

No. 828,553.

PATENTED AUG. 14, 1906.

D. S. KENNEDY.
LINOTYPE MACHINE.
APPLICATION FILED APR. 14, 1906.

Fig. 1.

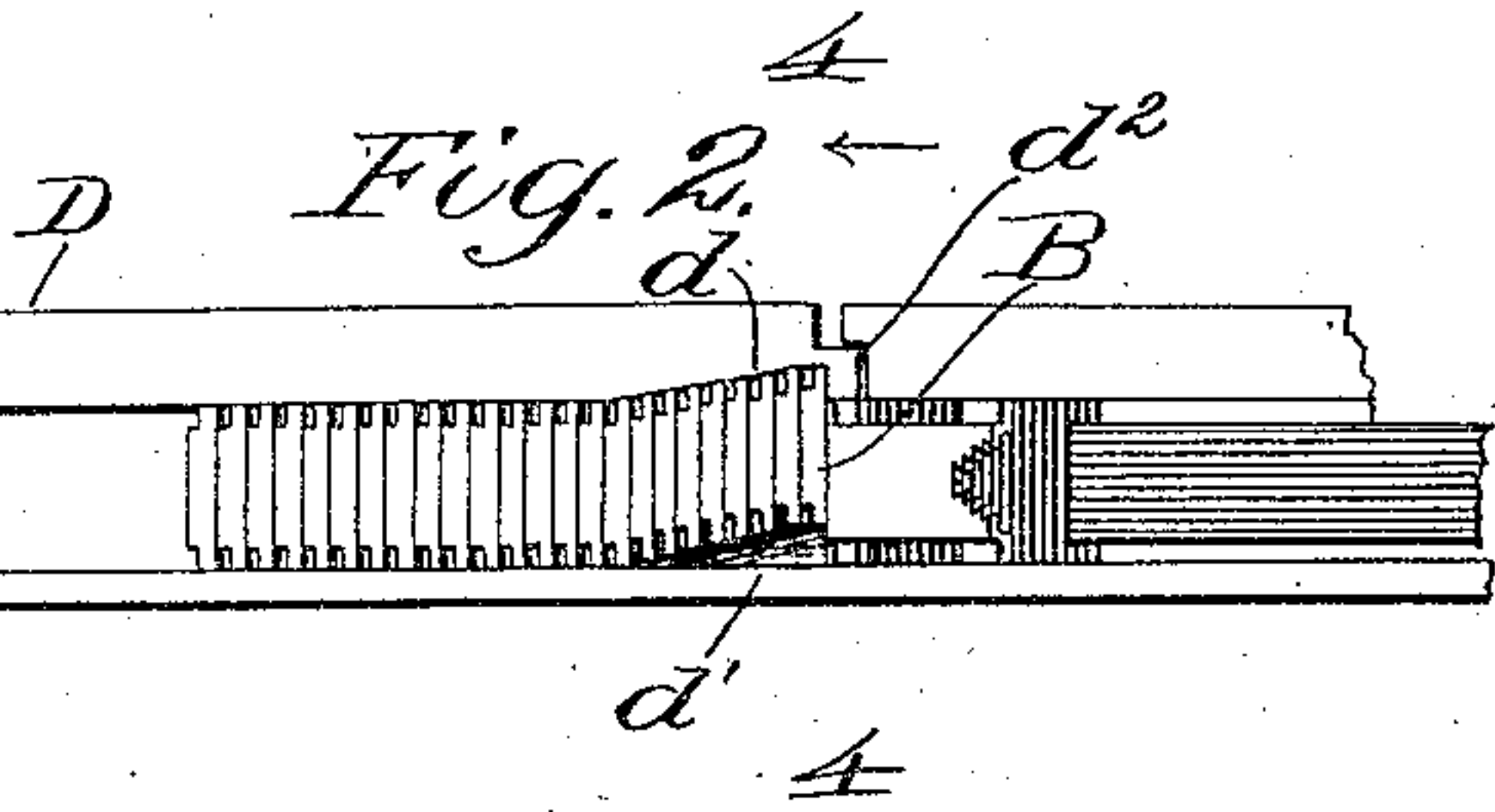
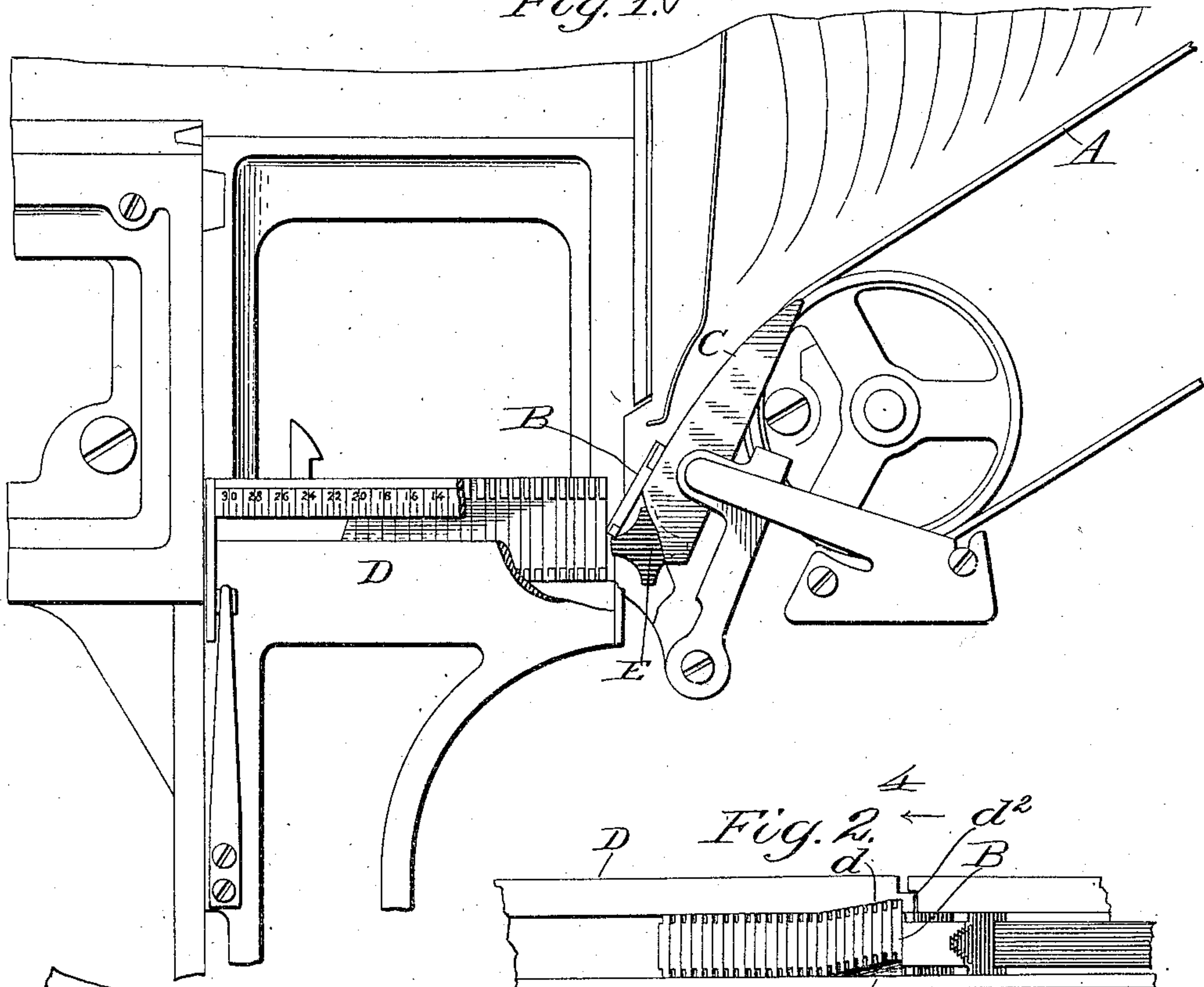


