

July 10, 1928.

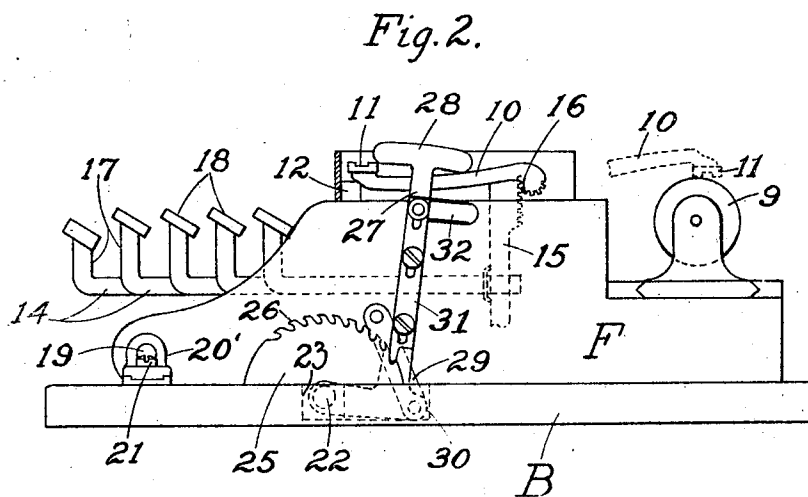
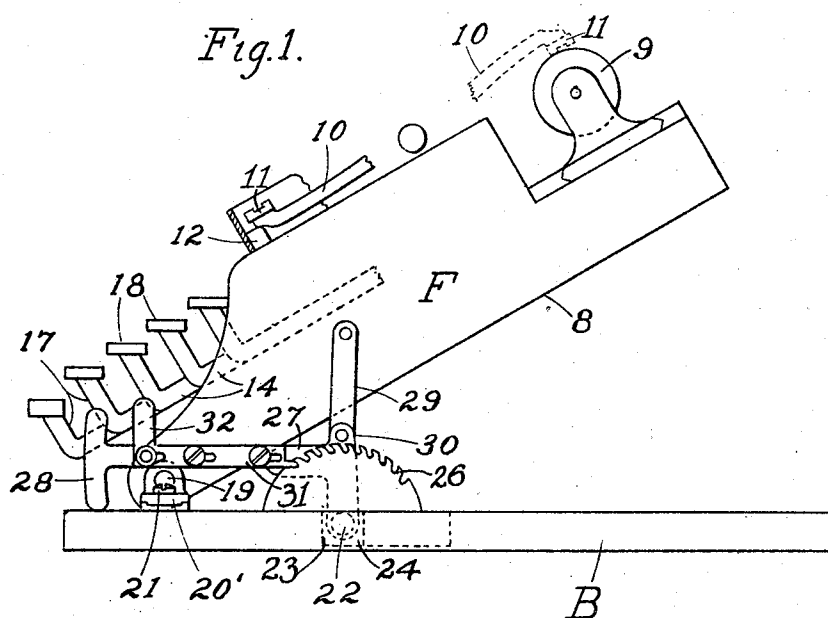
1,676,809

R. W. UHLIG

TYPEWRITING MACHINE

Filed Feb. 21, 1925

2 Sheets-Sheet 1



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July 10, 1928.

