

(No Model.)

2 Sheets—Sheet 1.

G. B. WEBB.
TYPE WRITING MACHINE.

No. 504,897.

Patented Sept. 12, 1893.

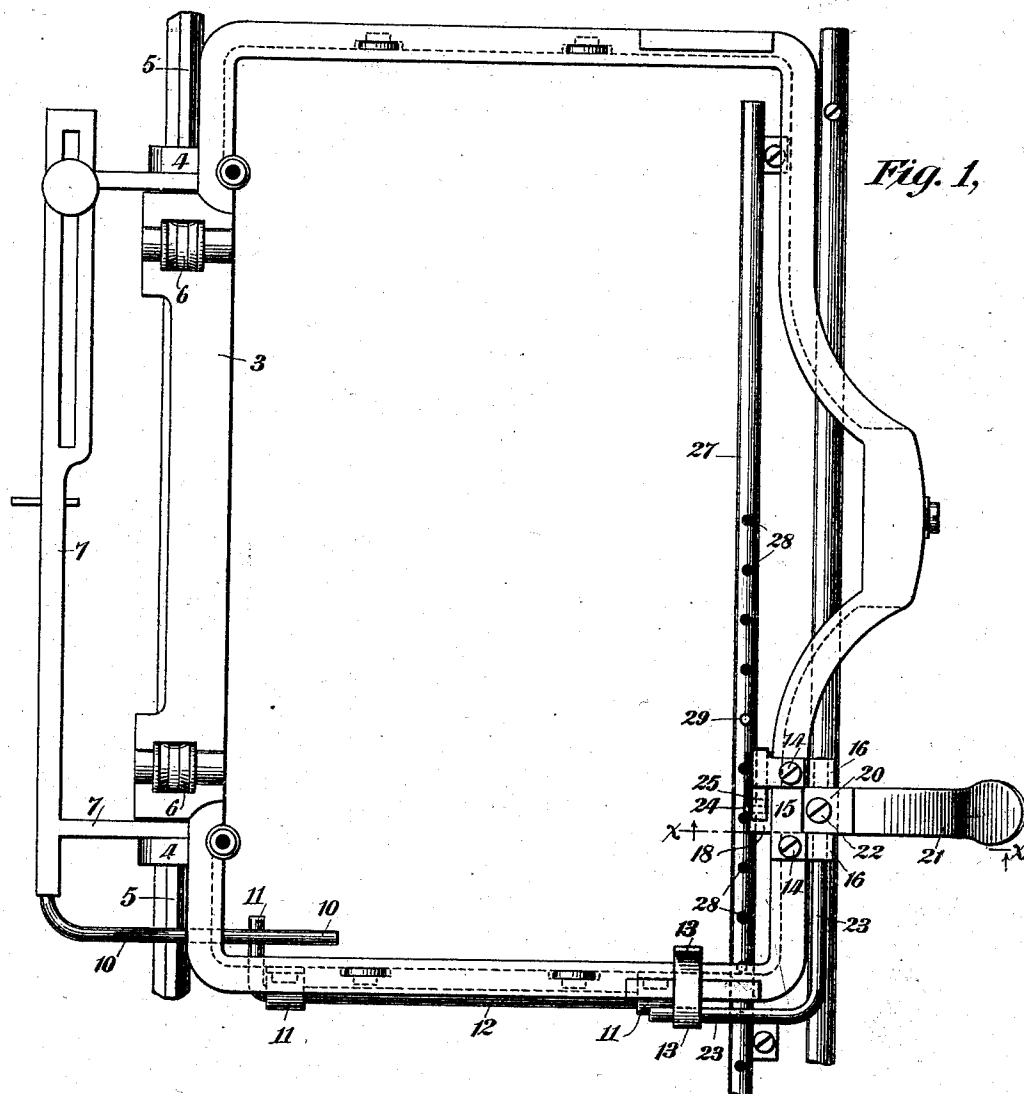
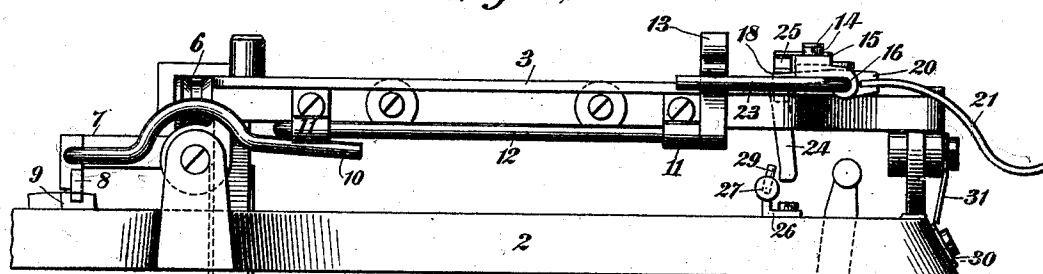


Fig. 1,

Fig. 2,



Witnesses

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J. W. Lloyd.