Fig. 3.

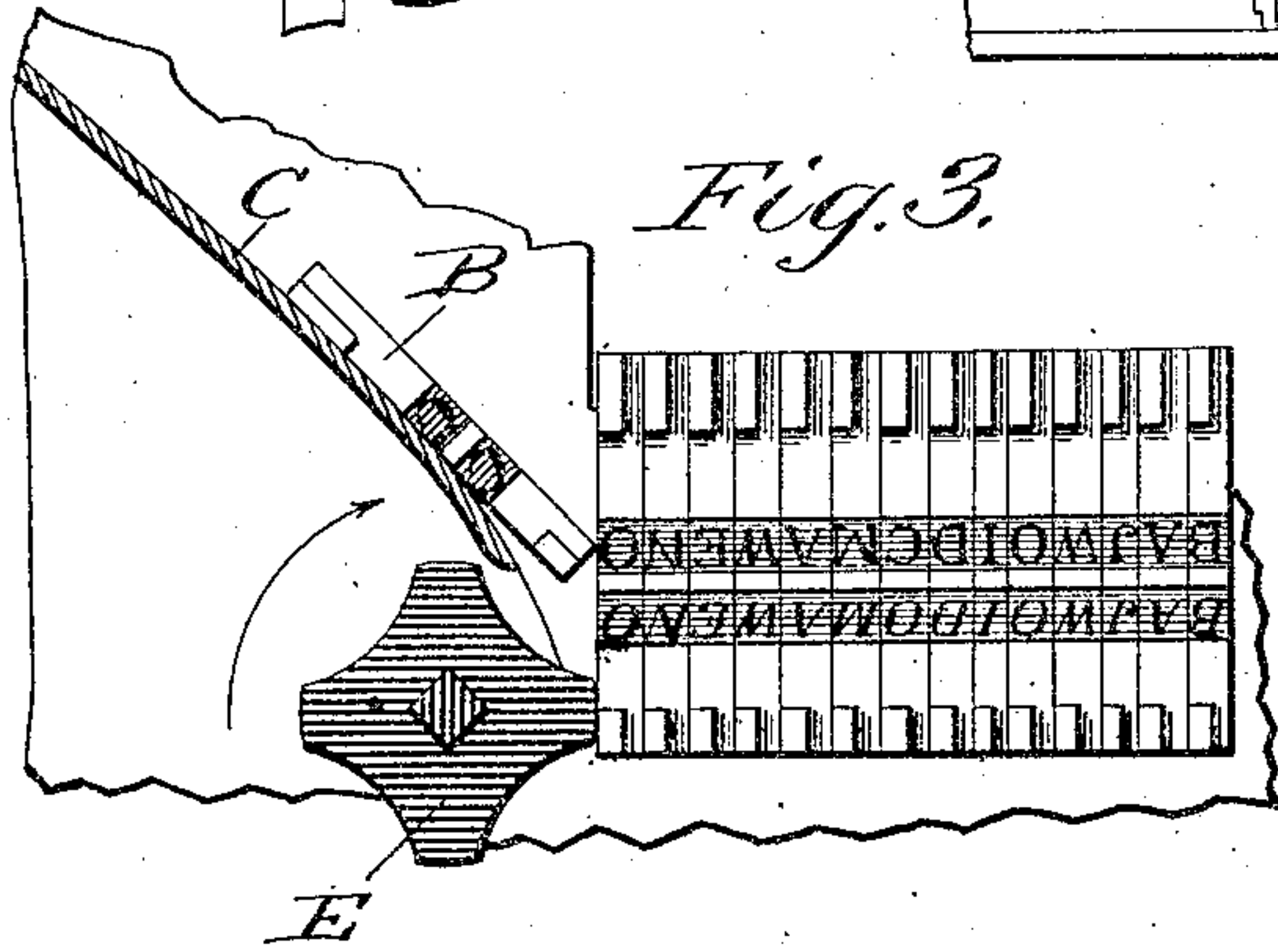
