

(No Model.)

H. H. UNZ.
TYPE WRITING MACHINE.

No. 569,255.

Patented Oct. 13, 1896.

Fig. 1.

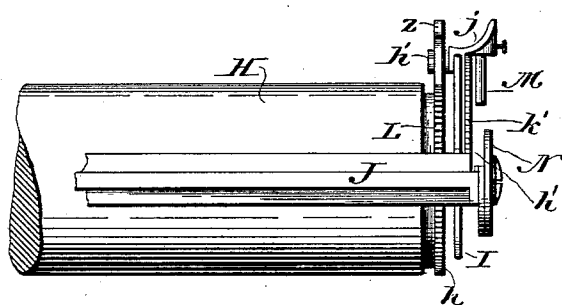


Fig. 2.

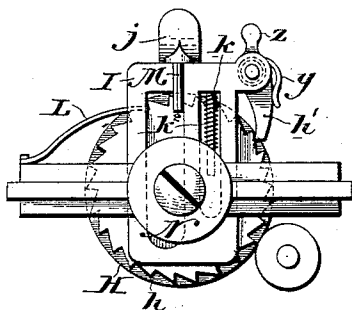


Fig. 3.

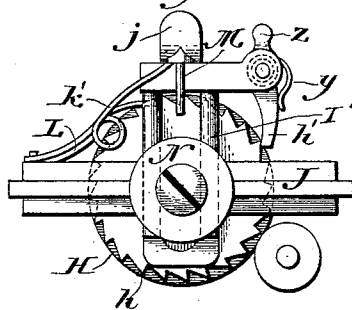


Fig. 4.

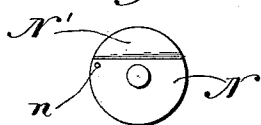


Fig. 5.

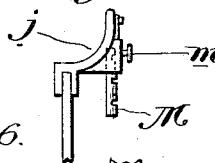
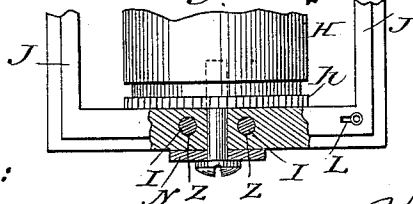


Fig. 6.



WITNESSES:

Frank S. Bussell
H. W. Moore

INVENTOR:

Henry H. Unz
by his atty
G. H. Hendrick

UNITED STATES PATENT OFFICE.

HENRY H. UNZ, OF PHILADELPHIA, PENNSYLVANIA.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 569,255, dated October 13, 1896.

Application filed April 11, 1891. Serial No. 388,475. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. UNZ, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Type-Writers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in line-space and paper-feeding mechanism for type-writing machines.

In the drawings which accompany and form part of this specification, and in which similar letters denote similar parts, Figure 1 represents a front elevation of mechanism for line-spacing. Fig. 2 represents an end view of line-spacing device. Fig. 3 represents a modification of Fig. 2. Fig. 4 represents an inside elevation of variable line-stop shown in Figs. 1, 2, and 3. Fig. 5 represents a view of adjustable line-space pin. Fig. 6 is a plan view, partially in section, of Fig. 3.

H is the platen.

h is the line-space ratchet.

h' is the line-space pawl.

This pawl *h'* is pivoted to the reciprocating frame I. This frame is capable of vertical motion in slots or bearings Z on either end of the carriage-frame J, constituting a fixed guide or bearing for the frame I. A spring *y* on the pawl holds the pawl against the line-space ratchet.

The operation is as follows: The operator places his finger upon the finger-rest *j*, a part of the frame I, and presses down, causing the pawl *h'*, working in the ratchet *h*, to turn the line-space ratchet and platen, and when the operator releases the frame I the spring *k* on a rod *k*², secured to the frame I, is forced into compression by the downward movement of the frame I and causes the frame and pawl to return to their normal position. The spring-pawl L, attached to the carriage-frame, retains the platen and ratchet from moving in the opposite direction.

A modification is shown in Fig. 3, where the frame I' is formed by a U-shaped wire with the portion that sustains the ratchet and thumb-rest attached to it at its upper end, while the spiral spring is removed and the

wire-spring *k* attached to the carriage-frame and to the portion of the frame I' sustaining the pawl.

The extent of the line-space is governed by the following means: A disk N is secured to the carriage-frame below the frame I, so that said disk may be rotated. A portion N' of this disk N is cut away to the desired depth. A pin M is attached to the portion of the frame I or I', holding the pawl. When the frame I or I' is depressed, the pin M strikes the disk N, thereby governing the extent of the travel of said frame, and when the disk is revolved so as to present the surface which is cut away the frame will have a greater extent of travel governed by the extent of the portion cut away. The stop *n* on the disk, by striking the carriage-frame, limits the extent of rotation of the disk. The pin M is also capable of varying adjustment. (See Figs. 1 and 5.) The pin has a series of notches into which a spring-tooth *m* may be forced, thereby shortening or lengthening the extent of the pin M and controlling the amount of movement of the reciprocating frame. A projection *z* on the pawl enables the operator to hold the pawl free from the line-space ratchet when it is desired to turn the platen freely.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination, a platen, a line-space ratchet and pawl, a reciprocating frame to which said pawl is pivoted, said frame reciprocating at an angle to the plane of the platen and a fixed guide for said reciprocating frame.

2. In combination, a platen, a line-space ratchet and pawl, a reciprocating frame to which said pawl is pivoted, and a finger-rest on said frame and a fixed guide for said reciprocating frame.

3. In combination, a platen, a line-space ratchet and pawl, a reciprocating frame to which said pawl is pivoted, and an adjustable line-space stop and a fixed guide for said reciprocating frame.

4. In combination, a platen, a line-space ratchet and pawl, a reciprocating frame to which said pawl is pivoted, and an adjustable line-space stop attached to said frame and a fixed guide for said reciprocating frame.

5. In combination, a platen, a line-space

ratchet and pawl, a reciprocating frame to which said pawl is pivoted, a carriage-frame, and an adjustable line-space stop attached to said carriage-frame and a fixed guide for said
5 reciprocating frame.

6. In combination, a platen, a line-space ratchet and pawl, a reciprocating frame to which said pawl is pivoted, a carriage-frame, a disk having a portion of its surface cut

away, said disk being attached to the carriage- 10 frame but capable of rotary motion.

In testimony of which invention I have here- unto set my hand.

HENRY H. UNZ.

Witnesses:

ANDREW ZANE,

FRANK S. BUSSER.