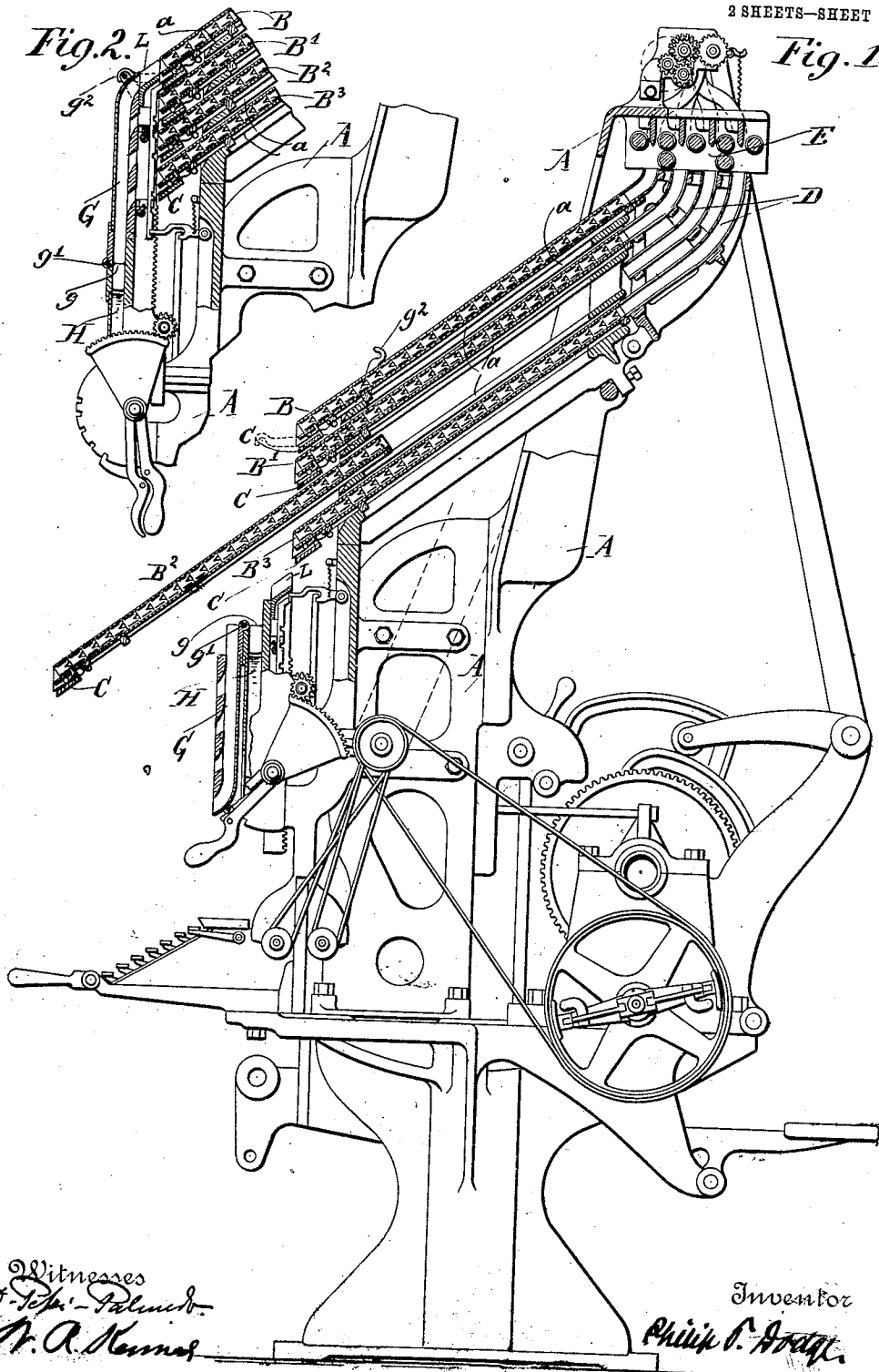


No. 859,170.

