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CARBON ATTACHMENT FOR TYPEWRITING MACHINES

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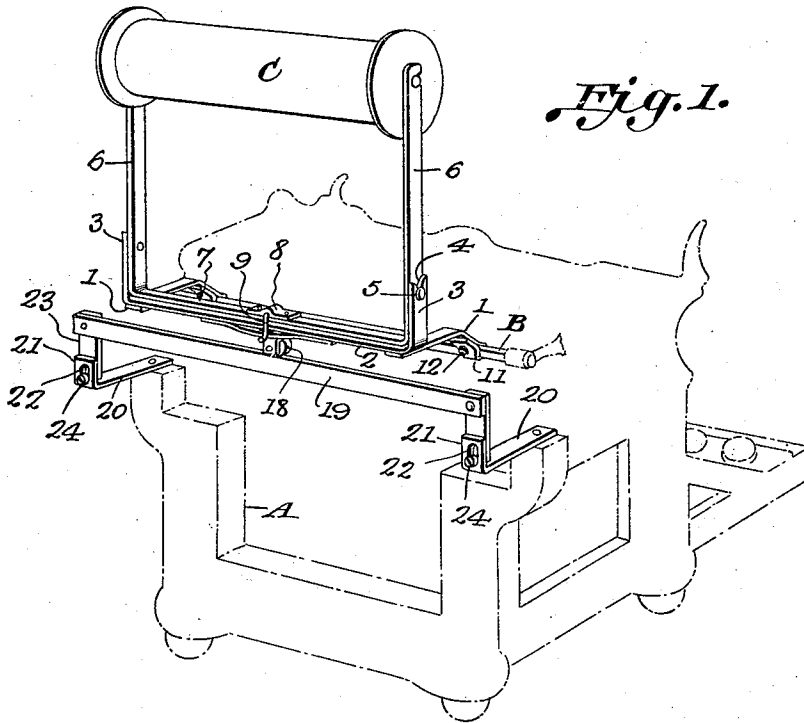


Fig. 1.

Fig. 2.

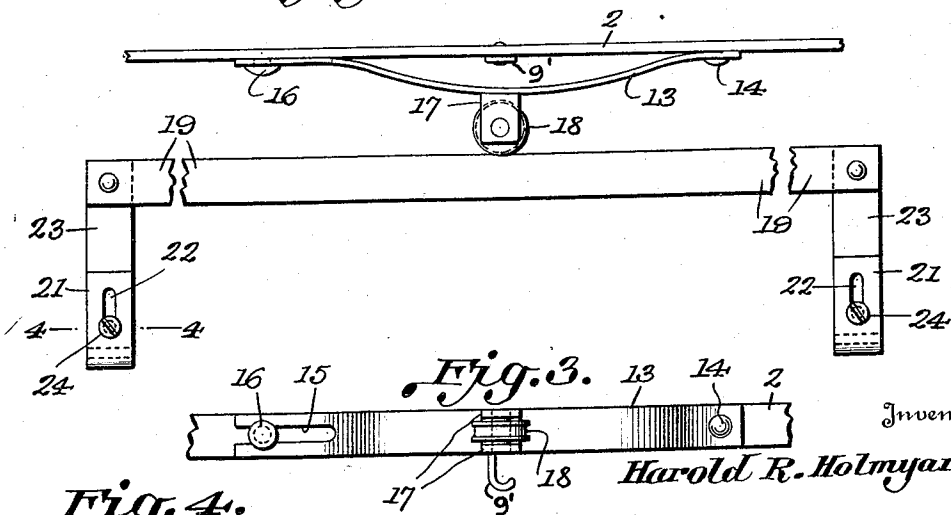


Fig. 3.

Fig. 4.



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CARBON ATTACHMENT FOR TYPEWRITING MACHINES.

Application filed November 8, 1923. Serial No. 673,553.

To all whom it may concern:

Be it known that I, HAROLD R. HOLMYARD, a citizen of the United States, residing at Wyoming, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Carbon Attachments for Typewriting Machines, of which the following is a specification.

This invention relates to a carbon attachment for typewriting machines and is designed to support a supply of carbon, preferably in the form of a roll, so that it will always be in convenient position for use. It is illustrated in connection with a structure such as shown in a prior application Serial No. 639,321, filed May 16, 1923, Patent Number 1,492,832 but certain features thereof are capable of use with attachments of different character.

In an attachment of the character illustrated, the carbon support is connected to the carriage of the typewriting machine and travels therewith. In certain types of machines, the whole carriage is shifted vertically for writing in upper case characters. If the attachment is mounted to shift therewith, this adds considerable weight to the carriage which would be objectionable.

An object of my invention is to provide means whereby the weight of the attachment will be substantially counter-balanced during the shifting movement of the carriage, so that there will be no noticeable increase in the weight thereof.

Other objects will be apparent from the following detailed description and the appended claims.

In the drawings:

Figure 1 is a perspective view of the attachment in place embodying my invention with the typewriting machine indicated in outline and only so much of the attachment illustrated as will be sufficient to indicate the character thereof.

Figure 2 is a rear view of the improvements constituting the subject matter of this invention.

Figure 3 is a bottom plan view of the spring and roller.

Figure 4 is a section on the line 4—4 of Figure 2.