By his Attorneys

Inventor
George B. Webb
Donnelly & Fabel

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Fig. 3.

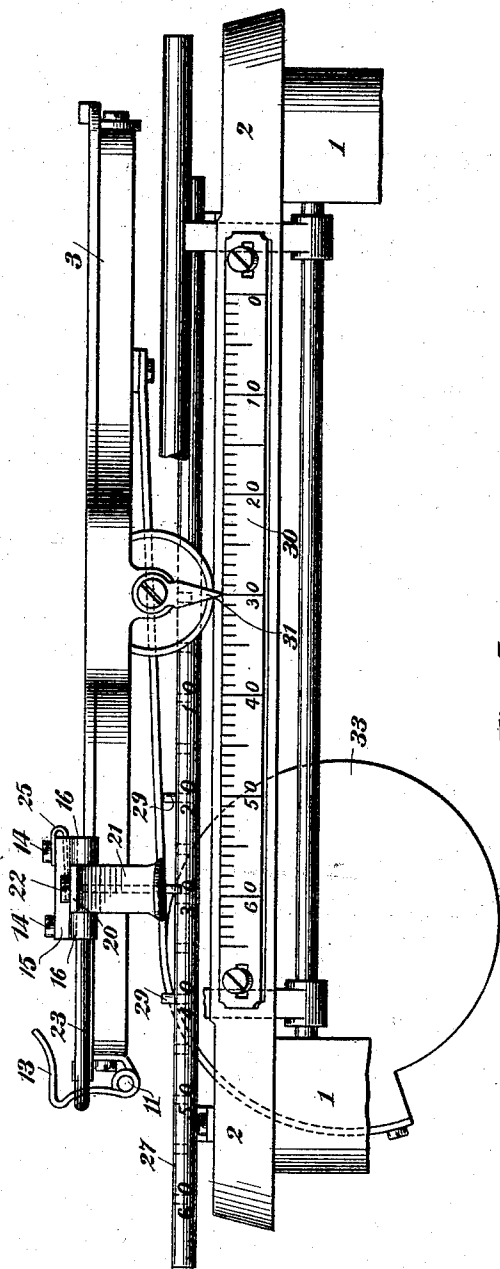


Fig. 4.

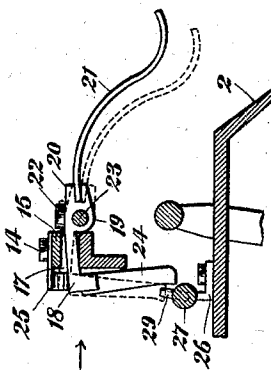
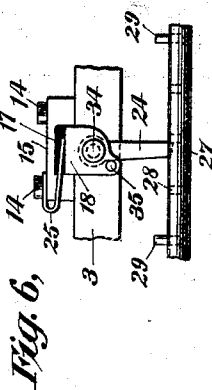
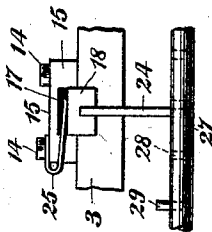


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE B. WEBB, OF NEW YORK, N. Y., ASSIGNOR TO THE WYCKOFF,
SEAMANS & BENEDICT, OF SAME PLACE.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 504,897, dated September 12, 1893.

Application filed December 3, 1892. Serial No. 453,957. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. WEBB, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates more particularly to carriage raising and releasing means and to that class of devices for performing column or tabulated work made the subject of an application filed by me December 2, 1891, Serial No. 413,756, and consists in the various features of construction and combinations of devices hereinafter more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a plan view of the paper-carriage of a Remington type writing machine, (stripped of its platen, platen-carrier, paper-feeding mechanism, &c.,) the guide and hinge rail, and the usual shift-rail for the platen frame or carrier, and showing also my present improvements. Fig. 2 is an elevation of the same taken at the left hand end of the machine with the top-plate added. Fig. 3 is a front elevation of the same. Fig. 4 is a vertical cross-section taken at the line *xx* of Fig. 1. Fig. 5 is a rear, detail elevation, or a view looking in the direction of the arrow at Fig. 4, and Fig. 6 is a rear elevation, showing a pivoted dog.

