A. SCHNEELOCH.

PLATEN OPERATING MECHANISM.

APPLICATION FILED OCT. 9, 1902.

903,512. Patented Nov. 10, 1908.

Fig. I.

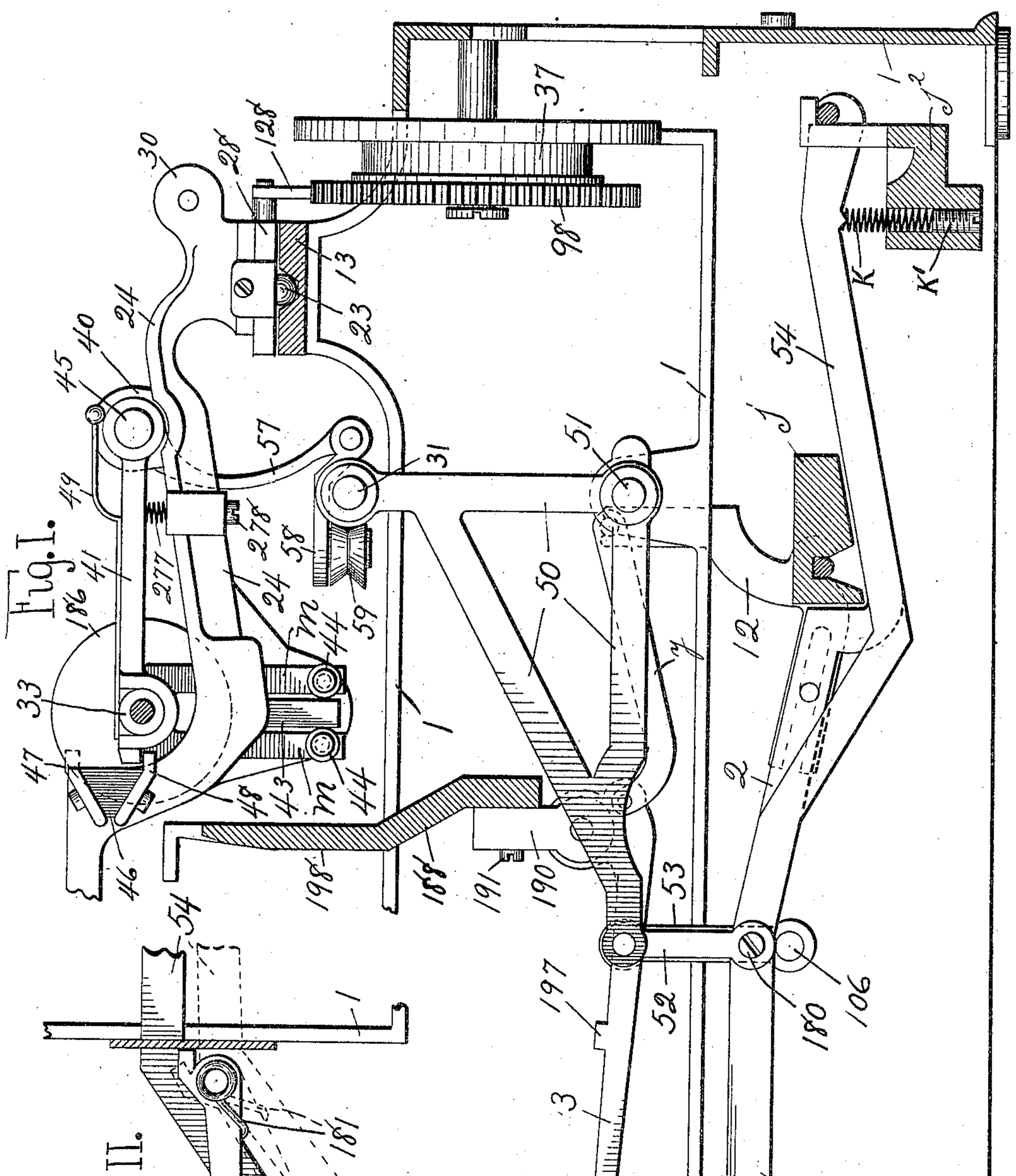

Fig. II.