PATENTED JULY 2, 1907.

P. T. DODGE.
LINOTYPE MACHINE.
APPLICATION FILED FEB. 2, 1907.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

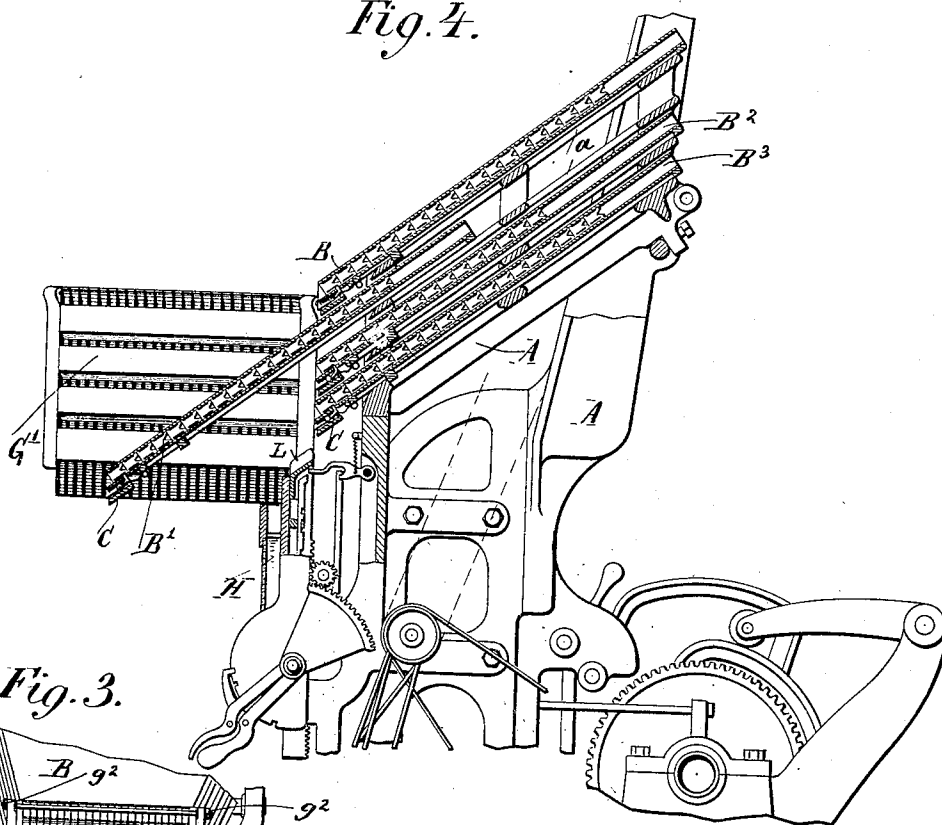


Fig. 3.

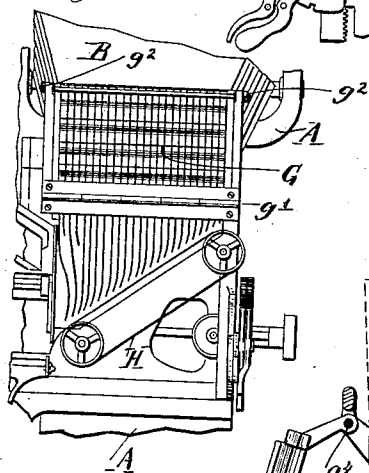
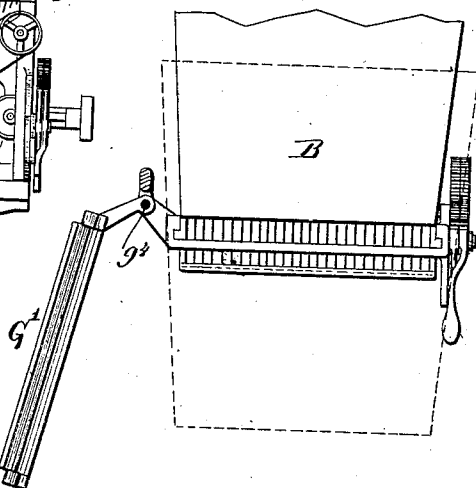


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

PHILIP T. DODGE, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO MERGENTHALER
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LINO TYPE-MACHINE.

