

No. 685,583.

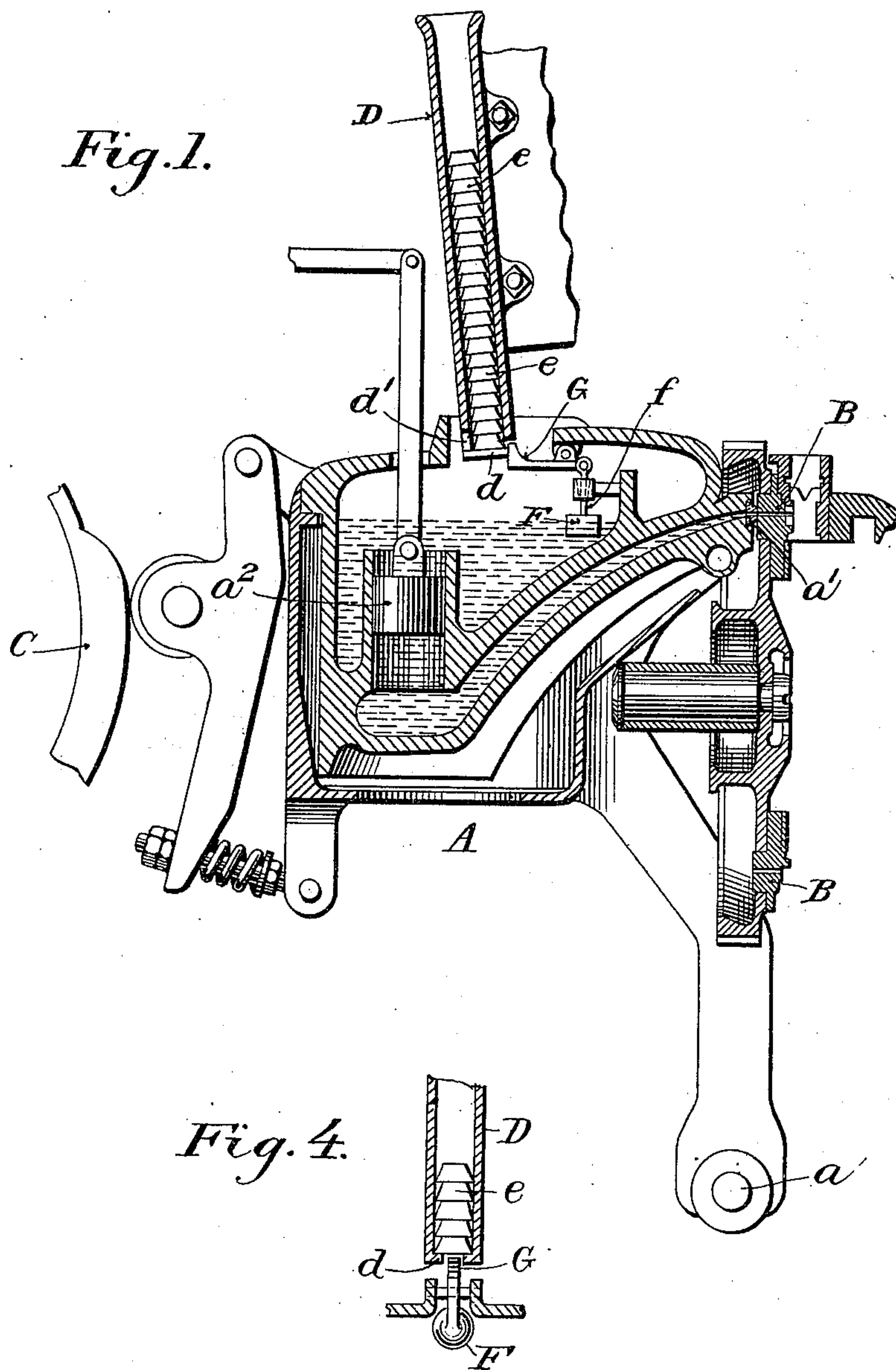
Patented Oct. 29, 1901.

P. T. DODGE.
LINOTYPE MACHINE.

(Application filed May 31, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 2.

