F. M. DILLON.

MARGIN ADJUSTING ATTACHMENT FOR TYPE WRITERS.

APPLICATION FILED OCT. 5, 1912.

1,130,804.

Patented Mar. 9, 1915.

2 SHEETS—SHEET 1.

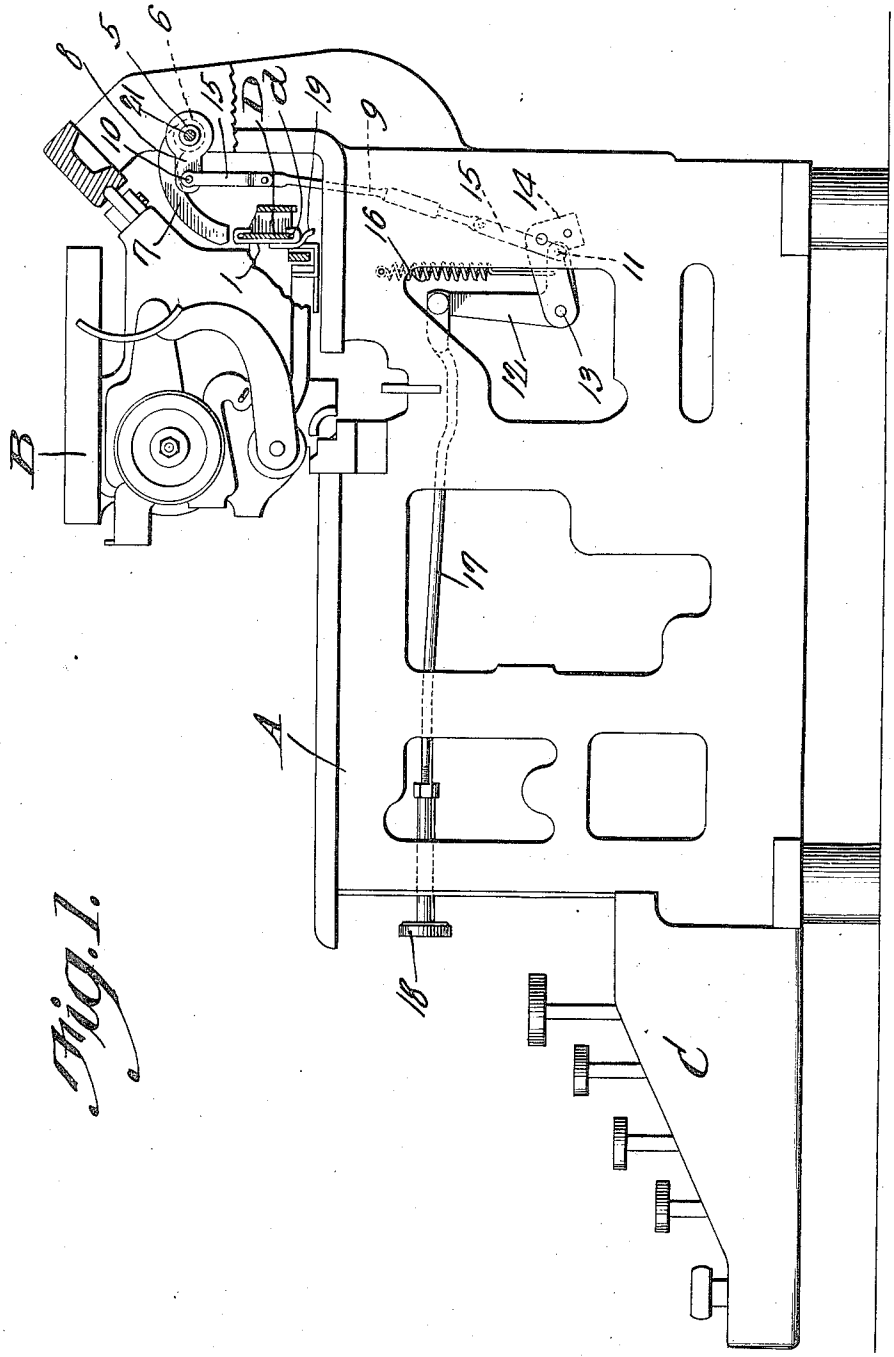


Fig. 1.

