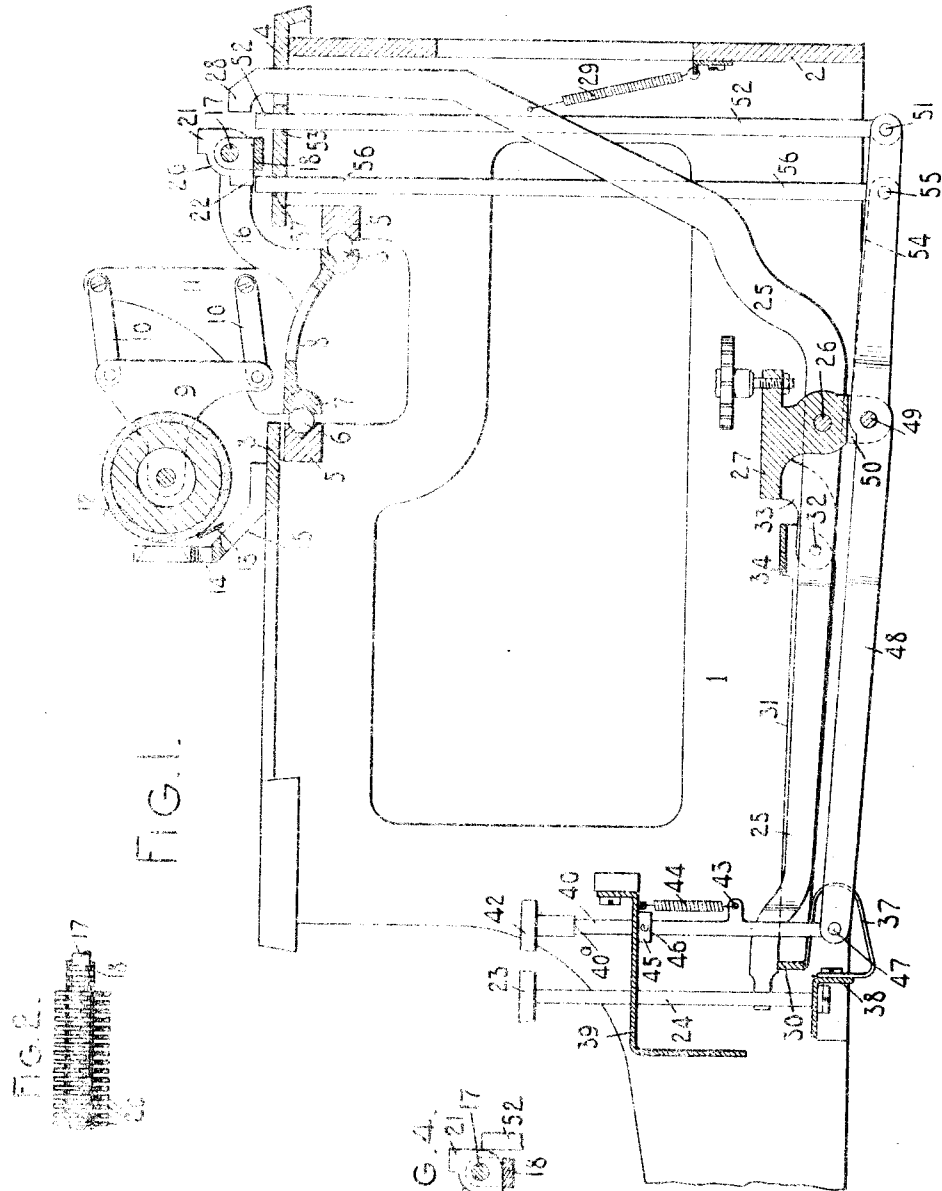


R. W. FEERY.
TYPE WRITING MACHINE.
APPLICATION FILED JULY 12, 1912.

1,061,881.

Patented May 13, 1913.

