Feb. 3. 1925. 1,525,326

G. A. SEIB

TYPEWRITING MACHINE

Filed Feb. 28, 1923

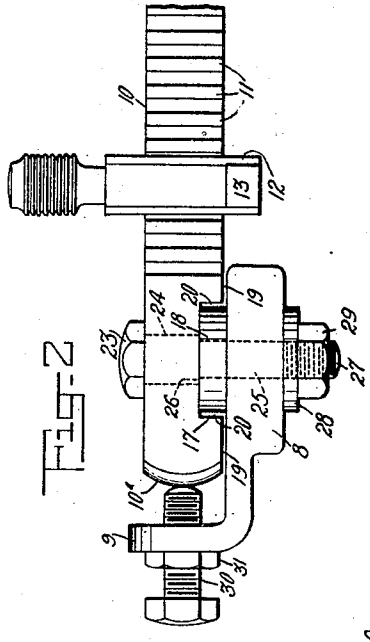


Fig-2

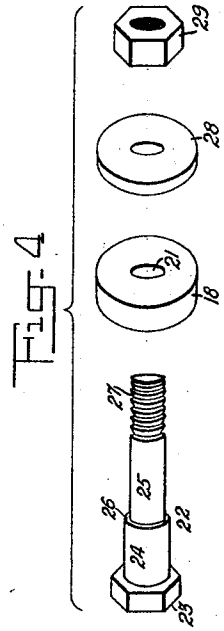


Fig-4

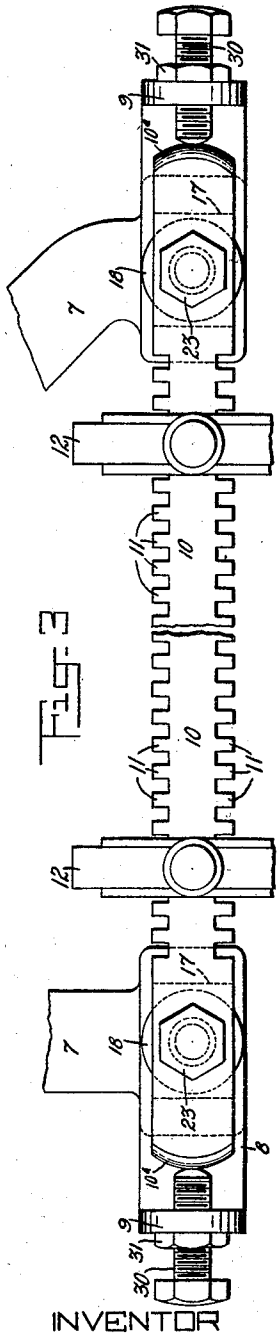


Fig-3

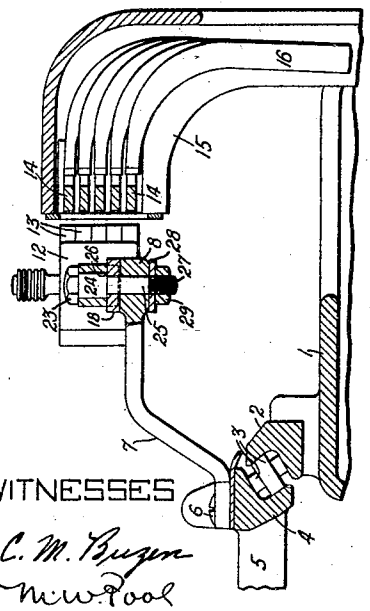


Fig-1

WITNESSES

C. M. Buzzer

M. W. Pool

INVENTOR

George A. Seib

By Jacob Felbel

HIS ATTORNEY

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UNITED STATES PATENT OFFICE.

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

TYPEWRITING MACHINE.

Application filed February 28, 1923. Serial No. 621,781.

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 Typewriting Machines, of which the following is a specification.

My invention relates to stop bar mountings for typewriting machines and its main object is to provide a new and improved mounting for such stop bars and which will permit such stop bar to return readily to normal position if transversely displaced as the result of stresses during operation or from other causes.

To the above and other ends which will hereinafter appear, 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 will illustrate the preferred form of my invention,

Figure 1 is a fragmentary vertical sectional view illustrating part of the carriage and tabulating mechanism of a typewriting machine embodying my invention.

Figure 2 is a fragmentary rear elevation drawn to an enlarged scale and showing an end portion of a stop rack bar and its mounting.

Figure 3 is a fragmentary top plan view of the stop rack bar with the mounting of the same, said figure being drawn to the same scale as Fig. 2; and

Figure 4 is a perspective view of various parts comprised in the mounting of one of the end portions of the stop bar.