No. 859,170.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed February 2, 1907. Serial No. 355,375.

To all whom it may concern:

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

My invention has reference to linotype machines in which the magazines, containing the fonts or sets of matrices, are arranged for removal at will by sliding them forward and downward out of the main-frame, so that they may be replaced by other magazines containing matrices for different faces.

It is designed more particularly for use in the machines in which plural superposed magazines are employed. In these machines, matrices released one at a time from the magazines pass into the vertically channeled plate at the front, through which they descend to the assembling devices below, this channeled plate being variously known as the face-plate, raceway, &c.

The object of the invention is to facilitate the removal of the magazine or magazines one at a time without the necessity of raising them from their operative positions, in order to permit their passage over the face-plate, and to this end it consists in combining with one or more magazines mounted in the frame and adapted to slide forward and downward from the operative position over inclined guides or supports which sustain them during their removal and insertion at the front, a face-plate which is hinged or jointed so that it may be swung away from its operative position, and out of the path of the magazines when the latter are to be removed or inserted.

I believe myself to be the first to provide in a linotype machine having its magazine or magazines adapted to slide outward at the front over inclined supporting means, in any form or manner a face-plate or raceway which is adapted to receive the matrices from the magazines, and which is so mounted that it may be instantly moved to and from its operative position, and it is to be understood that my invention may be embodied in many different forms to this end.

In the drawings I have shown my invention incorporated in a linotype machine of the general organization represented in the application of John R. Rogers, filed February 17, 1906, Serial No. 301,665, but it is to be understood that it is applicable to any kindred machine.

In the drawings,—Figure 1 is a side elevation of the machine with the magazines, face-plate and distributing mechanism shown in vertical cross-section, the face-plate being hung on a horizontal axis and turned away from its operative position and one of the magazines partially removed. Fig. 2 is a similar view, with the magazines and face-plate in operative position. Fig. 3 is a front elevation of the parts shown in the preceding figures. Fig. 4 is a vertical section from front

to rear through the series of magazines and attendant parts, with the face-plate hung on a vertical axis and swung open to permit the outward movement of the magazines. Fig. 5 is a top plan view of the parts shown in Fig. 4.

Referring to the drawings, A represents the main frame of the machine.

B, B', B'', &c., are series of inclined magazines mounted one above another in the top of the main frame, which is provided with the stationary supports or guides *u*, so formed as to support the magazines independently and admit of their sliding one at a time into and out of the machine at the front, in the manner indicated in Fig. 1.

At the lower end of each magazine a series of escapements C will be provided to co-operate with the keyboard mechanism and effect the delivery of the respective matrices from the respective channels of the magazines, as shown in the Rogers application, or in any other suitable manner. These escapements may be attached to and form a permanent part of the magazine, as shown in the drawings, or they may be mounted on the main frame in a manner well known in the art, to permit the independent removal of the magazines, these features forming no part of the present invention.

D represents fixed channels or throats forming upward continuations of the magazines, and E represents the distributing mechanism by which the matrices in the composed lines, returning from the casting mechanism, are delivered to the respective magazines as heretofore.

G represents the face-plate or channel-plate, secured to the front of the main frame and extending upward in front of the series of magazines. This plate is constructed as usual, with vertical channels, and is open in the rear side so that the matrices delivered from the respective magazines may pass over a vertically adjustable bridge or plate L, as in the Rogers machine above named directly downward through the face-plate to the underlying belt H, by which they are delivered to the assembling mechanism, as usual.