2 SHEETS-SHEET 1.



WITNESSES

E. H. Wells

Wm. B. Smith

FIG. 4.
20 21 17
22 52 18
56

FIG. 3.
20 21
22 17
52 18
56

INVENTOR:

Roy W. Feery

Dr. Jacob Feld

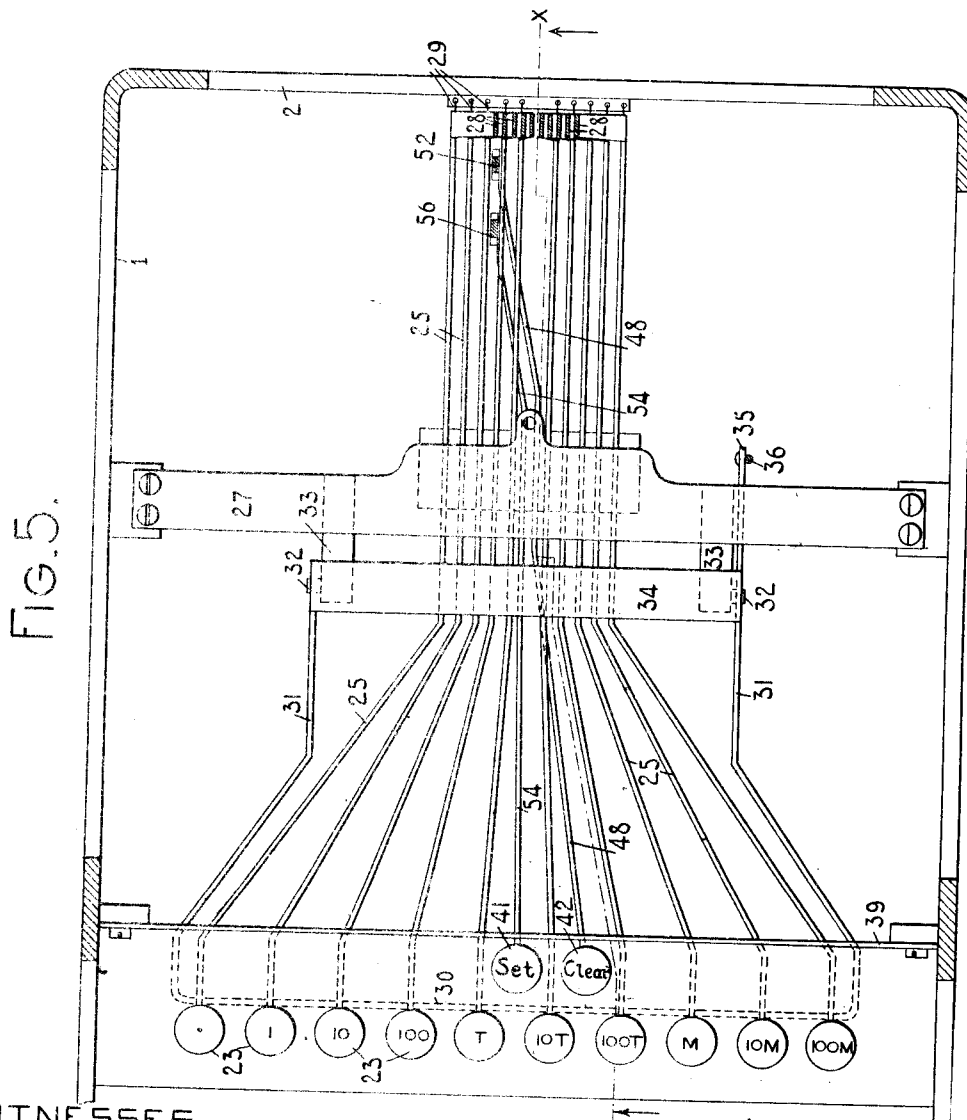
HIS ATTORNEY

R. W. PEERY.
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2 SHEETS-SHEET 2.



WITNESSES.

Wm. Wells
Charles Smith

INVENTOR:

Roy W. Peery
By Jacob Felsch
 HIS ATTORNEY

UNITED STATES PATENT OFFICE.

ROY W. PEERY, OF BRISTOL, TENNESSEE, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
REMINGTON TYPEWRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF
NEW YORK.

TYPE-WRITING MACHINE.

1,061,631.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed July 12, 1912. Serial No. 708,940.