The carriage and tabulating mechanism fragmentarily illustrated in Fig. 1 correspond with those found in the No. 10 Remington typewriting machine, although of course it is to be understood that this showing is merely illustrative of one form of the invention, the principles whereof may be embodied in other styles of writing machines. In the Remington No. 10 machine, the top plate 1 supports at its rear side a fixed guide rail 2 which co-operates through anti-friction rollers 3 with the rear bar 4 of a traveling platen carriage of the usual construction, said carriage further comprising forwardly extending end bars, the left-hand end bar 5 alone being shown. Fixed to the rear carriage bar 4 near its ends by screws 6 are rearwardly extending supports or brackets 7, said brackets being inclined upward and rearward and terminating in horizontally disposed heads or cross portions 8 which are of thicker stock than the rearwardly projecting portions. The heads or horizontal portions 8 terminate at their outer ends in up-turned vertically disposed ears or end portions 9. A stop bar 10 formed at its front and rear sides with teeth 11 is supported on the brackets 7—9 in a novel manner to be hereinafter fully described. Adjustably supported on the stop rack bar 10 is a set of column stops, each column stop 12 being provided with a rearwardly projecting stop lug 13, the lugs being arranged in stepped order or at progressively varying heights on the rear portions of the column stops 12, as is usual. Co-operative with the stepped column stops 12, 13 are a set of key controlled column selecting frame stops in the form of plates 14 arranged vertically one above the other in a frame or housing 15 secured to the main frame of the machine. The frame stops or plates 14 may be selectively projected forward into the paths of their associate stop lugs 13 by devices comprising lever members 16 which are actuated by the column selecting keys, said keys being also effective to release the traveling carriage from the control of the escapement mechanism, permitting it to run or be moved freely until arrested at the end of its tabulating movement by the projected frame stop 14, as is well understood. The column selecting or tabulating mechanism above briefly described generally corresponds to that disclosed in my prior Patent No. 1,132,286 granted March 16, 1915.

As usually constructed heretofore, the column stop bar has been merely screwed down tigthtly on top of its brackets or supports, but it has been found in practice that this method of mounting the stop bar develops so much friction that when the stop bar is bent transversely or curved out of the straight line, as not infrequently happens during operation of the tabulating mechanism, it stays in the bent or distorted position, the excess friction on the supports tending to maintain this abnormal condition of the stop bar. In order to overcome this defect, I have provided by my present

invention, a new and improved mounting for the stop bar comprising connections between it and its supports or brackets which permit it to swivel or pivot easily at the points of support, the result being that when crosswise strain is put on the rack bar by use of the tabulating mechanism or otherwise through undue pressure, the rack bar can yield and then spring back or return freely to its straight or normal position, the novel mounting preventing it from taking a permanent abnormal set and causing consequent trouble as in the prior construction. In carrying out my invention in the present instance, the under side of the stop bar 10 is provided near its ends with transverse slot-ways or cut-outs indicated at 17 in which are loosely housed or arranged circular devices or collars 18. These collars are interposed between the rack bar and the top faces of the horizontal supporting portions 8 of the brackets and are of sufficient thickness to keep the under face of the rack bar separated from the top face of the portion 8 as will be clearly understood from Fig. 2 wherein the clearance or space between the two parts is designated by the numeral 19. It will also be clear from Fig. 2 that the periphery of the collar does not touch the side edges of the slot-ways or cut-outs 17, the clearances here being designated by the numeral 20. In other words, the collars or separating devices 18 maintain the rack bar raised clear of its supporting brackets, said collars at the same time being out of contact at their peripheries with other parts, the upper faces of the collars contacting with the rack bar and the bottom faces of the collars contacting with the underlying supports 8. As will be clear from Fig. 4, the collars 18 are perforated centrally as indicated at 21 to afford free passage-way for a pivotal device shown detached in Fig. 4 and designated as a whole by the numeral 22, said device being in the form of a shouldered screw or screw stud. Each screw stud 22 has a hexagonal head 23, an upper portion 24, and lower portion 25 of lesser diameter connected to the upper portion by a shoulder 26, the portion 25 being threaded at and near its lower end as indicated at 27. Each stud 22 passes freely through a hole in the associate end portion of the rack bar 10 as well as through the associate collar 18 and the horizontal thickened portion 8 of the bracket. Below the bracket the threaded portion 27 of the screw stud projects downward and engaged loosely with this projecting threaded portion is a washer or circular plate 28, said washer being interposed between the bottom of the rack portion 8 and a hexagonal nut 29 which is threaded on the lower end of the stud and clamps the stud in place. It will be seen more especially from Figs. 1 and 2, that the shoulder 26 of each stud rests on the top of the associate collar 18, the result being that the tightening of the nut 29 draws the shoulder down tightly against the top of the collar, clamping the collar between the shoulder and the top of the supporting portion 8 and clamping the washer 28 against the under side of said supporting portion. As a result of this construction, each stud 22 is fixed in place on its associate supporting bracket 7—9 and the associate portion of the rack bar 10 is confinel between the under side of the head 23 of the stud and the top face of the collar 18. The depth of the stop bar at this point, or the vertical distance between the slot or under-cut 17 where it contacts with the top of the collar, and the top face of said bar, is such that while the bar 10 cannot move up and down on the studs, it may swivel or turn slightly on the upper portions 24 thereof as pivots. In practice the holes in the bar are made slightly greater in diameter than the pivot portions 24 of the studs or bolts. As a result of this construction, the stop bar may yield or swivel between the two studs under transverse stresses resulting from tabulating operations or otherwise, permitting the bar to curve, bend or flex freely and to return due to its resiliency to a straight line or normal position after being relieved of the stress or displacing action.

