Nov. 1, 1927. 1,647,850

E. E. BARNEY

TYPEWRITING MACHINE

Filed Dec. 22, 1924 3 Sheets-Sheet 1

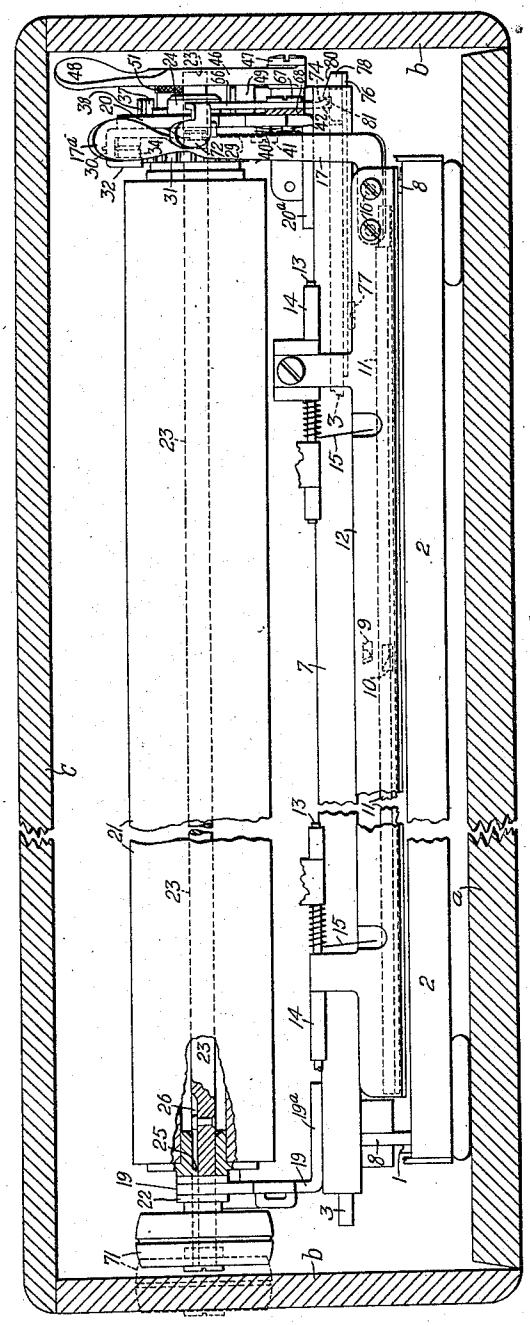


Fig. 1

WITNESSES

Lillian Nelson

Winifred E. Smith

INVENTOR

Edwin E. Barney

BY

Jacob Felbel

ATTORNEY

Nov. 1, 1927. 1,647,850

E. E. BARNEY

TYPEWRITING MACHINE

Filed Dec. 22, 1924 3 Sheets-Sheet 2

Fig. 3

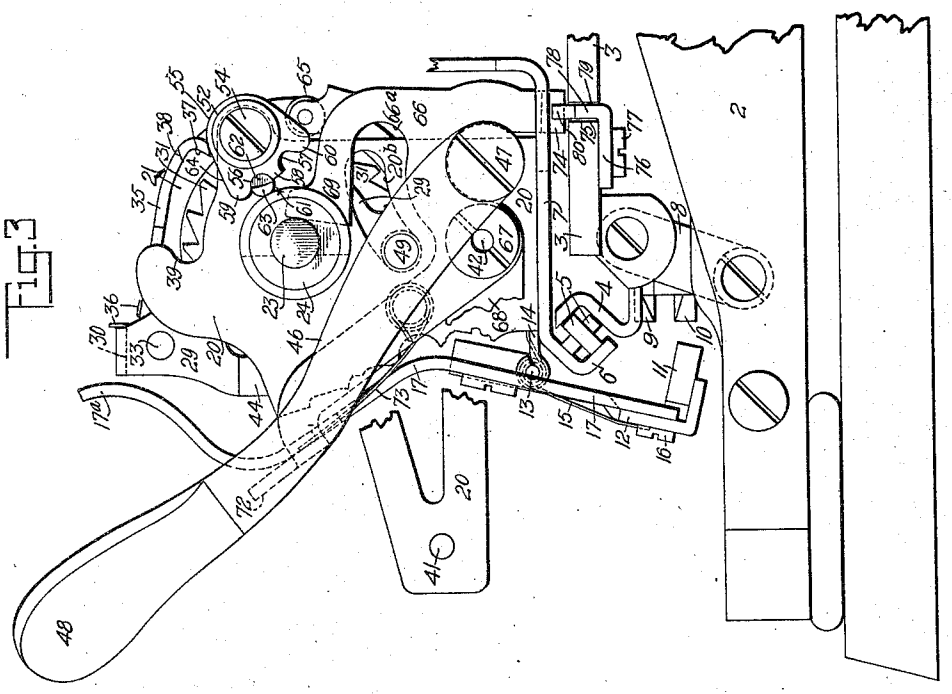
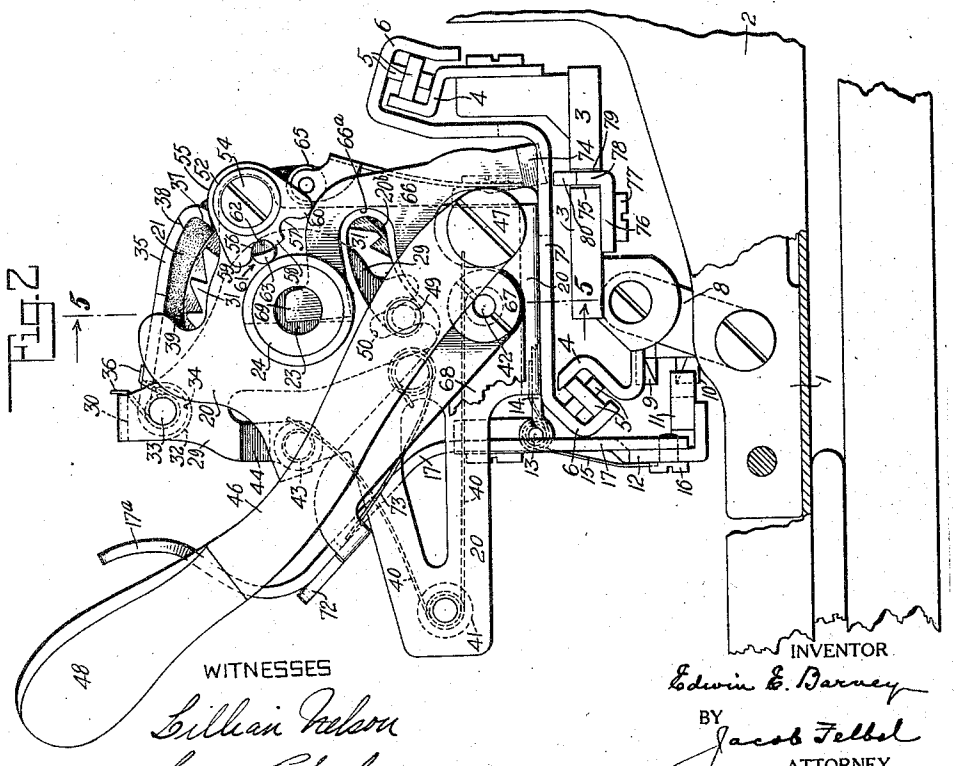


