(No Model.)

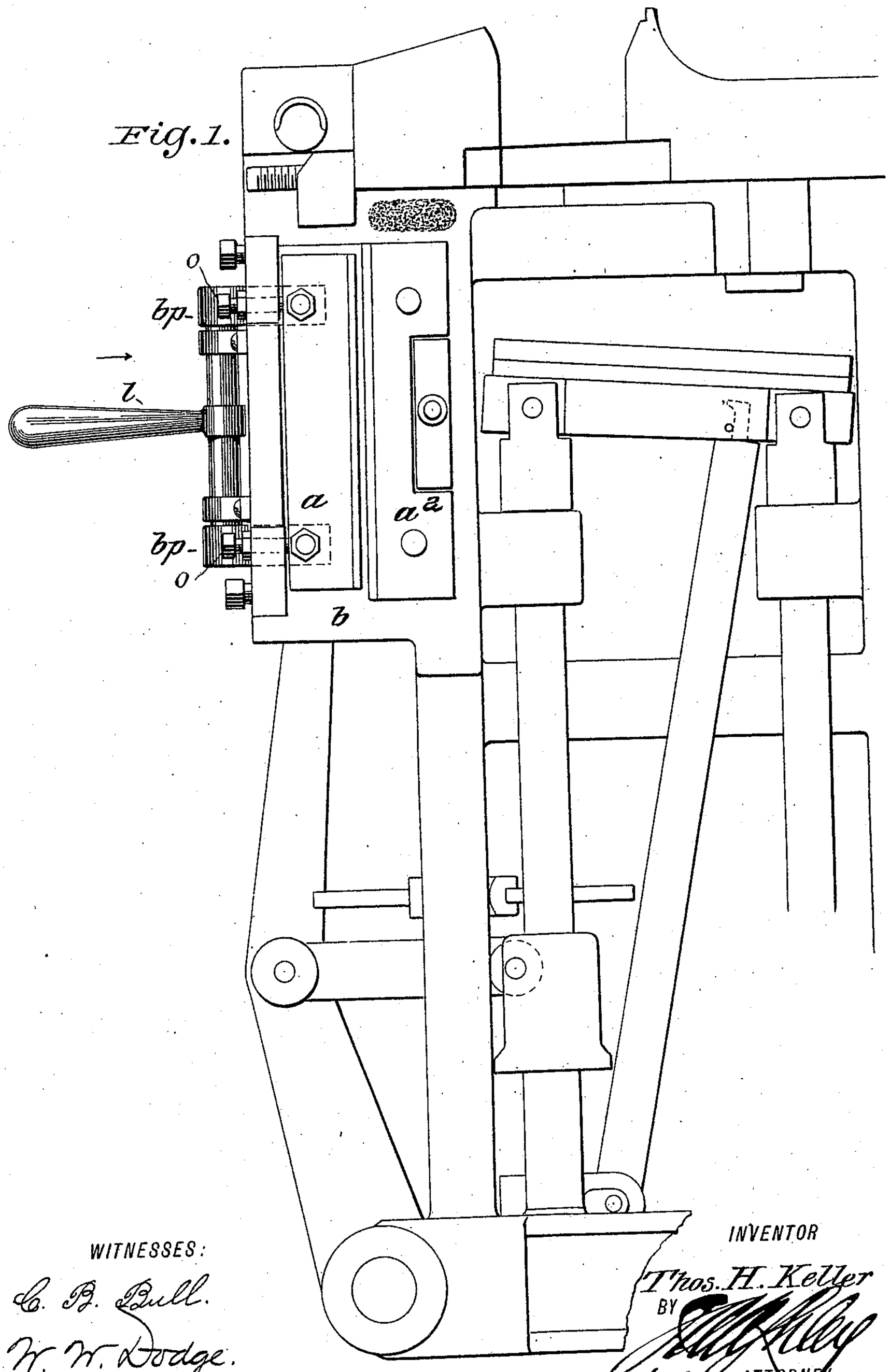
2 Sheets—Sheet 1.

