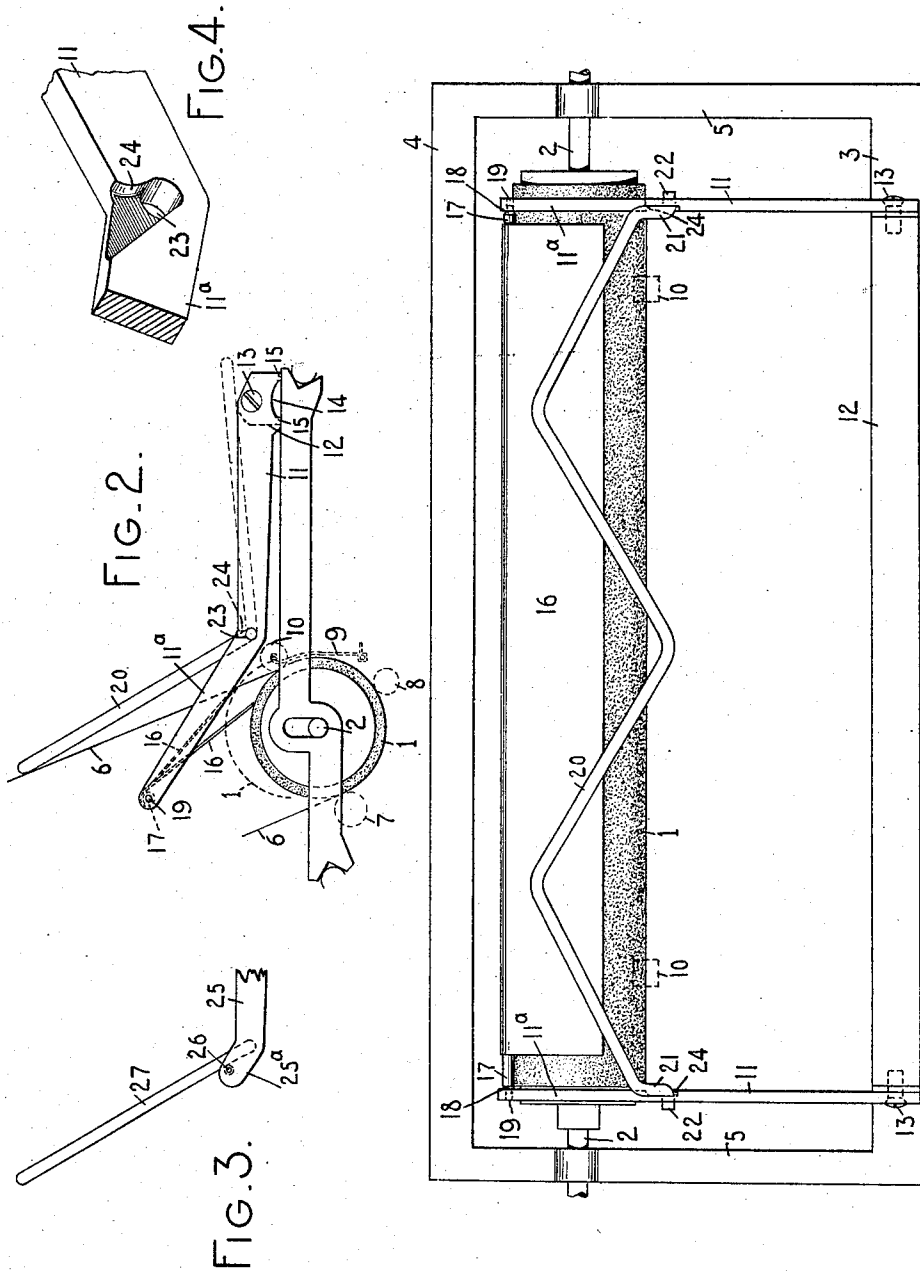


G. A. SEIB.
TYPE WRITING MACHINE.
APPLICATION FILED MAR. 26, 1912.

1,065,970.

