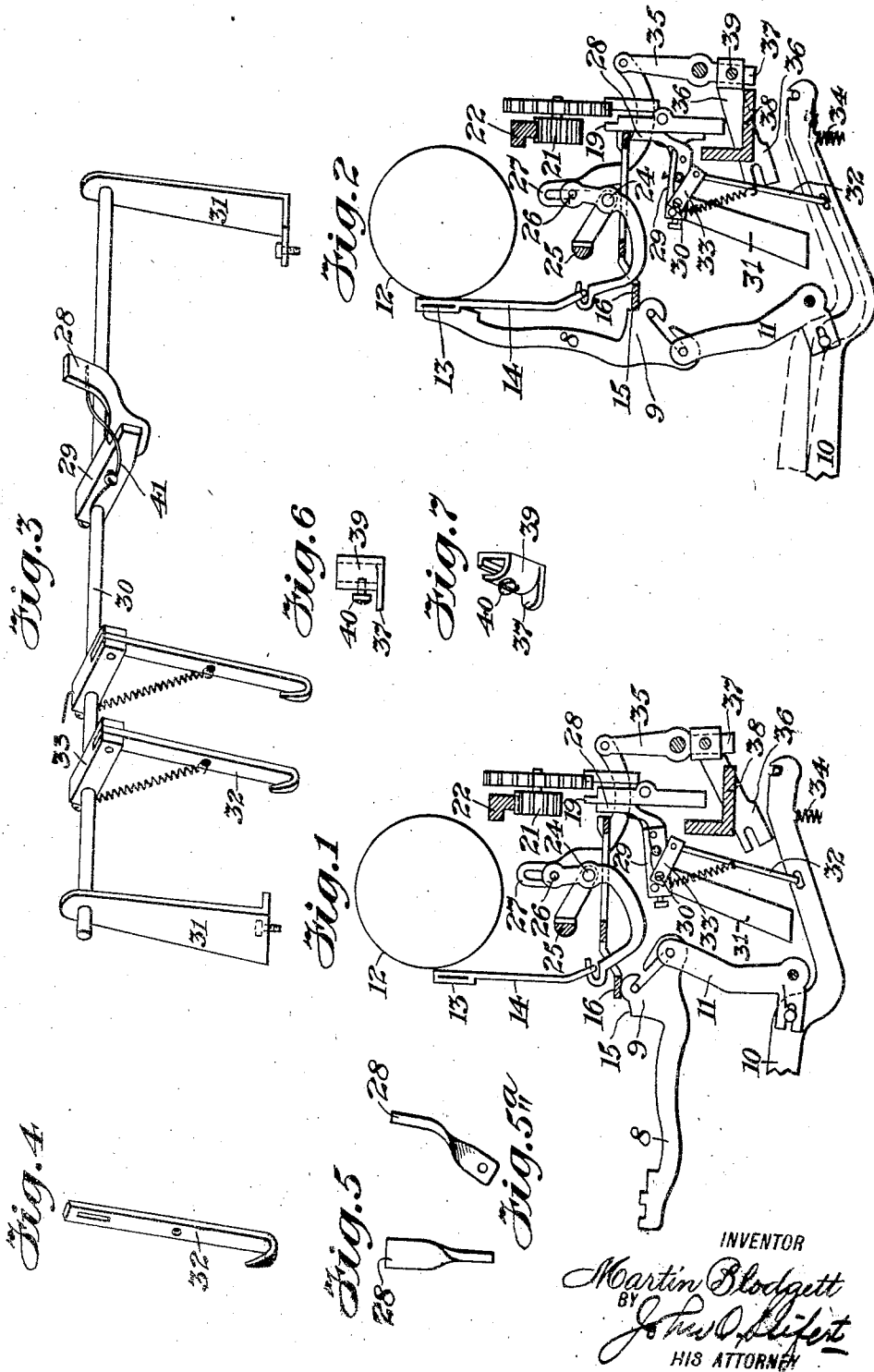


M. BLODGETT,
 TYPE WRITING MACHINE.
 APPLICATION FILED MAY 3, 1917.

1,308,980.

Patented July 8, 1919.



INVENTOR
Martin Blodgett
 BY *John D. Lifert*
 HIS ATTORNEY

UNITED STATES PATENT OFFICE.

MARTIN BLODGETT, OF BROOKLYN, NEW YORK.

TYPE-WRITING MACHINE.

1,308,980.

Specification of Letters Patent.

Patented July 8, 1919.

Application filed May 3, 1917. Serial No. 166,263.

To all whom it may concern:

Be it known that I, MARTIN BLODGETT, a citizen of the United States, and a resident of the borough of Brooklyn, in the county of Kings, city and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to typewriting machines, and particularly to silent or accent key mechanism operable upon the actuation of an accent type key to prevent the actuation of the carriage feeding mechanism, and it is the object of the invention to provide improved means to prevent the operation of the carriage feeding mechanism upon the actuation of a type actuating key lever, which are simple and cheap in construction and efficient in operation, and which may be applied to existing machines.

