

(No Model.)

C. C. MILLER.
TYPE WRITER ALINER.

No. 581,604.

Patented Apr. 27, 1897.

Fig. 1.

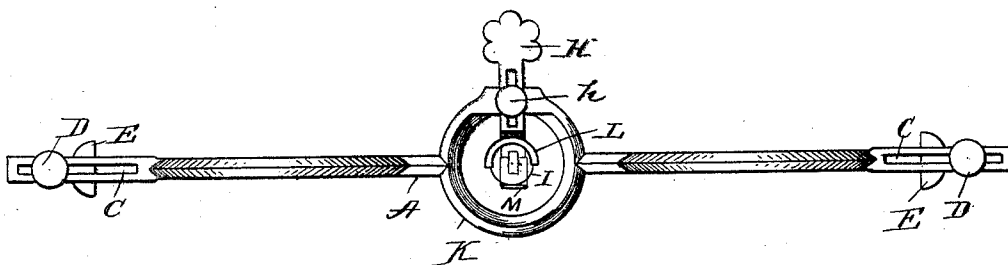


Fig. 2.

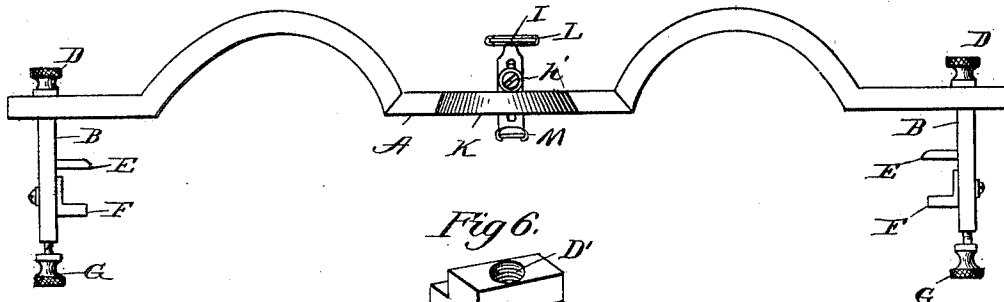


Fig. 6.

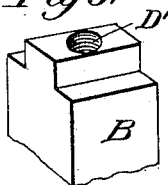


Fig. 3.

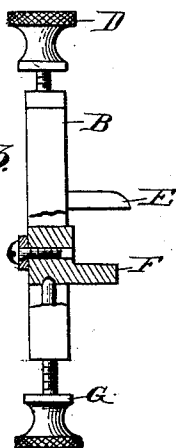


Fig. 4.

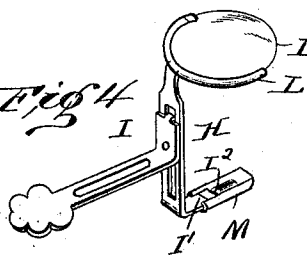
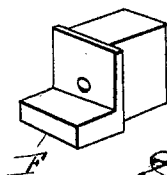


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES C. MILLER, OF CHELSEA, MICHIGAN.

TYPE-WRITER ALINER.

SPECIFICATION forming part of Letters Patent No. 581,604, dated April 27, 1897.

Application filed April 1, 1896. Serial No. 585,815. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. MILLER, a citizen of the United States, residing at Chelsea, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Type-Writer Aliners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention consists in the construction and arrangement of a device and its parts for use in examining and adjusting the type-bars of type-writers, substantially as set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a top view. Fig. 2 is an elevation. Figs. 3, 4, 5, 6, and 7 are details of parts.

