

(No Model.)

A. DAVIS.
TYPE WRITING MACHINE.

No. 465,591.

Patented Dec. 22, 1891.

Fig. 1.

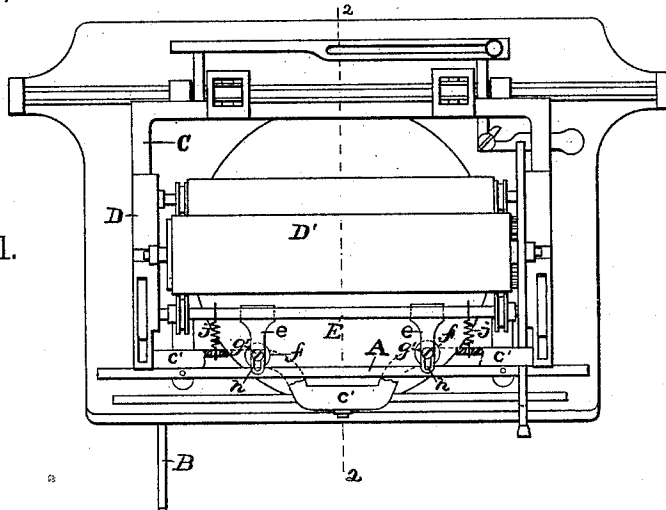


Fig. 2.

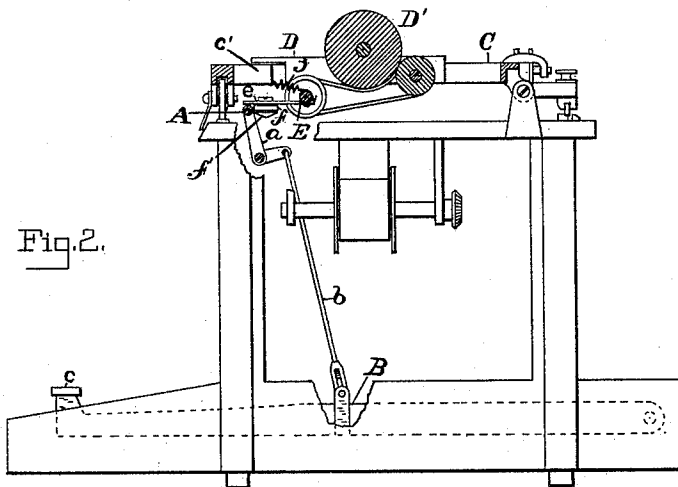


Fig. 3.

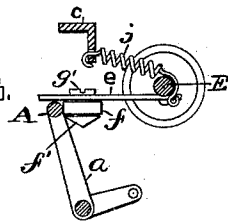


Fig. 4.



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TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 465,591, dated December 22, 1891.

Application filed February 7, 1891. Serial No. 380,551. (No model.)

To all whom it may concern:

Be it known that I, ASA DAVIS, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to an improvement in the "Remington" type-writing machine, the object being to improve upon the platen-shifting mechanism.

With this end in view the invention consists in certain features of construction and combinations of parts described hereinafter, and pointed out in the claims.

In the accompanying drawings illustrating the invention, Figure 1 is a plan view of a machine embodying my invention; Fig. 2, a central cross-section of the machine on line 2 2 of Fig. 1; Fig. 3, an enlarged detail view of the part which constitutes my invention, and Fig. 4 a central longitudinal section through the same.

In carrying out my invention the spring connected with the platen-shifting bar or rail is dispensed with and the shift-rail is not itself spring-actuated directly, as usual. The beveled guide-blocks secured on the under side of the arms projecting from the band-pulley shaft are also dispensed with.

In the drawings, A designates the cylinder-shift rail; *a*, the bell-crank lever for operating the same; *b*, the vertical rod connected to said lever; B, the "upper-case" lever to which said rod is joined, and *c* the key on said upper-case lever.

The letter C designates the reciprocating carriage, and D the shifting-frame mounted thereon and carrying the platen or cylinder D' and appurtenances and the band-pulley shaft E. The latter has a pair of arms *e*, one at each side, which project forward and overlap the shift-rail A. Each of these arms carries on its under side a roller *f*, which turns in a horizontal plane and bears against the rear side of the shift-rail A. Each roller is mounted on a stud *g*, which is secured to the arm *e* by a screw *g'* on the upper side of the arm, extending through an adjustment-slot *h* in said arm and into the stud, as shown in Fig. 4. The stud has at its lower end a con-

ical head *f'*, the same size as the roller *f*, which confines the roller on the stud. These conical heads serve when the carriage C is let down to strike the shift-rail A and throw the shifting-frame D to its proper place. A pair of spiral springs *j* connect the shaft E and the front bar *c'* of the carriage C. One of these springs is located at each end of the carriage, and they serve to hold the said rollers *f* up to the shift-rail and the cylinder D' normally in its forward position.

It will be observed that when the upper-case lever B is depressed and the shift-rail A thrown back it will shift the cylinder rearwardly against the tension of the springs *j*, and hence as soon as the said upper-case lever is released the said springs will immediately return the cylinder and shift-rail to their normal forward position. It will be observed that the two rollers are always in contact with the shift-rail.

The advantages of my arrangement are that there is no lost motion between the shift-rail and cylinder-frame, because the springs cause the rollers to constantly press against the shift-rail. This makes the alignment of the printed letters more perfect, for the reason that it prevents vibration of the cylinder while operating. The rollers make the carriage run more freely and easily and obviate the necessity of keeping the shift-rail always oiled. When the carriage is let down after it has been raised to inspect the work on the cylinder, the inclined surfaces of the conical heads *f'* below the rollers strike the shift-rail A, and thus the shifting-frame is forced to slide back to allow the rollers *f* to drop behind the shift-rail.

A further advantage of my attachment is that it can be readily applied to the standard Remington type-writer without any material change in the arrangement of parts thereof and without altering the usual movements of the parts. The rollers may be attached by simply removing the yoke-blocks on the under sides of the arms, which ordinarily project forward from the band-pulley shaft. The springs can also be easily attached and will hold the shifting-frame in its usual normal position, which is at the forward limit of its movement in the carriage.

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

1. In a type-writing machine having a shift-rail and a carriage on which is mounted a shifting-frame carrying the cylinder and the band-pulley shaft, a pair of arms projecting forward from said shaft and over the shift-rail, one arm being at each side of the shaft, a roller mounted on the under side of each of said arms to bear against the rear side of the shift-rail, and springs connecting the said band-pulley shaft and the carriage to keep the rollers up to the said rail and the shifting-frame normally in a forward position.

2. In a type-writing machine having a shifting-frame carrying the cylinder and a shift-rail, arms projecting forward from the said frame and provided with adjustment-slots, rollers mounted on the undersides of said arms and secured by screws extending through the adjustment-slots therein, said rollers adapted to bear against the rear side of the shift-rail, and springs to keep the rollers up to the rail.

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

ASA DAVIS.

Witnesses:

JNO. T. MADDOX,
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