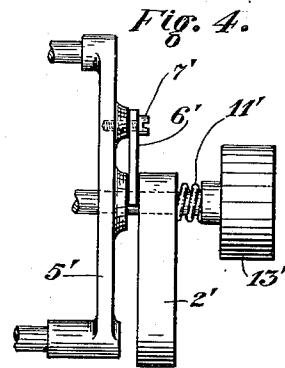
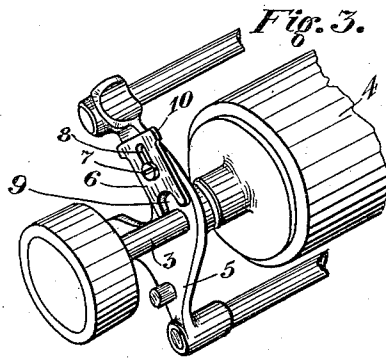
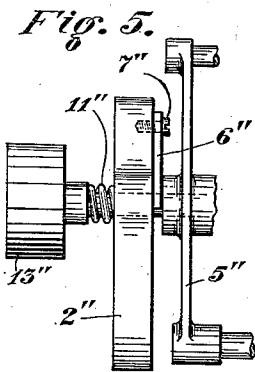
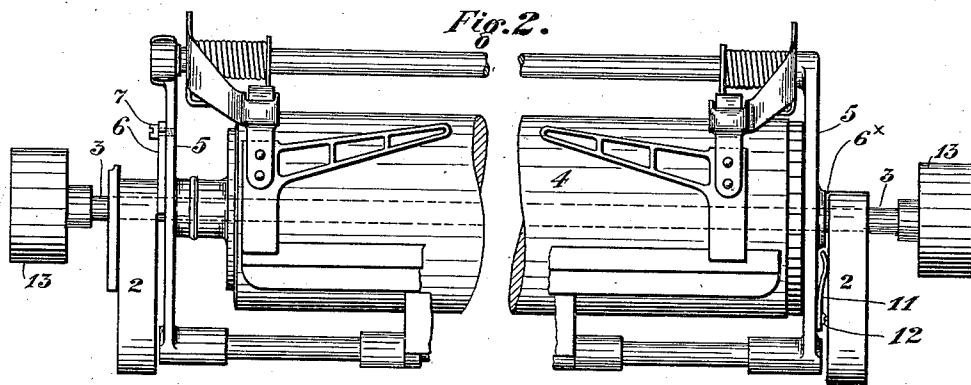
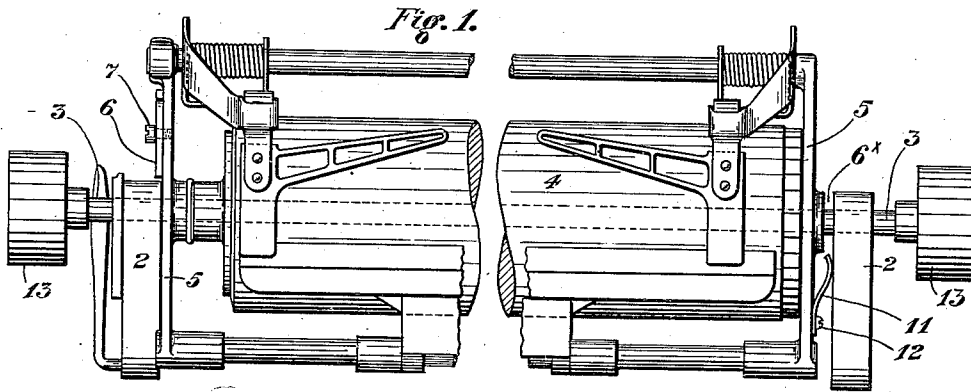


C. L. SPRINGER.
TYPE WRITER.
APPLICATION FILED NOV. 29, 1911.

1,043,265.

Patented Nov. 5, 1912.



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UNITED STATES PATENT OFFICE.

CHARLES L. SPRINGER, OF UNIONTOWN, PENNSYLVANIA.

TYPE-WRITER.

1,043,265.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed November 29, 1911. Serial No. 663,038.

To all whom it may concern:

Be it known that I, CHARLES L. SPRINGER, a citizen of the United States, residing at Uniontown, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Type-Writers, of which the following is a specification.

