

No. 689,603.

Patented Dec. 24, 1901.

G. A. VASSBERG.
LINOTYPE MACHINE.

(Application filed Oct. 14, 1901.)

(No Model.)

Fig. 1.

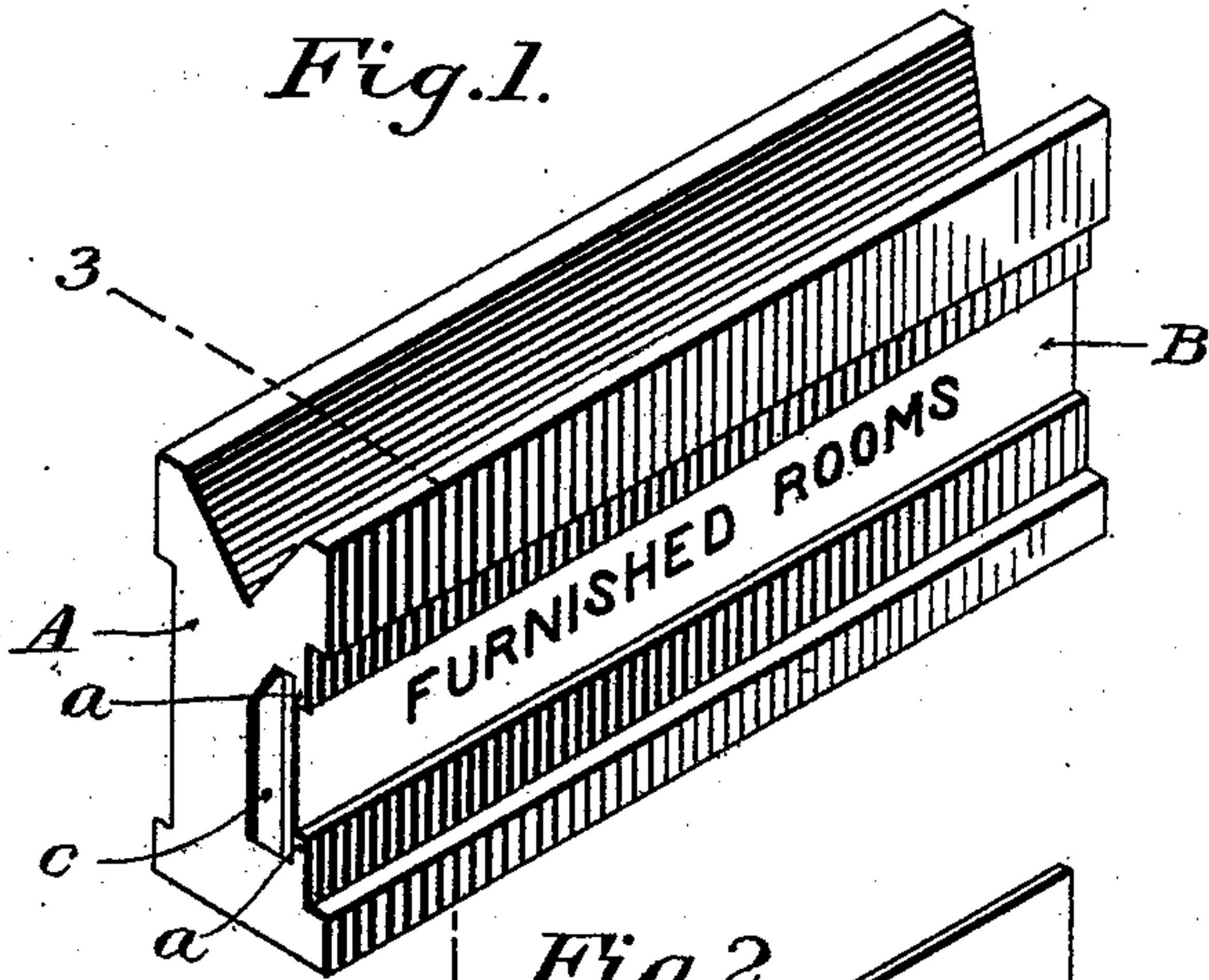


Fig. 2.

