

A. S. TAYLOR.
ADJUSTABLE HAND TYPE MOLD.
APPLICATION FILED APR. 4, 1910.

979,222.

Patented Dec. 20, 1910.

2 SHEETS—SHEET 1

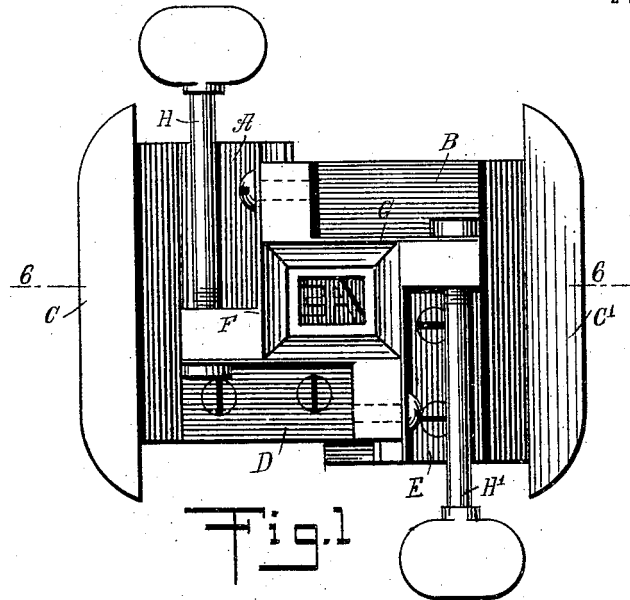


Fig. 1

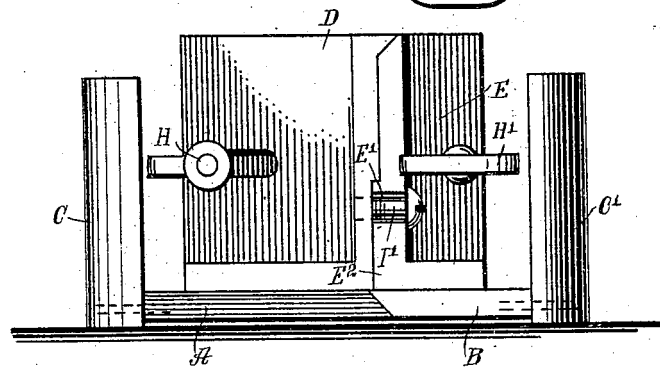


Fig. 2

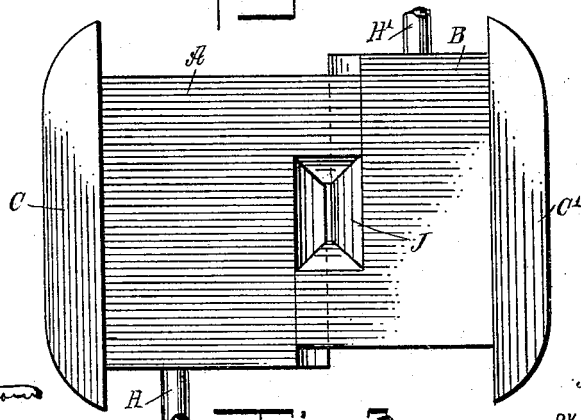


Fig. 3

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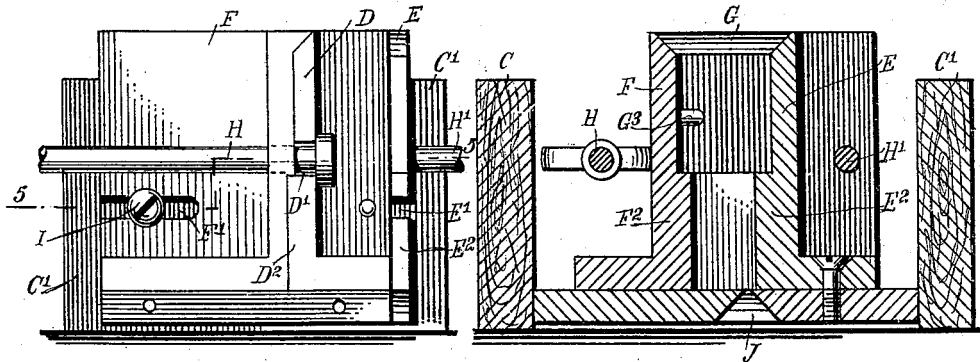


