H. DEGENER.

LINOTYPE MACHINE.

APPLICATION FILED OCT. 11, 1910.

1,055,301. Patented Mar. 4, 1913.

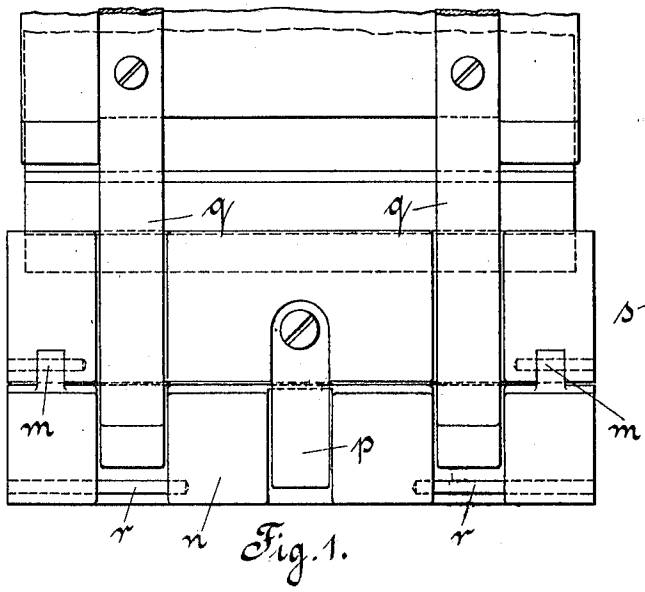

Fig. 1.

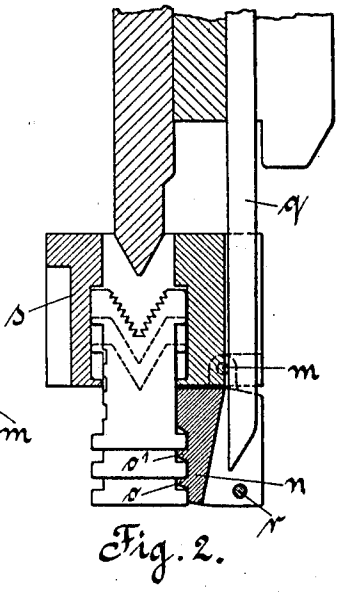

Fig. 2.

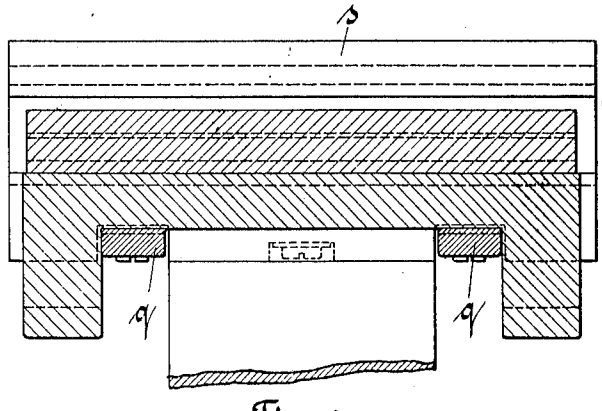

Fig. 3.

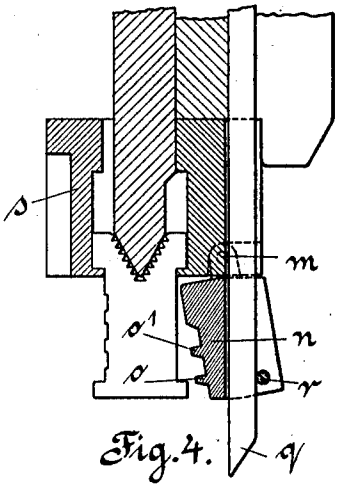

Fig. 4.

Witnesses:

Inventor:

UNITED STATES PATENT OFFICE.

HEINRICH DEGENER, OF BERLIN, GERMANY, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

LINOTYPE-MACHINE.

1,055,301. Specification of Letters Patent. Patented Mar. 4, 1913.

Original application filed October 28, 1909, Serial No. 525,186. Divided and this application filed October 11, 1910. Serial No. 586,454.

To all whom it may concern:

Be it known that I, HEINRICH DEGENER, a resident of 26 Hollmannstrasse, Berlin, German Empire, manager, a subject of the King of Prussia, German Emperor, having invented certain new and useful Improvements in or Relating to Linotype-Machines, do hereby declare that the following is an exact specification of the same.

This invention relates to a matrix setting machine of a well known construction in which mixed matter is obtained by using matrices provided with the same character in two or more different kinds, and adjusted at different levels in front of the casting mold according to the character to be used.