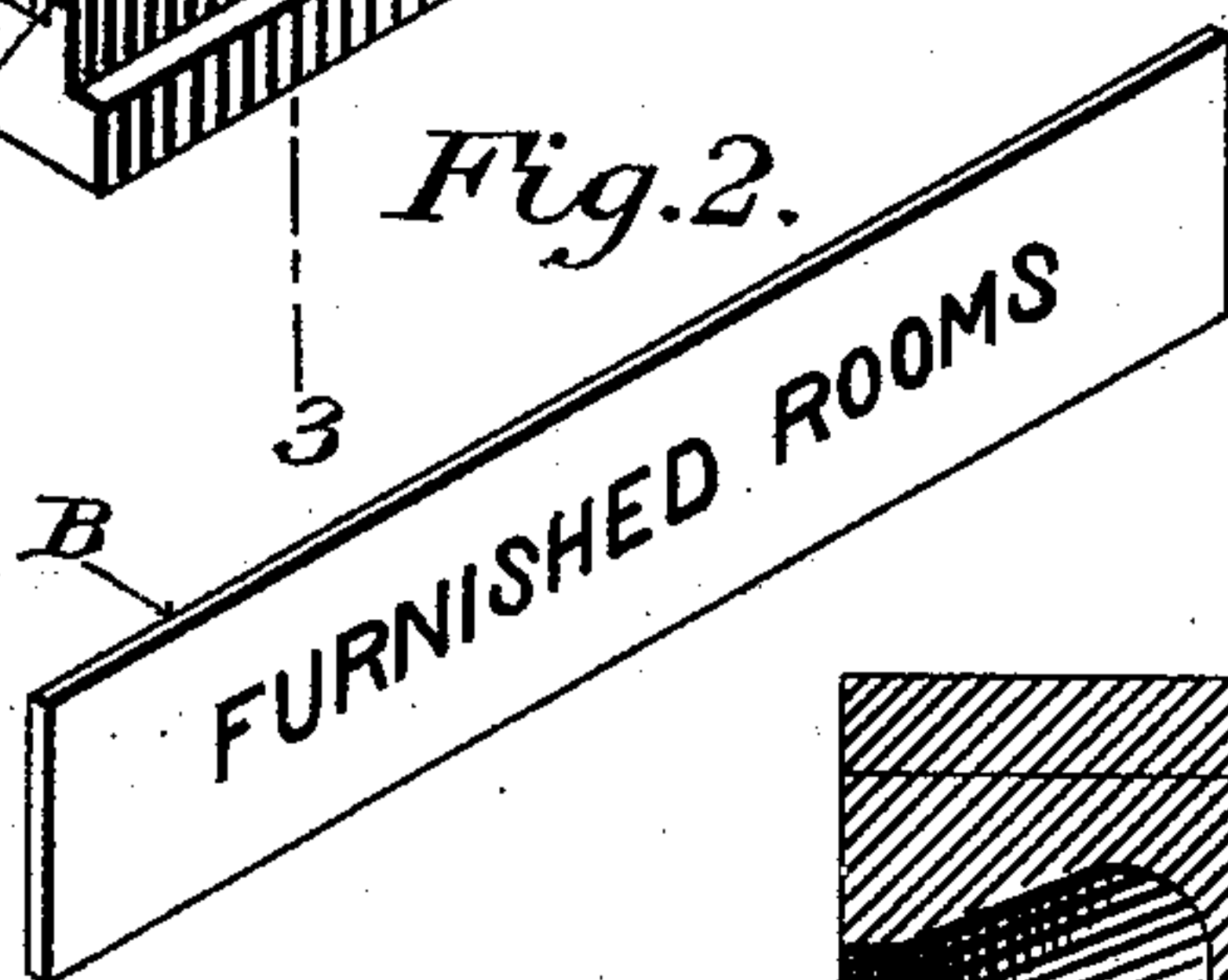


Fig. 3.

