

(No Model.)

2 Sheets—Sheet 1.

W. J. BARRON.
TYPE WRITING MACHINE.

No. 463,934.

Patented Nov. 24, 1891.

Fig 1-

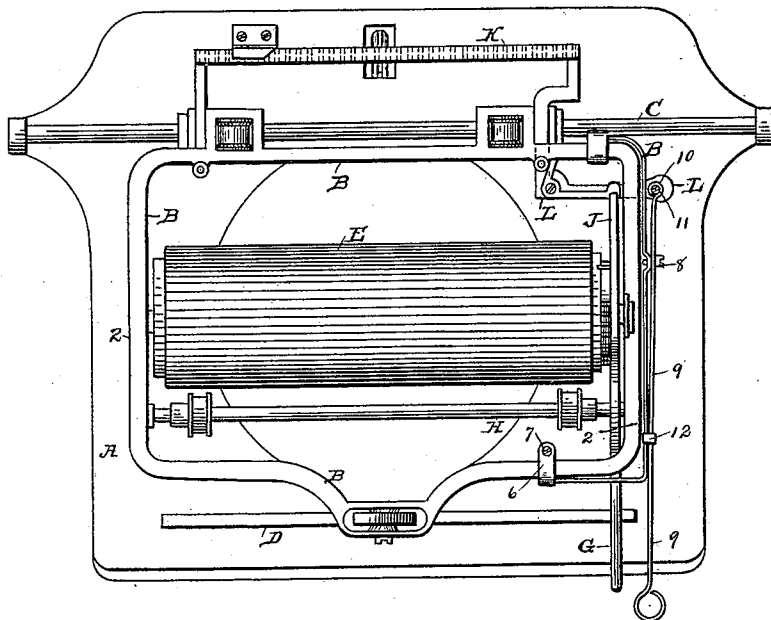


Fig 2-

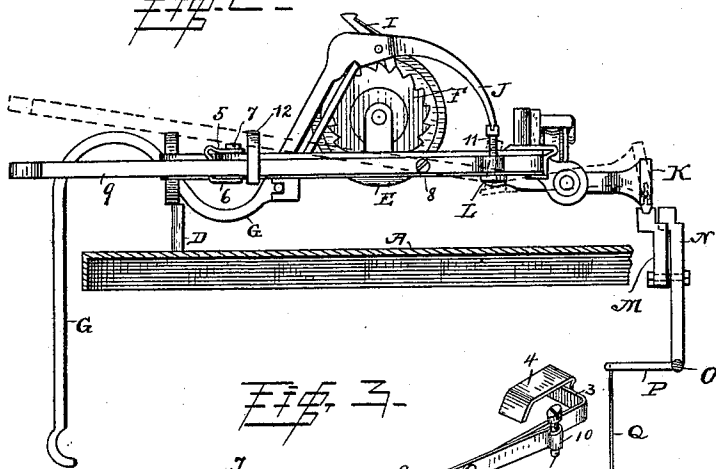
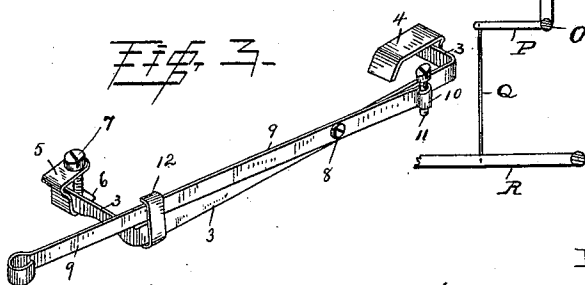


