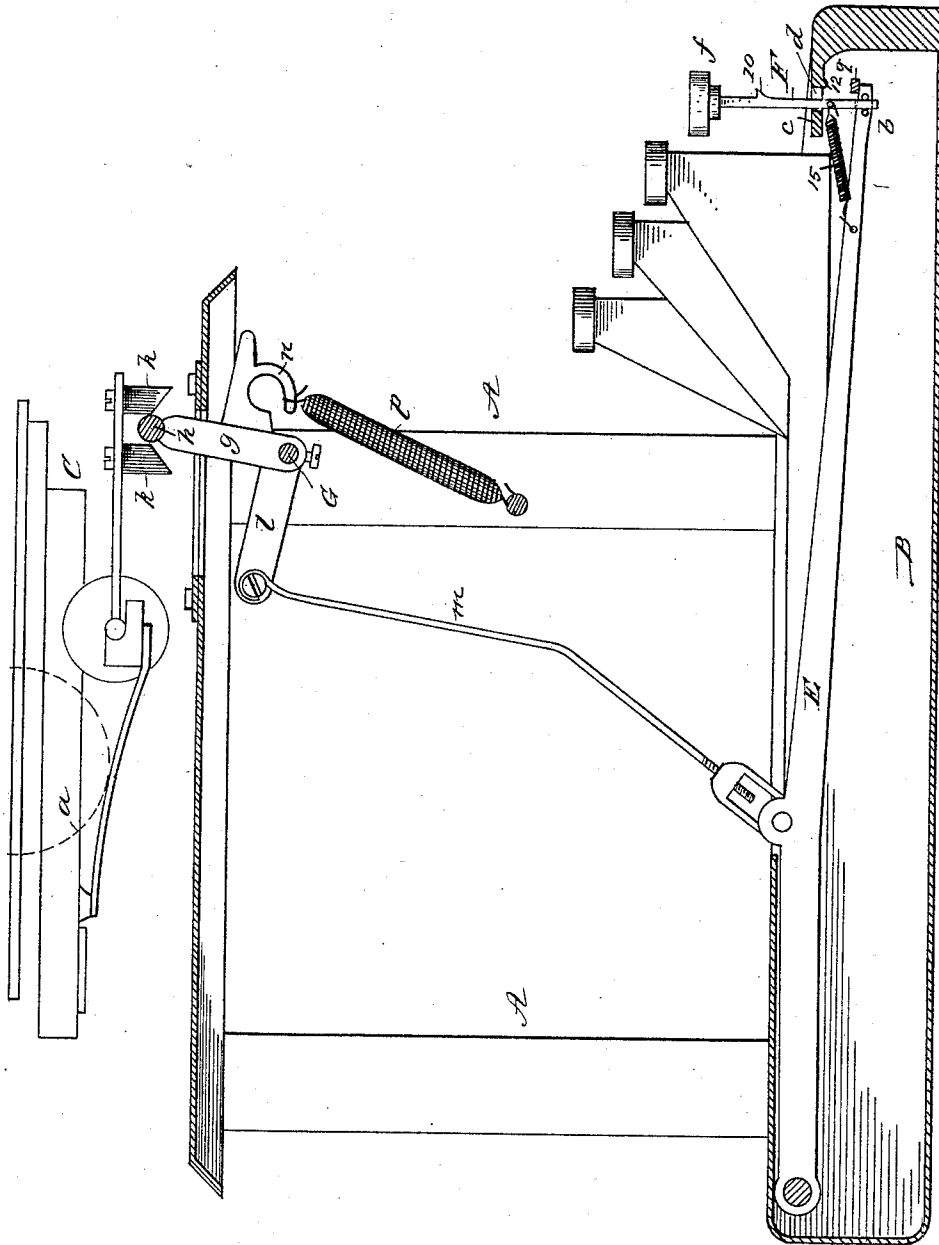


(No Model.)

M. G. MERRITT.
TYPE WRITING MACHINE.

No. 434,991.

Patented Aug. 26, 1890.



Witnesses

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UNITED STATES PATENT OFFICE.

MORTIMER G. MERRITT, OF SPRINGFIELD, MASSACHUSETTS.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 434,991, dated August 26, 1890.

Application filed October 29, 1888. Serial No. 289,405. (No model.)

To all whom it may concern:

Be it known that I, MORTIMER G. MERRITT, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to improvements in type-writing machines of the class in which by the operation of a switch-key each button of the key-board may cause the imprint by a certain one of two or more type characters which are controlled by each of the said key-board buttons; and the invention consists in the particular construction and combination of parts, all substantially as will hereinafter be described, and specifically pointed out in the claim.