It is a further object of the invention to provide a device of this character in typewriting machines in which the carriage feeding mechanism is actuated through a universal bar, the latter being operated by each of a series of type-bars when moved to printing position by the actuation of key levers, said universal bar also operating a ribbon vibrator to cause the ribbon to cover the printing point previous to the striking of the printing blow by the type-bar.

It is another object of the invention to provide means to limit the movement of the universal bar in one direction not only during the operation thereof to actuate the carriage feeding mechanism but also at the operation of the universal bar on the actuation of an accent type bar actuating key lever.

In the drawing accompanying and forming a part of this specification, Figure 1 is a side elevation of my improvements showing the same applied to the well known Underwood typewriting machine, the parts being in normal position.

Fig. 2 is a similar view but showing the positions the parts assume upon the actuation of an accent type bar actuating lever.

Fig. 3 is a perspective view of the means to prevent the actuation of the carriage feeding mechanism and the means for controlling the same.

Fig. 4 is a detail of a link to connect the actuating lever of an accent type carrying bar to the actuating support of the means

to prevent the actuation of the carriage feeding mechanism by the universal bar.

Fig. 5 is a detail view of an abutment normally engaging in the path of movement of the universal bar and through which the movement of the universal bar is transmitted to the carriage feeding mechanism, and which is adapted to be moved out of the path of movement of the universal bar to prevent the actuation of the carriage feeding mechanism.

Fig. 5^a is another detail view of the same abutment.

Fig. 6 is a side elevation and Fig. 7 is a perspective view of a stop connected to the universal bar mechanism to limit the movement thereof.

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

In the accompanying drawing I have shown my invention in connection with an Underwood front strike typewriting machine in which the typebars 8 fulcrumed on a rod 9 are connected to key levers 10 and actuated upon the depression of the latter through links 11 in the usual manner. On the depression of a key lever type carried by the typebars are caused to strike against a platen 12 through a ribbon 13 threaded through and guided by a vibrator 14.

As the key levers are depressed and the typebars moved to printing position a heel on the typebars strikes against a universal bar 16 carried by a frame (designated in a general way by 17) supported to have backward and forward movement, this movement of said frame actuating spacing and detent dogs 18 and 19 cooperating with an escapement wheel 20 to feed the platen carrying carriage (not shown) of the machine through a pinion 21 connected to the escapement wheel meshing with a rack 22 forming a part of the carriage mechanism. This movement of the universal bar carrying frame also moves the ribbon vibrator to printing position through a lever 23 pivotally carried, as at 24, by a bracket connected to a carriage shift rail 25, the short arm of the lever having a laterally extending pin 26 to engage in a slot in an actuating arm 27 fixed to the universal bar carrying frame.

In the writing or printing of accents it is desirable to print such accent without feeding the platen carriage to obviate the neces-

sity of returning the carriage to printing position to print the accent of the character in connection with which it is used. To cause the actuation of the carriage feeding mechanism upon the actuation of a key lever, or prevent the actuation thereof when writing an accent, I provide an abutment 28 which is interposed between the universal bar frame and the rigid dog or detent 19 of the feeding mechanism as clearly shown in Fig. 1, this abutment being adapted to have movement in a direction transverse to the movement of the universal bar frame. This abutment is pivotally carried by an arm 29 fixed to a rockshaft 30 journaled at its ends in brackets 31 secured to the framework of the machine. In the normal operation of the machine by the actuation of the typebars carrying the type other than the accent type the abutment engages between the universal bar frame and the detent 19 of the carriage feeding mechanism, and as the universal bar is moved backward the movement thereof is transmitted to the detent 19 through the abutment and thereby feeding the carriage. A spring 41 maintains the abutment in sliding engagement with the detent 19 and assures the same sliding through the space between the universal bar frame and said dog.

To prevent the actuation of the carriage feeding mechanism upon the operation of the typebars carrying the accent type means are provided to move the abutment out of the path of movement of the universal bar frame simultaneously with the actuation of the key lever for such typebars. For this purpose there is connected to the key levers for the accent typebars links 32, said links being connected to arms 33 fixed to the rock shaft 30. It will be obvious that as an accent type key lever is actuated it will pull down the link 32 rocking the shaft 30 and thereby moving the abutment downward from between the universal bar frame and the carriage feeding devices, and as said frame moves backward no movement will be imparted to the rigid dog or detent 19 of said feeding devices permitting the printing operation without the feeding of the carriage. As soon as the accent type key lever is released and it is returned to its initial position through the usual return spring 34 the abutment will be returned to position to again engage between the universal bar frame and the detent 19 to actuate the feeding devices by the movement of the universal bar.