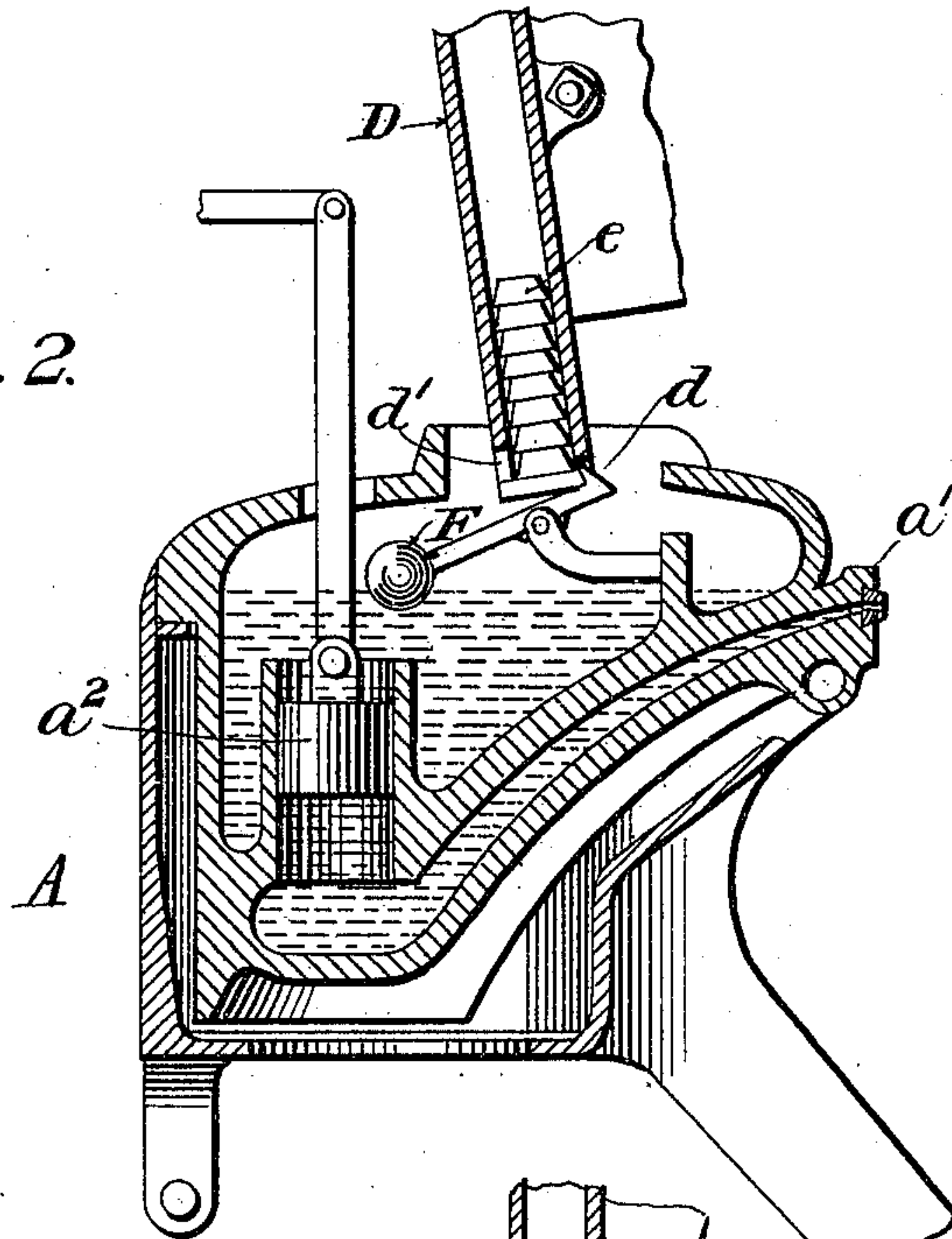
