No. 746,788. PATENTED DEC. 15, 1903.

F. K. CAMP.

TYPE WRITING MACHINE.

APPLICATION FILED AUG. 30, 1902.

NO MODEL. 4 SHEETS—SHEET 1.

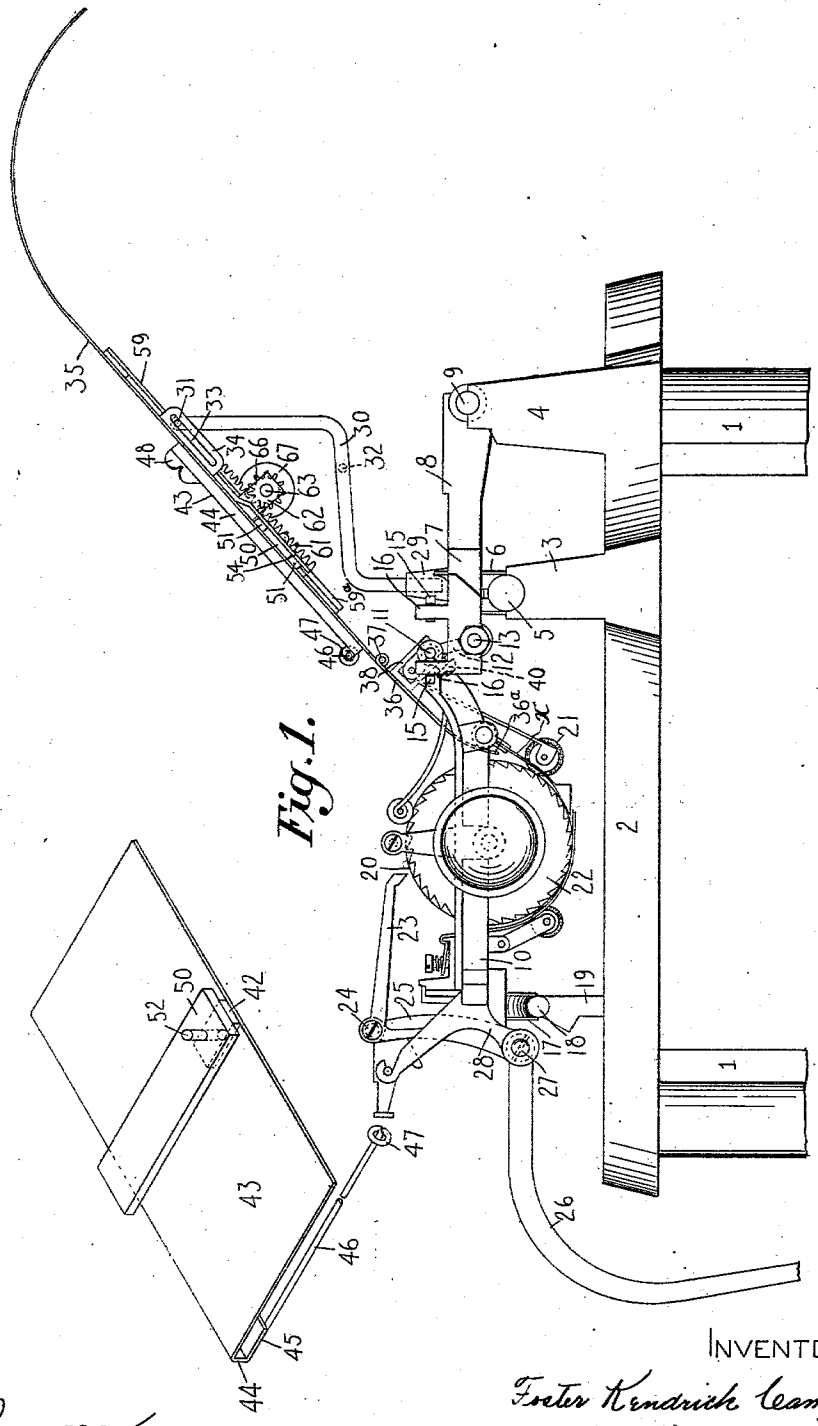


Fig. 1.