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PLATEN-OPERATING MECHANISM.

No. 903,512. Specification of Letters Patent. Patented Nov. 10, 1908.

Original application filed May 9, 1902, Serial No. 106,524. Divided and this application filed October 9, 1902. Serial No. 126,602.

To all whom it may concern:

Be it known that I, AUGUST SCHNEELOCH, citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Platen-Operating Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a typewriting machine, and consists in a new construction and arrangement of parts by which the platen is supported and shifted into the upper case position and there locked.

This application is a division of my application filed May 9th, 1902, Serial No. 106,524.

My invention is shown in the drawing herewith, of which

Figure I is a vertical longitudinal section, showing the parts particularly referred to and their position in the machine. Fig. II shows in side elevation the upper case locking mechanism broken away from the front of Fig. I.

In the figures, 1 indicates the main frame, 2 the key lever suitably supported thereon, on key lever bracket j^2, 12 the key lever link connected by link y to type-bar 3, having integral stop 197 to engage with segment face 198, and hung on hanger 190, secured to segment 188 by screw 191.

13 is the rear bar grooved for balls 23, and 24 carriage side pieces, carrying the front bar of the carriage frame (not shown).

28 is the rear bar resting on the balls 23, and 30 the brackets on which are journaled arms for carrying the carriage rack by which the platen carriage is shifted step by step by the action of the key levers.

37 is the spring barrel carrying gear 98 engaging with carriage rack 128.

Journaled at each end of the machine on bearings 51 are the bell-crank levers 50 connected respectively by links 52 and 53, to the shift-key levers 54 54, by the pivot screw 180. Shift-key lever 54 is carried on bracket j^2, is cushioned by spring K, adjusted by screw K', and on the left rests on pin 106, on link 53, so that when either shift-key lever is depressed, rod 31, carried on the upper ends of the bell-crank levers 50, is moved forward engaging with grooved roller 59 on roller bearing arm 58, hinged to the lower end of arm 57, fixed on platen rod 45, whereby said platen rod is turned, raising arms 41 41, and with them the platen holder bushing 33 and platen 186 into the upper case position.

Adjacent to the right hand shift-key lever is journaled on the frame of the machine the lock-lever 61 held up in normal position by spring 181, and provided with cam notch 182, whereby when said lock-lever is depressed, cam notch engages with pin 60 on shift-key lever locking it in depressed position until it is released by further depressing said shift-key lever forcing the pin out of engagement with the notch 182, allowing 61 to be released and returned by its spring to normal position; thus the shift-key lever may be depressed by its own key as in the case of writing a single capital or by the lock-lever key, when it is desired to write several capitals. It will be understood that these levers coöperate to lock the shift-key lever in its lower position by the form of the cam notch and the angle at which the levers are arranged.

On brackets 40 of the carriage is journaled the platen rod 45, on which are fixed the two swinging arms 41, carrying the platen holder on the cylinder shaft and bushings 33. The end pieces 24 have the downwardly extending guiding block 43, with which engage on each side the rollers 44 44 on the arms m m on the platen holder, operating as a guide to insure the movement in a vertical line of the platen holder as it is shifted from one case to the other. Stops 47 and 48 on block 46, carried on the side pieces 24, limit the upward and downward movement of the platen holder. To support the swinging arm and counter-balance a portion of the weight of the platen, spring 277 is arranged on the side piece, whose tension may be adjusted by screw 278 and coöperating therewith; 49 is a slide bar for locking the platen on its arms.

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

1. In a typewriting machine, the combi-

nation with the platen, the platen frame, the shift key lever and connections therefrom to the platen frame, of a lock lever arranged adjacent to the shift key lever having a cam notch on its forward end, a pin on the shift key lever to engage with said cam notch, and a spring to return the lock lever to normal position, the cam being formed to engage with the pin and depress the shift key lever and raise the platen when the lock lever is depressed to a certain extent, and to disengage from the pin and release the lock lever when the shift key lever is further depressed.