Fig. 2



WITNESSES

Lillian Nelson

Marie E. Smith

INVENTOR

Edwin E. Barney

BY

Jacob Felbel

ATTORNEY

Nov. 1, 1927. 1,647,850

E. E. BARNEY

TYPEWRITING MACHINE

Filed Dec. 22, 1924 3 Sheets-Sheet 3

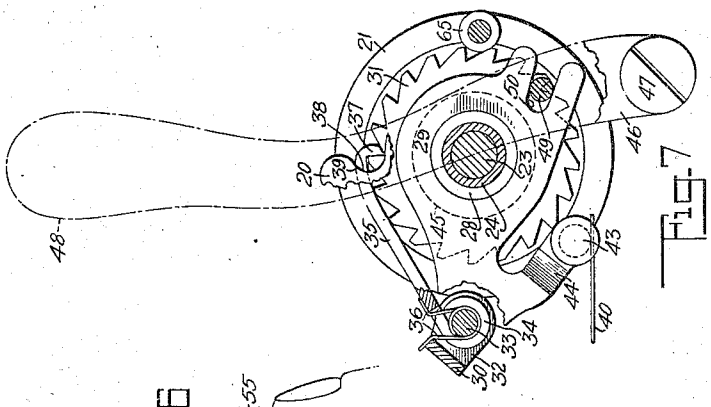


Fig. 7

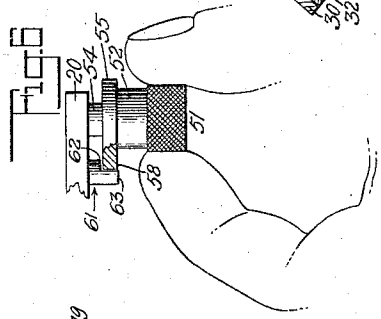


Fig. 6

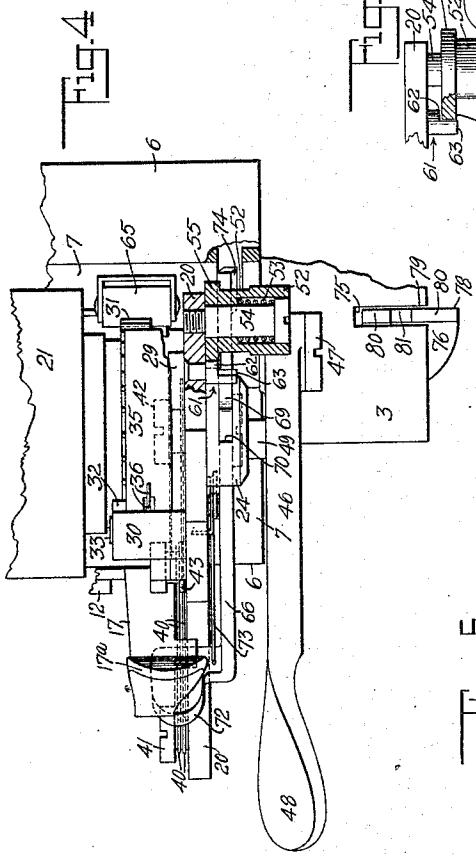


Fig. 4

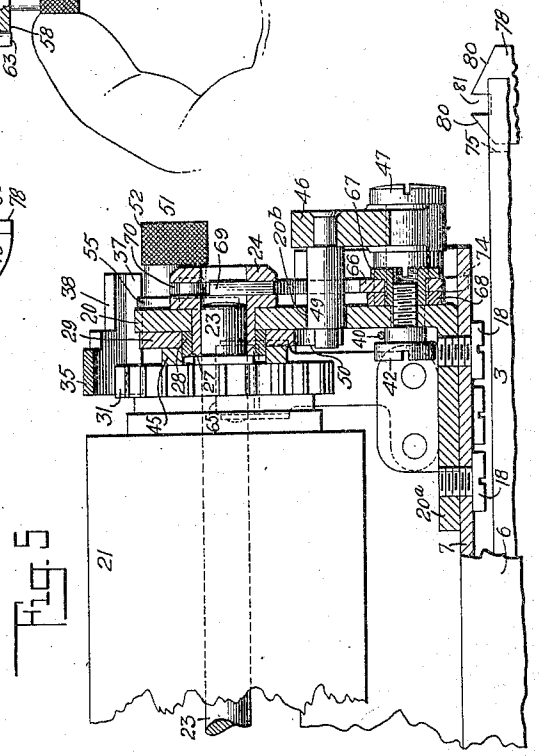


Fig. 5

WITNESSES

Gillian Nelson

Marion E. Smith

INVENTOR

Edwin E. Barney

BY

Jacob Tabel

ATTORNEY

Patented Nov. 1, 1927. 1,647,850

# UNITED STATES PATENT OFFICE.

EDWIN E. BARNEY, OF NEW ROCHELLE, NEW YORK, ASSIGNOR TO REMINGTON TYPEWRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

## TYPEWRITING MACHINE.

Application filed December 22, 1924. Serial No. 757,545.

My invention relates to typewriting or like machines, and more particularly to the line spacing mechanism thereof, and also to other features associated with the line spacing mechanism.

Generally speaking, one of the objects of my invention is to produce an improved line spacing mechanism which is simple and compact in construction, inexpensive to manufacture and highly efficient in use.

A further object of my invention, generally stated, is to provide a construction by which the line spacing mechanism is automatically locked against effective operation when the machine is otherwise conditioned for enclosure within its carrying case and for transportation; a re-conditioning of other parts of the machine for use automatically releasing the lock of the line spacing mechanism, thereby rendering it effective.

To the above and other ends which will hereinafter appear, my invention consists in the features of construction, arrangements of parts, and combinations of devices set forth in the following description and particularly pointed out in the appended claims.

In the accompanying drawings, wherein like reference characters indicate corresponding parts in the different views,

Figure 1 is a fragmentary rear elevation of a machine embodying my invention, the machine being illustrated enclosed within its carrying case, which is shown in section.

Figure 2 is an enlarged fragmentary end elevation of the carriage and associated parts, as seen when looking towards the left-hand end of the carriage; the parts being shown conditioned for use.

Figure 3 is a like view of the same with the parts shown conditioned for enclosure within the carrying case.

