

J. M. DUDLEY.
 RULING ATTACHMENT FOR TYPE WRITING MACHINES.
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1,247,514.

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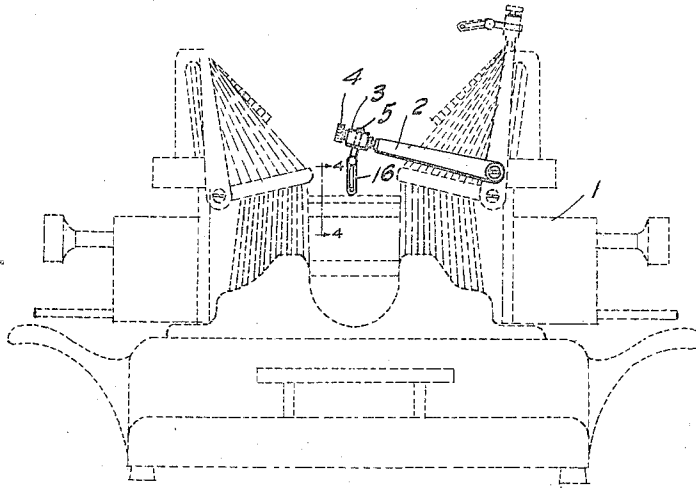


Fig. 1.

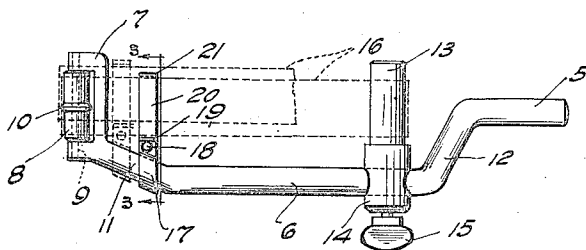


Fig. 2.

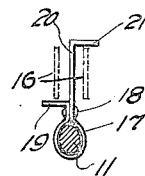


Fig. 3.

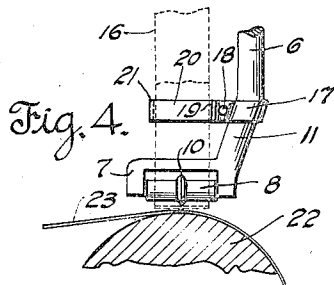


Fig. 4.

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RULING ATTACHMENT FOR TYPE-WRITING MACHINES.

1,247,514.

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Application filed May 24, 1917. Serial No. 170,699.

To all whom it may concern:

Be it known that I, JAMES M. DUDLEY, a citizen of the United States of America, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Ruling Attachments for Type-Writing Machines, of which the following is a specification.

My invention relates to a ruling attachment for typewriting machines.

The object of my invention is to provide a simple and comparatively inexpensive ruling device which can be conveniently applied as an attachment to typewriters of various designs and which carries its own ribbon that is of the same character as the ribbon of the typewriter so that the line when ruled thereby has the same appearance as if the attachment had coöperated with the ribbon of the typewriter itself.

A further object of my invention is to adapt the device to automatically feed its ribbon during the ruling operation so that the line produced will be equally distinct throughout its whole length.

A further object of my invention is to provide a novel guide means for the ribbon which is capable of an adjustment so as to shift the ribbon, thereby making the whole surface thereof available for use in the ruling operation.

These and other objects of my invention are shown in an illustrative embodiment of my invention appearing in the accompanying drawings, wherein—

Figure 1 shows my invention in elevation applied to an Oliver typewriter and disposed in ruling position.

Fig. 2 is a detail view of the apparatus with the ribbon shown in dotted lines.

Fig. 3 is a section taken on the lines 3—3 of Fig. 2.

Fig. 4 is an enlarged sectional view taken on the lines 4—4 of Fig. 1.

Similar reference numerals refer to similar parts throughout the drawings.

While I have illustrated my invention as applied to an Oliver typewriter, it will be understood that it can be readily adapted to other makes of typewriting machines. The typewriting machine 1 is generally indicated in dotted lines and is provided with the customary yoke attachment 2 which at its upper end carries a socket 3 in which a set screw 4 works. This socket, in the present

practice, is adapted to receive a pencil or fountain pen as the ruling medium. In my present invention however the socket is adapted to receive the shank 5 of a bent metal bar 6 which forms the main frame of the ruling attachment. This bar at its lower end is provided with a yoke 7 in which a roller 8 is pivotally mounted on an axis 9 and in the center of this roller is a sharp circumferential shoulder forming the ruling edge 10. The yoke at one side is connected to a portion 11 of the rod which is inclined at an angle of about 45° to the axis 9. This portion 11 joins the main body 6 of the bar which lies at right angles to the axis 9 and at its other end is connected by a bent portion 12 with the shank 5, the axis of which lies in a plane with the ruling edge 10. A pin 13 is mounted on a slide 14 which works on the main body portion 6 and is held in adjusted position thereon by a set screw 15. This pin stands parallel with the axis 9 and forms a guide for the endless ribbon 16 which runs over the pin and the roller 8 as shown in Figs. 2 and 4.

