

(No Model.)

G. B. WEBB.
TYPE WRITING MACHINE.

No. 582,328.

Patented May 11, 1897.

Fig. 1.

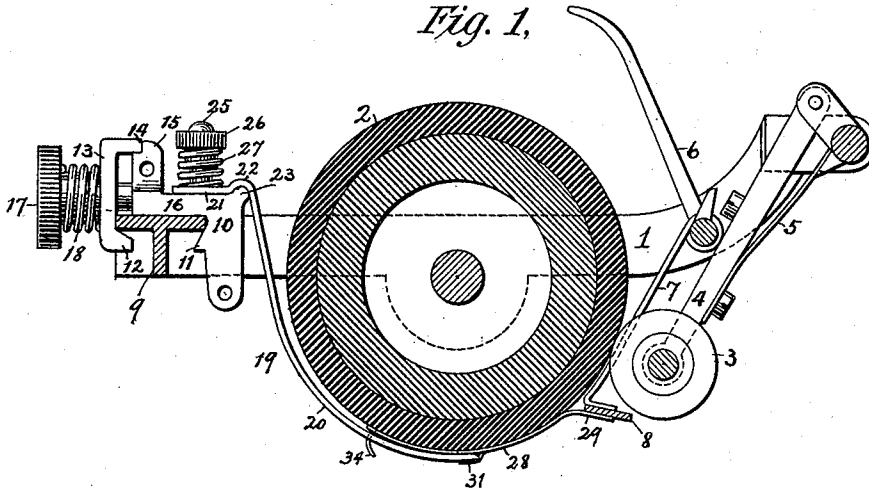


Fig. 2.

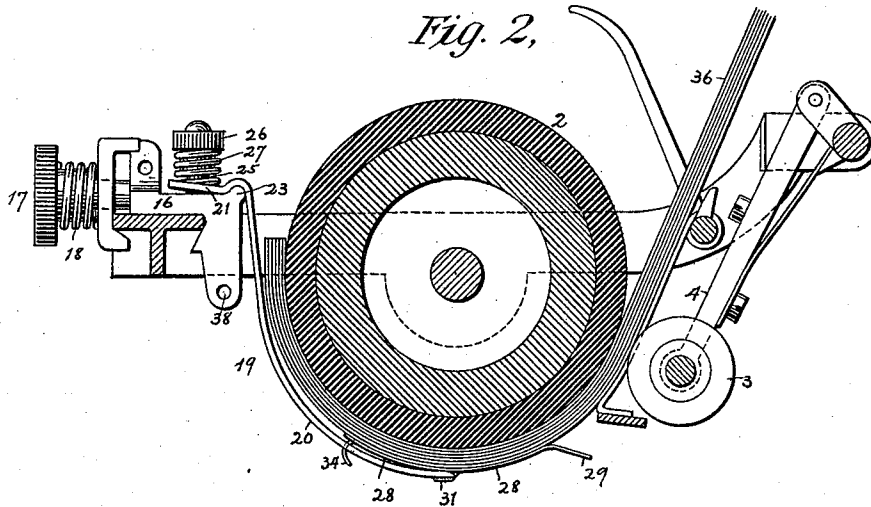
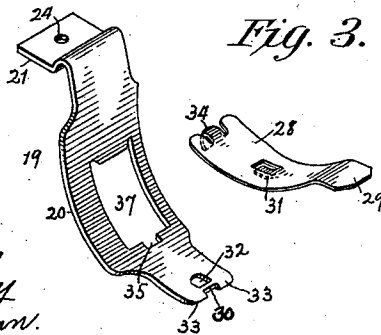


Fig. 3.



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GEORGE B. WEBB, OF NEW YORK, N. Y., ASSIGNOR TO THE WYCKOFF,
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TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 582,328, dated May 11, 1897.

Application filed June 16, 1896. Serial No. 595,758. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. WEBB, a citizen of the United States, and a resident of New York city, in the county of New York 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 especially to the paper-guides which are usually applied at the ends of a cylindrical platen. Owing to the variations in the thickness of paper, number of sheets, and other differences in the paper written upon much trouble has heretofore been experienced by operators. Where a single sheet of paper is used, as in ordinary correspondence, very little difficulty arises, but where a large number of very thin sheets with carbon-sheets interposed are used it is found that the outer sheets are likely to wrinkle if pressed too hard at the sides and to creep upon each other if held too loosely, and it is also found in practice that where the paper is folded at one edge, as in some legal papers used mostly abroad, and especially where in such cases the paper is of considerable thickness, the sheets are likely to skew or shift laterally crookedly in feeding through the machine.

