

(No Model.)

P. T. BALLS.

KNIFE ATTACHMENT FOR LINOTYPE MACHINES.

No. 573,383.

Patented Dec. 15, 1896.

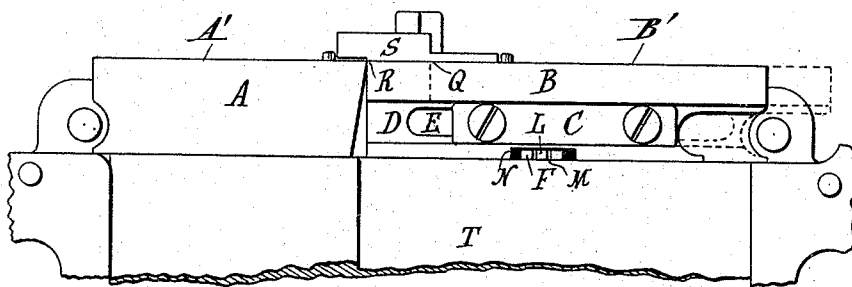


Fig 1

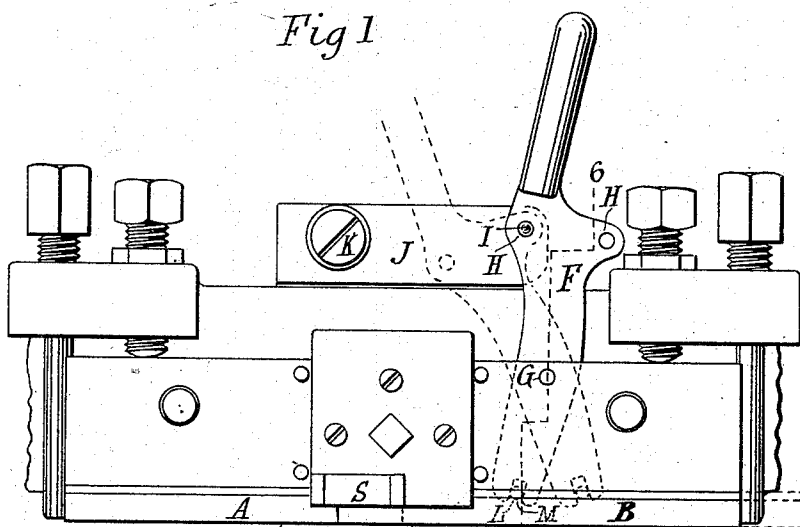


Fig 2

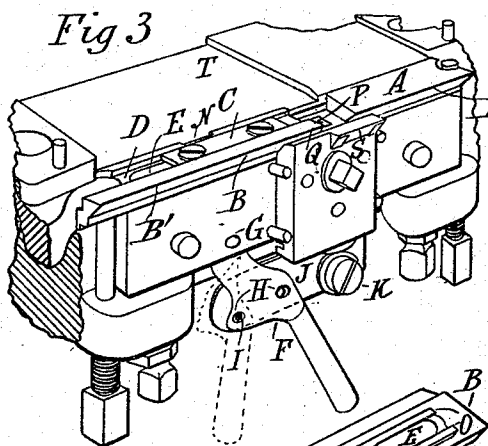


Fig 3

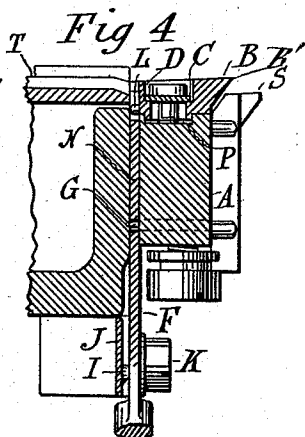


Fig 4

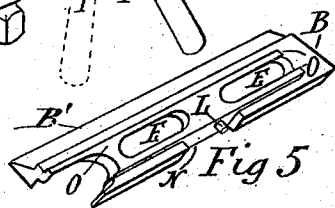


Fig 5

Witnesses

D. H. Blakelock

John L. Wilson

Inventor

Philip T. Balls

W. Whitman & Thelma
Attorneys.

UNITED STATES PATENT OFFICE.

