

APPLICATION FILED APR. 27, 1905. RENEWED JULY 19, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

W. H. 23323.
B. Schorneck.
- Ellen H. Foote.

INVENTOR.
August Schueleoch
BY Alfred Wilkinfor
ATTORNEY.

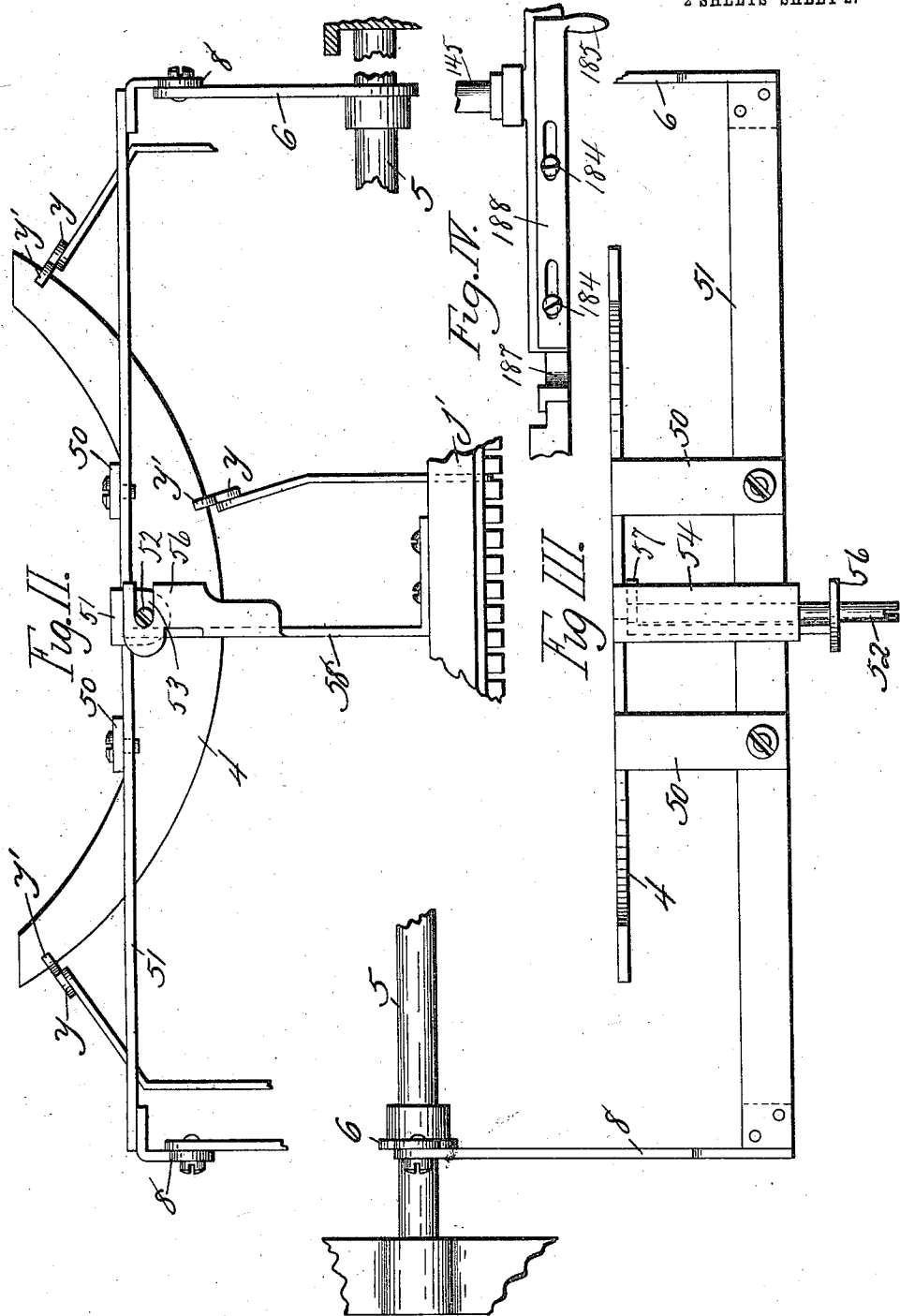
A. SCHNEELOCH.
TYPE WRITING MACHINE.

APPLICATION FILED APR. 27, 1905. RENEWED JULY 19, 1911.

1,060,135.

Patented Apr. 29, 1913.