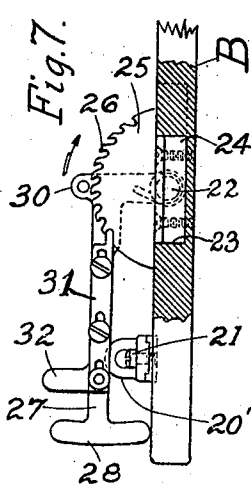
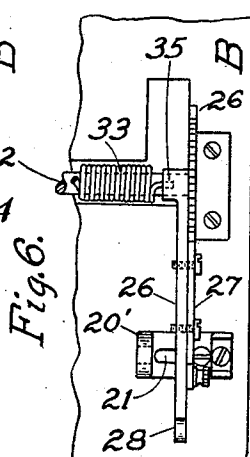
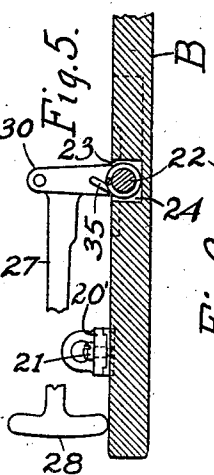
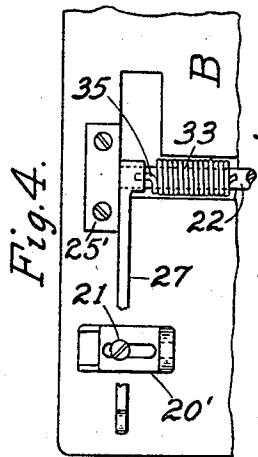
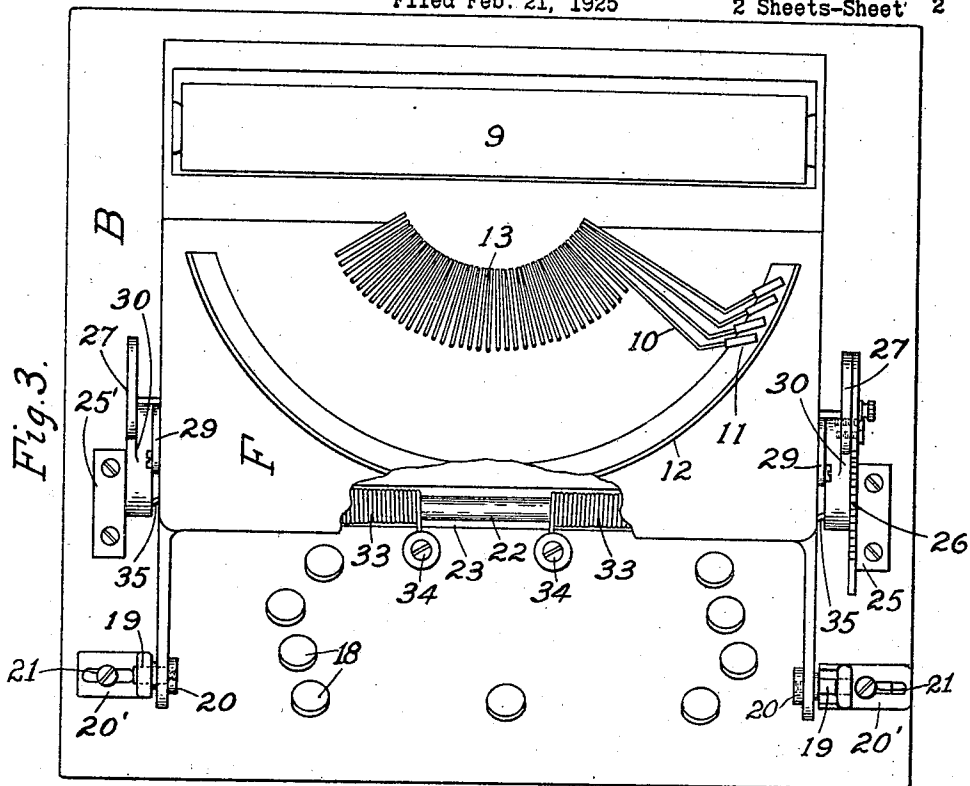
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R. W. UHLIG

TYPEWRITING MACHINE

Filed Feb. 21, 1925

2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

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TYPEWRITING MACHINE.

Application filed February 21, 1925. Serial No. 10,750.

This invention relates to typewriting machines wherein the operative mechanism is mounted in a frame, said mechanism including a platen rotatably mounted in a to and fro movable carriage at the rear and top of the frame, typebars striking rearwardly against the platen and the typebars actuated by fulcrumed levers arranged with finger keys, and it is the object of the invention to provide means to adjustably support the machine to variably position the platen to change the focal distance of the line of writing on the platen relative to the vision of the operator.

It is a further object of the invention to provide means to tilt the rear portion of the machine upwardly at an oblique angle to the horizontal and retain the machine in adjusted position during the operation thereof.

Another object of the invention relates to an arrangement of finger keys connected to the typebar actuating levers, whereby when the machine is in horizontal position said keys will assume a position in substantially the same horizontal plane and inclined at an angle oblique to the horizontal, and as the machine is tilted to change the focal distance of the line of writing on the platen said keys will assume a banked formation with the face of the keys extending in a horizontal plane.

Other objects and advantages will hereinafter appear.

In the drawings accompanying and forming a part of this specification Figure 1 is a side elevation of a writing machine showing an embodiment of the adjustable support for the machine whereby the rear portion of the machine is adapted to be tilted upward to variable angular positions to the horizontal, and showing the machine adjusted to its uppermost position, only so much of the operative mechanism of the machine being shown as is essential to an understanding of the invention.

Figure 2 is a view similar to Figure 1 showing the machine adjusted to horizontal position.

Figure 3 is a plan view, partly broken away.

Figure 4 is a fragmentary plan view of the left hand portion of the supporting means.

Figure 5 is a sectional end elevation of the parts shown in Figure 4.

Figure 6 is a fragmentary plan view of the right hand portion of the supporting means; and

Figure 7 is an end elevation, partly in section, of the parts shown in Figure 6.

