

No. 668,457.

Patented Feb. 19, 1901.

J. R. ROGERS.
LINOTYPE MACHINE.

(Application filed Dec. 26, 1900.)

(No Model.)

Fig. 1.

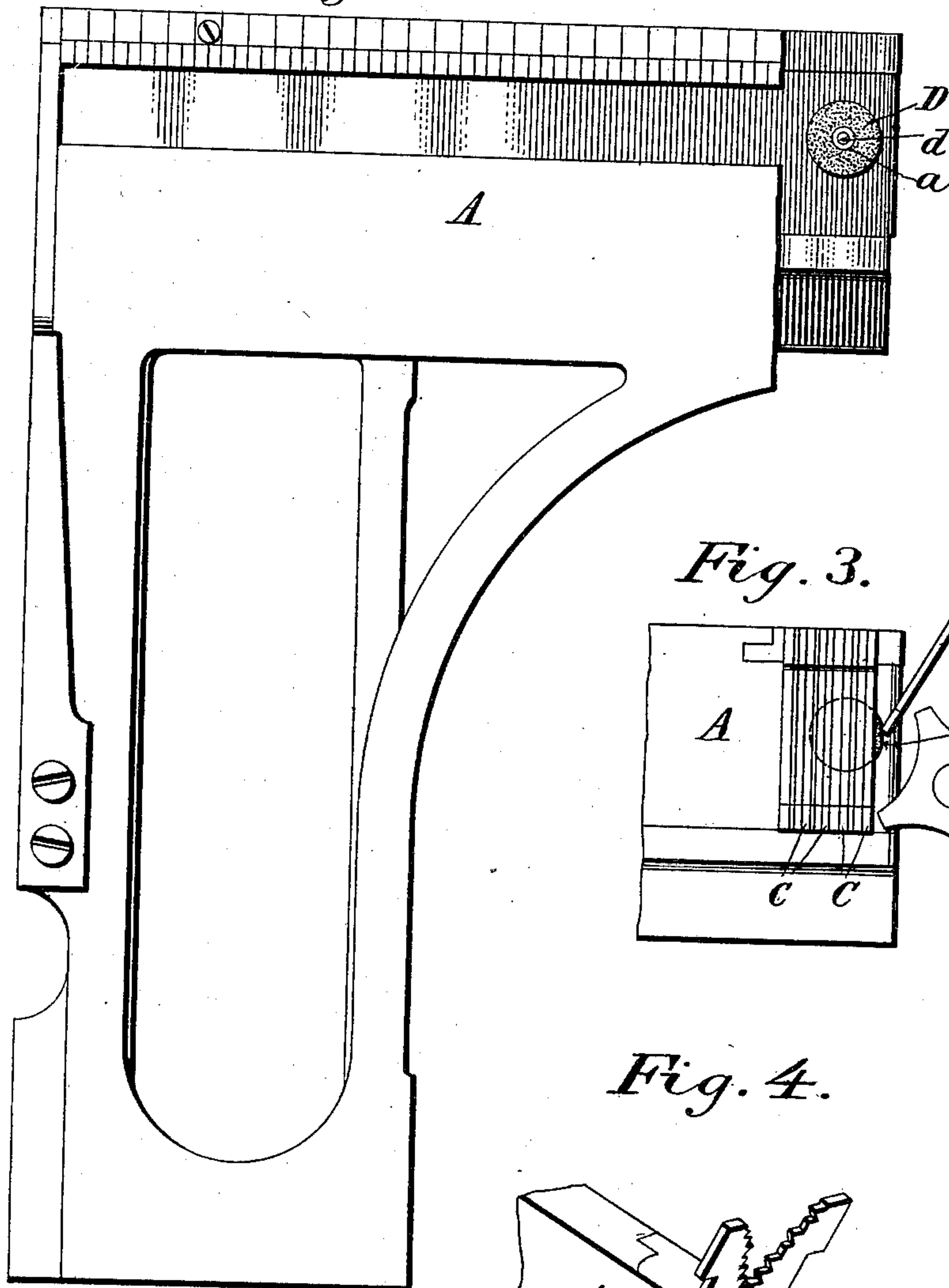


Fig. 2.