A typewriting machine A which may be of any desired type but for the purposes of this invention is generally one in which the whole carriage shifts vertically for case shift

purposes, is shown merely in outline. This carriage includes a rod B at the rear thereof to which a portion of the attachment is fastened. The shape of this rod B will vary in different machines.

The carbon supporting frame comprises two arms 1 to which is riveted or otherwise rigidly fastened a U-shaped member having a bottom portion 2 and upstanding arms 3 provided with notches 4 in which fit pins 5 carried by uprights 6 of a U-shaped member having a base 7. The carbon roll C is carried by the upper ends of the uprights 6. The base 7 has a bearing 8 in which fits a rotatable latch member 9 adapted to hold the parts in the position shown or to be moved to allow the roll support to be folded downwardly at which time the pins turn in the bearings 4. The roll support may also be tilted backwardly to permit the carbon and paper to be inclined and it is held in this position by a hook 9' which engages with the latch 9. This hook is fastened to the under side of the bar 2 as shown. The arms 1 are fastened in position on the carriage rod B by clamping members 11 and screws or bolts 12 which pass through the members 11 and the arms 1. The members 11 and portions of the arm 1 will be shaped to conform with the rail B of the machine upon which the attachment is used.

To the under side of the base member 2 is attached a plate spring 13 which is fastened at one end to the member 2 by a rivet or similar fastening 14. The opposite end of the spring is provided with a slot 15 which engages a headed rivet or bolt 16 fast upon the base 2. Since this end is free to slide, it is obvious that the spring may yield. The slot 15 will be made long enough so that there will be no danger of accidental disengagement of this end of the spring from the rivet 16. Integral with, or fastened to the spring 13 are downturned ears 17 between which is pivoted a grooved roller 18.

This roller 18 is adapted to run upon a track rail 19 which is fastened to the frame of the typewriting machine in the following manner. Attached by screws or similar fastenings to the frame and extending rearwardly are two arms 20 which have upturned ears 21 at their rear ends, and said ears are provided with elongated slots 22. Attached by rivets or suitable fastenings to

the ends of the track rail 19 are short members 23. Headed screws 24 pass through the slots 22 and screw into the members 23, thus permitting an adjustment 5 of the members 23 with relation to the ears 21 and thereby varying the normal height of the rail 19. The ears may be made long enough to provide for any desired range of adjustment.

10 While not essential to the use of the spring 13, this adjustment of the track rail is important and cooperates therewith in that it permits the parts to be so adjusted that the spring is somewhat tensioned in the lower 15 position of the carriage, and when it is shifted upwardly in the usual manner for printing capitals, the spring will expand and substantially counterbalance the weight of the carriage. The use of the attachment 20 on machines of this character is therefore possible without adding noticeably to the weight of the carriage when moved by the shift key.

It is obvious that different forms of 25 counterbalancing spring may be used; also that the spring support and adjustable track rail may be used together or separately with carbon carrying attachments of different types; and that they may also be 30 used for supporting a roll of paper other than carbon. Various detail changes may be made without departing from the spirit of the invention which is to be regarded as limited only by the scope of the appended 35 claims.

I claim as my invention:

1. A carbon roll attachment for typewriting machines comprising a track rail, a roll supporting frame attached to the carriage of the typewriting machine, and resilient supporting means carried by said 40 frame and travelling upon said track rail.

2. A paper supporting attachment for typewriting machines comprising a track 45 rail attached to the frame of the machine, a paper supporting frame connected to the carriage of the typewriting machine to travel therewith, and resilient supporting means therefor carried by the latter frame 50 and travelling upon said track.

3. A carbon attachment for typewriting

machines embodying a carriage bodily shift-able for case printing comprising a track rail, a carbon support connected to the carriage to travel therewith, and means 55 carried by the support and travelling on the rail which include a spring to substantially counterbalance the weight of the support when the carriage is shifted.

4. A carbon attachment for typewriting 60 machines embodying a carriage bodily shift-able for case printing comprising a track on the frame of the machine, a carbon support connected to the carriage to travel and shift therewith, and means for counterbalancing 65 the weight of the support when the carriage is shifted.

5. A carbon attachment for typewriting machines comprising a track on the machine frame, a carbon support connected to the carriage of the machine to travel therewith 70 and including a base, a spring attached to said base, and a roller carried by said spring and running upon said track.

6. A carbon attachment for typewriting 75 machines comprising a track on the machine frame, a carbon support connected to the carriage of the machine to travel therewith and comprising a base, a flat spring rigidly attached at one end to said base, and a 80 roller carried by said spring and running on said track.

7. A carbon attachment for typewriting machines comprising a track on the machine frame, a carbon support connected to the carriage of the machine to travel therewith 85 and comprising a base, a flat bowed spring fastened at one end to the base and having a sliding engagement therewith at its other end, and means supported by said spring 90 and running on said track.

8. A paper supporting attachment for typewriting machines comprising a track rail on the frame of the machine, means 95 whereby the height of the track rail may be adjusted, a paper supporting frame connected to the carriage of the machine to travel therewith, and resiliently supported means carried by the latter frame and running on said track. 100

In testimony whereof I affix my signature.
HAROLD R. HOLMYARD.