No. 759,502. PATENTED MAY 10, 1904.

J. N. CROFUT.

LINOTYPE MACHINE.

APPLICATION FILED MAR. 10, 1904.

NO MODEL.

Fig. 1.

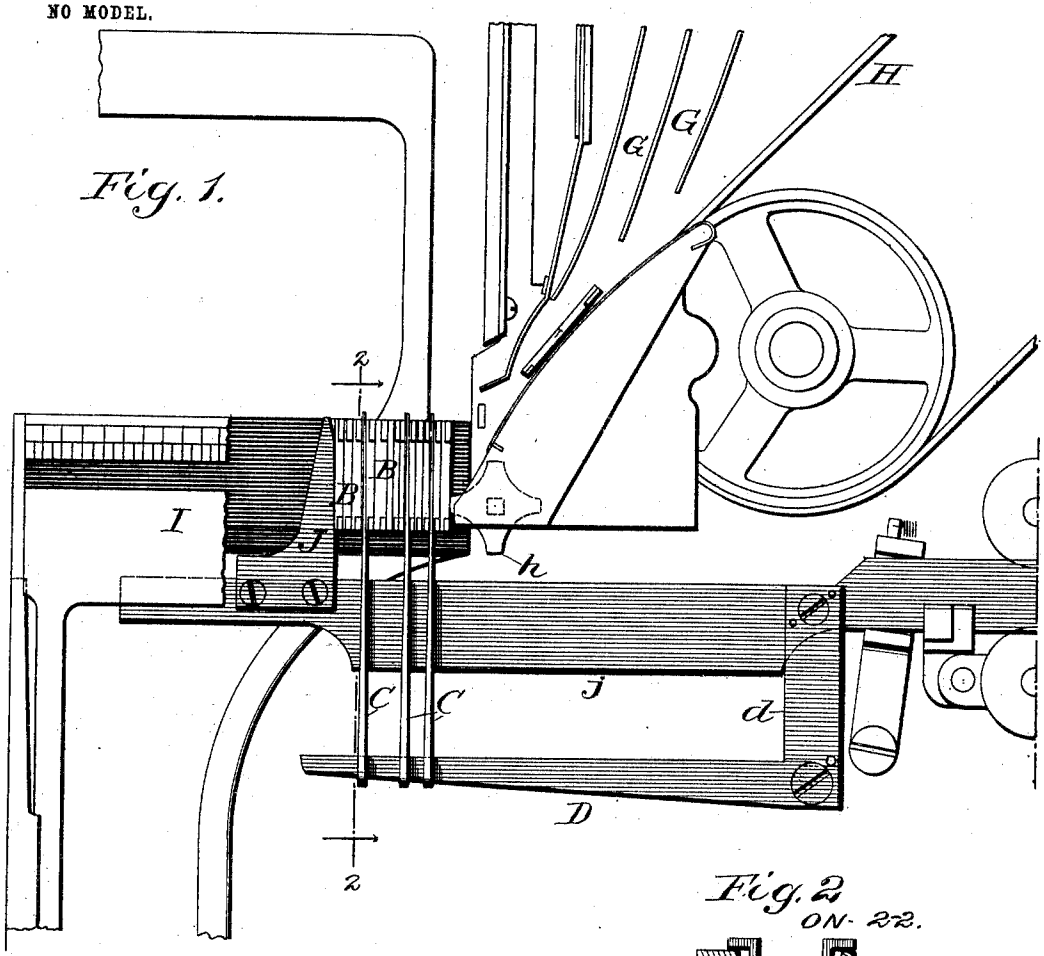


Fig. 2

ON 22.

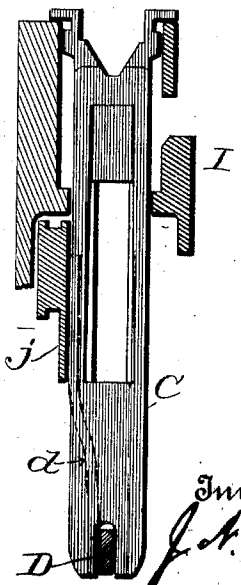
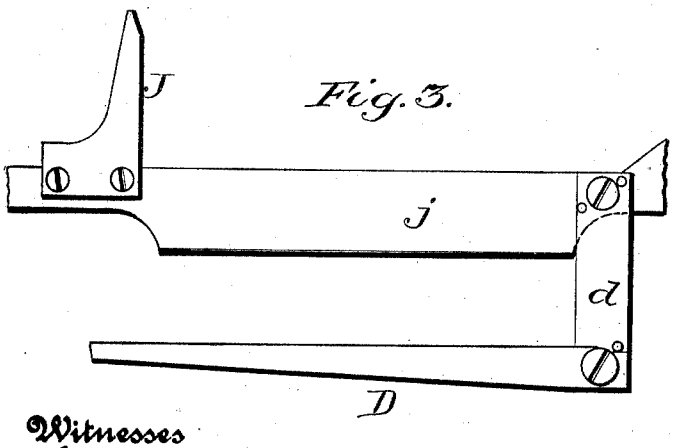


Fig. 3.