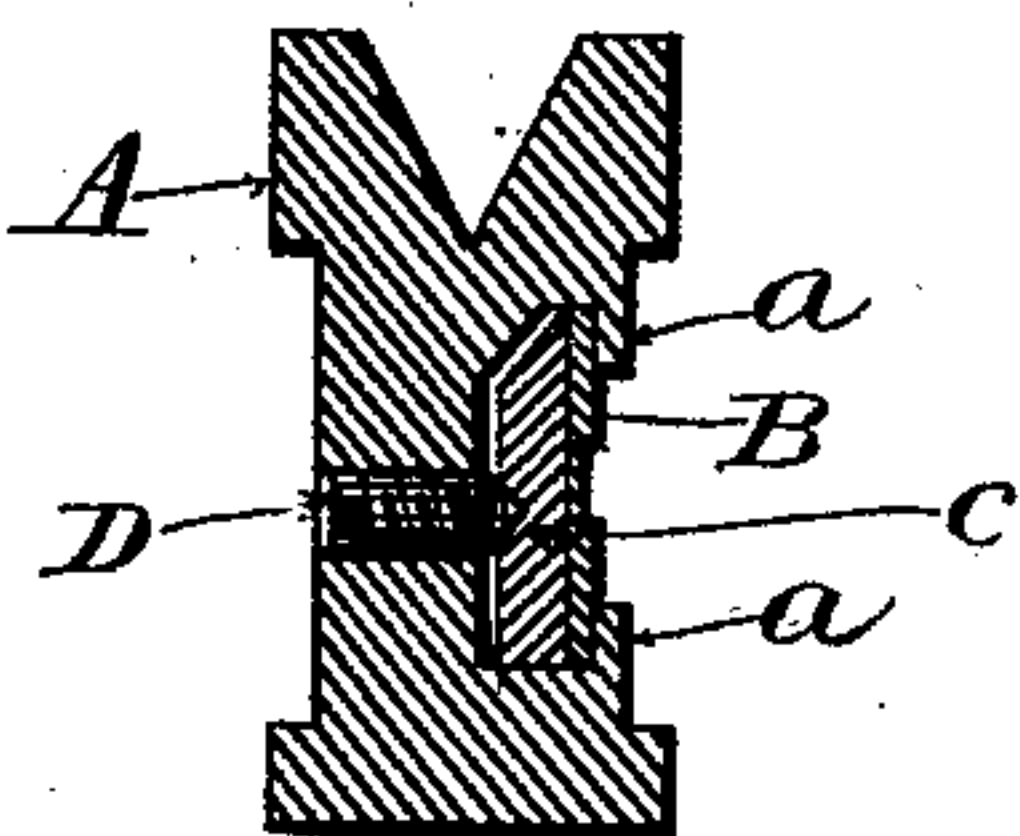


Fig. 4.