Figure 4 is a fragmentary top plan view, with parts in section, of the left-hand end portion of the carriage and some of the associated parts.

Figure 5 is a vertical sectional view of the same taken on the line 5—5, of Figure 2 and looking in the direction of the arrows at said line.

Figure 6 is a fragmentary detail side view, partly in section, of the line space regulating device.

Figure 7 is an end elevation, with parts in section and parts omitted, of the line spacing mechanism.

I have shown my invention embodied in the present instance in a Remington portable machine, and while the various features of the invention have been designed primarily for use in a portable machine, and certain of the features are peculiarly adapted to such a machine, nevertheless there are features of the line spacing mechanism which are of general application and are not necessarily limited to embodiment in a portable machine.

In the accompanying drawings I have shown only so much of a Remington portable machine and its carrying case as is necessary to arrive at an understanding of my invention in its embodiment therein.

The main frame of the machine comprises an inner frame 1 which supports the various working parts of the machine and an outer sheet metal frame 2 that surrounds the inner frame. The frame of the machine is supported on and attached to a baseboard *a*, which constitutes the bottom of a carrying case. The carriage support 3, which constitutes part of the case shift frame, is provided with grooved guide rails 4 that receive crossed bearing rollers 5. These rollers also co-act with guide rails 6 on the main body or base plate 7 of the spring impelled carriage, to support the latter for traveling movement from side to side of the machine. The case shift frame, of which the support 3 forms part, is supported at its rear end by parallel arms 8.

Feed dogs 9 and 10, controlled in the usual manner, co-act with a feed rack 11 to control the letter feed movement of the carriage. This feed rack is supported by a sheet metal plate 12, which in turn is supported on pivot rods 13 held by bracket arms 14 secured to the base plate 7 of the carriage. Springs 15 press the plate forward to the limit of its movement in position normally to engage the feed dog 10.

Screws 16 secure a carriage releasing handle or lever arm 17 to the plate 12, said lever arm terminating in a finger piece 17ª

arranged at the left-hand end of the carriage, and by which the feed rack may be swung rearwardly to release it from the dog 10.

