

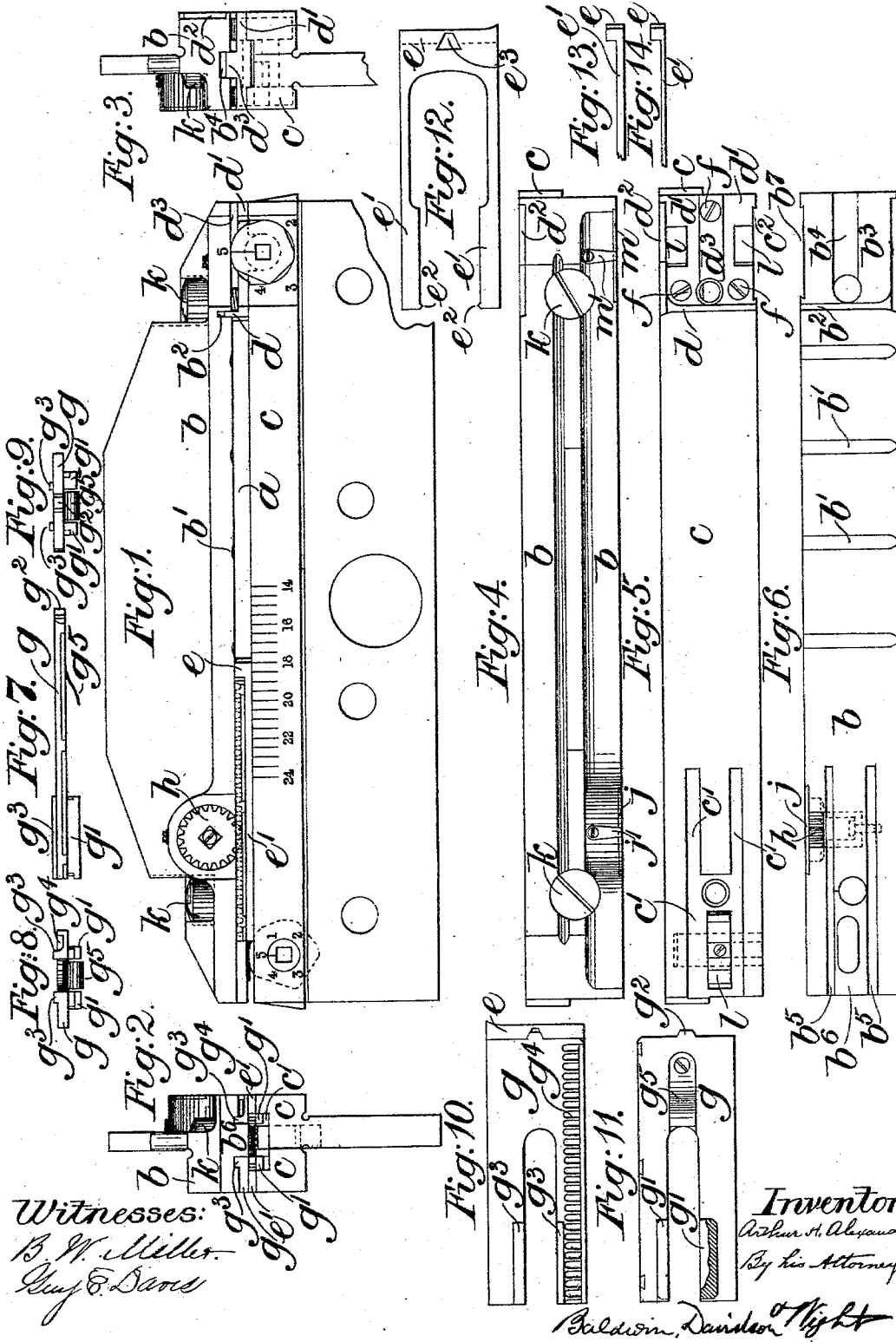
(No Model.)

2 Sheets—Sheet 1.

A. H. ALEXANDER.
MOLD FOR CASTING LINES OF TYPE.

No. 562,751.

Patented June 23, 1896.



(No Model.)

2 Sheets—Sheet 2.

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Fig. 15.