In illustration of the present invention the mechanism thereof is illustrated as applied upon a type-writing machine of the class at present in extensive public use, and generally known as the "Remington type-writer," and the figure is a side elevation of sufficient of the mechanism of a type-writer of the said character to illustrate the relative and operative combination therewith of the mechanism of the present invention, which will also be seen in elevation.

In the drawing, A represents the main frame of a type-writing machine, of which B is the base, and C represents a frame for supporting the paper-roll, (indicated at *a*), which is, in the usual manner, mounted on a carriage (not shown) longitudinally movable on the frame A, and said roll-carrying frame is laterally movable on the above-mentioned longitudinally-movable carriage, guideways and limiting abutments being provided therefor, as usual.

In the base B of the frame is disposed a lever E, extending horizontally from the front to the rear of the machine and capable of swinging in a vertical plane, a vertical push-rod F being pivotally connected by its lower end, as at *b*, to the forward end of the lever E, said push-rod playing through a vertical slot *d* in a ledge *c* of the frame, and at its upper end provided with a head or thumb button *f*.

Near the top and front of the machine is a horizontal rocker-shaft G, carrying an upwardly-extending radial arm *g*, which carries at its outer end a rod *h*, engaging between downwardly-extending twin posts *k k* on the paper-roll carrying-frame, and a radial lever or crank-arm *l* extends more or less horizontally from the said rocker-shaft G, to which it is rigidly attached, to the outer end of which one end of a connecting-rod *m* is attached, which by its other end is connected to an intermediate portion of the said horizontal lever E. From the opposite side of the said rocker-shaft a radially-extending finger *n* is extended, to and between the end of which and a suitable stationary part of the machine-frame a spring *p* is secured. An undue upward movement of the outer end of the lever E is prevented by an abutment *q* suitably applied.

From the above description, and as well understood, it will be seen that on the depression of the push-rod F the carriage and roll will be moved backward or in a direction across its length for presenting itself for the impact thereagainst of the type of the upper case; but on the removal of the hand-pressure on said push-rod the paper-roll will assume its normal position. A spur or hook 10 is formed on the edge of the push-rod F, so that when the latter is in its normal position the same will be above the slot *d*; but when the push-rod has been sufficiently depressed to effect the lateral shifting of the paper-roll, as described, the said abutment spur or hook 10 will be about on a level with the lower forward corner of the slot, so that on a swinging forward of the said push-rod from its lower pivoted end said spur or hook will come to an abutment against the under forward corner of the slot-wall, a rib 12 being preferably provided at such corner, rendering more certain the engagement, and therefore, as long as may be desired, the lever E may be depressed and the paper-roll held in position to receive the impact of the upper-case type. By slightly pushing on the rod F to swing its button end backward a trifling distance the parts are free to assume their normal positions under the recoil of the retracting-spring *p*.

That the position of the parts described for upper-case printing may not be unwittingly and indefinitely maintained when the push-rod F is depressed for the purpose of securing the printing of and by but a single upper-case type, a spring 15 is connected between the lever E and push-rod F to retain the said rod in the position shown—that is, with its abutment hook or spur 10 in advance of and out of the engaging line of the said rib 12. The said spring, while not absolutely necessary to the successful working of the parts described, is, as will plainly occur, a most desirable and advantageous adjunct.

By forming the abutment-spur 10 of slightly hooked shape, more or less, as shown, its engagement with the rib 12 may be with greater certainty retained, and while the particular device for securing the holding down of the push-down lever by its interlocking with a stationary abutment, as described, is the preferable one, other forms of devices for the accomplishment of the same function may be employed under the invention, and the swinging movement of the push-rod, instead of being in backward and forward directions to effect the described engagement and disengagement of the interlocking parts, may be in lateral or other directions without departing from the present invention.

As from the foregoing description it will be seen that the parts constituting the invention are assembled at or upon the said switch-key and the adjacent stationary parts of the machine-frame, it will be plain that the lever operated by the push-rod may in turn be applied in operative relation to mechanism for controlling different sets of type—as, for instance, of upper and lower case styles—which mechanism may be widely dissimilar to that above mentioned and illustrated, and it is to be understood that the present invention is to be applicable to any form of type-writing mechanism employing a push-down switch-key.

What I claim as my invention is—

The combination, with the frame provided with the slot *d*, having at its border the rib 12 and the lever E, of the push-rod F, playing through said slot by its lower end pivoted to said lever and provided on its edge with the spur 10, of slightly hooked form, and the spring 15, secured and acting between said lever E and the push-rod F, all substantially as shown and described, and for the purpose set forth.

MORTIMER G. MERRITT.

Witnesses:

WM. S. BELLOWS,
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