T. H. KELLER.

TRIMMER FOR LINOTYPES.

No. 576,584. Patented Feb. 9, 1897.

Fig. 1.



WITNESSES:

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(No Model.) 2 Sheets—Sheet 2.

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TRIMMER FOR LINOTYPES.

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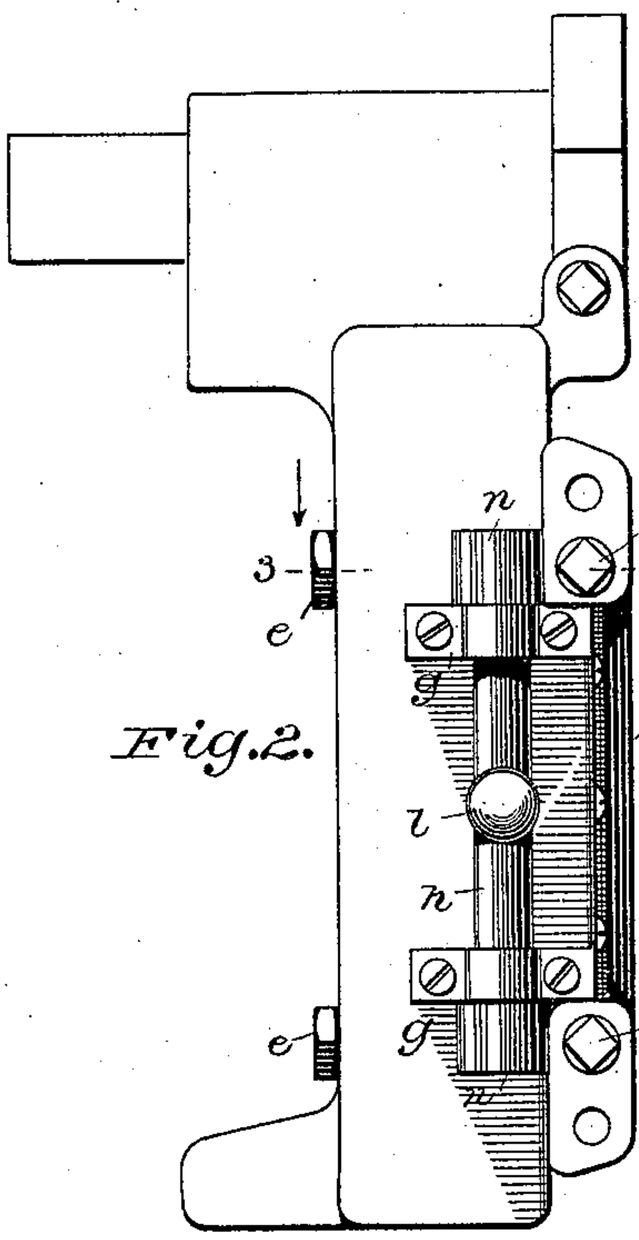


Fig. 2.

