No. 763,034. PATENTED JUNE 21, 1904.

N. L. ANDERSON.

TYPE WRITING MACHINE.

APPLICATION FILED JUNE 19, 1903.

NO MODEL.

Fig. 1.

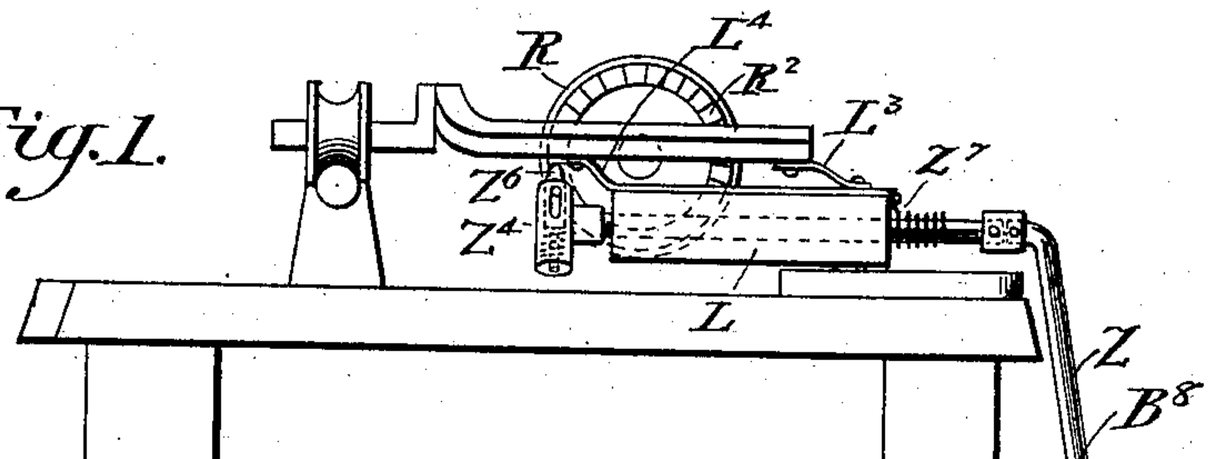


Fig. 2.

