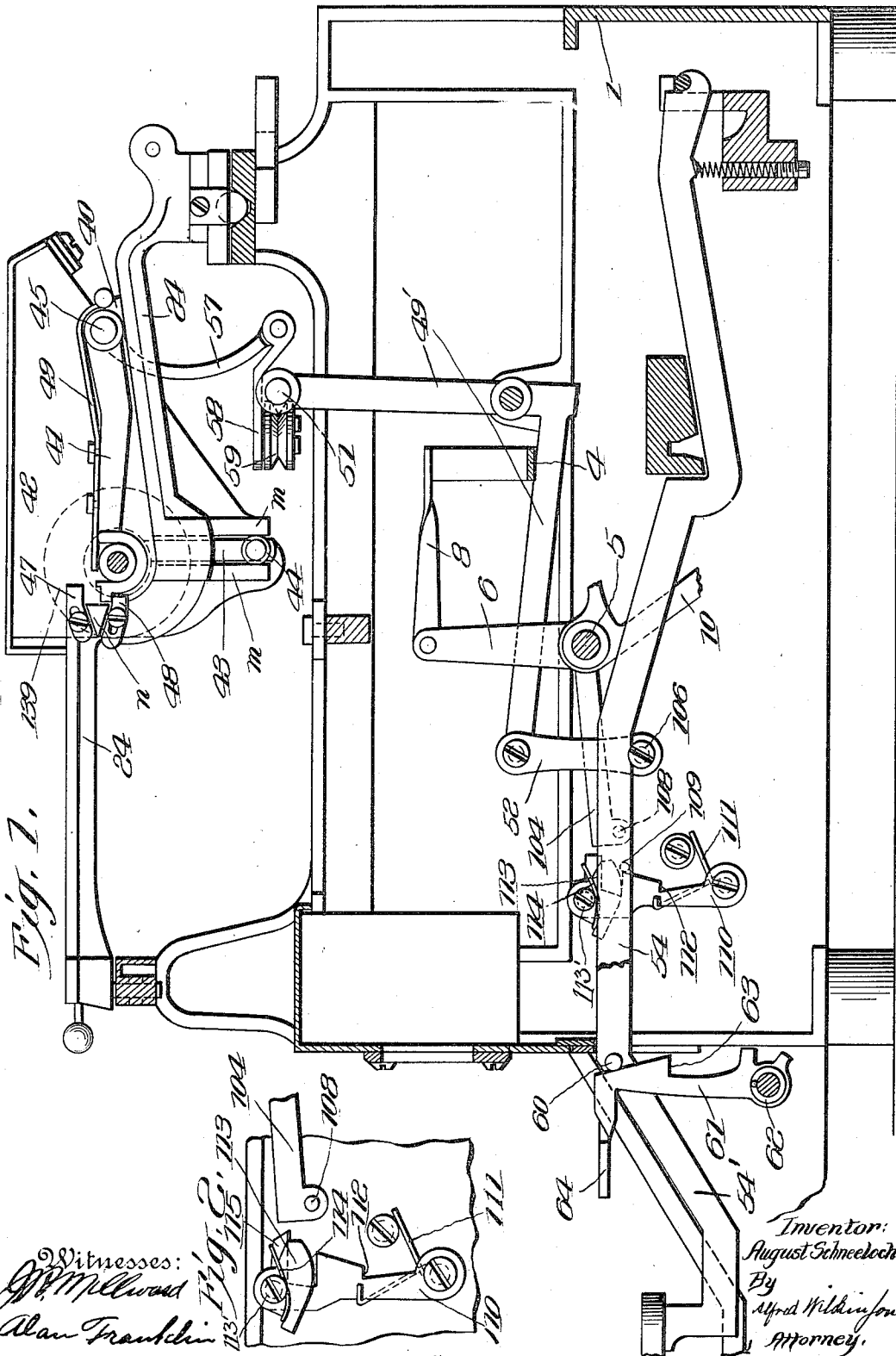


A. SCHNEELOCH.
 PLATEN OPERATING MECHANISM FOR TYPE WRITERS.
 APPLICATION FILED APR. 10, 1913.

1,163,564.

