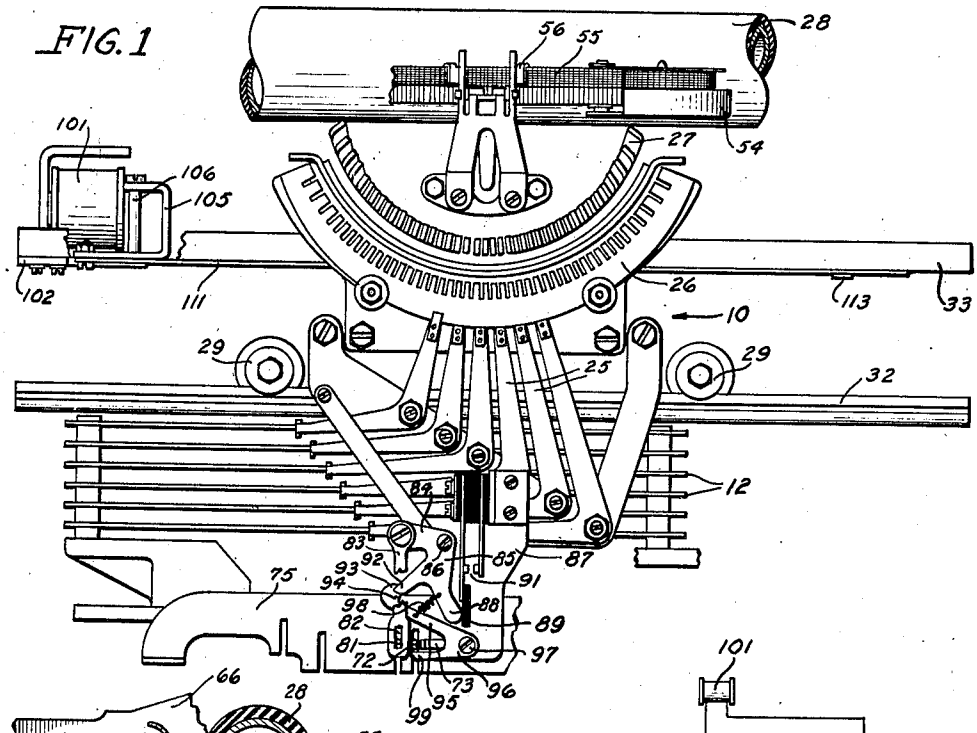
May 11, 1943. C. W. BURCKY 2,319,036

TWO-COLOR RIBBON MECHANISM

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FIG. 1



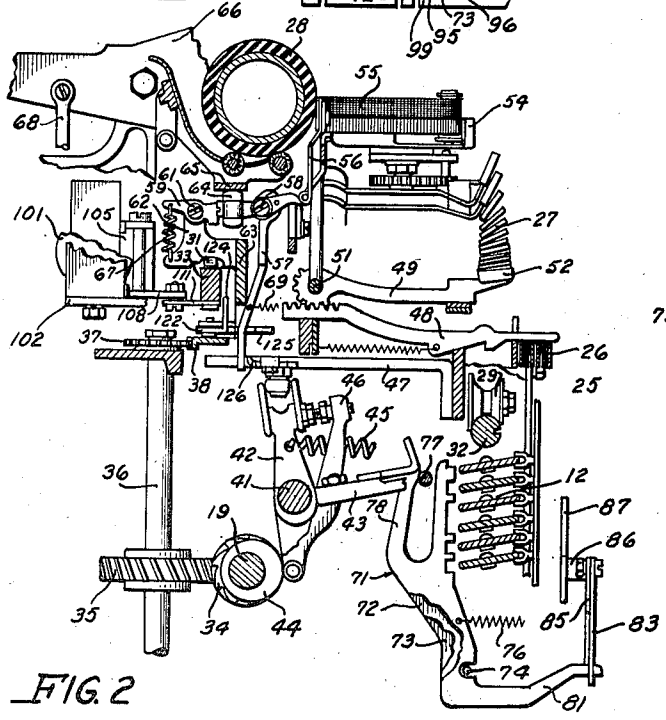


FIG. 2

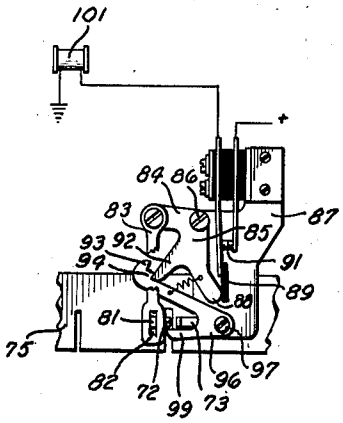


FIG. 3

INVENTOR.
CHARLES W. BURCKY

BY

ATTORNEY.