The Remington portable machine is provided with a center lock and automatic carriage release combined with the finger wheel of the platen and its spindle so that when the finger wheel is in an expanded position for use, as indicated in dotted lines in Fig. 1, it will stand in the path of a side wall *b* of the cover *c* of the carrying case and prevent said cover from being closed. There also are provided means which compel a release of the carriage from restraint of its escapement mechanism and a rendering of the center lock effective before the finger wheel of the platen can be moved to compact position shown in full lines in Fig. 1. To recondition the machine for use, so far as the features mentioned are concerned, it is merely necessary to pull out the finger wheel of the platen to the dotted line, Fig. 1, position, after the cover is removed. This results in rendering the center lock for the carriage ineffective and in bringing about a re-engagement of the feed rack with the feed dog 10, all as will presently appear. I have embodied such features as those referred to above in the present construction and have combined parts thereof with the line spacing mechanism of my invention in such a manner that when the machine is conditioned for transportation and for enclosure within its carrying case, as explained above, the line spacing mechanism will be automatically rendered ineffective for use. When the machine is re-conditioned for use, the line spacing mechanism will automatically be rendered operative, as will hereinafter appear.

The main body or base plate 7 of the carriage is provided with end plates 19 and 20, each having a foot piece $19^a$ and $20^a$ respectively, secured by screws 18 to the base plate 7. These end plates constitute supports for a cylindrical platen 21. Thus, the right-hand end plate 19 carries a bushing 22 that receives and supports one end of a spindle 23 of the platen. The other end of this spindle is supported in a bushing 24 secured in the left-hand end plate 20. As shown in Fig. 1, the spindle 23 is connected to the platen by a spline projection 25 on the platen head, said projection being received in a spline groove 26 in the spindle, and by these means the platen and spindle are connected to turn together, although the spindle may be shifted longitudinally of the platen independently thereof.

The bushing 24 (see Fig. 5) is riveted at 27 over the inner side of a bearing ring 28, thus firmly connecting the headed bushing 24 to the end plate 20, and firmly securing the bearing ring in place. A plate-like line spacing pawl-carrier 29, best shown in Fig. 7, has a central opening by which it receives a bearing on the ring 28 and therefore is adapted to turn on an axis concentric with the platen, which is an important factor for efficient line spacing. This carrier 29 is preferably made of sheet metal, and is formed with a laterally projecting arm 30 that extends inwardly across the plane of the line spacing wheel 31 secured to the platen. The arm 30 terminates in a depending ear 32 (Fig. 7) that constitutes a support for one end of a pivot pin 33, the opposite end of which is secured in the body portion of the carrier 29. This pin 33 is received within the bearing portion 34 of a sheet metal line spacing pawl, designated as a whole by the reference numeral 35. A spring 36 is coiled around the pin 33 and bears at one end against the arm 30 of the pawl-carrier and at the other end against the pawl. The force of this spring is exerted to turn the line spacing pawl around its pivot 33 towards the teeth of the line spacing wheel. The pawl 35 is formed with a hook-like engaging tooth or edge 37 which is adapted to engage the teeth of the line spacing wheel, and with an edge, abutment or stop face 38 which co-acts with an undercut inclined stop face 39 formed on the end plate 20 of the carriage, as shown in Fig. 7. These stops 38 and 39 co-act not only to limit the line spacing movement of the pawl 35 and the parts connected therewith and actuated thereby, but also prevent a disengagement of the pawl from the engaged tooth of the line spacing wheel at the end of the operating stroke of the pawl. A spring 40 for returning the pawl carrier and the parts connected therewith to normal position (Fig. 2) is looped around a headed screw 41 carried by the end plate 20 and bears downwardly at one free end against a shouldered screw 42 (Fig. 5) carried by the end plate 20. The other free end of the spring 40 bears upwardly against a pin 43 (Figs. 2 and 7) that is carried by an arm 44 bent inwardly from the carrier 29, so that the pin 43 may be located in the plane of the body portion of said plate-like carrier, and the spring 40 exerts its force against the carrier in the same plane.

As previously stated, the carrier 29 receives a bearing on the ring 28, as shown in Fig. 5, whereas the carrier bears at its outer side against the inner face of the end plate 20. A spacing ring 45 is supported on the bearing ring 28 and is interposed between the inner face of the pawl-carrier 29 and the outer face of the line spacing wheel, and the pawl carrier is thus maintained against axial movement, though it is free to turn.

Turning movement is given to the pawl-carrier 29 direct from an upstanding line spacing lever 46 pivoted at its lower end outside of the end plate 20 on a shouldered pivot screw 47 secured to said plate. The

lower end of this lever is located below the platen at a considerable distance from the axis thereof, whereas the upper end of the lever terminates at a considerable distance from the platen in a finger piece 48. This finger piece is slightly curved to have an angular relation to the body portion of the lever. This is in order to facilitate a forward line spacing movement of the lever from the Fig. 2 to the Fig. 7 position by a single movement of the hand of the operator from left to right and slightly forward, and thereby line space and return the carriage to the right at one movement. It will be observed that in thus moving from the Fig. 2 to the Fig. 7 position the path of the lever 46 crosses the axis of the platen spindle 23 for purposes which will hereinafter appear. Direct and positive connection is effected between the line spacing lever 46 on the outer side of the end plate 20, and the pawl carrier 29 at the inner side of said plate, by a pin 49 carried by said lever intermediate its ends. In making such connection the pin 49 projects from its lever through a segmental slot $20^b$ in the end plate 20, and is received at its reduced free end in a slot 50 in the pawl carrier. It will be seen that by this construction the lever 46 extends practically throughout and beyond the full height of the carriage without interference from other parts on the carriage in the ordinary operation of the line spacing mechanism, notwithstanding the fact that the path of the lever 46 is through the axis of the platen. By this arrangement a long and effective leverage is provided to actuate the pawl carrier 29 and turn it around the axis of the platen when the operator applies a forward pull on the finger piece 48. Such movement of the finger piece effects a clockwise movement of the lever 46 from normal position, producing an anticlockwise movement of the carrier 29.