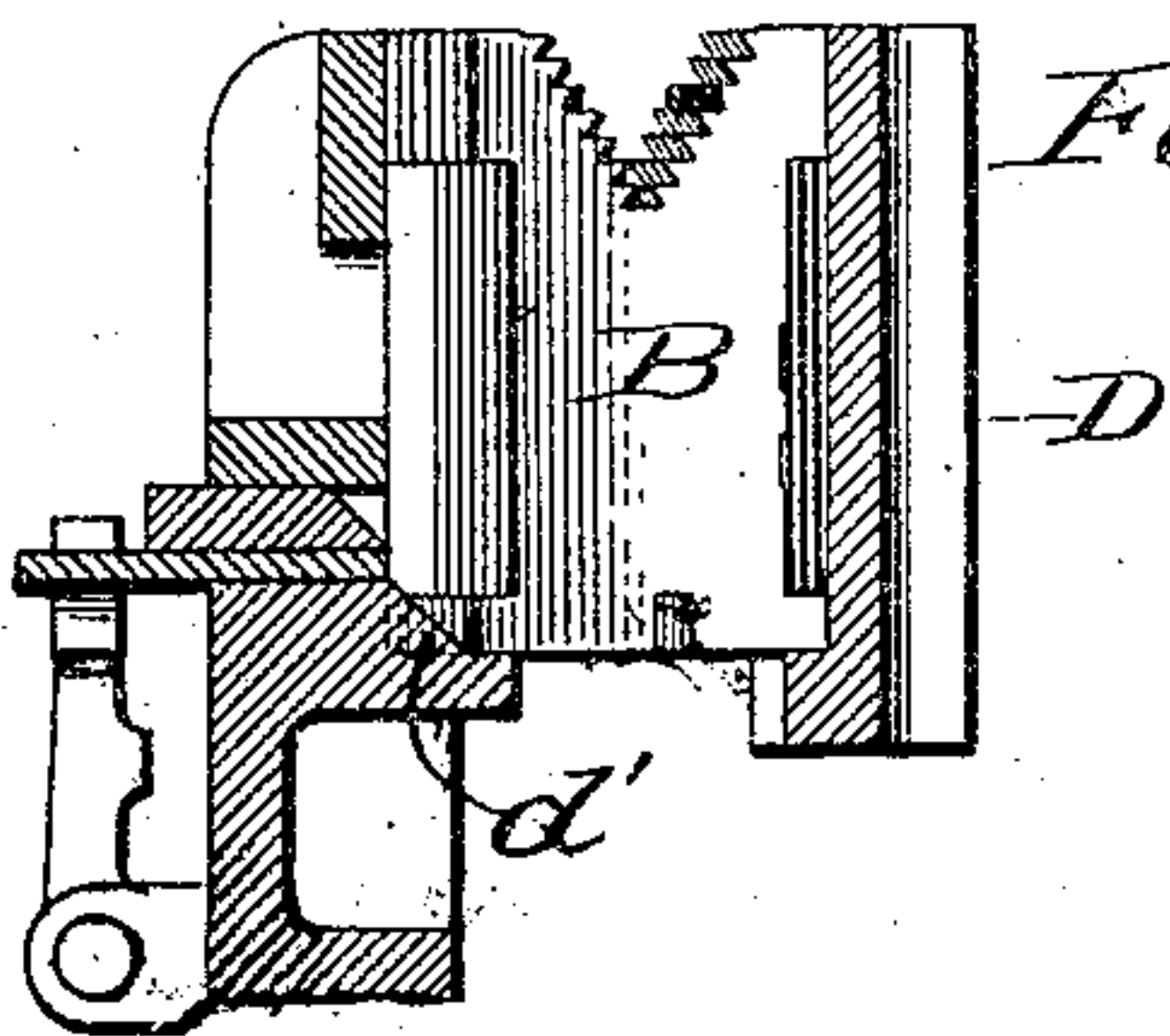