To all whom it may concern:

Be it known that I, ROY W. PEERY, a citizen of the United States, and resident of Bristol, in the county of Sullivan and State of Tennessee, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to typewriting machines and more particularly to tabulator mechanism.

The main object of the invention, generally stated, is to provide an improved construction by which the column stops may be readily "set" when the character of the work is such as to require a new arrangement of the column stops and in which the column stops may be readily "cleared" so that the operative column stops which are not to be used may be rendered inoperative.

A further object of my invention is to provide mechanism of the character specified which is simple in construction, efficient in use and which may be readily applied to various forms of typewriting machines without changing or materially changing the structural features of said machines as they now exist.

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 various views, Figure 1 is a fragmentary vertical fore and aft sectional view of the machine taken on the line 2-2 of Fig. 5 and looking in the direction of the arrows at said line. Fig. 2 is a detail fragmentary plan view of the column stops and column stop bar. Fig. 3 is a fragmentary transverse sectional view of the same and showing a portion of the stop set and clearing devices. Fig. 4 is a like view of the same but showing a different disposition of parts. Fig. 5 is a fragmentary plan view of the machine with the upper portion thereof sectioned away.

I have shown my invention embodied in the present instance in a No. 15 Yost machine although it should be understood that the invention may be embodied in various styles of typewriting machines.

I have shown only so much of the typewriting machine as may be necessary to illustrate my invention in its embodiment therein and some of the parts are only conventionally represented.

The frame of the machine comprises side plates 1, a rear cross plate 2 and top plates 3 and 4. Fixed guide rails 5 are mounted at their ends on the side plates 1 of the machine. These rails are oppositely grooved to receive anti-friction balls or rollers 6 which are likewise received in oppositely grooved guide rails 7 of a carriage truck 8 which is power driven in the usual manner. A platen frame 9 is carried by the carriage, being connected thereto through parallel links 10 each pivoted at one end to the platen frame and at its opposite end to upright bearing supports 11 on the truck. The platen frame supports the usual rotative platen 12 and a combined platen and carriage scale 13 is carried by the platen frame and the index marks thereon are adapted to be brought into register with a sight opening 14 in a fixed center guide 15 supported on the top plate 3 of the machine. The walls of this sight opening constitute a pointer or indicator which coöperates with the carriage scale to indicate the position of the carriage in its line of travel. The parts thus far described may be of the usual construction embodied in the No. 15 Yost machine.

Rearwardly extending bracket arms 16 project from the carriage truck and constitute supports for a column stop bar on which the column stops are mounted. In the present instance this column stop bar is in the nature of a pivot rod 17 which is received in and extends through openings in a slot supporting bar 18 fixed at its ends to the bracket arms 16. The slots 19 (see Fig. 2) in the bar 18 are spaced apart to receive column stops 20 which are mounted to turn on the pivot rod 17 from the position shown in Fig. 3 to that represented in Fig. 4, or vice versa. The column stops are thus permanently maintained at fixed distances apart which correspond to the letter spacing of the carriage. That is to say, the distance between two adjacent stops corresponds to a letter space movement of the carriage.

It will be understood that there are preferably as many column stops provided as there are letter space positions of the carriage in its line of travel, one column stop

being provided for each letter space. Each column stop is preferably of angular form, as represented in the drawings, so as to provide two arms 21 and 22 which extend at substantially right angles to each other, and the arm 21 of which constitutes a contact or engaging portion for cooperation with the key controlled tabulator mechanism.

It will be understood that there is sufficient friction between each column stop and the pivot rod 17 on which it is mounted or between the column stop and the slot 19 in which it turns to hold the column stop indefinitely in either of the two positions shown in Figs. 3 and 4 to which it may be rotated. When the column stops are arranged with the contact portion or arm 21 thereof uppermost, as represented in Figs. 1 and 4, the column stops are so positioned that they are maintained out of cooperative relation with the cooperative key controlled tabulator stops and are thus rendered inoperative. When, however, the column stops are rotated to the position indicated in Fig. 3 they are rendered operative.

