H. DEGENER.

LINOTYPE MACHINE.

APPLICATION FILED APR. 19, 1909.

1,155,996. Patented Oct. 5, 1915.

Fig. 1.

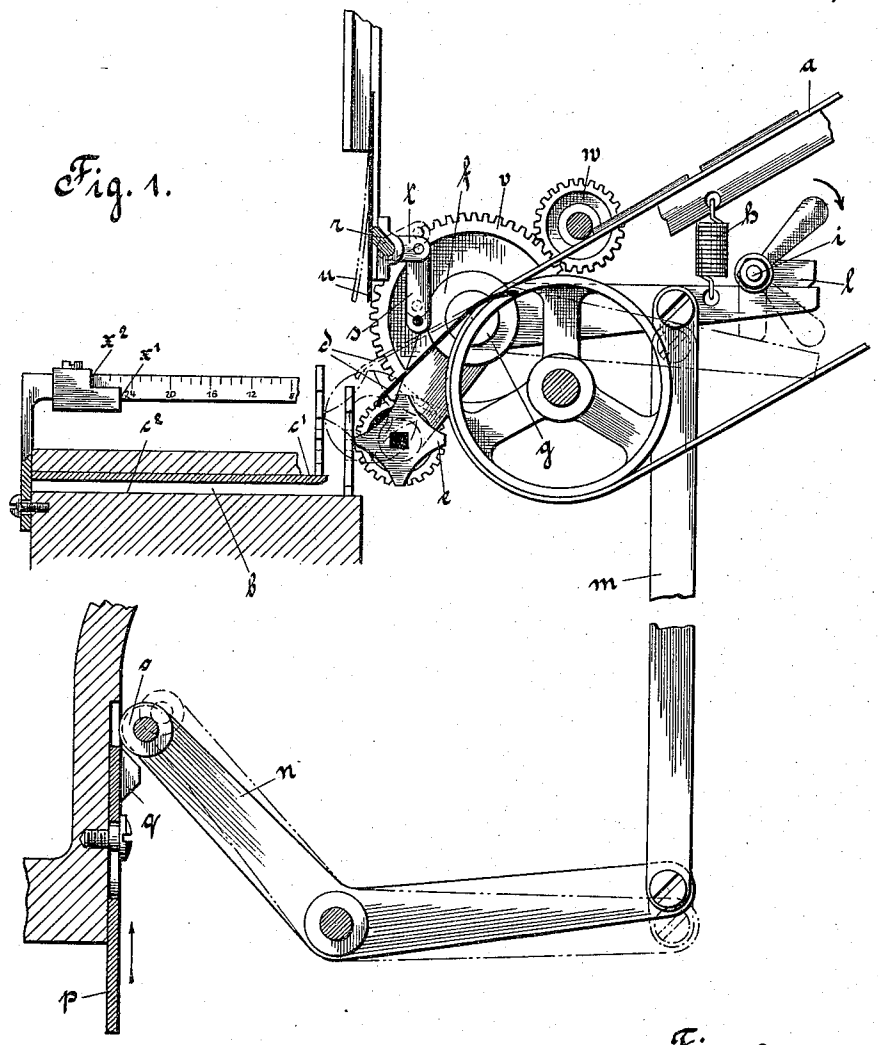
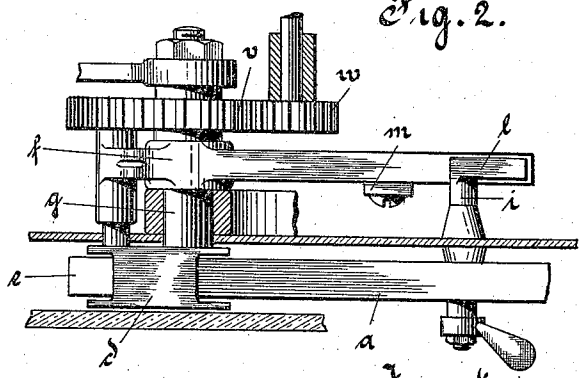


Fig. 2.



Witnesses:

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LINOTYPE-MACHINE.

1,155,996. Specification of Letters Patent. Patented Oct. 5, 1915.

