

L. C. MYERS.
 WRITING MACHINE.

APPLICATION FILED FEB. 3, 1905. RENEWED JUNE 21, 1911.

1,053,207.

Patented Feb. 18, 1913.

2 SHEETS-SHEET 1.

Fig. 1.

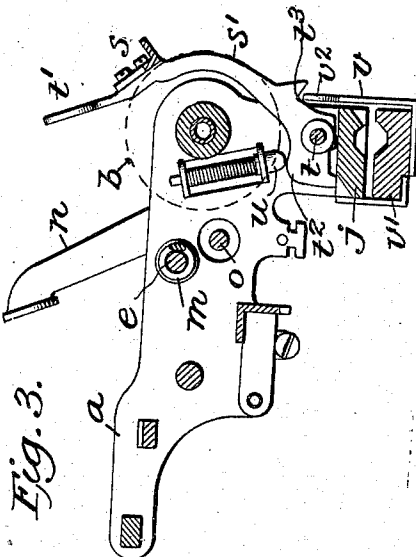
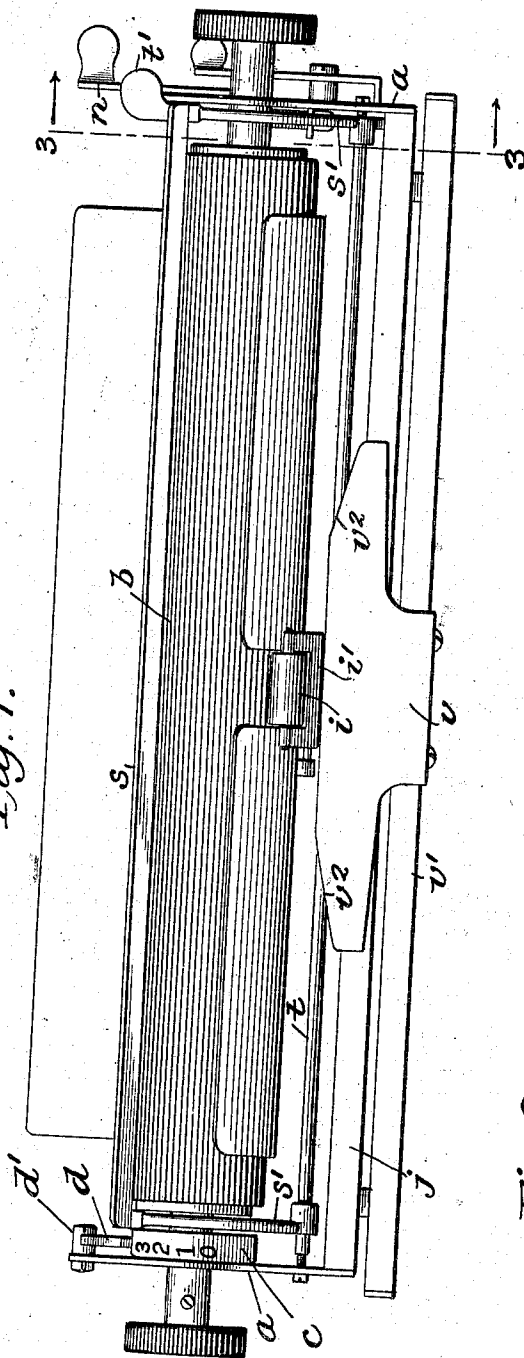
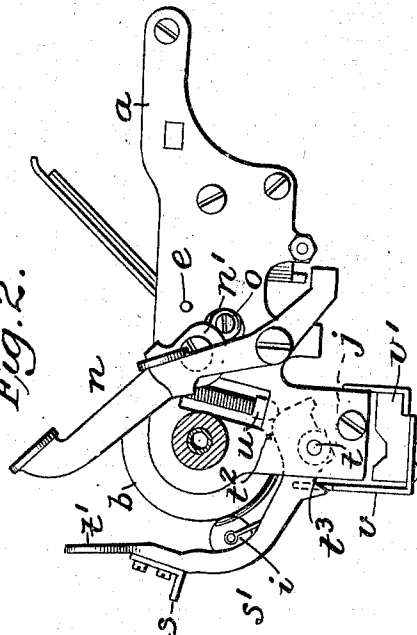


Fig. 3.