In order to regulate the point in the stroke of the line spacing pawl where it engages the line spacing wheel, and thus determine whether each stroke shall feed the platen one or two teeth, I have provided an adjustable regulating device or shield, designated as a whole by the reference numeral 51. Said device comprises a hollow knurled head 52 adapted to receive a coiled expansion spring 53, which surrounds the stem of a headed shoulder screw or pin 54 secured to the end plate 20 of the carriage. The head 52 is adapted to slide axially on the supporting screw 54 and also to receive a turning adjustment thereon. The spring 53 bears at one end against the bottom wall of the opening in the head 52 and at its other end against the head of the screw 54; exerting its force to maintain the inner end of the member 52 against the outer face of the end plate 20. A flange 55, formed on the inner end of the head 52, is provided, as shown in Figs. 2 and 3, with two semi-circular locking notches or recesses 56 and 57, divided by an intermediate projection 58. The flange is also provided with two stops 59 and 60 outside of the respective locking notches 56 and 57. A locking pin 61 projects outwardly from and is fixed to the end plate 20, its axis being parallel with the axis of the pin 54 on which the regulating device is mounted. From an inspection of Fig. 6 it will be seen that the pin 61 is of two diameters, as indicated at 62 and 63. The part 62 nearest the base of the pin is cylindrical, corresponding to the full diameter of the pin, whereas the part 63 at the outer end portion of the pin is cut away nearest the member 52, forming substantially a semi-circular portion. As will be understood from a consideration of Figs. 2, 3 and 6, that when the member 52 is held by its spring 53 against the outer face of the end plate 20, the cylindrical portion 62 of the locking pin will be seated in one or the other of the two notches 56, 57, depending on the position to which the head was turned before such an engagement took place. Should the operator desire to shift the regulator to the other position to which it may be adjusted, it is merely necessary to pull the head out, as indicated in Fig. 6, and then turn the head until it is arrested by one of the stops 59 or 60 co-acting with the pin 61. The head 52 is then released and the spring 53 will cause the walls of the registering notch 56 or 57 to engage on the cylindrical part 62 of the pin 61 and lock the head in its adjusted position against turning movement. The act of pulling the device 51 out to the Fig. 6 position, where its further movement is limited by the fully compressed spring 53 bearing against the head of the screw 54, brings the projection 58 between the two locking notches in register with the smaller diameter 63 of the locking pin, thus enabling the part 58 to clear the pin 61 and permit the head to be turned to its newly adjusted position. The position of each of the stops 59 and 60 is such that when it co-acts with the pin 61, the corresponding locking notch 56 or 57 will register with the part 62 of the locking pin to effect an interlocking engagement therewith when the device 51 is spring pressed to engaging position. One side edge 64 of the flange 55 of the regulating device constitutes an inclined shield on which the engaging end 37 of the line spacing pawl normally rests and is adapted to move, as shown in Figs. 2, 3 and 5. It will be seen that a rotative clockwise adjustment of the regulating member 51 from the Fig. 2 to its other position, will cause the line spacing pawl to take up or engage a tooth of the line spacing wheel at a later point in the throw

of the pawl than when the member 51 is adjusted to the position shown, thereby effecting a single instead of a double tooth movement of the line spacing wheel and platen.

A spring pressed roller detent 65 co-acts with the tooth of the line spacing wheel to insure a proper line spacing of the platen at its actuation and to hold it against accidental displacement from such position.

The center lock and automatic carriage releasing means hereinbefore referred to will now be described, as well as the manner in which parts thereof enter into co-operation with the line spacing mechanism. A sheet metal controlling member 66 is arranged on the outer side of the end plate 20, being pivoted thereto on the stem of a headed nut 67 which co-acts with the screw 42, as indicated in Fig. 5. The head of the nut acting on one side of the member 66, and a spacing member in the nature of an arm 68 on the other side thereof hold said controlling member 66 against axial movement on its pivot. The member 66 has a recess or slot $66^a$ therein which conforms substantially to the slot $20^b$ in the plate 20 when the member 66 is in the normal, or Fig. 2, position. This is in order that the member 66 will not obstruct the movement of the pin 49 and the parts connected therewith in the line spacing operation. The controlling member 66 has a locking finger 69 that moves in a cross slot 70 in the bushing 24, and extends across the bore of the bushing and into the path of longitudinal movement of the spindle 23, as shown in Fig. 2, or clears the path of said spindle, as shown in Fig. 3, depending on the position to which the member 66 is turned on its pivot. In the Fig. 2 position the locking finger 69 is in the path of the spindle 23 and prevents it and the finger wheel 71, secured to the right-hand end of the spindle, from being moved from the dotted to the full line position shown in Fig. 1. When, however, the controlling member 66 is shifted to the Fig. 3 position with the aid of a finger piece 72 on said member, then the finger wheel 71 may be moved to the full line compact position shown in Fig. 1, thereby projecting the spindle across the path of return movement of the locking finger 69. The latter will then be at rest on the spindle 23, preventing a return movement of the member 66 and the parts controlled thereby from the Fig. 3 position, although a returning spring 73, which co-acts with the member 66, is tending to turn it around its pivot to the Fig. 2 position.