May 11, 1943. C. W. BURCKY 2,319,036

TWO-COLOR RIBBON MECHANISM

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FIG. 4

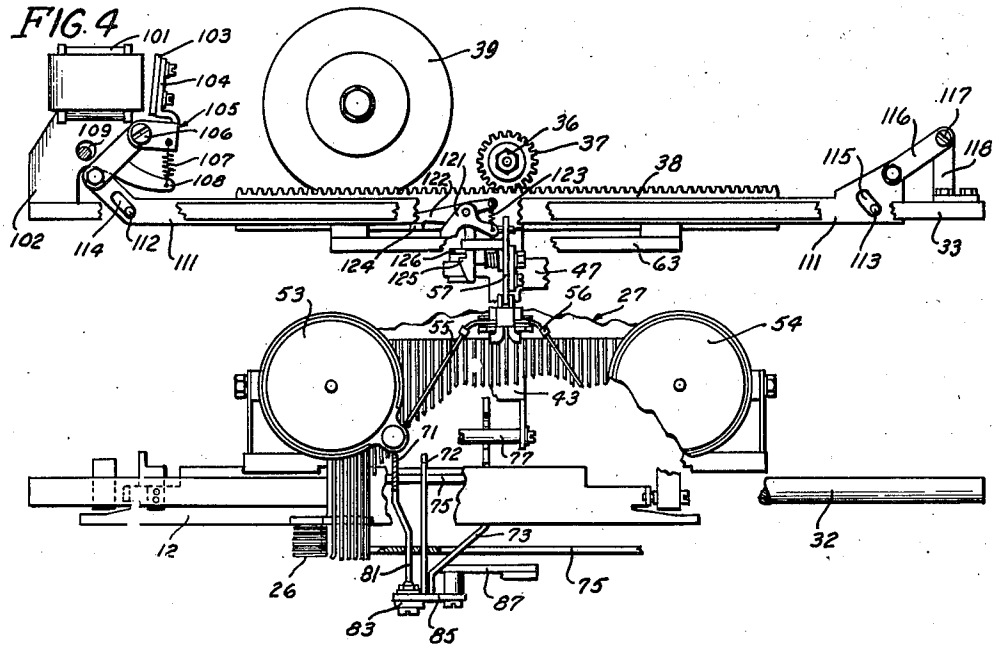


FIG. 5

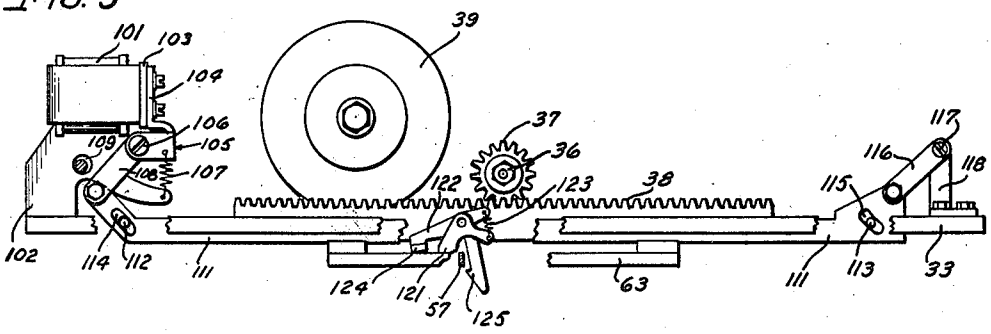
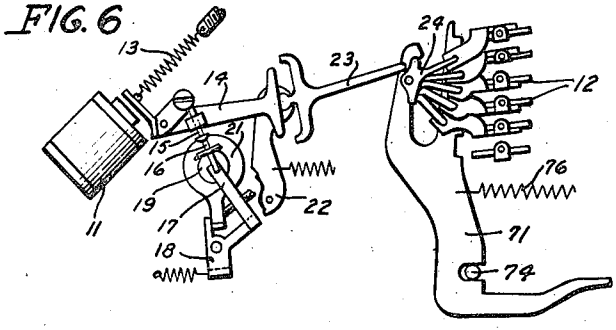


FIG. 6



INVENTOR.
CHARLES W. BURCKY

BY J. H. B. Whitfield
ATTORNEY.

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UNITED STATES PATENT OFFICE

2,319,036

TWO-COLOR RIBBON MECHANISM

Charles W. Burcky, Park Ridge, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware

Application January 2, 1941, Serial No. 372,755

19 Claims. (Cl. 178—27)

The present invention pertains to printing telegraph apparatus and systems, and particularly to apparatus for recording messages or selected portions thereof in different colors or in inks having different attributes.