This device is made with a bridge-piece A, having a circle K, with a central opening and arches on each side and straight slotted feet parts C at the ends, bearing adjustable holders B, by which it is adjusted to the type-writer frame and fastened securely in place thereon. The straight parts C have vertical slots through them, both in one continuous straight line, closed at the ends, and the holders B are set into these slots by flat necks which fit them closely to hold the holders from turning while adjustable along the slots. The holders B have shoulders below these necks to bear on the under side of parts C and have holes in the tops of the necks to receive and hold clamp-screws D, which have shoulders to bear on the tops of parts C and clamp them solidly when screwed up to hold the holders B rigidly in place, as they may be adjusted to fit the type-writer frame in use. These parts are arranged to fit centrally across the frame of the Remington and Caligraph type-writers and such others as they are suited to, so the holders B will fit outside of and against the upper lateral frame-bars of the type-writer at equal distances from the center of circle K for use and may be adjusted to fit them in different sizes of machines for use, with the circle centrally over the place where the type strike in use and with the arches of the bridge located over the hinges of the type-bars.

The holders B have flanges E projecting to rest upon the side bars of the type-writer and movable flanges F to fit up under those bars or frames to clamp them to hold the device rigidly in place. The holders B also have slots in which are fitted movable parts bearing the flanges F and guide-bearings fitted on parts B, so as to move freely thereon while holding the flanges F rigidly projected for clamping.

The part F is fitted to slide in the slot of part B by means of a flat neck with shoulders, as in Fig. 5, and a set-screw with shoulders to bear on the opposite side of the part B, as in Figs. 3 and 2.

The holders B have set-screws G below, arranged to force the flanges F up for clamping or to draw them down for removal as required in use.

On one side of the circle K a holder H, having a slotway at right angles to bridge A, is held by a set-screw *h* to the bridge, so that it may be freely adjusted thereon for use.

The holder H bears an adjustable part L by a set-screw *h'*, fitting through a vertical slot in part L, so as to freely adjust that up and down to suit different patterns and sizes of type-writers and bring the lower end of part L to a level to suit the type.

The part L bears a magnifying-glass I on its upper end and a notch I' at its lower end for use in making examination of and correcting the striking of the type. The part L also bears a slide M, attached to it by bearings below, so as to be movable thereon, which bears a second notch or mark I'', adapted to be brought into such relation with mark I' that one may be used as a guide for the top line of the type and the other for the bottom line and also for the central point of the type-space whatever the vertical length of the type may be.

For use the top parts of type-writers, as far as needed, are removed or turned out of the way, and the bridge A is put on centrally where the ribbon generally travels, with the circle K centrally around where the type strike in writing. The screws D are loosened and the parts B set with the flanges E on the tops of the lateral (end) bars or plates of the type-writer frames. Then the parts B are adjusted on the parts C equidistant from the

center and firmly against the frame and tightened in place by screws D. Then the screws G are run up to tighten the clamps F up against the bars on which flanges E rest.
 5 Then the screw *h* is loosened and the holder set so as to bring the focus of the glass I over the center, where it is fastened by screw *h*. Then the screw *h'* is loosened and the part L is adjusted to bring the lower part at M to
 10 the level of the type when writing. The different sizes of machines require to have this set at different level, and scale-marks are often made on part L for use in getting this adjusted to the right point. Then the type
 15 are lifted and compared one at a time with the mark I' and adjusted when out of true. For long letters or capitals the slide-mark I² is used for the other end of the letter.

I claim—

20 1. A bridge-piece, for use with a type-writer, having adjustable holding parts at its ends and a circular part in the center with an open space arranged to come, when in use, over the position of the type in making their
 25 impression in writing, in combination with a holder adjustable in such space on the bridge-piece circle and bearing a magnifying-glass

and a type-adjusting notch adapted for use substantially as set forth.

2. A bridge-piece for use with a type-writer 30 having adjustable and holding parts on its ends in combination with an adjustable part adapted to come over the type when in position for striking in writing and bearing both a magnifying-glass and a notch adapted to 35 come in fixed relation to the type for use in adjusting them into alinement and position, substantially as set forth.

3. In an instrument for use in adjusting the type of type-writers a magnifying-glass 40 in combination with a part bearing a notch adapted to come in connection with the type when in position for writing for use in correcting the alinement and position of the type, and with a second part bearing a notch 45 adjustable in relation to the first notch for use with it on the opposite side of the type, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES C. MILLER.

Witnesses:

BERT B. TURN BULL,
 G. W. TURN BULL.