In order to take up end thrust or stress of the stop bar 10 resulting ordinarily from tabulating operations, adjustable devices or screws stops 30 are provided, these screw stops being threaded inward through the vertical ears 9 of the brackets into position contiguous to the curved outer ends 10^a of the stop bar. Check nuts 31 are threaded on the screw stops 30 and abut against the outer faces or ears 9 to hold said stops 30 clamped in adjusted positions.

Various changes may be made without departing from my invention.

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

1. In a typewriting machine, the combination of a stop rack bar, a support therefor, and a swiveling connection between said stop rack bar and said support, the connection permitting the bar to swivel at right-angles to its length and constantly leaving the bar wholly free to swivel.

2. In a typewriting machine, the combination of a stop rack bar, means for supporting said bar near its ends, and a pair of swiveling connections spaced apart and interposed between said bar and said supporting means, said connections being at right-angles to the length of the bar and constantly leaving the bar wholly free to swivel.

3. In a typewriting machine, the combination of a traveling carriage, a pair of brackets thereon, a stop rack bar mounted on said brackets, and swiveling connections between the end portions of said bar and said brackets, said connections being at right-angles to the length of the bar and constantly leaving the bar wholly free to swivel.

4. In a typewriting machine, the combination of a releasable traveling carriage, a pair of brackets or arms thereon, a stop rack bar mounted on said brackets, swiveling connections between the end portions of said bar and said brackets, and tabulating mechanism comprising column stops adjustably mounted on said rack bar, and key actuated frame stops co-operative with said column stops, said connections permitting the bar to swing between its end portions at right angles to its length during the operation of said tabulating mechanism and also constantly leaving the bar wholly free to swivel.

5. In a typewriting machine, the combination of a traveling carriage; brackets thereon provided with horizontally disposed supporting portions, and vertical end portions; a stop bar; means for connecting said bar with said horizontally disposed portions of said brackets comprising a pair of studs passing through said bar near its end and through said brackets, and perforated collars interposed between said bar and said brackets, said studs passing freely through said collars; and stops secured adjustably in said vertical end portions of said brackets, said stops co-operating with the ends of said bar to take up end thrust.

6. In a typewriting machine, the combination of a releasable traveling carriage, a pair of supports thereon provided with vertical end portions, a stop rack bar mounted on said supports, swiveling connections between said bar and said supports, adjustable screw stops on the vertical end portions of said supports and co-operative with the ends of said rack bar, and tabulating mechanism comprising column stops on said rack bar and key actuated frame stops co-operative with said column stops, said swiveling connections permitting said rack bar to swing freely between its end portions during the operation of said tabulating mechanism and said screw stops taking up end thrust of said rack bar when the carriage is arrested at the end of tabulating movements.

7. In a typewriting machine, the combination of a bar; a support therefor; and means for connecting said bar with said support comprising a stud passing transversely through said bar and said support, and a device interposed between said bar and said support and permitting relative rotary movement between said support and said bar.

8. In a typewriting machine, the combination of a stop bar provided at its under side with transverse slots near its ends; a support for said bar; and means for connecting said bar with said support, said means comprising perforated collars arranged in said slots and resting on said supports, and screw studs passing freely through said stop bar and said collars.

9. In a typewriting machine, the combination of a stop bar provided at its under side with transverse slots near its ends; a support for said bar; and means for connecting said bar with said support, said means comprising perforated collars arranged in said slots and resting on said supports, and shouldered screw studs passing freely through said stop bar and said collars and also through said brackets and having threaded ends projecting outside said brackets, said studs having shoulders resting on said collars, nuts on said threaded ends and washers interposed between said nuts and said brackets and adapted to be clamped by said nuts.

10. In a typewriting machine, the combination of a pair of brackets, a stop bar overlying said brackets, collars maintaining said bar separated from said brackets, and means for fixing said collars to said brackets and for providing pivotal centers for said bar.

Signed at Ilion, in the county of Herkimer, and State of New York, this 21st day of February, A. D. 1923.

GEORGE A. SEIB.

Witnesses:
LINNIE F. BURNETT,
H. J. KELLER.