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MARGIN STOP FOR TYPEWRITERS OR THE LIKE

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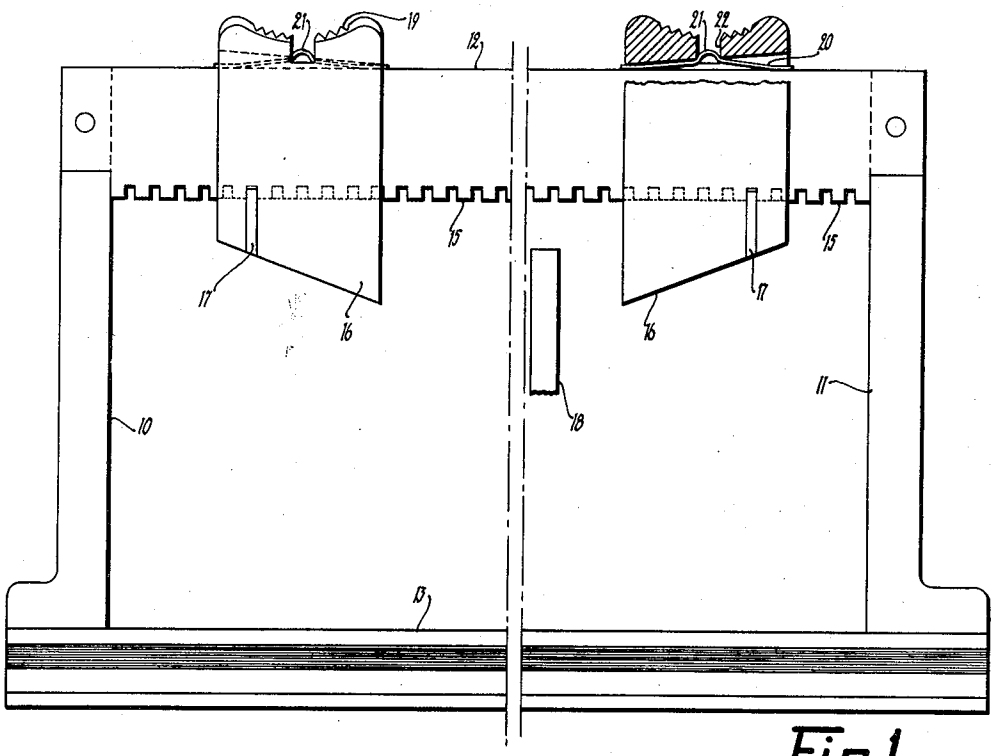

Fig. 1

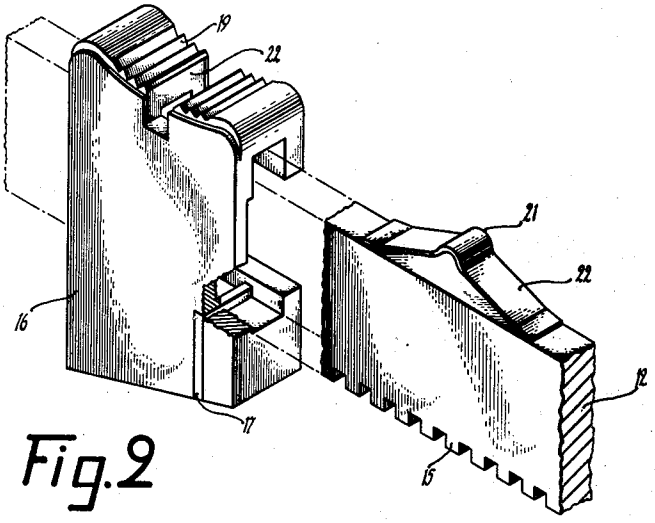

Fig. 2

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MARGIN STOP FOR TYPEWRITERS OR THE LIKE

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1 Claim. (Cl. 197—70)

The present invention relates to typewriting or like machines wherein a platen carriage travels back and forth across a printing point between margin positions defined by adjustable margin stops. More particularly, the invention is concerned with the construction and mounting of a margin stop suitable for use in such a machine.