Patented Dec. 7, 1915.

2 SHEETS—SHEET 1.



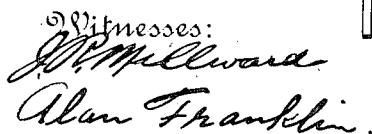
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Fig. 2.
 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200

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1,163,564.

2 SHEETS--SHEET 2



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UNITED STATES PATENT OFFICE.

AUGUST SCHNEELOCH, OF ONEIDA, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO THE OLIVER TYPEWRITER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS, AND ONE-HALF TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE.

PLATEN-OPERATING MECHANISM FOR TYPE-WRITERS.

1,163,564.

Specification of Letters Patent.

Patented Dec. 7, 1915.

Original application filed April 7, 1900, Serial No. 11,993. Renewed August 9, 1910, Serial No. 576,392.

Divided and this application filed April 10, 1913. Serial No. 760,193.

To all whom it may concern:

Be it known that I, AUGUST SCHNEELOCH, a citizen of the United States, residing at Oneida, county of Madison, and State of New York, have invented new and useful Improvements in Platen-Operating Mechanisms for Type-Writers, of which the following is a specification.

My invention relates to platen operating mechanism for typewriting machines and embodies a controlling means therefor operative automatically to lock the platen in raised or upper case position to permit of writing a succession of characters in upper case and adapted conveniently to permit of the release of the platen then to drop to its normal lower case position. Also in the provision of a temporary locking device to maintain the platen elevated during the period of writing but a single character, after which it operates automatically to release and return the platen to normal lower case. This latter feature of the invention is particularly desirable in capitalizing the initial letter of the word commencing each sentence for by it the platen is maintained in its correct elevated position until the first character is written when it immediately causes the return of the platen for the continuation of the writing in lower case.

This application is a division of my renewal application Ser. No. 576,392 filed Aug. 9, 1910, originally filed April 7, 1900, Ser. No. 11,993, Patent 1,058,907, April 15, 1913.

These and other features of my invention are shown in the accompanying drawings in which the reference characters of this description are applied to like parts in the different views.

Figure 1 is a cross sectional view of a typewriting machine comprising an embodiment of my invention. Fig. 2 shows a portion of the mechanism of the same in elevation. Fig. 3 is a plan view of substantially half of the machine having my invention incorporated therein and Fig. 4 is a view in rear elevation of my improved temporary locking and automatic releasing mechanism.

My invention is here illustrated in a typewriting machine of usual construction having the frame 1, key levers 2 (only one of which is here indicated in Fig. 2) and uni-

versal bar 4, all of usual construction and arrangement. The universal bar is shown connected at each end to arms 6 by means of links 8, said arms 6 being affixed one at each side of the machine on a rod 5 journaled in the sides of the frame. An arm 10 is also affixed to the rod 5 and said latter arm is connected in the usual manner to an escapement mechanism to provide for the succession feed movements of the carriage and platen. The escapement mechanism is not necessary to be here shown but it will be understood that the same is actuated on the depression of a key lever which operates through the universal bar to move the arms 6 forward from their normal rearward position shown in Fig. 1. Any suitable means is provided to return the connections and said arms to their normal positions on the return movement of the key lever.

As the guiding and shifting mechanism for the platen here described is substantially duplicated at each side of the machine it is sufficient for an understanding of the same to consider the parts at one side of the machine only but better to illustrate the controlling means, hereinafter referred to, I have shown in Figs. 1 and 3 the duplicated parts of the left and right hand sides of the machine respectively.