Fig. 7.

WITNESSES

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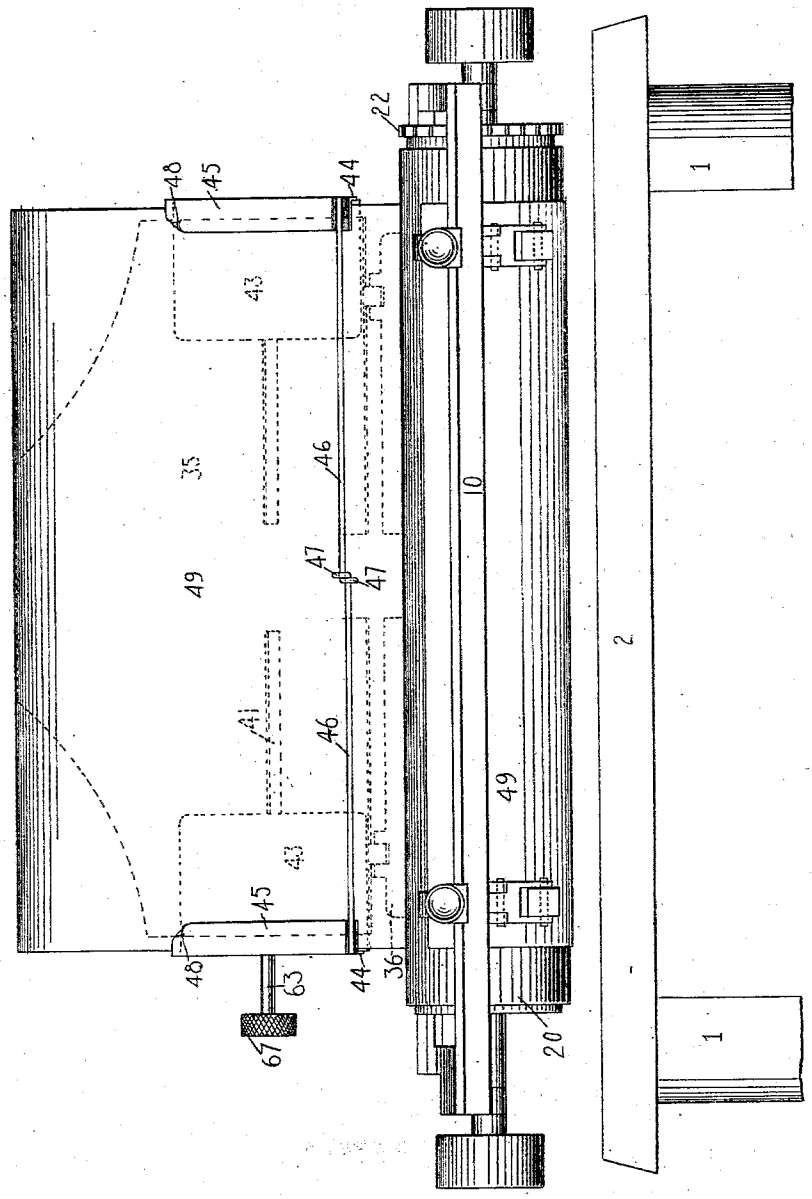
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NO MODEL. 4 SHEETS—SHEET 2.

Fig. 2.



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NO MODEL. 4 SHEETS—SHEET 3.

Fig. 3.