Fig. 2.



Witnesses
 James F. Duhamel
 L. J. Browning

Inventor
 Lewis C. Myers
 By his Attorney
 Edward C. Davidson

APPLICATION FILED FEB. 3, 1905. RENEWED JUNE 21, 1911.

Patented Feb. 18, 1913.

Fig. 4.

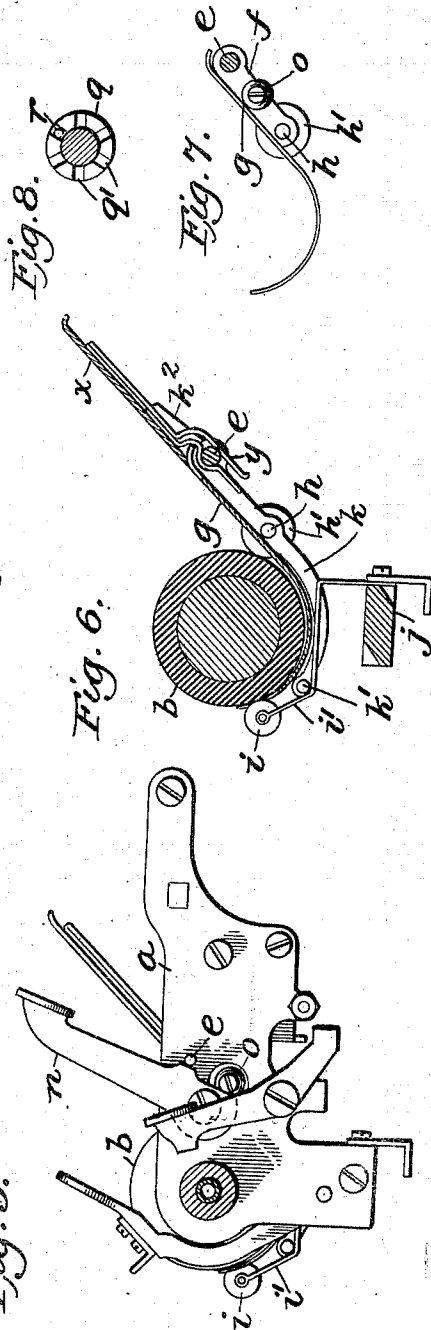


Fig. 5.

Lewis C. Myers Inventor
By his Attorney
Edward C. Davidson

UNITED STATES PATENT OFFICE.

LEWIS C. MYERS, OF NEW YORK, N. Y., ASSIGNOR TO ROYAL TYPEWRITER COMPANY,
OF HOBOKEN, NEW JERSEY, A CORPORATION OF NEW JERSEY.

WRITING-MACHINE.

1,053,207.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed February 3, 1905, Serial No. 244,023. Renewed June 21, 1911. Serial No. 634,527.

To all whom it may concern:

Be it known that I, LEWIS C. MYERS, a citizen of the United States, residing in the borough of Brooklyn, city and State of New York, have invented certain new and useful Improvements in Writing-Machines, of which the following is a specification.

This invention relates to paper feed devices of a cylindrical platen writing machine; and generally stated, comprises means for feeding and guiding the paper around the platen so arranged that the feed rolls at the front and rear of the platen may be simultaneously thrown out of action by the actuation of a single device to permit ready manipulation of the sheet or sheets then disposed around the platen. A means is also provided for readily adjusting the tension or pressure of the feed rolls located at the rear of the platen.