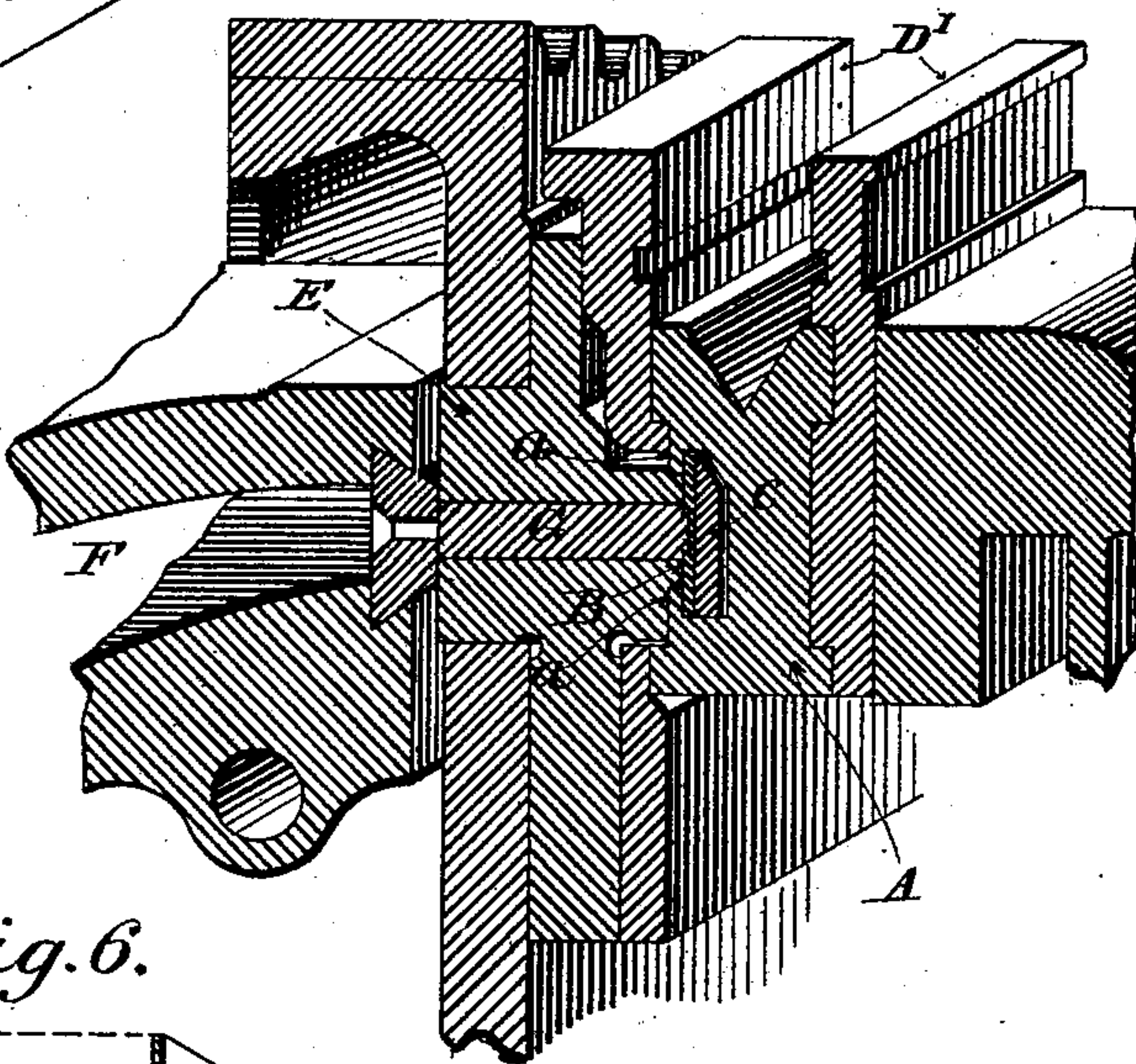


Fig. 5.

