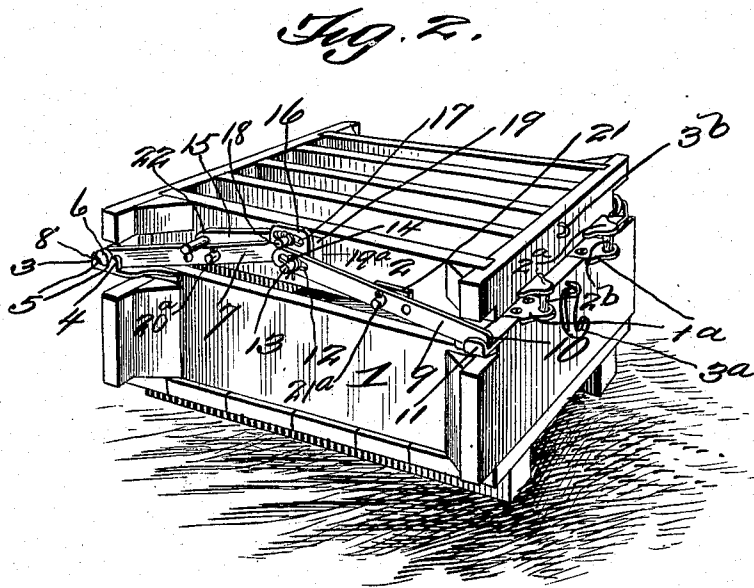
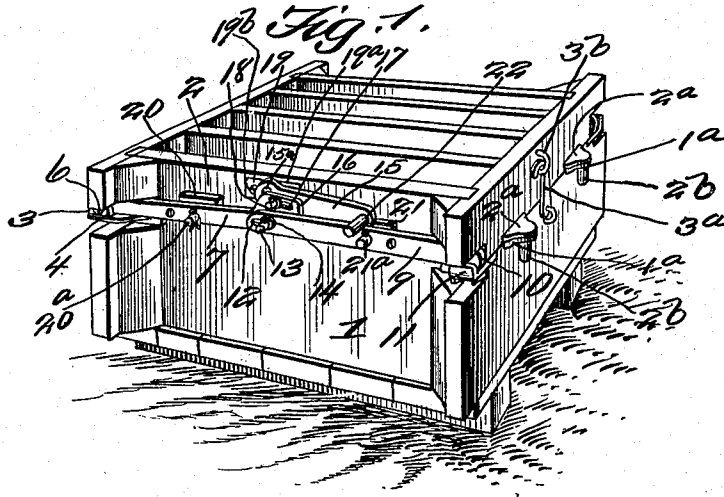


S. N. TOUCHMAN.
TOGGLE LEVER FLASK HINGE.
APPLICATION FILED MAY 8, 1909.

933,401.

Patented Sept. 7, 1909.