The principal object of the invention is to provide in recording apparatus an electromagnetically controlled means whereby recording of message matter remotely transmitted may be effected from any of the bands of a multi-attribute printing ribbon.

Another object of the invention is to provide in a printing apparatus having a movable type carriage carrying a ribbon oscillator, a parallel motion means for controlling the operation of said oscillator in any character spacing position of said carriage.

According to one embodiment of the invention, code combinations are assigned to the several ribbon attributes or color selections, the transmitting apparatus being provided with ribbon color control keys which set the code bars and control the transmitting contacts according to the assigned signal code combinations, and the receiving printer being provided with ribbon shift function levers responsive to the ribbon shift code combinations. The ribbon shift function levers control the opening and closing of control contacts for an electromagnetically operated parallel motion device for controlling the extent of oscillation of the ribbon shift device.

The foregoing and other objects of the invention will be apparent from the following description when taken in conjunction with the accompanying drawings, wherein like reference characters designate similar parts throughout the several views and in which:

Fig. 1 is a front elevational view of the principal portion of the printing apparatus, such as shown in U. S. Patent No. 1,904,164, showing the application thereto of the mechanism according to the present invention;

Fig. 2 is a fragmental cross-sectional view of the printer shown in Fig. 1 embodying the arrangement according to the invention;

Fig. 3 is a fragmental elevational view of a portion of the mechanism according to the invention, showing the contact operating means therefor in an alternative position;

Fig. 4 is a plan view of the printer with parts broken away to show the application of the invention thereto;

Fig. 5 is a fragmentary plan view showing the ribbon oscillator control means in an alternative position; and

Fig. 6 is a view of the selector mechanism of the printer.

Having reference to Figs. 1 to 6, the printing apparatus to which the present invention is applied comprises a typing machine, indicated generally as 10 in Fig. 1, which includes a primary selecting mechanism, indicated generally by the receiving electromagnet 11 (Fig. 6), which is of the sword-and-T-type disclosed in U. S. Patent No. 1,745,633 (also fully disclosed in U. S. Patent No. 1,904,164), and a secondary selector or selector vane assembly, indicated generally as 12.

Briefly, magnet 11 is responsive to code combinations of signaling impulses, and through the cooperation of spring 13 causes the oscillation of a selector lever member 14 to marking and spacing positions according to the nature of the received impulses. In response to a start impulse (which is of spacing nature) magnet 11 is deenergized, and spring 13 urges lever 14 clockwise to initiate, through plunger 15, bell crank 16, lever 17 and stop gate 18, the rotation of the selector cam barrel 21, which in turn controls the operation of the main operating cams. Mounted near one end of shaft 19 is a selector cam barrel 21, which is frictionally connected to shaft 19 by means of suitable clutch members. The cam barrel 21 is provided with a helically arranged series of cams (not shown), one for each element of the permutation code, which cooperate with a corresponding series of bell crank levers 22, which in turn carry individual swords 23. Selector lever member 14 and swords 23 are provided with cooperating abutments whereby the selective positionment of the swords 23 in accordance with the received signals is determined. The setting of swords 23 is transferred through T-levers 24 to vanes 12.

The selector vanes 12 control, through a series of bell crank levers 25 (Fig. 1), a corresponding series of curved code bars 26 carried in a movable type carriage. As set forth in Patent No. 1,904,164, this type carriage, indicated generally as 27, is movable longitudinally with respect to a stationary platen 28. Carriage 27 is provided with rollers 29 and 31 which travel on tracks 32 and 33, respectively. A motor (not shown) supplies power to the main operating shaft 19 which carries the spacing mechanism (not shown herein, but fully described in Patent No. 1,904,164). The spacing mechanism controls through spacing worm 34, gear 35, gear 37, and rack 38 (Figs. 2 and 4), the movement of type carriage 27 to form character spaces, effecting also in this movement a winding of a carriage return spring mechanism,

indicated generally as 39 (Fig. 4). Upon receipt of the carriage return signal, the carriage return mechanism 39 is permitted, due to the energy stored up therein, to return the carriage 27 to its normal or beginning-of-line position.

Positioned in operative relation with and parallel to the main operating shaft 19 is an auxiliary shaft 41 on which are carried various mechanisms; for example, printing bail 42, function lever bail 43, and the escapement pawls for the spacing mechanism. The printing bail 42 is controlled by printing cam 44 and printing spring 45 through the co-operation of follower lever 46, and functions to reciprocate a pull bar operating member 47 to actuate a pull bar 48 which has been selected through the instrumentality of code bars 26. This movement of pull bar 48 is transmitted, through rack and pinion interconnection, to its associated type bar 49 to cause said type bar to be rotated about fulcrum rod 51 to impinge the type face 52 against platen 28.