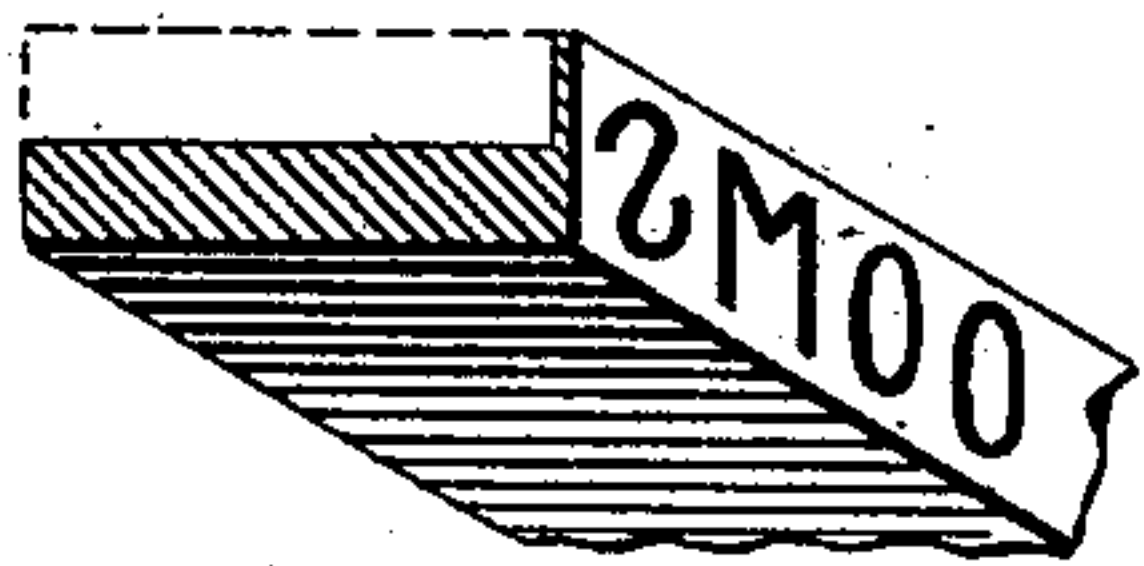
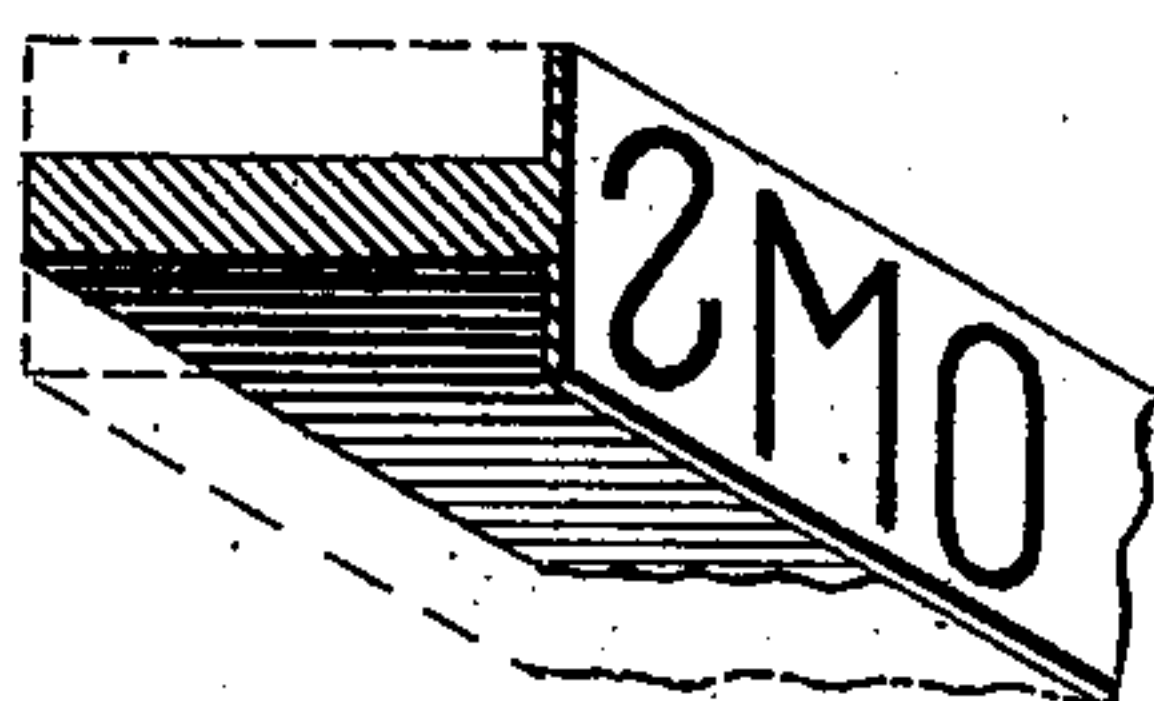


Fig. 6.



Witnesses
J. D. Moore
H. R. Keim

Inventor
G. A. Vassberg
B. C. T. Dodge Attorney

UNITED STATES PATENT OFFICE.

GUSTAF ADOLF VASSBERG, OF STOCKHOLM, SWEDEN, ASSIGNOR TO THE
MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 689,603, dated December 24, 1901.

Application filed October 14, 1901. Serial No. 78,560. (No model.)

To all whom it may concern:

Be it known that I, GUSTAF ADOLF VASSBERG, of Stockholm, Sweden, have invented a new and useful Improvement in Linotype-Machines, of which the following is a specification.

My invention has reference to linotype and kindred machines which produce solid linotypes or slugs having on one edge all the characters to appear in a line of print. These machines contain a large number of character-matrices, which by means of finger-keys are temporarily assembled in line in the order in which the characters are to appear in print and presented with the face of the mold in which the slug or linotype is cast against them, the matrices being distributed after the casting operation to the magazine from which they started. It is sometimes desirable to produce linotypes in limited number of varying characters of the size or style different from those represented in the regular matrices.

The aim of my invention is to provide a simple means whereby the printer may utilize the ordinary commercial type for the production of similar characters from the linotype-slugs.

To this end the invention consists, essentially, in the employment of papier-mâché or similar matrices, made after the ordinary stereotyping method from commercial type, in connection with a holder or support whereby they may be presented in operative relation to the mold of the linotype-machine to take the place temporarily of the ordinary matrices and to form in like manner characters on the edge of the slug or linotype cast in the mold.

While my invention is applicable to all machines using slugs or linotypes, it is intended more particularly for use in connection with machines represented in United States Letters Patent to Ottmar Mergenthaler, No. 436,532, and Patent No. 557,000, and in the accompanying drawings I have represented the devices in the form for such use.