Witnesses

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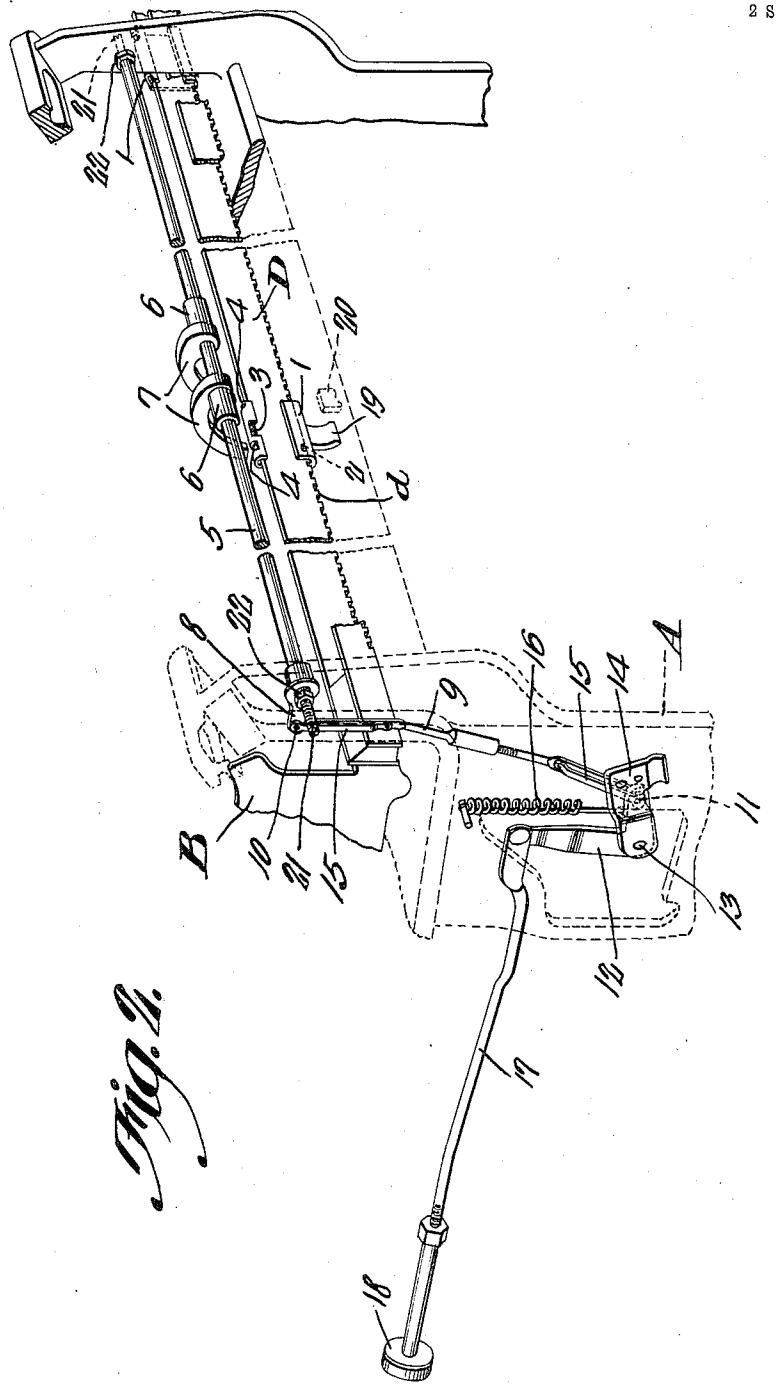


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

FRANK M. DILLON, OF DURHAM, NORTH CAROLINA.

MARGIN-ADJUSTING ATTACHMENT FOR TYPE-WRITERS.

1,130,804. Specification of Letters Patent. Patented Mar. 9, 1915.

Application filed October 5, 1912. Serial No. 724,131.

To all whom it may concern:

Be it known that I, FRANK M. DILLON, a citizen of the United States, residing at Durham, in the county of Durham and State of North Carolina, have invented a new and useful Margin-Adjusting-Attachment for Type-Writers, of which the following is a specification.

This invention relates to a margin adjusting attachment for typewriters.

Heretofore considerable difficulty has been experienced in adjusting the margin stops or slides of typewriters when it is desired to regulate the size of the margin formed at either or both sides of the typewritten page. In some makes of machines the stops or slides are located back of the carriage at points where they cannot be reached conveniently and, in other types of machines, the stops or slides are located on rods in front of the machines and where they often interfere with the view of the operator.

One of the objects of the present invention is to provide means under the control of a key adjacent the keyboard whereby the slides or stops can be brought to any desired positions relative to the ends of the carriage.