Fig. 4

Fig. 6

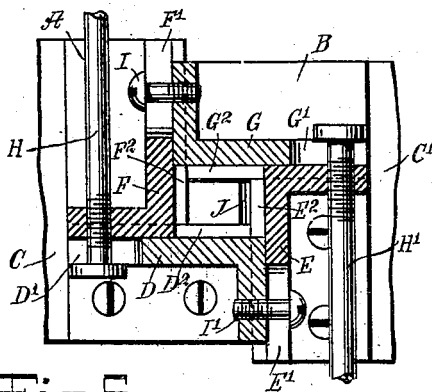


Fig. 5

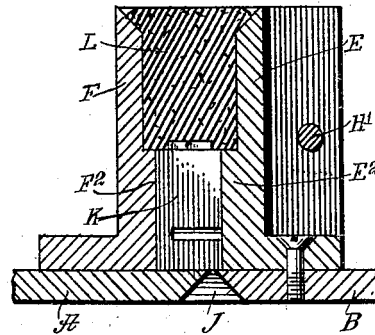


Fig. 7

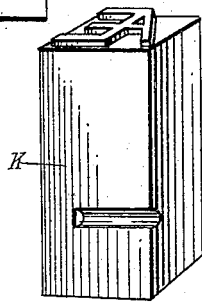


Fig. 9

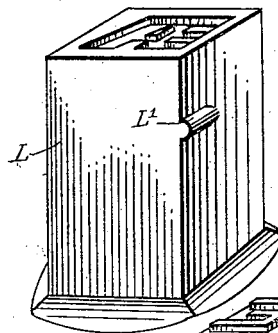


Fig. 10

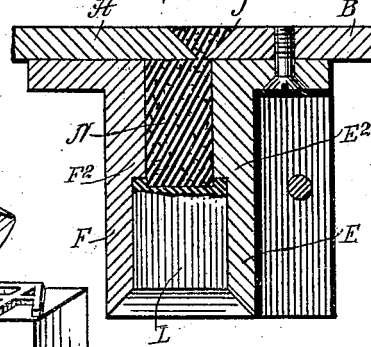


Fig. 8

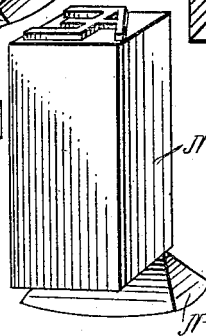


Fig. 11

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UNITED STATES PATENT OFFICE.

ARTHUR S. TAYLOR, OF NANUET, NEW YORK.

ADJUSTABLE HAND TYPE-MOLD.

979,222.

Specification of Letters Patent. Patented Dec. 20, 1910.

Application filed April 4, 1910. Serial No. 553,173.

To all whom it may concern:

Be it known that I, ARTHUR S. TAYLOR, a citizen of the United States, and a resident of Nanuet, in the county of Rockland and State of New York, have invented a new and Improved Adjustable Hand Type-Mold, of which the following is a full, clear, and exact description.

The invention relates to printing and its object is to provide a new and improved adjustable hand type mold, more especially designed for the use of printers, to enable the same to cast any type letter, sign or other character, or reproduce in type form any small electro or wood-cut, for immediate use in letter press or other printing.

For the purpose mentioned, use is made of a mold having connected compartments, one for receiving the original character to cast a matrix therefrom in the other compartment, the matrix, on removal of the original, serving for casting a duplicate from the said matrix.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the mold; Fig. 2 is an end view of the same; Fig. 3 is an inverted plan view of the same; Fig. 4 is a side elevation of the same, one of the handles being removed; Fig. 5 is a sectional plan view of the same on the line 5—5 of Fig. 4; Fig. 6 is a cross section of the same on the line 6—6 of Fig. 1; Fig. 7 is a like view of the same, showing the original in position for casting the matrix; Fig. 8 is a like view of the same showing the mold reversed and the matrix in position for casting a duplicate; Fig. 9 is a perspective view of the original to be duplicated; Fig. 10 is a like view of the matrix made from the original; and Fig. 11 is a similar view of the duplicate made from the matrix.

The plates A and B extend in the same horizontal plane and are provided at their outer sides with handles C and C', to permit of manipulating the plates A and B, as hereinafter more fully described. On the top of the plates A and B are secured the mold sides D and E, and on the mold side D is held adjustable the third mold side F, and on the mold side E is held adjustable the fourth mold side G, the said sides D, E, F, G forming with the plates A and B the

mold for casting the matrix and the duplicate, as hereinafter more fully explained. The mold side F is adapted to be clamped to the mold side D after the desired adjustment is made according to the size of the original to be reproduced, and for this purpose use is made of a manually-controlled screw rod H, screwing in the mold side F and passing through a slot D' in the mold side D attached to the plate A, the head of the screw rod H engaging the outer face of the mold side D so as to clamp the mold side F in position on the mold side D, the screw rod H also serving to guide the mold side F on the mold side D. A screw rod H', similar to the screw rod H, screws in the mold side E, and passes through a slot G' in the mold side G, and the screw rod H' serves to clamp the mold side G to the mold side E and at the same time to guide the mold side G when adjusting the same. The mold side G slidably engages the mold side F, and for this purpose a screw I is provided, held on the mold side G and extending through a slot F' formed in the mold side F. A similar screw I' is attached to the mold side D and engages a slot E' in the mold side E, so as to guide the two mold sides D and E when adjusting the same. Now, on loosening the screw rods, H, H', the mold sides D, E, F, and G can be readily removed one relative to the other, so as to form a mold opening of the desired size, according to the original to be duplicated.