3 SHEETS—SHEET 1.



Witnesses

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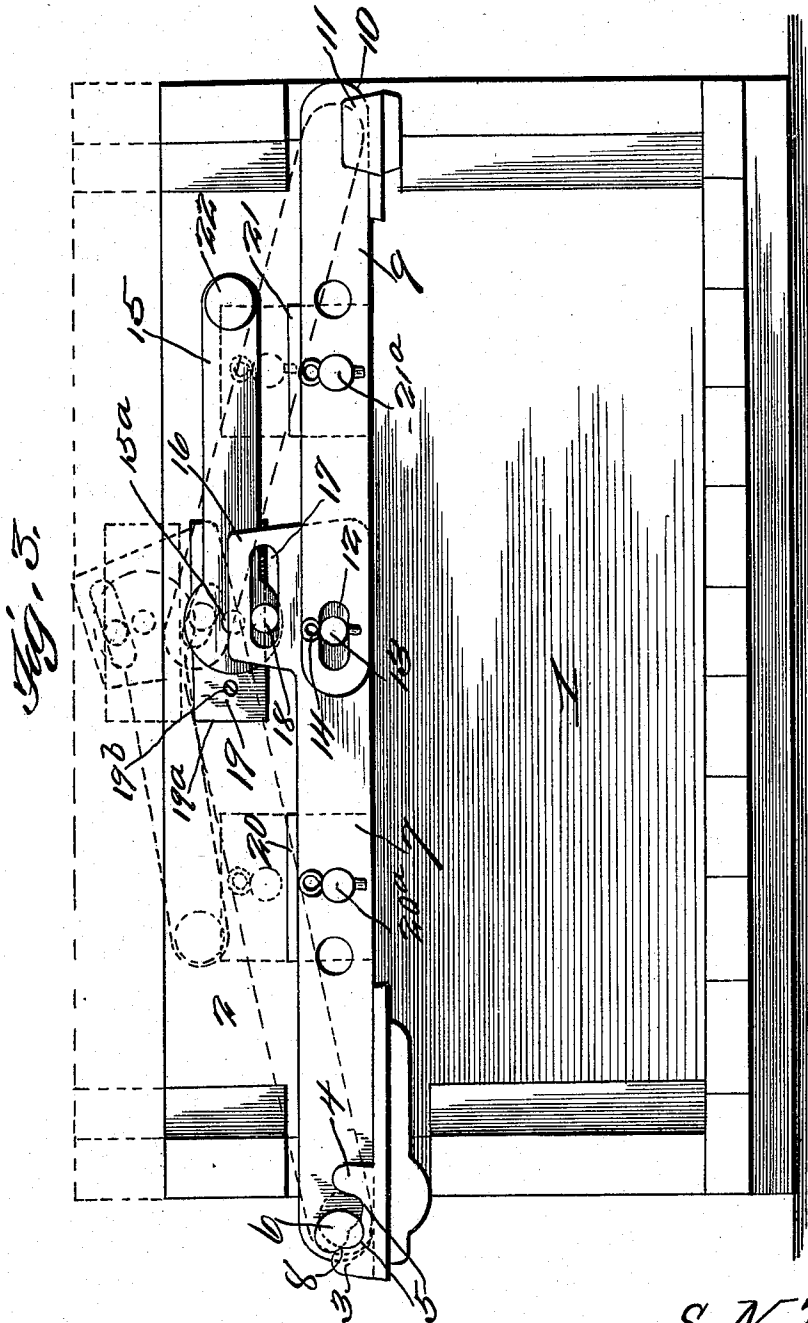
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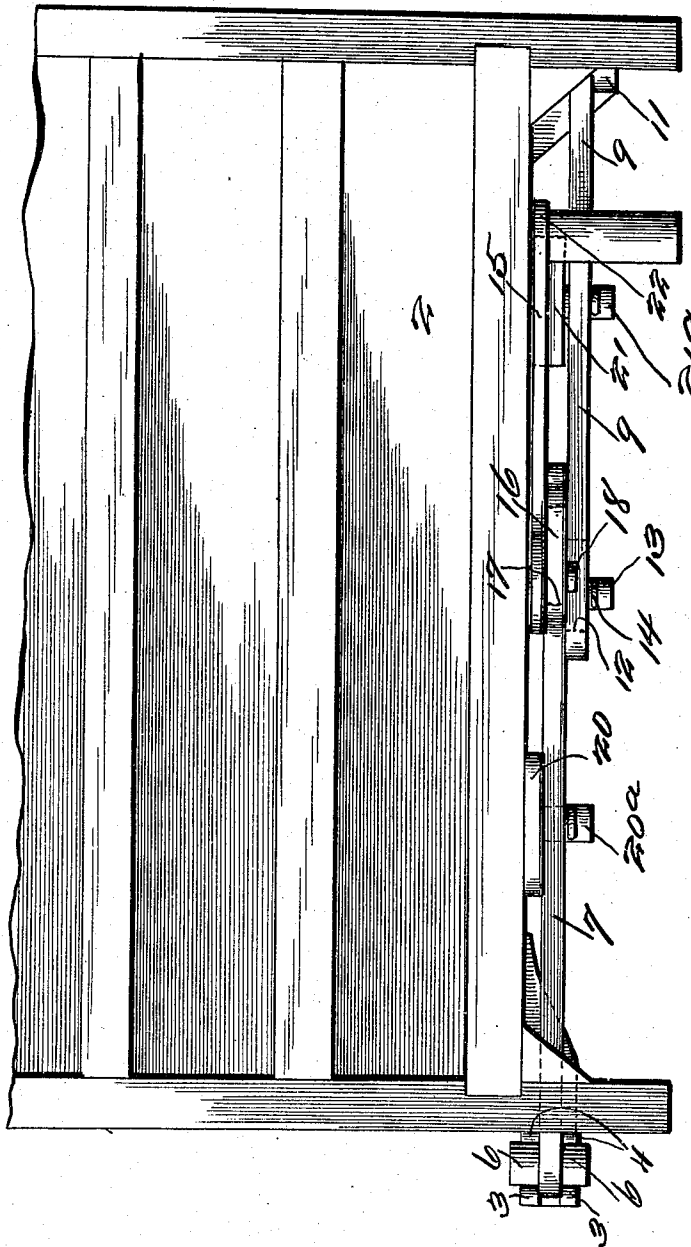


Fig. 4.