In order to shift the ribbon I provide a bent metal strap 17 which is clamped about the portion 11 of the frame by a rivet 18 and left just loose enough to be capable of adjustment along this portion 11. One end 19 of the strap is bent outwardly at right angles to the other side 20 of the strap which projects beyond the ribbon and has its outer end 21 bent in the opposite direction to 19. Thus, as seen in Fig. 3, the portion 19 will engage the near side of one flight of the ribbon while the part 21 will engage the far side of the other flight of the ribbon. Both flights of the ribbon are thus engaged and as the strap is adjusted along the inclined portion 11 it will travel from full to dotted line position, as seen in Fig. 2, and thus shift with it the ribbon to present a different surface under the ruling edge 10.

In operation, having assembled and mounted the ruling device in the manner described, the yoke 2 is swung down until the ruling edge engages the platen 22 of the typewriter, it being noted that the frame is so bent that this edge will engage the platen in the same place where the type will strike it, thus enabling me to start the ruling at exactly the point desired. While pressing the device down against the platen the latter is shifted in either direction axially thereof, in doing

which the ruling edge 10 will act through the ribbon to rule a distinct clear line on the paper 23, which line will have the same appearance as the body of typewritten matter on the sheet, due to the fact that it is made from a ribbon of the same character as that employed on the typewriter. As the ribbon stretches or gives it can be maintained at the desired tension by shifting the guide pin 13 along the frame. The best results are obtained when the ribbon works loosely about the ruling roll and guide 13. The endless ribbon 16 employed is inexpensive and can be readily applied and removed.

The shank 5 may be inserted in any suitable holder other than the socket 3 and may therefore be used as a hand ruling device as well as a typewritten attachment. The occasion for the shifting strap to engage both flights of the ribbon is to permit it to run in either direction toward the roll 8 and thus enable the device or the platen 22 to be moved in either direction when ruling a line.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A ruling device comprising a frame, a roller therein having a circumferential ruling edge, a ribbon guide, and an endless ribbon working over said guide and about said roller, substantially as described.

2. A ruling device comprising a frame, a pair of ribbon guides thereon, one of said guides being journaled in the frame and provided with a circumferential ruling edge, an endless ribbon surrounding said guides, and means to guide and shift the endless ribbon relatively to the ruling edge.

3. A ruling device comprising a frame having a yoke, a roller journaled in the yoke, a circumferential ruling edge on the roller, an endless ribbon passing about the roller, and an element parallel with the roller and about which the endless ribbon passes, said element being adjustable toward and from the roller.

4. A typewriter ruling attachment comprising a frame carrying a ruling roll, an

endless ribbon passing about the roll, and means to regulate the tension of the ribbon about the roll, substantially as described.

5. A typewriter ruling attachment comprising a frame carrying a ruling roll, an endless ribbon passing about the roll, means to regulate the tension of the ribbon about the roll, and means to shift the ribbon relatively to the ruling edge of the roll.

6. The combination with the element of a typewriter adapted to carry a ruling attachment, of a ruling attachment connected to said element and provided with a roller having a circumferential ruling edge, said attachment being adapted to present the ruling edge to the typewriter platen at the printing site thereon, an endless ribbon passing around said ruling roll, and means to guide said ribbon.

7. A ruling attachment for typewriters comprising a frame formed of a bent rod having a shank at one end, a yoke at the other end and an intermediate straight body portion, a ruling roller journaled in the yoke, a ribbon guide adjustable along the straight portion of the shank, an endless ribbon passing over the guide and around the roller, and guide means for the ribbon adjacent to the roller, substantially as described.

8. A ruling attachment for typewriters comprising a frame formed of a bent rod having a shank at one end, a yoke at the other end and an intermediate straight body portion, a ruling roller journaled in the yoke, a ribbon guide adjustable along the straight portion of the shank, an endless ribbon passing over the guide and around the roller, and guide means for the ribbon adjacent to the roller, there being a portion of the rod bent at an angle to the yoke and said guide being adjustable along said bent portion to shift the ribbon, substantially as described.

In testimony whereof I affix my signature.

JAMES M. DUDLEY.

Witness:

NOMIE WELSH.