

H. H. STEELE.
TYPE WRITING MACHINE.
APPLICATION FILED DEC. 15, 1910.

986,515.

Patented Mar. 14, 1911.

2 SHEETS—SHEET 1.

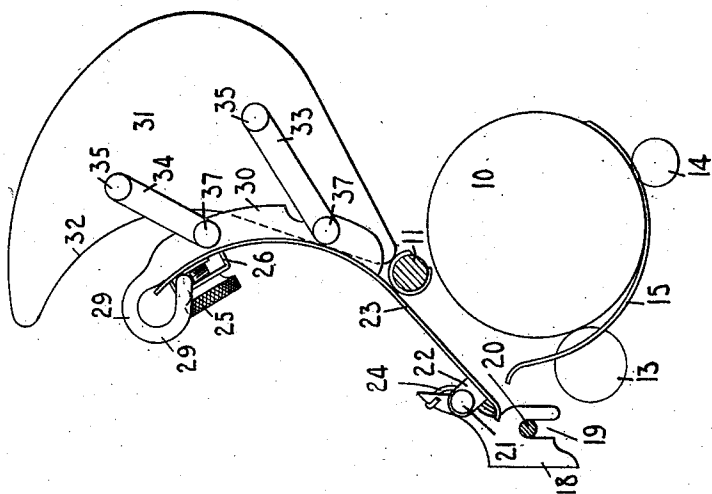


FIG. 2.

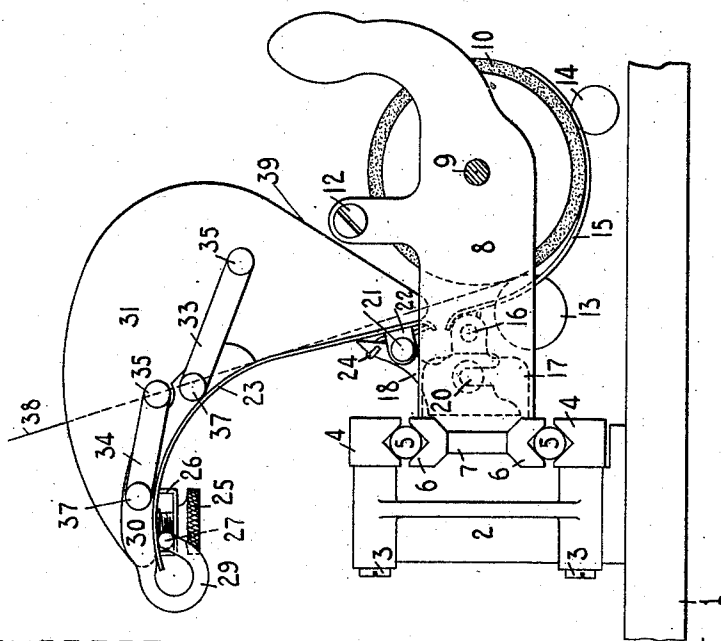


FIG. 1.

WITNESSES.

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Charles Smith

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By Jacob F. Steele

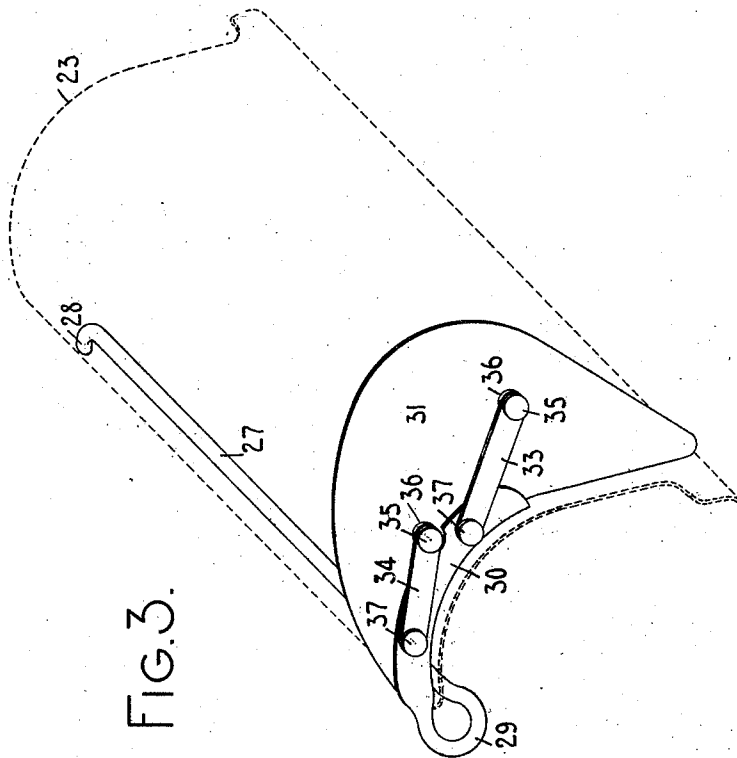
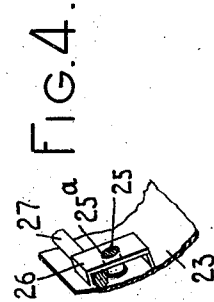
HIS ATTORNEY

