

(No Model.)

J. O. LITTLE.
GATE FOR CASTING.

No. 574,810.

Patented Jan. 5, 1897.

Fig. 1.

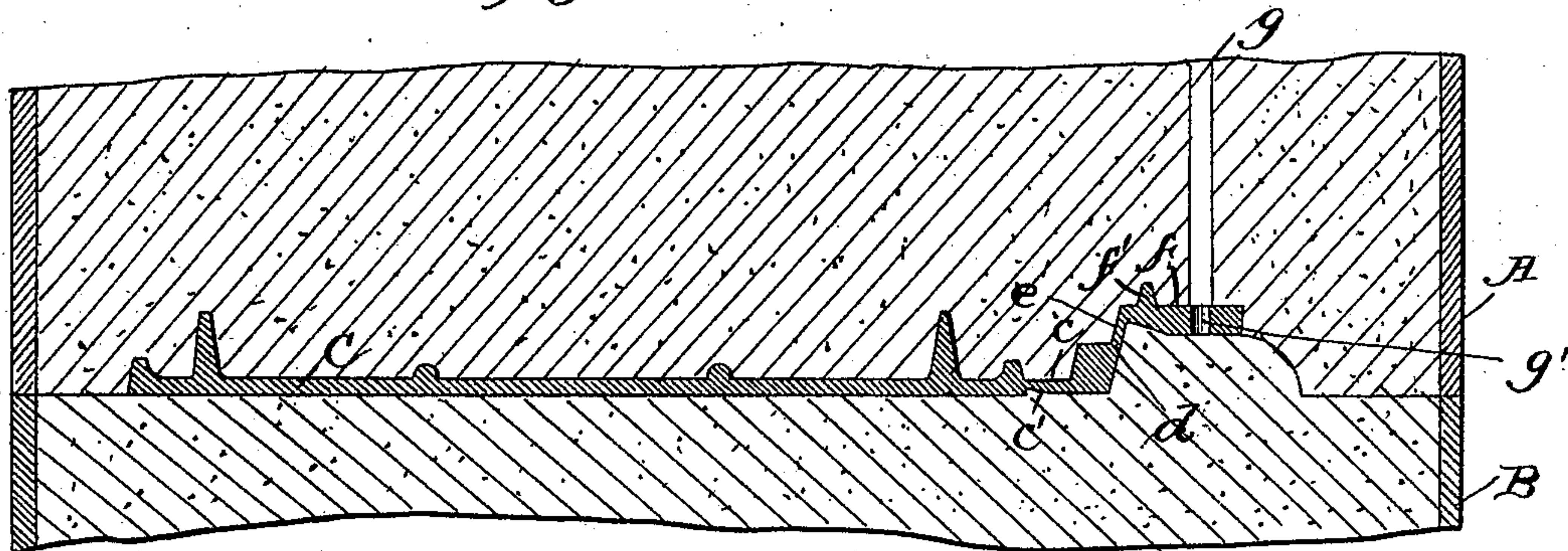
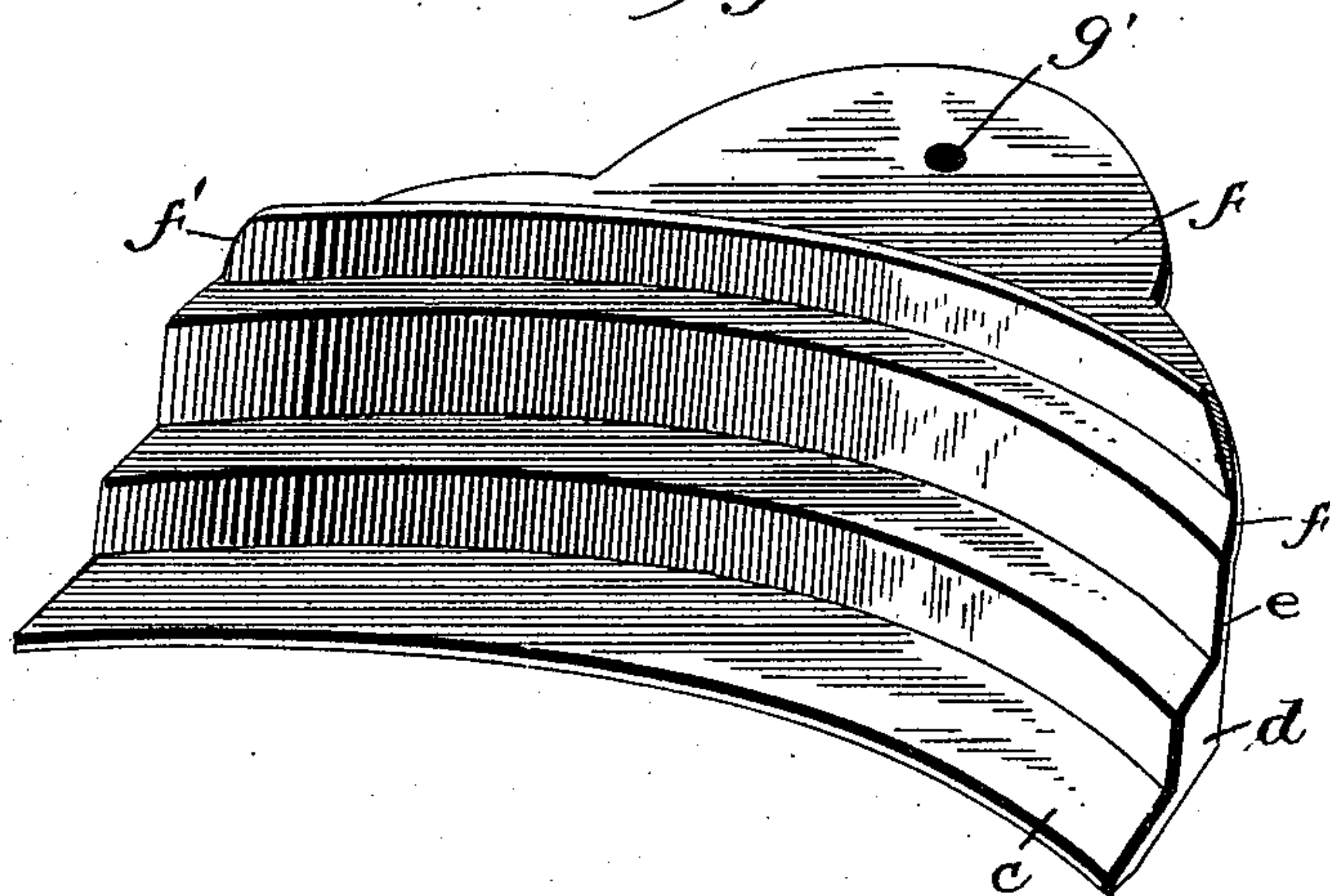


