Sept. 7, 1926. 1,599,366

A. G. F. KUROWSKI

TYPEWRITING MACHINE

Filed August 13, 1923

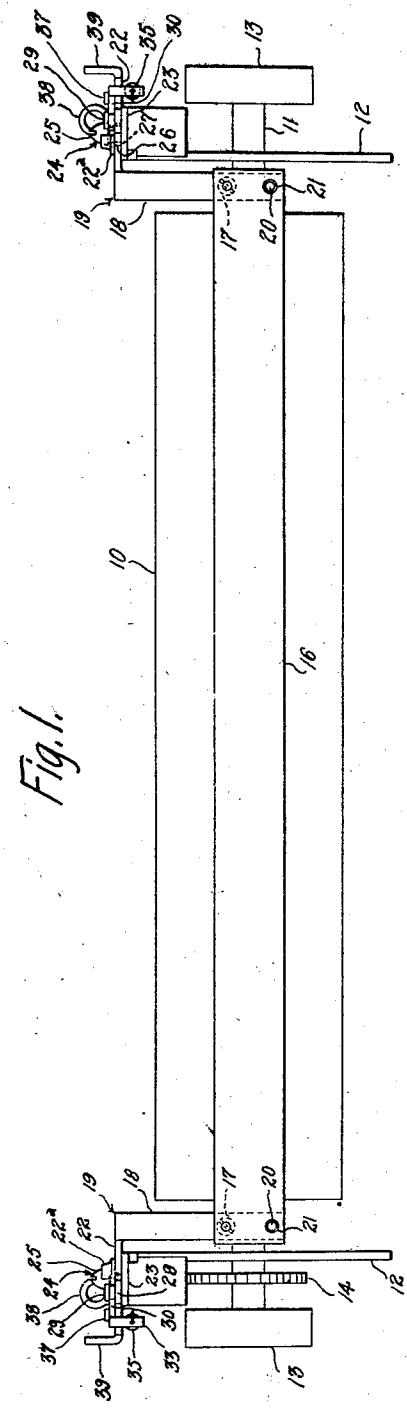


Fig. 1.

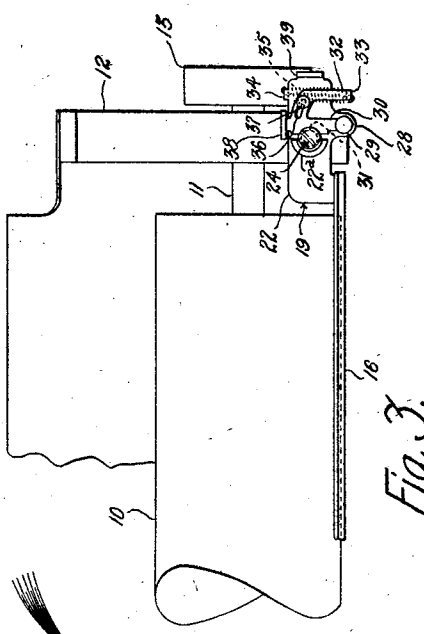


Fig. 3.

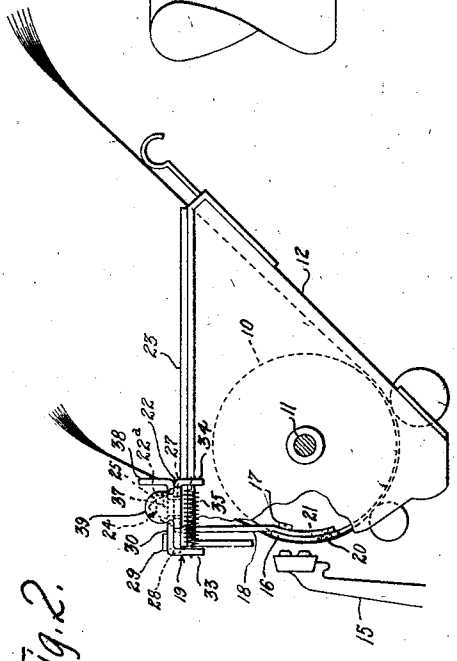


Fig. 2.

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UNITED STATES PATENT OFFICE.

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TYPEWRITING MACHINE.

Application filed August 13, 1923. Serial No. 657,050.

