

H. E. BYRNE.
TYPE WRITER LINE SHIFT.
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1,185,476.

Patented May 30, 1916.

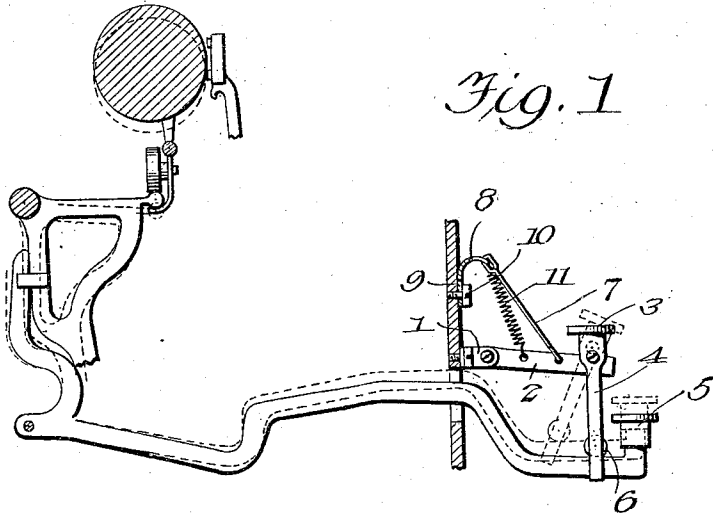


Fig. 1

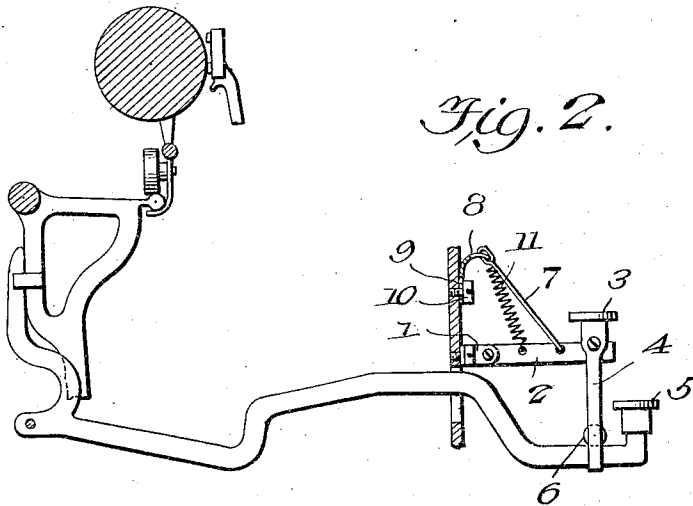
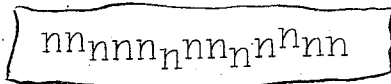


Fig. 2.

Fig. 3.



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TYPE-WRITER LINE-SHIFT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY E. BYRNE, a citizen of the United States, residing at Tyler, in the county of Smith and State of Texas, have invented new and useful Improvements in Type-Writer Line-Shifts, of which the following is a specification.

This invention relates to line shift attachments for typewriting machines and it consists in the novel features hereinafter described and claimed.

An object of the invention is to provide an attachment of the character indicated which when applied to the typewriter permits of the use of the machine wherein a stenographic effect or principle is obtained.

By use of the attachment a system of shorthand writing may be had with a typewriter machine fully as well as with a pen or pencil now generally used. By use of the present attachment the point of writing on the platen of the typewriter may be varied to a definite point so that the letters or characters will be produced on the paper at points above or below the regular line of writing. When any letter or character in the line of writing appears above or below the regular line of writing, it becomes a word or phrase sign, and the fact that it is above or below the line indicates positively that the letter or character is used as a word or phrase sign.

With these objects in view the attachment in the present instance comprises a lever pivotally connected with a lug which may be attached to the frame of the typewriter, and which carries a key and also means for straddling the shift key of the typewriter and a roller engageable with the said shift key. A link is pivotally connected at one end with the lever and at its other end is pivotally connected with an ear which may be slidably connected with the frame of the machine. If desired or necessary a spring may be interposed between the ear and the lever and is under tension with a tendency to normally hold the free end of the lever toward the ear.

