(No Model.)

C. H. SHEPARD.

TYPE WRITING MACHINE.

No. 480,291. Patented Aug. 9, 1892.

Fig. 1,

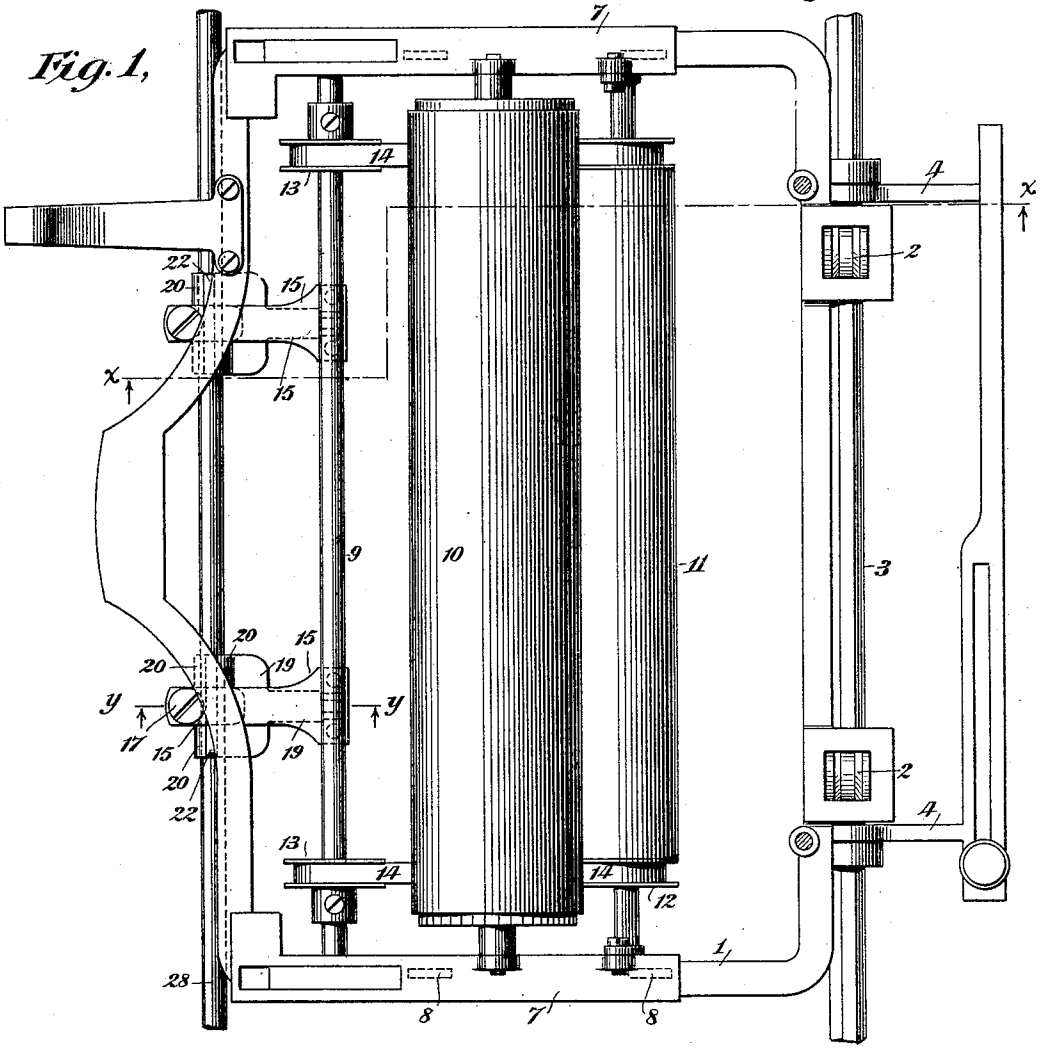


Fig. 2,

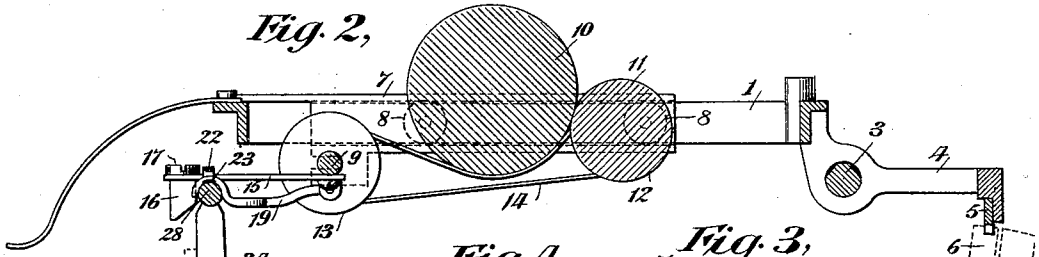


Fig. 4,

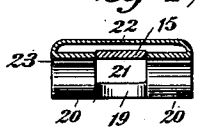
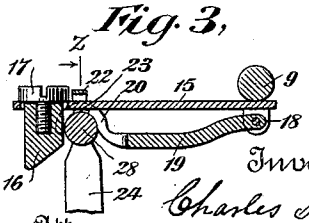


Fig. 3,



Witnesses
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By his Attorney
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UNITED STATES PATENT OFFICE.

CHARLES H. SHEPARD, OF BROOKLYN, ASSIGNOR TO THE REMINGTON STANDARD TYPE WRITER MANUFACTURING COMPANY, OF NEW YORK, N. Y.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 480,291, dated August 9, 1892.