The invention relates to manifolding, typewriting machine, platen-bars of the general class shown in Letters Patent to P. E. Pierce, No. 1,149,855, dated August 10, 1915; that is to say, to bars of harder, or less resilient, material than the surface of the platen, and which may be set to the platen longitudinally thereof at the printing line, in fixed position on the machine, when a hard backing surface for clear typing, through a manifold comprising many superposed sheets, is desired. More particularly, the invention relates to means for attaching such a bar to the machine.

A feature of the invention is the provision of means whereby, without the trouble and loss of time involved in the setting and unsetting of screws, pins, and the like, a manifolding bar of the character mentioned may be attached to and disconnected from the machine.

Another feature of the invention is the provision of means whereby the bar, in being set upon the machine, is automatically guided to true position thereon with respect to the platen, and there held against lateral displacement. A further feature of the invention is the provision of means whereby the bar, in being seated in its correct position, is automatically locked in such position. Another feature of the invention is the provision of means for locking the bar to the side plates of the platen-carriage, such that, after the operator has taken the proper hold on the bar to lift the same from the machine, he may unlock the same by a simple movement of the fingers; the operations of unlocking and removing the bar being thus reduced to substantially a single operation.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a front view of the platen and platen-frame of a typewriting machine equipped with mechanism embodying the present invention.

Figure 2 is a view, in side elevation, of the apparatus shown in Figure 1.

Figure 3 is a top plan view of the right-hand portion of the apparatus shown in Figures 1 and 2.

A platen 10, by means of its axle 11, is revolubly mounted in the side plates 12 of the platen-carriage. On the ends of the platen-axle are the usual hand-wheels 13 for rotating the same. Suitable mechanism (not shown) co-operates with a ratchet-wheel 14, fast to the left-hand end of the platen-axle, for effecting line-space rotary movement of the platen. Type-bars 15 strike against the front of the platen.

Set to the platen longitudinally thereof, at the printing line, is a manifolding bar 16. The ends of this bar are secured by screws 17 to depending arms 18 forming part of brackets 19. Detents 20 may be struck out of the arms 18 into holes 21 in the ends of the bar 16 to prevent angular displacement of the bar on the screw 17. The bar and the brackets thus form a unitary structure. The brackets comprise flat, horizontally-disposed plates or portions 22 adapted to be set upon and be supported by horizontal flanges 23 on the side plates 12 of the carriage. Set into, and projecting upward from, each of the flanges 23 is a pin or post 24, preferably in the form of a screw having an enlarged conical head 25. Each of the plates 22 is apertured at 26 to be passed over the corresponding post-head 25. A washer 27 on each post 24 lies within the aperture 26 flush with the top of the plate 22 when the plate is in place on the flange 23; thus providing an annular groove between the top face of the washer and the under face or shoulder formed by the post-head. Each bracket-plate 22 is provided with an enlarged half collar or guide 22ª, which is adapted to bear against the base of the head of each post 24 and fit closely therearound.

Formed on the front edge of each bracket-plate 22 is an ear 28, on which is pivoted, at 29, a latch 30 in the form of a plate laid flat upon the bracket-plate 22. One edge of the latch-plate is beveled as at 31 to form a knife edge adapted, when the plate is thrown laterally inward around its pivot, to enter the groove below the post-head, thereby preventing the bracket from being lifted from the carriage.

The latches 30 are spring latches adapted to be thrown automatically into bracket-locking position as the brackets come to rest in home position on the side plates of the carriage in placing the manifolding bar upon the machine. For this purpose, each latch 30 has, as part thereof, an arm 32 which projects forward, and which, at its

forward end, is turned down in front of the bracket-plate 22 to form a depending finger 33. A similar finger or ear 34, integral with the bracket-plate 22, depends from the rear edge of the latter behind the latch-finger 33. A coil-spring 35 is secured at one end to the finger 33 and at its other end to the finger 34, thus tending to throw the latch around its pivot 29 in bracket-locking direction. For determining the locked and unlocked positions of the latch 30, the latter has therein a slot 36 curved on an arc struck from the pivot 29 as a center. Passed through the slot 36, and set into the bracket, is a headed pin 37. Engagement of the pin 37 with one end of the slot 36 determines the locking position of the latch, and engagement of the pin 37 with the other end of the slot 36 determines the position to which the latch may be thrown to unlock the bracket. When, therefore, the brackets are off the machine, the latches can be thrown but partially across the apertures 26 in the brackets. Thus, in positioning the brackets over the posts 24, the conical heads 25 of the latter act as cams to force the latches back against the action of the springs 35 to permit the latches to clear the heads of the posts; whereupon the springs act, as aforesaid, to throw the latches under the post-heads.