2. In the platen supporting and guiding mechanism of a front strike typewriting machine, the combination with the frame and side pieces thereon, of downwardly extending guiding blocks on said side pieces, swinging arms suitably journaled on the frame to support the platen and platen holder, downwardly extending roller arms on the platen holder on each side of said guiding blocks, and rollers on the roller arms engaging with the guiding blocks.

3. In the upper case locking mechanism of a typewriting machine, the combination with the shift key lever, the platen frame, of a lock lever arranged adjacent to the shift key lever and having a cam notch on its forward end, of a horizontal projecting lug or pin on the shift key lever to engage with said cam notch, whereby the shift key lever is locked in depressed position by engagement of the cam notch with the pin, a finger piece on the lock lever, and a spring to restore lock lever to its elevated position when released from engagement with shift key lever.

4. In the platen supporting mechanism of a typewriting machine, the combination with the carriage frame, of side pieces on the frame, a rod journaled on the frame, swinging arms on the rod arranged above the side pieces, the platen carried on the front ends of said arms, coil springs arranged between said swinging arms and the side pieces on each side and adjusting screws in the side pieces beneath the springs to adjust the tension of the springs.

5. In a typewriting machine, the combination with the platen, the platen frame, the shift-key lever and connections therefrom to the platen frame, of a lock lever arranged adjacent to the shift key lever having a cam notch on its forward end, a pin on the shift key lever to engage with said cam notch, and a spring to return the lock lever to normal position, the cam being formed to engage with the pin and depress the shift-key lever and raise the platen when the lock lever is depressed by the hand, and to disengage from the pin and release the shift-key lever when said shift-key lever is further depressed.

6. In the upper case locking mechanism of a typewriting machine, the combination with a shift-key lever, the platen frame journaled on the carriage, the platen on said frame, of a lock lever arranged adjacent to the shift-key lever and having a cam notch on its forward end, said lock lever being arranged to be independently depressed by the hand, a horizontal projecting lug or pin on the shift-key lever to engage with said cam notch, whereby the shift-key lever is locked in depressed position by engagement of the cam notch with the pin, a finger piece on the lock lever, and a spring to restore lock lever into its elevated position when released from engagement with shift-key lever.

7. In the platen supporting mechanism of a typewriting machine, the combination with the carriage frame, of a swinging arm journaled thereon on each side, the platen carried on said arms, beveled blocks on said frame near the front ends of said arms, and upper and lower adjustable stops secured on said blocks to engage with the front ends of said arms, positively to limit their up and down movement when shifted from one case position to the other.

8. In a typewriting machine, the combination with the platen, the platen frame, the shift key lever and connections therefrom to the platen frame, of a lock lever arranged adjacent to the shiftkey lever adapted to engage and depress the shift key lever to raise the platen, upon being depressed and to lock the shift key lever when the lock lever is in its extreme lower position, and to be released on further depression of the shift-key lever and means to return the lock lever to its initial upper position when released.

9. In a typewriting machine, the combination with the shift-key lever the platen frame and connections between said lever and the platen frame whereby the platen may be elevated into upper case position, of guiding blocks suitably arranged in engagement with the platen holder to guide the vertical movement thereof, of stops suitably arranged to limit the movement of the platen-holder, when shifted, a lock-lever arranged adjacent to the shift-key lever and adapted to operate the shift-key lever to shift the platen when depressed and to lock said shift-key lever when in extreme lower position, said shift-key lever adapted to be further depressed to release the lock lever and means to return the lock-lever to its initial upper position when released.

10. In a typewriting machine the combination with the frame and the carriage thereon, of a platen frame carried by the carriage, a platen in the platen frame, said frame being adapted to be rocked to elevate the platen, bell crank levers oppositely arranged in suitable bearings, oppositely arranged shift key levers, connections between the

shift key levers and the bell crank levers, whereby the latter will be rocked on the depression of the former, a roller rod carried by the upper arms of the bell crank-levers, and a roller carried by the platen-frame in constant engagement with said roller rod to ride thereon during the movement of the carriage, whereby depression of the shift key levers will operate the platen frame to elevate the platen.

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

AUGUST SCHNEELOCH.

Witnesses:

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