

H. DEGENER.
MATRIX SETTING AND LINE CASTING MACHINE.
APPLICATION FILED APR. 19, 1909.

989,575.

Patented Apr. 18, 1911.

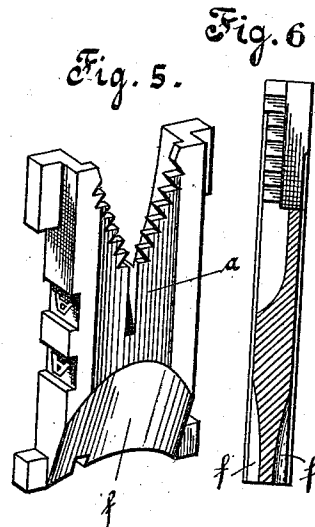
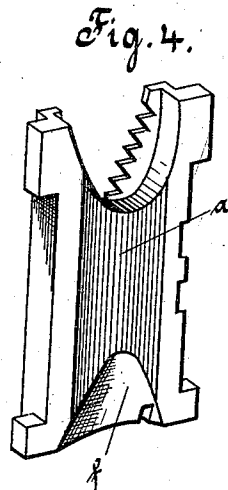
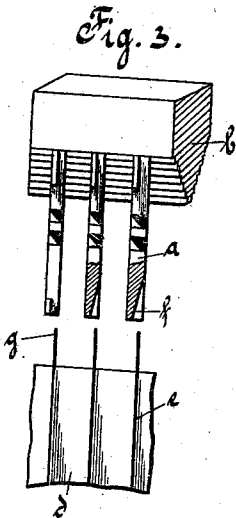
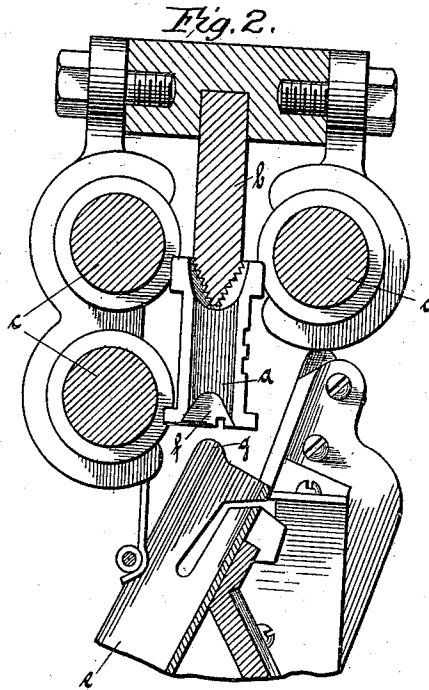
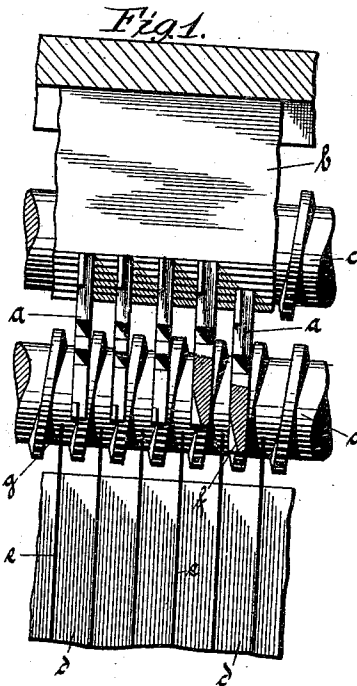


Fig. 6.

Witnesses:
James H. H. H.
Robert

Inventor:
H. Degener

UNITED STATES PATENT OFFICE.

HEINRICH DEGENER, OF BERLIN, GERMANY.

MATRIX-SETTING AND LINE-CASTING MACHINE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HEINRICH DEGENER, residing at 26 Hollmannstrasse, Berlin, German Empire, manager, having invented certain new and useful Improvements in or Relating to Matrix-Setting and Line-Casting Machines, do hereby declare that the following is an exact specification of the same.

