

No. 618,554.

Patented Jan. 31, 1899.

G. A. BATES.
MOLD FOR LINOTYPE MACHINES.

(Application filed Feb. 28, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

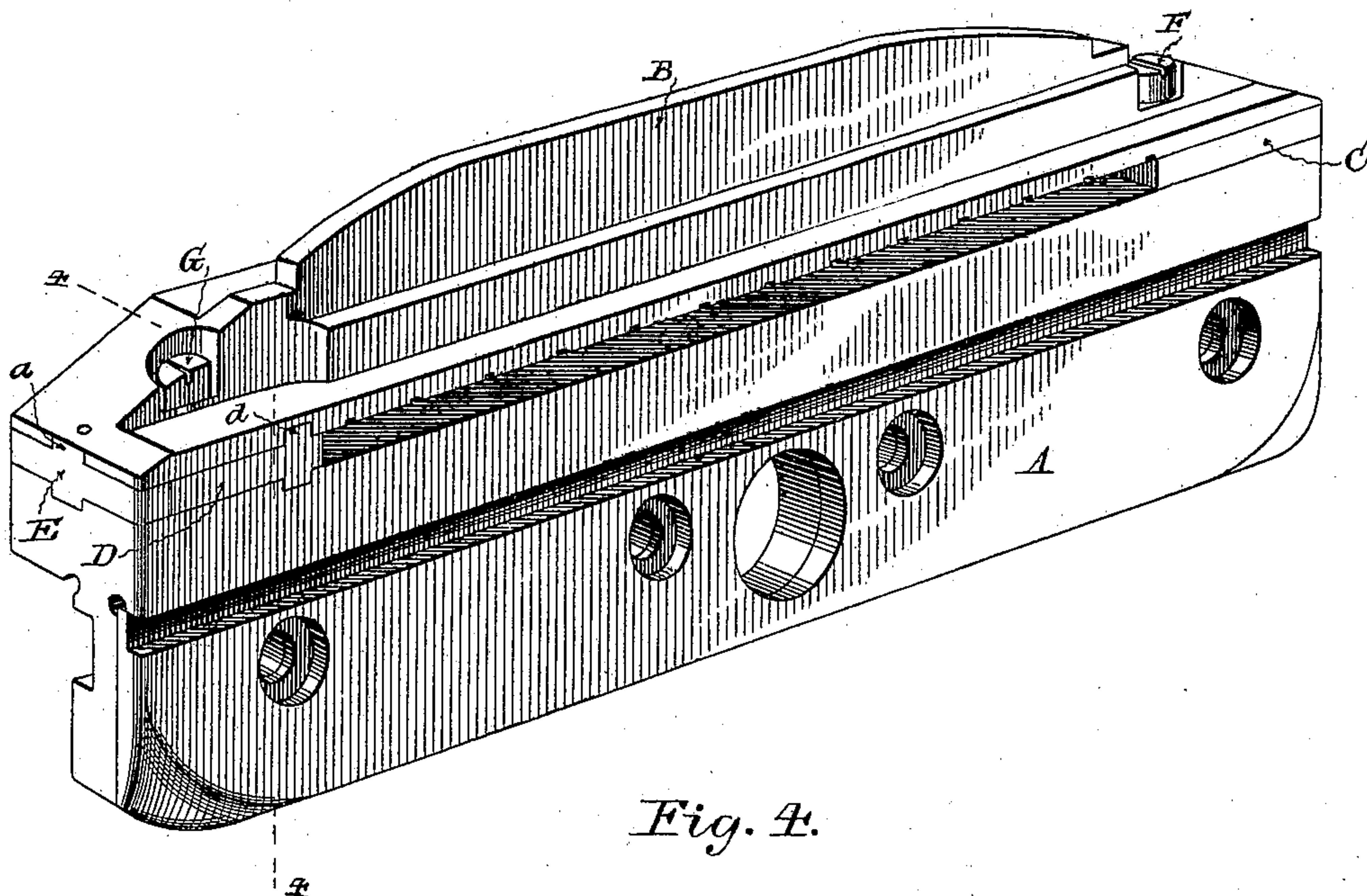
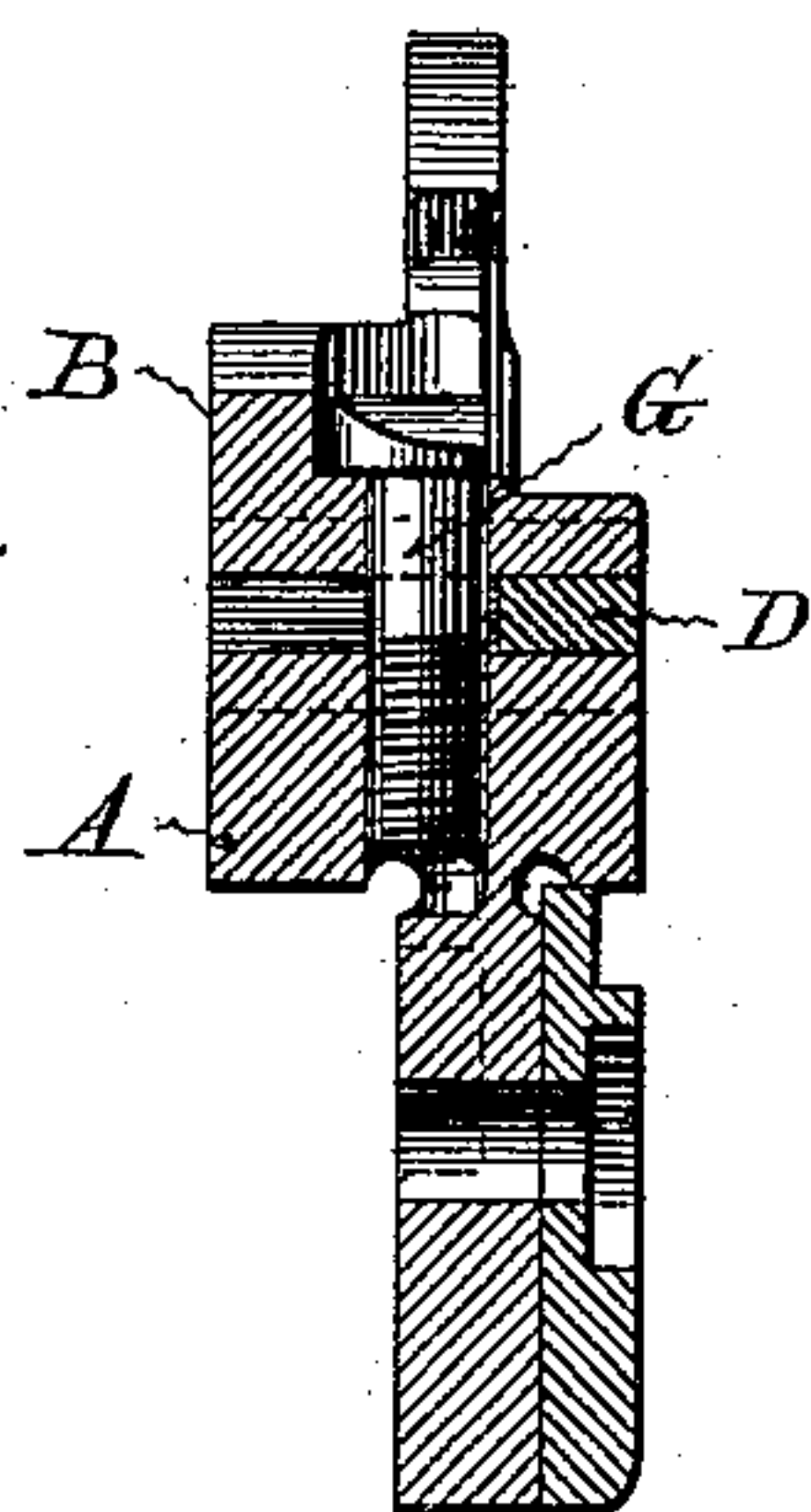