Fig 3-



Witnesses

W. E. Bawen
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Inventor:

Walter J. Barron.
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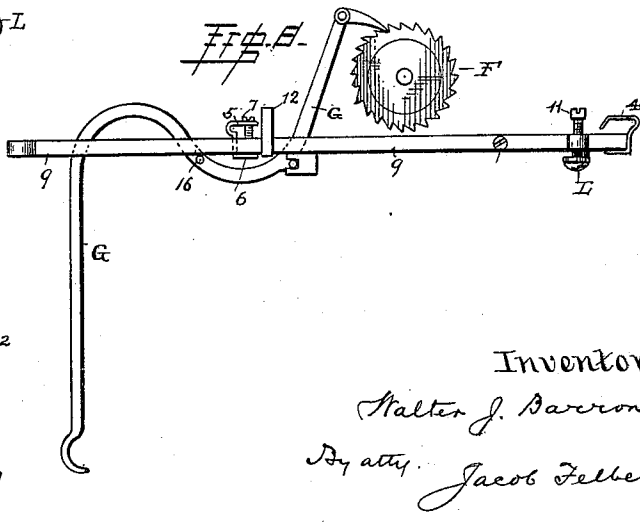
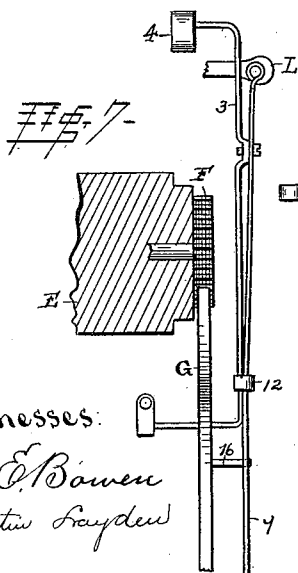
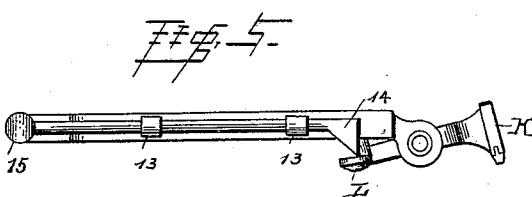
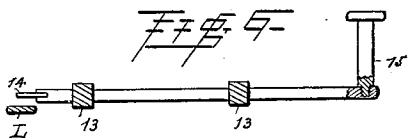
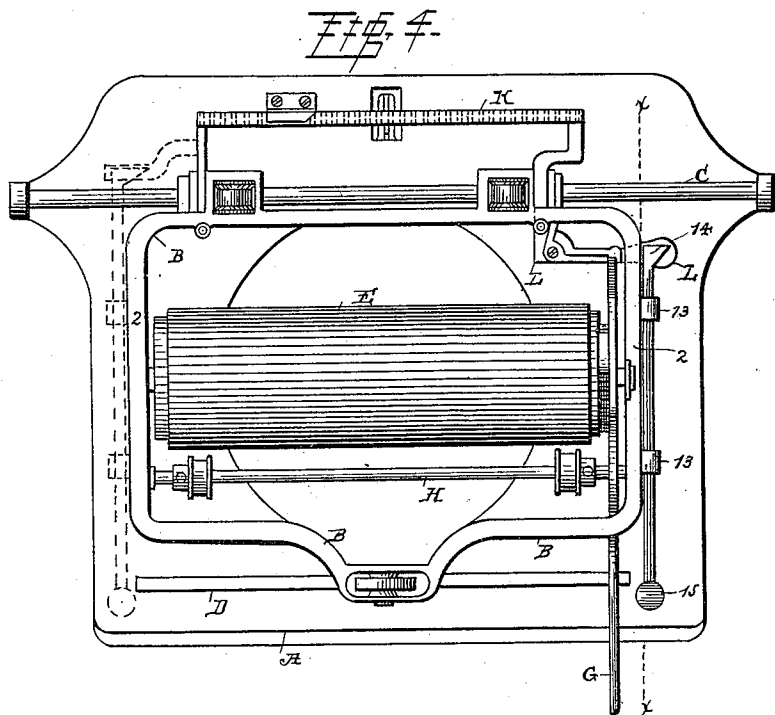
(No Model.)

2 Sheets—Sheet 2.

W. J. BARRON.
TYPE WRITING MACHINE.

No. 463,934.

Patented Nov. 24, 1891.



Witnesses:

W. E. Bowen
Martin Snyder

Inventor:

Walter J. Barron.
By atty. Jacob Felbel.

UNITED STATES PATENT OFFICE.

WALTER J. BARRON, OF BROOKLYN, ASSIGNOR TO THE REMINGTON
STANDARD TYPEWRITER MANUFACTURING COMPANY, OF ILION,
NEW YORK.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 463,934, dated November 24, 1891.

Application filed April 10, 1889. Serial No. 306,698. (No model.)