The invention also contemplates the use of a paper retaining and guiding bar arranged above the printing line and capable of being rocked away from the platen to permit free manipulation of the paper, combined with means for automatically returning it to normal position during the ordinary traverse of the carriage should it be left in withdrawn position by the operator. In the accompanying drawing: Figure 1 is a front elevation showing the platen and parts of the carriage of a front stroke writing machine; Fig. 2, an elevation of the right hand end of the carriage; Fig. 3, a sectional view on the line 3, 3, of Fig. 1; Fig. 4, a plan view; Fig. 5, a view similar to Fig. 2 but with the parts in a different position; Fig. 6, a cross section on the line 6, 6, of Fig. 4, with some parts omitted; Fig. 7, a detail view showing part of the paper guide, a feed roll and the supporting lever upon which they are mounted; and Fig. 8, a detail view showing a device for adjusting the tension spring of the feed rolls.

a a are the end plates of the carriage connected as shown by the various transverse members or shafts; *b*, is the platen to the ends of the shaft of which are applied the usual turning knobs; *c* is an adjustable circumferential guard applied around the ratchet wheel of the platen; *d*, its actuating dog; and *d'*, an adjustable stop that holds the pawl in engagement with the ratchet wheel; these parts, however, are either old

or form the subject matter of another application filed by me January 30, 1905, Serial Number 243,442.

A rock shaft *e* in the rear of the platen is mounted to turn in the end plates and has two arms *f*, extending downwardly and toward the platen, and upon which are mounted the front part *g* of the paper guide that extends around the under side of the platen. In the ends of these arms is mounted a shaft *h* that carries three feed rollers *h'* extending through appropriate apertures in the curved paper guide plate *g* and working against the rear face of the platen. Centrally arranged at the front of the platen and appropriately below the printing point is a paper feed and pressure roller *i* carried upon a spring arm or bracket *i'* attached to the front rail *j* of the carriage. Extending from the central part of the shaft *h* is a curved arm *k* that passes under the platen and has at its front end a laterally projecting pin *k'* that extends over the spring arm *i'*. Thus, when the shaft *e* is rocked to depress the arms *f* the rear feed rolls *h'* are carried away from the platen and the pin *k'* bearing on the spring arm *i'* depresses it and carries the pressure roller *i* away from the front face of the platen. The arms *f* are normally held in elevated position, to cause engagement of the feed rollers with the surface of the platen, by the coiled spring *m, m*, applied around the ends of the shaft *e* and provided with means for adjusting their tension as hereinafter described.

A lever *n* pivoted on the end plate has a cam face *n'* that contacts with a laterally projecting arm *o* extending from the side of one of the arms *f* through an enlarged opening in the end plate of the carriage. When this lever *n* is in the normal position shown in Fig. 5, the reaction of the springs *m* raises the arms *f* and presses the feed roll toward or against the platen. When it is desired, to afford entire freedom for manipulation of the paper in the machine, this lever is depressed as shown in Fig. 2, where the projecting rod or arm *o* is thrown downwardly, rocking the shaft *e* and carrying the feed rolls *h'* out of engagement with the platen, and by means of the arm *k* and pin *k'* moving the front pressure roll also away from the platen.

The tension springs *m* surround the shaft *c*. One end of the spring at the left of the carriage passes under a laterally projecting pin *p* on the arm *f* and has its other end engaged with a sleeve *q* loosely mounted on the shaft. The spring at the right hand end of the carriage has one end engaged with a similar sleeve *q* and its opposite end is passed under the laterally extending rod *o*. This construction is shown by the dotted lines in Fig. 4. The faces of the sleeves adjacent the end plates are formed with notches or radially disposed recesses *q'* (Fig. 8) engaged by studs *r* projecting from the inner faces of the end plates. To adjust the tension of the springs, the sleeves *q* are retracted out of engagement with the studs *r* and rotated to increase or decrease the tension of the spring. To facilitate this manipulation of the sleeves, they are shown as formed with circumferential recesses, to receive a suitable tool.

Extending longitudinally across the face of the platen above the printing line is a paper retaining bar *s* carried in the ends of arms *s'* projecting from rock shaft *t*. These arms are curved to conform to the curvatures of the platen and a thumb piece *t'* is applied to the one at the right hand side of the carriage so that the bar *s* may be thrown or rocked away from the face of the platen as indicated in Fig. 2. The bar *s* and arms *s'* are held in either position by a spring-pressed, round-faced latch or bolt *u* mounted in the right hand end plate and working against the cam face *t²* of the right hand arm *s'*. In machines of this class, a ribbon vibrator is usually arranged in front of the printing point on the platen and if an operator should neglect to throw the bar *s* back to normal position, the arms *s'* might strike against the ribbon vibrator, or any other device that may be located adjacent to and in front of the platen.