A pair of ribbon spools 53 and 54 are carried on the type carriage 27 and a two-color inking ribbon 55 extends therebetween. The ribbon feed mechanism and ribbon reverse mechanism are of the form fully described in patent No. 1,904,164 and are not shown herein. Ribbon 55 is threaded through a ribbon oscillator 56 which acts to reciprocate the ribbon 55 vertically during each printing operation. Ribbon oscillator 56 is carried at the end of the horizontal arm of a ribbon shift bell crank lever 57 which is pivoted at 58 to one end of a lever 59, which in turn is pivoted at 61 to a bracket 62 integral with portion 63 of the framework of the type carriage 27. Lever 59, between pivotal points 58 and 61, is designed to carry a roller 64 which is adapted to have contactual relation with the bottom side of a rail 65 (carried between the side frames 66 of the platen assembly comprising platen 28) due to the action of a spring 67 distended between lever 59 and a projection on bracket 62.

Spring 67 tends to rotate lever 59 in a counterclockwise direction (as viewed in Fig. 2) about pivot 61 so that when the platen 28 is shifted between lower and upper case ("letters" and "figures") positions through the medium of rod 68, as described in Patent No. 1,904,164, roller 64 will constantly remain in contact with the rail 65, and lever 59 will thus be automatically reciprocated vertically therewith.

The depending arm of lever 57 is operably associated with the pull bar bail 47 so that the reciprocative motion of bail 47 will cause the oscillation of bell crank lever 57 about fulcrum 58 whether the platen 28 be in its "letters" or "figures" position. Thus, it is observed that when bail 47 is in its leftward or unoperated position (shown in Fig. 2), the bell crank lever 57 will hold the ribbon 55, by reason of guide 56, in its down or lower position. When the bail 47 moves rightwardly to its operated or printing position, the ribbon 55 will be raised, due to the counterclockwise movement of bell crank lever 57 about pivot 58 by spring 69, to permit printing from the ribbon 55 in accordance with the control exercised by the device of the present invention, as will hereinafter appear.

In accordance with the present invention, a two-color or two-attribute ribbon is employed, and means is provided for printing from either the upper half of the ribbon in one color or attribute, or from the lower half of the ribbon in another color or attribute. More specifically, the color or attribute in which printing is done, or in other words, the particular portion of the ribbon through which printing is to be effected is determined selectively by remote control. According to one adaptation of the invention, the printer mechanism in which the present invention is embodied is usable in conjunction with control devices for line composing and linecasting machines. These machines, as is well-known, are provided with matrices which consist of small brass units carrying indented characters in their edges and which are assembled into a line, which composed line is transferred to the face of a mold where slugs or integral lines of type are produced. It has become a widespread commercial practice to provide each matrix with two matrix impressions or mold faces usually of the same character, but of different styles of type; for example, "bold face" and "roman," so that by presenting a matrix in either of two positions one or another of these mold faces may be made to register opposite the molding chamber in the linecasting machine. The presentation of these matrices to either the "bold face" position or the "roman" is signal controlled; that is, a special shift signal precedes the character signals representing "bold face" type faces, and another special signal precedes the character signals representing "roman" type faces.

When a telegraph printer is responsive to said signals, the arrangement according to the present invention provides for making a printed copy corresponding to the composed matter or copy. For example, by means of the two-color printing mechanism according to one adaptation of this invention the user is provided with means for identifying that portion of the printer copy which will appear in italics or bold face type on the printed page of the magazine or other periodical. That is, a red and black ribbon will permit the printing of "roman" characters in black, and the "italic" and/or "bold face" characters in red.

The selector vanes 12, as set forth in Patent No. 1,904,164, control a series of function levers, among which are function levers 71, 72, and 73 which are provided especially for accomplishing the objects of the present invention, and which, like the other function levers described in said patent, are pivoted on a common pivot rod 74 and are assembled in slots in the function lever comb 75 (Figs. 1 and 4). Each of the function levers 71, 72, and 73, like the rest of the function levers of the series, is provided with an individual spring 76, tensioned between it and the printer frame, which tends to rotate the function lever about pivot 74 but, as clearly set forth in said patent, is restrained by the function lever bail 43, acting through rod 77 on function lever arm 78.