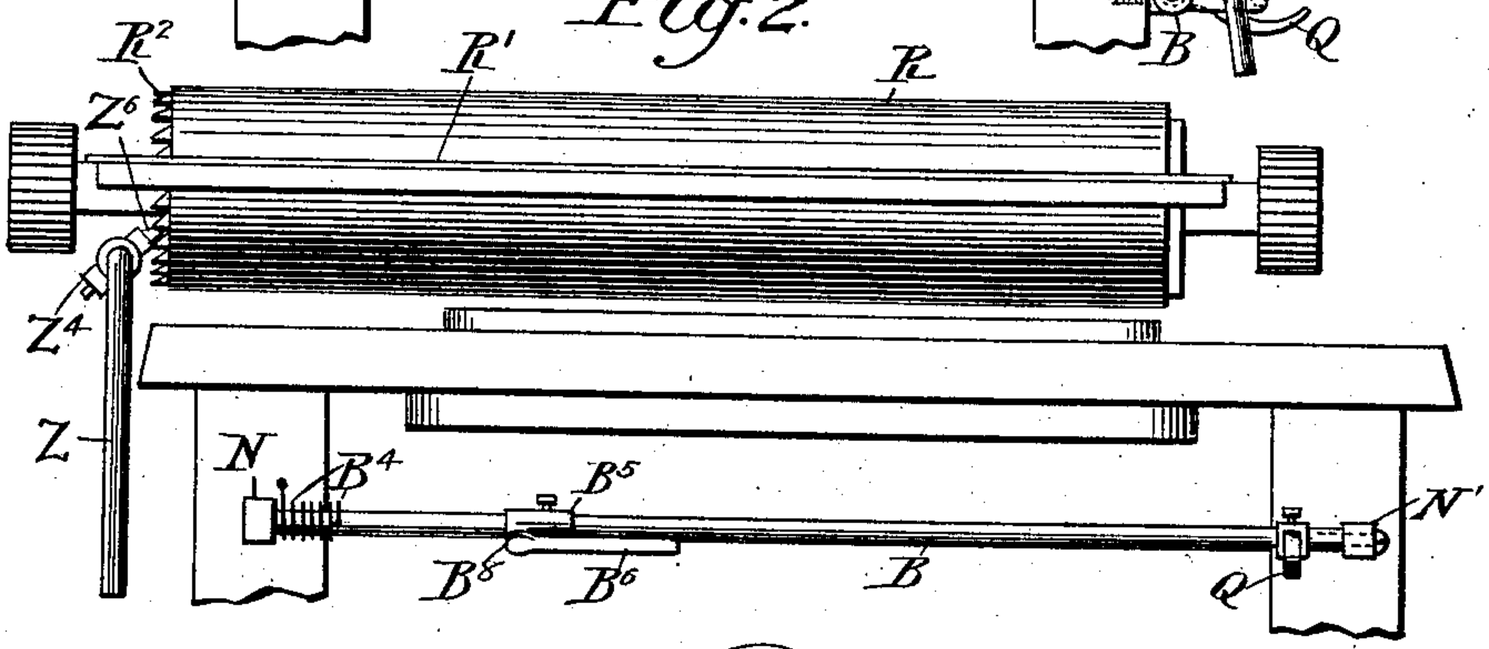


Fig. 3.

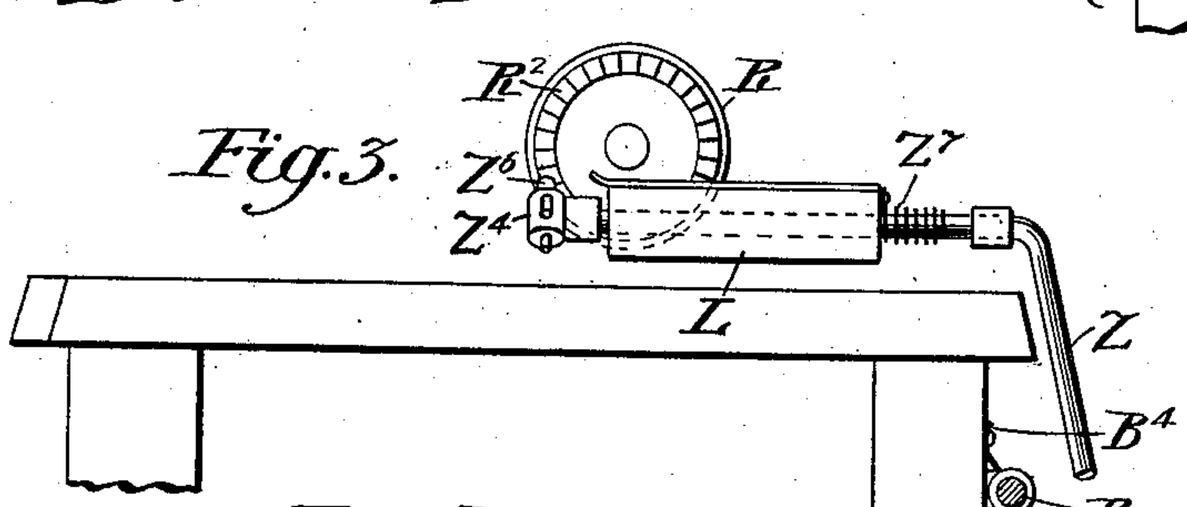


Fig. 4.

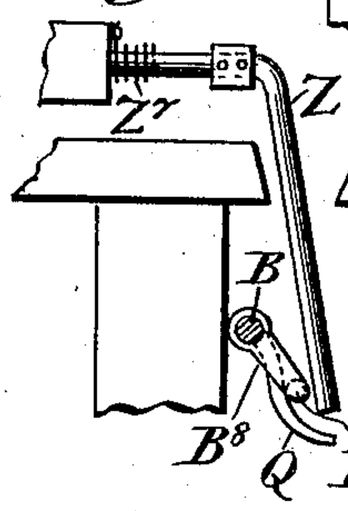


Fig. 5.