Fig. 3.
On line 3-3

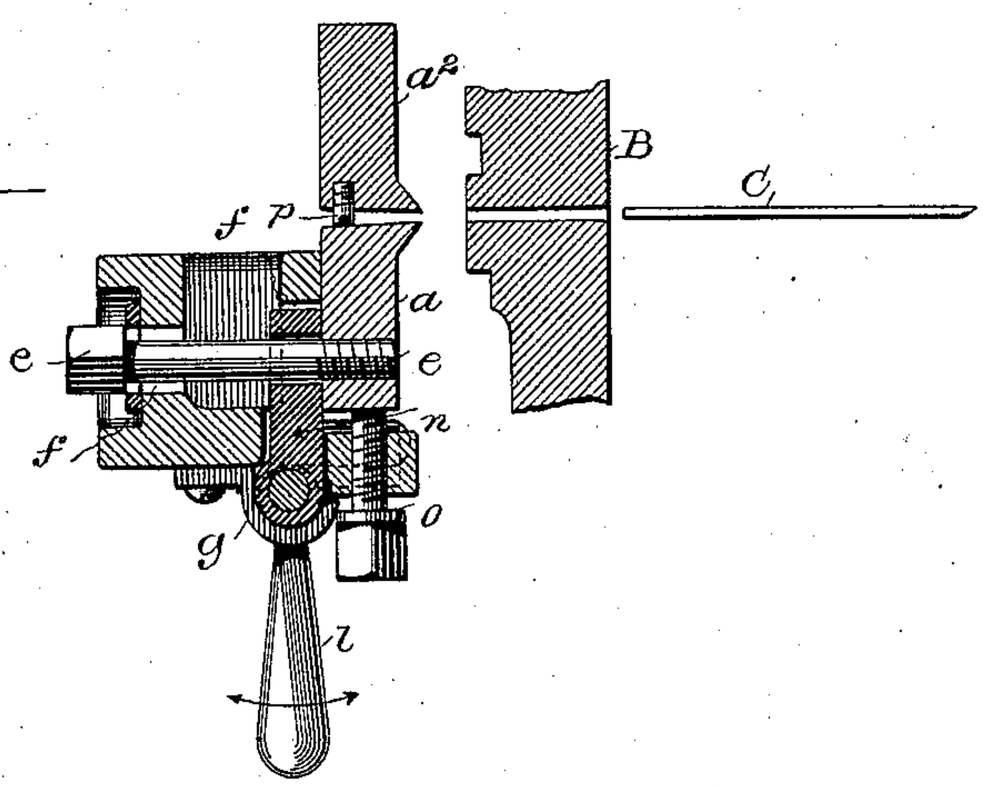
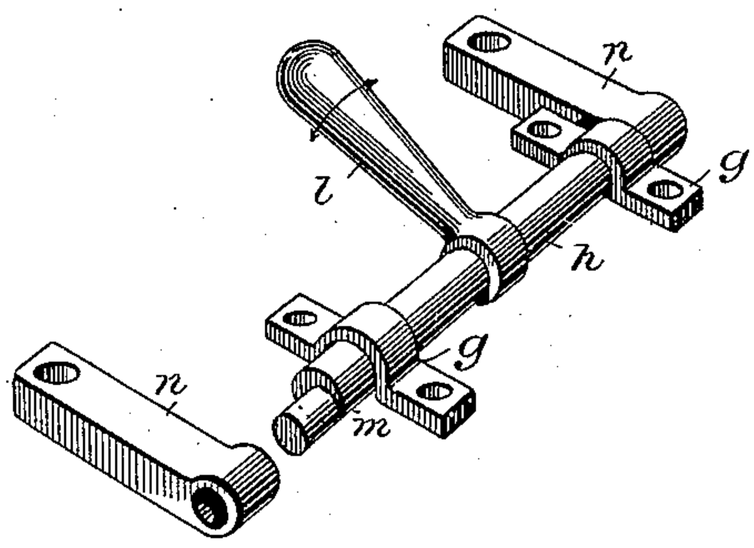


Fig. 4.



WITNESSES:
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UNITED STATES PATENT OFFICE.

THOMAS H. KELLER, OF NEW YORK, N. Y., ASSIGNOR TO THE MERGENTHALER LINOTYPE COMPANY, OF SAME PLACE.

TRIMMER FOR LINOTYPES.

SPECIFICATION forming part of Letters Patent No. 576,584, dated February 9, 1897.

Application filed January 16, 1896. Serial No. 575,812. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. KELLER, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Linotype-Machines, of which the following is a correct description.

In linotype-machines of the various forms known in the art a type-metal slug or bar bearing on one edge type-characters to print a line is cast in a mold from which it is driven forward by an ejector-blade into a galley or receiver. During the passage from the mold to the galley the slug passes between two parallel trimming-knives intended to remove irregularities from the side faces of the slug and reduce it to a uniform and predetermined thickness.

It is customary to change the molds and other parts in order that the machine may produce type-faces of different sizes and slugs of corresponding thicknesses.

The change in the thickness of the slugs produced renders necessary a readjustment of one of the trimming-knives with relation to the other in order that the distance between them may correspond precisely with the thickness of the slug required.

