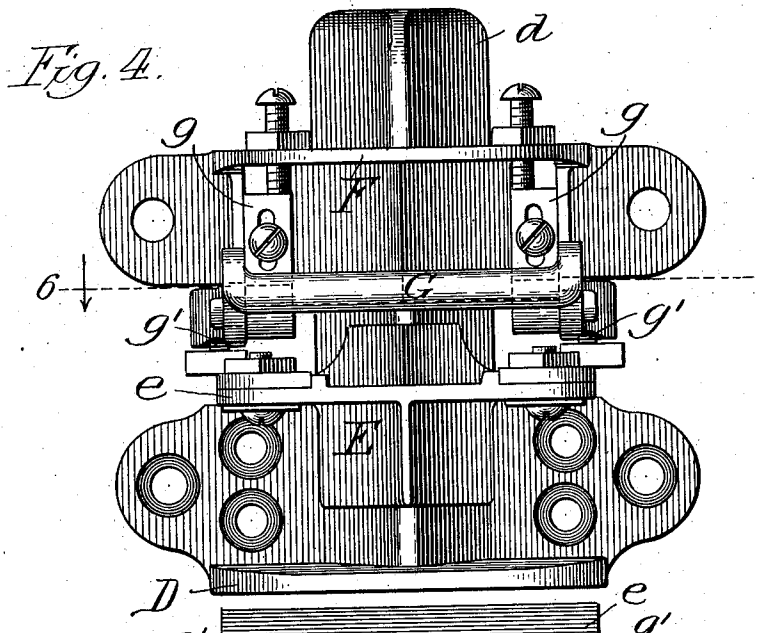


Fig. 5.

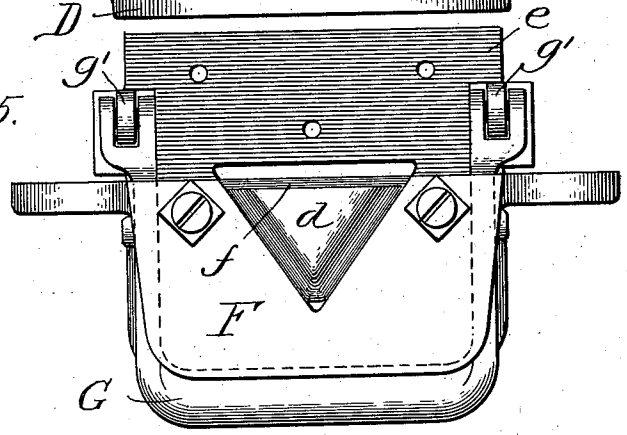
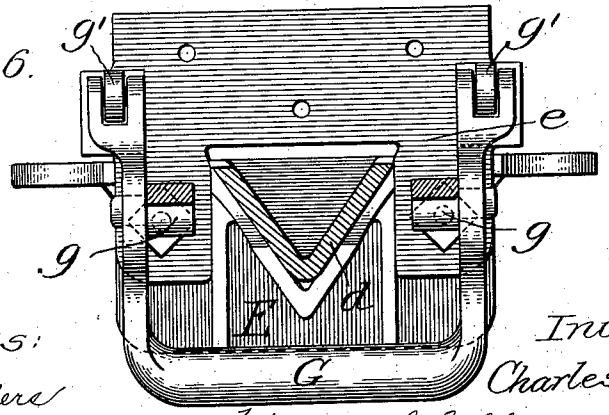


Fig. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES MORGAN, OF FREEPORT, ILLINOIS, ASSIGNOR TO ARCADE MANUFACTURING COMPANY, OF FREEPORT, ILLINOIS, A CORPORATION OF ILLINOIS.

MOLDER'S FLASK.

1,028,478. Specification of Letters Patent. Patented June 4, 1912.

Application filed November 8, 1911. Serial No. 659,135.

To all whom it may concern:

Be it known that I, CHARLES MORGAN, a citizen of the United States, residing at Freeport, in the county of Stephenson and State of Illinois, have invented a new and useful Improvement in Molders' Flasks, of which the following is a specification.

My invention relates to certain new and useful improvements in molder's flask, and is fully described and explained in the specification and shown in the accompanying drawings, in which:—

Figure 1 is a perspective view of my improved flask; Fig. 2 is a longitudinal section showing the parts in one position; Fig. 3 is a view similar to Fig. 2 showing the parts in another position; Fig. 4 is an elevation of one of the fittings which embody the novelty of my construction; Fig. 5 is a top plan of the same, and Fig. 6 is a section in the line 6 of Fig. 4.

