(No Model.)

H. ADAMS.

FLASK OF MOLDS.

No. 298,811. Patented May 20, 1884.

Fig. 1.

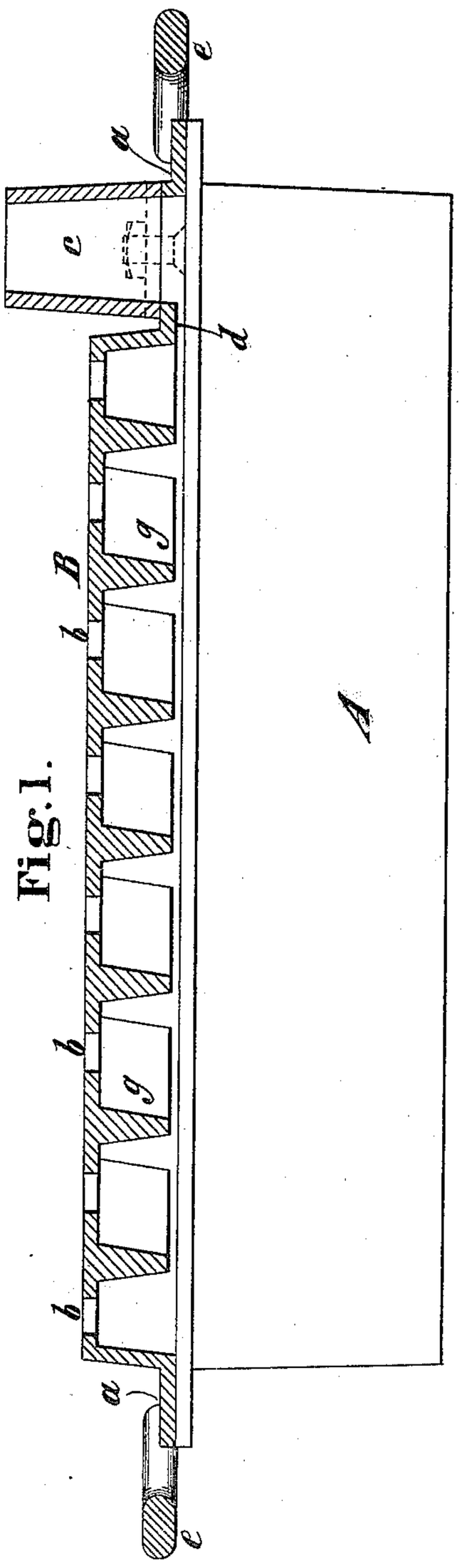


Fig. 2.

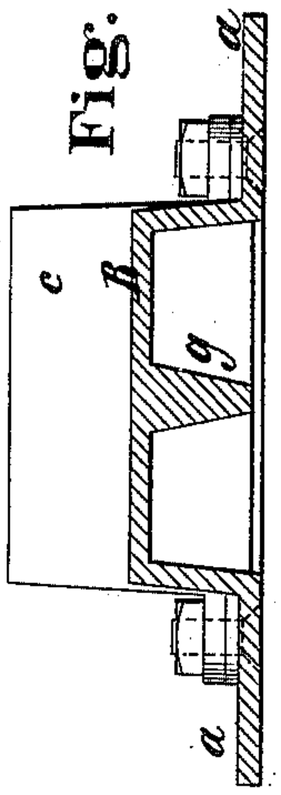
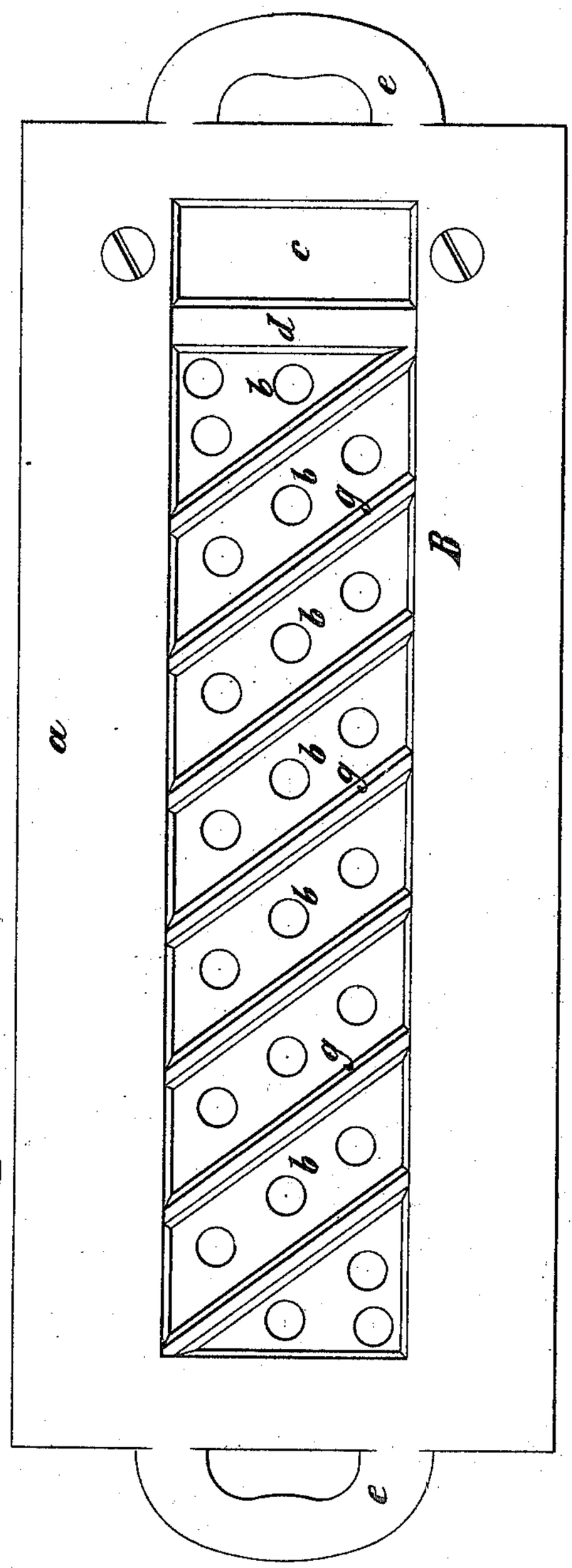


