No. 765,608. PATENTED JULY 19, 1904.

J. ALEXANDER.

TYPE WRITER LINE SPACING MECHANISM.

APPLICATION FILED SEPT. 11, 1903.

NO MODEL.

Fig. 1.

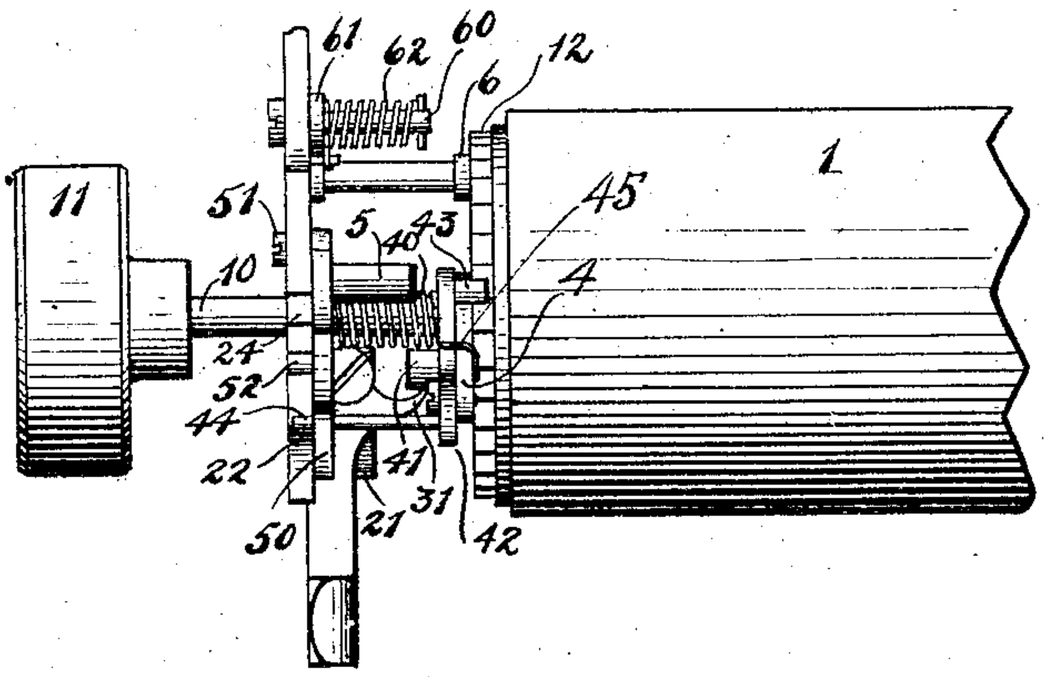


Fig. 2.

