D. PETRI-PALMEDO.

FONT DISTINGUISHING MECHANISM.

APPLICATION FILED JAN. 27, 1911

1,066,942.

Patented July 8, 1913.

2 SHEETS—SHEET 1.

Fig. 2.

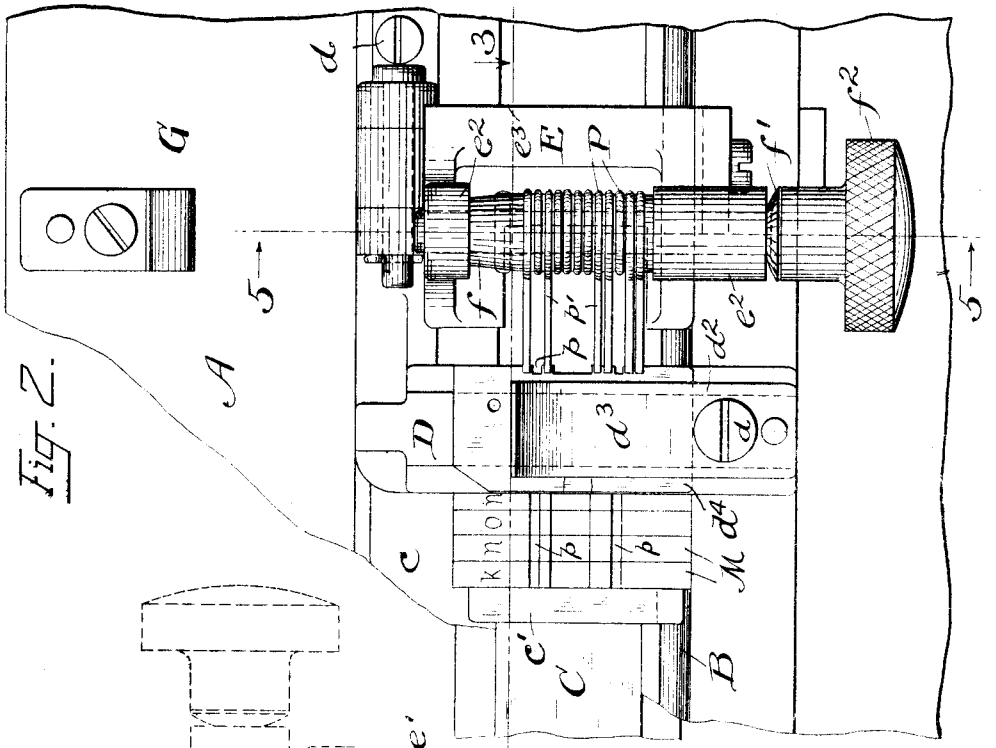
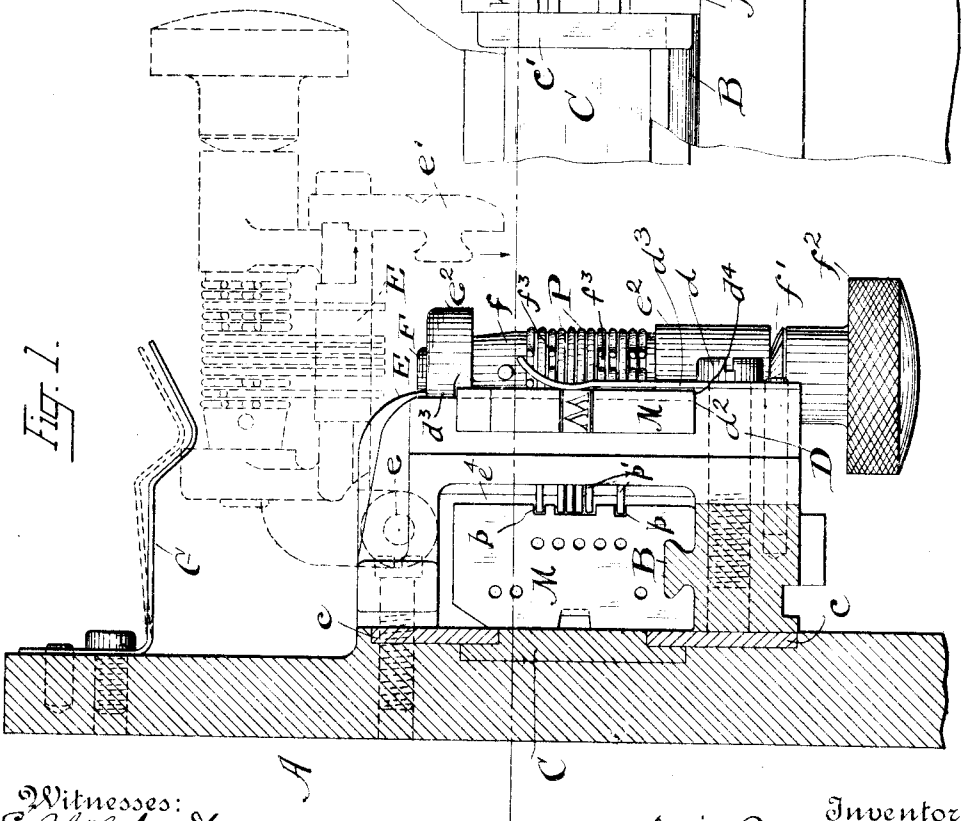