Patented July 1, 1913.



WITNESSES:

E. M. Wells.
Wm. Pool

FIG. 1.

INVENTOR:

George A. Seib
By Jacob F. Felt

HIS ATTORNEY.

UNITED STATES PATENT OFFICE.

GEORGE A. SEIB, OF ILION, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
REMINGTON TYPEWRITER COMPANY, OF ILION, NEW YORK, A CORPORATION
OF NEW YORK.

TYPE-WRITING MACHINE.

1,065,970.

Specification of Letters Patent.

Patented July 1, 1913.

Application filed March 26, 1912. Serial No. 686,239.

To all whom it may concern:

Be it known that I, GEORGE A. SEIB, citizen of the United States, and resident of Ilion, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to paper guiding and controlling devices for typewriting machines and its general object is to provide improved devices of the character specified.

More specifically one object is to provide devices, preferably detachable, which guide, restrain and control the paper beyond the printing line, preventing the paper from dropping downward so as to cover the printing point and obstruct the type bars in their movements toward the platen.

Another object is to provide an improved erasing plate or shelf.

Still another object is to provide guiding devices for the written portion of the paper, said devices extending beyond the platen and providing a passage-way, one side of which is temporarily removable completely to expose the paper above the printing line for the purpose among others of enabling erasures and corrections to be made with facility.

To the above and other ends my invention consists in the features of construction, combinations of devices and arrangements of parts hereinafter described and particularly pointed out in the claims.

In the accompanying drawings which show my invention in the form of an attachment applied to the carriage of a machine like the No. 11 Remington typewriter, Figure 1 is a fragmentary top plan view of the platen and carriage showing my invention applied thereto, parts of the machine being omitted. Fig. 2 is a side elevation of the parts shown in Fig. 1. Fig. 3 is a fragmentary side elevation of a modification. Fig. 4 is a fragmentary perspective view of the preferred form of mounting.

Referring to Figs. 1 and 2, the platen 1 has an axle 2 and is shiftably supported on a carriage truck comprising front and rear bars 3 and 4 and connecting end bars 5. The platen is shiftable up and down on the truck by mechanism of known construction not shown herein. The types cooperate with the front face of the platen. The paper 6 is

introduced at the rear of the platen and is guided and fed around the lower and forward sides of the same by devices comprising feed rollers 7 and 8 and paper guiding fingers 9, said fingers supporting pressure rolls 10 that cooperate with the paper and platen above the printing line, the feed rollers 7 and 8 cooperating with the lower side of the platen.

The devices embodying my invention in the present instance are detachably supported on the carriage and comprise angular supporting arms 11 which are detachably secured to the ends of the usual scale bar 12 on the front bar 3 of the carriage truck by screws 13. The lower forward end portions of the arms 11 are cut away as indicated at 14 providing feet 15 which rest on the front bar 3. These feet are preferably made a little longer than needed in order that they may be filed down different extents to compensate for variations in the distance between the upper face of the bar 3 and the screw holes for the screws 13. The construction is such that when the screws 13 are tightened the arms 11 are secured rigidly in place, the feet 15 cooperating with the bar 3 to prevent pivotal movement of the arms around the screws 13 as axes. The arms 11 are parallel with each other and extend horizontally rearward from the front bar 3 until close to the platen where they are bent or inclined upward, the inclined portions or extensions 11^a terminating at points considerably above the platen and slightly to the rear thereof. As will be seen from Fig. 1 the arms 11 are spaced apart to such an extent that they are near the ends of the platen. The arms 11 provide a detachable support for an erasing device or shelf which comprises a plate-like body portion 16, preferably of thin sheet metal, and a rod or bar 17 around which the upper end portion of the plate 16 is bent or hooked, the two parts being suitably secured together, as by soldering. The ends of the rod 17 are coned, as indicated at 18, and these coned ends fit loosely into bearing holes 19 in the rear ends of the extensions 11^a. The erasing shelf is thus pivotally supported on the arms 11 and inclines downward and forward from the rod 17, the lower forward edge of the plate 16 resting against the face of the platen which supports it in proper working position. The erasing plate is conveniently ar-

ranged so that the paper may be advanced from the printing line and pressed back against the plate 16 which provides a suitable support against which erasures may be made.