Any suitable tabulator mechanism may be employed to cooperate with the column stops 20. In the present instance I have shown denominational tabulator mechanism of a character which corresponds to that employed in the No. 15 Yost machine. The denominational keys 23 are carried by key stems 24 which are operatively connected to angular denominational levers 25 pivoted at 26 to a cross bar 27 fixed to the frame of the machine. The angular denominational levers extend forwardly at the upper ends thereof to provide denominational stops 28. Each denominational lever 25 is connected to a returning spring 29 by which the lever and denominational key connected therewith are returned to normal position. A universal bar 30 extends transversely of the machine beneath the forwardly extending arms of the denominational stop levers 25 and is connected at its ends to rearwardly extending arms 31 which are pivoted at 32 to bracket arms 33 formed on the cross bar 27. The frame formed by the universal bar 30 and side arms 31 are united by a cross bar 34. The right-hand arm 31 is extended rearwardly of its pivot to provide an arm 35 which is connected to a link 36 by which the usual carriage release mechanism is controlled. A returning spring 37 is fixed at one end to a guide plate 38 by which the lower ends of the key stems 24 are guided, the opposite end of the spring bearing upwardly against the bottom of the universal bar. An upper guide plate 39 is provided to guide the key stems 24. It will be understood that when the column stops are in the position shown in Fig. 3 a depression of a denominational key is effective to move the associate denominational stop 28 into the

path of the column stops and at the same time release the carriage.

The mechanism by which the column stops are "set" and "cleared" is as follows:—The guide plate 39 is apertured to receive two key stems 40 which are arranged in rear of the denominational keys. One of these key stems is provided with a key 41 inscribed with the word "Set" or some such suitable inscription. The other key stem is provided with a like finger key 42 inscribed with the word "Clear" or some such suitable inscription. Each key stem is provided with a rearwardly projecting offset 43 to which one end of a contractile spring 44 is connected, the opposite end of said spring being connected to a stud projecting from the guide plate 39. A collar 45 surrounds each stem 40 and a set screw 46 is received in a threaded opening in the collar and bears against the key stem to fixedly connect the collar to the stem. Each collar 45 is adapted to bear against the bottom of the guide plate 39 to limit the upward movement of the key stem and to limit the return movement of the parts controlled thereby. Each key stem 40 is likewise provided with a shoulder 40^a by which its downward movement is limited and a corresponding limitation of the movement of the parts controlled thereby is effected. The right-hand key stem 40 is pivoted at 47 to a rearwardly extending lever 48 which is pivoted at 49 to a depending bracket arm 50 of the cross bar 27. The lever 48 extends rearwardly beyond its pivot to form a lever of the first order and is pivotally connected at its rear end, as at 51, to an upwardly extending rod, bar or clearing device 52 which extends through a guide opening 53 in the top plate 4 of the machine. This member 52 is situated in the rear of the column stop bar and is adapted to move endwise and upwardly from the position shown in Figs. 1 and 3 to that represented in Fig. 4. The upper engaging end of this member 52 is of such a thickness that it will cooperate with but one column stop at a time and is in a vertical fore and aft plane which is coincident with the decimal stop of the series of the denominational stops. It will be understood therefore that in any letter space position of the carriage one of the column stops 20 will be in register with the member 52 and that such stop will be located at a position indicated by a reading on the carriage scale. Thus, if the carriage be positioned at, say "40," as indicated by the carriage scale, then the corresponding column stop will be in register with the clearing device 52. If such stop should be in the operative position indicated in Fig. 3, a depression of the clearing key at this time is effective to rotate the registering column stop from the position shown in Fig. 3 to that indicated in Fig. 4 and thus

rotate the column stop to the inoperative position.

The stop set key 41, through its key stem 40, is connected to a lever 54 which is similar to the lever 48 and like it is mounted on the pivot 49. The rear end of the lever 54 is pivoted at 55 to an upwardly extending bar, rod or setting device 56 which extends at its upper ends through an opening 57 in the top plate 4 of the machine. The member 56 is arranged forward of the column stop bar in a position where its upper end extends beneath the arms 22 of the column stops when the latter are in the inoperative position, as shown in Fig. 1. The upper engaging end of the member 56 is arranged in the same fore and aft vertical plane as the member 52 so that in any letter space position of the carriage a column stop corresponding to the reading on the carriage scale will be brought into register with the member 56. If such stop should be in the inoperative position indicated in Figs. 1 and 4, an upward movement of the member 56 will affect a rotative movement of the column stop, as indicated in Fig. 3, to move it to operative position by swinging the arm 21 thereof downwardly into a position where a denominational stop 28 when projected forwardly will cooperate therewith.