From an inspection of Figs. 1 and 2, it will be seen that the finger piece 72 for the controlling member 66, extends back in the rear of and co-operates with the carriage releasing lever 17, so that when the controlling member is shifted from the Fig. 2 to the Fig. 3 position, and is locked in said last mentioned position, the feed rack 11 is automatically released and held in the released position, as shown in Fig. 3. This same movement of the controlling member 66 resulted in moving a second locking finger or member 74 down through a slot 75 in the base plate 7 of the carriage to effective position. Such effective position is one where the locking finger 74 will co-act, during the movement of the carriage in its line of travel from either right or left to a centered position, with a second relatively fixed engaging member. This last mentioned member, as shown, comprises a spring metal member 76 secured at one end by a screw 77 to the underside of the carriage support 3. This member 76 has an upwardly projecting portion 78 that extends through a slot 79 in the carriage support and has two inclined upper edges 80 on opposite sides of a locking notch 81 in which the locking finger 74 is adapted to be seated. When the locked-down finger 74 co-acts with either inclined edge 80 in the travel of the carriage, the locking member 76 will be flexed down against the force of its spring until the locking notch 81 registers with the locking finger 74. Then the reaction of the spring member 76 will cause the finger to become seated and interlocked in the notch 81, thus locking the carriage against further travel in either direction. The machine, therefore, at this time is, so far as the parts in question are concerned, conditioned for enclosure within its carrying case and for transportation.

To recondition the machine for use, it is merely necessary, so far as the parts described are concerned, to pull out the finger wheel 71 to the postion for use, shown in dotted lines in Fig. 1. This results in withdrawing the spindle 23 from the path of the locking finger 69 enabling the controlling member 66 to return to normal position, shown in Fig. 2, under the action of the spring 73, thereby releasing the center lock and enabling the carriage escapement mechanism to be re-engaged to control the carriage.

In addition to the foregoing it is desirable in the present construction to automatically lock the line spacing mechanism against effective actuation when the machine is conditioned for transportation, as explained above, and to automatically release the line spacing mechanism for use when the other features of the machine described are conditioned for use. This is desirable in the present construction because, if for no other reason, in the absence of such automatic control of the line spacing mechanism an attempted operation thereof, when the parts are conditioned for transportation, would result in injury to the machine. Thus in such circumstances an actuation of the line spacing handle 46 would result in the pin 49

striking the controlling member 66, see Fig. 3, and the line spacing pawl carrier would strike the finger piece 17ª, resulting in injury to the machine should the lever 46 be forcibly operated. The locking of the line spacing mechanism against effective operation at this time also is beneficial for another reason. Should the operator fail to observe that the machine has not been conditioned for use and should attempt to actuate the line spacing lever, the operator will at once observe that it is locked against effective operation, thus giving warning that it is necessary to condition the machine for use before attempting to proceed further with the operation of the machine.

Having explained the general reasons for automatically locking and unlocking the line spacing mechanism, I will now explain in detail how this is accomplished. Assume that the finger wheel 71 is moved to the compact position, indicated in full lines in Fig. 1, and that the various parts are conditioned for enclosure within the carrying case and for transportation in the manner hereinbefore described. The act of moving the finger wheel, as stated, results in moving the left-hand end of the platen spindle 23 out across the path of movement of a part of the line spacing mechanism, which in the present instance is the line spacing lever 46, as shown in Figs. 1 and 3. An attempt to actuate the line spacing mechanism at this time will, after a short movement of the lever 46, bring it into contact with the projected end portion of the spindle 23, obstructing or locking against further movement of said lever and the parts controlled thereby, and rendering the line spacing mechanism ineffective. This occurs before the platen is turned and before any injury to the parts, such as indicated above, can take place. The act of re-conditioning the machine for use by pulling the finger wheel 71 out to the dotted line Fig. 1 position of use, results in withdrawing the left-hand end of the spindle 23 into the bushing 24 (as shown in Fig. 5), thus releasing the line spacing lever for effective operation.

From the foregoing it will be seen that whether the line spacing mechanism is rendered effective or ineffective for use depends entirely upon whether the other parts of the construction disclosed are conditioned for use or for transportation, and that the locking means for the line spacing mechanism is automatically controlled, thereby relieving the mind of the operator of the necessity for such locking and unlocking and avoiding the necessity of a separate actuation in each instance to effect it.

It will be seen, moreover, that the pawl-carrier 29 is in the nature of a lever of the first order pivoted to turn around the axis of the platen, whereas the hand actuated line spacing lever 46 is in the nature of a lever of the second order having direct connection with said first mentioned lever by the pin and slot connection 49—50; and that the construction and arrangement of these and other parts of the line spacing mechanism are such that they are simple, compact, easy and cheap to manufacture and assemble, and highly efficient in use.

It will be seen, moreover, that the various features of my present invention may be readily embodied in a Remington portable machine without material modification of the existing structural features of such machine.

While I have shown and described in detail one embodiment of my invention, I am aware that various changes may be made without departing from the invention as it is defined in the following claims, and that certain features thereof may be employed without others.

What I claim as new and desire to secure by Letters Patent is:—

1. In a typewriting or like machine, the combination of a part of the machine movable from an expanded to a compact position, line spacing mechanism including an actuating handle, and means for obstructing the operating movement of said line spacing mechanism by a movement of said movable part to compact position.