PHILIP THOMAS BALLS, OF MELBOURNE, VICTORIA.

KNIFE ATTACHMENT FOR LINOTYPE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 573,383, dated December 15, 1896.

Application filed July 9, 1896. Serial No. 598,575. (No model.)

To all whom it may concern:

Be it known that I, PHILIP THOMAS BALLS, linotype expert, a subject of the Queen of the United Kingdom of Great Britain and Ireland, and a resident of 197 Collins Street, Melbourne, in the colony of Victoria, Australia, have invented certain new and useful Improvements in Two-Line-Letter Knife Attachments for Linotype-Machines, of which the following is a specification.

My invention relates to improvements in knife attachments for linotype-machines, and has for its object to provide a single-knife attachment which is adjustable so as to be used for trimming linotype slugs or bars having "two-line" initial letters.

My invention consists of the novel features hereinafter described and claimed.

Reference is had to the accompanying drawings, wherein the same parts are indicated by the same letters throughout the several views.

Figure 1 shows part of a knife attachment provided with my invention, with the knives in side elevation in closed position. Fig. 2 shows a plan view looking down upon the knife-edges, with the knife closed in firm lines and extended in dotted lines, showing also two positions of the lever which operates the knife. Fig. 3 is a perspective view showing the parts in Fig. 2 in reverse position. Fig. 4 is a sectional elevation on the line 6 6 in Fig. 2. Fig. 5 is a perspective view of the sliding portion of the knife, showing the under side.

A is a straight knife, as shown by firm lines in Fig. 1. The knife shown will plane ordinary linotype-slugs along their whole length, while as extended or divided, as clearly shown in Fig. 3, the said knife will allow one or more two-line letters to pass through, so that in every case the slug is planed perfectly.

In the drawings, A is the stationary part of my knife, and B the adjustable part, each part carrying a single cutting edge A' and B', respectively.

The knife-edge A' on A is so placed as not to trim the initial end of lines, and thus corresponds with the knife-edge on the lower part of the ordinary two-line-letter knife attachments.

C is a fixed holding-down plate fitting in a groove D in part B and screwed or otherwise

secured to the base, (which is in practice usually integral with the body part of A,) the screws or fastenings passing through slots E in B, which cannot move except longitudinally.

F is a lever the handle of which is accessible to the operator of the machine, said lever being pivoted at G and having a broad portion provided with a series of holes or recesses H, either one of which may engage a catch or projection I on a spring-plate J, so as to hold the lever F (and consequently the part B with the edge B', to which it is attached) firmly in one or other of the positions predetermined by the operator. The spring-plate is fixed immovably at one end to the frame or attachment, as by a screw K. The pin L, projecting from the back side of part B, falls within the slot M in the head of the lever F, a channel N being made in the back of the parts A B or in the attachment to leave room for the lever to act.

To guide the part B in its longitudinal movement, it is provided with a ribbed base O, which fits into the groove P in the fixed part A. When the blade B' abuts against blade A', then the blade B' will trim the initial ends of the ordinary linotype-slugs which pass through.

The lines Q and R in Figs. 1 and 2 show the extended and closed positions, respectively, of the edge of the adjustable part B, and the space and depression between the blades when extended is to allow the two-line letter or letters on the slug to pass through.

S represents the usual auxiliary knife for trimming the two-line letters, and T represents a two-line knife-liner, such as is used in the ordinary two-line-letter attachment. These are well known in the art, and hence will not be further described.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a trimming attachment for linotype-machines, the combination with a stationary part having a fixed knife-edge extending a portion of its length only, and being cut away for another portion of its length; of a longitudinally-movable blade mounted in said cut-away portion and having a knife-edge in line with said fixed knife-edge; and means for

sliding said movable blade longitudinally, substantially as described.