It will be understood that the upper engaging end of the stop setting device 56 is of such a thickness that it will cooperate with but one column stop at a time, so that the column stops are moved individually to operative position by the stop setting device under control of one key and are moved individually to inoperative position by a second independently operable clearing device 52 under control of another key. Moreover, it will be noted that the stop setting and clearing devices are in the present instance carried by the frame of the machine whereas the column stops are carried by the carriage so that a movement of the carriage brings the column stops successively into cooperative relation with the stop setting clearing devices.

There is a distinct advantage in providing a construction in which the column stops are individually and separately moved to the inoperative position in that only those column stops which are to be thrown out of use can be individually selected and moved to inoperative position and there is no necessity for clearing the entire set of operative column stops preparatory to resetting them. Thus if only one or two of the previously set column stops are to be moved to the inoperative position, the remaining stops to remain in the set position, those stops which are to be moved to inoperative position can be readily selected and moved to such position independently of the others.

In setting the column stops the carriage

may be positioned with the aid of the carriage scale and pointer or by direct reference to a sheet in the machine. In the latter case the operator merely observes when the proper point on the sheet arrives at the printing point and depresses the stop setting key, thus moving the required stop to operative position and so on until all of the stops have been set.

From the foregoing description it will be understood that the stop carrying device 52 is operative to effect an individual movement of the column stops in one direction whereas the stop setting device 56 is operative to effect an individual movement of the column stops in the opposite direction and that these devices operate on the column stops on opposite sides of the column stop bar and at opposite end portions of the column stop, although the effective movement of both devices is in the same general direction.

Various changes may be made without departing from the spirit and scope of my invention.

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

1. In a typewriting machine and tabulating mechanism, the combination of a carriage, a series of column stops mounted for individual rotative movement into and out of operative position and adapted to remain indefinitely in either of such positions, key controlled means operative individually on the column stops to rotate them separately into operative position, and separate key controlled means operative individually on said column stops under the operation of the key therefor to rotate the column stops separately out of operative position.

2. In a typewriting machine and tabulating mechanism, the combination of a carriage, a column stop bar, a series of column stops mounted for individual movement from one position to another on said column stop bar into and out of operative position and adapted to remain indefinitely in either of such positions, key controlled means operative individually on the column stops for moving them separately into operative position, and separate key controlled means having a contact portion of a width sufficient to cooperate with but one column stop at a time and operative individually under the action of the key therefor on the column stops for moving them separately on the column stop bar out of operative position.

3. In a typewriting machine and tabulating mechanism, the combination of a carriage, a series of column stops one for each letter space position of the carriage, said stops being mounted for individual movement into and out of operative position, a key controlled device operative individually on the column stops to move them separately

ately into operative position, and a key controlled device having a contact portion of a width sufficient to cooperate with but one column stop at a time and operative individually on the column stops to move them separately out of operative position.

4. In a typewriting machine and tabulating mechanism, the combination of a carriage, a series of column stops permanently located a letter-space distance apart and mounted for individual movement into and out of operative position and adapted to remain indefinitely in either of said positions, and a key controlled device having a contact portion of a width sufficient to cooperate with but one column stop at a time and operative individually on the column stops for moving them separately out of operative position.

5. In a typewriting machine and tabulating mechanism, the combination of a carriage, a series of column stops permanently located a letter-space distance apart and mounted for individual movement into and out of operative position and adapted to remain indefinitely in either of said positions, a key controlled device operative individually on the column stops for moving them separately into operative position, and a key controlled device having a contact portion of a width sufficient to cooperate with but one column stop at a time and operative individually on the column stops for moving them separately out of operative position.

6. In a typewriting machine and tabulating mechanism, the combination of a carriage, a series of column stops permanently located a letter space distance apart and mounted for individual rotative movement into and out of operative position and adapted to remain indefinitely in either of said positions, a key controlled device operative individually on the column stops for rotating them separately into operative position, and a key controlled device operative individually on the column stops for rotating them separately out of operative position.

