W. AIKIN & W. W. DRUMMOND.

MOLDING APPARATUS.

No. 195,784. Patented Oct. 2, 1877

Fig. 1.

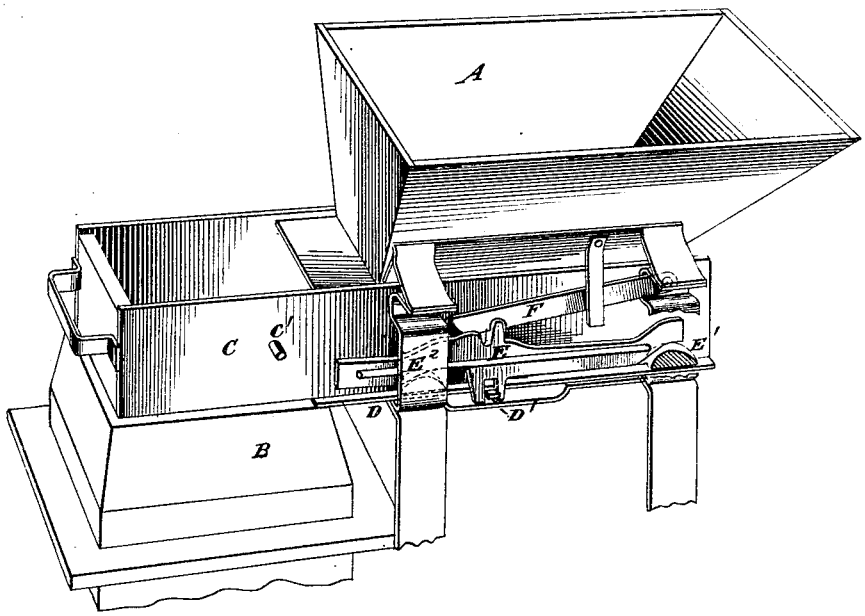
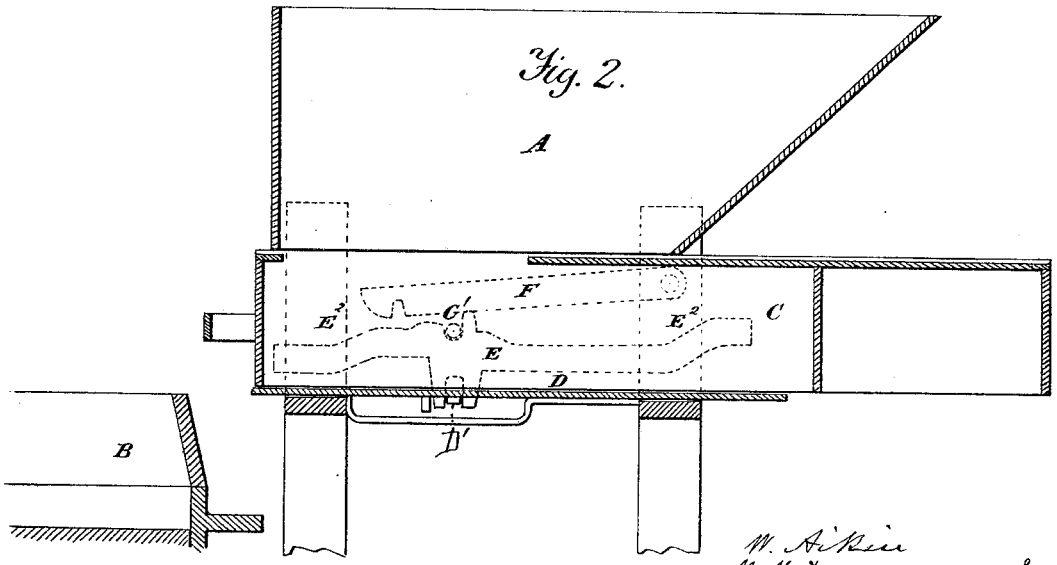


Fig. 2.



Witnesses:
A. Ruppert.
D. P. Lowe

W. Aikin
W. W. Drummond

Inventor:
D. P. Holloway & Co
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM AIKIN AND WILLIAM W. DRUMMOND, OF LOUISVILLE, KY.

IMPROVEMENT IN MOLDING APPARATUS.

Specification forming part of Letters Patent No. **195,784**, dated October 2, 1877; application filed August 21, 1877.

To all whom it may concern:

Be it known that we, WILLIAM AIKIN and W. W. DRUMMOND, both of the city of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Hoppers for Feeding Sand to Flasks on Molding Benches or Machines; and we do hereby declare that the following is a clear, full, and exact description thereof, reference being had to the accompanying drawing, making part of this specification.

The object of this invention is to supply sand to molding-machines; and consists in a stationary hopper for holding the sand to be supplied to the flask, and a drawer by which it is transferred, a sliding bottom supporting the sand while being transferred, and then permitting it to fall into the flask.

In the annexed drawing, Figure 1 is a perspective view, and Fig. 2 is a longitudinal vertical section.

The same letters indicate the identical parts in each figure.

A is a hopper, supported on the molding-machine, and B is the flask to be filled. C is a sliding drawer extending, when projected across the space, between the hopper and the flask, and used to fill the latter with sand from the former. D is a sliding bottom under, but not fixed to, the drawer. Its movements are controlled by the sliding bars E, which move in guides E^2 on the supports of the hopper on each side. The bars are connected to the bottom by jaws embracing pins D′, projecting from the sides, which cause the bottom to move forward with the bars, while the pins C′ on the drawer are engaged by the notches in top of the bars E. This engagement is made by the bars being raised by stationary cams E^1 in the guides, which raise the bar so as to catch the pin; but when the bottom has been carried far enough to reach the flask B the bent ends of the bars allow them to fall, so as to disengage the pins C′, and at the same time the latches F fall on the points projecting above the bars and lock them, as shown in Fig. 1. The drawer, filled with sand, then is drawn forward with the bottom until it reaches the flask, then leaving the bottom, and allowing the sand to fall into the flask. When it is filled the drawer is retracted. The edge of the end piece strikes the flask, and carries any surplus sand back onto the bottom D. When the end of the drawer reaches the end of the bottom D, the pins C′ raise the latches F, and then, striking the points on the bars, draw them back, the bars being raised by the cams E^1, so that the pins C′ are engaged in the notches in the top of the bar. As the drawer passes under the hopper it is again filled with sand, and, another flask being substituted, the operation is repeated.

What we claim, and desire to secure by Letters Patent, is—

1. The combination, substantially as specified, of the hopper, the sand-transferring drawer, the movable bottom D, and an automatic latch or latches for locking the said bottom to and unlocking it from the drawer as the latter is drawn back and forth in transferring the sand from the hopper to the flask.

2. In combination, the hopper A, flask B, drawer C, bottom D, and sliding bars E, which move far enough to carry the bottom to the flask, and then are disengaged, substantially as set forth.

3. The combination of the hopper A, flask B, drawer C, bottom D, bars E, and latch F, substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM AIKIN.
WILLIAM W. DRUMMOND.

Witnesses:
WM. WEIR,
C. J. WALTON.