To limit the rearward movement of the universal bar frame a rocker having an arm 35 to connect and rock it from the universal bar frame and a bifurcated arm 36 connected to the ribbon feeding devices (not shown), which is usual in the Underwood machine, has a stop 37 movable therewith

to engage with a fixed stop 38 on a fixed part of the supporting bracket for the carriage feeding devices. To adapt this stop to present machines it is constructed integral with a sleeve 39 to be removably connected to the connection of the arm 38 with the rocker 35 and secured thereto by a set screw 40.

Having thus described my invention, I claim:

1. In a typewriting machine, the combination with typebars, typebar actuating levers and carriage feeding mechanism, of a universal bar engaged and moved by the typebars upon the actuation thereof, and said movement of the bar actuating the carriage feeding devices; a rock-shaft connected to certain of said typebar levers; and an abutment pivotally carried by the rock shaft normally interposed between the universal bar and the carriage feeding mechanism to transmit the movement of the former to actuate the latter, and movable from between the universal bar and the carriage feeding devices upon the rocking of the rock shaft by the actuation of a typebar lever connected thereto, substantially as and for the purpose specified.

2. In a typewriting machine, the combination with typebars, typebar actuating levers and carriage feeding mechanism, of a universal bar operable by the typebars upon the actuation thereof; a rock shaft; an abutment pivotally carried by said shaft, said shaft being normally maintained in position with the abutment engaging in the path of movement of the universal bar to transmit the movement of the universal bar to and actuate the carriage feeding mechanism; an accent typebar actuating lever; means to connect said latter lever to the rock shaft to rock the same and move the abutment out of the path of movement of the universal bar upon the actuation of said lever to prevent the engagement of the universal bar with and actuating the carriage feeding mechanism thereby; and means to limit the movement of the universal bar as it is actuated by an accent typebar.

3. In a typewriting machine, the combination with typebars, typebar levers and carriage feeding mechanism, of a universal bar operable by the typebars upon the actuation thereof; an accent typebar actuating lever; a rock shaft; a bifurcated arm fixed to said shaft; an abutment pivotally carried in the bifurcation of said arm, said shaft being normally maintained in position with the abutment interposed between the universal bar and carriage feeding mechanism to transmit the movement of the universal bar to the carriage feeding mechanism to actuate the latter; and a link to connect the accent typebar actuating lever to the rock shaft to rock the shaft upon the actuation of said lever and

move the abutment out of the path of movement of the universal bar; and a spring to yieldingly urge said abutment rearward, substantially as and for the purpose specified.

5 4. In a typewriting machine, the combination with typebars, typebar actuating levers and carriage feeding mechanism including a dog pivotally supported on a horizontal axis, of a universal bar and a carrier therefor
10 operable by the typebars upon the actuation thereof to cooperate with the dog of the carriage feeding mechanism to actuate said
15 carriage feeding mechanism; an accent typebar actuating lever; a rock shaft; an abutment normally interposed between the carrier for the universal bar and dog of the carriage
20 feeding mechanism to transmit the movement of the universal bar to the dog of the carriage feeding mechanism to actuate the latter; an arm on the rock shaft pivotally
25 supporting the abutment; a second arm on the rock shaft; a link connection between said latter arm and the accent typebar actuating lever to rock the shaft upon the actua-
30 tion of said lever and thereby move the abutment out of the path of movement of the universal bar when actuated by the accent typebar actuating lever; and a spring to yieldingly urge the abutment rearward, sub-
stantially as and for the purpose specified.

5 5. In a typewriting machine, the combination with typebars, typebar actuating levers and carriage feeding mechanism, of a universal bar carrying frame operable by the
10 typebars upon the actuation thereof; a movable abutment normally interposed between the universal bar frame and the carriage
15 feeding mechanism to actuate the latter by the movement of the universal bar frame; an
20 accent typebar actuating lever; means oper-

able to move the abutment out of the path of movement of the universal bar frame upon the actuation of said lever; a fixed stop; a lever to one arm of which the universal bar
45 frame is pivotally connected; and a stop on the arm of the lever movable therewith to cooperate with the fixed stop to limit the movement of the frame when moved by the
50 accent typebar, substantially as and for the purpose specified.

6. In a typewriting machine, the combination with typebars and carriage feeding
55 mechanism, of a universal bar carrying frame movable in a horizontal plane and operable by the typebars to actuate the carriage feeding mechanism; a fixed stop; a
60 lever one arm of which is connected to the universal bar frame; and a stop removably connected to the other arm of the lever to cooperate with the fixed stop to limit the
65 movement of the universal bar frame, substantially as and for the purpose specified.

7. In a typewriting machine, the combination with typebars and carriage feeding
70 mechanism, of a universal bar carrying frame movable in a horizontal plane and operable by the typebars upon the actuation thereof to actuate the carriage feeding mechanism; a fixed stop; a lever one arm of which
75 is connected at one end to and operable by the universal bar frame; and a sleeve having a lateral projection detachably connected to the other arm of said lever, and which sleeve projection is adapted to cooperate with the fixed stop to limit the movement of the universal bar frame.

Signed at New York, in the county of New York and State of New York this 23d day of April, 1917.

MARTIN BLODGETT.