2. In a trimming attachment for linotype-machines, the combination with a stationary part having a fixed knife-edge extending a portion of its length only, and being cut away for another portion of its length; of a longitudinally-movable blade mounted in said cut-away portion and having a knife-edge in line with said fixed knife-edge; means for sliding said movable blade longitudinally, and means for clamping said movable blade in a predetermined position, substantially as described.

3. In a trimming attachment for linotype-machines, the combination with a stationary part having a fixed knife-edge extending a portion of its length only, and being cut away for another portion of its length; of a slotted movable blade mounted in said cut-away portion, a holding-plate resting upon said movable blade, and screws passing through said holding-plate and the slots in said blade, and holding the same in position and permitting of a longitudinal movement thereof only; and means for sliding said movable blade longitudinally, substantially as described.

4. In a trimming attachment for linotype-machines, the combination with a stationary part having a fixed knife-edge extending a portion of its length only, and being cut away for another portion of its length; of a slotted movable blade mounted in said cut-away portion, a holding-plate resting upon said movable blade, and screws passing through said holding-plate and the slots in said blade, and holding the same in position and permitting of a longitudinal movement thereof only; a rearwardly-projecting stud on said movable blade; and a pivoted lever engaging said stud and adapted to move said blade longitudinally, substantially as described.

5. In a trimming attachment for linotype-machines, the combination with a stationary part having a fixed knife-edge extending a portion of its length only, and being cut away for another portion of its length; of a slotted movable blade mounted in said cut-away portion, a holding-plate resting upon said movable blade, and screws passing through said holding-plate and the slots in said blade, and holding the same in position and permitting of a longitudinal movement thereof only; a rearwardly-projecting stud on said movable blade; a pivoted lever engaging said stud and adapted to move said blade longitudinally, and means for clamping said lever in a predetermined position, substantially as described.

6. In a trimming attachment for linotype-machines, the combination with a stationary part having a fixed knife-edge extending a

portion of its length only, and being cut away for another portion of its length, and having a longitudinal recess in said cut-away portion; of a movable blade mounted in said cut-away portion, and provided with a longitudinal rib adapted to fit in said longitudinal recess and allow said movable blade to slide into or out of contact with the end of said fixed blade, means for holding said movable blade in said recess, means for sliding said movable blade, and means for clamping the same in a predetermined position, substantially as described.

7. In a trimming attachment for linotype-machines, the combination with a stationary part having a fixed knife-edge extending a portion of its length only, and being cut away for another portion of its length, and having a longitudinal recess in said cut-away portion; of a longitudinally-slotted movable blade mounted in said cut-away portion, and provided with a longitudinal rib adapted to fit in said longitudinal recess and allow said movable blade to slide into or out of contact with the end of said fixed blade, a holding-plate resting upon said movable blade, screws passing through said holding-plate and through the slots in said blade, and holding said movable blade in said recess, means for sliding said movable blade, and means for clamping the same in a predetermined position, substantially as described.

8. In a trimming attachment for linotype-machines, the combination with a stationary part having a fixed knife-edge extending a portion of its length only, and being cut away for another portion of its length, and having a longitudinal recess in said cut-away portion; of a longitudinally-slotted movable blade mounted in said cut-away portion, and provided with a longitudinal rib adapted to fit in said longitudinal recess and allow said movable blade to slide into or out of contact with the end of said fixed blade, a holding-plate resting upon said movable blade, screws passing through said holding-plate and through the slots in said blade, and holding said movable blade in said recess, a stud on the rear side of said movable blade; a pivoted lever engaging said stud, and adapted to slide said movable blade; and a spring-catch adapted to hold said lever in a predetermined position, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

PHILIP THOMAS BALLS.

Witnesses:

GEORGE G. TURRI,
E. F. NICHOLLS.