My invention relates to typewriters and consists of an improvement therein having for its object to provide means for the correction of mistakes in writing requiring erasure and rewriting in the same space. It frequently happens that, in ordinary writing operations on machines of usual construction, it is desired to substitute for an originally written word and in the space occupied by it between the adjoining words or characters, a word containing one additional letter.

The invention has in view providing means whereby the usual or ordinary intermittent feed of the carriage may be utilized, but so regulated as to the commencement of movement that the first letter or character of the substituted word, as well as the last letter or character, shall occupy a position with relation to the next preceding and succeeding words, as to evenly divide the space and avoid any apparent interruption.

In the drawings illustrating the invention: Figure 1 is a face view of a portion of the carriage and platen of a typewriter provided with my improvement. Fig. 2 is a similar view showing the adjusted position of the platen with relation to the carriage, accomplished through my improvement. Fig. 3 is a perspective view illustrating the device. Figs. 4 and 5 show modified arrangements. Fig. 6 is a perspective detail view of a modified form of shifting spacer.

In the drawings, portions of the intermittently movable carriage which is actuated by the well-known escapement mechanism of the typewriter, are indicated by the upwardly extending bearings 2, 2. Said bearings are fixedly located with relation to each other, at each end of the carriage and adapted to receive the terminal shafts or spindles 3, 3, of the platen 4. The platen may be bodily removed and reinserted and also moved forwardly and backwardly in a manner which is well-known.

At each end of the platen 4 and forming a portion of its surrounding frame-work, and mounted upon the shaft 3, are the end

frames or brackets 5, 5. In carrying out my invention I provide a clearance space 6^x between one of these end-most brackets and the inner face of the carriage bearing 2 whereby to admit of an independent longitudinal movement of the platen in the carriage. This clearance space and independent movement is of a distance corresponding to about one-half of the usual longitudinal movement for each character. The desired object, in providing for such movement is that in re-writing an erased word, the platen may be so located with relation to the position it occupied as to the original erased letter or character, that the same letter or character, when re-written, will occupy a space in advance of its original position corresponding to the moved distance. The location of the particular space, after the platen has been adjusted, is a matter of easy accomplishment by and through the regular longitudinal feed mechanism. The remaining characters of the word are then written in the regular way, and the last character or letter, (assuming the re-written word to require an additional letter) will then occupy a position beyond the previous terminal letter, also corresponding to an additional half space. The result is that the re-written word will occupy a space evenly between the preceding and succeeding originally printed words or characters but slightly closer to each to the same extent or degree.

To effect the adjustment of the platen with relation to the frames 2, I employ an adjustable spacer which is secured to the frame of the movable platen, or to the frame of the carriage, and so arranged that it may be easily inserted and withdrawn between the carriage frame and the platen frame, together with an opposing spring resistance.

The object of the spring resistance is to provide means for normally holding the platen in operative relation to the carriage, but permitting the temporary adjustment just described, and automatically returning the platen upon withdrawal of the spacer.

In the upper figures of the drawing, I have shown a spacer 6 slidingly mounted at one end of the platen frame on the outer face of the bracket 5, secured thereto by a bearing screw 7 extending through the longitudinal slot 8 in the spacer 6. The spacer 6 is provided at its inner end with a half-round recess 9 of a size permitting it to be adjusted into embracing engagement with the stem or

shaft 3 and between the bracket 5 and bearing 2. The spacer 6 is also preferably provided at its upper end with finger gripping terminals 10, of any suitable kind, whereby it may be easily and readily grasped and manipulated by the operator.

At the other end of the platen frame, I provide the spring 11 which may be a leaf spring, as shown, secured by screws 12 on the outer face of the bracket 5, and bearing by its free end with sufficient pressure to throw the platen away from the adjacent bearing 2, as will be readily understood.

In Fig. 4, I show a modified arrangement in which the bearing 2' and platen bracket 5' are of the same general construction and arrangement, but in which the spacer 6' and a coil spring 11' are located at the same end of the machine. In such construction the spacer 6' is mounted in the same manner as above described as to spacer 6, capable of insertion between the adjacent bearing 2' and the bracket 5' or a hub thereon, while the spring 11' is a coil spring inserted between the opposite side of bearing 2' and the inner end of the turning button 13'.