The margin stops of a typewriter are usualy slidably mounted on a notched or toothed bar which bar frequently is one of the main structural members of the carriage. These stops are adjustable along the bar, sometimes by direct manual manipulation and sometimes by means of one or more special keys on the keyboard, and are provided with means for cooperating with the notches of the bar to hold them in their adjusted positions, said means normally being held in holding cooperation with the notches by springs. The margin stops are subjected to severe shocks when they contact a relatively fixed counter stop as the carriage moves to the marginal positions, especially the left-hand stop which strikes the counterstop with considerable force as the carriage is returned to line-start position. These shocks tend to weaken the springs which hold the stops in their adjusted positions, with the result that such springs have to be replaced at somewhat frequent intervals. With margin stops of certain construction it is necessary to remove the margin stop bar and slide the stop endwise from the bar in order to replace a broken or weakened spring. Since the margin stop bar is one of the main structural elements of the carriage it generally takes a considerable amount of time to remove the bar and replace a spring.

It is the object of this invention to provide an improved margin stop assembly of rugged construction having provision whereby a broken or weakened margin stop spring can be readily replaced in a minimum of time and without removing the stop from the bar on which it is mounted.

Referring now to the drawing for a description of a preferred embodiment of the invention:

Figure 1 is a diagrammatic representation of a portion of a typewriter carriage, showing margin stops of the present invention mounted on the margin stop bar and

Figure 2 is a perspective view showing the manner of mounting the margin stop and its spring on the margin stop bar.

The carriage of a typewriter or other business machine generally comprises a pair of end plates, such as designated at 10 and 11, held together by a plurality of members, two of which are herein indicated at 12 and 13. Since the details of carriage construction vary considerably from machine to machine and since this invention is equally applicable to all of them, no attempt has been made to accurately portray any particular carriage, but it will be understood that the carriage formed by the end plates 10 and 11 and the members 12 and 13 is the part of the machine which carries the platen for back-and-forth movement across the printing point and on which the paper feeding, line spacing and the like mechanisms are mounted.

As herein shown, the member 12 is in the form of a rectangular bar having a row of uniformly spaced teeth 15 extending along the lower edge thereof. Slidably mounted on the bar 12 is a pair of margin stops 16, each

of which is provided with a tooth 17 for cooperating with the teeth of the bar. The stops 16 may be moved to any desired positions along the bar and as the carriage moves to line-start or line-end position the appropriate stop strikes a counterstop, partially shown at 18, to prevent movement of the carriage past the desired marginal position. Since these stops sometimes strike the counterstop with considerable force, it is desirable to make them of relatively heavy stock and of substantially one-piece construction.

Each stop 16 is made of one piece of material except for the tooth 17 and slidably embraces the bar 12 so that it can be removed therefrom only by removing the bar from the carriage and sliding the stop from the end thereof. Since the bar is one of the main structural members of the carriage it is a time consuming job to remove it.

Each stop has a finger receiving portion 19, which may be knurled or serrated as indicated in the drawing, by means of which said stop may be conveniently slid along the bar. A leaf spring 20 having a crimped portion 21 at substantially the midpoint thereof is located between the top edge of the bar 12 and the upper portion of the stop 16 and urges the stop upwardly to cause the tooth 17 to engage the teeth 15 of the bar. A portion of the stop is cut away to provide a slot 22 and the crimped portion 21 of the leaf spring extends into said slot to hold the spring in place. To move the stop, the operator of course presses down on the finger receiving portion 19 to compress the spring and move the tooth 17 out of engagement with the teeth 15 and then slides the stop to any desired position.

Should it become necessary to replace the spring 20, because of the old one breaking or becoming too weak to hold the tooth 17 in engagement with the teeth 15, this can very easily be done by inserting a screwdriver or the like into the slot 22 and inching the old spring out, after which a new one may be placed on top of the bar 12 and slid between the bar and the stop until the crimped portion 21 engages the slot 22.

Beneath the finger portion of the margin stop the portion next to the bar is cut at an angle, as best shown in Figure 1, so that the stop does not move straight down when depressed but swings about one of the upper edges just enough to remove the tooth thereof from engagement with the teeth of the bar. This arrangement is desirable for easy disengagement of the margin stop tooth and also provides a convenient opening for inserting the spring 20.

Having thus described the invention, what is claimed is:

In a typewriter or like machine having a traveling carriage comprising a pair of end plates held together by a plurality of members extending therebetween, a substantially rectangular bar extending between said end plates, the ends of said bar being fixed to said end plates, said bar having a plurality of uniformly spaced teeth extending along one edge thereof, a margin stop slidably mounted on said bar, said stop having a tooth adapted to cooperate with the teeth of said bar to hold said stop in any position along said bar to which it may be moved, said stop having a finger receiving portion to facilitate the sliding of said stop along said bar, a slot extending through said finger receiving portion, and a leaf spring located between said stop and said bar and urging said stop in a direction to engage the tooth thereof with the teeth of said bar, said spring having a crimped portion engaging said slot to yieldably hold said spring in place.

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