

(No Model.)

W. S. BIGELOW.

KEY LOCKING DEVICE FOR TYPE WRITING MACHINES.

No. 550,473.

Patented Nov. 26, 1895.

Fig. 1.

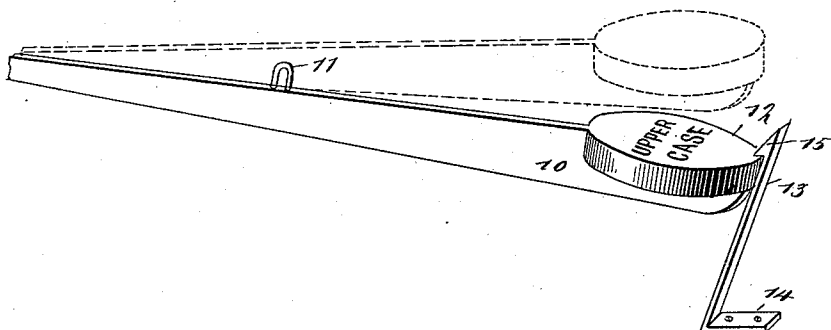


Fig. 2.

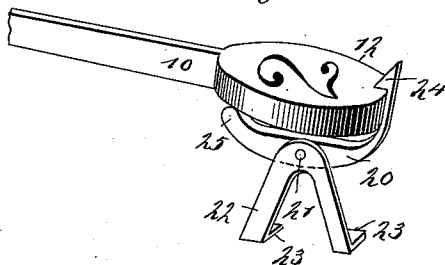
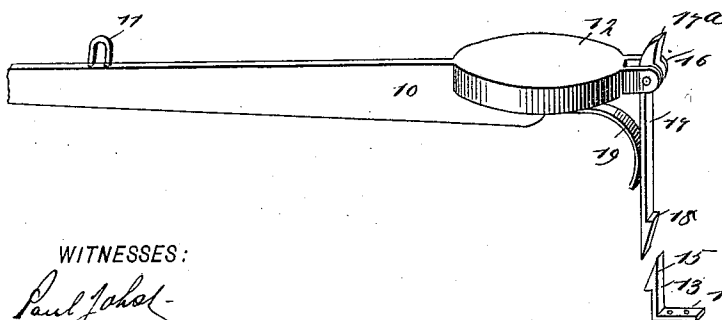


Fig. 3.



WITNESSES:

Paul J. Schol-
C. Sedgewick

INVENTOR

W. S. Bigelow

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM S. BIGELOW, OF BOSTON, MASSACHUSETTS.

KEY-LOCKING DEVICE FOR TYPE-WRITING MACHINES.

SPECIFICATION forming part of Letters Patent No. 550,473, dated November 26, 1895.

Application filed November 28, 1893. Serial No. 492,216. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. BIGELOW, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Locking Device for Type-Writer Keys, of which the following is a full, clear, and exact description.

My invention relates to improvements in attachments for type-writer keys. It is well known that in most type-writers upper-case or figure printing is effected by depressing a certain key, and the depression of the key throws the machine into position for printing upper-case letters or figures, as the case may be, and after such printing is finished the key is released, so as to throw the machine into the normal position.

The object of my invention is to produce an extremely simple attachment by which the key when depressed will be held down, and which also is adapted by the most natural and easy movement of the hand and finger to be released when desired.

To these ends my invention consists in certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a type-writer key locked down by my improved locking device. Fig. 2 is a similar view of a modified form of the device; and Fig. 3 is a perspective view illustrating another modification of the locking device, but with the key in released position.

The type-writer key 10 is of the usual swinging kind and represents the upper-case key of a type-writer. It is provided with a staple 11, to which one of the type-writer actuating-wires may be connected in the usual way, although any other suitable connection may be made with the key. The key is provided at its free end with the usual finger-piece 12, which, as shown in Fig. 1, is marked "upper case;" but if the key is used as a figure-key it is appropriately marked.

I have not shown the connections between the key and the type-rods and shifting mech-

anism, because different mechanisms are employed to shift the type by the movement of a depressible swinging key, and my invention does not relate to the details of such construction.

Beneath the key and in the path of the outer edge of the finger-piece 12 is a spring 13, having a base-flange 14, by which it may be secured to a convenient support, and having at its upper end a notch or head 15, with a shoulder to engage the top of the finger-piece, and with an inclined face next the finger-piece which causes the depression of the finger-piece to swing the head outward, and when the finger-piece passes beneath the head the latter springs inward and engages and locks the finger-piece and key. The spring-catch thus formed may be released by the most natural and easy movement of the hand, the finger being made to swing against the upper end of the catch so as to release the same.

When the key is to be released, it is struck in the usual way, but the finger is raised with a slight wiping or drawing motion, so as to release it from its fastening by the pressure of the finger on the protruding tip of the spring, and when the catch is released the key springs upward to normal position, as shown by dotted lines in Fig. 1.

Instead of fastening the key directly to the head 15 of the spring-catch, the arrangement shown in Fig. 3 may be used, where the finger-piece is provided with parallel lugs 16, in which is pivoted a depending latch 17, having at its upper end an inclined tip 17^a to be struck by the finger, and at its lower end an inclined head 18, similar to the head 15, and the latch is pressed by a spring 19, secured to the under side of the finger-piece, into engagement with the head 15, so that when the finger-piece is depressed the head 18 will engage the head 15 and the key will be held down. It may be released, as already described, by causing the finger to touch the tip 17^a, which swings the head 18 out of engagement with the head 15.

In Fig. 2 the modified form of the device shown is applied to a key 10, representing a figure-key and having its finger-piece marked accordingly, and a curved catch-bar 20 is

used to engage the finger-piece, this bar being pivoted centrally, as shown at 21, on a bracket 22, which has flanges or feet 23, by which it may be secured to a support. The catch-bar 20 is reduced at its free end to the thickness of a spring and terminates in a head 24, like the head 15, which is adapted to engage the front edge of the finger-piece, and the rear end of the catch-bar is curved upward, as shown at 25, so as to be in the path of the finger-piece. When the latter is depressed, it strikes the up-turned end 25, and the head 24 is thus thrown into engagement with the finger-piece, so as to lock the same. It will be seen that where this construction just described is used the bent-up portion of the catch-bar must be thin enough to act as a spring, in order to allow for the close and perfect adjustment of the parts. It will be readily understood that the wiping or drawing motion given to release the keys in the manner specified is done in the easiest and most natural manner by the motion which, from the anatomical construction of the human hand, is necessarily the easiest to make when the hand and finger are in the

position they naturally take when striking a key.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with the swinging key of a typewriter, of an independent spring catch adapted to engage the finger-piece of a key and hold the key depressed, the catch then projecting above the key and being thus adapted to be disengaged and thus permit the release of the key by a wiping or drawing movement of the operator's finger upon the key, as specified.

2. The combination, with the swinging key of a typewriter, having a suitable finger-piece at its free end, of an independent catch which is struck by the key when depressed and engages the said finger piece, the catch being adapted to release the key by a wiping or drawing movement upon the latter, substantially as specified.

WILLIAM S. BIGELOW.

Witnesses:

FRANK H. JENKINS,
HORACE D. CHAPIN.