To all whom it may concern:

Be it known that I, WALTER J. BARRON, a citizen of the United States, and a resident of Brooklyn, in the county of Kings 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 particularly to what is designated as the "paper" or "platen" carriage. In some descriptions of machines—as, for instance, the "Remington"—the paper-carriage is provided with a hinged rack-bar, which is engaged alternately by a rigid and by a flexible dog or pawl or tooth, which teeth control the movement of the paper-carriage and operate to effect a step-by-step feed thereof during the operation of the machine. When the carriage has traveled thus to the extreme left of the machine, it is returned to the right by a pull upon the line-space lever, and the paper is fed forward a suitable distance for the commencement of a new line of writing. During the return of the carriage
25 the rack-bar is elevated to clear the teeth which engage it. In the Remington machine the rack-bar is provided with a forwardly and laterally extending arm, and the line-space lever is provided with a rearwardly-extending finger, which is adapted to engage with said arm, and the arrangement is such that when the line-space lever is pulled to return the carriage and is vibrated or actuated to rotate the platen and advance the paper a
30 line-space distance, its rearwardly-extending finger simultaneously depresses the arm above referred to and lifts or frees the rack-bar from engagement with the feed dogs or teeth. When it is desired to release the escapement or step-by-step feed for the purpose of permitting the carriage to travel in either direction without actuating the finger-keys and without rotating the platen, the said arm of the Remington machine is adapted to
40 be directly depressed by the finger of the operator. As said arm is located at the rear of the machine it is inconvenient to reach, and hence it is unsatisfactory to operators.

My invention has for its main object to provide a means whereby the rack-bar may be conveniently disengaged from the feed dogs or teeth, and by which with one hand the carriage may be run in either direction and arrested at any desired locality without employing the line-space lever or rotating the
55 platen.

To this end my invention consists in combining with the hinged rack-bar and carriage-frame an independent release-key extending to or near to the front of the machine; and
60 my invention also consists in other combinations of devices and features of construction, all of which will be hereinafter more fully described, and particularly pointed out in the appended claims.

The expression "extending to or near the front of the machine" is meant to convey the idea that the release-key is extended forward of the platen and to a point within convenient reach of the hand of the operator,
70 which is normally upon or over the keyboard. In other words, the release-key is extended to such point as renders it unnecessary for the operator to reach back to the rear of the machine, as heretofore, to release
75 the paper-carriage.

In the accompanying drawings, Figure 1 is a top plan view of a portion of a Remington type-writing machine embodying my invention. Fig. 2 is an elevation of the same, looking from the right-hand side. Fig. 3 is a perspective view of one form of construction of my release-key detached from the machine. Fig. 4 is another top plan view of said machine containing a modification of my invention. Fig. 5 is a side view of a portion of the same. Fig. 6 is a vertical section taken at the line *x x* of Fig. 4. Fig. 7 is a top view
80 embodying a further modification of my invention, and Fig. 8 is a side view thereof.

In the various views the same part will be found designated by the same letter or numeral of reference.

A represents the top plate of the main frame of the machine; B, the paper-carriage; 95 C, a rail to which the paper-carriage is hinged

and serving also as a guide for the rear end of the carriage; D, a way or track which supports the front of the carriage; E, a cylindrical platen journaled in the carriage-frame and provided at one end with a ratchet-wheel F; G, a line-space lever pivoted or fulcrumed on a rod H, attached to the carriage-frame; I, a driving-pawl on said line-space lever engaging with the ratchet-wheel F; J, a curved finger extending rearwardly from said line-space lever; K, a bar having teeth on its underside and hinged to the carriage-frame; L, an arm extending forward from the rack-bar frame at one end and laterally beneath the finger J and beyond the side bar 2 of the carriage-frame; M, the yielding dog or tooth, and N the rigid dog or tooth of the Remington escapement; O, the rocker-bar; P, the rocker-arm; Q, the connecting-rod, and R the universal bar or spacing-frame.