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UNITED STATES PATENT OFFICE.

STANLEY N. TOUCHMAN, OF PIQUA, OHIO.

TOGGLE-LEVER FLASK-HINGE.

933,401.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed May 8, 1909. Serial No. 494,918.

To all whom it may concern:

Be it known that I, STANLEY N. TOUCHMAN, a citizen of the United States, residing at Piqua, in the county of Miami and State of Ohio, have invented a new and useful Toggle-Lever Flask-Hinge; 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.

This invention belongs to molders' flasks, and it particularly pertains to a toggle lever flask hinge between the top half of the flask and the lower half thereof. This invention is adapted for use, either in connection with floor, bench or snap flasks.

The main object of the invention is to provide a connection between the cape or top half of the flask and the lower half, so as to allow the top half, when raised, to clear the pattern in the drag or lower half of the flask, and then be rolled over; in practice this operation may be accomplished by one man, thereby doing away with the use of two, as in the old method.

This invention comprises further objects and combinations of elements which will be hereinafter fully described, shown in the accompanying drawings, and the novel features thereof will be pointed out by the appended claims.

The features and elements and the arrangement thereof, for accomplishing the object of this device or apparatus, may be changed and varied, that is to say, in an actual reduction to practice, the understanding however is that the changes and variations accruing from said reduction to practice, are comprehended by the appended claims.

To obtain a full and correct understanding of the details of construction, combinations of features, elements and advantages, reference is to be had to the hereinafter set forth description and the accompanying drawings in connection therewith, wherein—

Figure 1 is a perspective view of a molder's flask, showing the toggle lever hinge connection between the upper and lower halves thereof, and showing the upper half resting upon the lower half. Fig. 2 is a perspective view similar to Fig. 1 showing the upper half raised. Fig. 3 is an enlarged elevation of the molder's flask, showing the upper half resting upon the lower half, and

illustrating the toggle lever hinge dotted in one position and in full line when the upper half of the flask is closed. Fig. 4 is a top plan view of a portion of the flask.

In regard to the annexed drawings, wherein similar reference characters indicate corresponding parts in the several illustrations, 1 designates the lower half of a molder's flask, and 2 designates the upper half. Upon one side of the lower half of the molder's flask, are two upstanding lugs 3 and 4, which are provided with a concaved portion 5 between them. These concaved portions are slightly raised centrally, so that the pins 6 of the toggle levers 7 may have a fulcrum upon either side thereof, and bear against the lugs 3. The pins 6 in cross section are substantially heart shape in contour, and the depressed portions or recesses 8 are designed to engage the said lugs 3, when the toggle levers are pressed downwardly, as shown clearly in Fig. 1. The toggle levers 9 are rounded at their ends, as shown at 10, and are designed to engage between the lugs 11 of the lower half of the flask, and against the side of the flask. The other ends of the toggle levers 9 oppositely to the rounded ends are provided with slots 12, through which pins 13 extend. These pins 13 are carried by the toggle levers 7, and are provided with retaining keys 14, to prevent displacement of the pins, that is to say, when the toggle levers 7 and 9 are being manipulated by the operating levers 15.

The toggle levers 7 are provided with upwardly projecting portions 16 at their ends, in which slots 17 are formed. Engageable and slidable within the slots 17 are pins 18, which are carried by the levers 15. These levers 15 are fulcrumed to supports 19, which are carried by the upper half of the flask, as shown clearly in the drawings. These supports 19 are secured in recesses 19^a of the upper half of the flask by means of suitable screws 19^b as shown. The levers 7 and 9 are pivoted upon pins 20^a and 21^a, of the plates 20 and 21, which are also secured to the upper half of the flask, as will be clearly manifest. By raising the ends 22 of the toggle levers 15, thereby swinging them upon their fulcrums, the pins 18 are moved on the arc of a circle, using the fulcrums of the levers 15 as a center, the levers 7 and 9 are raised at their inner or adjacent end, thereby raising the upper half of the flask. The levers 15 are swung to a position as

shown in full lines in Fig. 2 and in dotted lines as shown in Fig. 3, which hold the levers 7 and 9 in the position as shown, and when the levers 7 and 9 are raised the pins 6 of the levers 7 and 9 engage on the other sides of the raised portions of the convex portion between the lugs 3 and 4, as shown in dotted lines of Fig. 3.