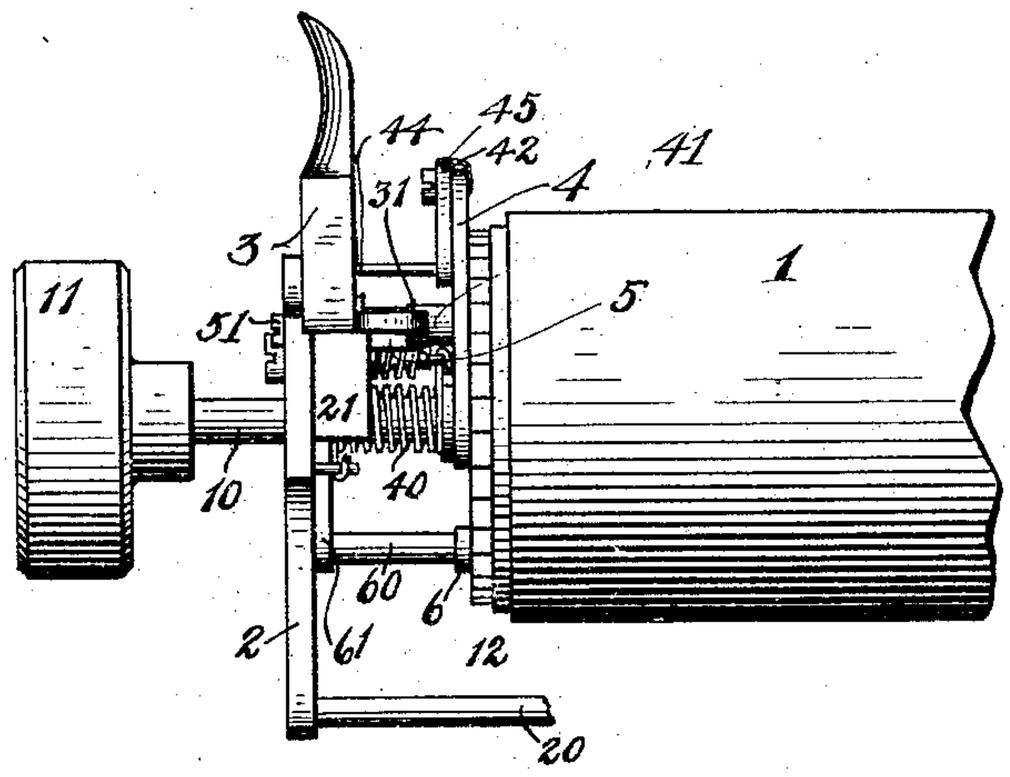
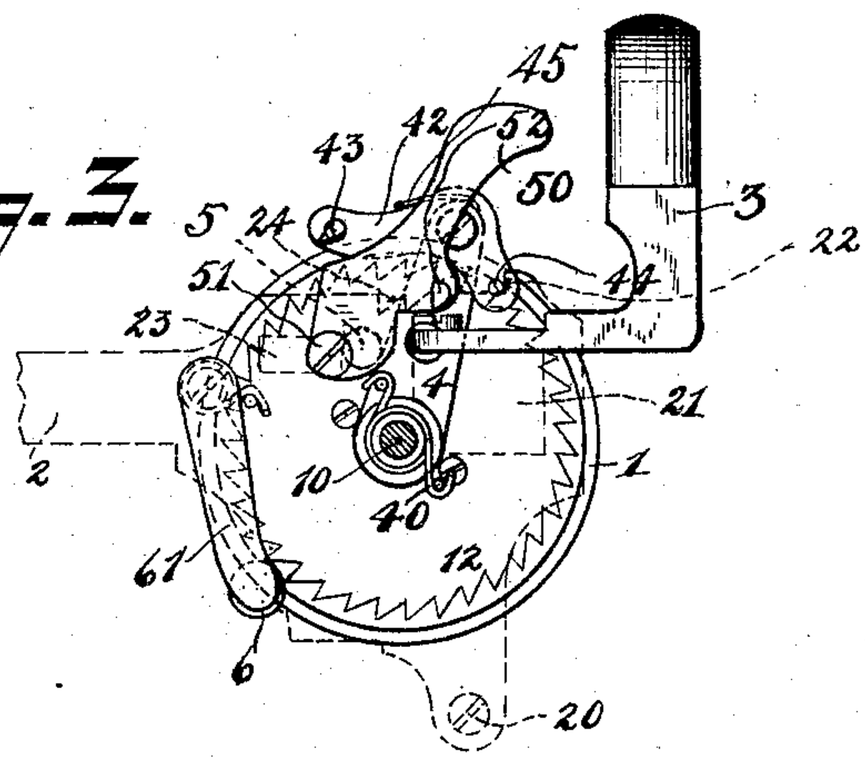


Fig. 3.



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No. 765,608. Patented July 19, 1904.

UNITED STATES PATENT OFFICE.

JESSE ALEXANDER, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO JAMES McDONNELL HUTTON, OF WORTENDYKE, NEW JERSEY.

TYPE-WRITER LINE-SPACING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 765,608, dated July 19, 1904.

Application filed September 11, 1903. Serial No. 172,748. (No model.)

To all whom it may concern:

Be it known that I, JESSE ALEXANDER, a citizen of the United States, residing at Brooklyn, Kings county, New York, have invented certain new and useful Improvements in Type-Writer Line-Spacing Mechanism, of which the following is a full, clear, and exact description.

My invention relates to improvements in type-writers, and particularly to a line-spacing mechanism therefor. The platen for supporting the paper upon which the writing is printed is revoluble and carried by a shaft in a suitable carriage construction with means for effecting the movement of the carriage from side to side, as is usual in machines of this character. Other parts of the construction to which this line-spacing mechanism is adapted to be a part are more fully shown and claimed in other applications filed herewith by me.

