APPARATUS FOR THE MANUAL EXECUTION OF TYPOGRAPHICAL LINES WITH MATRICES

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My invention relates to a new apparatus for the manual execution of typographical lines with matrices, especially those used in line composing and casting machines of the types known as "Intertype", "Linotype", or the like, and has for its main object to provide a simple and economical device for this purpose.

The high cost of the equipments for mechanically composing typographical lines, renders their acquisition onerous to the majority of the graphic industrialists, with the apparatus forming the subject matter of the present invention, any industrialist possessing a slug or line composing and casting machine may produce, in composing manually and by only acquiring the necessary matrices, the entire variety of lines produced by the mechanical equipments referred to.

Naturally, the production will be smaller due to the lines having to be composed and justified by hand, but the higher cost of labor involved is compensated by the unnecessary investment of capital in costly mechanical equipments.

The new line composing apparatus enables any industrialist to obtain slugs in an economical manner and appropriate for the immediate necessities of his industry.

The invention also contemplates other objects which will become apparent from the following description and will be particularly pointed out in the appended claims.

In order that the invention may be more clearly understood and easily carried into practice, the same has been illustrated by way of example and in a preferred embodiment in the accompanying drawings, wherein:

Figure 1 is a side view of the main body of the apparatus.

Figure 2 is a section thereof along line A-A in Fig. 1 as seen in the direction of the arrow and Figure 3 a section along line B-B in Fig. 1 as seen in the direction of the arrow.

Figure 4 is a central longitudinal section of the body shown in Figure 1.

Figure 5 is a side view of the main body, wherein the holding mechanism has been eliminated for cases where it is desired to align matrices without holding same.

Figure 6 is a section thereof along line C-C in Figure 5, as seen in the direction of the arrow.

Figure 7 shows the auxiliary piece acting as a guide-support for the body of the preceding figures, while the matrices are being placed in position.

Figure 8 is a section along line D-D in Figure 7, in the direction of the arrow.

Figure 9 is a section taken through the line E-E of Figure 7, as seen in the direction of the arrow.

Figure 10 is a perspective view of the completely assembled apparatus ready to receive the matrices.

Figure 11 is a side view of the completely assembled apparatus, with the matrices placed in position; and

Figure 12 is a cross-section along line F-F in Figure 11, as seen in the direction of the arrow.

The apparatus as shown in the drawings comprises a main body and an auxiliary body. The main body consists of a steel bar of flat rectangular base having two slight successive recessed portions 2 and 3 along both edges, terminating in a central guide portion 4 throughout its entire length. Formed integrally with the base and vertically thereto, there is provided at each end of the base a head-guide; one of these head-guides, 5, is thin, rounded, slightly inclined on its outside and straight on its inside.

The other head-guide, 6, is a rectangular block having provided on its face opposite head 5 a movable piece 7. At the upper portion of block 6 is a screw 8 adapted to act on a small lever 9 (Fig. 4), pivoted at 10 in the interior of the block so that the lever in turn will move the movable piece 7 away from the inner face of block 6.

A leaf spring 11 interposed between block 6 and movable piece 7 tends to maintain them in contact.

The only purpose of the auxiliary body is to serve as a support for the main body while the matrices forming the lines are being arranged and justified. The auxiliary body which is made from a brass plate forms an angular piece having a perpendicular wall 12, a horizontal base portion 13, and end wall 14 and at the opposite end a flange 15. The main body is placed on the horizontal base portion 13 of the auxiliary body, the perpendicular wall 12 acting as a lateral support. The wall 12 is provided on its inner face throughout its entire length with a guide-rail 16, to bear against the matrices 17 as they are placed in the apparatus. The guide-rail 16 contains an engraved scale according to the typographical measures in use.

The operation is as follows:—After the main body has been placed in position on the auxiliary body, the operator arranges by hand the matrices 17 in the desired order. The special shape of the apparatus compels the matrices to take their...
correct position and alignment, without necessitating the attention of the operator, who practically only has to pay attention to the order in which the matrices are placed and to complete the line in the same manner as if he were composing with ordinary printing types. Once the line is completed, the screw 8 on the head 5 is screwed down, thus holding in place the matrices 7 which thus form, together with the main body of the apparatus, a rigid bar or lingot. This lingot is then introduced into any "Intertype", "Linotype" or like machine, which will effect the casting process. The lingot is withdrawn from the machine and upon the screw 8 being loosened the matrices are released to be distributed, which is also effected by hand. Generally, with the use of this apparatus, the operator composes, justifies and distributes the line of matrices, in the same manner as he generally does with the printing types.

It is evident that several modifications may be introduced in the construction and details, without departing from the scope of the present invention as specified in the following claims.

I claim:

1. Apparatus for the manual execution of typographical lines with matrices, especially those used in line composing and casting machines of the types known as "Intertype", "Linotype" and the like, comprising a rectangular base of steel or the like provided with a projecting longitudinal central guide for supporting the matrices and having at each end a fixed head the inner face of which is perpendicular to the plane of said base, a slidable stop adjacent to the inner face of one of said heads, and means for displacing said slidable stop with respect to said head.

2. Apparatus for the manual execution of typographical lines with matrices, especially those used in line composing and casting machines of the types known as "Intertype", "Linotype" and the like, comprising a rectangular base of steel or the like provided with a projecting longitudinal central guide for supporting the matrices and having at each end a fixed head the inner face of which is perpendicular to the plane of said base, a slidable stop arranged adjacent to the inner face of one of said heads, a lever disposed within said head for displacing said slide a screw for actuating said lever, and a resilient means controlling said slide.

3. Apparatus for the manual execution of typographical lines with matrices, especially those used in line composing and casting machines of the types known as "Intertype", "Linotype" and the like, comprising a rectangular base of steel or the like provided with a projecting longitudinal central guide for supporting the matrices and having at each end a fixed head the inner face of which is perpendicular to the plane of said base, a slidable stop adjacent to the inner face of one of said heads, a lever disposed within said head for displacing said slide, a screw for actuating said lever, a resilient means controlling said slide, and an angular supporting member for said base having a horizontal base portion and a perpendicular wall forming a bearing portion for the matrices, one of the ends of said angular member being closed by a plate and the other by a flange.

4. Apparatus for the manual execution of typographical lines with matrices, especially those used in line composing and casting machines of the types known as "Intertype", "Linotype" and the like, comprising a rectangular base of steel or the like provided with two successive recesses at the sides thereof forming steps and a projecting longitudinal central guide for supporting the matrices and having at each end a fixed head the inner face of which is perpendicular to the plane of said base, a slidable stop adjacent to the inner face of one of said heads, means for displacing said slidable stop with respect to said head, and an angular supporting member for said base having a horizontal base portion and a perpendicular wall forming a bearing portion for the matrices, one of the ends of said angular member being closed by a plate and the other by a flange.

5. Apparatus for the manual execution of typographical lines with matrices, especially those used in line composing and casting machines of the types known as "Intertype", "Linotype" and the like, comprising a rectangular base of steel or the like provided with a projecting longitudinal central guide for supporting the matrices and having at each end a fixed head the inner face of which is perpendicular to the plane of said base, a slidable stop adjacent to the inner face of one of said heads, a lever disposed within said head for displacing said slide, a screw for actuating said lever, a resilient means controlling said slide, and an angular supporting member for said base having a horizontal base portion and a perpendicular wall forming a bearing portion for the matrices, one of the ends of said angular member being closed by a plate and the other by a flange.