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DAVID S. KENNEDY, OF NEW YORK, N. Y., ASSIGNOR TO MERGENTHALER
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LINOTYPE-MACHINE.

No. 828,553.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed April 14, 1906. Serial No. 311,723.

To all whom it may concern:

Be it known that I, DAVID S. KENNEDY, of Brooklyn, New York city, 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.

This invention relates to linotype-machines—such, for example, as that represented in Letters Patent of the United States No. 436,532, wherein circulating matrices are delivered one after another from a magazine and assembled side by side in line for presentation to the casting mechanism.

The invention has reference more particularly to improvements in the assembling devices, having in view the prevention of the injury which matrices at the end of the lines are liable to receive from the impact of the oncoming matrices.

In the machine referred to the matrices descend one after another on an inclined belt, from which they are delivered over an inclined-surface one after another into a channeled assembler or support subject to the action of a rotary star-wheel, which guides them sidewise against the line, at the same time moving the latter endwise. Each downcoming matrix approaches the line in an inclined position, and its lower end striking against the side of the preceding matrix which is for the moment at the end of the line is liable to drive in the side wall of its character or matrix proper.

The object to be gained by the present invention is to overcome this mutilation of the matrices; and to this end it consists, broadly, in shifting the matrix at the end of the line edgewise to such a position that its character will be beyond the reach of the next downcoming matrix. I prefer to obtain this result by giving a lateral deflection to the assembler-channel, which receives the matrices, and I have shown such a construction in the accompanying drawings; but it is to be understood that any equivalent construction which will give similar movement to the matrices will fall within the scope of my invention.

Referring to the drawings, Figure 1 is a front elevation of the assembling mechanism having my improvement embodied therein. Fig. 2 is a top plan view of the assembler and the adjacent parts. Fig. 3 is an elevation

looking forward against the rear face of the line of matrices in course of composition. Fig. 4 is a cross-section on the line 4 4, Fig. 2.

Referring to the drawings, A represents an inclined traveling belt on which the matrices B are delivered one after another as they are selected and released from the magazine.

C is an inclined surface forming a continuation of the surface of the belt and serving to guide the matrices downward therefrom.

D is the "assembling-elevator," so called, having in its upper surface a horizontal channel or slot into which the matrices are delivered one after another.

E is a vertically-revolving star-wheel in front of which the matrices are delivered and by which they are crowded forward one after another into the assembler and against the end of the line, the line being at the same time advanced to admit the next succeeding matrix.

So far as described the parts are all of well-known construction and operate in the ordinary manner.

Heretofore the assembler-channel, which receives the matrices, has been straight horizontally, and as a result the end of the downcoming matrix striking the side of the preceding matrix in the manner indicated in Fig. 3 was liable to batter in the side wall of its character. In order to overcome this difficulty, I deflect the receiving end of the assembler-channel horizontally rearward, as shown at *d*, Fig. 2, and incline or bevel the forward wall of the channel at the lower side, as shown at *d'*, Figs. 2 and 4, in such manner that as each matrix settles to its place at the end of the line its lower corner will ride against the inclined surface *d'*, whereby the matrix is compelled to move edgewise in a rearward direction far enough to carry the matrix character in its edge beyond the path of the downcoming matrix. In other words, each matrix on joining the line is moved rearward horizontally until its character is carried beyond the reach of the downcoming matrix. As a consequence the mutilation of the matrices is prevented.

At the extreme end of the channel a vertical lip *d²* is formed in such a position that the end matrix will engage behind it, and thus be prevented from falling over or moving outward to the right. This lip serves, it will

be seen, the same purpose as a pawl or detent to hold the end matrices in position and overlapping the edge of the matrix on the side. The lip serves also as a guard or fender to protect the edge of the matrix and the character therein.

The essence of the invention lies in providing means whereby the matrix at the end of the composed line is moved edgewise far enough to carry the contained character beyond the path of the next incoming matrix, and any form and arrangement of parts which secures this result in substantially the manner indicated is included within the scope of my invention.

Having described my invention, what I claim is—

1. In a matrix-composing mechanism, means for assembling the matrices successively in line and means for moving the incoming matrices edgewise to carry the contained characters beyond the path of the following matrices, whereby the character in the end matrix is protected from injury by the following matrix.

2. In a matrix-composing mechanism,

means for assembling the matrices successively in line, means for moving the end matrix edgewise on joining the line, and means for covering the rear edge of such matrix.

3. In a linotype-machine, in combination with means for delivering matrices successively thereto, the assembler having its channel deflected laterally at the receiving end substantially as shown.

4. In a matrix-composing mechanism, the combination of a star-wheel, means for delivering matrices successively thereto, and the assembler having a channel deflected at the rear and provided with lip d' .

5. In combination with means for delivering matrices successively thereto, the assembler having a deflected surface d , and an inclined surface d'' .

In testimony whereof I hereunto set my hand, this 27th day of March, 1906, in the presence of two attesting witnesses.

DAVID S. KENNEDY.

Witnesses:

ERNEST C. MORIARTY,
R. G. CLARK.