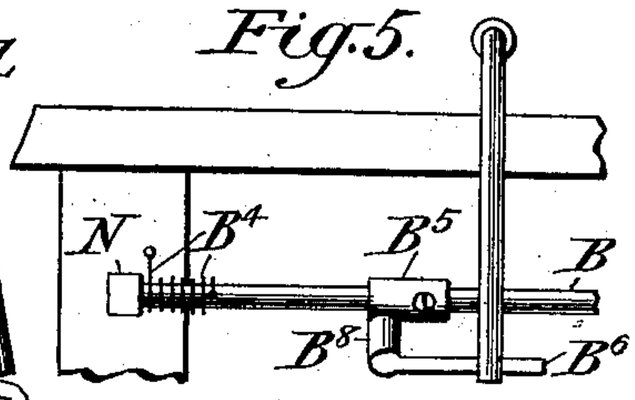
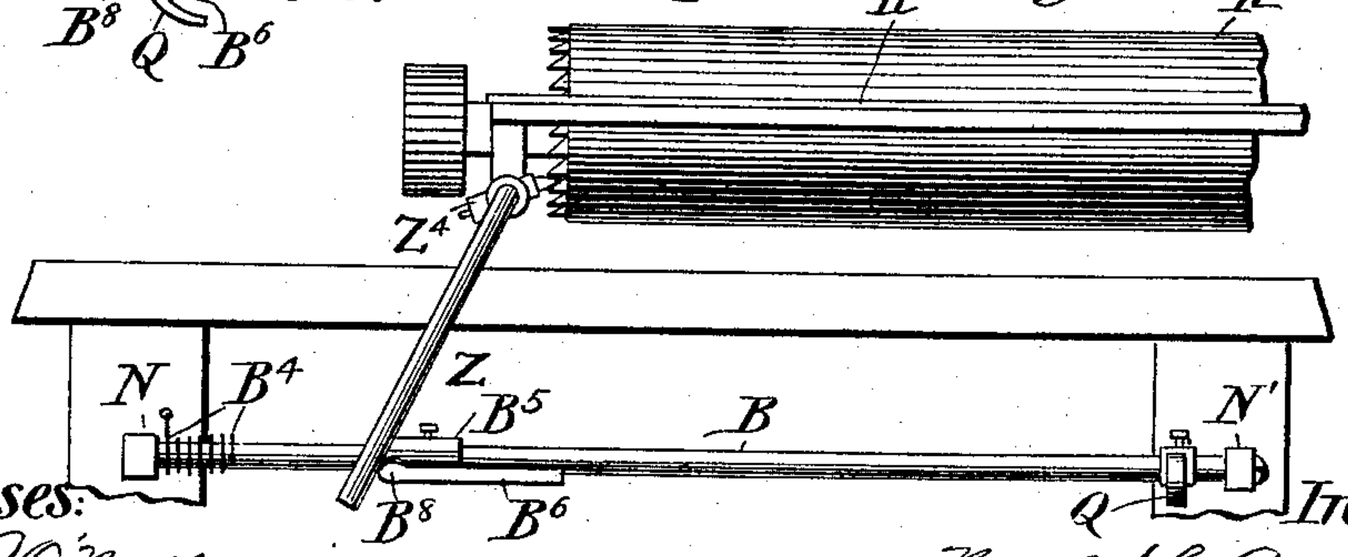


Fig. 6.



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No. 763,034. Patented June 21, 1904.

UNITED STATES PATENT OFFICE.

NEAL LARKIN ANDERSON, OF MONTGOMERY, ALABAMA.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 763,034, dated June 21, 1904.

Original applications filed May 10, 1902, Serial No 106,802, and March 2, 1903, Serial No. 145,712. Divided and this application filed June 19, 1903. Serial No. 162,149. (No model.)

To all whom it may concern:

Be it known that I, NEAL LARKIN ANDERSON, a citizen of the United States, residing at Montgomery, county of Montgomery, State of Alabama, have invented certain new and useful Improvements in Type-Writing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain automatic line-spacing mechanism for type-writers described in my applications filed May 10, 1902, Serial No. 106,802, and March 2, 1903, Serial No. 145,712, of which the present application is a division.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view of the left-hand end of a type-writer, showing the automatic line-spacing mechanism applied thereto. Fig. 2 is a front elevation of the same. Fig. 3 is a view corresponding to Fig. 1, with the line-spacing mechanism thrown out of operation. Fig. 4 is a fragmentary view showing the relation of the spacing mechanism after the carriage has been returned to the beginning of a line without spacing. Fig. 5 is a front view of the same. Fig. 6 is a view corresponding to Fig. 2, showing the relation of the parts of the automatic spacing mechanism when the carriage has been returned to the starting-point by the usual means employed for that purpose.

Referring to the drawings, R R′ indicate, respectively, the rotary platen and the reciprocating paper-carriage of a standard type-writing machine constructed and operating upon principles well known to those skilled in the art.

It is the purpose of my invention, without in any manner changing or varying the regular means applied to such machines for returning the carriage to its starting-point and for rotating the platen to feed the paper and space the lines of writing, to provide independent mechanism which will be operated by the return movement of the carriage to rotate the platen and properly space a new line.

To the left end of the platen-cylinder R is secured a crown-ratchet R^2, which is engaged on its peripheral face toward the rear of the machine by a spring-pawl Z^6, slidably mounted in a socket-support Z^4, secured to the end of a lever Z. Said lever Z is journaled in a block or support L, which is secured to the paper-carriage by brackets L^3 and L^4, said lever having a downward extension overhanging the front edge of the machine. A spiral spring Z^7, secured at one end to the lever Z and at the other end to the journal-block L, tends to hold the lever Z in such position that the depending arm thereof is substantially vertical and pawl Z^6 is in position to engage the teeth of the ratchet R^2, and said spring serves to return the lever to the position aforesaid whenever said lever is released from any agency that has previously moved it from its normal position.