Figure 1 represents in perspective my matrix-support as adapted for the linotype-machine with a papier-mâché matrix in position therein. Fig. 2 is a perspective view of the matrix-strip, of papier-mâché, lead, or similar material. Fig. 3 represents a cross-section

on the line 3 3 of Fig. 1. Fig. 4 is a perspective view of the device in cross-section in position for use in the machine, the adjacent parts which operate directly therewith being also shown in section. Figs. 5 and 6 are perspective views illustrating the slug or linotype in alternative forms.

Referring to the drawings, Fig. 1, A represents a metal body having a sectional form similar to that of the ordinary single-letter matrices used in the Mergenthaler machine and adapted to be inserted in the machine in front of the mold, as in Fig. 4, to occupy the position commonly occupied by the assembled line of small matrices. This body A is grooved or channeled longitudinally in its front face to receive the matrix-strip B, which is held firmly in place by the longitudinal lips *a*, formed on the body and engaging over the edges of the strip, and by a follower-plate *c*, which is seated in the groove behind the matrix-strip proper and pressed forward by screws *D*, passing through the back of the body, or by any other suitable pressure device.

The matrix B consists of a strip of papier-mâché or other material adapted to receive and maintain a sharp impression from ordinary printers' type and to retain the impressions when molten type-metal is flowed against it. I commonly produce these matrices by assembling the line of ordinary printers' type in the desired order and pressing these type into the matrix metal in a stereotyping-press, a printing-press, or otherwise. Care should be taken to have the impression a predetermined depth below the front surface of the strip and this in order that the slug or linotype cast against the same may be exactly type high or, in the language of the printer, of proper height to paper.

After the matrix-strip is inserted in the block or support the letter is introduced into the linotype-machine in front of the mold to occupy the same position that the ordinary assembled line of single-letter matrices occupies. This is clearly shown in Fig. 4, in which the holder A is supported in the usual matrix-supporting yoke *D'*, commonly known as the "first" elevator.

It will be observed that the matrix-strip is presented directly against the front face of

the slotted mold E, which is temporarily closed at the back by the mouth of the melting-pot F, which is provided with the usual plunger or piston to effect the delivery of the molten metal into the mold and against and into the characters in the matrix-strip B. In this manner I produce a slug or linotype G, having on its front edge in relief the counterpart of the female character in the matrix-strip.

It will of course be understood that the matrix-strip may be made of any length desired and that the mold will have a slot to produce a slug of corresponding thickness.

The advantages of my invention lie in the fact that I am able to produce by means which are always at hand in the printing-office slugs having characters of styles and sizes different from those of the matrices forming part of the machine.

Another advantage lies in the fact that I am able to produce for special purposes slugs having characters larger than those which can be practically employed in the single-letter metallic matrices. In this manner head-lines, date-lines, advertising-slugs, and lines for other special purposes demanding large characters may be readily produced in the linotype-machine without any change whatever therein.

It is obvious that the paper matrix may carry characters of the height greater than the thickness of the mold-slot, in which case the lettered edge of the slug may overhang one or both sides of the body, as shown in Figs. 5 and 6. When these slugs are used,

the overhanging edges will be sustained by a blank slug set thereunder, as indicated by dotted lines, every linotype-machine being adapted for the production of these blank slugs.

Having thus described my invention, what I claim is—

1. A matrix-holder A, adapted for insertion in a linotype-machine, and grooved to receive and retain matrix-strip B, in combination with a follower or pressure mechanism to support and secure the matrix-strip.

2. The longitudinally-grooved block A, having lips *a*, in combination with the inserted matrix-strip B, and a follower or pressure device behind the matrix-strip.

3. In a linotype-machine, the combination of the mold E, block A, inserted matrix-strip B, adjustable pressure device for confining the matrix-strip in exact position required in the block, and means for supporting the block in front of the mold.

4. In a linotype-machine, the combination of a slotted mold E, a matrix-strip B, having characters therein and adapted to cross the slot of the mold and overlap its face, and a support for said strip adapted to hold the same firmly against the face of the mold.

In testimony whereof I hereunto set my hand, this 23d day of September, 1901, in the presence of two attesting witnesses.

GUSTAF ADOLF VASSBERG.

Witnesses:

A. NORRMAN,

J. A. KARLSSON.