A further object is to provide an attachment of this character which can be applied readily to most types of typewriters and which is simple in construction, easy to manipulate, and will not readily get out of order.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings: Figure 1 is a side elevation of a typewriter having the present improvements combined therewith. Fig. 2 is a perspective view of the attachment, adjacent parts of the typewriter being indicated by dotted lines.

Referring to the figures by characters of reference A designates the frame of a typewriter, the same being provided with a carriage B adapted to travel back and forth in the usual manner. The keyboard has been indicated at C. The carriage is provided at its back with a toothed bar D such as commonly employed and on which stop slides 1 are mounted. Each of these slides may be in the form of a band extending partly or entirely around the bar D and the teeth *d* formed along the lower edge of the bar are adapted to be engaged by a tooth or projection 2 carried by the lower portion of the stop 1. A spring 3 is interposed between the top of the bar D and the top of slide 1 and serves to hold the tooth 2 normally in engagement with the bar and thus prevent the slide or stop from shifting longitudinally along the bar D. Spaced notches 4 are formed in the upper end of each slide 1.

Supported above the bar D and parallel therewith is a rock shaft 5 having spaced sleeves 6 secured thereto, there being curved fingers 7 extending downwardly and inwardly from the sleeves. The free ends of the fingers are spaced apart a distance equal to the distance between the notches 4.

Secured to one end of the bar 5 is a crank arm 8 and a pull rod 9 extends downwardly from this arm and is pivotally connected to it. This rod carries at its ends, pins or studs 10 and 11 projecting into the arm 8 and one arm of a bell crank lever 12, respectively. This lever is fulcrumed as at 13 upon a bracket 14 secured to the frame A. Studs 10 and 11 can be held in engagement with the crank arm and with the bell crank lever in any suitable manner, as by means of leaf springs 15. A coiled spring 16 or the like is attached to the lower arm of bell crank lever 12 and also to the frame A and serves constantly to pull upwardly on the bell crank lever so as thus to cause the rod 9 to push upwardly on arm 8 and hold the fingers 7 raised above the bar D. A push rod 17 is pivotally connected to the upper arm of the bell crank lever 12 and extends forwardly through the front portion of the frame A and close to the keyboard, the front end of the rod being provided with a key or button 18.

When it is desired to adjust the stop or slide 1, the carriage is adjusted or shifted longitudinally until it reaches the limit of its movement with the depending lug 19 on the stop 1 abutting against the fixed stop 20. This stop 20 is so located that, when lug 19 contacts therewith, the slide is disposed with its notches 4 directly under the fingers 7.

By now pressing inwardly on the button 18, the fingers can be caused to swing downwardly into the notches. They will thus push the stop 1 downwardly so as to disengage its tooth from the bar D and, at the same time, these fingers will hold the stop 1 against longitudinal movement with the carriage. While the button is thus held pressed backwardly, the carriage can be moved to the right or to the left until a desired graduation on its front or index plate is brought to the pointer whereupon the key can be released and the tooth 2 will spring up into engagement with the bar which has been shifted with the carriage. In this manner the stop or slide can be readily adjusted simply by pushing it downwardly and holding it, by the manipulation of key 18 and then shifting the carriage and its bar D so as to bring the stop or slide in position to engage the desired tooth upon the bar. Obviously this adjustment can be very quickly effected and, inasmuch as the attachment is simple and compact, it can be applied readily to machines already constructed and without necessitating any material changes therein. In order to effect a minute adjustment of shaft 5 within frame A, the ends of the shaft are loosely engaged by screws 21 extending through the frame. Stop nuts 22 are located on these screws and bear against the ends of the shaft so as to hold the shaft against end play and to permit longitudinal adjustment thereof.

Having described the invention what is claimed is:

The combination with a typewriter carriage, and a toothed bar carried thereby, of a margin stop normally engaging and moving with the bar, means interposed between the bar and the top of the stop for yieldingly supporting the stop to hold it in engagement with the teeth on the bar, a rock shaft held against longitudinal movement said shaft being parallel with the bar, a finger extending from the shaft, an arm radiating from the rock shaft, a lever, a connection between said lever and the arm, a spring connected to the lever for holding the finger on the rock shaft normally elevated out of the path of the stop, and means for actuating the lever to rock the shaft against the action of the spring connected to the lever, said shaft, when rocked, constituting means for shifting the finger into engagement with the stop to depress the stop out of engagement with the teeth upon the bar and to hold the stop against movement with the bar, there being a recess in the stop for the reception of the finger.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRANK M. DILLON.

Witnesses:
SELINA WILLSON,
I. E. SIMPSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."