7. In a typewriting machine and tabulating mechanism, the combination of a carriage, a column stop bar, a series of column stops mounted for individual movement from one position to another on said column stop bar into and out of operative position and adapted to remain indefinitely in either of such positions, a key controlled device located at one side of the column stop bar and operative individually on the column stops to move them separately in one direction into operative position, and a second key controlled device located at the opposite side of said bar and having a contact portion of a width sufficient to cooperate with but one column stop at a time and operative individually on said column stops

to move them separately on the bar in the opposite direction out of operative position.

8. In a typewriting machine and tabulating mechanism, the combination of a carriage, a column stop bar, a series of column stops mounted for individual rotative movement from one position to another on said column stop bar into and out of operative position and adapted to remain indefinitely in either of such positions, a key controlled device located at one side of the column stop bar and operative individually on the column stops to rotate them separately in one direction into operative position, and a second key controlled device located at the opposite side of said bar and operative individually on said column stops to rotate them separately on the bar in the opposite direction out of operative position.

9. In a typewriting machine and tabulating mechanism, the combination of a carriage, a series of column stops one for each letter space position of the carriage, said stops being mounted for individual movement into and out of operative position, a key controlled device operative individually on the column stops to move them separately into operative position, and a key controlled device operative individually on the column stops to move them out of operative position, said key controlled devices being operative by separate keys at the keyboard of the machine and operating on opposite sides of the column stops to move them in opposite directions.

10. In a typewriting machine and tabulating mechanism, the combination of a carriage, a series of column stops carried by the carriage and permanently located a letter-space distance apart and mounted for individual movement into and out of operative position and adapted to remain indefinitely in either of said positions, a device carried by the frame of the machine and having a contact portion of a width sufficient to cooperate with but one column stop at a time, said device being operative individually on the column stops for moving them separately out of operative position, and a key at the keyboard of the machine for controlling said device.

11. In a typewriting machine, the combination of a carriage, a column stop bar, a series of column stops mounted for individual movement from one position to another on said column stop bar into and out of operative position and adapted to remain indefinitely in either of such positions, key controlled means operative individually on said column stops to move them into operative position, a rod which is movable endwise and operates individually on the column stops to move them separately out of the operative position, a lever connected to said rod to move it, and a key at the key-

board of the machine for controlling said lever.

12. In a typewriting machine, the combination of a carriage, a column stop bar, a series of column stops mounted for individual movement from one position to another on said column stop bar into and out of operative position and adapted to remain indefinitely in either of such positions, and a key controlled rod which moves upwardly from its normal position and is of such a width as to cooperate with but one column stop at a time to move the column stops individually out of operative position.
13. In a typewriting machine, the combination of a carriage, a column stop bar, a series of column stops mounted for individual movement from one position to another on said column stop bar into and out of operative position and adapted to remain indefinitely in either of such positions, a key controlled rod which moves upwardly from its normal position and is of such a width as to cooperate with but one column stop at a time to move the column stops individually out of operative position, a key controlled rod which is of such a width as to cooperate with but one column stop at a time and which moves upwardly from its normal position and cooperates individually with the column stops to move them separately into operative position.

14. In a typewriting machine, the combination of a carriage, a column stop bar, a series of column stops mounted for individual rotative movement from one position to another on said column stop bar into and out of operative position and adapted to remain indefinitely in either of such positions, the column stop being arranged adjacent to one another, one column stop being provided for each letter space position of the carriage, a key controlled rod of such a thickness that it cooperates with but one column stop at a time and which moves upwardly from its normal position at one side of the column stop bar to move a column stop into operative position, a key at the keyboard of the machine for controlling said rod, a second rod of such a thickness as to cooperate with but one column stop at a time and situated at the opposite side of the column stop bar and movable upwardly from its normal position to move the column stops individually out of operative position, and a key at the keyboard of the machine for controlling said second rod.

Signed at Tazewell in the county of Tazewell and State of Virginia this eighth day of July A. D. 1912.

ROY W. PEERY.

Witnesses:

W. T. WITTEN,
JOHN C. HOPKINS.