

(No Model.)

A. LOWE.
TYPE WRITING MACHINE.

No. 465,823.

Patented Dec. 22, 1891.

Fig. 1.

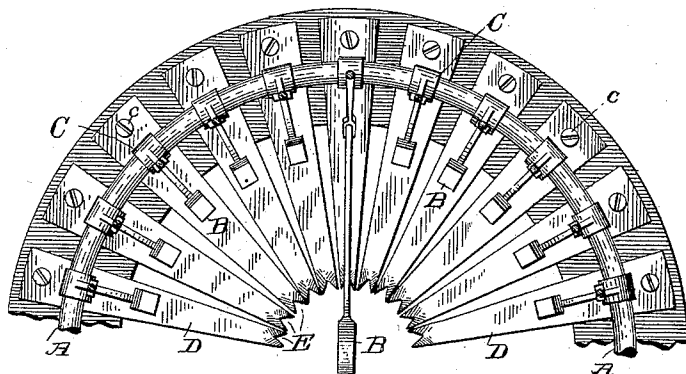


Fig. 2.

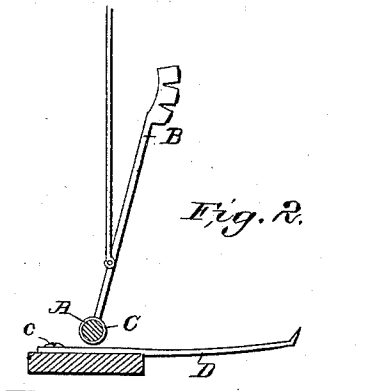


Fig. 3.

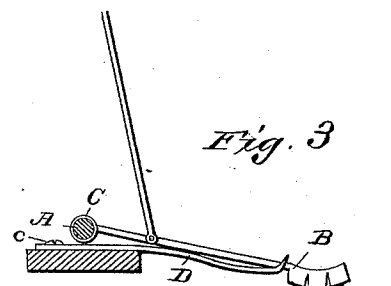
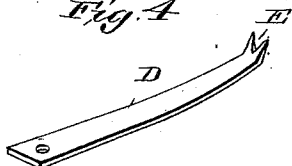


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUSTIN LOWE, OF MINNEAPOLIS, KANSAS, ASSIGNOR OF NINE-TENTHS
TO THE MINNEAPOLIS IMPROVED TYPEWRITER COMPANY, OF SAME
PLACE.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 465,823, dated December 22, 1891.

Application filed July 9, 1891. Serial No. 398,960. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN LOWE, of Minneapolis, county of Ottawa, State of Kansas, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification, reference being had to the accompanying drawings.

My invention is especially applicable to that class of machines in which a platen carrying the surface to be printed is in operation struck from time to time by levers carrying the type, and is designed to improve the alignment of such machines and to equalize the blow of the type upon the platen, thereby improving the quality of the work done and increasing the life of the machine. It is also specially applicable to that type of machine in which the type-bars strike downwardly upon the platen instead of upwardly, on which machines it causes the type-bar to more speedily reassume its normal position each time it is operated, thereby rendering the operation of the machine more rapid and accurate.

In the accompanying drawings, Figure 1 is a plan view of a section of a type-writing machine, showing the pivoted type-bars arranged upon a circular bearing, so as to strike radially toward the center, and my invention applied thereto. Fig. 2 is a side elevation showing the relation of a type-bar and my spring-plate as in use, the type-bar being in the elevated position. Fig. 3 is a similar view showing the type-bar in the position which it occupies when depressed so as to strike the face of a page to be printed. Fig. 4 is a view of my spring-plate detached.

Referring to the letters on the drawings, A indicates a section of the frame of a machine of any suitable construction, upon which are operatively carried type-bars B, pivoted thereto at C in any usual manner. To the frame, under the heel or hinge of each of the type-bars, is firmly fixed by a screw C—for instance, at one end—a spring-plate D, that extends radially toward the center of the machine and terminates in a fork, or V-shaped slot E, which is located in the path of its

type-bar a little short of the type or head of the bar. These spring-plates may be made of any suitable spring sheet metal—such, for instance, as steel. A separate one is preferably provided for each individual type-bar. The thickness and width of the material from which they are constructed will determine the amount of resistance which they will offer to the blow of a type-bar, and they should be so adjusted as not to make the machine run heavily, and at the same time equalize the force of each individual blow. The spring-plates should be bent, so that their forked extremities lie a little above the face of the platen or page to be printed, in order that they may interpose their resistance just before the type strikes the platen and be adapted to yield readily before the blow by the type-bar and to instantly spring back and throw the type-bar out of the way of the next descending one as soon as the first has performed its work.

It will be understood from the foregoing that the machine is operated in the usual manner, and that each type-bar as it descends strikes upon one of these spring-plates. The end of the type-bar will be caught in the forked end of the plate, and the type guided by the sides of the V-shaped slot accurately to the center, so that any fault of alignment will be absolutely corrected before the type reaches the surface to be printed. If too hard a blow is delivered to the type-bar through the key-board, it will be corrected by the resistance of the spring-plate, and the injurious effects of it thereby avoided. For type-bars that carry punctuation-marks, which, in use, ordinarily tend to pierce the paper and otherwise disfigure the work of the machine, spring-plates of extra resistance may be provided.

As above stated, the spring-plate increases the rapidity of work of machines having the downward stroke by operating to instantly clear each type from the face of the platen after it has done its work.

What I claim is—

The combination, with the frame of a type-writing machine and type-bar operatively car-

ried thereon, of a forked end spring-plate secured thereto under the heel of the type-bar extending radially toward the center of the machine in the path of the bar nearly to its
5 head, and bent so that its forked end lies a little above the face of the platen, whereby it may interpose resistance to the stroke of the type-bar just before the type strikes the

platen, substantially as and for the purpose specified.

In testimony of all which I have hereunto
10 subscribed by name.

AUSTIN LOWE.

Witnesses:

THOS. J. CARSON,
J. M. COMPTON.