Fig. 1.



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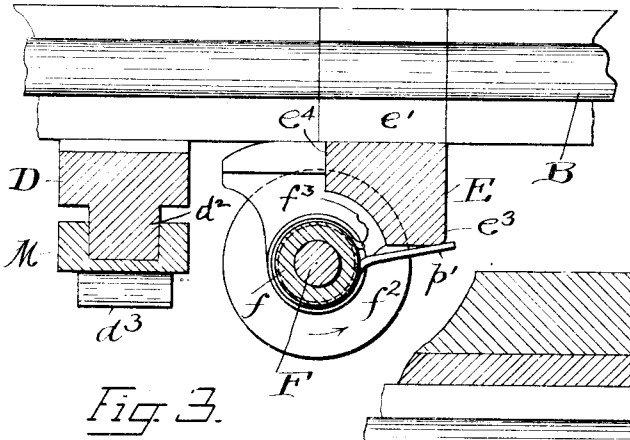


Fig. 3.

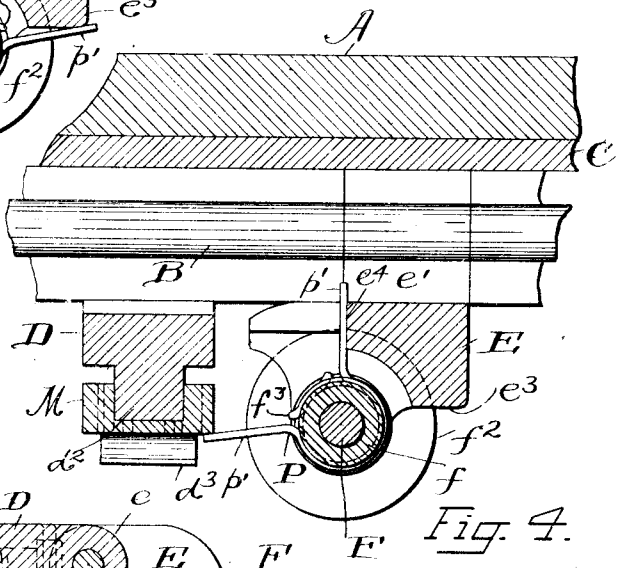
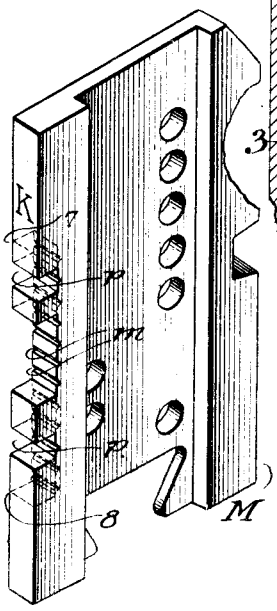


Fig. 4.

Fig. 6.