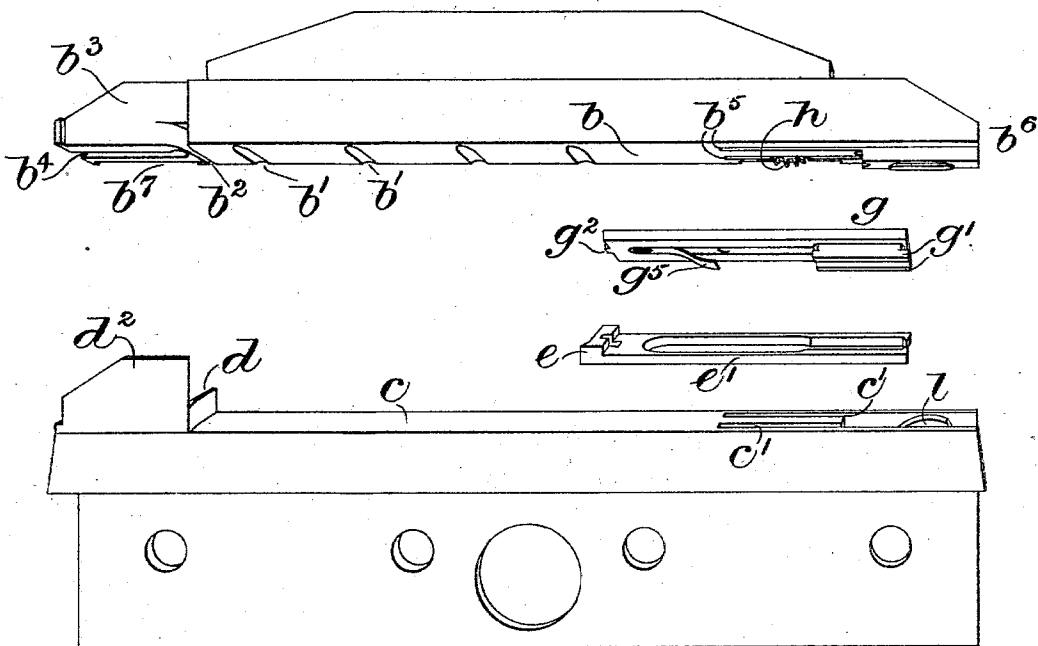
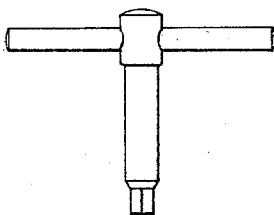


Fig. 16.



Witnesses

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UNITED STATES PATENT OFFICE.

ARTHUR HERBERT ALEXANDER, OF LONDON, ENGLAND.

MOLD FOR CASTING LINES OF TYPE.

SPECIFICATION forming part of Letters Patent No. 562,751, dated June 23, 1896.

Application filed May 25, 1895. Serial No. 550,672. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR HERBERT ALEXANDER, a subject of the Queen of Great Britain, residing at 55 Radnor Street, in the city of London, England, have invented certain new and useful Molds for Casting Lines of Type, of which the following is a specification.

Lines of type are cast in molds whose length is the length of the line, their width the height of the type, and their height the thickness of the type, the metal being injected from the back of the mold against plates forming the front and in which the letters are sunk.

The object of this invention is to construct an adjustable mold in which the length of line and thickness of type can be varied at pleasure.

The top and bottom of the mold are made of metal plates bolted together, and one end is formed of a flange fixed to one of these plates and entering a slot in the other, so that a tight joint is made whatever may be the distance of the plates apart. The other end of the mold is formed of one of a number of slides of different thickness according to the thickness of type desired. The distance of the plates apart is preferably regulated by polygonal surfaces eccentrically pivoted to the lower plate, the upper plate resting on one or the other of their sides. The mold is set for any thickness of type by slacking off the bolts, turning the polygons until their proper side is uppermost, introducing a slide of the proper thickness, and then tightening the bolts.

The slides are attached to a rack gearing with a pinion pivoted to one of the plates. By turning this pinion the slide is traversed along between the plates and the length of the line is varied.