This invention consists in mounting the line-spacing mechanism at the left-hand side of the platen and providing it with a forwardly-projecting operating-handle, which is pivoted and adapted to engage with a swinging pawl for actuating the ratchet attached to the platen through any one of a series of spaces, as limited or determined by the position of an adjustable stop. It is endeavored to construct this mechanism in a simple manner and with but few parts, so that it may be economically manufactured and readily assembled.

The construction is more plainly seen and understood by an inspection of the accompanying drawings and the following specification.

Figure 1 is a plan view of a fragment of a platen and those parts of the mechanism and frame of a carriage necessary to illustrate my invention. Fig. 2 is a front view of the same; and Fig. 3 is a view looking from left to right in Fig. 2, with the platen-carrying frame shown dotted.

The machine is of the front-strike class and single shift.

1 is a platen having a shaft 10, which is mounted in a side plate or frame at each end.

11 is the handle or knob, which is customarily employed in machines of this character.

20 indicates a fragment of a connecting-bar of the platen-frame structure, which, however, is not concerned in this invention.

12 is the ratchet, carried by the platen 1.

21 is a block mounted upon the inside of the plate 2 and to which is pivoted the operating-handle 3.

4 is a lever pivoted on the platen-shaft 10 and normally held toward the front of the machine by means of the spring 40.

41 is a projection or pin standing outward by the arm 31 of the operating-handle 3. To this lever 4 is pivoted so as to swing freely the pawl member 42, having the pawl extension or operating face 43 carried at the rear end thereof. This pawl in its normal position, as indicated in the drawings, is held out of engagement from the teeth of the ratchet 12 by means of the pin 44, which engages with a shoulder 22 on the upper surface of the plate 2, the parts being held in this position by the spring 40.

When the operating-arm 3 is moved to the right, the arm 31 of the operating-handle, being in engagement with the projection 41 of the lever 4, throws this lever backward, and consequently allows the pawl member 42 to tilt backward as soon as the pin 44 is released from the shoulder 22. The continued movement of the operating-handle moves the pawl member to the rear and causes the platen to be rotated a corresponding distance. I prefer to assist the backward and downward movement of the pawl member 42 by the light spring 45, which can be conveniently mounted on the arm 4. This assists in throwing the pawl member 42 more quickly and in making the action thus more positive.

5 is a stop for limiting the backward movement of the spacing mechanism, as desired. This stop 5 is carried by the adjusting-arm 50, which has a pin 51 mounted in the guide-slot 23 in the plate 2. The arm 50 is provided with a pin 52, extending to the left and adapted to engage with any one of a series of notches 24 in the top edge of the plate 2. The position of this pin 52 may be varied by raising the adjusting-arm 50, so that it tilts about its pivot 51, and then sliding the arm back, with

the pin 51 in the guideway 23, to the desired position, when the arm may be dropped and the pin 52 will fall into the corresponding notched position. As the operating-handle 3 is forced to the right, the arm 31, engaging the projection 41, moves it backward until it strikes against the adjustable stop 5.

When the operating-handle is released, the lever 4 and pawl member 42 are brought back to their normal position, in which operation the pin 44 strikes against the shoulder 22 of the plate 2 and raises the pawl 43 out of engagement with the teeth of the ratchet 12. This leaves the ratcheting mechanism free from the ratchet at all times except when in actual operation.

The definite line positions are preserved by means of the roller 6, which is carried by the post 60. The latter is carried by a pivoted arm 61 and is normally pressed in the direction of the platen by means of the spring 62.

It will thus be seen that the construction is simple and provides a means for rotating the platen through any one of a number of lines. By mounting the operating-handle and other parts in the manner shown they are readily accessible to the operator for the usual operation, and the limit of movement may be readily adjusted. By mounting the operating-arm 31 of the handle 3 at a point midway between the path of the pawl 42 and the shaft 10 I have provided a means whereby the pawl member may be advanced through practically twice the distance advanced by the arm of the operating-handle, thus greatly reducing the necessary range of movement.

What I claim is—

A line-spacing mechanism for a type-writer including a ratchet, a platen-shaft, a lever pivoted thereto, a pawl member carried by said lever for engagement with the ratchet, means for operating the same, a stationary frame member, an adjustable stop-arm having a pin engaging in a slot in the frame member for guiding the same, and a pin adapted to rest in notches in the frame member for holding it in its various positions, and a stop carried by said arm whereby the spacing movement of the pawl member may be controlled.

JESSE ALEXANDER.

Witnesses:
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