

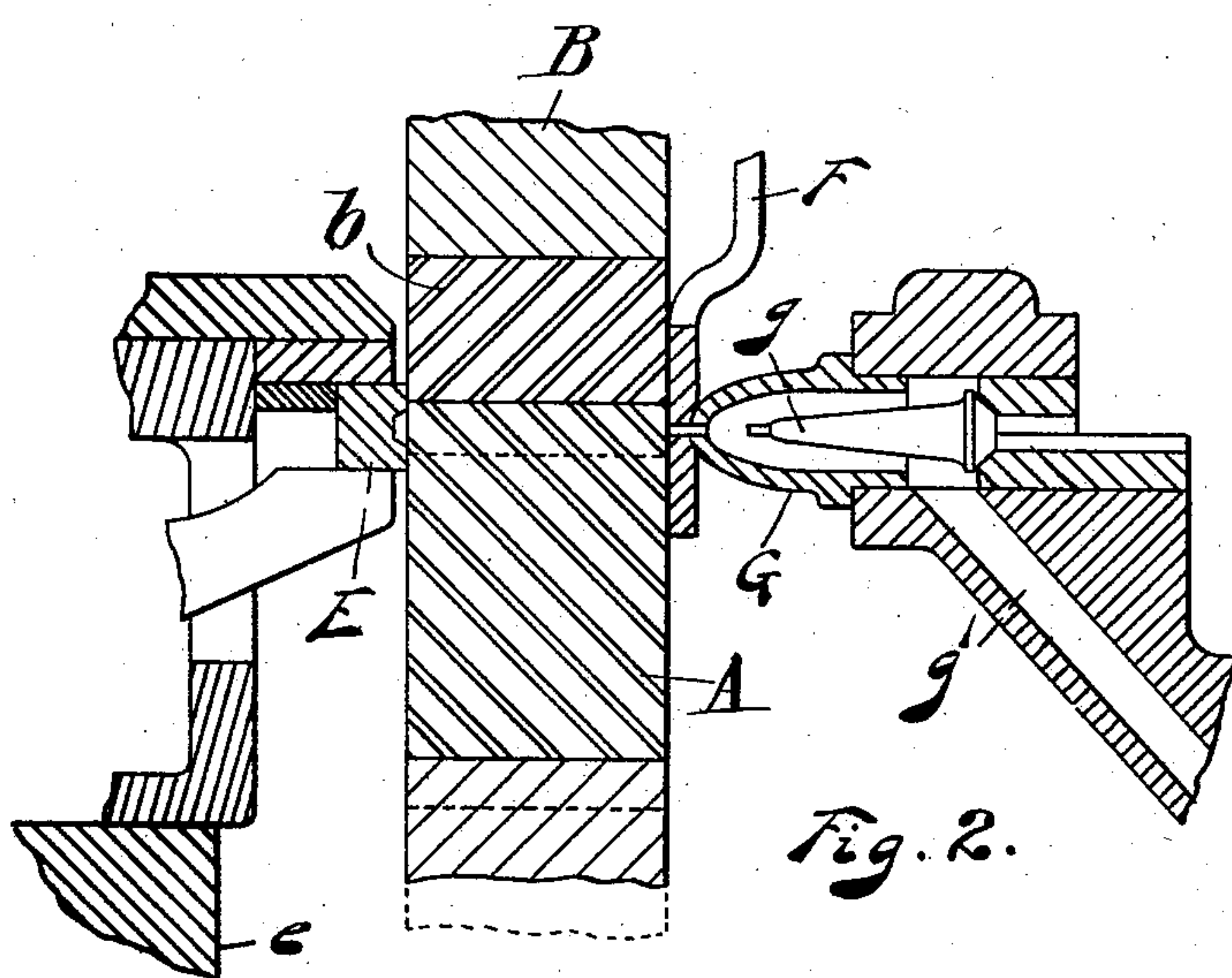
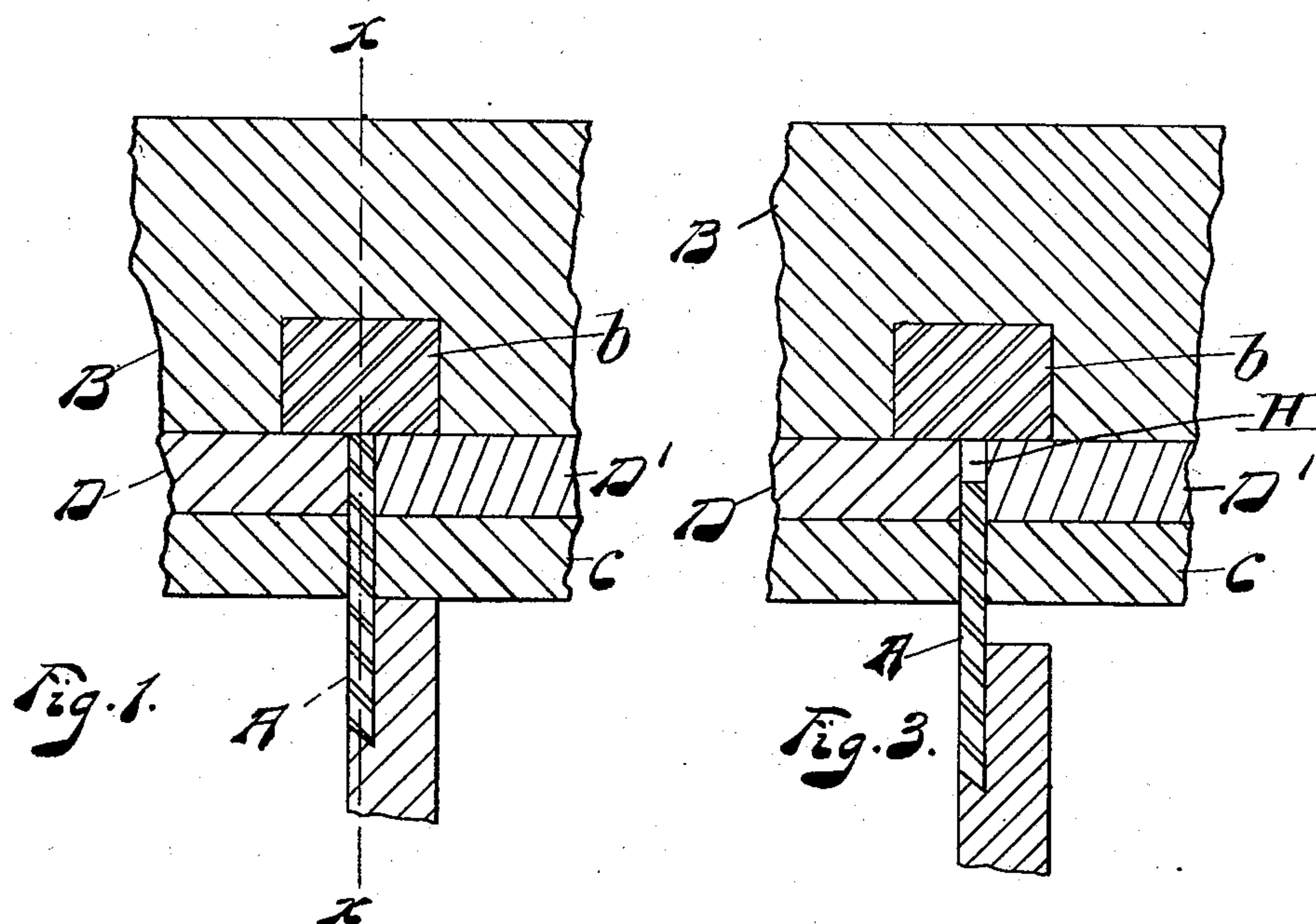
No. 708,010.

