Sept. 2, 1958 W. GRÜNDEL 2,850,137

RIBBON-REVERSE TRIPPING DEVICE FOR TYPEWRITERS

Filed Aug. 23, 1954

Fig. 1.

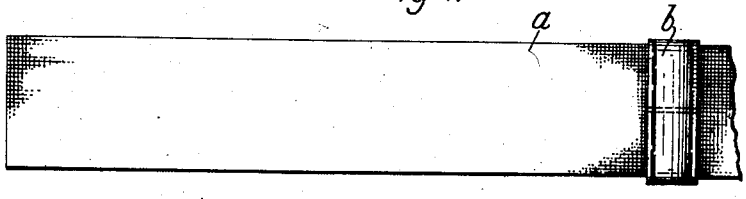
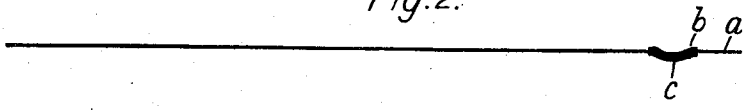


Fig. 2.



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2,850,137

Patented Sept. 2, 1958

2,850,137

RIBBON-REVERSE TRIPPING DEVICE FOR TYPEWRITERS

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Application August 23, 1954, Serial No. 451,384

Claims priority, application Germany September 25, 1953

2 Claims. (Cl. 197—172)

The invention relates to an inked ribbon with a tripping device for the reversing mechanism of the inked ribbon feed of typewriters. It is known that the automatic reversal of the inked ribbon feed in typewriters or other machines operating with inked ribbons is effected either by the ribbon itself (without special modification) or by tripping devices arranged at suitable places at the ends of the ribbon. With the first-mentioned category a distinction is made between tension reversal, which reacts to a predetermined pull of the ribbon unwinding in one direction, and bar reversal mechanism which, like the tension reversal, requires suitable devices on the machine itself.

With the second type which has been referred to (the so-called fork reversal), it is also necessary to have devices on the ribbon itself, as well as the reversing levers on the machine. The fork reversing arrangement makes use of stop devices of one form or another arranged on the ribbon just before the two ends thereof, the said devices tripping the ribbon reversing mechanism.

The stop devices on the ribbons have hitherto consisted either of reversing buttons or eyes or of flat reversing clips. These three arrangements have quite important disadvantages. The fixing of these devices to the ribbon is effected either by the ribbon being considerably weakened at this point by breaking the warp or weft threads (eye and button), or by the said devices being firmly connected to the ribbon at only comparatively small points (button and flat clip). The result is that when there is a strong pull in reversing, the eyes drop out or the buttons or flat clips tear the ribbon lengthwise by their holding means.

By means of the arrangement according to the invention, these disadvantages are obviated, since the pull or tension necessary for reversing purposes is distributed over the full width of the ribbon by a special construction of a tripping bar and the fabric is not weakened at this position. The tripping bar formed as a metal bar is placed around the ribbon at right-angles to its direction of travel. In order to prevent the bar from slipping and in order that it may be satisfactorily fixed, it is deformed to give a profile of any desired shape. An advantageous form is a crimping, since it is readily possible in this manner to obtain the thickness of the tripping device which is necessary to ensure a satisfactory action on the reversing mechanism. No weakening or other damage to the fabric of the ribbon is caused when fixing the tripping device and the latter is given such a thickness, either on account of its own thickness or by the shaping, that it cannot become attached to the reversing lever.

An embodiment of the invention is illustrated by way of example in the accompanying drawing, which shows one end of an inked ribbon with the device attached.

In the drawing:

Figure 1 is a side elevation of the end of the inked ribbon, and

Figure 2 is a longitudinal section thereof.

Referring to the drawing, a bar *b* is arranged on the ribbon *a* in such manner that the latter is enclosed by the bar on both sides. As will be seen from Figure 1, the two ends of the bar abut one another at the middle of one side of the ribbon *a*. As will be seen from Figure 2, the profile of the metal bar *b* in the example illustrated is given a crimped or curved form as at *c* when it is fixed to the ribbon *a*.

I claim:

1. The combination with the inked ribbon of a typewriter, of a tripping device for the ribbon reversing mechanism consisting of a strip of metal which encloses both sides of the ribbon at a position spaced from one end thereof and is fixed to the ribbon solely by being deformed, said strip being of substanitally the same width on both sides of the ribbon and being so bent as to have the thickness necessary for engaging the reversing mechanism.

2. The combination as claimed in claim 1, in which the strip is deformed in such a manner as to have an arcuate cross-section.

References Cited in the file of this patent

UNITED STATES PATENTS

595,838	Spiro	Dec. 21, 1897
796,617	Wales	Aug. 8, 1905
887,472	Gammeter	May 12, 1908
1,127,931	Smith	Feb. 9, 1915