Similar characters of reference designate like parts throughout the different views of the drawings.

In carrying out the embodiment of the invention illustrated in the drawings the operative mechanism of the writing machine is mounted in and carried by a frame F the bottom of the sides and rear end of which are preferably flat, as at 8, although this is not absolutely essential, whereby the machine may be supported with the bottom extending in a horizontal plane in contiguous relation to a support therefor.

The machine carries at the rear and top the usual platen 9 rotatably mounted in a carriage to have to and fro longitudinal movement in the frame as is usual. Pivoted bars 10 having type carrying heads 11 mounted thereon are adapted to be moved from a position of rest 12 rearward against the platen, as shown in dotted lines in Figures 1 and 2. The typebars 10 are arranged in slots of a segment 13, as shown in Figure 3, and actuated by fulcrumed levers 14 extending in parallel relation, and having an operative connection with the typebars, shown as through a rack 15 connected to the levers meshing with teeth arranged on the typebar, as at 16. The forward ends 17 of the levers 14 extend laterally at substantially a right angle and have finger keys 18 fixed thereto to extend at an oblique angle to the levers and the bottom of the frame for a purpose to be hereinafter described.

As stated, it is an object of the invention to provide an adjustable support for the machine whereby the rear portion of the machine may be tilted upward at variable angles to the horizontal to change the focal distance of the line of writing on the platen relative to the vision of the operator. The embodiment of this support illustrated comprises pivot pins or studs 19 arranged with a shoulder intermediate its ends with one end of the pins threaded and engaged in openings in the sides of the machine frame.

with the shoulder abutting the outer surface of the frame and a nut 20 threaded onto the pins at the inner side of the frame with the portion of the pins at the outer side of the frame extending laterally from the frame and engaged in perforations in angle brackets 20' mounted on a base board B by screws engaging in slots of the brackets, as at 21, and threaded into the board. By this arrangement the brackets may be readily released from the pivot pins 19 to remove the machine from the base board. While the machine is shown and is preferably mounted upon a base board whereby the machine is secured to and supported upon a desk or table, and which may also serve as a support for an enclosing and carrying casing for the machine, it will be obvious that the supporting brackets 20 may be mounted directly upon a desk or table.

To tilt the rear of the machine upward to a variable extent to incline obliquely to the horizontal or the base board a shaft 22 is arranged in a recess 23 extending transversely of the base board and rotatably supported at the opposite ends in recesses in blocks 24 and retained in one block by a cap plate 25' and the other by an angle portion or segment or sector shape 25, which is arranged with notches 26 in the circular edge thereof, said segments being secured to the block 24, as by screws. Angle levers 27 are fixed at one end to the shafts and the opposite ends are arranged as a hand or finger grip 28. These levers are operatively connected to the sides of the machine frame by links 29 pivotally connected at one end to the frame and at the opposite end to ears 30 extending laterally from the levers opposite to the angle portion thereof. In the horizontal position of the machine as shown in Figure 2 the levers will assume the position shown in said figure and are releasably locked in such position by a detent 31 slidably carried by one of the levers engaging with a notch at one end of the segment 25. To tilt the rear portion of the machine upward the detent 31 is released by engaging a fingerpiece 32 integral with the detent when the levers are moved forward, as shown in Figures 1 and 4 to 7, inclusive. In this position of the levers the detent 31 is engaged with the segment notch at the opposite end of the segment. It will be obvious that the machine may be adjusted to any desired intermediate position and retained in such position by the engagement of the detent 31 with a segment notch intermediate the ends thereof.

To facilitate the lifting of the machine means are provided to yieldingly urge the machine in an upward direction. This means comprises a pair of springs 33 coiled about the shaft 22 with one end of the springs secured to a fixed part, as at 34, while the opposite end is connected to the shaft, in the present instance engaging in a perforation in the levers 27 fixed to the shaft, as at 35, (Figures 4 and 5). The springs 33 also serve to counterbalance the weight of the machine when in tilted position and relieve the load of the machine upon the detent 31.

By the arrangement of the finger keys 18 on the typebar actuating levers 14 the keys when the machine is in horizontal position, as shown in Figure 2, will assume a position at an oblique angle to the horizontal with the keys in aligned horizontal rows extending substantially in the same plane, and in which position of the keys the typebar levers may be efficiently operated. By this arrangement of the keys when the machine is tilted upward as shown in Figure 1 they will assume a position in banked rows with the tops of the keys in a substantially horizontal plane.

While there is illustrated and described one embodiment of carrying out the invention it will be obvious that various modifications may be made in the construction and arrangement of parts, and portions of the invention may be used without others and come within the scope of the invention.