Heretofore operators have experienced trouble, especially when nearing the end of a sheet, in maintaining the written portion of the sheet above the printing line and out of the path of the type bars. Where the paper is not particularly stiff and especially where there is a current of air in the room due either to a natural breeze or a fan or the like, the part of the paper above the platen and out of the control of the paper feeding and guiding devices frequently drops or is blown downward and forward so as to cover the printing line. In order to overcome this I provide novel means for mounting a guide that restrains that portion of the paper which extends beyond the platen, in such a way as to prevent it from dropping or being blown forward, the result being that with my device the advanced portion of the paper is always maintained above the platen.

In the present instance the device comprises a wire retainer or bail 20 which is bent or zig-zagged, as illustrated in Fig. 1, and has lateral side portions 21 which terminate in outwardly bent bearing ends 22 that engage in bearing holes 23 formed in the arms 11 about at the junction of the body of the arms and the extensions 11^a. The side portions 21 are seated in grooves or notches 24 in the inner faces of the extensions 11^a, the notches inclining upward and rearward from the holes 23 so that they normally maintain the retaining device 20 inclined rearward from its support, as shown in Fig. 2. The paper 6, after leaving the control of the platen and the pressure rolls 10, passes upward behind the device 20, which coöperates with the front face or surface of the paper throughout its width and directs it upward and rearward, restraining and overcoming any tendency to drop downward and forward. The forward faces of the notches 24 are curved or flared slightly near their upper ends so as to give an easy start in pulling the device 20 forward to abnormal position. This movement of the device 20 to abnormal position is for the purpose of freeing the upper part of the paper so that erasures may conveniently be made against the plate 16 or for any other desired purpose. It will be understood that when the device 20 is grasped and pulled forward the spring of the wire of which it is composed will enable the side portions 21 to be forced or cammed out of the depressions or notches 24 so that the device 20 may be swung forward pivotally until it is arrested by the scale bar 12 when it will be in the dotted line position shown

in Fig. 2. The device 20 will be retained in abnormal position by the friction between the side portions 21 and the inner faces of the bars 11. Since the erasing plate is loosely pivoted it may be conveniently swung upward so that if desired the underlying sheets of a manifold pack may be directed beneath it, enabling erasures to be made on the overlying sheet or sheets directly against the erasing plate as a backing. On swinging the device 20 back to normal position the side portions 21 will spring outward as soon as they register with their respective notches 24 and will coöperate frictionally with the notches to retain the device in its working position. Said device 20 may also be lowered or swung down to abnormal position when the machine is not in use.

The paper retaining or directing device 20 is located so that its lower portion is forward of and slightly above the point at which the paper leaves the control of the platen and the uppermost feeding devices that coöperate with the platen, namely, the pressure rolls 10. The arrangement is such that the paper, after leaving the control of the platen, passes automatically into the control of the device 20 without any care or handling on the part of the operator, and cannot by any chance escape forward under said device. Further it is to be noted that the supports 11 and the devices mounted thereon are arranged on the non-shiftable carriage truck but that the lower end of the loosely pivoted erasing shelf 16 rests against the shiftable platen. Consequently when the platen is shifted upward as indicated by dotted lines in Fig. 2, the supports 11 and the device 20 will not be affected; but the erasing plate will swing outward and forward on its axis which remains stationary, to the dotted line position in Fig. 2. The erasing plate 16 and the bail or frame 20 are substantially parallel and provide in effect a passage-way extending above and beyond the platen, which passage-way automatically receives the paper after it has left the control of the various feeding and guiding devices which coöperate with the platen, and thereafter guides the paper throughout its entire width; that this passage-way inclines upward and rearward from the upper, forward side of the platen; that its rear side is composed in the present instance of a loosely pivoted erasing plate or shelf; and that its forward side consists of a movable paper guide which may be swung forward and downward so as to get it out of the way and also to render the paper accessible for any desired purpose.