2. In a typewriting or like machine, the combination of a carriage, a platen, a finger wheel for said platen movable from an expanded to a compact position, line spacing mechanism, and means for obstructing the operating movement of said line spacing mechanism by a movement of said finger wheel to compact position.

3. In a typewriting or like machine, the combination of a platen, a compactible part movable from an expanded to a compact position, line spacing mechanism including a line spacing lever, and means moved to an obstructing position in the path of said lever by a movement of said compactible part to compact position, thereby locking the line spacing mechanism against effective operation.

4. In a typewriting or like machine, the combination of a carriage, a center lock for locking the carriage centered in its line of travel, means for locking the center lock in effective condition, line spacing mechanism, and means for locking the line spacing mechanism against actuation when the center lock is locked in effective condition.

5. In a typewriting or like machine, the combination of a carriage, a center lock for locking the carriage centered in its line of travel, a part of the machine movable from an expanded to a compact position, means controlled thereby for locking the center lock in effective condition, line spacing mecha-

nism, and means for locking the line spacing mechanism against actuation when the center lock is locked in effective condition.

6. In a typewriting or like machine, the combination of a carriage, a center lock for locking the carriage centered in its line of travel, a platen carried by the carriage, a finger wheel therefor movable from an expanded to a compact position, means controlled by said finger wheel for locking said center lock in effective condition, line spacing mechanism, and means controlled by said finger wheel for locking said line spacing mechanism against effective actuation when said finger wheel is in compact condition.

7. In a typewriting or like machine, the combination of a platen, a finger wheel therefor shiftable into and out of compact position, a spindle on which said finger wheel is mounted, and line spacing mechanism including a part that has its movement obstructed by said spindle when the finger wheel is in compact position.

8. In a typewriting or like machine, the combination of a platen, a spindle therefor shiftable longitudinally, and line spacing mechanism including a part that is obstructed in its operating movement by said spindle in one position of the latter but is unobstructed in its operating movement when said spindle is shifted to another position.

9. In a typewriting or like machine, the combination of a part of the machine movable from expanded to compact position, line spacing mechanism, and means for obstructing and thereby locking said line spacing mechanism against effective actuation by a movement of said compactible part to compact position and for moving said obstructing means to an unobstructing position by a movement of said compactible part to expanded position.

10. In a typewriting or like machine, the combination of a carriage, a platen, a finger wheel for said platen movable from an expanded to a compact position, line spacing mechanism, and obstructing means shiftable to obstructing position for locking said line spacing mechanism against effective operation by a movement of said finger wheel to compact position and shiftable to an unobstructing position to free the line spacing mechanism for operation when said finger wheel is moved to expanded position for use.

11. In a typewriting or like machine and its enclosing case, the combination of line spacing mechanism, locking means therefor, comprising a normally ineffective obstruction adapted to be shifted into the path of a part of the line spacing mechanism to block the operation thereof, and means for compelling the shifting of said obstruction into obstructing position before the cover of said case can be closed.

12. In a typewriting or like machine, the combination of a carriage, escapement mechanism therefor, means for locking the carriage free from restraint of its escapement mechanism, line spacing mechanism, and obstructing means for locking or blocking the line spacing mechanism against effective actuation when the carriage is locked free from restraint of its escapement mechanism.

13. In a typewriting or like machine, the combination of a carriage, escapement mechanism therefor, means for locking the carriage free from restraint of its escapement mechanism, line spacing mechanism, and means for locking the line spacing mechanism against effective actuation when the carriage is locked free from restraint of its escapement mechanism and for freeing the line spacing mechanism from its locking means when the escapement mechanism is freed from the locking means by which the carriage is maintained free from restraint of such escapement mechanism.

14. In a typewriting or like machine, the combination of a carriage, a platen carried thereby, line spacing mechanism, carriage escapement mechanism, a compactible part of the machine, a center lock for the carriage, a hand controlled member for rendering said center lock effective and for releasing the carriage from restraint of its escapement mechanism, and means controlled by the movement of said compactible part to compact position locking said hand controlled member in actuated position and for simultaneously locking the line spacing mechanism against actuation.

15. In a typewriting or like machine, the combination of a platen, line spacing mechanism therefor, a lock for locking said line spacing mechanism against effective actuation, and means for conditioning the machine for transportation including means for automatically controlling said lock.

16. In a typewriting or like machine, the combination of a platen, line spacing mechanism therefor, a lock for locking said line spacing mechanism against effective actuation, and means for preventing the machine from being enclosed within its carrying case until said lock has been shifted to locking position.

17. In a typewriting or like machine, the combination of a platen, a line space pawl carrier fulcrumed to turn on the axis of said platen and extending to opposite sides of said axis, said pawl carrier being provided on one side of said axis with a line spacing pawl and being formed on the opposite side of said axis with a slot, and a line spacing lever pivoted at its lower end and provided between its ends with a pin engaging with said slot.

18. In a typewriting or like machine, the combination of a platen, a line spacing pawl-carrier in the nature of a lever of the first

order fulcrumed to turn around the axis of the platen, a line spacing lever of the second order fulcrumed at its lower end below the platen and having a finger piece at the upper end thereof, and a pin and slot connection between said line spacing lever and pawl-carrier.