An automatic means is therefore provided for returning the arms *s'* and bar *s* to normal position during the traverse of the carriage. This device consists of a plate *v* vertically disposed and secured to the lower bar *v'* of the carriage. At each side, its upper edge is inclined as at *v²* and the arms *s'* are formed with recesses *t²* that straddle the upper edge of the plate; consequently, when either of the arms rides against an inclined edge *v²* it is moved upwardly until the highest part of the cam-face *t²* passes beyond the center of the latch or snubbing bolt *u*, the spring of which then holds the bar *s* yieldingly against the platen. The bar *s* has its edge adjacent or against the platen surface. In other words it is disposed, generally, radially of the platen and its flat side serves, therefore, as a gage against which the front edge of a newly inserted sheet may be abutted to insure its accurate registry or

arrangement in the machine. This gage is, of course, arranged above or back of the printing line and is capable, as stated, of being thrown away from the platen to permit free manipulation of a sheet or sheets in the machine. The backward extending part *w* of the paper guide is formed with spring clips *y* that embrace the shaft *e*. This part of the guide is prevented from dropping down by an extension *z²* of the arm *k* which bears against the rear side of the section *w*.

Parts not specifically described form no part of this invention and may be of any ordinary or suitable construction.

The bar *s* which is yieldingly held against the platen serves in practice also as a gage, due to its upwardly extending face which is at right angles to the platen face and parallel therewith, for the leading edge of the paper or other material introduced in the machine when it is desired to gage such leading edges.

I claim as my invention:

1. In a writing machine, the combination with the carriage and platen, of the paper retaining bar *s* normally bearing against an upper face of the platen, means for throwing it forwardly and holding it away from the platen and means for automatically returning it to normal position during the step by step traverse of the carriage.

2. In a writing machine, the combination with the carriage and platen, of a paper retaining bar *s*, the arms in which it is carried, a rock shaft to which the arms are attached, means for throwing and holding the paper retaining bar away from the platen and a cam plate on the frame acting upon the arms in which the bar is mounted to automatically return the latter to normal position during the step by step traverse of the carriage.

3. In a writing machine, the combination with the carriage and platen of paper controlling means cooperating with the face of the platen and adapted to be moved and remain out of operative relation to the platen and means for automatically returning said paper controlling means to operative position during the step by step traverse of the carriage.

4. In a writing machine, the combination with the carriage and platen of paper controlling means cooperating with the face of the platen and adapted to be moved and remain out of operative relation to the platen and means for automatically returning said paper controlling means to operative position during the traverse of the carriage in either direction.

5. A visible writing machine comprising the combination of a platen carriage, a platen mounted therein with its printing surface permanently in view of the oper-

70

75

80

85

90

95

100

105

110

115

120

125

130

ator when either upper or lower case letters are being printed, paper controlling means mounted on the carriage extending up in front of and cooperating with the platen. 5 and adapted to be moved out of and remain out of operative relation to the platen, and means acting in the course of the ordinary transverse traverse of the carriage to automatically return said paper controlling means into operative relation to the platen. 10

6. A visible writing machine comprising the combination of a shiftable platen carriage, a rotatable platen mounted therein with its printing face permanently in view 15 of the operator when either upper or lower case letters are being printed, paper controlling means mounted on the carriage, extending up in front of and cooperating with the platen and adapted to be moved out of operative relation to the platen, means for 20 locking said paper controlling means in inoperative position and means for automatically releasing said paper controlling means

from locked position during the transverse traverse of the carriage. 25

7. A visible writing machine comprising the combination of a rotatable platen mounted with its printing face permanently in view of the operator when either upper or lower case letters are being printed, paper 30 controlling means spring pressed against the platen, cooperating therewith and adapted to be moved out of operative relation to the platen, means for locking said paper controlling means in inoperative position and a cam for automatically releasing 35 said paper controlling means from locked position during the transverse traverse of the carriage.

In testimony whereof, I have hereunto 40 subscribed my name.

LEWIS C. MYERS.

Witnesses:

KATHARINE MACMAHON,
LILLIE F. BROWNING.

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