Both the erasing plate device and the paper retaining device or bail are quite light so that they do not add appreciably to the weight of the carriage. By making the

retaining device in the form of a wire frame having a bent or zig-zag main portion as illustrated, it acts in effect as would a continuous plate of a width equal to the vertical distance between the upper and lower bends of the wire frame.

Modifications may be resorted to within the scope of my present invention and parts of it may be used without other parts. For example, Fig. 3 illustrates a paper retaining device which is not associated with an erasing plate. In the Fig. 3 construction the detachable supporting arms 25 which correspond to the arms 11 of the first construction, terminate in short extensions 25^a, one of which is provided with an inwardly projecting stop pin 26 against which the pivoted retaining device 27 is adapted to rest normally, the stop pin taking the place of the notches 24 of the prior construction and serving to maintain the retaining device 27 in normal position.

What I claim as new and desire to secure by Letters Patent, is:—

1. In a typewriting machine, the combination of a carriage comprising a front bar, a platen, supporting arms detachably secured to and extending rearward from said front bar, and a restraining device pivotally supported on said arms, the paper after it passes above the platen coöperating automatically at its front face with the rear side of said device.

2. In a typewriting machine, the combination of a carriage comprising a front bar, a platen on said carriage, horizontally arranged supporting arms having feet coöperating with the upper face of said front bar, said arms being detachably secured on said front bar, a zig-zag frame or bail pivoted on said arms, and means for retaining said bail in an inclined position above the platen.

3. In a typewriting machine, the combination of a carriage, a platen thereon, detachable supporting devices, and a wire restraining frame pivoted on said supporting devices, said restraining frame having end portions engaging notches in said devices whereby the frame device is retained in an inclined position above the platen where it coöperates automatically with the front face of the paper after it leaves the platen and prevents the paper from dropping forward.

4. In a typewriting machine, the combina-

tion of a carriage, a platen thereon, supporting arms detachably secured to said carriage, and a wire paper restraining bail comprising a zig-zag main portion and parallel side portions terminating in laterally extending bearing ends, said bearing ends engaging bearing holes in the supporting arms and the side portions coöperating with notches in said arms, the construction being such that the bail is thereby frictionally retained in a normal position to coöperate automatically with the front face of the paper after it leaves the platen, said bail being adapted to be swung forward at will to inoperative position.

5. In a typewriting machine, the combination of a carriage comprising a front bar, a platen on said carriage, a pair of arms detachably secured to said front bar and extending rearward therefrom, a restraining frame pivotally supported on said arms and inclining normally upward and rearward, and an erasing plate also pivoted on said arms and inclining downward and forward contacting at its lower end with the upper face of the platen, said device and said plate being arranged to provide a passage-way extending above and beyond the platen, which passage-way automatically receives and guides the paper throughout its entire width after the paper has advanced beyond the platen, said restraining frame being swingable forward to expose fully the advance portion of the paper and enable erasures to be made thereon against the erasing plate.

6. In a front-strike typewriting machine, the combination of a platen and devices between which is provided a passage-way extending above and beyond the platen, said passage-way automatically receiving, accommodating and grinding the paper throughout its entire width after the paper has advanced beyond the platen, certain of said devices at the forward side of said passage-way being movable to expose fully the advanced portion of the paper.

Signed at Ilion, in the county of Herkimer, and State of New York, this 21st day of March, A. D. 1912.

GEORGE A. SEIB.

Witnesses:

L. L. SOUTHWICK,
MARY GLEASON.