Referring now particularly to Sheet 1 of the drawings, 3 designates a metallic or other bent frame or rod provided with a clamp or securing means at each end by which it may be readily attached to and detached from the carriage-frame. The clamp at the rear end of the bent rod or strip is marked with the numeral 4, and consists, preferably, of a plain plate-like portion formed or shaped to clasp or embrace the upper portion of the rear bar of the carriage-frame, while the clamp at the front end consists, preferably, of two ears or lugs 5 and 6, adapted to embrace the front bar of the carriage-frame, the ear or lug 6 being provided with a threaded hole to receive the point or shank of a binding or clamping screw 7, which passes down through a plain hole in the upper lug or ears 6, by which means the frame 3 may be securely and rigidly attached to the carriage-frame alongside of and exteriorly of the side bar 2 thereof.

At the point 8 a lever 9 is pivoted to the frame or bar 3. This lever performs the function of a release-key, as will be presently explained. The inner end of this lever is bent to form an eye 10, which is threaded to receive a screw 11, whose point overhangs the laterally-protruding arm L of the rack-bar frame, while its outer end extends forward to the front of the machine, preferably beyond the plane of the line-space lever, (but this, of course, is immaterial,) and is bent to loop or ring form for convenience of manipulation. The frame 3 is provided with an abutment 12 for limiting the vibration of the lever 9.

The operation of the devices illustrated on Sheet 1 will be understood to be as follows: When the carriage has traveled to the left of the machine, the line-space lever may be employed to simultaneously rotate the platen, raise the rack-bar, and pull the carriage back to the right-hand side of the machine, all as heretofore. If it be desired, however, to merely raise the rack-bar and run the carriage to some predetermined point, the oper-

ator simply lifts the forward end of the release-key 9, by which movement the rear end of the key is depressed, the arm L forced down, and the rack-bar swung up on its pivotal support out of engagement with the feed-dogs. On releasing the front end of the lever 9 the parts all return to their first positions by gravity.

It will be observed here that the release-key operates upon the rack-bar independently of the line-space lever, and that during the use thereof the line-space lever remains at rest and that no rotation or turning of the platen occurs. This, it will be understood, is often desirable in tabulated work and in making corrections.

At Fig. 2 the operation of the independent release-key is shown in dotted lines.

Referring now particularly to Figs. 4, 5, and 6 on Sheet 2, it will be observed that the release-key is made in a somewhat different manner. In this form it is designed for new machines, while in the other form for machines already on the market or in use. The side bar 2 of the carriage-frame is provided with eyes or bearings 13 for the shank of the release-key, which at its rear end is provided with a cam, stud, or leg 14, that normally rests above the arm L, as shown at Fig. 6, and that is adapted to depress said arm and raise the rack-bar. The front end of the release-key is preferably provided or formed with a crank-handle 15, although a button or head on the end of the shank might do as well. In this modification of my invention, in order to raise the rack-bar independently of the line-space lever and without turning the platen it is simply necessary to turn the release-key in its bearings to bring the trip or lug 14 down upon the arm L, so as to depress the same, as shown clearly at Fig. 5. A spring may be provided to return the release-key, or it may be turned back by hand. The rack-bar returns to engagement with the dogs by gravity as soon as the force is removed from its arm L. The shank or rock-shaft, with its lug or arm 14 and crank-handle or button 15, constitutes a lever of the first order, which acts in the same manner, essentially, as the straight lever shown in Figs. 1, 2, 3, 7, and 8.

Referring now particularly to Figs. 7 and 8, it will be seen that the release-key embodies the construction shown at Figs. 1, 2, and 3; but is employed in connection with a line-space lever differing in construction from the one shown at Figs. 1, 2, and 4. In this line-space lever the rearwardly-extending finger J for actuating the arm L is omitted and the independent release-key is adapted to take its place, the forward end of the line-space lever being provided with an offset or pin 16, which extends laterally beneath the release-key, so that when the line-space lever is vibrated the release-key will also be vibrated

and the arm L acted upon thereby and the rack-bar elevated to permit the carriage to be returned at the same time the platen is rotated; but it will be seen the arrangement is such that the release-key may be operated independently of the line-space lever for the purposes hereinbefore alluded to.

In the forms in which my invention is shown carried out in all of the views, excepting Figs. 7 and 8, it will be readily understood that the release-key may, if desired, be arranged at the left-hand side of the machine, in which event a duplicate of the arm L or its equivalent is provided thereat for the release-key to work in connection with to raise the rack-bar.