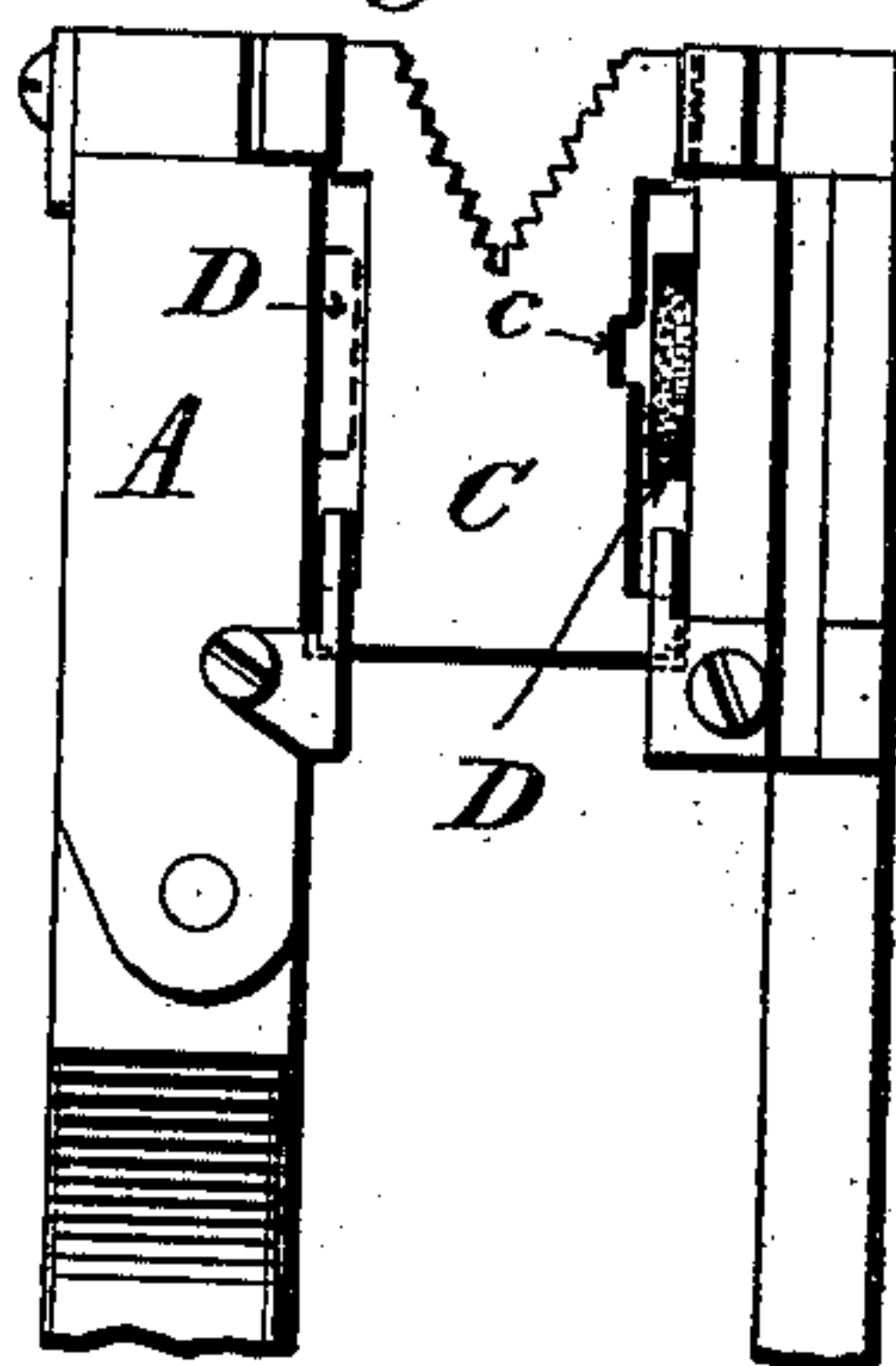


Fig. 3.