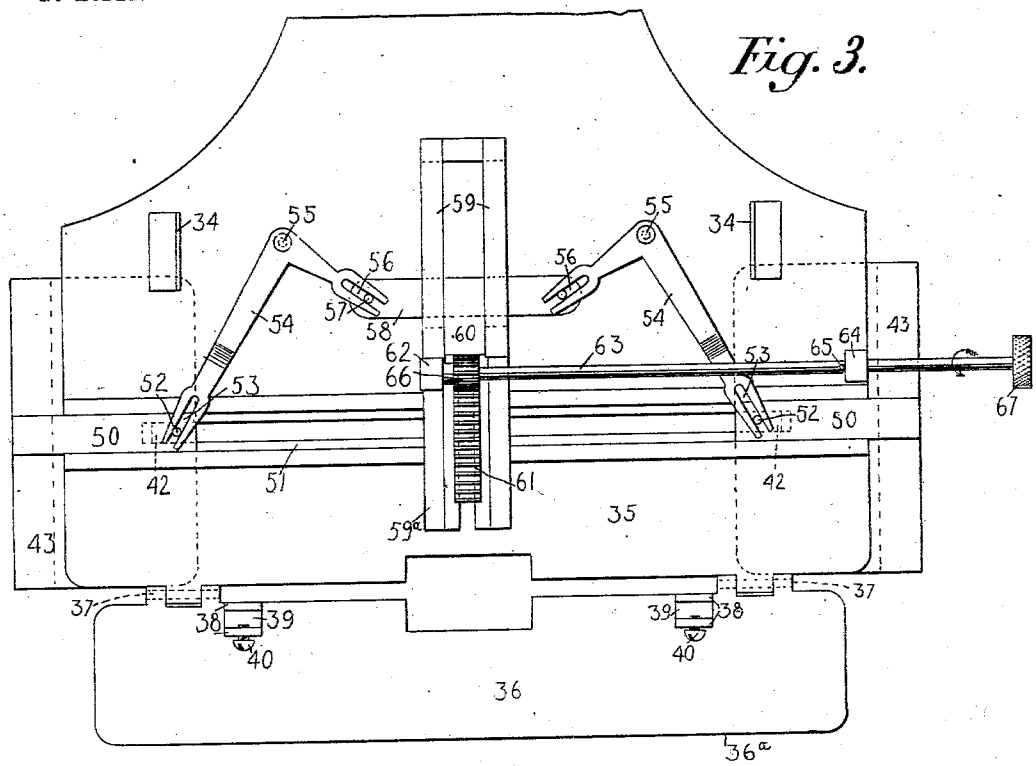
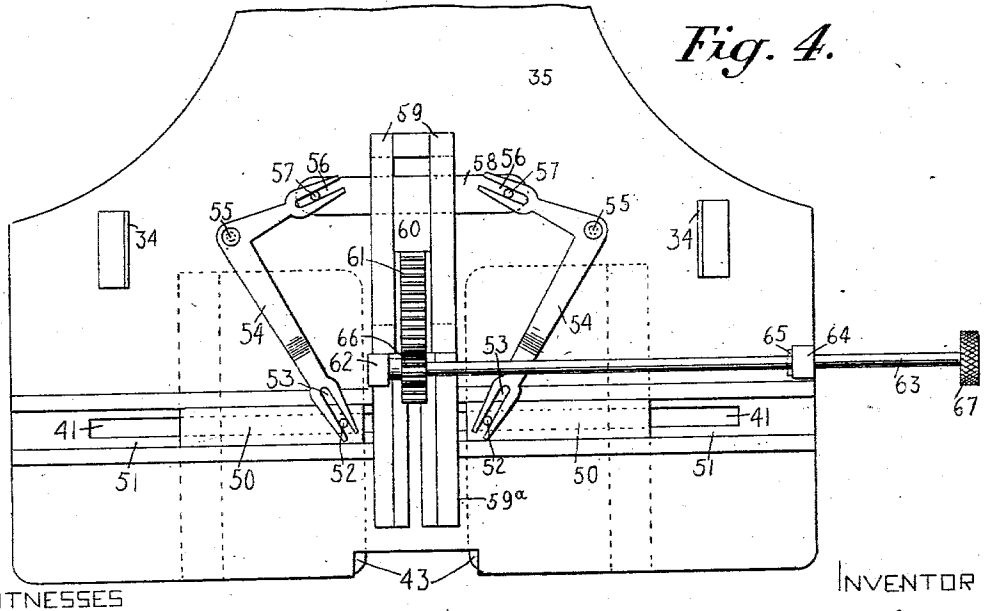


Fig. 4.



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APPLICATION FILED AUG. 30, 1902.

NO MODEL. 4 SHEETS—SHEET 4.

Fig. 5.