19. In a typewriting or like machine, the combination of a carriage having an end plate with an opening therethrough, a platen, a line spacing pawl-carrier having a slot therein and mounted at one side of said end plate, a line spacing lever mounted at the opposite side of said plate, and an intermediate actuating connection between said pawl carrier and lever comprising a pin carried by said lever and working in the slot in said pawl carrier, said pin extending through said opening in the end plate.

20. In a typewriting or like machine, the combination of a platen, a line spacing pawl-carrier pivoted to turn around the axis of the platen, and a relatively long upstanding line spacing lever pivoted at its lower end below the platen and extending a considerable distance above the platen where it is provided with a finger piece, said lever intermediate its ends having a direct and positive connection with said pawl-carrier and in its line spacing movement crossing the axis of the platen.

21. In a typewriting or like machine, the combination of a carriage having an end plate with an opening therethrough, a platen, a line spacing pawl-carrier in the nature of a plate-like lever of the first order mounted at one side of said end plate to turn around the axis of the platen and having a slot therein, and a line spacing lever of the second order provided with a finger piece at one end and having a laterally projecting pin which extends through said opening in the end plate and into said slot in the pawl carrier to actuate the latter.

22. In a typewriting or like machine, the combination of a platen, a sheet metal plate-like pawl-carrier in the nature of a lever of the first order pivoted to turn around the axis of the platen and having a slot therein at one end, a line spacing pawl pivoted to said carrier at its opposite end, an upwardly extending hand actuated line spacing lever fulcrumed at its lower end and provided with a finger piece at its upper end and carrying a laterally projecting pin intermediate its ends, said pin extending into the slot in said pawl-carrier to provide a direct working connection between said hand actuated lever and pawl carrier.

23. In a typewriting or like machine and line spacing mechanism therefor, of regulating means for determining the extent of line spacing movement comprising a fixed locking pin of two diameters, and an adjustable regulating device co-acting therewith to be locked in any one of several positions, said device being movable axially along the locking pin from the larger to the smaller diameter thereof to release said device and permit a rotative adjustment thereof.

24. In a typewriting or like machine and line spacing mechanism therefor, of regulating means for determining the extent of line spacing movement comprising a fixed locking pin of two diameters, an adjustable regulating device co-acting therewith to be locked in any one of several positions, said device being movable axially along the locking pin from the larger to the smaller diameter thereof to release said device and permit a rotative adjustment thereof, and a spring which moves said device axially back to engage said locking pin at the larger diameter thereof and lock the device against rotative adjustment.

25. In a typewriting or like machine and line spacing mechanism therefor, of regulating means for determining the extent of line spacing movement comprising a fixed locking pin of two diameters, and an adjustable regulating device coacting therewith to be locked in any one of several positions and to limit the extent of turning adjustment of said device in both directions, said device being movable axially to bring the engaging portion thereof into register with either the larger or smaller diameter of the locking pin, in one instance to lock the device on the pin and in the other instance to free the device from the pin.

26. In a typewriting or like machine and line spacing mechanism therefor, of regulating means for determining the extent of line spacing movement comprising a supporting pin, a regulating device supported thereby and mounted to receive a limited axial as well as a pivotal movement thereon, said device having an engaging portion with locking recesses therein, a spring co-operative with said device to move it to and normally hold it at the limit of its axial movement in one direction, and a fixed locking pin of two diameters, said pin being parallel with said supporting pin and adapted at its larger diameter to engage in one or another of said locking recesses and at its smaller diameter to render the engaging portion of said device free to pass the locking pin so that the device may be turned for pivotal adjustment.

27. In a typewriting or like machine and line spacing mechanism therefor, of regulating means for determining the extent of line spacing movement comprising a supporting pin, a regulating device supported thereby and mounted to receive a limited axial as well as a pivotal movement thereon, said device having an engaging portion with locking recesses therein, a spring co-operative with said device to move it to and nor-

mally hold it at the limit of its axial movement in one direction, a fixed locking pin of two diameters, said pin being parallel with said supporting pin and adapted at its larger diameter to engage in one or another of said locking recesses and at its smaller diameter to render the engaging portion of said device free to pass the locking pin so that the device may be turned for pivotal adjustment, and a shield carried by said regulating device and on which the line spacing pawl is adapted normally to rest.

28. In a typewriting or like machine and line spacing mechanism therefor, of regulating means for determining the extent of line spacing movement comprising a supporting pin, a regulating device supported thereby and mounted to receive a limited axial as well as a limited pivotal movement thereon, said device having a flange with spaced substantially semi-circular engaging notches therein and stops for limiting the pivotal adjustment of said device, a spring bearing at one end against the supporting pin and at the other end against said device to move the latter to the limit of its axial movement in one direction, and a fixed locking pin of two diameters the larger one substantially cylindrical in shape at the base of the pin and the other substantially semi-cylindrical at the outer end portion thereof, the construction and arrangement of the parts being such that when the larger diameter of the locking pin is seated in a locking recess said device is held against pivotal adjustment and when said flange registers with the reduced diameter of the locking pin, said device may receive a pivotal adjustment until one or the other of said stops co-acts with the locking pin, at which time one of the locking recesses registers with the larger diameter of the locking pin and will be engaged thereby by an axial return movement of the device under the force of said spring.

Signed at the borough of Manhattan, city of New York, in the county of New York and State of New York this 18th day of December, A. D. 1924.

EDWIN E. BARNEY.