It will be noted that the pins 18 are located below the fulcrums 15^a of the levers 15; that is to say when the levers 15 are in the position shown in Fig. 1. These pins 18 are carried by the levers 15, as clearly shown. When the levers 15 are in the positions shown in full lines in Fig. 2 and in dotted lines in Fig. 3, the pins 18 are disposed above the fulcrums of said levers.

As shown clearly in Figs. 1 and 2, the lower half of the flask upon one side thereof is provided with apertured plates 1^a, while the upper half is provided with plates 2^a, as shown clearly. Projecting downwardly from the plates 2^a are lugs 2^b, which are received by the apertures of the plates 1^a, in order to guide the upper half, when being raised or lowered. After the upper half of the flask is raised to the position shown in Fig. 2, the same is swung open, using the pins 6 as fulcrums; and when the upper half is swung open in this manner the same may be propped in an open position by any suitable means (not shown), in order that the molded contents of the flask may be easily extracted. When the upper half of the flask is lowered as shown clearly in Fig. 1 the same may be secured by the hooks 3^a, which are carried one upon each side of the lower half of the flask, and are adapted to engage the eyes 3^b of the upper half of the flask, so as to hold the upper half closely in contact with the lower half. From the above it will be plainly manifest how the upper half of the flask is raised and lowered, and when raised, how the same is swung upon its fulcrums.

From the foregoing, the essential features, elements, and the operation of the device, together with the simplicity thereof, will be clearly apparent.

Having thus fully described the invention, what is claimed as new and useful, is:—

1. In a molder's flask, a pair of toggle levers engageable between the sides of the lower half of the flask, and a toggle lever movable upon a fulcrum for a half circle and provided with a slot and pin connection with one of the first mentioned toggle levers for raising the pair of toggle levers in order to raise the top half of the flask.

2. In a molder's flask, a pair of operatable toggle levers engageable between the sides of the lower half of the flask, and a lever ful-

crumed to a support, said support being secured to the upper half of the flask, said lever having an eccentric connection with one of the first mentioned levers adapted to operate the toggle levers thereby raising the upper half of the flask.

3. In a molder's flask, a pair of operatable toggle levers engageable between the sides of the lower half of the flask, a movable support, a lever fulcrumed to said support and movable for a half circle and having its fulcrumed end provided with a slot and pin connection to one of the toggle levers, and adapted when moved for a half circle to operate the toggle levers, thereby raising the upper half of the flask.

4. In a molder's flask, a pair of operatable toggle levers engageable between the sides of the lower half of the flask and provided at their adjacent ends with a slot and pin connection, a movable support, a lever fulcrumed to said support and movable for a half circle and having its fulcrumed end provided with a slot and pin connection to one of the toggle levers, and adapted when moved for a half circle to operate the toggle levers, thereby raising the upper half of the flask.

5. A molder's flask comprising upper and lower halves, a pair of toggle levers carried by the upper half, and an operating lever fulcrumed to the upper half having a connection eccentric to its fulcrum with one of said toggle levers.

6. A molder's flask comprising upper and lower halves, toggle levers carried by the upper half, means carried by the lower half upon which two of the toggle levers are fulcrumed, in order that the upper half may be swung open, and an operating lever fulcrumed to the upper half having a connection eccentric to its fulcrum with one of said toggle levers.

7. A molder's flask comprising upper and lower halves, toggle levers carried by the upper half, means carried by the lower half upon which two of the toggle levers are fulcrumed, in order that the upper half may be swung open, said lower half having means for supporting the free ends of the other two of the toggle levers, and an operating lever fulcrumed to the upper half having a connection eccentric to its fulcrum with one of the said toggle levers.

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

STANLEY N. TOUCHMAN.

Witnesses:

GEO. DIXON,
G. A. BROOKS.