Heretofore in all machines having the magazine removable at the front the face-plate has been rigidly and immovably secured to the main frame, and could be removed only by dismantling or disorganizing the machine. It is this fact which has rendered it necessary in preceding machines to employ a mechanism for raising the magazine or magazines, and the base-frame on which they rest, above the top of the face-plate preparatory to their removal at the front. In order to overcome this difficulty, I mount the face-plate, or that portion of the same which lies in front of the

magazines, in such manner that it may be instantly removed from or restored to its operative position, this being preferably accomplished by mounting the same on a horizontal or a vertical axis around which it may be freely turned.

In Figs. 1, 2 and 3, I have divided the face-plate horizontally at the point *g*, the lower portion below the level of the magazines being secured rigidly to the main frame, while the upper portion is mounted to turn around the horizontal rod or pivot *g'*. Thus mounted, the upper portion may be turned downward from the operative position shown in Fig. 2 to the position shown in Fig. 1, leaving an open unobstructed space in front of the magazines, so that any one of the series may be withdrawn independently at will, and replaced by another.

When the magazines are in place, the face-plate is turned up to its original position and secured by any suitable fastening mechanism, such for example as the latches *g''*.

Instead of dividing the face-plate horizontally, it may be constructed complete as a unitary structure, as shown at *G'* in Figs. 4 and 5, and mounted to turn horizontally around a vertical axis *g''*, this arrangement permitting it to be swung to one side in order that the magazines may be inserted and withdrawn.

The face-plate is ordinarily closed at the front by a plate of glass through which the descending matrices may be seen. It will be understood that it may be constructed in any suitable form and manner provided only it is adapted to guide the descending matrices downward to the assembling belt or other assembling mechanism, and provided only it is hinged, pivoted, or otherwise so mounted that it may be instantly swung or moved to and from its operative position in front of the magazines.

Having described my invention, what I claim and desire to secure by Letters Patent is:—

1. In a linotype machine, the combination of a main-frame having magazine sustaining guides, a magazine

arranged to slide forward and downward from its operative position out of the machine, and a channel-plate sustained by the frame in position to receive matrices from the magazine and arranged for instantaneous movement from its operative position and beyond the path of the outgoing magazine.

2. In a linotype machine, the combination of a main-frame, an inclined magazine mounted therein and arranged to slide endwise from its operative position out of the front of the machine, and a channel-plate arranged to receive matrices from the magazine, said plate hinged to swing from its operative position beyond the path of the outgoing magazine.

3. In a linotype machine, a main-frame having a series of inclined guides to sustain the magazines, a series of magazines mounted on the guides and adapted to slide independently out of the machine at the front, a channel-plate adapted to receive the matrices from the magazines and hinged to swing beyond the path of all the magazines and expose their ends.

4. In a linotype machine, the combination of the main frame, the series of superposed inclined magazines mounted in the frame and arranged to slide separately therefrom at the front, and a channel-plate arranged to receive matrices from the magazines, said channel-plate mounted to turn about the horizontal axis away from its operative position to permit the removal of the magazines.

5. In a linotype machine, the combination of a main-frame, provided with a series of magazine-supporting guides, a series of inclined magazines mounted on said guides and arranged to slide outward independently from the front of the machine, a series of channels or throats leading to the magazines and fixed to the main-frame that the magazines may be independently removed, a vertically movable bridge *L* adapted to be lowered below the path of the outgoing magazines, and a hinged channel-plate *G* adapted to receive matrices from the magazines over the bridge *L*, and hinged to swing out of the path of the magazines; whereby the removal of either magazine at will is permitted without lifting it from its operative position, and without interference with the bridge or the channel-plate.

In testimony whereof I hereunto set my hand this thirty-first day of January, 1907, in the presence of two attesting witnesses.

PHILIP T. DODGE.

Witnesses:

MARGARET DOYLE,
WALTER MOBLARD.