(No Model.) 2 Sheets—Sheet 1.

J. MacKIRDY.

LINOTYPE MACHINE.

No. 576,409. Patented Feb. 2, 1897.

Fig. 1.

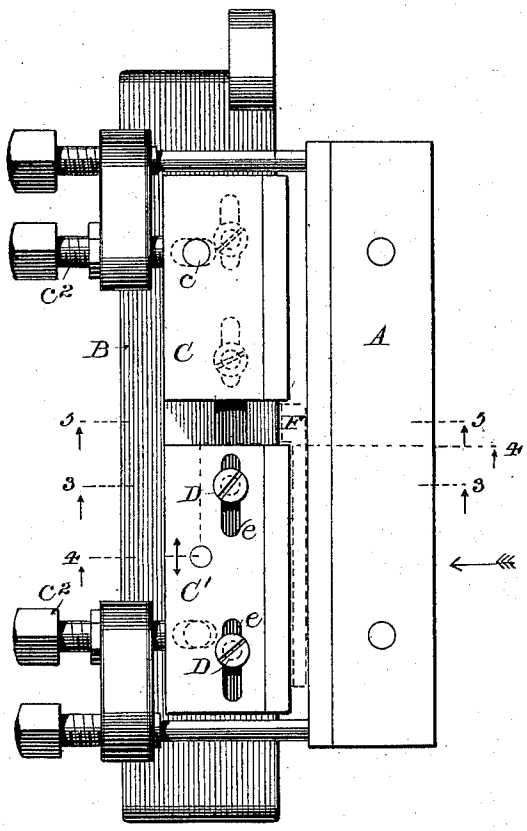


Fig. 2.

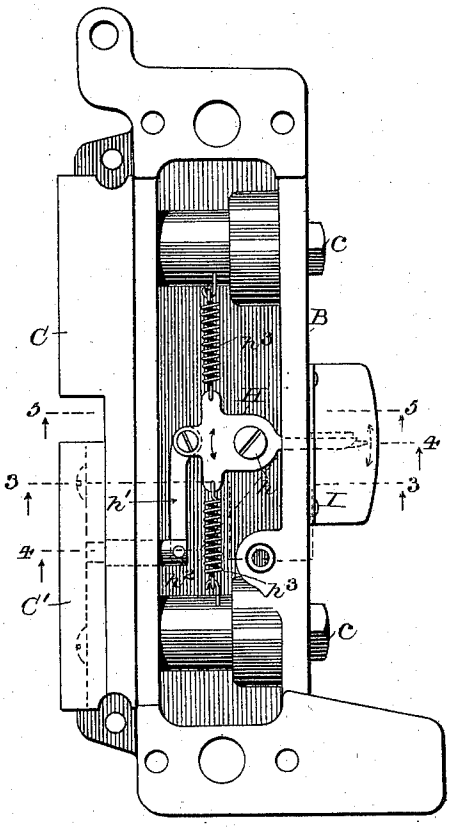
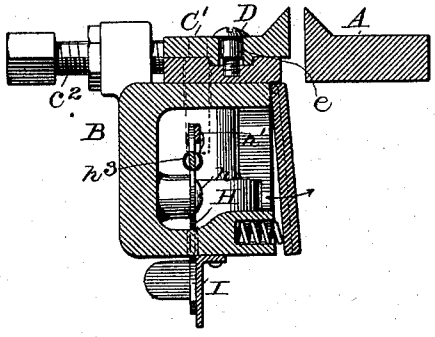


Fig. 3.

On line 3-3



WITNESSES:

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ATTORNEY.

(No Model.) 2 Sheets—Sheet 2.

J. MACKIRDY.

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Fig. 4.
On line 4-4

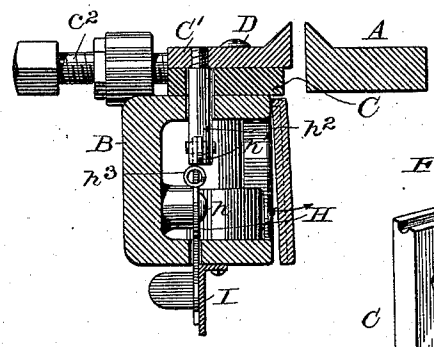


Fig. 5.
On line 5-5

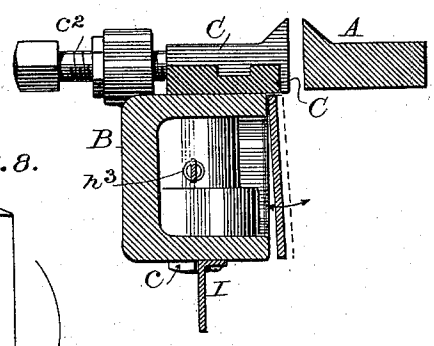


Fig. 8.

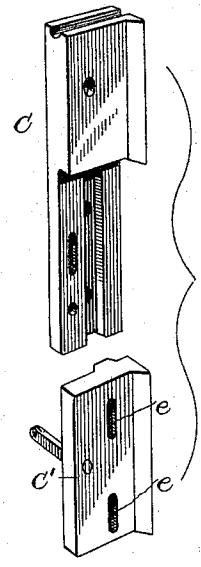


Fig. 6.