Fig. 2.



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UNITED STATES PATENT OFFICE.

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GATE FOR CASTING.

SPECIFICATION forming part of Letters Patent No. 574,810, dated January 5, 1897.

Application filed September 12, 1896. Serial No. 605,678. (No model.)

To all whom it may concern:

Be it known that I, JAMES OWENS LITTLE, a citizen of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Gates for Casting, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in gates for use in casting various articles; and the object of the invention is to provide a gate for use in making smooth, clean castings, whereby the slag, sand, and dirt which may be in the iron will be retained and prevented from getting into the mold proper.

In the accompanying drawings I have shown the gate as used in molding stove-lids; but it will be understood that this shows but one use of the invention, it being capable of use in casting any article.

In the drawings, Figure 1 is a sectional view of the mold, showing the gate-pattern in place; and Fig. 2 is a perspective view of the gate-pattern alone.

A and B in Fig. 1 represent, respectively, the upper and lower portions of the sand and flask, and C the pattern of the stove-lid.

D is the gate, which in this instance is secured permanently to the edge of the pattern, this being preferable, as it leaves no edge of sand where the gate is attached to the pattern, and consequently there is no possibility of loose sand washing from the edge of the gate into the mold. The gate-pattern can, however, be used detached from the patterns, if desired, but in this event greater care will be required in finishing the mold.

The gate-pattern comprises a lower horizontal portion *c*, forming a continuation of the pattern, this portion having its lower face inclined upwardly, as shown at *c'*, to where it abuts against or joins the edge of the pattern. A shoulder *d* is adapted to form a space or receptacle when the gate-pattern is removed from the mold. In rear of this shoulder the gate-pattern is formed in the shape of a thin, substantially vertical wall *e*, and at the top

of the wall *e* is the horizontal portion *f*, which extends backwardly and connects with the pour-opening *g*, an opening being formed in the horizontal portion, as shown at *g'*, to receive the end of the pattern or core which forms the pour-opening. On the upper face of the portion *f*, near the forward edge thereof, is provided a flange *f'*. The shape of the gate-pattern is clearly shown in the perspective view, in which it will be seen that it rounds or widens from the pour-opening forward.

By reason of the shape of the gate-pattern it will be seen that two shoulders are formed in the sand by the vertical faces of the shoulder *d* and wall of the flange *f'*, and that a considerable space is formed in the sand by the shoulder *d*, into which any slag that passes the first shoulder will pass and be retained.

Having thus described my invention, what I claim is—

1. A gate-pattern for molding comprising the horizontal portion having an inclined face, the upwardly-extending vertical portion, the second horizontal portion extending rearwardly from the upper edge of the vertical portion, the flange upon the upper side of the said rearwardly-extended portion, and the pattern for the pour-opening extending upwardly from said rearwardly-extended portion, substantially as described.

2. A gate-pattern for molding comprising the horizontal portion, the substantially vertical portion extending upwardly and having a flange or shoulder at its lower portion, the second horizontal portion extending rearwardly from the upper edge of the vertical portion, the flange upon the upper face of said second horizontal portion, and the pattern for the pour-opening extending upwardly from said second horizontal portion, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES OWENS LITTLE.

Witnesses:

HENRY GEORGE SCHWEBEL,
SAMUEL WOOD.