Each latch is provided with a finger-piece 38 turned up from the forward edge of the same, and by means of which the latch may be moved against the action of its spring 35 to unlock the brackets. Each bracket is also preferably provided with a finger-piece 39, by means of which the brackets, as a unit with the bar 16, may be lifted from the carriage.

The bar is shown as slightly bowed from end to end in order that, when the brackets are set upon the carriage, the bar will assume a uniform bearing and close aligning contact with the platen throughout its entire length. The bar is shown also as curved transversely to the curvature of the platen so as snugly to embrace the same throughout the width thereof.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. In a typewriting machine having a rotary platen, a carriage in which the platen is journaled, a manifolding bar set to the platen longitudinally thereof at the printing line and a bracket carried by each end of the bar, a securing mechanism for removably securing the brackets to the carriage, including pins carried at the opposite sides of the carriage, the brackets having apertures for reception of the pins, spring latches for automatically locking the brackets to the pins as the same are positioned thereon, and guides engaging the pins, whereby to properly locate said bar relatively to the platen and for rigidly holding said bar in position when brought to latched relation with the pins.

2. In a typewriting machine having a rotary platen, a carriage in which the platen is journaled, a manifolding bar set to the platen longitudinally thereof at the printing line, and a bracket carried by each end of the bar, a securing mechanism for removably securing the brackets to the carriage, including pins carried upon the opposite sides of the carriage, the brackets having apertures for reception of the pins, spring latches on the brackets for automatically locking the brackets to the pins as the same are positioned thereon, and guides adjacent the opposite side of each latch, said guides engaging the pins to hold the bar against longitudinal and lateral displacement when brought to latched relation with the pins.

3. In a typewriting machine having a rotary platen, a carriage in which the platen is journaled, a manifolding bar set to the platen longitudinally thereof at the printing line and a bracket carried by each end of the bar, a securing mechanism for removably securing the brackets to the carriage, including pins on the sides of the carriage arranged to pass through apertures in the brackets as the latter are positioned, latches on the brackets arranged to be moved into interlocking engagement with the pins, and half-circular collars engaging around the pins adjacent the opposite side of each latch, the pins conforming to the curvature of the collars, whereby the bar is held against displacement when in latched position on the carriage.

4. In a typewriting machine having a rotary platen, a carriage in which the platen is journaled, a manifolding bar set to the platen longitudinally thereof at the printing line and a bracket carried by each end of the bar, a securing mechanism for removably securing the brackets to the carriage, including pins on the sides of the carriage having tapered heads arranged to pass through apertures in the brackets as the latter are positioned, latches on the brackets, springs for throwing the latches into interlocking engagement with the pins, stops for arresting the latches in such position over the apertures as to permit the same to be cammed back by the tapered pin heads in placement of the brackets on the carriage, and half-circular collars at the opposite side of each latch, the pins conforming to the curvature of the collars and being maintained therein by the latches, whereby the bar is held against lateral and longitudinal displacement on the carriage.

5. In a typewriting machine having a

rotary platen, a carriage in which the platen is journaled, a manifolding bar set to the platen longitudinally thereof at the printing line and a bracket carried by each end of the bar, a securing mechanism for removably securing the brackets to the carriage, including upstanding pins on opposite sides of the carriage arranged to pass through apertures in the brackets as the latter are positioned, latches pivoted on the brackets to swing laterally toward or away from the pins, springs connected at one end to the latches and at the other end to the brackets for throwing the latches into interlocking engagement with the pins, half-circular guides on the opposite side of each latch, the pins conforming to the guides and holding the bar against lateral and longitudinal displacement, and finger-pieces carried by the latches, the finger-pieces being operable to disengage the latches from the pins against the action of the springs and then being utilized for lifting the bar clear of the pins.

6. In a typewriting machine having a rotary platen, a carriage in which the platen is journaled, a manifolding bar set to the platen longitudinally thereof at the printing line and a bracket at each end of the bar, a securing mechanism for removably securing the brackets to the carriage, comprising pins on the one arranged to pass through apertures in the other as the brackets are positioned, and pivoted latches on the apertured elements arranged to be moved into interlocking engagement with the pins.

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