Application filed January 28, 1892. Serial No. 419,553. (No model.)

To all whom it may concern:

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

In the Remington machine there are provided two pairs of beveled yoke-blocks, which set astride the shift-rail that is employed to move the platen-carrier back and forth in performing upper-case work. By reason of the wear of these blocks and of the shift-rail the alignment of printing is in a measure destroyed.

My invention has for its main object to provide means for automatically taking up the wear, and thus preserving the alignment; and to this end it consists in the features of construction and the combinations of devices hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a plan view of the Remington carriage with the guide and shift rails added. Fig. 2 is a vertical section taken at the line *x x* of Fig. 1, with the feed-dogs and the means for moving the shift-rail added. Fig. 3 is an enlarged vertical section taken at the line *y y* of Fig. 1. Fig. 4 is a vertical section taken at the line *z* of Fig. 3, the shift-rail being omitted.

In the several views the same part will be found designated by the same numeral of reference.

The main carriage 1 is provided at its rear side with grooved rolls 2, which ride upon a guide-rail 3, and with a hinged frame 4, provided with a feed-rack 5 for the spacing-dogs 6. Upon said carriage is mounted to reciprocate a platen-carrier consisting of slides 7, which ride on small rolls 8, mounted in the main carriage-frame, said slides being connected together by a cross-bar 9. On the said platen-carrier is mounted a platen 10 and a pressure or feed roller 11, the latter being provided at each end with a pulley 12, in line with which and upon the rod 9 is arranged a similar pulley 13, both sets of pulleys receiving the usual paper-carrying bands 14. Upon said rod at suitable distances from its ends are secured by screws two arms or brackets 15, which extend forwardly and which are each preferably provided with a wedge-piece 16, held in a depending position by a retaining-screw 17. At or near the rear end of said arm is pivoted at 18 the shank 19 of a hook 20, which is preferably bifurcated, as at 21, to embrace the arm 15, and which is also provided at its upper side with a loop or bar 22, adapted to limit the drop or downward movement of the loop 20 by contact with the upper side of the arm 15. The hook is formed on its under or inner side of a segment of a circle to match the circular surface of the shift-rail 28, and the point of each hook preferably extends slightly below the center or axis of the shift-rail, in order to avoid any accidental slip upon the return movement of the platen-carrier. The upper portion of the inner side, over the top of the shift-rail of each hook, is provided with a longitudinal groove or cut-away 23, which enables the hook to adjust itself properly to the shift-rail as wear occurs. The shift-rail is moved to shift the platen rearwardly in upper-case work by a bell-crank lever 24, upon which it is mounted, said bell-crank being rocked in this direction by a connecting-rod 25, attached at its lower end to a shift key-lever (not shown) in the usual manner. A spring 26 is provided to return the parts to their normal positions. In moving rearwardly the shift-rail works against the rear inner sides of the hooks, and thus forces the platen-carrier backwardly, and in moving forwardly the shift-rail bears against the front inner sides of the hooks and moves the platen-carrier forwardly, or to normal position. The hooks fit the rail snugly. In shifting the rail rises and falls slightly, rocking on the shaft 27, and the hooks being pivoted are enabled to rise and fall to accommodate the movements of the rail. The wear on the hooks takes place more rapidly on their sides, due to the pressure of the rail thereon in moving the carrier back and forth. For this reason the grooves or cut-aways 23 are provided at the tops of the hooks, so that the hooks may drop and adjust themselves automatically to the rail as their sides wear away, and thus continue a snug fit, which is desirable.

The wedge piece or block 16 is provided principally to draw the carriage from upper to lower case position in turning down the carrier (after inspection of the work) in case the carriage has dropped by gravity to the upper-case position. If means be provided to lock the platen-carrier the instant the carriage is turned up for the inspection of the work, the wedge pieces or blocks 16 will not be needed; but their arms or supports 15 are useful in connection with the pivoted bifurcated hooks, since they serve as guides for the hooks against lateral movements, and as they also serve, in connection with the loops or cross-bars 22, as stops to the drop or fall of said hooks.

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

1. In a type-writing machine, the combination, with a shifting platen-carrier and a shift-rail, of a pivotally-mounted hook connected to rise and fall with said rail and to adjust itself thereto as wear takes place.

2. In a type-writing machine, the combination, with a shifting platen-carrier and a shift-rail, of a hook to engage said rail, provided at its upper side interiorly with a groove or cut-away.

3. In a type-writing machine, the combination, with a shifting platen-carrier and a shift-rail, of a gravity-hook having a notch or cut-away interiorly at its upper side.

4. In a type-writing machine, the combination, with a shifting platen-carrier and a shift-rail, of a pivoted hook provided interiorly with a groove or cut-away and means for limiting its downward movement.

5. In a type-writing machine, the combination, with a shifting platen-carrier and a shift-rail, of an arm and a bifurcated pivoted hook having a groove or cut-away interiorly at its upper side.

6. In a type-writing machine, the combination, with a shifting platen-carrier and a shift-rail, of an arm and a bifurcated gravity-hook having a loop and provided interiorly at its upper side with a groove or cut-away.

7. In a type-writing machine, the combination, with a shifting platen-carrier and a shift-rail, of an arm carrying a wedge-piece and a gravity-hook having at its top interiorly a groove or cut-away.

Signed at New York city, in the county of New York and State of New York, this 25th day of January, A. D. 1892.

CHARLES H. SHEPARD.

Witnesses:
JACOB FELBEL,
IDA MACDONALD.