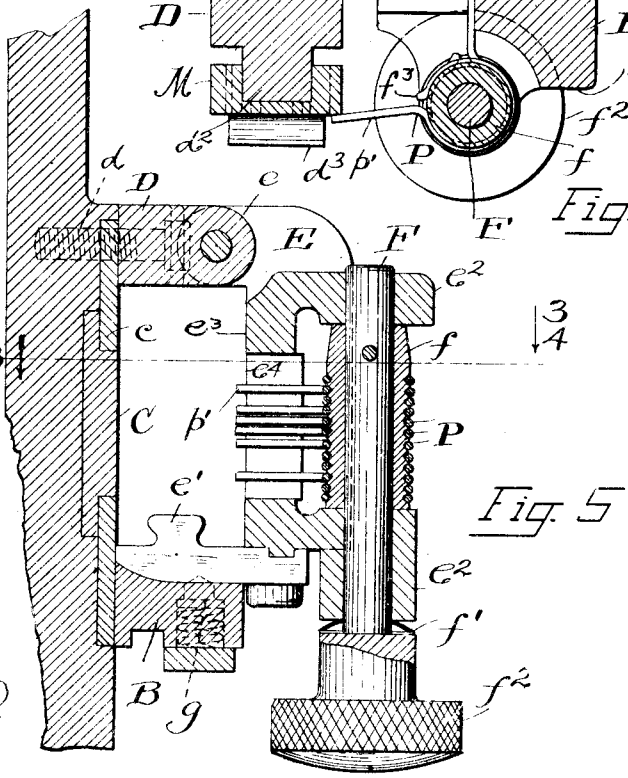


Fig. 5

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UNITED STATES PATENT OFFICE.

DAVID PETRI-PALMEDO, OF HOBOKEN, NEW JERSEY, ASSIGNOR TO ELECTRIC COMPOSITOR COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

FONT-DISTINGUISHING MECHANISM.

1,066,942. Specification of Letters Patent. Patented July 8, 1913.

Application filed January 27, 1911. Serial No. 604,979.

To all whom it may concern:

Be it known that I, DAVID PETRI-PALMEDO, a citizen of the United States, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Font-Distinguishing Mechanism, of which the following is a full, clear, and exact description.

This invention comprises improvements in font distinguishing mechanism adapted for use in connection with matrix or type distributing mechanism for the purpose of preventing the delivery to the receiving magazines of any type or matrix which does not belong in the font which said magazines are intended to contain.

The objects of the invention are to provide font distinguishing mechanism which may be easily and quickly adjusted so as to distinguish the matrices of any font from the matrices of all other fonts. Also to enable the operator to quickly remove from the rank of matrices in process of distribution any matrix which does not belong to that font which the mechanism is adjusted to allow to pass to the receiving magazines.

The invention comprises a series of font distinguishing arms, any combination of which may be moved to such position that they will project into the path of a row of matrices having notched edges, which are being moved in a determined path toward the receiving magazines or toward the mechanism by which they will be severally sent to the receiving magazines.

It also includes means whereby matrix of a given font may be used as the templet for the adjustment of these distinguishing fingers for service with that particular font.

It also consists of numerous minor improvements, and more specific combinations of parts which are shown in the drawing and hereinafter described and pointed out definitely in the claims.

In the drawing, Figure 1 is a sectional side elevation of the font distinguishing mechanism mounted in proper relation to the distributing rail of the distributing mechanism. Fig. 2 is a front elevation of said mechanism and a part of said distributing rail. Figs. 3 and 4 are sectional plan views in the plane indicated by line 3—4 on Fig. 5,—Fig. 3 showing all of the font distinguishing arms in an inoperative position, and Fig. 4 showing some of them in operative position. Fig. 5 is a sectional side elevation in the plane indicated by line 5—5 on Fig. 2. Fig. 6 is a side view of a matrix such as is adapted for use in connection with said font distinguishing mechanism.

In order that the mechanism may be operated to produce the desired results, the matrices M of the several fonts adapted to be used, are provided with characteristically placed combinations of notches *m* in their rear edges. A space is reserved in the rear edge of each matrix long enough to allow a certain arbitrarily selected number of transverse notches to be cut in said edge. This space is that which lies between the lines 7—8 on Fig. 6. Only a certain number of said notches, however, will actually be cut in any matrix, and these notches will be located in different combinations on the matrices of the different fonts. As shown, the space reserved is such as will permit of the cutting of twelve notches, but it is only intended that six of these notches shall be cut on any matrix. According to the law governing the theory of binomial coefficients 924 different combinations are possible under the conditions stated. This will enable the mechanism to be set for distinguishing any of 924 different fonts; and it is thought that this will be sufficient for all practical purposes. It is to be understood, however, that the space reserved, the number of notches which may be cut therein, and the number of notches actually cut therein are purely arbitrary and may be varied at will.