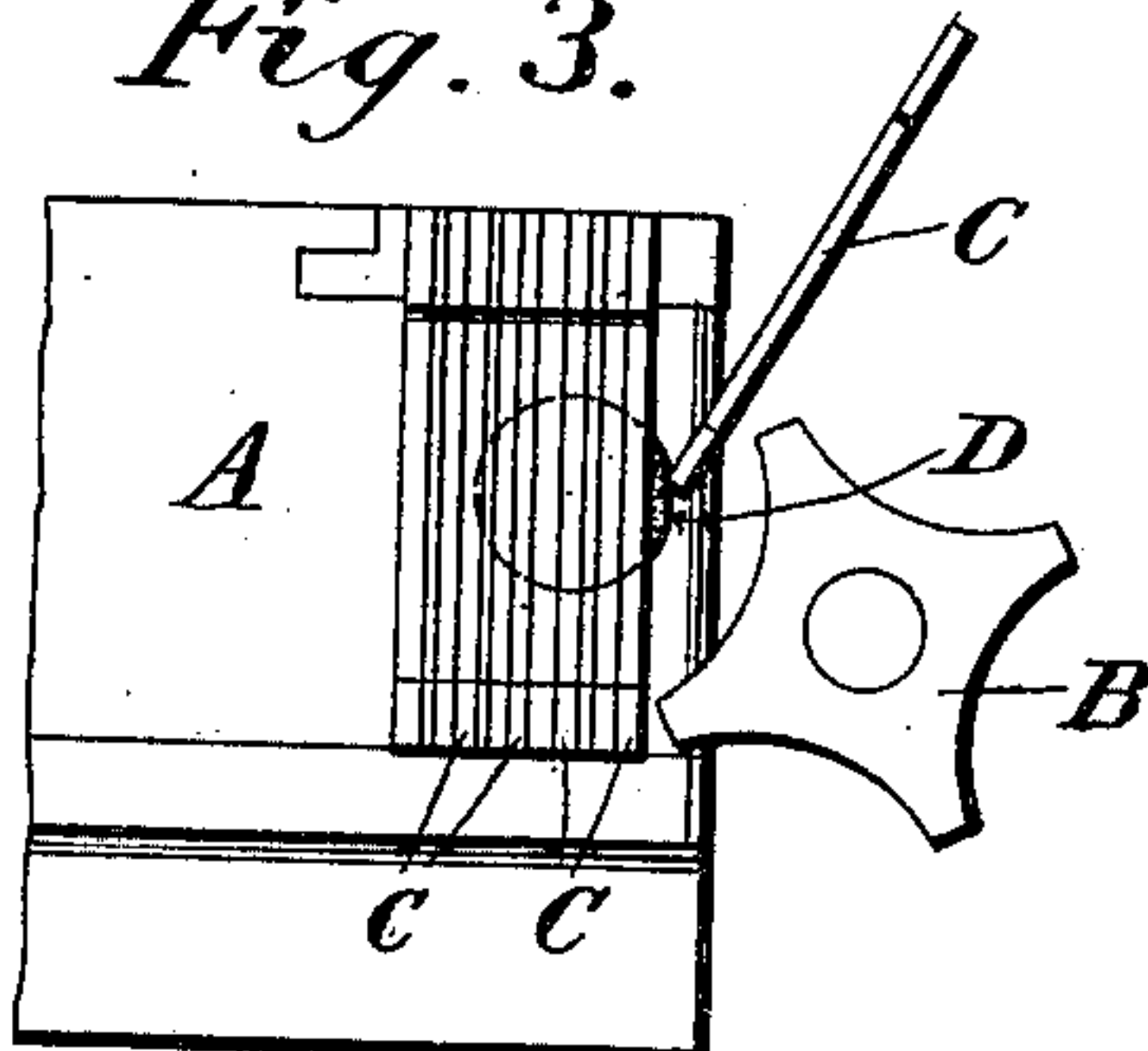