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To all whom it may concern:

Be it known that I, HEINRICH DEGENER, of 26 Hollmannstrasse, Berlin, German Empire, manager, 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 linotype machine of well known construction, in which for producing mixed composition matrices are used which are provided with the same character in two or more kinds of type, and according to the character which is to be used are arranged at a different level in front of the casting mold. In machines of this kind, it has hitherto been usual to catch the matrices falling from the case conduit, at different levels and to add them to the line. To that end switch arrangements or adjustable catching mechanisms were used which however always presented the disadvantage that the matrices, according as they were caught at a high or low level, were struck at the top or at the bottom by the transport wheel which arranged the matrices in the line, whereby the matrices were placed in an oblique position and irregularities were produced when arranging them in line. This invention however obviates the disadvantage in question by avoiding an adjustment of the catching mechanism altogether; on the contrary it allows the matrices to fall at the desired height by adjusting the conveyer band or the transport wheel, the transport wheel always striking the matrices at approximately the same point. For this purpose the transport wheel is movably arranged. The movement of the wheel being executed in the direction of the set line, this arrangement simultaneously can be used in all cases, in which the matrix line must be moved within in the so called first elevator or assembling elevator in the direction from the right to the left hand side for the purpose to clear the right hand portion of the said elevator.

The drawing represents, by way of example, a construction for two kinds of type, Figure 1 being an elevation of the collecting device seen from the front, and Fig. 2 a plan of Fig. 1.

The matrices slide in the well known manner from the case along the conveyer band *a* to the assembler elevator *b*. The latter is broadly constructed in any well known manner, but differs from the former constructions by a number of collecting bars or ledges c^1 c^2 corresponding to the number of the different kinds of type being arranged on it. Of the said collecting ledges or tracks, the higher ledge always starts a little farther to the left compared to the lower one. The matrices sliding down, after having left the conveyer band *a*, pass on the sliding plate or chute *d* and fall from there with their bottom ears on one of the ledges in the first elevator. The transport wheel *e* is mounted in a double lever *f* arranged rotatably about the bolt *g* and always pulled by the spring *h* into the position shown in Fig. 1, the second branch of the double lever *f* resting against the stop *i*. By means of a switch gear, the double lever can be turned and in that way the transport wheel raised into the position shown in Fig. 1 of the drawing by chain-dotted lines. This switching over, can be effected either by directly depressing the second branch of the lever *f*, or by means of the connecting rod *m* and the double lever *n* which latter carries at its other end a roller *o*, and is reciprocated by the up and down movement of the slide *p* or of the projection *q* on the latter. The up and down movement of the slide *p* is effected by means of a change or switch lever preferably arranged near the keyboard but not shown in the drawing. In order to make direct movement of the lever *f* possible, the rod *m* is connected to the lever through an elongated hole. In the depressed position, the lever is held by the lug *l* of the stop *i*, after the latter has been turned to the extent of 90° in the direction of the arrow. When the transport wheel *e* is in the position shown in Fig. 1 in full lines, the matrices will fall on to the bottom collector ledge c^2 and will be brought into the line in the well known manner. On the transport wheel being turned upward, the latter, and with it the guide plate or chute *d* connected to the bell crank lever *f* in a suitable manner, will be brought into the position shown in chain dotted lines, and will thus close-to the falling matrices, that portion of the collector within which the upper ledge c^1 stands back relatively to the bottom ledge c^2. The matrices will therefore be caught by the upper ledge. Those matrices which in collecting on the

bottom ledge were right in front, the transport wheel being turned, are forced into the line to such an extent that the matrices now descending which fall into the collector behind the point at which the ledge c^1 begins, will be able to come into the line behind the matrix put down last. When falling on the upper ledge, the bottom character of the matrices will be added to the line. In order to enable the spaces also to slide down in a reliable manner, the plate along which they slide down into the line, is arranged in an adjustable manner. A cam r is turned by the upward movement of the transport wheel e by means of the intermediate member s and the crank t, and thus presses the resilient bottom portion u of the space chute or guide plate into the position shown in Fig. 1 of the drawing in chain-dotted lines. In that position of the guide plate the spaces will be slightly deviated from their path and guided to the left to such an extent that they will be able properly to fit the last matrix.

The transport wheel e is driven by means of toothed wheels v and w, the axis of rotation of the lever f being used as the axis for the wheel v, so that it is possible to turn the lever f with the transport wheel without modifying the engagement of the teeth.

As the beginning of the line is different according as the compositor sets distinctive type or ordinary type, that point at the end of the line at which the line becomes full, of course alters also. In order to make it easier to watch the line, a double marking piece can be preferably arranged at that point, the distance between the two marks of the same being equal to the distance to which the transport wheel is shifted in the horizontal direction in the two positions. The marking piece is shown in Fig. 1 of the drawing. The two projections of the same are marked x^1 x^2.

Having thus particularly described and ascertained the nature of my invention and in what manner the same is to be performed, what I desire to secure by Letters Patent is:

In a linotype machine in combination an adjustable transport wheel a chute for the spaces, a wall along which the spaces slide down to be added to the set line, said wall being adjustable and moved together with the adjustment of the transport wheel for the purpose described.

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

HEINRICH DEGENER.

Witnesses:
WOLDEMAR HAUPT,
HENRY HASPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."