Preferably the slide has attached to it two tailpieces parallel to each other throughout most of their length but slightly approaching each other at the end remote from the slide. The rack is received between these tailpieces, which are sprung onto it.

Figure 1 is a side elevation of the mold. Figs. 2 and 3 are end views. Fig. 4 is a plan; Fig. 5, a plan of the bottom portion, and Fig. 6 an under side view of the top portion. Fig. 7 is a side elevation. Figs. 8 and 9 are end

elevations; Fig. 10 a plan, and Fig. 11 an under side view, partly in section, of the rack-piece. Fig. 12 is an under side view, and Fig. 13 a side elevation, of one of the slides. Fig. 14 is a side elevation of another slide of different thickness. In Fig. 10 one of the slides is shown in place on the rack. Fig. 15 is a back elevation in perspective, the top and bottom plates and end pieces being separated from each other. Fig. 16 shows the key for traversing the rack-piece.

a is the space in which the metal is cast. It is bounded on the top by the plate b , (in which the usual grooves b' are formed,) on the bottom by the plate c , at the right-hand end by the flange d , and at the left-hand end by the slide e .

The flange d is made in one piece with a base d' , a back d'' , and a lug d''' . This piece is secured to the plate c by screws f , Fig. 5. The flange d , back d'' , and lug d''' enter recesses b^2 b^3 b^4 , Fig. 6, respectively, in the plate b . The slides e have spring-tailpieces e' , which fit over lugs g' on the under side of the rack-piece g . In Fig. 11 one of these lugs is partly in section to show that it is undercut at the corners to receive the hooks or points e^2 at the ends of the tailpieces e' . Notches e^3 are also formed in the slides e to fit on the projection g^2 on the rack-piece. The lugs g' are higher than the thickness of the tails e' and project beyond them into a slot or recess c' in the plate c . The upper side of the rack-piece also has lugs g^3 g^4 , which fit into slots b^5 b^6 in the plate b . The plate b has a lug b^6 , which fits in the fork of the rack-piece g .

The rack-piece g carries a spring g^5 , which lifts it when the plate b is removed, so that it can be readily taken hold of.

h is a pinion pivoted in a recess in the side of the plate b . This pinion gears with the teeth g^4 of the rack-piece g , and is turned by a square-ended key which fits into a square hole in the pinion, so as to traverse the rack-piece g and slide e . The pinion h is covered by a sliding plate or door j , secured by a catch j' . In Fig. 1 this plate has been removed to show the pinion. The plates b and c are secured together by bolts k and are kept at the proper distance apart by the three polygons l , pivoted in recesses in the plate c , and whose axes can be turned by a key. The front

right-hand polygon l is covered by a sliding plate m , working in dovetailed recesses b' and c^2 in the plates b and c . The plate m is secured by a catch m' , and in Fig. 1 it is removed to show the polygon l .

What I claim is—

1. In molds for casting lines of type, the combination of two ends, a top plate, a bottom plate, and polygons at opposite ends of the mold, with their sides at different distances from their pivots and forming distance-pieces against which the other plate rests.

2. In molds for casting lines of type the combination of a fixed end, a movable end, a top plate, a bottom plate, a rack upon the movable end and a pinion pivoted to one of the plates.

3. In molds for casting lines of type the combination of a top plate, a bottom plate, means for adjusting their distance from each other, an end fixed to one of the plates and entering a slot in the other, a movable end and means for adjusting its distance from the fixed end.

4. In molds for casting lines of type, the combination of a top plate, a bottom plate, means for adjusting their distance from each other, an end fixed to one of the plates and entering a slot in the other, a pinion pivoted to one of the plates, a movable piece carrying a rack gearing with the pinion, and end pieces of varying thickness attachable to the rack-piece.

5. In molds for casting lines of type the combination of a top plate, a bottom plate, polygons pivoted, with their sides at different distances from the pivots, to one plate and forming distance-pieces against which the other plate rests, an end fixed to one of the plates and entering a slot in the other, a pinion pivoted to one of the plates, a movable piece carrying a rack gearing with the pinion, and end pieces of varying thickness attachable to the rack-piece.

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Witnesses:

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