Briefly, the two-color printing mechanism according to the invention consists of two parts; namely, a selectively operable contact mechanism which is mounted on the lower front portion of the typing unit 10 forward of the function levers 71, 72, and 73, and an electromagnetically operated actuating mechanism which is located to the rear of the upper rail or track 33 in a position to control the motion of the ribbon oscillating mechanism on the type carriage 27. Specifically, function lever 71 is coded to respond to a code combination which on the control unit, shown in U. S. Patent No. 2,006,860, is assigned to operate the lateral or duplex rail. Function lever 71 is provided with a forwardly (rightwardly, as viewed in Fig. 2) directed arm 81 which extends

through a slot 82 in a link member 83 pendantly supported from arm 84 of a plural armed lever 85 pivoted at 86 to bracket 87 secured to comb member 75. Lever 85 is also provided with an arm 88 which cooperates with the insulated end 89 of a pair of contacts 91 mounted on the bracket 87. Lever 85 is further provided with an arm 92 which cooperates with shoulders 93 and 94 of arm 95 of a bell crank lever 96 pivoted at 97 to bracket 87. A spring 98 extends between arms 88 and 95 of levers 85 and 96, respectively, for attrahently biasing said levers 85 and 96.

Function lever 72 is coded to respond to a code combination which on the control unit shown in Patent No. 2,006,360 is assigned to initiate the return of the duplex rail to a position to permit the setting of the matrices to produce "roman" characters. Function lever 72 is also provided with a forwardly extending arm, comparable to arm 81 of lever 71, which overhangs an arm 99 of bell crank lever 96. Thus, when function lever 71 is selected and is permitted to rock clockwise (as viewed in Fig. 2) under the influence of its spring 76, arm 81 will draw link 83 downwardly to rotate lever 85 in a counterclockwise direction, against the action of spring 98 sufficiently to engage shoulder 94 of lever 96 (Fig. 1). In so doing, arm 88 of lever 85 operates to close the pair of contacts 91 to complete an obvious circuit (Fig. 3) for energizing an electromagnet 101 mounted on a bracket 102 secured to rail 33. The electromagnet 101 acts to control the ribbon oscillator mechanism in a manner which will presently appear. When function lever 72 is selected, its forwardly extending arm which overhangs arm 99 of bell crank lever 96 will in its downward movement (as viewed in Fig. 1) cause the counterclockwise rotation of lever 96 sufficiently to permit arm 92 of lever 85 to clear shoulder 94, whereupon due to the action of spring 98, lever 85 will be biased clockwise to bring the end of arm 92 into engagement with shoulder 93. This movement of lever 85 permits contacts 91 to open, thus causing the magnet 101 to become de-energized.

A feature of the present invention is to provide the carriage return function lever 73 with a forwardly extending arm, comparable to arm 81 of lever 71, which, like the corresponding arm on lever 72, also overhangs arm 99 of lever 96. Thus, whenever the carriage return function lever 73 is operated to initiate the return of type carriage 27 to the beginning-of-line position, its forwardly extending arm acts also to unlatch lever 85 from shoulder 94, should said lever 85 have been latched up at that time. In this manner, the ribbon oscillator mechanism is always restored to its position wherein printing of a record indicative of "roman" characters is permitted, this restoration being effected automatically.

The pole piece 103 of electromagnet 101 is fixed to an arm 104 of an armature lever 105 mounted on a pivot 106 secured to bracket 102. A spring 107 tends to bias lever 105 clockwise to hold arm 108 thereof against eccentric adjustable stop 109. Arm 108 is pivotally articulated to one end of a blade 111, which is slidably carried by screws 112 and 113 on the bottom side of track or rail 33. Slidable movement of blade 111 in a horizontal plane is permitted by slots 114 and 115, in which screws 112 and 113 respectively, are operable. Blade 111, at its right-hand end, is pivotally articulated to a link 116 which, in turn, is pivoted at 117 to a bracket 118 secured to the track 33. The arrangement of lever 105, link 116 and blade 111 is such that blade 111 is moved in a horizontal plane to insure parallelism between blade 111 and track or rail 33. It is understood that slots 114 and 115 are contoured to facilitate the parallel motion of blade 111.

Frame portion 63 of type carriage 27 is provided with a bracket portion 121 to which is pivoted a three-armed lever 122 which is normally biased clockwise (as viewed in Figs. 4 and 5) by a spring 123. One arm of lever 122 is provided with an upstanding portion 124 which coacts with blade 111. It is observed that with the arrangement shown in the drawings, the lever 122, which is movable with the type carriage 27, is effective in any character spacing position of the type carriage. Lever 122 has also an arm provided with a shoulder 125 whereby said arm is adapted to have latching relation with the depending arm of the ribbon shift lever 57. When the magnet 101 is energized, the armature lever 105 is operated counterclockwise against the action of spring 107, and due to the parallel motion arrangement between arms 108 and 116, and blade 111, the blade 111 is operated forwardly of the apparatus (downwardly as viewed in Fig. 5) so as to cooperate with vertical projection 124 to rotate lever 122 counterclockwise against the pull of spring 123 to move the shoulder 125 out of latching relation with ribbon shift lever 57, thus permitting lever 57 to follow the forward movement (rightward as viewed in Fig. 2) of the pull bar bail 47 during a printing operation. Under this condition of operation the spring 69 is permitted to rotate lever 57 counterclockwise to raise the ribbon guide 56 upwardly to bring the lower half of ribbon 55 into printing position for each operation of a type bar 52. On the other hand, when the magnet 101 is de-energized, the spring 107 rotates lever 105 to the position shown in Fig. 4 in which position blade 111 is retracted to permit spring 123 to rotate lever 122 to bring shoulder 125 into the path of ribbon shift lever 57 to assume latching relation therewith whereby only sufficient movement is permitted, to bring the upper half of ribbon 55 into the printing position. Under this condition of operation, the lever 57 will follow the rightward movement of bail 47 (Fig. 2) only a limited or predetermined amount when said bail is actuated to operate a type bar 52, whereat it will be held against further operation by latch 125.