My invention has for its main object to cure these objections and to also provide a simple and effective paper-guide which shall also operate to maintain the paper in the best possible condition at and in the vicinity of the impression plane both for single-sheet work and for manifolding.

To these ends my invention consists in the features of construction and combinations of devices hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a sectional end elevation of the carriage of a type-writing machine embodying my improvements. Fig. 2 is a like view showing a number of sheets of paper on the platen and the paper-guiding devices in the positions which they occupy at such time, and Fig. 3 is a perspective view showing both the paper-guide and its support or lever.

The construction of paper-carriage, &c., is substantially the same as that embodied in

the Remington No. 6 machine and shown in my previous patent, No. 489,514, dated January 10, 1893.

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

1 designates the carriage, 2 the platen journaled to rotate therein, 3 the feed-roller, 4 the feed-roller arms or brackets, 5 the springs therefor, 6 the cast-off lever for the feed-roller, 7 the paper-deflector, and 8 the scale-bar, all of usual construction and arrangement.

On the T-shaped bar 9 of the carriage is a block, support, or bracket 10, mounted for adjustment longitudinally of the cross-bar 9 by means essentially the same as those shown in my aforesaid patent. The said bracket is formed with a beveled shoulder 11, which engages the under edge of the head of the cross-bar and opposes a similar shoulder 12 at the lower end of a clamping-plate 13, which is provided at its upper end with a lip 14, that rests on a seat at the upper end of the vertical portion of the bracket, which has also a horizontal part or member 16, that bears upon the top of the cross-bar. A screw 17 passes through a hole in the clamping-plate and enters a threaded hole in the bracket, and between the head of the screw and the front side of the plate is a spring whereby the bracket is held yieldingly upon the cross-bar, all substantially as heretofore.

19 is a lever the longer arm or portion of which is curved to approximately conform to the curvature of the platen, and the free lower end of said curved portion terminates on the under side of the platen and in about the vertical plane passing through the printing-point. The shorter arm 21 of said lever is made straight, and in the disuse of the machine is parallel with and rests upon the upper side of the horizontal member 16 of the bracket. Between the straight and curved portions of the lever is formed a circular bend 22, which fulcrums on a rounded rib or projection 23, formed at the inner corner of the bracket 10. The arm 21 is provided with a perforation 24, which encircles a pin 25, which projects vertically from the upper side of the bracket and which is threaded at its upper

end to receive a nut 26. Between the nut and the arm 21 is arranged a small coiled spring 27, whose tendency is to keep the arm 21 down on top of the bracket and to swing the arm 20 toward the platen.

28 designates the paper guide or presser, which is made of very thin steel and is formed on a curve to match the curvature of the platen. It may also be provided with an extension 29, having a rearward bend in a direction to correspond with the angle of arrangement of the scale-bar and to bear against the same when the machine is in a condition of disuse. This extension is provided merely to insure the proper feeding in or insertion of the paper.

The paper guide or presser 28 is pivotally mounted at the lower free end of the lever 19, and this mode of mounting is satisfactorily accomplished by providing the lever-arm 20 with a transverse pivot 30 and the paper-guide 28 with a bearing formed by a tongue 31, cut out of the metal of the paper-guide on three sides and depressed, as shown clearly at Fig. 3. This tongue passes on the under side of the said pivot 30, the metal of the lever being cut away, as at 32, to accommodate the point of the tongue. Owing to this arrangement the paper-guide is pivoted at its middle on top of the lever and at the extremity of the arm 20 thereof. One half of the paper-guide overlies the end of the arm 20 and the other half projects beyond the same. The pivotal connection between these two devices is made preferably at a point approximately coincident with the vertical plane passing through the printing-point. The forked extremity of the lever-arm 20 is preferably rounded, as at 33, where the middle of the paper-guide rests for the purpose of affording a better rocking bearing for the latter. In order to prevent casual detachment of the paper-guide, it is formed at its forward end with a downwardly-curved hook 34, which enters a slot or notch 35, formed in the lever-arm 20. This hook is elongated and so curved as that (while it will prevent accidental detachment of the parts) it will not interfere with the free rocking or oscillating motion of the paper-guide on the yielding support afforded by the spring-pressed lever.