Patented Sept. 2, 1902.

H. BARTH.
TYPE CASTING.

(Application filed Nov. 5, 1900.)

(No Model.)



Witnesses:

Emil Rupp
Emma Lyford

Inventor:

Henry Barth
By Murray & Murray
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UNITED STATES PATENT OFFICE.

HENRY BARTH, OF CINCINNATI, OHIO.

TYPE-CASTING.

SPECIFICATION forming part of Letters Patent No. 708,010, dated September 2, 1902.

Application filed November 5, 1900. Serial No. 35,480. (No model.)

To all whom it may concern:

Be it known that I, HENRY BARTH, a citizen of the United States of America, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Type-Casting, of which the following is a specification.

My invention relates to type-casting, and is an improvement upon the invention for which United States Letters Patent No. 376,765, bearing date January 24, 1888, were granted to myself and Ernst Lietze.

The object of my invention is to produce type in which there are no blow-holes and is accomplished by producing a vacuum in the chamber in which the type is cast and admitting the molten metal into the vacuum while excluding the air therefrom.

In the accompanying drawings, Figure 1 is a transverse sectional view of so much of a mold as is necessary to illustrate my invention, showing the parts in the position they occupy just before the body-piece or plunger is lowered to form the vacuum-chamber. Fig. 2 is a longitudinal central sectional view taken upon line *x x* of Fig. 1. Fig. 3 is a view similar to Fig. 1, but showing the body-piece or plunger lowered.

In the operation of type-casting as heretofore carried on and as described in the aforementioned Letters Patent, as soon as the body-piece or plunger A had traveled to its upper position to deliver the type just cast to the fingers upon the end of the retracted sliding cover B of the mold it began to descend again to form the chamber in which the next type was to be cast. As a consequence, the sliding cover being retracted, air entered said chamber and caused blow-holes to be formed in the type cast therein. In my construction

plunger A, sliding cover B, with its inserted steel block *b*, base-plate C, side members D and D' of the mold, matrix E, matrix-carriage *e*, apron F, nipple G, choker *g*, and passage *g'* for molten metal are the same in construction as in said Letters Patent, and the means of actuating said sliding cover, matrix-carriage, body-piece or plunger, and choker may be the same as the means therein described.

My invention consists in keeping plunger A in its upper position until sliding cover B has been advanced to its forward position, so as to cover the top of the mold, and matrix E has been advanced to abut against sliding cover B and plunger A, all as shown in Figs. 1 and 2, which represent the position of the parts just before plunger A is lowered. Then plunger A is lowered to the position shown in Fig. 3 and in dotted line Fig. 2, forming in chamber H a vacuum into which the molten metal enters. The type so cast are free from blow-holes.

What I claim is—

In a type-casting machine a mold consisting of side members, a sliding cover on the side members, a matrix, a carriage to advance it to cover one end of the mold, a nipple covering the other end of the mold for the admission of molten metal, a plunger between the side members, the matrix and the nipple, means for actuating the sliding cover, and the matrix and means for keeping the body-piece or plunger against the cover until all the parts of the mold are closed and for then drawing it away from said cover to form a vacuum-chamber, substantially as shown and described.

HENRY BARTH.

Witnesses:

W. F. MURRAY,
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