General operation

As previously mentioned, the printing mechanism according to the present invention is arranged to print in two colors, or in inks having different characteristics, under the control of received signals. In the specific embodiment shown and described, the ribbon 55 is adapted to print black from the upper half thereof, and red from the lower half. In the unoperated condition of the apparatus the pull bar bail 47 is maintained in its leftward position shown in Fig. 2, whereat the adjustable stop 126 carried on bail 47 functions to hold the ribbon shift lever 57 in its clockwise position so that the ribbon guide 56 is held in its downward position sufficient to render the printing visible. Upon the printing of a character the signal is received by the line magnet 11, the start impulse of which causes the de-energization of said magnet whereupon lever 14 is acted upon by spring 13 to operate plunger 15 to initiate, through levers 16, 17, and 18, the

rotation of the selector cam cylinder 21. Through the cooperation of lever 14 and levers 22 in response to the code impulses, the swords 23 are set to control, in turn, the setting of vanes 12, which, through bell cranks 25 set the code bars 26 correspondingly, whereby a pull bar 48 is selected.

In timed relation with the initiation of rotation of cam cylinder 21, the operating cam 44 is rotated to initiate the operation of the printing bail 42 which, through the energy supplied by spring 45, controls the reciprocation of pull bar bail 47, which, in turn, by its rightward movement picks up the pull bar 48 to cause, through the rack and pinion interconnection, the operation of type bar 49. Whether the printed record is to appear in black or red, that is, whether it is to be made through the upper or lower half, respectively, of ribbon 55, is determined through the selective control of the lever 122.

If it is desired to print in black, the contacts 91 remain open, and hence magnet 101 will be unenergized, whereupon blade 111 will assume its retracted position to permit latch shoulder 125 to be presented in the path of movement of ribbon shift lever 57. It is observed that a clearance is provided between the depending arm of lever 57 and the shoulder 125. The reason for this is that in order to provide visibility of the record after printing it is necessary to withdraw the ribbon 55 below the printing point. This is the position shown in Fig. 2, wherein the depending arm of lever 57 abuts the stop 126, and a clearance occurs between said depending arm and shoulder 125 of lever 122. Thus, when the pull bar bail 47 is reciprocated, as just described, the said arm of lever 57 will, under the influence of spring 69, follow bail 47 and move into engagement with shoulder 125, and in taking up the aforementioned clearance the lever 57 will raise the ribbon guide 56 sufficiently to bring the upper half or black portion of ribbon 55 into the printing zone. Therefore, it is seen that with the magnet 101 de-energized, printing will be effected in one of the two distinctive colors. According to the present embodiment of the invention, printing in this particular color, namely, black, is indicative of "roman" characters.

Now, if it is desired to print in the other distinctive color, which according to the present embodiment is indicative of "bold face" characters, the same signal is transmitted to the printer to effect the energization of magnet 101, which, when received by the typographical composing machine, will operate the duplex rail to position the matrices in their "bold face" position. Therefore, when said signal is received by the selector mechanism shown in Fig. 6 the vanes 12 are set in a combinational position to select the function lever 71, which upon operation of the function lever bail 43 is operated clockwise (as viewed in Fig. 2) to cause its arm 81 to draw link 83 downwardly to rotate lever 85 counterclockwise to close contacts 91, the lever 85 becoming latched up by shoulder 94 on lever 96, as previously described. The closing of contacts 91 completes the circuit for magnet 101 which, upon becoming energized, operates armature lever 105 to actuate blade 111 to its forward position (shown in Fig. 5). This movement of blade 111 causes, through projection 124, the lever 122 to be rotated counterclockwise against the action of spring 123 to move shoulder 125 out of the path of the depending arm of ribbon shift lever 57. Thereafter, when a character is to be printed the said depending arm is free to follow the pull bar bail 47 the full extent thereof, which movement permits the ribbon guide 56 to be raised to an extent sufficient to bring the lower half or red portion of ribbon 55 into the printing zone. Thus, it is seen that, with the magnet 101 energized, printing will be effected in the other of the two distinctive colors. According to the present disclosure, printing in this particular color, namely, red, is indicative of "bold face" characters. Of course, in the broad aspect of the invention, selection between any combination of characters and styles of type carried on two-letter matrices is contemplated. I fact, any situation where duplex rail operation is contemplated is herein intended.

