June 3, 1941. W. B. MARTIN ET AL 2,244,074

REVERSIBLE LINE FEED FOR TELETYPEWRITERS

Filed Oct. 21, 1939

FIG. 2

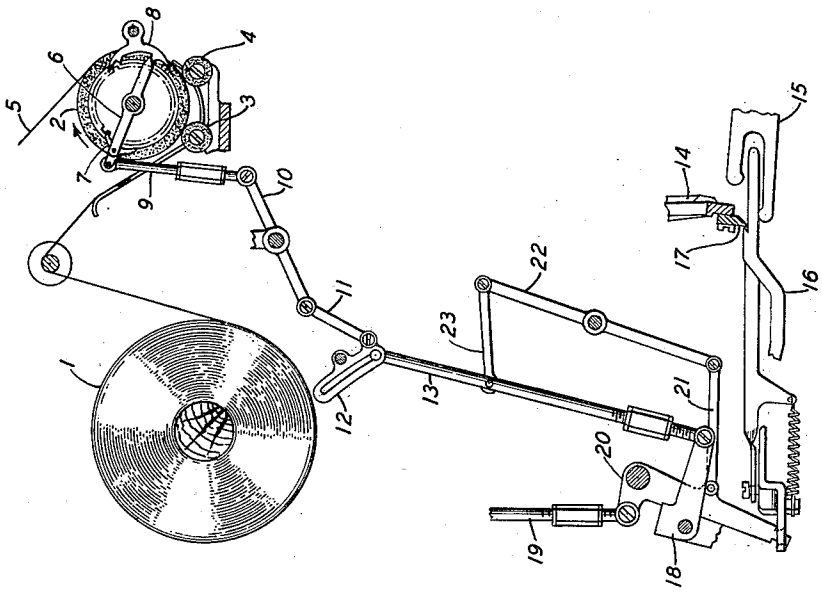
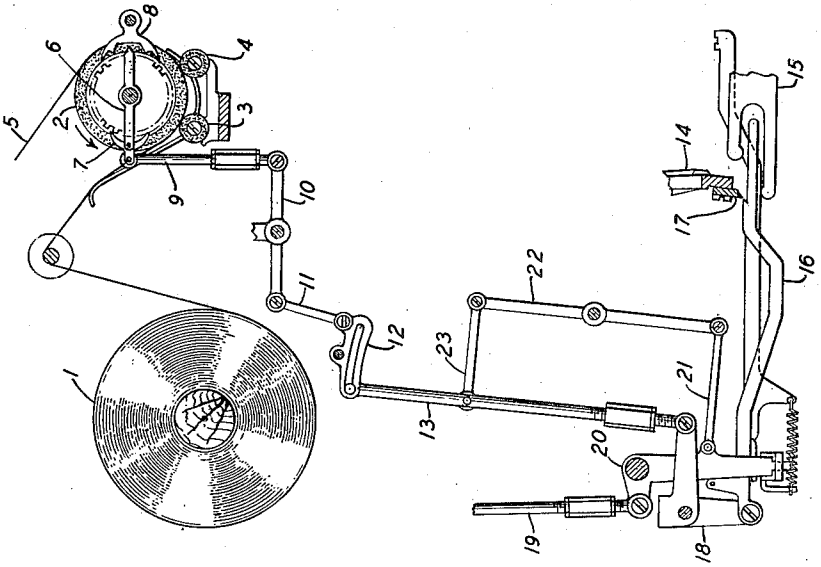


FIG. 1



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REVERSIBLE LINE FEED FOR TELETYPEWRITERS

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3 Claims. (Cl. 178—27)

This invention relates to teletypewriters and particularly to page printers where a sheet is stepped forwardly from time to time so that the message can be typed in a plurality of lines.

The object of the invention is to provide a reverse line feeding means so that the sheet may be stepped backwardly for purposes of correction and otherwise.

A feature of the invention is a reversible pawl and ratchet device which when operated by a function bar of the teletypewriter will move the page either forward or backward so that the typing will be done on a new line or over a previously typed line.