Of course, instead of having the arm L attached to the rack-bar frame on the side of its pivot or hinge opposite that on which the rack-bar is arranged, it may be attached or arranged on the same side and the independent release-key arranged to lift it (and the rack) instead of to depress it. This arrangement is indicated in dotted lines at the left-hand side of Fig. 4.

Numerous other changes in detail, construction, and arrangement may be made without departing from the spirit of my invention, the gist of which has already been explained, and will now be embodied in the following clauses of the claims.

The screw 11 is adjustable to adapt the lever to all machines, as the arm L occupies different horizontal planes in different machines. Where the arm L rests against the under side of the bar 2 the screw may be omitted, as the rear shorter arm of the lever is adapted to actuate it directly.

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, of a rack and spacing-dogs co-operating normally to afford a step-by-step feed for said carriage, and a release-key connected to the carriage independently of the line-spacing devices and extending to the front of the machine, whereby with one hand the release-key may be conveniently actuated to disengage or separate said rack and dogs and the carriage guided to and stopped at any point within the range of its travel.

2. In a type-writing machine, the combination, with the paper-carriage having a cylindrical platen and a line-space lever, of a hinged or pivoted rack-bar frame, and an independent key supported or connected by or connected to the carriage-frame and extending to or near the front of the carriage and adapted to raise or vibrate the rack-bar frame, substantially as set forth.

3. In a type-writing machine, the combination, with the paper-carriage having a cylindrical platen, a line-space lever, and a release-key extending to or near the front of the

carriage, of a hinged or pivoted rack-bar frame having a forwardly and laterally extending arm adapted to be acted upon to raise the rack-bar either by the line-space lever or by the release-key at the will of the operator, substantially as set forth.

4. In a type-writing machine, the combination, with the paper-carriage having a cylindrical platen and a line-space lever, of a hinged or pivoted rack-bar frame, and an independent lever supported by or connected to the carriage-frame and extending to or near the front of the carriage and adapted to raise or vibrate the rack-bar frame, substantially as set forth.

5. In a type-writing machine, the combination, with the paper-carriage having a cylindrical platen and a line-space lever, of a hinged or pivoted rack-bar frame, and an independent release-key arranged exteriorly of one of the side bars of the carriage-frame and extending forward to the front of the machine, substantially as set forth.

6. In a type-writing machine, the combination of the sliding carriage, the tilting rack-bar at the rear thereof provided with an arm, a lever independent of the line-feed lever pivoted to the carriage and extending to the front of the machine and connected with said arm, substantially as set forth.

7. In a type-writing machine, the combination of the sliding carriage, the tilting rack-bar at the rear thereof provided with an arm, a lever independent of the line-feed lever pivoted to the carriage and extending to the front of the machine and connected with said arm, and a finger-key for operating said lever, substantially as set forth.

8. In a type-writing machine, the combination, with the paper-carriage, of a hinged or pivoted rack-bar frame, and a key independent of the line-space lever supported by or connected to the carriage-frame and extending to or near the front of the carriage and adapted to raise or vibrate the rack-bar frame, substantially as set forth.

9. In a type-writing machine, the combination, with the paper-carriage, of a hinged or pivoted rack-bar frame having an arm, and an independent release-key mounted to turn in bearings in the carriage-frame, arranged in operative relation to said arm and extending to the front of the paper-carriage, substantially as set forth.

10. In a type-writing machine, the combination, with the paper-carriage, of a hinged or pivoted rack-bar frame having an arm, a rock-shaft mounted in bearings at one side of the paper-carriage, provided at one end with a lateral projection for engagement with the rack-bar-frame arm and at the other end with a key or finger-piece.

11. In a type-writing machine, the combination, with the paper-carriage and a rack-bar frame, of the frame 3, provided with suitable

It is hereby certified that in Letters Patent No. 463,934, granted November 24, 1891, upon the application of Walter J. Barron, of Brooklyn, New York, for an improvement in "Type-Writing Machines," errors appear in the printed specification requiring correction, as follows: In line 38, page 2, the word "ears" should read *ear*, in line 54, same page, the word "abuntment" should read *abutment*, and in lines 57, page 3, the words "or connected" should be stricken out; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 1st day of December, A. D. 1891.

[SEAL.]

CYRUS BUSSEY,

Assistant Secretary of the Interior.

Countersigned:

W. E. SIMONDS,

Commissioner of Patents.