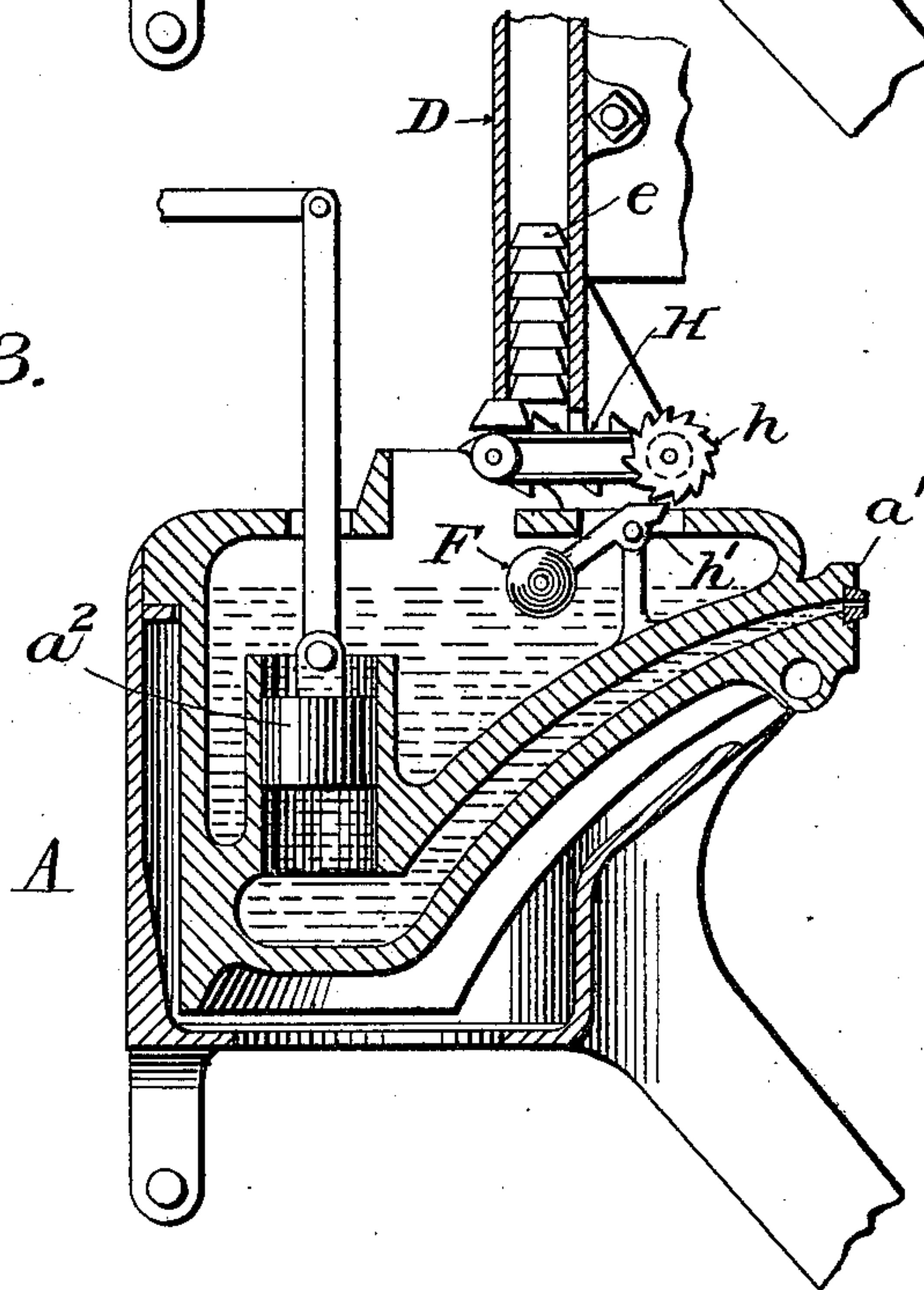


