This invention relates to a typewriter ribbon setter, that is, a tool for placing and removing a typewriter ribbon.

Heretofore the setting of standard typewriter ribbons was done with ordinary tools or with makeshift tools, causing much unpleasantness and sometimes even damage. The invention relieves these conditions by providing a tool which makes the ribbon to be set with much less effort than it normally is. The tool can readily be adapted to all types of standard typewriters, both old and new. It consists in a unitary article of utmost simplicity and economy, which can be disposed of as a gift and which nevertheless introduces definite improvement into the daily work of typewriter operators.

The details will readily be understood upon a perusal of the disclosure which follows, wherein:

Figure 1 is a diagrammatic plan view of a typewriter showing the new tool in use.

Figure 2 is a side view of one of the same typewriter, partly broken away, again showing the new tool in use.

Figure 3 is an enlarged detail from Figure 2, the view being taken in section along line 1—1 shown in Figure 4.

Figure 4 is a view of the detail of Figure 3, this view being taken along the lines 4—4 in Figure 3.

Figure 5 is a view generally similar to Figure 3 but showing a modified tool, and

Figure 6 is a view of the tool of Figure 5, taken along the lines 6—6 in Figure 5.

Referring first to Figures 1 and 2:

A typewriter 10 is equipped with the usual ribbon 11, guided from reel to reel (not shown) through the usual ribbon carrier 12 in front of the typewriter roller or platen 14. For the purpose of inserting or replacing the ribbon 11 it is usually necessary to open or remove, in known manner, a cover 13 over the ribbon reels and then to thread the ribbon onto the carrier 12, or to remove it therefrom. These operations frequently cause soiling of the operator's fingers and subsequent soiling of paper, dresses, etc. Finger nails may break and other aggravating incidents occur.

It is known that the operation is facilitated by lowering the segment which pivotally supports the type levers such as 16 (Fig. 2), in the same manner as used for the typing of capital letters, that is, by depressing the shift lever 15; slightly better access is thereby obtained to the ribbon carrier 12. It is also known that such access can be further improved by simultaneously depressing any letter key, whereby the ribbon carrier 12 is raised while the type lever segment is lowered, it being desirable particularly to depress the letter key only to such an extent that the corresponding type 16 approaches but fails to rest on the ribbon. However, the operator has only two hands, and they are needed for the ribbon setting itself.

Some attempts have been made to free the operator's hands for work on the ribbon and still to set the ribbon carrier, etc., by inserting pencils, rulers or the like over or under some shift or type levers; but added aggravation rather than advantage has resulted from such and similar makeshift attempts.

According to the present invention the raising of a type lever 16 and ribbon carrier 12 and simultaneous lowering of the type lever segment is achieved by the new tool, insertable so as to depress simultaneously a shift lever 15 and the laterally adjoining key lever 17; the tool being held in position by an intermediate key or key lever 18 in the upwardly adjoining row of letter keys, preferably in the right or left group 19 of keys or levers 15, 17, 18 can be used.

Referring now to Figures 3 and 4:

A first form of a tool 20, insertable in such a group 19, is in the nature of a spacer bar preferably made of synthetic plastic or the like and adapted to vertically space the front keys 15, 17 from the intermediate type key 18; that is, to depress simultaneously a shift lever 15 and a key 17, it being impossible in standard typewriters appreciably to raise keys 18, etc. above their normal positions.

The tool 20 has a relatively wide bottom ledge 21, adapted to rest upon the top surfaces 22 of the front keys 15 and 17. Symmetrically with said bottom ledge 21 the tool has a top ledge 23, adapted to press upwardly against the underside 24 of the shift lever 15. The tool tapers upwards from the ends of the bottom ledge 21 to the top ledge 23, in order to minimize its bulk and facilitate its handling. A short and narrow handle 25, upwardly extending from near the top ledge 23, forms an integral part of the tool.

The normal or raised position of a front key 17 is shown in dotted lines in Figure 3, and it will be noted that the vertical distance between the bottom edge 21 and top edge 23 is greater than said vertical distance. It will also be seen that this distance between the ledges 21 and 23 can be made such as to insure substantial lowering of the type lever segment and also of the raising of the type lever 16. In view of the above described triangular arrangement of the keys forming the group 19 in which the tool 20 is inserted the bottom ledge 21 is formed at the front of the tool whereas the top ledge 23 is formed in back of the tool. The handle 25 extends upwards sufficiently to insure firm gripping of the tool before and during the insertion of the tool between said keys 15 and 17 so that the operative condition of the tool can be established in a matter of seconds.

This operation is further facilitated by the provision of a vertical slot 26 extending downwards along the back surface of the tool from a point adjacent to but below the top ledge 23 to the bottom end of the tool, slightly below the bottom ledge 21. In the operative position of the tool as shown in the drawing this vertical slot 26 is not utilized but incident to the insertion as well as removal of the tool, sufficient titling is allowed by this groove to facilitate the operation without any danger of the tool dropping between the front keys 15 and 17.

In the manufacture of the tool 20 a bar or clip of the form shown as can be produced, for instance by injection molding or similar processes, having the handle 25, top ledge 23, back groove 26 and general configuration as shown. Such tool can be adapted to practically every standard type of typewriter by modifying merely the depth and width of the groove forming the bottom ledge 21.

Referring now to the modified tool of Figures 5 and 6, here the handle 25 extends forward rather than upwards while the general configuration of the body of the tool has basic similarity with that in Figures 3 and 4. However a further modification is incorporated in that the tool here is made of a thin piece of metal or the like, and still further modifications relate to the exact forms of the top and bottom surfaces and of the groove for tool insertion. The bottom surface 21 is here a narrow one, formed by a notch in the bottom edge of the tool, whereby it is adapted to engage and depress the levers of the front keys 15, 17 rather than the keys themselves. The forming of a notch is simpler than the cutting of a relatively wide ledge. The top surface 23 in the modified tool rests against the underside of the lever of the upper intermediate type key; accordingly the slot 26, instead of extending only to the bottom of the modified tool extends only part of the way downward to the location where the end of the slot forms the top abutment surface 23.

A number of further modifications are possible, within the scope of the present invention. I claim:
1. A typewriter ribbon setter formed by a unitary rigid bar, said bar having a lower ledge adapted to contact and downwardly depress a pair of typewriter keys, an upper ledge adapted to contact and be restrained by the underside of a third typewriter key upwardly adjacent and intermediate said pair, said bar also comprising a handle extending from adjacent the upper ledge and a slot extending downwardly from adjacent the upper ledge and wide enough to allow insertion of the third typewriter key lever at least incident to the insertion and removal of the tool between the keys.

2. A typewriter ribbon setter as described in claim 1 wherein the handle extends upwards from adjacent the upper ledge, the upper ledge being formed in the back and the lower ledge in the front of the bar.

3. A typewriter ribbon setter as described in claim 1 wherein the handle extends forwardly from a part of the bar above the upper ledge, the upper ledge being formed at the lower end of said slot.

4. A typewriter ribbon setter as described in claim 3 wherein the bar is formed of a piece of thin metal and the lower ledge is formed by a pair of notches extending into the bottom of the bar.

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