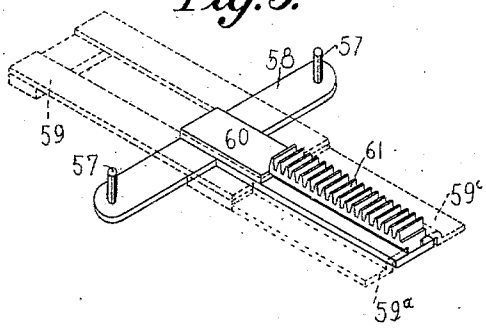


Fig. 6.

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No. 746,788. Patented December 15, 1903.

UNITED STATES PATENT OFFICE.

FOSTER KENDRICK CAMP, OF CHICAGO, ILLINOIS, ASSIGNOR TO WYCKOFF, SEAMANS & BENEDICT, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 746,788, dated December 15, 1903.

Application filed August 30, 1902. Serial No. 121,557. (No model.)

To all whom it may concern:

Be it known that I, FOSTER KENDRICK CAMP, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to paper-guiding devices; and the object of said invention is to provide simple and efficient devices of the character specified for guiding the paper to the platen.

A further object of the invention is to provide devices of the character stated which may be readily applied to existing forms of type-writing machines without modifying the structural features of said machines.

To the above and other ends, which will hereinafter appear, my invention consists in the novel features of construction, arrangements of parts, and combinations of elements 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 an end or side view of the upper portion of one form of type-writing machines embodying my invention Fig. 2 is a front elevation of the same with parts omitted and with the paper shown in place. Fig. 3 is a detail rear elevation of the paper-table with the paper-guiding devices applied thereto. Fig. 4 is a like view of the same, the view illustrating a different adjustment of the guides for the side edges of the paper from that shown in Fig. 3. Fig. 5 is a detail perspective view of the adjusting-rack and connecting-arms or cross-bar thereof. Fig. 6 is a detail perspective view of the standard or support for the paper-table. Fig. 7 is a detail rear perspective view of one of the guides for a side edge of the paper, together with the slide to which it is connected.

I have illustrated my invention applied to a No. 6 Remington type-writing machine, though it should be understood that the invention may be applied to other characters of writing-machines, and to these ends various modifications may be made without departing from the spirit of my invention.

Forming part of the frame of the machine are the corner-posts 1, surmounted by a top plate 2, from which extend upwardly-projecting lugs or risers 3 and 4. The risers 3 support a traverse-rod 5, on which bearing-rollers 6 are supported. The rollers 6 are carried by a truck or carriage 7, which has a rearwardly-extended arm 8, that surrounds a guide-rod 9, supported by the risers 4. The platen-frame 10 is pivoted at 11 to the upper ends of links 12, which are pivoted at 13 to the truck. The pivotal connection of the upper end of each link to the platen-frame consists of an outwardly-extending pin 11, that is adapted to vibrate between screw-stops 15, carried by the upwardly-extending lugs 16, projecting from the truck, the stops limiting the forward and backward shifting movements of the platen-frame. The front of the platen-frame is provided with a bearing-roller 17, which is supported upon a shift-rail 18, mounted upon arms 19, and is shifted rearwardly and forwardly in the usual manner to effect a shifting of the platen for upper and lower case writing. The platen-frame supports a platen 20, which is adapted to revolve therein, and feed-rollers 21 are normally maintained in contact with the platen under spring tension in the usual manner. One end of the platen is provided with a ratchet-wheel 22, with which a line-space pawl 23 cooperates to effect a line-spacing of the platen. The pawl 23 is pivoted at 24 to an upwardly-extending arm 25 of a hand-lever 26, which is pivoted at 27 to a forwardly-extending bracket 28, that projects from the platen-frame. The usual upwardly-extending hollow lugs 29 are provided upon the carriage or truck for supporting the paper-table in place.

The parts thus far described constitute portions of the well-known No. 6 Remington type-writing machine, and further description thereof is deemed unnecessary.