Referring to the parts by letters, A represents a portion of the main frame of the distributing mechanism. B is the distributing rail which is attached to said main frame, and serves to support a line or rank of matrices M. C is a slide which is movable horizontally just behind the distributing rail in a guideway formed in said main frame member, and held in said guideway by gibs *c*. This slide carries at its right end a finger *c'* which projects over the distributing rail and is adapted to engage with the rearmost matrix of the line of matrices

resting thereon. As this slide is moved to the right, as shown in Fig. 2, the line of matrices is moved along the rail B into the embrace of the distributing mechanism (not shown) by which they are severally segregated from the line and directed toward their several magazines. The mechanism as thus far described is old and is substantially such as is in use in the Bellows compositor machine and shown in the Bellows Patent No. 921,065.

The font distinguishing mechanism is an addition to this or some other suitable means for moving a line of matrices along a determined path toward distributing mechanism. In the construction, as shown, the main frame member of the font distinguishing mechanism is represented by D, and it is fixed by screws d or other suitable means to the main frame member A of the machine. Hinged to this frame member D by pintle pins e is a hinged member E carrying at its lower end a piece e' which has on its top surface the general contour of the distributing rail B. The rail is cut away at this point, and the piece e' is made of such length as to nicely fill the gap in the distributing rail so that, when the font distinguishing mechanism is in operative position, this piece e' forms with the rail a continuous support for the matrix line. This hinged member E may, however, be swung up to the position shown by dotted lines in Fig. 1 leaving the gap in the rail B, and this permits a matrix, which may have been arrested by the distinguisher arms, to be easily withdrawn by the operator. While this is being done the hinged member E is temporarily held in the raised position by a spring G secured to the frame and engaged therewith. When the hinged member E is swung down into its normal position so that the piece e' fills the gap in the rail B, it is held in this position by a spring-actuated plunger g mounted in the frame D.

In the two lugs e^2 of the hinged member E there is mounted a vertical spindle F which is held in position by means of a sleeve f which lies between these two lugs and is pinned to the spindle and becomes in effect a part of it. This composite spindle is made to turn with considerable friction relative to the lugs e^2 by means of a cup spring f' interposed between the lower lug e^2 and the hub of a knurled head f^2 at the lower end of the spindle.

The sleeve part of said spindle has in it a plurality of circumferential grooves f^3, the number of said grooves being the same as the number of notches which may be cut in a matrix,—in the present case twelve. Clasps P having long projecting arms p' embrace the spindle sleeve in said grooves, and they hug the sleeve so tightly that in turning the sleeve they and their attached arms will turn with it, unless positively restrained from so moving. Preferably these clasps are spring rings, and the arms are integral parts of said clasps. When this sleeve is turned in the one direction, said clasps and their arms will move with it until they bring up against the vertical edge e^4 of a part e^3 of the hinged member E, and at this time they overhang the distributing rail and project into the path of the rear edges of the matrices upon said rail.

It will be understood that in order to set these arms to distinguish fonts, only those arms whose positions correspond with the notches on the font which is to be distinguished from all others will be in the operative position shown, and all other arms will be in some other position,—such for example as is shown in Fig. 4. The arms projecting over the distributing rail will not, of course, interfere with the passage along the rail of matrices having notches corresponding in position with the position of these arms. But, when a matrix of a different font having its distributing notches differently placed reaches these arms, some one or more of the arms will engage the unnotched part of said matrix and prevent its further progress along the rail. In order that this font distinguishing device may be easily and quickly set for use with any font of matrices, the main frame member D of the font distinguisher is provided with a shelf d^4 whose top face is in the same horizontal plane as the top face of the rail B. A matrix of the font for which the device is to be set is placed upon thi shelf and held there by a spring d^3 with notched edge to the right and toward the font distinguishing fingers. The matrix shown has a vertical groove in one side, and this groove fits over the vertical rib d^2 which is a part of member D; and thereby said matrix is held in the required position. Before the matrix has been placed in this position the operator by taking hold of the knurled head f^2 turns the spindle and sleeve and arms around to the position shown in Fig. 3. When the matrix has been placed in the proper position on the shelf d^4, the operator taking hold of the knurled head f^2 turns these parts in the reverse direction. Six of the fingers p' will pass through the notches in the edge of the templet matrix on shelf d^4 and will be swung around until they engage the vertical edge e^4 of the abutment e^3 which is a part of the hinged member E. All of the other arms, however, will engage an unnotched part of the edge of said templet matrix and will be stopped in the position shown in Fig. 4. When, now, a line of matrices composed for most part of matrices belonging to the same font as that from which the