Mounted in brackets N N′ on the front standards of the machine and capable of partial rotation therein is a rod B, upon which is adjustably secured a stop device comprising a sleeve B^5, secured to the rod by a set-screw B^7, from which sleeve projects a lug B^8, having an angular extension-rod B^6 generally parallel with rod B. A spiral spring B^4, secured at its respective ends to the machine-frame and said rod B, serves to turn the latter so that the stop-lug B^8 and the extension-rod B^6 lie in a substantially horizontal plane and in the path of the lower end of lever Z. Secured to the rod B at the right-hand end thereof is a curved lever-arm Q, by means of which the rod B is rotated in the bearings N N′ and stop-lug B^8 is turned down out of the path of lever Z, as shown in Fig. 3.

The mechanism above described constitutes the automatic line-spacing mechanism and operates as follows: As the carriage approaches the end of a line lever Z occupies the position indicated in Figs. 1 and 2, with pawl Z^6 ready to engage one of the normal faces of the ratchet-teeth. Ordinarily the carriage is returned to the starting-point by grasping a lever projecting from the carriage and draw-

ing the latter to the right. The operation, which is usually a manual one, may of course be accomplished by any automatic carriage-return mechanism. As the carriage approaches the end of its return movement the lower end of lever Z strikes lug B^8 and the continued movement of the carriage rocks said lever in the bearing-block L and throws pawl Z^6 into engagement with the ratchet, thereby turning the platen R a distance equal to the throw of the pawl. As the carriage is advanced during the writing operation lever Z is retracted from engagement with stop-lug B^8 and under the influence of spring Z^8 assumes a vertical position and causes spring-pawl Z^6 to ride over the inclined faces of the teeth of ratchet R^2 into position for a subsequent spacing operation upon said platen. It is to be noted that by adjusting the position of the stop-lug B^8 upon rod B the extent of movement of the platen in its spacing operation may be regulated and a wide or narrow space between successive lines thereby provided. It is of course understood that the extent of movement of the platen for spacing successive lines—viz., either whole, half, or double space—can also be regulated by the usual platen-ratchet stops, such as are used on all standard machines. It is sometimes desirable, however, to return the carriage to the beginning of a line without spacing—as, for example, for the purpose of correcting an error in the line previously written. In order to accomplish this, the operator depresses lever-arm Q, thereby turning rod B in bearings N N′ and throwing the stop-lug B^8 out of the path of movement of the spacing-lever Z. When the carriage is returned, the said lever Z rides over the stop-lug B^8 aforesaid, so that there is no spacing movement of the platen. If the lever Q be now released, spring B^4 turns the rod B and forces the extension-arm B^6 of the stop-lug B^8 against the lower portion of the lever Z, and when the carriage carries said lever out of contact with said arm B^6 the latter, together with lug B^8 and rod B, are turned up into horizontal position to continue the spacing operation upon the next return of the carriage. It will be noted that the extension-rod B^6 serves the double function of preventing the lever-arm Z from passing behind the stop-lug B^8, and thereby stopping the advance of the carriage, and also incidentally to hold down the rod B until the lever Z has passed beyond the lug B^8 in advance of the carriage, as shown in Figs. 4 and 5.

Having thus described my invention, what I claim is—

1. A type-writing machine, having a paper-carriage, and mechanism for turning the rotary platen to space a new line, said mechanism comprising a crown-ratchet on the end of the platen, a lever journaled on the carriage adjacent to the ratchet, a spring-pawl mounted on the end of said lever and coöperating with the teeth of said ratchet to the rear of the platen-shaft, a rod mounted on the machine-frame, and an actuating stop or lug on said rod, said stop being in line with said lever and adapted to rock the latter when the carriage is returned, thereby spacing the platen for a new line.

2. A type-writing machine, having a paper-carriage, a lever adapted to turn the platen, a rod mounted on the machine-frame, a stop on said rod adapted to rock said lever and space the platen, a spring on said rod to hold the latter in position to interpose the stop in the path of the lever, and a hand-lever on said rod to move the latter to withdraw the stop from the path of the lever aforesaid.

In testimony whereof I affix my signature in presence of two witnesses.

NEAL LARKIN ANDERSON.

Witnesses:

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W. R. MCDADE.