Fig. 3.



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PHILIP T. DODGE, OF NEW YORK, N. Y., ASSIGNOR TO THE MERGENTHALER
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LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 685,583, dated October 29, 1901.

Application filed May 31, 1901. Serial No. 62,619. (No model.)

To all whom it may concern:

Be it known that I, PHILIP T. DODGE, of New York, county of New York, and State of New York, have invented a new and useful
5 Improvement in Linotype-Machines, of which the following is a specification.

My invention relates to linotype-casting machines in general in which molten metal is delivered by a pump mechanism into a mold
10 and against an opposing line of matrices to produce a slug or printing-bar, commonly known as a "linotype." In the operation of this class of machines it is desirable to have the molten metal kept as nearly as possible
15 at a constant level in the pot, as any wide variation in the level seriously affects the operation of the machine and the quality of the slugs produced.

To this end my invention consists, broadly,
20 in combining with the melting-pot a feed mechanism for delivering the solid metal thereto, this feed mechanism being controlled in its action by the height of the molten metal in the pot.

It will be understood by the skilled mechanic that my combination may be modified in detail and embodied in various forms without essentially changing the mode of action.

In the drawings I have represented my invention as applied to a commercial Mergenthaler linotype-machine of the same general construction as that represented in Letters Patent of the United States No. 436,532, dated September 16, 1890.

Referring to the accompanying drawings, Figure 1 represents a vertical section from front to rear through a melting-pot and adjacent parts with my invention applied thereto. Fig. 2 is a similar section illustrating the
40 same in a modified form. Fig. 3 represents a similar section through another arrangement, and Fig. 4 a vertical section through the lower end of the magazine at right angles to the plane of the preceding views.

Referring to the drawings, A represents the melting-pot, provided with supporting-legs mounted on a horizontal axis *a* and also provided with a delivery spout or mouth *a'*, through which the molten metal is ejected by
50 the action of the pump-plunger *a*².

B represents the mold into which the mol-

ten metal is delivered. A cam C serves to swing the pot forward and backward, causing its mouth to first close tightly against the back of the mold and after the casting operation to recede therefrom. These parts are all of ordinary construction.

D represents an upright stationary magazine, which may be made in any form desired, adapted to receive the bars or pigs of type-metal *e*, which are to be delivered successively into the melting-pot. In the form shown the magazine is provided at the bottom with a plate *d* to sustain the column of pigs and with a rear opening *d'*, through
65 which one pig at a time may be delivered.

F represents a hollow metal float provided with an upright stem *f*, passing loosely through a suitable guide in the pot and connected at its upper end with a feed-dog G, which is pivoted at its middle to the pot and provided at the opposite end with an upright lip or shoulder. Whenever the metal in the pot falls below the proper level, the float falling with it lifts the upper end of the dog G,
75 so that when the pot swings rearward this dog will engage the lowermost pig or block of metal in the magazine D and carry it out horizontally through the rear opening, so that it will fall into the pot beneath. This feeding action will continue at each motion of the pot until the metal arises therein to the proper level, whereupon the rising float will lower the operating end of the dog, so that it becomes inactive. In Fig. 2 I have shown a
85 like arrangement of parts, except that the float F is attached to one end of the lever directly pivoted to the pot and having its opposite end fashioned into a dog to feed the pigs out of the magazine.

In Fig. 3, H represents an endless apron, of wire-gauze or other material, traveling around two supporting-rolls, one of which is provided with a ratchet-wheel *h*, engaged by a dog *h'* whenever it is raised by the action of the
95 falling float F.

It will be understood that any arrangement of the float under which it controls the action of the metal will be within the scope of my invention.

Having thus described my invention, what I now claim is—

1. In a linotype-machine, the combination of a melting-pot, a magazine adapted to hold metal pigs or blocks, a power-driven mechanism for delivering the solid pigs to the pot, 5 and a float located in the pot and controlling the action of the feed mechanism, whereby the pot is fed intermittingly and positively according to the height of the metal therein.
2. In a linotype-machine, a movable melting-pot, in combination with an adjacent 10 magazine for metal pigs, a feed device carried by the pot to deliver pigs from the magazine into the pot, and a float mounted in the pot and controlling the feed device.
- 15 3. In a linotype-machine, the combination of a fixed magazine adapted to hold blocks of type-metal, a reciprocating melting-pot, a feed device actuated by the pot to deliver the blocks successively from the magazine, and a float mounted in the pot and acting to throw 20 the feed device into or out of action, according to the height of the molten metal in the pot.

In testimony whereof I hereunto set my hand, this 27th day of May, 1901, in the presence of two attesting witnesses.

PHILIP T. DODGE.

Witnesses:

W. A. McCALL,
JOHN F. GEORGE.