templet matrix was taken, are moved along this rail, all of the matrices belonging to this font will freely pass the distinguishing arms p' which overhang the rail, but when a matrix of a different font comes to those arms, it will engage one or more of them and will be stopped by them. The operator will then, with his tweezers, move along to the right all of the matrices which are to the right of said fingers until they have been moved off of the gap filling piece e', and far enough along the distributing rail so as to insure that they will not fall backward into the gap. Then the operator swings the hinged member of the font distinguishing mechanism up to the position shown by dotted lines in Fig. 1, and then removes that wrong font matrix which is engaging with said fingers. He then turns the hinged member back to the normal position and the distributing operation proceeds as before.

Although this invention is primarily intended for use in a line casting machine for the purpose of distinguishing the matrices of different fonts, it is quite apparent that it will be equally useful for distinguishing type belonging to different fonts. It is therefore to be understood that in the appended claims the word matrices is intended to include type.

Having described my invention, I claim:

1. In font distinguishing mechanism for distinguishing between matrices having differently notched edges, the combination with a support along which a line of matrices may be moved, of a plurality of independently adjustable arms,—which are independently movable through definite paths to and from positions where they will project into the path of the notched edges of said matrices, a templet matrix, and means for supporting the same with its notched edge projected into the paths of said arms.

2. In font distinguishing mechanism for distinguishing between matrices having differently notched edges, the combination with a support along which a line of matrices may be moved, of a plurality of independently adjustable arms, any combination of which may be moved to a position wherein they will project into the path of said line of matrices while the other arms do not so project, a support for said arms, and an abutment piece which is engaged by all of those arms which project into the path of the matrices.

3. In font distinguishing mechanism for distinguishing between matrices having differently notched edges, the combination with a support along which a line of matrices may be moved, of a plurality of independently adjustable arms, any combination of which may be moved to a position wherein they will project into the path of said line of matrices while the other arms do not so project, a support for said arms, an abutment piece which is engaged by all of those arms which project into the path of the matrices, and means for supporting a templet matrix in such position that its notched edge projects into the path over which said arms must move in passing to the operative position in which they project into the path of said matrices.

4. In font distinguishing mechanism for distinguishing between matrices having differently notched edges, the combination with a support along which a line of matrices may be moved, of a rotatable member, a plurality of friction clasps rotatably mounted upon said rotatable member and held against longitudinal movement thereon, and arms fixed to said clasps.

5. In font distinguishing mechanism for distinguishing between matrices having differently notched edges, the combination with a support along which a line of matrices may be moved, of a rotatable member having a plurality of circumferential grooves and spring clasps which embrace the grooved parts of said member, and are provided with font distinguishing arms.

6. In font distinguishing mechanism for distinguishing between matrices having differently notched edges, the combination with a support along which a line of matrices may be moved, of a rotatable member having a plurality of circumferential grooves, spring clasps which embrace the grooved parts of said member, and an abutment piece with which all of those arms engage which project into the path of the matrices.

7. In font distinguishing mechanism for distinguishing between matrices having differently notched edges, the combination with a support along which a line of matrices may be moved, of a plurality of independently adjustable arms, any combination of which may be moved to a position wherein they will project into the path of said line of matrices while the other arms do not so project, a support for said arms, an abutment piece with which all of those arms engage which project into the path of the matrices, a templet matrix, and a fixed support for said templet matrix.

8. In font distinguishing mechanism for distinguishing between matrices having differently notched edges, the combination with a support along which a line of matrices may be moved, a rotatable member having a plurality of circumferential grooves, and spring clasps which embrace the grooved parts of said member, and are provided with font distinguishing arms, a templet matrix, a shelf for supporting said templet matrix, and an abutment piece against which those arms will swing which have passed the templet matrix.

9. In font distinguishing mechanism for

distinguishing between matrices having differently notched edges, the combination with a distributing rail having a gap in it, of a hinged member having fixed to it a gap closing section of said distributing rail, and a plurality of font distinguishing arms carried by said hinged member and independently movable thereon into and away from positions where they project into the path of a line of matrices on the distributing rail.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

DAVID PETRI-PALMEDO.

Witnesses:
ROY J. SOULER,
W. L. FULLER.