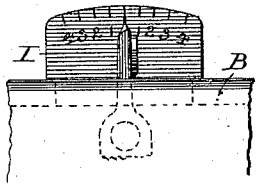
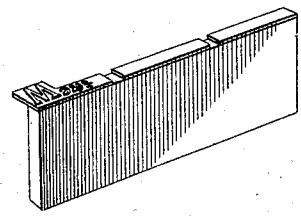


Fig. 7.



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UNITED STATES PATENT OFFICE.

JAMES MACKIRDY, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE MERGENTHALER LINOTYPE COMPANY, OF NEW YORK.

LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 576,409, dated February 2, 1897.

Application filed March 21, 1896. Serial No. 584,280. (No model.)

To all whom it may concern:

Be it known that I. JAMES MACKIRDY, of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Linotype-Machines, of which the following is a specification.

Letters Patent to Ottmar Mergenthaler dated December 24, 1895, exhibits a linotype having at its end a two-line letter overhanging its side face to bear upon the edge of the next linotype in the form.

In linotype-machines of the Mergenthaler class the slugs or linotypes are ejected from the mold between trimming-knives designed to dress their side faces in order to render them true and of uniform thickness. When the machine is used to produce slugs with the overhanging letters, it is necessary that the knife should be so adjusted as to escape the overhanging letter in order that it may not be sheared from the slug. To this end I divide the trimming-knife and arrange one part to slide endwise, so that when required its end may be carried beyond the path of the ear on the passing slug. I propose to mount the movable portion of the knife on guides or supports of any suitable character, so that it may be moved freely in an endwise direction, and to combine with it operating devices of any appropriate character to effect this movement.

In the drawings I have represented an embodiment of my invention which is found to answer an excellent purpose in practice.

Figure 1 is an inside face view of the knives and adjacent parts; Fig. 2, a view of the same, looking in the direction indicated by the large arrow in Fig. 1. Figs. 3, 4 and 5 are cross-sections upon the correspondingly-numbered lines. Fig. 6 is a face view of the adjusting-lever and graduated plate. Fig. 7 is a view illustrating one of the slugs with overhanging letters or characters. Fig. 8 is a perspective view showing the two sections of the adjustable knife separated from each other.

Referring to the drawings, A represents a stationary knife to trim one side of the slug; B, a stationary part of the main frame, commonly known as the "knife-block," to which the knife A is bolted, as usual.

C C′ is a second knife mounted upon the knife-block and secured by bolts *c*, as usual. These bolts pass through horizontal slots to permit the knife to be adjusted toward its companion by means of the usual set-screws c^2.

My improved knife is constructed in the two parts or sections C and C′. The main section C, having a cutting edge along its upper end, is secured to the knife-block by bolts *c*, before mentioned. The lower section C′ of the knife is mounted to slide vertically or longitudinally on the lower end of the upper section, which is reduced in thickness to receive it, as plainly shown in Fig. 8. The sliding section C′ is held in place by means of screws D, passing through slots *e*, as shown in Figs. 1 and 3. When the lower section C′ is raised to the extreme limit, its edge forms a continuation of that of the upper portion of the knife, so that the knife will act throughout the length of the slug, as usual. When, however, the section C′ is moved downward, its edge separates from that of the upper and stationary portion, leaving between the two a gap or opening F, through which the overhanging ear on the upper end of the slug may pass. The shape of the slug is represented in dotted lines in Fig. 1. When driven between the knives adjusted as shown, the section C′ acts to trim the slug up to a point adjacent to the ear, while the latter is permitted to pass without interruption through the opening F to the galley or receiver beyond. If the overhanging ear or letter is located at the lower end of the slug, it is only necessary to raise the section C′ a sufficient distance to admit of the ear passing thereunder. Thus it will be seen that by adjusting the movable part of the knife endwise the machine may be caused to trim the slug throughout its length or to permit the passage of slugs having overhanging characters either at the upper or at the lower end.

The movable knife-section may be fixed in any required position, but in practice it is convenient to use in connection with it means by which it may be quickly adjusted to the different positions required. As shown in the drawings, these means consist of a finger-lever H, pivoted within the knife-block at *h*,

one end being connected by a link h' to a stud h^2 on the movable knife, while the opposite end is projected through a slot to the exterior in a position to be readily manipulated by the operator. Springs h^3 are connected to opposite sides of this lever and tend to hold it normally in an intermediate position. Adjacent to the outer end of the lever there is a plate I, graduated to be read in connection with the end of the lever, in order that the latter may be quickly adjusted to place the knife in the various positions required according to the location or length of the overhanging ear on the slug. The upper end of the knife may also be slotted and secured by screws, as represented by dotted lines in Fig. 1, or by any other suitable means, so that it may be raised or lowered and fixed in different positions.

Having thus described my invention, what I claim is—

1. In a linotype-machine a divided slug-trimming knife having one section mounted to slide endwise in the direction of the length of the slug, substantially as described.

2. In a linotype-machine, a slug-trimming knife mounted to slide in the direction of its length in combination with an adjusting-lever and spring connections tending to hold the same in an intermediate position.

3. In a linotype-machine, a slug-trimming knife mounted to move in the direction of its length in combination with adjusting devices therefor and a scale or indicator substantially as described.

4. In a linotype-machine, a trimming-knife consisting of two sections both mounted for independent longitudinal adjustment.

In testimony whereof I hereunto set my hand, this 14th day of March, 1896, in the presence of two attesting witnesses.

JAMES MACKIRDY.

Witnesses:
MARGARET DUNN,
G. T. MIATT.