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2 SHEETS—SHEET 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

HERBERT H. STEELE, OF MARCELLUS, NEW YORK, ASSIGNOR TO THE MONARCH TYPE-WRITER COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING MACHINE.

986,515.

Specification of Letters Patent.

Patented Mar. 14, 1911.

Application filed December 15, 1910. Serial No. 597,422.

To all whom it may concern:

Be it known that I, HERBERT H. STEELE, citizen of the United States, and resident of Marcellus, in the county of Onondaga 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 typewriting machines and more particularly to side edge gages and the object of the invention, generally stated, is to provide an improved and efficient adjustable side edge gage.

A further object of the invention is to provide a construction in which the side edge gage may be readily moved from a position of use to a position where it will not interfere with the movement of the paper table on its support, or whereby a movement of a movably mounted paper table is effective to displace the side edge gage so that it will not interfere with the movement of the paper table, and whereby said gage will be automatically restored to a position of use when the paper table is returned to its normal position.

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

In the accompanying drawings wherein like reference characters indicate corresponding parts in the various views, Figure 1 is a fragmentary side elevation of the upper portion of a typewriting machine embodying my invention. Fig. 2 is a like view of the same with parts omitted; the parts being shown in this view as they appear when the paper table is swung forwardly toward the platen. Fig. 3 is a detail perspective view of a side edge gage and its support; the paper table being shown in dotted lines to better illustrate a part of the support beneath the same. Fig. 4 is a fragmentary bottom perspective view of one of the clamps, by which the support is held in place on the paper table, together with some of the associated parts.

I have illustrated my invention in the present instance embodied in a Monarch machine, although it should be understood that the invention may be embodied in other styles of typewriting machines.

Heretofore, where movably mounted paper tables were employed, the side edge paper gages on the paper tables have usually either had a very narrow contact face or have been positioned so far above the back feed rollers that the gages were inefficient to properly cooperate with and square the work sheet. It was necessary to provide such gages in order that they should not interfere with the forward swinging movement of the paper table on its support. Moreover, it was usually necessary to allow the work sheet to conform to the curvature of the paper table in order to get the full benefit of the longer gages with narrow contact faces, and this rendered the handling of the work sheets inconvenient. By my present invention I provide a greater contact face on the gage, for more efficiently squaring or alining the work sheets; the contact face of the gage extending forwardly from the table a sufficient distance to enable the work sheet to be held more nearly the perpendicular and away from the paper table during the adjustment of the leading edge of the sheet to the feed rollers and also extending downwardly to a point just above the rear paper feed rollers, and yet the gage does not interfere with the forward movement of the paper table, all as will hereinafter more clearly appear.

The top plate 1 of the machine supports fixed brackets 2, to which are attached by screws 3 fixed guide rails 4, oppositely grooved to receive anti-friction balls or rollers 5. These rollers are likewise received in oppositely grooved tracks 6 of a guide bar 7, which latter constitutes a rear cross bar of the carriage and from which extend forwardly projecting end plates 8, provided with bearings for the reception of a shaft 9, which supports a platen 10. The usual cross bar 11, which supports adjustable paper fingers, is secured by screws 12 to the end plates 8 of the carriage. Rear feed rollers 13 and forward feed rollers 14 are mounted in the usual manner to cooperate with the platen. These feed rollers extend through apertures in a paper apron 15, supported at 16 on lugs 17 which extend forwardly from the cross bar 7 of the carriage. Each of these lugs is bifurcated to receive a detachable bracket 18 which is forked at 19 to straddle a pin 20

carried by the associated lug 17. There are two of these brackets 18, and each is pivoted at 21 to rearwardly extending ears 22 on a paper table 23, which latter is curved in cross section. The brackets 18 are thus detachable with the paper table from lugs 17. A spring 24 is connected at one end to a bracket 18 and to the paper table in order to exert a pressure to normally maintain the paper table in the position shown in Fig. 1, where it bears against the upper end of each of the brackets 18. Each of the brackets 18 may be provided with the spring 24 as described.

The construction thus far described is the same as that ordinarily employed in the Monarch machine.