Having thus described my invention I claim:

1. The combination of a writing machine, means to pivotally support the machine forwardly of its transverse center to tilt the rear portion of the machine upward at an oblique angle to the horizontal, a pivotally supported lever having an operative connection with the machine and operative to adjust the machine on its pivotal support from a horizontal position to variable angular position relative to the horizontal, a fixed notched sector, and a detent carried by the lever to engage a notch of the sector to releasably retain it in adjusted position.
2. The combination of a writing machine, means to pivotally support the machine forwardly of its transverse center to tilt the rear portion of the machine upward at an oblique angle to the horizontal, an angle lever arranged with a hand grip at one end and adapted to be pivotally mounted at the opposite end, a link connection between said lever and the machine, said lever being operative through the link connection thereof with the machine to adjust the machine on its pivotal support to tilt the rear of the machine upward to variable angular positions relative to the horizontal, a fixed sector arranged with notches in the curved edge thereof, and a detent carried by the lever to be releasably engaged in the sector notches to hold the lever against movement and thereby retain the machine in tilted position.
3. The combination of a writing machine,

a base board, pivot pins extending laterally from the sides of the machine frame, bearings for engagement of said pivot pins mounted on the base board to have adjustment laterally of the machine, a lever pivotally mounted upon the base board and having an operative connection with the machine frame whereby as the lever is moved in one direction the rear portion of the machine will be tilted upward from the base board and when moved in reverse direction will move the machine in a direction toward the base board, and means to releasably lock the lever and thereby the machine in adjusted position.

4. The combination of a writing machine embodying a frame with the operative mechanism mounted therein in fixed relation to each other and the frame, means to adjustably support the machine to tilt the rear portion thereof upward at an angle to the horizontal without changing the relation of the operative parts one relative to the other, and means to counterbalance the weight of the machine when tilted.

5. The combination of a writing machine embodying a frame with the operative mechanism mounted therein in fixed relation to each other and the frame, means to adjustably support the machine to tilt the rear portion thereof upward at an angle to the horizontal without changing the relation of the operative parts one relative to the other, and means to yieldingly urge the machine to upward tilting position to counterbalance the weight of the machine.

6. The combination of a writing machine, a base board, bearings on said base board in which the machine has a pivotal support to tilt the rear of the machine upward, a shaft rotatably mounted in bearings on the base board to extend transversely of the machine, and a lever fixed to said shaft having an operative connection with the machine frame and operative to tilt the machine on its pivotal support on the base board.

7. The combination of a writing machine, a base board, bearings on said base board in which the machine has a pivotal support to tilt the rear of the machine upward, a shaft rotatably mounted in bearings on the base board to extend transversely of the machine, levers fixed to said shaft having an operative connection with the machine frame and operative to tilt the machine on its pivotal support on the base board, and springs coiled about said shaft having one end fixed to the base board and the other end of the

being operative to facilitate the tilting of the machine and counterbalance the weight of the machine when tilted.

8. The combination of a writing machine, a base board, pivot pins extending laterally from the sides of the machine frame, bearings for engagement of said pivot pins mounted on the base board to have adjustment laterally of the machine, and means to move the machine on said pivot pins to tilt the rear portion of the machine upward to variable angular positions to the horizontal and retain it in adjusted position.

9. The combination of a writing machine, means to adjustably support the machine to tilt the rear portion thereof upward to extend at an oblique angle to the horizontal, said machine including a platen rotatably carried at the rear portion of the machine, typebars to strike rearwardly against the platen, and parallelly extending typebar actuating levers having finger keys at the forward ends arranged to extend at an oblique angle to the horizontal and extend in parallel rows with the machine in horizontal position, and said keys adapted to assume a banked formation with the tops extending in a horizontal plane when the rear of the machine is tilted upward.

10. The combination of a writing machine, means to adjustably support the machine to tilt the rear thereof upward to extend at an oblique angle to the horizontal, said machine including typebar actuating levers, finger keys arranged at the forward ends of said levers to extend at an oblique angle to the levers, said keys being adapted to assume a position in parallel rows extending in the same plane and as the machine is tilted assume a banked formation with the keys extending in a horizontal plane.

11. The combination of a writing machine, a support upon which the machine is pivotally mounted forwardly of its transverse center, and means to adjust and support the machine at variable angles to its support comprising a lever pivotally mounted on the support in the rear of the pivotal mounting of the machine and having a pivotal connection with the machine, and means to releasably retain the lever and thereby the machine in variable positions of adjustment.

Signed at New York city, in the county of New York and State of New York this 16th day of February, 1925.

RICHARD W. UHLIG.