As shown at Fig. 1, when no paper is upon the platen the spring 27 operates to hold the paper-guide in contact with the surface of the platen, to which it may readily accommodate itself by reason of its pivotal connection to the lever, the paper-guide, as before stated, being preferably constructed on a curve or arc to normally match that of the platen.

At Fig. 2 is shown the introduction of a number of sheets or a pile of paper 36, the effect of which it will be seen is to vibrate the lever about its fulcrum 23, thereby causing the longer curved arm 20 to recede from the platen and the shorter straight arm 21 to rise and slightly press the spring 27. The recession from the platen of the lever-arm 20 of

course effects a like action of the paper-guide, but this device being of very thin flexible metal, preferably steel, is adapted to change its curve or shape to automatically conform to the arc of the outside sheet of paper. In other words, the said paper-guide by reason of its pivotal connection to the lever and its flexibility and elasticity is adapted to readily change its shape or form to match the outside surface of the pile of paper and to take a bearing thereupon for the full length of the paper-guide, as shown at Fig. 2. By reason of this capacity of the paper-guide the paper is properly held and guided in the vicinity of the line of print whatever may be the number of sheets used, and hence the difficulties heretofore experienced are entirely obviated. The lever may be inflexible, but the guide is preferably of such thinness and flexibility that it may conform to the platen when the latter is enlarged, say an eighth of an inch in diameter, by the addition of paper. The pressure on the guide due to the spring 27 being at or near the middle of the guide a force of a few ounces only is necessary to make the guide conform to the roll of paper in any case.

The pressure of the lever and paper-guide may be regulated by means of the nut 26 on the threaded post, as by screwing up or down said nut the spring 27 is respectively decreased or increased in tension.

In conjunction with the present improvements may be employed a small pressure-roller, as shown in my aforesaid patent, which roller may pass through the enlarged opening 37 in the lever, and the roller frame or bracket may be pivoted at 38 in the lower end of the block or support 10.

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

1. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a paper-guide curved to match the curvature of the platen, a spring-pressed support to which said guide is attached at about its middle, and means for adjusting the pressure of said support.

2. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, an arc-shaped paper-guide composed of thin flexible material capable of automatically changing its shape to correspond with the curvature of the paper when applied to the platen, and pivoted between its ends to a spring-pressed support which is adapted to press said guide at or near the attaching pivotal point.

3. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a paper-guide support, a spring for pressing the same toward the platen, and a thin flexible arc-shaped paper-guide, free at both ends and pivoted at about its middle only to said support, and substantially in the vertical longitudinal plane passing through the printing-point.

4. In a type-writing machine, the combina-

tion of a paper-carriage, a cylindrical platen, an arc-shaped thin flexible paper-guide, a support to which said guide is attached at about its middle, and means for adjusting said support.

5. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a yielding support, means for pressing the same toward the platen, means for regulating the pressure, and an arc-shaped paper-guide pivoted at about its middle on said support.

6. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a spring-pressed lever, and a thin flexible paper-guide pivotally mounted and wholly supported thereupon at one place only.

7. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a lever one arm of which conforms substantially to the curvature of the platen and partially surrounds the same, a spring for forcing said arm of said lever toward the platen, means for adjusting the tension of said spring, and a thin flexible paper-guide pivotally mounted at about its middle upon said arm of said lever.

8. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a lever comprising the curved arm 20 partially embracing said platen and the straight arm 21, a spring for acting on said lever, and

a thin curved paper-guide pivotally mounted at about its middle on the free end of the arm 20.

9. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a bracket having a fulcrum, a lever comprising the arms 20 and 21, a threaded post, a spring, a nut, and a thin curved paper-guide pivotally mounted at about its middle at the free end of said arm 20.

10. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a spring-pressed lever, one arm of which is provided with a pivot 30 and with a notch 35, and a thin flexible paper-guide having at about its middle a tongue 31 adapted to said pivot and at one end a hook 34 adapted to said notch.

11. In a type-writing machine, the combination of a paper-carriage, a cylindrical platen, a spring-pressed lever, and a paper-guide pivoted only at about its middle on said lever and provided at its rear end with a bent extension.

Signed at New York, in the county of New York and State of New York, this 15th day of June, A. D. 1896.

GEORGE B. WEBB.

Witnesses:

JACOB FELBEL,
K. V. DONOVAN.