In the construction shown in Fig. 5 the arrangement is generally similar, except that the spacer 6'' is mounted on the inner face of the bearing 2'', or an extension thereof, and is capable of insertion between said bearing and the adjacent bracket 5'' in the same manner generally as above described, while a coil spring 11'' is inserted between the opposite side of bearing 2'' and the inner end of the finger terminal 13''.

With either arrangement the platen may be shifted with relation to the carriage bearings, and against the opposing resistance of the spring, to shift the platen one-half of the usual space allowed for each character, which corresponds to the width or thickness of the spacers 6' or 6''.

The characteristic feature of advantage with either form or arrangement is that the spacer is capable of easy and quick adjustment into and out of operative position and in such a manner as to avoid its loss or displacement or the necessity of any removal of parts or complicated manipulation. I also avoid the necessity of any computation of distance or of the use of judgment or determination of the spaced distance as that is taken care of entirely by the spacer itself in combination with an intelligent use of the usual escapement.

In Fig. 6, I have shown a modified construction of the spacer 6^c adapted to be pivotally mounted to either the bearing 2 or bracket 5 by a pivotal hole 7^c, having at one end a half round recess 9^c with a surrounding portion constituting the operative part of the spacer, and at the other end a finger terminal 10^c preferably rounded and knurled

across its edge in the manner shown. With this form of the device the same functions and results can be carried out and secured and it lends itself with better facility to certain particular types or constructions of machines. With any construction of machine, however, utilizing a platen mounted on an intermittently traveling carriage, a sufficient clearance space can usually be provided for adaptation to it of my invention.

The advantages of my improvement will be readily appreciated by all those accustomed to the use of typewriters. The spacing attachment guarantees a positive and fixed position in its relation between spacing and letter characters when in service.

One movement of the spacer is all that is required for the accurate adjustment and placing of the platen for the receiving of the additional letter or words, and insures a symmetrical appearance of the re-written matter in the original printing by typewriter as also in any copies that are being made at the time, all of which is done without removing the paper or papers from the platen of the typewriter. A reverse motion of the spacer in releasing or engaging the platen automatically returns the platen to position.

The simplicity of construction, non-interference with the general mechanical construction of standard machines or requirement of any change in their ordinary and regular operation, and the cheapness of the device, renders the improvement readily available and applicable to present constructions.

What I claim is:—

1. In a typewriting machine, the combination with a carriage and a longitudinally adjustable platen and frame mounted therein, of a spring normally holding the platen toward one end of the carriage, and a device having a slotted connection with the platen frame adapted to hold the platen in adjusted position against the spring pressure, substantially as set forth.

2. In a typewriting machine, the combination with a carriage having endmost platen bearings, a shaft and a platen and platen frame mounted on the shaft and supported in said bearings, of a spring normally holding the platen toward one end of the carriage, and an adjustably mounted spacer adapted to be inserted between one of the bearings of the carriage and an endmost portion of the frame of the platen adapted to hold the platen in adjusted position against the spring pressure, substantially as set forth.

3. In a typewriting machine, the combination with a carriage having endmost platen bearings, a shaft and a platen and platen frame mounted on the shaft and supported in said bearings, of a spring nor-

mally holding the platen toward one end of the carriage, and a spacer having a loose attachment with one of said parts and a terminal adapted for lateral insertion between one of the carriage bearings and the adjacent end of the platen frame, substantially as set forth.

4. In a typewriting machine, the combination with a carriage having end bearings, a shaft and a platen and platen frame mounted on the shaft and supported in said bearings, a spring normally holding the platen toward one end of the carriage, and a loosely mounted spacer having a terminal adapted to fit over said shaft and between one of the carriage bearings and the frame of the platen, substantially as set forth.

5. In a typewriting machine, the combination with a carriage having end bearings, a shaft and a platen and platen frame mounted on the shaft and supported in said bearings, a spring normally holding the platen toward one end of the carriage, and a spacer having a slot and pin connection with the platen frame and a terminal adapted to fit over said shaft and between one of the carriage bearings and the frame of the platen, substantially as set forth.

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

CHARLES L. SPRINGER.

Witnesses:

J. E. HUSTEAD,
R. W. GILMORE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."