The guiding and shifting mechanism here shown comprises the following: On bracket 40 of the carriage is journaled the platen rod 45, on which are fixed the two swinging arms 41—41 carrying on their curved front ends the platen holder 42, the usual bushing and platen 139. The end pieces 24—24 of the usual carriage have the downwardly extending block 43, carrying a roller 44 which engages on each side with 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.

Adjustable stops 47 and 48 are arranged on block *n* carried on the side pieces 24 to limit the upward and downward movement of the platen holder, and the spring 46 of well known adjustable door-check form (best shown in Fig. 3) is arranged to counter-balance and assist in raising the platen holder. Slides 49, 49, arranged on swinging

arms 41, 41, may be moved forward by their thumb pieces to engage with the platen bushings and lock the platen in position in the curved ends of said swinging arms.

5 Journalled at each end of the machine are the bell crank levers 49' and 50, connected by links 52 and 53 and respective bearing pins 106 and 55, with the shift key levers 54 54' so that when either shift key lever is
10 depressed, rod 51, carried on the upper ends of said bell crank levers, is moved forward engaging with grooved roller 59 on roller bearing arm 58. Said roller bearing arm 58 is hinged to the lower end of an arm
15 57, fixed on platen rod 45, to turn said platen rod and raise the arms 41 41 and with them the platen holder and platen into upper case position. It will be seen that by reason of the engaging of roller 59 with the
20 rod 51 which is arranged parallel to the direction of movement of the carriage, a continuous connection is provided between the shift key levers and the raising arms 41 whereby said arms may be raised without
25 interfering with the movement of the carriage.

Important features of the present invention reside in the provision of improved controlling devices for the platen by which
30 the platen may be permanently locked in its elevated position for the continuous writing of upper case characters or by which it may be temporarily locked in said upper case position for the writing of but one character
35 in upper case when it will automatically be returned to its normal position for the writing of lower case characters. The said devices are here shown arranged to operate in conjunction with the right hand shift key
40 lever 54' and the left hand shift key lever 54 respectively. Referring particularly to Figs. 1 and 3, the device for permanently locking the platen in upper case will be seen to comprise a spring catch 61 journalled on
45 the frame of the machine adjacent to right hand shift key lever 54' and arranged under the influence of a spring 62 constantly to be forced into engagement with a locking pin 60 on lever 54' whereby when said lever is
50 depressed it will be held by engagement with a shoulder 63 on said catch 61 to retain the platen in elevated position until the catch is released by the operator; for the latter purpose a finger-piece 64 is provided
55 on the upper end of the spring catch as shown.

As above stated, in conjunction with the opposite or left-hand shift key lever 54 there is arranged to operate a mechanism where-
60 by the platen may be locked in upper case position so that one character may be there written and upon the next movement of the universal bar the platen will be shifted or returned to normal position so that the next
65 character will be from the lower case. The

following is a description of the mechanism accomplishing this result: Arm 104 attached to the bar 5 bears a pin 108, and said shift key lever 54 bears a pin 109. Jour-
70 nalled on the frame of the machine is a catch piece 110 constantly pressed against the said pin 109 on key lever 54 by a spring 111 so that when said key lever 54 is depressed the pin thereon will be caught in catch 112 on
75 said catch piece 110 and held down.

Journalled on bearing pin 113' on the upper end of the catch piece 110 is a release block 113 arranged to be yieldable under a horizontal forward pressure by the arrange-
80 ment of the spring 114 attached thereto and under the influence of which the block normally is held in abutting engagement with the projection 115 of the catch piece. The release block is so positioned that when the
85 catch piece is swung into locking position, and the shift key lever locked down, the release block engages the pin 108 and is swung backwardly thereby. Upon the writing of a character the universal bar will be rocked
90 upon depression of the key lever to cause the pin 108 also to lower then to release the block so that in obedience to its spring 114 it will assume its normal position engaging projection 115. Thereafter, upon the re-
95 turn movement of the universal bar the pin 108 will ascend and engage the under cam surface of the release block now interposed between the pin 108 and projection 115. The action of the cam surface then effects
100 the movement of the catch piece out of engagement with lever pin 109 whereby the lever is released and the platen returned to lower case. Said shift key levers 54' and 54 are attached to the machine in any suit-
105 able manner desirably in a manner similar to that of the key levers. It will thus be seen that upon the depression of the left hand shift key lever the catch piece 110 will operate to retain the platen in elevated posi-
110 tion until the impression of one key has been made when the releasing mechanism described will be actuated by movement of the universal bar automatically to release said catch to permit the platen to return to normal lower case position by gravity in the
115 customary manner.