In the several views the same parts will be found designated by the same numerals of reference.

1 designates the posts or pillars, and 2 the top-plate of a Remington machine.

3 is the main carriage hinged by eyes 4 upon the guide-rail 5, and provided with grooved wheels 6, which run upon said rail. A frame 7 is also hinged to swing about said rail, and is provided with a feed-rack 8, which co-operates as usual with the letter-spacing dog 9. Attached to said hinged frame 7 is an arm 10, which is bent to pass over the rail 5 and extended forward to terminate contiguous to the rear end of the left hand side bar of the carriage. In bearings 11 on the outer side of said side bar is mounted a rock-shaft

12, which at its rear end is bent inwardly under the said side bar, and rests at its free end upon the forwardly extending arm 10. At the free end of the rock-shaft is secured a finger-piece or key 13, which projects upwardly and inwardly over the said side bar of the carriage.

On the front bar of the carriage at the left hand side is fastened, by screws 14, a bracket 15, which at each end is provided with a forwardly-extending eye or bearing 16. The bracket between said eyes or bearings is cut-away or open and between the ends of said bracket immediately over the front rail a space or opening 17 is left for the passage of the rear arm 18 of a lever 19, a portion of the front arm 20 of said lever fitting in the space formed between the eyes or bearings 16, the remainder of the forward arm of said lever 19 being formed or provided with a handle 21. The said lever 19 is attached, by a screw 22 to a bar 23, which is seated or fulcrumed in the eyes or bearings 16 at one end, (thus forming a pivot for the lever,) and which at its opposite end is bent at right angles and rearwardly to extend over and lie adjacent to the finger-key 13.

Attached to or formed integral with the arm 18 is a depending lug or stop 24, and attached to the bracket 15, by one of the screws 14, is a spring 25, which is bent to bear upon the top of the arm 18 and hold the lever 19 down against the upper side of the front bar of the carriage, as shown clearly at Fig. 4.

Mounted upon the top-plate 2, or some other stationary part of the machine, and preferably by detachable brackets 26, is a rod 27, arranged parallel with the pivot of the lever 19, and having a series of perforations 28 into which may be fitted one or more stops or pins 29. The perforations or holes 28 are arranged apart or graduated to correspond with the divisions of the machine scale 30. Preferably, however, there is only one hole to every five figures of the scale, as this arrangement has been found in practice to be ample. The holes are preferably numbered as shown to aid in facilitating the work.

At Fig. 3 of the drawings, two pins or stops 29 are shown, one at the hole "20," and the other at the hole "40" of the said rod 27. The

lower end of the projection, lug, or dog 24 stands in a plane in front of the line of holes or pins in the normal position of the arm or lever 19, so that in doing ordinary work the dog 24 may pass freely by the said stops or pins. By depressing the said arm or lever 19 at its handle-end 21 the dog may, however, engage with said pins upon arriving thereat, and by such engagement or contact arrest the carriage. The pointer 31 attached at the axis of the front supporting roller 32 of the carriage shows at Fig. 3 that the carriage has arrived at "30" on the machine scale. If it be desired now to have the carriage moved quickly to the point "40" on the scale (so that a column of figures may be commenced, for example) the dog 24 is swung rearwardly by bearing down upon the handle portion of the lever 19. By this movement the bar 23 is rocked in its bearings, and its rearwardly-projecting portion caused to rise and bear upon or against the finger-piece of the rock-shaft and operate to turn said rock-shaft and cause its inner portion to depress the arm 10 of the hinged frame, and lift the rack-bar 8 from engagement with the spacing-dog. As soon as this is accomplished, a spring-drum or power 33, (which may be of any known or suitable construction) acts to propel or pull the carriage rapidly toward the left until the dog 24 strikes or abuts against the stop or pin 29 at the hole "40." The pressure upon the handle 21 may be then released and the lever contrivance 19 will be returned to its normal position by the spring 25. After the carriage has been arrested, and the dog permitted to return to its normal position, the writing may be proceeded with to the full limit of travel of the carriage, as in the arrangement exhibited there is no pin or stop in place beyond that at the hole numbered "40." When the lever is released the rack and the rock-shaft are restored to their normal positions by reason of the superior weight of the hinged frame, which is sufficient through the rock-shaft, to return the lever 19 to its first position without the aid of the spring 25, which is employed principally to keep the dog 24 out of the plane of the pins when the rock-shaft alone is actuated in ordinary work.