According to my invention a new construction is given for the purpose to bring the matrices, assembled at different levels, with their lower edges into one plane for the distributing operation after the casting is completed. This construction prevents the disadvantage, that the bar maintaining the matrices at the proper level and hitherto slidably arranged in the casting elevator cannot be supported in a sufficiently firm manner, by substituting a swinging movement of the bar holding the matrices in the upper level relative to the matrix line in place of the sliding movement of the bar.

In the accompanying drawings Figure 1 shows a front elevation of the construction of the elevator according to this invention, Fig. 2 is a cross section of Fig. 1, Fig. 3 is a plan for the same in section and Fig. 4 shows the same section as Fig. 2 with the bars in the released position.

After a line has been assembled the casting operation takes place in the well known manner and then the matrices must be brought with their lower edges into one plane for the purpose of distributing the same into the magazines. As stated above, this operation according to my invention takes place by a swinging movement of the bar holding the matrices in different levels relative to the matrix line.

In the drawings the movement is effected by the bars swinging about the hinge *m*. The elevator or casting carriage on which the bar is arranged is here divided into two parts *s* and *n*, and the latter mounted on the upper part by means of hinges. The matrices rest on projections *o* and *o*^{1} of the lower part which is always pressed into working or operative position by a spring blade *p*. In the frame are mounted elevator openers *q* provided with oblique cam faces which, on the elevator rising, engage behind the pins *r* secured to the lower elevator part, in order thus to move the lower part outward, in opposition to the pressure of the spring *p*. The matrices are thus released and brought in the ordinary manner, with their lower edges in one plane.

The essence of my invention lies in a mechanism providing for a swinging movement instead of the sliding of the bar.

It will be apparent that many variations and alterations may be made in the mechanism specifically shown and described without departing from the spirit of my invention, which, as above stated, resides broadly in mechanism which provides for the disengagement of the elevated matrices by a swinging instead of a sliding movement.

Compared to former constructions, the construction according to this invention has the advantage of a steadier support, or more accurate adjustment of the matrices and is of simpler manufacture. If the matrices are to be caught in more than three different levels, it is merely necessary to increase correspondingly the projections on the elevator, but also my invention includes the arrangement with only one projection, the matrices having two characters.

Having thus particularly described and ascertained the nature of my invention and in what manner the same is to be performed, I declare that what I claim is:

1. In a linotype machine, in combination, matrices having several characters, an elevator for conveying the matrix line to the distributing point and containing ledges to keep the matrices at different levels, said ledges being rigidly mounted on one portion of the elevator, and means for moving said ledges out of engagement with the matrices by effecting a swinging movement of the said portion relative to the elevator.

2. In a linotype machine in combination matrices having several characters and an elevator conveying the matrix line to the distributing point, said elevator consisting of two parts, the lower one of which is pivoted to the upper and contains the ledges to keep the matrices at different levels, said

ledges being immovably fixed to the said lower elevator part.

3. In a linotype machine in combination matrices having several characters, an elevator conveying the matrix line to the distributing point, said elevator consisting of two parts, the lower one of which is pivoted to the upper and contains the ledges to keep the matrices at different levels, said ledges being immovably fixed to the said lower elevator part and means for swinging the lower part relatively to the upper.

4. In a linotype machine in combination a line distributing device, an elevator conveying the matrix line to the distributing point, said elevator consisting of two parts the lower one of which is pivoted to the upper and contains ledges to keep the matrices at different levels, said ledges being immovably fixed relative to the said lower elevator part, fixed openers mounted on the machine frame and having pointed ends and pins on the lower elevator member behind which the said openers engage with their pointed ends.

5. In a linotype machine in combination a line distributing device, an elevator conveying the matrix line to the distributing point said elevator consisting of two parts, the lower of which is pivoted to the upper, fixed openers mounted on the machine frame, and having pointed ends, pins on the lower elevator member behind which the said openers engage with their pointed ends thus bringing the lower part of the elevator into the open position and closing springs adapted to close the elevator, substantially as described.

6. In a linotype machine comprising plural letter matrices, an elevator to convey the matrix line to the distributing point and provided with means to maintain matrices in elevated position, the said means being pivotally connected to the elevator so that they may be swung about the pivot to free them from engagement with the matrices and permit their leveling by gravity.

7. In a linotype machine comprising plural letter matrices, an elevator to convey the matrix line to the distributing point and provided with pivotally mounted means to maintain matrices in elevated position and movable to free them from engagement with the matrices and to permit their leveling by gravity.

8. In a linotype machine comprising plural letter matrices, the combination of an elevator to convey the matrix line to the distributing point and provided with pivotally mounted means to maintain matrices in elevated position, with means to swing the said maintaining means about their pivot to free them from engagement with the elevated matrices and permit their leveling by gravity.

In witness whereof I have hereunder set my hand in presence of two witnesses.

HEINRICH DEGENER.

Witnesses:
HENRY HASPER,
WOLDEMAR HAUPT.