When it is desired to again cause printing to be accomplished from the upper half of ribbon 55 (namely, black in the present embodiment), a characteristic signal is transmitted, indicative of "roman" characters, which when received by the receiving selector mechanism shown in Fig. 6, causes the selection of function lever 72. The operation of function lever 72 causes, through its forwardly extending arm, the counterclockwise rotation of lever 96, to unlatch lever 85 from shoulder 94 and permit its return, by the action of spring 98, to the position shown in Fig. 1 to allow contacts 91 to open, to cause the de-energization of magnet 101 and consequent retraction of blade 111 to bring shoulder 125 again into latching relation with lever 57, whereafter subsequent printing will be effected from the upper half of ribbon 55 in the manner previously described.

In the event that printing is being effected from the lower half of ribbon 55 (in red) when a carriage return signal is received, whereupon the type carriage 27 is restored to its beginning-of-line position, the present invention provides means for automatically restoring simultaneously the printing mechanism to the condition for printing from the upper half of ribbon 55 (in black). To accomplish this result, the carriage return function lever 73 is provided with a forwardly extending arm which cooperates with lever 96 to rotate it counterclockwise to unlatch lever 85 from shoulder 94 and open contacts 91 as just described.

Modification

According to another adaptation of the invention, the ribbon 55 is impregnated with black (or other color) ink and also with hectograph ink (or other duplicating ink). For example, the upper half of ribbon 55 contains black ink and the lower half contains hectograph ink, and the function levers 71 and 72 are made to respond to characteristic control signals in the manner described in the principal embodiment disclosed herein. When "hectograph and black" two-color ribbon is used, the general information is typed in hectograph ink, and the confidential information is typed in black ink so that when hectograph or duplicate copies are made, all but the latter information will appear on the duplicated copies.

It is, of course, understood that the invention is capable of embodiment in many and widely varied applications other than that specifically disclosed without departure from the spirit and scope of the invention as defined in the appended claims.

What is claimed is:

1. In a telegraph apparatus, a carriage movable in accordance with character spaces, a ribbon carrying means mounted on said carriage, an in-

termittently operable member mounted on said carriage and adapted to perform the recording operations, means cooperating with said member to effect oscillation of said ribbon, and parallel motion means arranged parallel with the path of movement of said carriage and effective under certain predetermined conditions to vary the extent of oscillation of the ribbon.

2. In a telegraph apparatus, selector mechanism responsive to received signaling conditions, a ribbon operating mechanism, a device to alter the operation of the ribbon operating mechanism, means effective, through said selector mechanism, in response to certain predetermined signaling conditions to automatically condition said device to set the ribbon operating mechanism for altered operation, and means effective, through said selector mechanism, in response to other predetermined signaling conditions to automatically condition said device to effect the return of the ribbon mechanism to its original condition.

3. In a telegraph apparatus, selector mechanism, a carriage movable in accordance with character spaces, a parallel motion guide means arranged parallel to the path of movement of said carriage, means associated with said selector mechanism to control the operation of said guide means, and means controlled by said guide means for making records distinguishable from one another.

4. In a printing telegraph apparatus, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, and parallel motion means for controlling the shifting movement of said ribbon carrying device.

5. In a printing telegraph apparatus, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, parallel motion means for controlling the shifting movement of said ribbon carrying device, electromagnetic means, and means for selectively operating said electromagnetic means to control the effectiveness of said parallel motion means.

6. In a printing telegraph apparatus, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, a latch mechanism for governing the operation of said device, and parallel motion means for controlling the effectiveness of said latch mechanism.

7. In a printing telegraph apparatus, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, a latch mechanism for governing the operation of said device, parallel motion means for controlling the effectiveness of said latch mechanism, and electromagnetic means selectively operated to determine the condition of operation of said parallel motion means.

8. In a printing telegraph apparatus, signal responsive means, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, a latch mechanism for governing the operation of said device, parallel motion means for controlling the effectiveness of said latch mechanism, electromagnetic means selectively operated to determine the condition of operation of said parallel motion means, and a pair of attrahently biased elements effective under the control of said signal responsive means to control said electromagnetic means.