10 This invention relates to setting machines of that kind in which after the casting of the line the matrices with special distinctive marks are pushed on the distributing bar in order to slide thence at suitably formed portions of the distributing bar into the single case chambers. In such machines it can easily happen that the matrices do not fall down immediately at the beginning of that portion, the shape of which corresponds to the shape of the distributing mark on the matrices, but that the matrices, more particularly when they are not quite clean, are carried on farther for a short distance. As, however, the case conduits must be very narrow, in order to avoid an excessive width of the total-case, it frequently happens for the above mentioned reason, more particularly with thick matrices that in falling down they frequently come with their lower edges on the separating walls or partitions of the single case chambers and disturb the working.

35 This invention remedies the disadvantage in question by making both the matrices themselves and the separating walls or partitions of the case chambers of special shape.

40 Figure 1 is a front elevation of the machine showing a portion of the distributing device and of the case, Fig. 2 shows the same in side elevation, partly in section, Fig. 3 is a modified construction of Fig. 1 and Figs. 4, 5 and 6 are three matrices constructed in accordance with this invention.

45 The matrices *a* are pushed in the well known manner, not shown in the drawing, on to the distributing bar *b* and moved along the latter by the conveyer screws *c*. At its upper end the matrix is provided with a V-shaped recess provided with teeth, each kind of matrix having a special combination of teeth. The distributing bar *b* is also provided with teeth which are alternately partly omitted, in accordance with the different kinds of matrices so that at these points the corresponding matrices fall down from the

bar and slide into the case chambers *d*. The latter are separated from each other by partitions *e*.

In order to prevent the matrices from sliding too far forward on the bar for any reason, for instance because they have a small bur or are dirty, and thus from falling into the chamber too late, and consequently from coming with their bottom edge on the partitions *e*, the matrices according to this invention are provided with a recess *f* having the deepest point on the bottom of the matrix in the middle of the recess and ascending to the sides and to the top as shown in the drawing. The case partitions *e* are provided at the upper edge with horns or projections *g*, the highest point of which lies in the same vertical level as the middle of the matrices. In that way, those matrices which otherwise would come on the case walls, engage by means of their recessed portion with the horn *g*, and are thus guided into the proper case chambers. This is more particularly necessary in the case of thick matrices in which the danger of the above disturbance is the most frequent one. The distributing bar *b* not being always mounted exactly in the same position relatively to the case chambers it may happen that the bar *b* is located in such a manner that the matrices fall from it too early that is before hanging entirely within the space between the case partitions of the respective case chambers. In that case, there is, however, the danger that thick matrices falling down direct at the beginning the sliding down portion of their movement would fall on the preceding wall. In that arrangement of the distributing bar the matrices could be provided, according to this invention with a recess on the other side, facing to the right, of the foot, by means of which recess it would also engage with the horn of the preceding case partition. A matrix of the first kind is shown in Fig. 4, and of the second in Fig. 5. However, my invention not only relates to matrices provided with a recess on one side, but also both side faces of the matrices can be arranged in the manner as above described and shown in Fig. 6.

In the construction of the kind shown in Figs. 3 and 5 the recess can be arranged on the matrix in such manner that also the bottom portion would be cut away of the working lateral ledges on the matrix, by means of which the matrices engage with each other

in the line. In that way the matrices sliding out of the case and being arranged in line, are prevented from striking with their sharp bottom edge against the said working ledges of the last matrix arranged in the line respectively against the fine lateral walls of the said matrix. I prefer to form the recesses on the matrices of such a kind that the deepest point is in the middle of the matrix for the purpose to obtain a better guidance of the matrices along the projections of the magazine walls.

Having thus fully described the nature of my invention, what I desire to secure by Patent is:

1. In a line setting and casting machine in combination a distributing bar, a magazine for storing the matrices, partitions dividing the magazine into single chambers and being provided with projections and a set of matrices provided on the side faces at the foot with recesses, the said recesses having the deepest point on the bottom of the

matrix in the middle of the recess and ascending to the sides and to the top, substantially as described. 25

2. In a line setting and casting machine in combination a magazine for storing the matrices, partitions dividing the magazine into single chambers and being provided with horns, and a set of matrices, the matrices being provided on one side face at the foot with a recess engaging with said horns for the purpose to prevent a striking of the lower matrix edges against the said partitions, said recess being arranged on the side facing the collecting point and extending laterally into the lower portion of the lateral working ledges on the matrix. 35

In witness whereof I have hereunder set my hand in presence of two witnesses. 40

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."