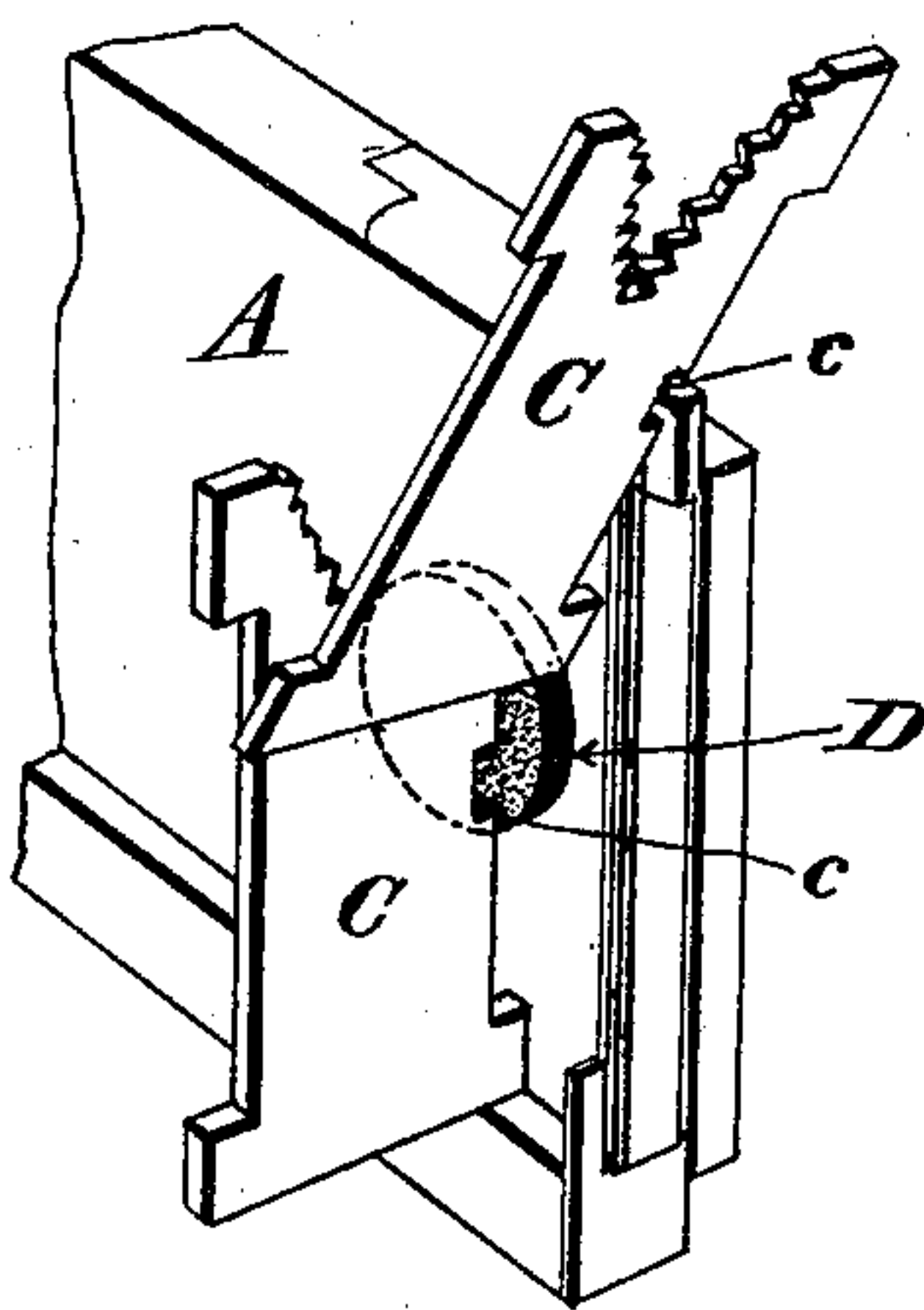