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HAWLEY ADAMS, OF NEW YORK, N. Y.

FLASK OF MOLDS.

SPECIFICATION forming part of Letters Patent No. 298,811, dated May 20, 1884.

Application filed December 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, HAWLEY ADAMS, of New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Flasks of Molds, of which the following is a specification.

My improvement consists in a cope for a mold-flask made in the form of a shallow box having in it rhomboidal compartments provided with holes, through which air and gas may escape during casting, and also having within it ribs which do not extend flush with the under surface of the cope.

In the accompanying drawings, Figure 1 is a side view of the lower part or drag of a mold-flask and a longitudinal section of the upper section or cope thereof. Fig. 2 is a transverse section of the cope of the flask, and Fig. 3 is a view of the under side thereof.

Similar letters of reference designate corresponding parts in all the figures.

A designates the lower section or drag of the mold-flask. It may be made of iron, in the ordinary manner, and of any suitable shape. Sand will be formed in the usual manner into a mold within it.

B designates the upper section or cope of the mold-flask. It is made in the form of a shallow box, and has a flange, *a*, around the sides and ends at the open end, and holes *b* in the top. It also has a running-box, *c*, communicating with and extending from it. Between this running-box and the interior of the cope is recessed a passage, *d*. At the ends of the cope are handles *e*. I may arrange across the cope between the holes *b* a number of ribs, *g*. These will not extend flush with the under side of the cope. The ribs *g* form compartments in the cope.

To use my cope it is only necessary to turn it upside down, shovel sand into it, pack the sand down, and smooth it over with a slicker or other suitable tool. A spruce is placed in the running-box, when the sand is introduced into it, and after the packing of the sand is withdrawn to provide the opening for the passage of the molten metal. The recessed passage *d* is faced with sand when the sand is introduced into the cope. The sand may be introduced into this cope very expeditiously. It can be very easily packed in the cope and without the exercise of any particular skill. When packed, it will not readily fall out; hence the cope need not be handled very carefully. When the cope is packed, it is turned right side up and placed on the drag. Owing to the shallowness of the cope, it can be moved about very easily with the aid of its handles. The slight depth of sand in the cope will not prevent the escape of air and gas during casting; hence the need for making in the sand escape-passages for the air and gas is obviated. This results in the saving of considerable labor. The air and gas percolate through the sand, and escape through the holes *b*.

By the use of my cope much time may be saved in casting, and the arduous labor involved in lifting a cope of ordinary construction is very materially reduced.

A cope embodying my improvement is applicable to a great variety of mold-flasks. The flask shown is especially designed for use in casting grate-bars.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A cope for a mold-flask made in the form of a shallow box having rhomboidal compartments therein, and provided with holes for the escape of air and gas during casting, substantially as specified.

2. A cope for a mold-flask made in the form of a shallow box having rhomboidal compartments therein, of which ribs *g* form one wall of each, and provided with holes *b* in the top for the escape of air and gas during casting, a running-box, *c*, and a passage, *d*, substantially as specified.

HAWLEY ADAMS.

Witnesses:
W. F. HAPGOOD,
W. G. LIPSEY.