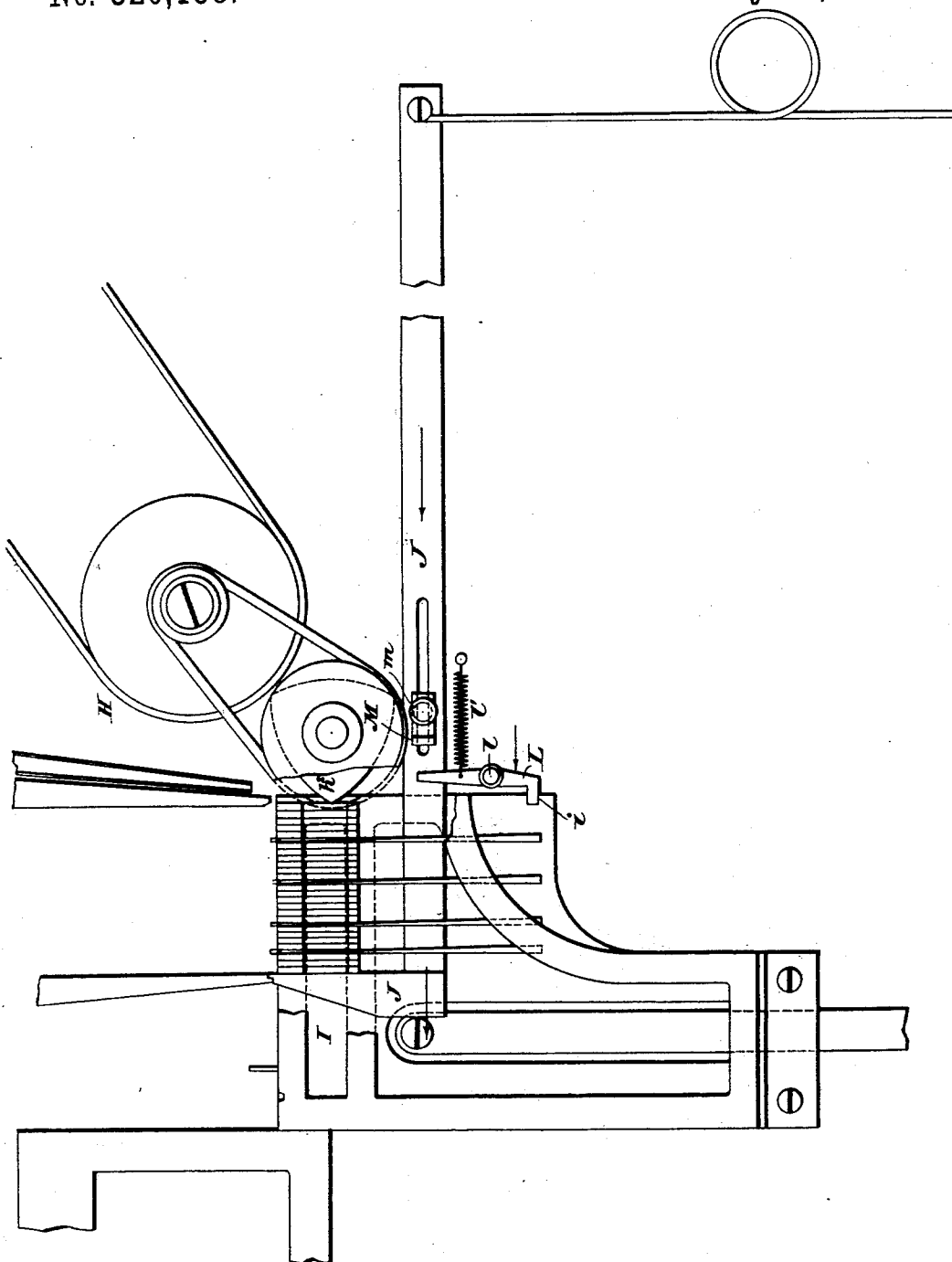


(No Model.)

P. T. DODGE.
LINO TYPE MACHINE.

No. 520,158.

Patented May 22, 1894.



Witnesses:

Raymond Barnes.
E. L. Thrasher

Inventor.

P. T. Dodge

UNITED STATES PATENT OFFICE.

PHILIP T. DODGE, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO THE MERGENTHALER LINOTYPE COMPANY, OF NEW YORK, N. Y.

LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 520,158, dated May 22, 1894.

Application filed January 8, 1894. Serial No. 495,968. (No model.)

To all whom it may concern:

Be it known that I, PHILIP T. DODGE, of Washington, in the District of Columbia, have invented a new and useful Improvement in Linotype-Machines, of which the following is a specification.

In a Mergenthaler linotype machine, such as represented in Letters Patent of the United States dated September 16, 1893, No. 436,532, and in other machines of similar character, it is customary to assemble a line of matrices representing type characters, for presentation to a mold in which a slug or linotype is cast against them, the matrices serving to produce the type characters in relief on the edge of the slug.

In order to justify or space out these lines, to the predetermined length, it is customary to insert in the line of matrices at suitable points during its composition, elongated spaces of tapered or stepped form. When the composition of the line has proceeded so far that there is not space sufficient to introduce another word or syllable, the composition ceases and the line is thereafter elongated before or when it reaches the mold, by advancing the spaces therethrough, so that they will present an increased space in the line and thus increase its length, this action being performed automatically.

In practice it is found that there is a tendency on the part of the operator to set the matrix line as short as possible and then permit the mechanism to greatly increase the width of the spaces therein. This results in a bad appearance of the print, and is highly objectionable.

My invention is designed to avoid this difficulty by preventing the operator from sending the composed line forward to the casting mechanism until it exceeds a certain length. In other words, the improvement is intended to compel the operator to set his line within a certain limit of its final length. To this end I propose to combine with the composing devices, a locking mechanism, controlled by the length of the line, to prevent the latter from being carried forward prematurely.

The invention is susceptible of embodiment in a great variety of forms.

In the drawing I have represented a simple

form adapted for application to the patented machine above referred to.

The drawing represents in front elevation the ordinary assembling mechanism of a Mergenthaler linotype machine, with my improvement applied in connection therewith, the front wall of the assembling mechanism being broken away to expose the internal parts to view.

H represents an inclined belt on which the matrices delivered from the magazine, descend to the assembling wheel h^3 , by which they are delivered one after another into the vertically grooved assembling block I. The line is assembled against the upturned end of the resistant J, which is free to slide forward as the line elongates. The spaces are dropped into the line at suitable intervals by delivery mechanism above.

The foregoing parts are all constructed and arranged to operate in the same manner as the correspondingly lettered parts in Patent No. 436,532.

L represents a stop or latch, pivoted at l , to the main frame and arranged to engage at its lower end in a notch i in the side of the assembler block I, in order to hold the latter down. The latch is held normally in engagement by a spring l' , and its upper end stands in the path of a slide or projection M, carried by the resistant J. As the composition of the line progresses, the resistant J moves to the left. When the line reaches the predetermined length less than its final length, or in other words, is filled out as far as possible by complete words or syllables, the projection M acts upon and disengages the latch L, leaving the assembler block I free to be elevated, in order to effect the transfer of the composed line to the mold, in front of which it is justified. It is not possible to transfer the line until the latch is disengaged, and consequently the operator is compelled to continue the introduction of matrices; or in other words, to continue the composition until the line has reached a suitable length.

As the machine is to be adjusted at different times for the production of slugs of different lengths, I commonly make the trip device M adjustable lengthwise of the resistant. This is best effected by mounting it in a slot

therein and securing it by a clamping set screw *m*, as shown.

While I have illustrated the locking device as engaging directly with the assembling elevator, it is to be understood that it may be made in any other suitable form and arranged to engage with any other part of the assembling mechanism, provided only it acts to prevent the transfer of the line until it has assumed the proper length.

Having thus described my invention, what I claim is—

1. In a linotype and in combination with a composing mechanism, a stop device to prevent the premature transference of the line, said device being controlled in its action by the elongation of the line.

2. In a linotype machine the combination

of an assembler block for transferring the line, a resistant actuated by the composed line and a locking device actuated by the resistant and acting in turn to hold the transfer device.

3. In a linotype machine a composing mechanism, means for sustaining and transferring the composed line, and a locking mechanism therefor, normally in engagement, and means actuated by the elongation of the line to disengage said locking device.

In testimony whereof I hereunto set my hand, this 12th day of December, 1893, in the presence of two attesting witnesses.

PHILIP T. DODGE.

Witnesses:

EMILY GOODENOUGH,
S. CRUTCHFIELD.