Supported in the hollow lugs 29 on the truck are standards or supports 30, which are shown in detail in Fig. 6, and these supports are bent rearwardly and upwardly and are provided at their upper ends with laterally-extending pins 31, and the standards are united by a cross-bar 32. The pins 31 are adapted to be sprung into slots 33 in the ears 34, which

project from the rear face or side of the paper-table 35 and at right angles to the plane thereof, so that the paper-table is adapted to swing and slide on the supports 30. The lower edge of the paper-table has an extension 36 hinged thereto at 37, and this extension extends longitudinally of the platen and substantially throughout the width of the paper-table, the lower edge 36ª thereof extending adjacent to the platen and at that portion where the paper is introduced into the machine. In other words, the lower edge of the extension 36 projects adjacent to the bight between the paper-feed rollers 21 and the platen 20 or between the usual paper-apron *x* (shown in Fig. 1) and the platen, so that the paper may be directed from the paper-table to the bight between the feed-rollers and platen and between the paper-apron *x* and platen. From an examination of Fig. 1 it will be seen that the extension forms a continuation of and is in the same plane as the paper-table, and this is true whether the platen be in the upper or lower case position.

On the rear face of the extension 36 are secured lugs 38, which are transversely recessed or channeled at 39, and one of the side walls of each lug is tapped transversely to receive a set-screw 40. The apertures or channels in the lugs 38 enable them to straddle the usual cross-bar of the No. 6 Remington type-writing machine, which constitutes a bearing for the pins 11 and forms a part of the platen-frame, and the lugs are adapted to be secured in place on said cross-bar by the set-screw 40. Thus it will be understood that the extension 36 of the paper-table is rigidly secured to the platen-frame, whereas the paper-table proper is supported upon the truck or carriage, and the hinges 37, which unite the two parts, permit the platform-frame to be turned back. During the swinging movement of the platen-frame the extension 36 will be turned on the hinges 37, whereas the paper-table proper will receive a slight pivotal and sliding movement around the pins 31. During the shifting movement of the platen for upper or lower case printing the parts maintain substantially the same relative positions indicated in Fig. 1, and at this time the paper-table proper, 35, will slide on its standards 30 by reason of the pin-and-slot connection between the standards and the paper-table.

It will be understood that the standards, together with the paper-table and extension, may be readily substituted for the ordinary paper-table of the No. 6 or No. 7 Remington type-writing machine without modifying the structural features of said machine and that the table illustrated can, if desired, be readily replaced at will by the ordinary paper-table of such machines.

The paper-table 35 is provided with transverse slots 41, which receive the guide-blocks 42 (see Fig. 7) of the side-edge paper-guides and each of which comprises a plate 43, that is mounted on the forward face of the paper-table and parallel therewith. Each guide has a ledge or extension 44 projecting at right angles to the plane of the plate 43 and which constitutes a guide or abutment for a side edge of the paper. This ledge on each paper-guide may have an extension or flange 45, which extends parallel to and is turned back over the body-plate 43 of the guide. Each plate has an inwardly-extending rod or wire 46 connected thereto and which terminates at its end in a loop 47, that surrounds the wire or rod 46 of the other guide, thus forming an interlocking, connecting, and guiding device for the two side-edge paper guides. The upper corners of the projections or flanges 45 are preferably bent outwardly at 48, as represented in Fig. 2, to facilitate the ready insertion of the paper 49 between the overlapping flanges 45 and the plate 43 of each guide. Connected to the block 42 of each guide is a plate or slide 50, (see Fig. 7,) which rests within a groove or guideway 51 on the rear side of the paper-table, and each slide 50 is provided with a rearwardly-extending pin 52, which projects through a slot 53 in one arm of a bell-crank lever 54, pivoted at 55 on a headed pin secured to the rear side of the paper-table. The other arm of each bell-crank is slotted at 56 for the reception of a pin 57, which extends rearwardly from a cross-bar 58, that moves between the bars 59 and the back of the paper-table, the bars 59 being rigidly secured to the back of the paper-table, and the parts are further guided by a slide 60, which forms part of a rack 61 and to which the cross-bar is connected, whereas the rack has grooved sides in which edges of the slideways 59ª take. One of the bars which forms part of the slideway 59ª has a rearwardly-extending bearing 62 for one end of a shaft 63, said shaft being also supported in a bearing 64, projecting rearwardly from the rear side of the paper-table, and a pin 65 on the shaft prevents the withdrawal of the shaft from its bearings. The shaft 63 has a pinion 66 secured thereto, which meshes with the rack 61, and the outer end of the shaft projects beyond a side edge of the paper-table and is provided with a finger-wheel 67, by means of which it may be turned in order to move the rack, and thus transmit motion through the cross-bar 58, bell-cranks 54, and slides 50 to the paper-guides on the forward face of the paper-table. By turning the finger-wheel 57 in the direction of the arrow in Fig. 3 the paper-guides are simultaneously moved to equal extents toward each other from the position represented in Fig. 3 to that indicated in Fig. 4. By turning the finger-wheel in an opposite direction the guides are moved away from each other, so that the single finger-wheel or adjusting device is adapted to simultaneously adjust both guides to correspond to the width of the paper employed. It will be observed that the construction is such that the guides for the side