Witnesses

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No. 759,502. Patented May 10, 1904.

UNITED STATES PATENT OFFICE.

JAMES N. CROFUT, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 759,502, dated May 10, 1904.

Application filed March 10, 1904. Serial No. 197,505. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. CROFUT, 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 relates to improvements in Mergenthaler linotype-machines of the organization represented in Letters Patent No. 436,532, wherein matrices stored in the magazine are individually released in the proper order, assembled in line, the justified line presented to the face of a mold in which the linotype or type-line is cast against them, and the matrices finally returned through a distributer to the magazine. In these machines the individual type are delivered successively side by side into an assembler, in which they are held in line. The increasing line advances against a yielding resisting-finger on a horizontal slide, and from time to time expanding wedge spacers or justifiers are delivered into the line between the matrices, their lower ends hanging below the matrices.

My invention relates to improved means for checking the descent of the spacers as they enter the line in order to relieve their upper supporting-ears from shock or strain, to facilitate the advance of the spacers with the expanding line, and to hold the spacers in position and prevent them from falling down when the front gate of the assembler is opened for the purpose of inspecting or correcting the line.

The improvement consists in providing the assembler-slide or other movable support with a horizontal finger underlying the assembler and in position to receive and carry the lower ends of the spacers when they are assembled in the line and while the latter is advancing horizontally.

All parts of the machines not described herein may be of ordinary or any approved construction.

Referring to the accompanying drawings, Figure 1 represents in outline the assembling mechanism of the linotype-machine with my improvement incorporated therein. Fig. 2 is a transverse section of the same on the line 2 2, and Fig. 3 a side elevation of the assembler-slide with my improvement attached.

Referring to the drawings, G G represent the channels through which the individual matrices descend from the magazine in the order in which their characters are to appear in print.

H is an inclined belt upon which the matrices fall and by which they are carried downward and forward toward the assembler.

h is a revolving star-wheel, in front of which the matrices are delivered in an upright position and by which they are pushed forward horizontally in the revolving groove or channel in the top of the assembler I and against the resisting-finger J, which is carried on the end of a horizontal slide *j*, mounted in the frame and urged constantly to the right by a spring or weight, this slide being checked as it is pushed to the left by a friction-dog or other retaining device, which for the time being prevents its return to the right.

B B represent the matrices assembled in line in the assembler, and C C are the elongated spacers or justifiers representing the word-spacers and located in the line between the matrices, their upper ends being provided with laterally-projecting ears by which they are suspended while traveling through the machine.

The foregoing parts may all be of the ordinary construction, and they correspond with the parts bearing the like letters in the drawings of Letters Patent No. 436,532.

D represents the feature constituting the subject of the present invention. It consists of a horizontal finger underlying the slide in position to receive and sustain the lower ends of the spacers C as the latter assume their final positions in the matrix-line. The bar D is rigidly sustained by a bar or plate *d* at the right hand, connecting it with the assembler-slide. The spacers descending through the line to the position shown bear at their lower ends on the upper edge of the bar D, which is at such height as to prevent the ears of the matrices from striking the upper edges of the assembler. In this way the descent of the

spacers is checked by the bar D and their upper ears relieved from the shock and strain to which they would be subjected if permitted to strike the assembler. The lower ends of the spacers are commonly provided with a transverse notch, and when so constructed they will straddle the bar D, which will serve to prevent them from turning or twisting out of position and also hold them in position so that their upper ends would fall forward out of the line of matrices when the front hinged gate of the assembler is opened, as is frequently done for the purpose of gaining access to the matrices to rearrange them or to make corrections in the line. The support D may be varied in form and arrangement, provided only it is adapted to receive the lower ends of the spacers and to move forward with them as the line elongates in the course of composition.

Having described my invention, what I claim is—

1. An assembler-slide for a linotype-machine, provided with a buffer or support to sustain the wedge spacers

2. The assembler-slide for use in a linotype-machine, carrying a resistant for the forward end of the matrix-line and a support for the wedge spacers.

3. The assembler-slide for a linotype-machine, having the finger to resist the forward end of the matrix-line and the underlying arm or buffer to sustain the wedge spacers.

4. In a linotype-machine, the combination of an assembler to receive and aline the matrices, a movable resistant for the advancing line, and a traveling support for the wedge spacers in the matrix-line.

5. In a linotype-machine, the combination of matrices, wedge spacers, an assembling-elevator, means for delivering the matrices and spacers thereto, a yielding resistant for the end of the line in course of composition, and means for supporting and carrying the lower ends of the spacers contained in the line.

6. In a linotype-machine, the combination of the assembler having shoulders to sustain the matrices, means for delivering the matrices and spacers thereto, and an underlying traveling support adapted to sustain the spacers with their shoulders out of contact with the assembler.

In testimony whereof I hereunto set my hand, this 29th day of February, 1904, in the presence of two attesting witnesses.

JAMES N. CROFUT.

Witnesses:
WILLIAM H. RANDALL,
L. B. MOREHOUSE.