2 SHEETS—SHEET 2.



WITNESSES:

Chas. Schornack
Ellen H. Rose

INVENTOR.
August Schneeloch
BY *Alfred Wilkinson*
ATTORNEY.

UNITED STATES PATENT OFFICE.

AUGUST SCHNEELOCH, OF SYRACUSE, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO E. C. STEARNS & CO., OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK, AND ONE-HALF TO THE OLIVER TYPEWRITER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TYPE-WRITING MACHINE.

1,060,135.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed April 27, 1905, Serial No. 257,667. Renewed July 19, 1911. Serial No. 639,471.

To all whom it may concern:

Be it known that I, AUGUST SCHNEELOCH, a 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 Type-Writing Machines; 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, arrangement and mode of operation of the universal bar, or escapement operating mechanism, by which the parts in question are more conveniently arranged, are made stronger and are more positive in action without undesirable resiliency or lost motion.

My invention will be understood by reference to the drawings herewith, in which the reference letters and numerals of the specification indicate the corresponding parts in all the figures.

Figure I is a vertical cross section of a typewriting machine showing all the parts necessary to the understanding of my invention. Figs. II and III are respectively rear elevation and top plan of a portion of the preceding, showing the construction, arrangement and adjacent parts of my new universal bar. Fig. IV shows in plan the means by which the platen is locked on its arm.

In the figures, 1 indicates the main frame of the machine, carrying front bar 29, provided with rollers 27, and the rear grooved run-way 13 for the antifriction balls 23, on which is supported the carriage, of which 28 is the rear bar grooved to engage with the balls, 26 the carriage front bar and 24 the carriage side pieces. 186 is the platen carried on platen arms 187, secured on shaft 45; the platen is locked in position on said arms by sliding latch 188, slotted to slide on studs 184 and provided with handle 185. 98 is the pinion on the spring barrel 37, engaging with carriage rack 128. On said run-way 13 is supported the escapement bracket 14, on which is journaled at 17 the two-armed or other suitable dog support, carrying suitable dogs to engage with crown

teeth *e* of escapement wheel *f*, and suitably journaled in escapement bracket 14, on shaft 55 *g*, on which is also fixed pinion *h* engaging with upper or escapement carriage rack 34. In brackets 30 on the rear bar, 28 is hung rack 34, maintained in elevated position by spring 35 to engage with the escapement pinion *h*, by which the carriage is held from moving toward the left in obedience to spring barrel 37.

On the universal bar rod 5, journaled at each end in the frame of the machine, are secured the universal bar arms 6 connected by links 8, attached at their upper ends, to the cross bar 51, on which are secured arms 50, carrying the universal bar 4, here curved in a vertical plane and arranged on edge. The universal bar is kept in alinement and positively guided in its forward and backward movement by pin 52, secured to its rear surface and also supported by lip 53, on brace 54, connected to about the center of the universal bar. This pin is guided in the slots of arms 56 57 of guide piece 58, supported on key lever bracket *j'*. Each key lever is connected by link 12, journaled on key lever bracket *j'*, and by intermediate link *y* to the type bar 3, hung on suitable hanger 190, secured by screw 191 to the segment 188. Each of said links *y* is provided with a lug *y'* arranged adjacent to the rear face of the universal bar whereby at the depression of each key lever the universal bar is moved forward and through cross piece 51, links 8, arms 6 on shaft 5, lower arm 10, also secured on shaft 5 and vertical rod 11, provided with turn-buckle, the dog support 16 is rocked and the escapement mechanism thereby operated. By this arrangement of the universal bar above the connecting links, the type bars can be removed much more conveniently without disturbing the universal bar and the connections thereof, and a constant distance is maintained between each type bar and the platen at every movement of the carriage with relation to the escapement.

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

1. In the escapement operating mechanism of a typewriting machine, the combination with the frame, of a suitable hori-

zontally arranged guide-piece thereon, key levers, type-bars and connections between the key levers and the type-bars suitably supported on the frame, a curved universal bar set on edge above said connections and adapted to slide on said guide-piece and projections on said connections to engage with said universal bar and move it forward when a key lever is depressed, the escapement mechanism suitably supported and connections between the universal bar and said escapement mechanism whereby the latter is operated as the universal bar is moved forward.