The paper table is tapped near the upper end thereof to receive the threaded ends of thumb screws 25, which screws pass through openings 25^a in U-shaped clamps 26 of spring metal situated on the rear side of the paper table. A support for the side edge gage comprises a rod 27 which extends through the clamps 26, as shown in Fig. 3. This rod extends longitudinally of the paper table and is preferably provided with an end 28 bent at right angles to the length thereof to prevent the rod from being drawn through the clamps 26. The opposite end of the rod is bent in the form of a loop 29 to extend around the upper edge of the paper table, as shown in Fig. 1. The looped portion extends forwardly and downwardly above the paper table to provide a flattened portion 30, the plane of which is at right angles to the axis of the platen. By this construction, a loosening of the thumb screws 25 affords an adjustment of the support 27—28—29—30 longitudinally of the platen and the looped portion 29 may be used as a finger piece to effect such adjustment. When the thumb screws 25 are tightened the support is secured in its adjusted position. It will be observed that the lower edge of the portion 30 of the support is shaped to conform to the curvature of the paper table. A side edge gage 31, in the nature of a flat plate, has a lower curved edge 32 which conforms to the curvature of the paper table so as to fit snugly against the upper side of the paper table when the gage is in the position shown in Fig. 1. Parallel links 33 and 34 are each pivoted at one end, as at 35, to the side edge gage by a pivot which is in the nature of a shouldered rivet. These pivots 35 are headed at their outer ends and are riveted at their inner ends to the side edge gage. Spacing washers 36 are interposed between the links and the side edge gage to compensate for the thickness of the member 30 of the support, which member is interposed between the links and the gage, as best shown in Fig. 3. The other end of each link is piv-

oted to the member 30 by a pivot 37 which is in the nature of a shouldered rivet, which pivots are riveted at their inner ends to the support and are headed at their outer ends. It will be seen that the parallel links 33 and 34 are arranged one above the other in a plane parallel with the plane of the contact face of the side edge gage 31, which is at right angles to the axis of the platen and that the gage is supported by said links so that the gage may be moved from a position such as that indicated in Fig. 1, to the position indicated in Fig. 2.

In the normal positions of the parts, shown in Fig. 1, the side edge gage is held by its own weight with its edge 32 bearing against the upper or front face of the paper table. The lower portion of the gage extends downwardly into the space between the paper table and the platen and to a point just above the rear paper feed rollers 13. It will be observed that a broad contact face is thus presented by the gage for cooperation with a side edge of the work sheet 38 as the latter is introduced into the machine, and that this broad contact face of the gage is cooperative with the sheet whether it be introduced into the machine as indicated in Fig. 1, or assumes a position more nearly the perpendicular. It will also be observed that a long upright contact face is provided on the gage for cooperation with the side edge of the sheet to properly square and gage the sheet as it is introduced into the machine.

When the paper table is swung forwardly to the position indicated in Fig. 2, in order to give access to any parts which may be situated beneath the paper table or for any other purpose, it will be seen that the forward sloping edge 39 of the gage will be brought into contact with the cross bar 11. As the paper table moves forwardly the gage will be cammed upwardly and will move independently of the paper table in the plane of its contact face on the parallel links 33 and 34 to a position such as that indicated in Fig. 2. As soon as the paper table moves back to the position shown in Fig. 1 the gage will, by its own weight, move back into contact with the paper table as shown in Fig. 1. It will be understood, therefore, that although a broad, long and efficient contact face is provided on the gage, it nevertheless does not interfere with the movement of the paper table toward and away from the platen. It will also be understood that an adjustment of the support 27—28—29—30 longitudinally of the platen is effective to carry the side edge gage 31 with it to properly position the gage longitudinally of the paper table and longitudinally of the platen.

From the foregoing description it will be understood that the displacement of the side

edge gage from its working position during the forward movement of the paper table is effected automatically, and that the gage is likewise automatically restored to normal or working position when the table is moved rearwardly to its normal position away from the platen.

Various changes may be made without departing from the spirit and scope of my invention.

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

1. In a typewriting machine, the combination of a platen, a movably mounted paper table, a side edge gage carried by the paper table and interposed between the table and the platen for coöperation with a side edge of a work sheet as it is introduced into the machine, and means which afford a movement of the gage out of such position when the paper table is moved forward.

2. In a typewriting machine, the combination of a platen, a paper table, a side edge gage carried by the paper table and interposed between the paper table and the platen for coöperation with a side edge of a work sheet as it is introduced into the machine, and links on which said gage is mounted and on which it is adapted to move bodily into and out of such position.

3. In a typewriting machine, the combination of a paper table, a platen, a side edge gage with which a side edge of the work sheet is adapted to coöperate, and a pair of parallel links on which said side edge gage is adapted to move, said links being arranged one above the other.