The rock-shaft or lever is usually designated a "release key," and this release-key may be operated independently of the key or lever 19, for releasing the carriage in ordinary work, and when so operated the key or lever 19 remains in its normal position, shown in full lines at Fig. 4. As the release key may be operated independently of the lever or column stop key the pins or stops 29 need not be removed from their holes in the bar or support when the operator is engaged in doing ordinary work. While I have shown only two pins or stops, there may be used as many as the work may demand.

It will be observed that the lever or column-stop key is connected to the carriage, and that when actuated to move the dog 24 to

working position, serves to operate the carriage releasing devices. It will be further observed that when the dog 24 is vibrated and the carriage released the hand is upon the column stop key (or the carriage), and hence the movement of the carriage toward the left under the force of its driving spring, may be so regulated or controlled as that the carriage may be stopped easily, without shock, when the dog comes into contact with the pin. My invention is of course also adapted to that class of machines wherein a spring-drum or driving power is dispensed with, and the carriage moved step-by-step by positive means actuated through the movement of the key-levers. While I prefer to combine the release key with the column stop key, so far as some of the features of my improvements are concerned the release key may be omitted.

Referring to the construction shown at Fig. 6, the vertical portion of the arm 18 of the lever is prolonged and the dog 24 pivoted thereto at 34, for a purpose which will presently appear. With the construction shown at Fig. 4, it will be seen that if, while the handle is depressed and the dog is swung rearwardly to the dotted-line position shown, it be attempted to return the carriage to the right for the beginning of a new line or column, the dog 24 would strike against any pin arranged on the right hand side thereof and arrest the carriage, which would necessitate a releasement of the lever 19. The construction shown at Fig. 6 is intended to obviate this releasement, and by the same it will be seen that (in returning the carriage to the right while the dog is held in the plane of the stops by the depression of the handle portion 21) when said dog encounters the pin, it will turn about its pivot 34 and ride over said pin, and after passing the same drop to substantially a vertical position. In order to prevent such tilting or vibration of the dog when the carriage is moving to the left a pin 35 is provided on the arm 18.

One of the main objects of my invention is to combine in one device a forwardly-projecting handle, by which the carriage may be lifted to expose the line of print with means for doing column work. Heretofore the Remington machine has been provided at the left hand side with a fixed handle extending toward the operator to facilitate the raising of the carriage, which handle is also sometimes used to return the carriage toward the right when it may not be desired to use either the release-key or the line-spacing lever. In the other application filed by me and above referred to is shown a key or lever, which performs only the function of a column stop key or lever, and which is neither intended nor well adapted to be used as a lifting means for the carriage. It being desirable to reduce the number of parts in the machine as much as possible, I have, therefore so constructed and arranged the column stop key as that it may be readily employed as a carriage lifter.

When used as a carriage-lifter, the handle 21 is of course caught underneath, and the dog-bearing arm 18 abutting against the upper surface of the front bar of the carriage prevents any independent vibration of said lever during the turning up of the carriage about the hinge-rod 5 as a center of motion. If in turning down the carriage said lever should be vibrated it is immaterial, since upon releasing the same the spring 25 will restore the dog to its normal position out of the plane of the pins or stops.

Another main object of my invention is to combine a carriage-lifter with a carriage releasing means, so that either the lifting or the releasing of the carriage may be effected by the operation of a single device. When the handle 21 is raised the carriage is lifted and when said handle is depressed the carriage is released. Thus the combined lifting and releasing means is a most desirable construction independently of the column-stop devices, which, therefore, may be dispensed with, as may also the finger-piece of the release key so far as this part of my invention is concerned.

Another main object of my invention is to so combine the combined lifter and column-stop key with the release-key as that the release-key may be operated independently of the combined lifter and column-stop key when the pins or column-stops are in place, so that the carriage may be released and moved toward the left to the desired point without interruption by the column-stops.