2. In a typewriting machine, the combination with the frame, of the escapement mechanism, key levers, type-bars and connections therebetween, of a guide-piece, a curved universal bar arranged on edge and adapted to be moved horizontally on the guide-piece, a universal bar rod journaled in the frame, connections between said rod and the universal bar, connections between said rod and the escapement mechanism and a lug on each set of connections between the respective key levers, and type-bars to engage with the rear surface of the universal bar when each key lever is depressed.

3. In a typewriting machine, the combination with the frame, of the escapement mechanism thereon, key levers, type-bars and connections between the respective key levers and type-bars arranged on the frame, a universal bar rod journaled in the frame of the machine, universal bar arms on said rod, links on said arms, a cross-bar on said links, a curved or segmental universal bar arranged on edge and carried on said cross bar, a lug on each set of connections between the type-bars and the key levers to engage with the universal bar at the depression of each key lever, and connections between the universal bar rod and the escapement mechanism whereby the escapement mechanism is operated at the depression of each key lever and the forward movement of the universal bar, substantially as described and shown.

4. In the escapement operating mechanism of a typewriting machine, the combination with the frame, of the escapement mechanism supported thereon, a key lever bracket on the frame, key levers supported on the bracket, type-bars suitably journaled on the frame, a key lever link secured to each key lever and a connecting link connecting each key lever link to the type-bar, a universal bar rod journaled in the frame, arms on said rod, links pivotally connected to said arms, a cross-bar pivotally connected to the rear ends of said links, forwardly extending arms on the cross-bar, a curved or segmental universal bar arranged on edge on said cross-bar arms above the intermediate links, a brace on said cross-bar, a down-

wardly depending lip on said brace, a pin secured to the universal bar and to said lip, a guide piece on the key lever bracket, slotted front and rear arms on said guide piece to receive said pin, a lug on intermediate link to engage with the universal bar at the depression of the corresponding key lever and move the universal bar forward to rock the universal bar rod, and connections between said universal bar rod and the escapement mechanism whereby the latter is operated when the universal bar rod is rocked, substantially as described and shown.

5. In the escapement operating mechanism of a type-writing machine, the combination with a type-bar segment set on edge, of the type-bars journaled to the lower edge thereof, key levers suitably supported in the machine connections between the respective type-bars and the key levers, a guide-piece, a universal bar formed of a thin plate, curved in a vertical plane and set on edge in a position substantially parallel to the segment edge, the escapement mechanism, and connections between said mechanism and the universal bar, said universal bar being arranged in the path of movement of the connections between the type-bars and the key levers, whereby the universal bar is moved forward and the escapement mechanism is operated when each key is depressed.

6. In a typewriting machine, the combination with the frame and the escapement mechanism thereon, a guide piece suitably supported, a universal bar, a pin on the universal bar arranged to reciprocate within the guide piece and to be supported thereby, key-levers, type-bars and connections therebetween, a universal bar rod journaled in the frame, connections between said rod and the escapement mechanism and a lug on each set of connections between the respective key levers and type-bars to engage the universal bar on the depression of each key lever whereby the universal bar is rocked to operate the escapement mechanism.

7. In a typewriting machine, the combination with the frame and the escapement mechanism thereon, of a universal bar, a guide piece suitably supported and affording a sliding bearing for said bar, key-levers, type-bars and connections therebetween, a universal bar rod journaled in the frame, connections between said rod and the escapement mechanism, connections between the universal bar and said rod whereby the rod will be rocked on reciprocation of the bar and engaging means on each set of connections between the respective key-levers and type-bars to engage the universal bar on the depression of each key-lever whereby the universal bar is reciprocated.

8. In a typewriting machine, the combination with the frame and the escapement mechanism thereon, a guide piece suitably supported, a universal bar supported at its central portion on said guide piece to be guided thereby, key-levers, type-bars, connections between the key-levers and the type-bars, connections between the universal bar and the escapement mechanism and said universal bar being arranged to have movement communicated thereto on the depression of the key-levers.

9. In a typewriting machine, the combination with the frame and the escapement mechanism thereon, a guide-piece suitably supported, a universal bar, a single centrally arranged guide-pin on the universal bar arranged to reciprocate within the guide-

piece and to be supported thereby, key levers, type bars, horizontally movable link connections between the key levers and the type bars, a universal bar rod journaled in the frame above the key levers, connections between said rod and the escapement mechanism and a lug on each of said link connections to engage the universal bar on the depression of each key lever whereby the universal bar is rocked to operate the escapement mechanism.

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

AUGUST SCHNEELOCH.

Witnesses:

M. B. SMITH,
ALLAN W. FOOSE.

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