4. In a typewriting machine, the combination of a platen, a paper table, a support carried by the paper table and adjustable thereon longitudinally of the platen, a side edge gage coöperative with a side edge of the work sheet, and parallel links which connect said gage with said support.

5. In a typewriting machine, the combination of a platen, a curved paper table, a support secured to the under side of the paper table for adjustment thereon longitudinally of the platen, a side edge gage which has one edge that conforms to the curvature of the paper table and which coöperates with a side edge of the work sheet, and parallel links which connect said gage with said support, said links being arranged one above the other.

6. In a typewriting machine, the combination of a platen, a paper table, a side edge gage with a broad contact face at right angles to the axis of the platen and which is received in the space between the platen and paper table for contact with a side edge of a work sheet as the same is introduced into the machine, a support carried by the paper table and adjustable thereon longitudinally of the platen, and parallel links which con-

nect said gage with the support to afford a simultaneous adjustment of the support and gage longitudinally of the platen and to afford a movement of the gage into and out of the space between the paper table and platen.

7. In a typewriting machine, the combination of a platen, a movably mounted paper table, a side edge gage with a broad contact face at right angles to the axis of the platen and which is received in the space between the platen and paper table for contact with a side edge of a work sheet as the same is introduced into the machine, a support carried by the paper table and adjustable thereon longitudinally of the platen, the means for fastening the support to the paper table being on the under side of the table, and parallel links in a plane parallel with the contact face of the gage and which connects said gage with the support to afford a simultaneous adjustment of the support and gage longitudinally of the platen and to afford a movement of the gage out of the space between the paper table and platen when the paper table is moved forward.

8. In a typewriting machine, the combination of a platen, a paper table, a side edge gage with a broad contact face at right angles to the axis of the platen and which is received in the space between the platen and paper table for contact with a side edge of a work sheet as the same is introduced into the machine, a support carried by the paper table, and a pair of parallel links arranged in a plane parallel to the contact face of said gage and which connect the gage with said support and afford a movement of the gage into and out of the space between the platen and paper table.

9. In a typewriting machine, the combination of a platen, a curved paper table mounted for movement toward and away from the platen, a side edge gage with a broad contact face, the plane of which is at right angles to the axis of the platen, said gage being received in the space between the platen and paper table for contact with a side edge of a work sheet as the same is introduced into the machine, said gage also having an edge which conforms to the curvature of the paper table, a support adjustable longitudinally of the platen, and parallel links in a plane parallel with the plane of the contact face of the gage and which connect said gage with the support to afford a simultaneous adjustment of the gage and support longitudinally of the platen and to afford an upward movement of the gage out of the space between the paper table and platen when the paper table is moved forward.

10. In a typewriting machine, the combination of a platen, a curved paper table mounted for movement toward and away

from the platen, a side edge gage with a broad contact face, the plane of which is at right angles to the axis of the platen, said gage being received in the space between the platen and paper table for contact with a side edge of a work sheet as the same is introduced into the machine, said gage also having an edge which conforms to the curvature of the paper table, a support carried by the paper table and adjustable thereon longitudinally of the platen, the means for fastening the support to the paper table being on the under side of the paper table, and parallel links in a plane parallel with the plane of the contact face of the gage and which connect said gage with the support to afford a simultaneous adjustment of the gage and support longitudinally of the platen and to afford an upward movement of the gage out of the space between the paper table and platen when the paper table is moved forward.

11. In a typewriting machine, the combination of a movably mounted paper table, a platen, a side edge gage which normally extends into the space between the platen and paper table, and automatically acting means which afford a movement of the gage independently of the paper table when the table is moved on its support.

12. In a typewriting machine, the combination of a platen, a paper table mounted for

movement toward and away from the platen, a side edge gage which normally extends into space between the platen and paper table, and automatically acting means for moving the gage independently of the paper table out of such space when the paper table is moved toward the platen and for moving the gage back into such space when the paper table is moved away from the platen.

13. In a typewriting machine, the combination of a platen, a paper table mounted for movement toward and away from the platen, a side edge gage carried by and movable independently of said paper table and which normally extends into the space between the platen and paper table, means for affording an adjustment of the gage longitudinally of the platen, and automatically acting means for moving the gage independently of the paper table out of such space when the paper table is moved toward the platen and for moving the gage back into such space when the paper table is moved away from the platen.

Signed at Syracuse, in the county of Onondaga, and State of New York this 12th day of December, A. D. 1910.

HERBERT H. STEELE.

Witnesses:

HILDA M. PERKINS,
LORETTO REID.