Fig. 2.



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No. 618,554.

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G. A. BATES.
MOLD FOR LINOTYPE MACHINES.

(Application filed Feb. 26, 1898.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 2.

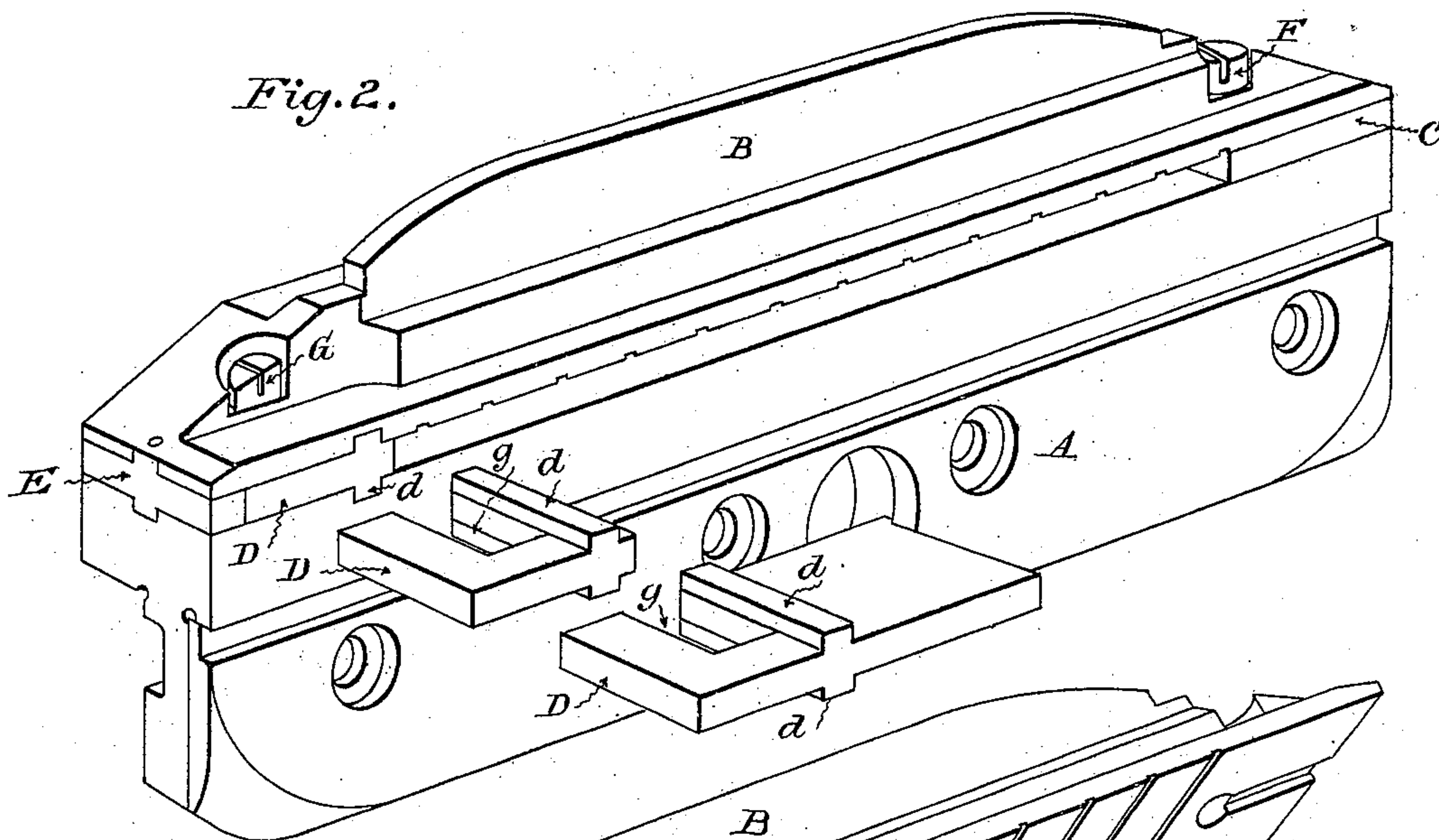
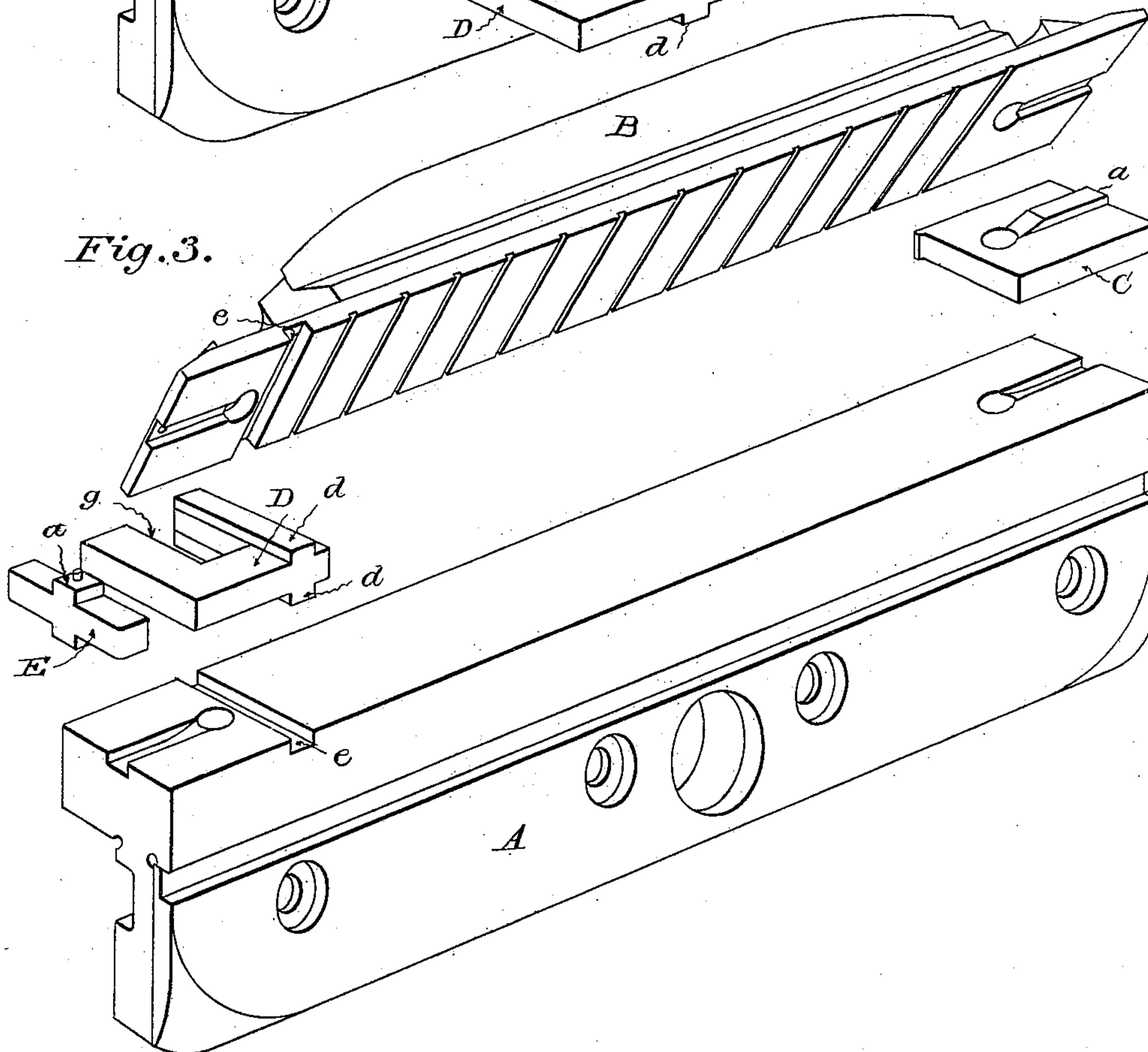