Fig. 4.



WITNESSES:

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LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 668,457, dated February 19, 1901.

Application filed December 26, 1900. Serial No. 41,043. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. ROGERS, of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Linotype-Machines, of which the following is a specification.

My invention has reference to linotypes and analogous machines in which metal matrices are assembled in line, the matrices being delivered one after another to the end of the line in course of construction.

The invention is more particularly intended for use in the well-known Mergenthaler linotype-machine, such as represented in Letters Patent of the United States No. 436,532.

In the machines each matrix has a female character or matrix proper in one edge, and in practice it is found that as each matrix approaches the end of the line it is liable to strike the side wall of the character in the preceding matrix, indenting or mutilating the same in such manner as to cause the production of imperfect characters and also the production of fins or burs in the edge of the linotype in consequence of the metal flowing into the space between the indented wall of one matrix and the side of the next.

The object of my invention is to prevent this destructive action of the matrices; and to this end it consists in introducing into the assembler or other device in which the line is composed and in the path of the descending matrices a cushion or buffer in such position that the descending matrix encountering the buffer will be prevented from striking the preceding matrix at a dangerous point. In the form shown the buffer consists of a small disk of rubber or equivalent yielding material seated on the side wall of the assembler.

The drawings illustrate my device in connection with the assembler of the commercial linotype-machine.

Figure 1 represents a front view of the assembler with a portion of the front wall broken away in order to expose to view the buffer on the front of the rear wall. Fig. 2 is an end view of the assembler viewed from the receiving end and showing the relation of the buffer to the matrices in the line. Fig. 3 is a view looking rearward and illustrating the manner in which a matrix is kept out of

contact with the preceding matrix as it assumes position at the end of the line. Fig. 4 is a perspective view of the parts shown in the preceding figure, looking rearward.

Referring to the drawings, A represents the assembling-elevator of the linotype-machine slotted and shouldered horizontally, so that the matrices delivered in a downward direction therein would be assembled and held in line side by side.

B represents the rotary star-wheel, forming part of the usual assembling mechanism and serving to crowd the matrix-line forward to the left in order to make room for the entrance of the successive matrices.

C C represent the matrices in the usual form, with shoulders protruding edgewise at the upper and lower ends and with the matrix proper, *c*, in the rear edge. Each matrix approaches the line in a downward direction, with its lower end advanced, as shown in Figs. 3 and 4, so that in the absence of any safeguard to prevent the lower end of the incoming matrices is liable to strike the side wall of the character in the preceding matrix.

D represents the device forming the subject of my invention. In the form shown it consists of a thin elastic disk, preferably of rubber, mounted on the rear vertical wall of the assembler so that it stands opposite the rear faces of the assembled matrices between the upper and lower ears. It extends to the right beyond the character or letter on the end matrix and is at such height that the lower ear of each descending matrix encounters the edge of the disk, as shown in Figs. 3 and 4, whereby the matrix is kept out of contact with its predecessor until its end has descended below the character proper. In other words, the right-hand edge of the disk serves as a guard or buffer against which the lower end of each matrix impinges and by which the matrix is positively held away from the one at the end of the line until its lower end has descended so far that there is no possibility of injury to the preceding matrix. The disk is preferably provided, as shown, with a central eyelet or bushing *a*, and kept in place by slipping it over a stud or pin on the rear wall of the assembler. This arrangement admits of the disk being instantly

removed and replaced by a new one when worn, and also admits of its rotating freely for the double purpose of equalizing the wear on its edge and of facilitating the descent of the matrix.

While I prefer to employ the buffer of circular form, it is to be understood that it may be made in any other form desired and that it may be secured in place by any suitable means, the only requirement being that it shall stand in the path of the descending matrix and in such position as to prevent said matrix from injuring the one next in advance.

If desired, a second buffer, in all respects similar to the one above described, may be arranged on the front wall of the assembler directly opposite the one at the rear, as indicated by dotted lines in Fig. 2; but under ordinary circumstances this is unnecessary.

It will of course be understood that my device is applicable to all machines in which matrices are delivered one after another to the end of a line in course of composition and that it may be varied in form and arrangement to suit the requirements in each case, provided it has a mode of action substantially such as that herein described.

What I claim as my invention is—

1. In the assembling mechanism of a linotype-machine, a yielding buffer arranged in

the path of the incoming matrices substantially as described to prevent them from striking the characters of the preceding matrices.

2. In a linotype-machine, a yielding buffer arranged to project beyond the end of the composed line into the path of the incoming matrices.

3. In a linotype-machine, a yielding buffer arranged on the wall of the assembler in position to pass the upper and lower ears of the assembled matrices.

4. In a linotype-machine, a rotary buffer arranged in the path of the ears of the incoming matrices substantially as described.

5. In a linotype-machine, a circular elastic buffer mounted on the rear wall of the assembler substantially as described.

6. In a linotype-machine, an assembler A adapted to receive and sustain the matrices, a rotary wheel B to advance the matrix-line therein and a yielding buffer D arranged within the assembler substantially as described and shown.

In testimony whereof I hereunto set my hand, this 21st day of December, 1900, in the presence of two attesting witnesses.

JOHN R. ROGERS.

Witnesses:

FREDERIC C. WHEELER,
JOHN PAULSEN.