I do not wish to limit myself to the employment of pins and holes, as any known or suitable form of column stops may be employed in lieu thereof, and without departing from my invention any known or suitable form of release-key and carriage feeding mechanism may be used in place of the special constructions which I have elected to show.

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

1. In a type writing machine, the combination with a paper-carriage and its feeding mechanism, of a releasing mechanism, independent of the line spacing mechanism and a carriage-lifter operatively-connected to said releasing mechanism, whereby the carriage may be either released or elevated at pleasure by the application of the hand to said lifter alone and without moving the paper in line space direction.

2. In a type writing machine, the combination with a paper-carriage and its feeding mechanism, of a releasing mechanism, a carriage-lifter operatively-connected to said releasing mechanism and provided with a dog, and one or more column stops.

3. In a type writing machine, the combination with a paper-carriage and its feeding mechanism, of a releasing mechanism, a lifter pivotally mounted on the carriage and provided with a dog and operatively-connected to the releasing mechanism, and one or more

column stops fixed relatively to the carriage; the lifter being connected to the releasing mechanism in a manner such that the latter may be operated either independently of the lifter or through the lifter while at the same time the lifter may be actuated independently of the releasing mechanism to effect the raising of the carriage without simultaneously releasing the same.

4. In a type writing machine, the combination of a paper-carriage, one or more column stops, and a horizontally pivoted lever provided on one side of its pivot with a dog, arranged to travel normally out of the plane of the stop or stops and on the opposite side with a handle or finger-piece which when actuated operates to move the dog into the plane of the stop or stops.

5. In a type writing machine, the combination of a lifting paper-carriage, one or more column stops, and a spring-actuated horizontally pivoted lever, one arm of which is provided with a depending dog, and the other arm of which is provided with a handle or finger-piece which when moved in one direction is adapted to serve as a carriage lifter and when moved in the opposite direction is adapted to move said depending dog into the plane of the column stop or stops.

6. In a type writing machine, the combination of a paper-carriage, a rod or support having one or more column stops, and a spring-actuated lever pivoted in a plane parallel with said rod or support and provided on one side of its pivot with a dog, and on the other side with a handle or finger-piece.

7. In a type writing machine, the combination with a paper-carriage, of a bracket secured thereto and provided with forwardly-extending eyes or bearings, a lever pivoted to said bracket as shown and described, and provided at one end with a dog, and at the other end with a handle, and one or more column stops fixed relatively to the carriage.

8. In a type writing machine, the combination with a paper-carriage and its feeding and releasing mechanisms, of one or more column stops, and a lever connected to said releasing mechanism, and provided on one side of its pivot with a dog, and on the other side with a handle or finger-piece.

9. In a type writing machine, the combination with a paper-carriage and its feeding and releasing mechanisms, of one or more column stops, a bent rod pivoted at one end and adapted at its other end to operate upon said releasing mechanism, and a lever secured to said rod and provided on one side of the pivot with a depending dog, and on the opposite side with a forwardly-extending handle or finger-piece.

10. In a type writing machine, the combination with a paper-carriage and its feeding and releasing mechanisms, of one or more column stops, a bracket secured to said carriage and provided with eyes or bearings, a bent rod mounted at one end in said eyes or bearings

and extended at its opposite end contiguous to the releasing mechanism, and a spring-actuated lever secured to said rod and provided on one side with a depending dog, and on the 5 opposite side with a forwardly-projecting handle, or finger-piece.

11. In a type writing machine, the combination with a paper-carriage, of one or more column-stops, and a column stop key lever provided with a pivoted dog. 10

12. In a type writing machine, the combination with a paper-carriage, its feeding mechanism, and its releasing mechanism, of a lever, and connecting devices between said lever 15 and the release-key of said releasing mechanism, said lever being adapted to release the carriage upon a downward movement of its handle portion, and to serve as a carriage-lifter upon an upward movement of its handle portion. 20

13. In a type writing machine, the combination with a paper-carriage, its feeding mechanism, and its releasing mechanism, of one or more column stops, and a combined column stop key and carriage lifter, the whole being 25 so arranged as that the release key may be operated independently of the combined column stop key and carriage lifter when the column stop or stops may be in place, so that the carriage may be released and moved to- 30 ward the left to the desired point without interruption by the column stop or stops.

Signed at New York city, in the county of New York and State of New York, this 28th day of November, A. D. 1892.

GEORGE B. WEBB.

Witnesses:

JACOB FELBEL,
IDA MACDONALD.