Heretofore the adjustment has been effected by unbolting the knife and changing its position, interchangeable liners or spacing-blocks differing in thickness being used to determine the distance between the knives.

It is the object of the present invention to provide for the instantaneous and accurate adjustment of the knife without the necessity of removing or substituting parts.

For purposes of illustration I have shown my invention embodied in connection with an ordinary linotype-machine, such as represented in Letters Patent of the United States, No. 436,531, dated September 16, 1890, the drawings being restricted to those parts which are immediately associated with my improvement. It is to be understood that in all other respects the machine may be of ordinary construction and also that the invention is applicable to linotype-machines of other forms.

Referring to the drawings, Figure 1 represents an inside face view of the vise-frame, looking from the interior of the machine forward in the direction in which the slugs are ejected, as indicated by the arrow in Fig. 2. Fig. 2 is an inside view of the same, as indicated by the arrow in Fig. 1. Fig. 3 is a horizontal cross-section on the correspondingly-numbered line of the preceding figure. Fig. 4 is a perspective view illustrating the hand-lever and eccentric connections for moving the knife.

Referring to the accompanying drawings, $a\,a^2$ represent the two parallel upright knives, of the customary form, applied to the inner side of the vise-frame in such relation to the mold B and the ejector-blade C that the slug as it is driven forward out of the mold will pass between the knives. The knife a^2 for trimming one side of the slug is bolted rigidly to the vise-frame, forming part of the main frame, as usual.

The knife a, adjustable toward and from its companion, is held in place, as usual, by bolts e, passing through horizontal slots or openings f in the vise-frame. The bolts are so adjusted as to hold the knife snugly to the face of the frame, while permitting it to be moved forward and backward by a reasonable application of force. Up to this point the parts are of substantially the ordinary construction.

In applying my improvement I mount in bearings g, on the outside of the vise-frame, a rock-shaft h, such as shown in Fig. 4, having at the middle an operating-handle 1 and at the two ends eccentric wrists or journals m. On the respective wrists I mount two bars n, which are extended inward and mounted on the bolts e, which retain the knife. It follows from this arrangement that when the rock-shaft is turned by means of its handle the eccentric wrists are caused, through the bars n, to move the knife a inward or outward—that is to say, toward or away from the knife a^2—according to the direction in which the shaft is turned. It will be observed that under this arrangement the movement of the handle serves to move the knife positively inward or outward, so that the distance between the two knives may be changed to dress the slug to any particular thickness re-

quired. In most cases the machines are used to produce slugs of two thicknesses only, and in order that the knife may be quickly and accurately adjusted to one or the other of these thicknesses I propose to provide stops of any suitable character to limit the inward and outward movement of the knife *a*. These stops are preferably adjustable, and in their most simple form will consist of the screws *o*, tapped through ears on the frame behind the knife to limit its outward movement, and screws *p*, tapped into the stationary knife a^2 or other support to limit the inward movement of the knife *a*. The movable knife will be held in its outward or backward position by the pressure of the slug. It will be securely held in its inner position by turning the rock-shaft until the eccentrics stand upon or past the center.

I believe myself to be the first to combine with a trimming-knife means for positively moving the same to and fro and stop devices for limiting its movement and the first to combine with an adjustable trimming-knife means for moving the same positively and for locking it in an adjusted position.

Having thus described my invention, what I claim is—

1. In a linotype-machine, a slug-trimming knife movable forward and backward, in combination with stops to limit the movement in both directions, and mechanism for throwing the knife instantly from one position to another.

2. In a linotype-machine, the combination of a slug-trimming knife mounted to slide forward and backward, adjustable stops to limit its forward movement, and adjustable stops to limit its backward movement.

3. In a linotype-machine, a slug-trimming knife movable forward and backward, in combination with an eccentric arranged to move the same and to pass over the center for the purpose of holding the knife in its adjusted position.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

THOS. H. KELLER.

Witnesses:
WM. O. WOOLLEY,
GEO. W. MILLER.