In the accompanying drawing: Figure 1 is a detail sectional view of parts of a typewriter showing the attachment applied and the parts in one position. Fig. 2 is a similar view showing the parts in another position. Fig. 3 is a detail view of a sample of the writing produced showing the rela-

tive positions in which the characters may be produced from the same type.

As illustrated in the accompanying drawing the attachment comprises a lug 1 adapted to be secured to the frame of a typewriter and to which a lever 2 is fulcrumed. The lever 2 is provided at its free end with a key 3 and also with approximately parallel bars 4 adapted to lie at the opposite sides of the shift key 5 of the typewriting machine. A roller 6 is journaled between the bars 4 and rests at its lower side upon the upper edge of the shift key lever.

A link 7 is pivotally connected at one end with the lever 2 at a point between the ends thereof and the said link at its other end is pivotally connected by means of a loop with an ear 8 connected with the frame of the typewriter. The connection between the link 7 and the ear 8 is sufficiently loose to permit the link to have slight longitudinal movement without moving the ear. The ear 8 is provided with a slot 9 which loosely receives a screw 10 usually provided upon the frame of the typewriter, in a manner whereby the said ear may move with relation to the screw and the frame of the typewriting machine, but when the said screw is tightened the said ear is secured at an adjusted position on the frame. A spring 11 is employed and one end of the spring is connected with the free end portion of the lever 2 and the other end of the said spring is connected with the ear 8. The spring 11 is under tension with a tendency to hold the free end portion of the lever 2 toward the ear 8 when the attachment is applied to a typewriting machine.

When the attachment is applied to a typewriter the parts are so arranged that the contact of the roller 6 with the upper edge of the shift key lever 5 normally holds the said key in a slightly depressed position whereby the platen of the typewriting machine is held slightly above its normal position when the attachment is not used. Therefore, when the small letters or characters are produced upon a sheet of paper placed upon the platen the said letters appear along a certain line. When it is desired that one or more of the letters should appear above the said line, the lever 2 is swung whereby the shift key 5 may assume its uppermost position and consequently the platen is lowered and the character or

letter will appear at a point above the said line of writing. On the other hand when it is desired that the character or letter should appear slightly below the line the lever 2 is depressed at its free end whereby the shift lever 5 is swung in a downward direction and the platen of the typewriting machine is elevated so that the character or letter is produced upon the paper slightly below the line. The loop at the upper end of the link 7 limits the downward movement of the lever 2 whereby the movement of the lever 5 is just sufficient to elevate the platen a proper distance.

The positions of the characters or letters with relation to the regular line of writing indicates certain characters or phrases in conformity with the rules applying to stenographic characters and hence it will be seen that by using an attachment of the character indicated, a typewriting machine may be transformed into a machine for taking stenographic notes or writing in accord with the rules and usages governing such writing or notes.

When the attachment is applied to a typewriter the parts are so arranged that the contact of the roller 6 with the upper edge of the shift key lever 5 when depressed, holds

the platen of the typewriting machine slightly above its normal position, or slightly below its normal position, depending upon whether it is a typewriter similar to the Underwood that shifts the platen or whether it is similar to the L. C. Smith Bro. typewriter that shifts the type basket. When the shift key is slightly depressed on a machine shifting the platen similar to the Underwood, the letters would print slightly below the regular line of writing, while on machines similar to the L. C. Smith Bro., typewriter, they would print slightly above the regular line of writing.

Having described the invention what is claimed is:—

A typewriter attachment comprising a lever, means carried by the lever for engaging the shift key lever of the typewriter, an ear adapted to be attached to the typewriter, a link connecting the ear with the lever and a spring connecting the lever with the ear.

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

HENRY E. BYRNE.

Witnesses:

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J. A. PIERCE.

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