Referring to the drawings, A is the cope and B is the drag of my flask, while C is the pattern-plate which is used therewith. The drag has secured to its two ends handles D, each of which has projecting upwardly from it a triangular pin *d* preferably cast integral therewith and so disposed as to be removed endwise a short distance from the plane of the side of the drag so that a corresponding space is left between the pin and the cope as illustrated in the drawings. The pattern-plate has on its two ends plates *e* which project beyond the edges of the flask sections and have secured to them, or if desired, made integral with them, pattern-plate handles E which are shaped so as to surround the pins *d* and guide the pattern-plate to position. The cope has secured to its ends cope-handles F, which surround the pins *d* to guide the cope to position, these handles having in the preferred form of construction plates *f* or thin webs of metal which lie between the pins and the cope proper, so that the pins are completely and accurately surrounded.

The construction as thus far described is not materially different from that which has heretofore been used in devices of this character. It is found, however, that in the use of flasks of ordinary construction it is not easy to draw the cope accurately and smoothly and the molds are frequently damaged, particularly when the patterns are deep.

The object of the present invention is to provide means in addition to the usual flask construction whereby the sections of the flask can be separated by a pull which is absolutely parallel to the sides of the flask, which in practice are arranged so as to determine the correct line of movement. This result is accomplished by securing to the cope-handle F two vertically adjustable ears *g* which form pivots for a separating handle G. This separating handle is made in the form of a U, the curved end of which forms a handle and the furcations of which are pivoted between their ends to the ears *g* as set forth. The free ends of the separating handle bear rollers g^1 which rest upon the pattern-plate as seen in Figs. 2 and 3, the material of the cope being cut away to receive these rollers and the ends of the separating handle. With the device so constructed, when it is desired to draw the cope the operator places the heels of his hands upon the projecting flanges of the cope-handle, and his fingers under the separating handle and then by contracting his hands draws the outer ends of the separating handle upward, so that the cope is positively wedged away from the pattern-plate. As this action takes place it is evident that any oscillation of the cope about an axes extending from one handle to the other is impossible, because of the two-point contact which occurs at each end between the separating lever and the pattern-plate. It is of course true that one end of the cope could be drawn before the other if desired, but, owing to the efficient manner in which the separating force is applied, and the increased accuracy with which the contracting muscles of the hands can be used, as compared with the muscles of the entire arms which are used in normal practice, the two ends of the cope can readily be elevated simultaneously, and at equal speed so that there is no possibility of the mold being damaged in drawing. After the cope is drawn the pattern-plate is rapped and drawn in the usual manner, and owing to its relatively light weight and the fact that it is loosened by rapping before it is drawn the provision of special means for insuring the accuracy of drawing it is not of great importance, although it is evident that analogous means could, if desired, be provided for separating the pattern-plate from the drag, or in cases of great difficulty

it would be possible to adopt any of the usual pattern-drawing mechanism for assuring a correct movement of the pattern-plate.

It is of course evident that the invention here shown is not necessarily used in connection with a device having a pattern plate. If ordinary separated patterns are used the separating lever will be arranged to bear directly upon the drag as shown in Fig. 1, in which figure it will be seen that there is no pattern plate, and were match-plates used, of the type carrying two half patterns each in release, then each shape section of the flask might be provided with a separating lever of the type illustrated to force the same away from the surface of the match-plate.

I realize that considerable variation is possible in the details of construction of my improved device, without departing from the spirit of my invention, and I do not intend therefore, to limit myself to the specific form herein shown and described.

What I claim as new and desire to secure by Letters Patent, is:

1. The combination with a flask-section, of a pair of handles therefor, and finger-operated levers for the handles each engaging the surface upon which the flask-section rests in two points in separate lines whereby when operated simultaneously the flask-section will be elevated, all its parts moving in straight lines.

2. The combination with a flask-section, of a pair of handles adapted thereto, a U-shaped lifting handle, the furcations of which are pivoted between their ends to the handle and the free ends of which bear upon the surface upon which the flask-section rests to elevate the flask-section.

3. The combination with a flask-section, of a pair of handles adapted thereto, a U-shaped lifting handle, the furcations of which are adjustably pivoted between their ends to the handle and the free ends of which bear upon the surface upon which the flask-section rests to elevate the flask-section.

4. As an article of manufacture, a handle adapted for attachment to a flask-section or other article used in making molds and which requires to be moved in drawing the pattern, said handle having attached to it a finger-operating lifting lever adapted when operated to move the handle and the part attached thereto in the appropriate direction.

5. As an article of manufacture, a handle adapted for attachment to a flask-section or other article used in making molds which requires to be moved when in drawing the pattern, said handle having attached to it, a lifting lever provided with two engagement-portions whereby when operated the handle and part attached thereto will be prevented from oscillation about the axis and will be elevated.

In testimony whereof, I have hereunto set my hand this third day of November 1911, in the presence of two subscribing witnesses.

CHARLES MORGAN.

Witnesses:
REEVE BURTON,
E. H. MORGAN.