The plates A and B are beveled at their adjacent inner edges in such a manner as to form a pouring funnel J, through which molten metal is passed into the mold when casting the duplicate, as hereinafter more fully explained and shown in Fig. 8. The upper edges of the mold sides D, E, F and G are beveled to form a pouring funnel for the molten metal when casting the matrix, as shown in Figs. 6 and 7. The mold sides D, E, F and G are provided at their inner faces with offsets D², F², G², E², so as to form two compartments opening one into the other and of different sizes, the compartment at the offsets F² being the smaller for receiving the original K to be reproduced, while the larger is adapted to receive the molten metal for forming a matrix L, as indicated in Fig. 7, it being understood that in casting the matrix L, the plates A and B rest on a table or other surface, and

the original K has its top face extending upward, as indicated in Fig. 7, the said top face being covered with lamp black or other suitable medium, to prevent the type face from being fused when pouring the molten metal in the upper compartment, for forming the matrix L, as shown in Fig. 7.

One of the mold sides, as shown, the mold side G, is provided in its upper portion with a recess G³ for forming an offset L' on one side of the matrix L, as plainly indicated in Figs. 6 and 10, so that the matrix L is held in position in the mold when the latter is turned upside down, for casting the duplicate N, as indicated in Fig. 8. After the matrix L is cast, the mold sides are sufficiently loosened to permit of conveniently removing the matrix L and the original K from the mold, after which the matrix L is replaced in the mold in the same position in which it is cast, and then the mold sides are moved close up to the matrix and the mold is turned upside down, so as to permit of pouring type metal through the pouring funnel J into the small compartment of the mold and against the type face of the matrix L, so that a type face is formed on the duplicate N, as plainly indicated in Figs. 8 and 11.

The type face of the matrix L is coated with lamp black or other suitable medium, the same as the original K, prior to pouring the metal for forming the duplicate N, so that the molten metal is not liable to fuse the type face of the matrix L. After the duplicate N is cast, the two sections of the mold are slid apart to allow convenient removal of the matrix L and the duplicate N, and, if it is desired to make more duplicates, the matrix L is replaced and the above described operation is repeated for casting another duplicate N. The duplicate N has its bur N' removed by cutting or breaking it off, and smoothing the under side of the duplicate with a file or other means. The duplicate thus produced can be immediately used in letter press or other printing.

It is understood that it frequently happens that a printer may run out of a type, and by the use of this mold the printer is enabled to quickly duplicate such type from one in his possession in a comparatively short time. It will also be noticed that electrotypes, wood-cuts and the like can be duplicated in the same manner as above described, by first forming a matrix and then casting a duplicate from the matrix.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A mold, provided with connected compartments each having a pouring end, one of said compartments for receiving the original to cast a matrix therefrom in the other compartment, the first mentioned compartment on removal of the original serv-

ing for casting a duplicate from the said matrix.

2. A mold, provided with connected registering compartments of different sizes, the larger compartment being open at its outer end, the smaller compartment having a pouring funnel and being adapted to accommodate the original, to permit of casting a matrix of the original in the larger compartment, the said smaller compartment on removal of the original permitting to cast a duplicate therein of the said matrix.

3. A mold, comprising two members having sliding movement one relative to the other, and forming between them a pouring funnel, adjacent mold sides, extending at right angles one to the other, attached to the said members and moving bodily with the same, and mold sides adjustable on the said attached mold sides, the upper edges of the said mold sides being beveled forming a pouring funnel.

4. A mold, comprising two plates having their adjacent sides beveled to form between them a pouring funnel, mold sides attached to the said plates and standing at a right angle one to the other, and adjustable mold sides slidable on the said attached mold sides and standing at right angles thereto, the inner faces of the said mold sides having offset portions to form registering small and large compartments, of which the small compartment opens into the said funnel.

5. A mold, comprising two plates having their adjacent sides beveled to form between them a pouring funnel, mold sides attached to the said plates and standing at a right angle one to the other, adjustable mold sides slidable on the said attached mold sides and standing at right angles thereto, the inner faces of the said mold sides having offset portions to form registering small and large compartments, of which the small compartment opens into the said funnel, and manually-controlled means for fastening the adjustable mold sides to the attached mold sides.

6. A mold comprising two members having sliding movement one relative to the other and forming between them a pouring funnel, mold sides carried by said members, the inner faces of said mold sides having offset portions to form connected large and small compartments, the large compartment being open at its outer end and the small compartment opening into the pouring funnel formed by said members.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR S. TAYLOR.

Witnesses:

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PHILIP D. ROLLHAUS.