Another feature of the invention is a steering link operated by another function bar of the teletypewriter to determine the forward or backward movement of the page by the said pawl and ratchet device.

The drawing consists of one sheet containing two figures showing a skeletonized view of the essential elements of a teletypewriter used in this invention. Fig. 1 shows the parts at rest and with an adjustment made so that if a line feeding combination is received, the platen of the teletypewriter will be rotated in a counter-clockwise direction. In Fig. 2 the parts are shown in operation with an adjustment made so that the platen is being rotated in a clockwise direction.

A person to the right of either of these figures observing the machine would get a front view of the machine. A paper surface on which a message may be printed is shown in the form of a roll of paper 1 threaded under the platen 2 and between the pressure rollers 3 and 4 and thence over the surface of the platen in a line 5 where it may be deposited in a box or rolled on some means of viewing the written message. A bar 6 pivoted on the axis of the platen 2 may be moved in either a clockwise or counter-clockwise direction. The normal movement will be in a counter-clockwise direction so that as the page is printed and the line feeding operation is carried on the paper will move upwardly in the direction of the line 5. As the bar 6 is moved in a counter-clockwise direction a pawl 7 will engage a tooth of a toothed wheel rigidly attached to the platen and move the platen in this same direction. At the other end of the bar 6 its end comes into contact with a check pawl 8 which will be moved in such a direction as to limit the movement of the platen to exactly one line space.

The bar 6 is moved in either direction through the use of a link 9 attached to a rocker arm 10. This rocker arm 10 is pivoted at its center point and at its further end is operated by a link 11. Link 11 is operated by the steering link 12 which is in the form of a member pivoted to the frame of the machine at its middle point and having a slot therein so that the line feed vertical link 13 may be placed at either its right or its left-hand extremity. When the line feed vertical link 13 is placed as shown in Fig. 1 then a downward movement of the link 13 will cause an upward movement of the link 11 and a corresponding downward movement of the link 9, resulting in a counter-clockwise movement of the bar 6. When the line feed vertical link 13 is moved toward the right, as is shown in Fig. 2, then a downward movement of the link 13 will cause a downward movement of the link 11 and a corresponding upward movement of the link 9, resulting in a clockwise rotation of the bar 6.

The movement of the line feed vertical link 13 is secured primarily by the leftward movement of the function bail 14. When the function feed lever 15 has been operated through an appropriate permutation code, the line feed push bar 16 will move upwardly and into the path of the function bail blade 17 so that upon movement of the function bail 14 the line feed push bar will be moved toward the left. This will result in the movement of the line feed bell crank 18 in a clockwise direction, resulting in the downward movement of the line feed vertical link 13.

A reverse shift lever 19 is provided which may be operated in a well-known manner through the receipt by the teletypewriter of a particular permutation code. The result of this will be an upward movement of the reverse shift lever 19 and a consequent clockwise movement of the bell crank lever 20. Attached to this bell crank lever 20 is a link 21 cooperating with a rocker arm 22 pivoted to the machine at its center point. Rocker arm 22 operates a link 23 so that upon a clockwise movement of the rocker arm 22, caused by an upward movement of the reverse shift lever 19, the line feed vertical link 13 will be moved to the righthand extremity of the steering link 12 whereupon line feeding will take place in the reverse direction, as indicated in Fig. 2.

Thus the teletypewriter may be controlled by permutation code responsive means to both shift the platen in a forward and in a reverse direction.

What is claimed is:

1. In a teletypewriter, a reverse line feeding

means comprising a reversible pawl and ratchet device and a steering means for causing said pawl and ratchet device to operate forwardly or backwardly under control of a function bar of said teletypewriter.

2. In a teletypewriter, a forward and reverse line feeding means comprising a reversible movement pawl and ratchet device and a reversing link for steering said pawl, means whereby said reversing link is selectively operated by permutation code responsive means.

3. In a teletypewriter having a platen, a line feeding means for rotating said platen step by step, permutation code responsive means for operating said line feeding means, a steering link in said line feeding means for controlling the direction of rotation of said platen and permutation code responsive means for adjusting said line feeding means with respect to said steering link.

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