Fig. 3.



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GEORGE A. BATES, OF NEW YORK, N. Y., ASSIGNOR TO THE MERGENTHALER
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MOLD FOR LINOTYPE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 618,554, dated January 31, 1899.

Application filed February 26, 1898. Serial No. 671,730. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. BATES, of New York, (Brooklyn,) county of Kings, and State of New York, have invented a new and useful Improvement in Molds for Linotype-Machines, of which the following is a specification.

My invention relates to an improved mold for use in the Mergenthaler linotype-machine and analogous machines in which type-metal slugs for linotypes are cast into a slotted mold against a line of metal matrices temporarily arranged against its front.

The aim of the invention is to provide a mold which may be made at reasonable cost, of the extreme precision required in practice, and which may be readily adjusted to vary the length of the slugs produced therein, and also, if desired, to vary its thickness.

To this end the invention consists in a slotted mold-body provided with removable liners, substantially as hereinafter described.

In the accompanying drawings I have represented my mold in a form adapted for insertion into a mold-carrying wheel of an ordinary linotype-machine; but it is to be understood that its external or marginal form may be varied at will to suit the requirements of any particular machine in which it may be used.

Figure 1 is a perspective view of the mold in operative condition. Fig. 2 is a similar view showing the manner in which the liner is removed therefrom, three interchangeable liners of different lengths being shown in this figure. Fig. 3 is a perspective view showing the various parts of the mold separated from each other. Fig. 4 is a cross-section on the line 4 4 of Fig. 1.

The mold consists of a body or base portion A, having a flat upper surface, a complementary cap-plate B, having a flat under surface, and liners or spacing-blocks C and D, which are inserted between the cap and the body for the double purpose of maintaining the proper separation between them and of closing the two ends of the slot or mold proper, and thus determining the length of this slug for linotype to be formed. The cap and body are connected by vertical screws F and G, passing through the intermediate lin-

ers C and D. The liner C is fixed in position, but the liner D is adapted to be removed at will by pushing it forward out of its place, so that it may be replaced by another (longer or shorter) in order to change the length of the slug produced. In order to maintain the proper separation of the cap and the body when the liner D is removed and to avoid the necessity and danger of readjusting them, an additional liner E is fixed in place between the cap and the body and outside of the removable liner, as plainly shown. In the use of these molds the variation of the fraction of a thousandth of an inch in the distance between the cap and the body is fatal to their success. Hence the great importance of using fixed liners at the two ends, so that after the parts are once assembled the vertical width or thickness of the slot may be maintained or left undisturbed notwithstanding the substitution of liners changed the length of the slot.

The end liners C and E are preferably formed, as shown in Figs. 3 and 4, with longitudinal ribs *a*, fitting into corresponding grooves in the cap and body to prevent them from shifting laterally. The removable liner D is provided on its upper and lower surfaces with transverse ribs *d*, fitted into corresponding grooves *e*, formed on the cap and the body, respectively. These ribs and grooves are arranged, preferably, at right angles to the face of the mold. They serve as a means of determining the longitudinal adjustment of the liner and also as a means of preventing the liner from turning or twisting horizontally. In other words, they keep the edges of the liner flush with the faces of the mold. In order to permit the removal of the liner D, it is slotted through the rear edge, as shown at *g*, so that although the screw G passes therethrough the liner may be pushed inward or outward at the front of the mold without interference from the screw. After the insertion of the liner the screw is given a slight turn to insure the binding of the parts and to prevent the accidental displacement of the liner. When the liner is to be removed, the screw is slightly loosened to relieve it from excessive pressure. In practice it is the custom to provide liners which are

interchangeable in the mold and which are varied in lengths from the ribs *d* forward, so that the printer by selecting and inserting the liners of appropriate lengths may adapt
5 the mold for the production of a slug of any required "measure."

The employment of the liner E is not necessary, but its use is recommended. In place of the screws G any other appropriate clamping or fastening devices which will establish
10 a firm union between the parts of the mold may be employed. Either one of the ribs *d* may be omitted.

When it is desired to change the thickness
15 of a slug or body, it is only necessary to loosen the screws, remove the liners, and substitute others of different thickness. It will be seen that by this substitution of liners the size of the slot or mold proper may be varied both as to length and as to width. The
20 end liner E is shown as being held in position by a dowel-pin.

In the event of its being desirable to change the mold as to length only the end liners may
25 be fixed immovably in place or formed integrally with the cap and body portion.

Having described my invention, what I claim is—

1. In a linotype-mold, the cap and body

plates separated by end liners, in combination with an intermediate removable liner, whereby the length of the slot or mold proper may be varied by the substitution of liners without disturbing the width of the slot.

2. In a slotted linotype-mold, a removable
35 liner provided with one or more ribs at right angles to the face of the mold.

3. In a slotted linotype-mold substantially as shown, a ribbed slotted liner adapted to slide into and out of the mold at right angles
40 to the face of the mold.

4. In a linotype-mold, the combination of the body, the cap, the end liner E, the opposite liner C, the removable transversely-guided liner D, and the binding-screw, substantially as shown.

5. A linotype-mold provided with a transversely-removable liner and with means for compelling said liner to assume, whenever
50 inserted, one and the same positions.

In testimony whereof I hereunto set my hand this 15th day of February, 1898, in the presence of two attesting witnesses.

GEORGE A. BATES.

Witnesses:

W. H. RANDALL,

F. W. DAVIS.