Having described my invention I claim,—

1. A typewriting machine having a car-
riage, a rock shaft on the carriage, arms on
120 the rock shaft, a platen carried by said arms, a resilient connection to the rock shaft, a roller carried by said connection, oppositely arranged shift levers, connections therefrom, a bearing rod carried by said connections
125 and arranged parallel to the direction of movement of the carriage to engage the roller whereby movement is communicated from the levers to shift the platen.

2. A typewriting machine having in com-
bination with the platen and connections
130

to shift the platen, a locking catch member adapted automatically to lock the platen in shifted position upon the manipulation of the connections, a movable member connected to be actuated on the operation of the key levers and arranged adjacent to said locking member and a resilient element carried by one of the members to assume an interposed position to communicate the movement of the movable member to the catch member to release the platen.

3. A typewriting machine having a platen, a shift lever, connections from the shift lever to the platen to shift the platen, a catch piece suitably fulcrumed to engage the shift lever when moved to shift the platen, a movable member connected to be actuated with a return movement by the operation of the key levers, a resiliently supported part carried by the catch piece to engage the movable member on the shifting of the platen, said part being arranged to assume an interposed position between the catch piece and movable member on the initial movement of said member thereby to communicate the return movement of said member to the catch piece to release the platen.

4. A typewriting machine having in combination with the key levers and escapement mechanism associated therewith, a platen, connections to shift the platen, a locking catch adapted to engage the connections when the platen is shifted so as to retain the platen in shifted position and means actuated on the operation of the key levers to assume an interposed connecting position between the catch and the escapement mechanism whereby movement from the latter is transmitted to the catch to effect disengagement thereof.

5. A typewriting machine having a carriage, a rock shaft on the carriage, arms on the rock shaft, a platen carried by said arms on the rock shaft, oppositely arranged shift levers, connections therefrom to the rock shaft comprising a bearing rod movably connected to the shift levers and supported parallel to the direction of movement of the

carriage and engaging means on the rock shaft constantly to engage the bearing rod for communicating movement from the shift levers to the platen.

6. A typewriting machine having a carriage, a rock-shaft on the carriage, arms on the rock shaft, a platen carried by said arms on the rock shaft, oppositely arranged shift levers, connections therefrom to the rock shaft comprising a bearing rod movably connected to the shift levers and supported parallel to the direction of movement of the carriage, means on the rock shaft engaging the bearing rod, and a counter-balance spring suitably arranged to exert a force to assist in raising the platen.

7. A typewriting machine having a carriage, a rock shaft on the carriage, arms on the rock shaft, a platen carried by said arms on the rock shaft, oppositely arranged shift levers, connections therefrom to the rock shaft comprising a bearing rod movably connected to the shift levers and supported parallel to the direction of movement of the carriage, engaging means on the rock shaft constantly to engage the bearing rod for communicating movement from the shift levers to the platen, and guiding means on the carriage to guide the movement of the platen.

8. In a typewriting machine, the combination with the key levers and escapement mechanism operated thereby, of a case shift mechanism, a locking device arranged to automatically engage and hold said case shift mechanism in shifted position, and a trip member connected to and movable with said escapement mechanism and operative, upon the return stroke of the latter, to close said locking device.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUGUST SCHNEELOCH.

Witnesses:

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ANNA STATE.