9. In a printing telegraph apparatus, signal controlled means, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, a latch mechanism for governing the operation of said device, parallel motion means for controlling the effectiveness of said latch mechanism, electromagnetic means selectively operated to determine the condition of operation of said parallel motion means, a pair of function levers selectively controlled by said signal controlled means, a pair of attrahently biased levers cooperably related to each other and controlled by said function levers, and a contact in the circuit of said electromagnetic means controlled by said attrahently biased levers to control the effectiveness of said electromagnetic means.

10. In a printing telegraph apparatus, signal controlled means, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, control means for governing the shifting of said ribbon carrying device, a pair of function levers selectively controlled by said signal controlled means, a pair of attrahently biased levers cooperably related to each other and controlled by said function levers, and means controlled by said attrahently biased levers to control the effectiveness of said control means.

11. In a printing telegraph apparatus, signal controlled means, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, control means for governing the shifting of said ribbon carrying device, a pair of function function levers selectively controlled by said signal controlled means, a pair of elements cooperably related to each other and controlled by said function levers, and means controlled by said elements to control the effectiveness of said control means.

12. In a printing telegraph apparatus, signal controlled means, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, control means for governing the shifting of said ribbon carrying device, a plurality of selector vanes permutably controlled by said signal controlled means, a pair of function levers selectably controlled by said vanes, a pair of elements cooperably related to each other and controlled by said function levers, and means controlled by said elements to control the effectiveness of said control means.

13. In a printing telegraph apparatus, signal controlled means, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, control means for governing the shifting of said ribbon carrying device, a pair of function levers selectively controlled by said signal controlled means, and a pair of pivoted elements controlled by said function levers and having engageable ex-

tremities for controlling, dependent upon the manner of engageability of said elements, said control means.

14. In a printing telegraph apparatus, a printing platen, a ribbon carrying device shiftable with respect to said platen, a printing bail, means biased to follow said bail for shifting said ribbon carrying device, a parallel motion device, means responsive to a predetermined received signal for operating said parallel motion device for blocking said shifting means, and means responsive to another predetermined received signal for disabling said blocking device.

15. In a printing telegraph apparatus, a printing platen, a ribbon carrying device shiftable with respect to said platen, a printing bail, means biased to follow the movements of said bail for shifting and returning said ribbon carrying device, means normally presented in the path of said shifting means for limiting the shifting movement thereof, a parallel motion device for withdrawing said limiting means from effective position, means comprising a pair of pivoted engageable elements for operating said withdrawing means in response to a predetermined received signal, said elements having engageable extremities for holding, dependent on the manner of engageability of said extremities, said withdrawing means operated, and means responsive to another predetermined received signal for altering the manner of engageability of said extremities for disabling said holding means.

16. In a printing telegraph apparatus, a shiftable printing platen, a ribbon carrying device shiftable with said platen and also with respect thereto, a printing bail, means biased to follow the movements of said bail for shifting and returning the ribbon carrying device from and to an initial position with respect to said platen independently of the position of said platen, a parallel motion device comprising means normally presented in position to limit the movement of said shifting means with said bail, and electromagnetic means responsive to a predetermined signal for disabling said limiting means.

17. In a printing telegraph apparatus, signal controlled means, a printing platen, a ribbon carrying device shiftable with respect to said platen, a cyclically operable bail, means biased to follow said bail for shifting said ribbon carrying device, a latch mechanism for governing the operation of said device, parallel motion means for controlling the effectiveness of said latch mechanism, electromagnetic means selectively operated to determine the condition of operation of said parallel motion means, a pair of function levers selectively controlled by said signal controlled means, a pair of attrahently biased levers cooperably related to each other and controlled by said function levers, a contact in the circuit of said electromagnetic means controlled by said attrahently biased levers to control the effectiveness of said electromagnetic means, and a third function lever selectively controlled by said signal controlled means for exercising, under certain predetermined operating conditions, supervisory control over said contact independent of said pair of function levers.

18. In a telegraph apparatus, selector mechanism, a carriage movable in accordance with character spaces, a parallel motion guide means arranged parallel to the path of movement of said carriage, a pair of pivoted elements controlled by said selector mechanism and having engageable extremities for controlling, dependent upon the manner of engageability of said elements, the operation of said guide means, and means controlled by said guide means for making records distinguishable from one another.

19. In a telegraph apparatus, selector mechanism responsive to received signaling conditions, a ribbon operating mechanism, a device to alter the operation of the ribbon operating mechanism, a pair of pivoted instrumentalities having means effective through said selector mechanism in response to certain predetermined signaling conditions to condition said device to set the ribbon operating mechanism for altered operation, and means responsive to other predetermined signaling conditions and effective through said instrumentalities to condition said device to effect the return of the ribbon mechanism to its original condition.

CHARLES W. BURCKY.