edges of the paper are adapted to project beyond the side edges of the paper-table and to be adjusted to various points intermediate of the side edges thereof, so that an extensive adjustment of the guides is afforded for cooperation with paper of various widths. Furthermore, the paper-table itself is preferably wider than that ordinarily employed, so that an ample support may be provided for the paper near the side edges thereof and throughout a considerable length of the paper, whether wide or narrow paper be employed.

It will be understood that the guides coöperating with both side edges of the paper throughout a considerable portion of the length thereof properly guide the paper to the platen, so that the leading edge of the paper will be maintained in an exact horizontal position or parallel to the axis of the platen when engaged by the paper-feeding devices and will consequently be fed straight and that this result is attained without loss of time and without depending on the judgment or skill of the operator in inserting the paper in the machine.

While I prefer to employ two side-edge guides, which may be adjusted toward or away from each other, it should be understood that from certain aspects of my invention a single adjustable paper-guide at the left-hand side of the paper-table may be employed.

While I have shown but one construction embodying my invention, I am aware that various changes in detail of construction may be made without departing from the spirit of my invention, and it should be understood that certain features of the invention may be employed without the others.

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

1. In a type-writing machine, the combination with a platen, of guides which coöperate with the side edges of the paper as it is fed to the platen, and means for simultaneously adjusting said guides toward or away from each other and for maintaining them in their adjusted positions.

2. In a type-writing machine, the combination with a platen, of a paper-table that directs the paper to the platen, of guides for the side edges of the paper which extend beyond the forward face of the paper-table, and means for simultaneously adjusting said guides toward and away from each other and beyond and intermediate of the side edges of the paper-table.

3. In a type-writing machine, the combination with a platen, of guides for the side edges of the paper in the movement of the paper to the platen, and intermediate connections between said guides which afford a uniform extent of adjustment of said guides in opposite directions and for maintaining the guides in their adjusted positions.

4. In a type-writing machine, the combination with a platen, of a paper-table which directs the paper to the platen, guides for the side edges of the paper which guides extend beyond the forward face of the paper-table and intermediate of the side edges thereof, and a single adjusting device for simultaneously adjusting said guides toward or away from each other and for maintaining the guides in their adjusted positions.

5. In a type-writing machine, the combination of a paper-table, guides for the side edge of the paper which guides are carried on the forward face of the paper-table and are adjustable intermediate and beyond the side edges thereof, and means carried at the rear or under side of the paper-table for simultaneously effecting an adjustment of said guides.

6. In a type-writing machine, the combination with a platen, of a guide coöperating with a side edge of the paper as it is fed toward the platen, a rack operatively connected to said guide, a pinion meshing with said rack, and a hand-operated device for turning said pinion.

7. In a type-writing machine, the combination of guides for the side edges of the paper, a rack operatively connected to said guides, and hand-operated means for moving said rack to simultaneously adjust the guides either toward or away from each other.

8. In a type-writing machine, the combination of guides for the side edges of the paper, a rack operatively connected to said guides, a pinion meshing with said rack, a shaft on which said pinion is mounted and a finger-wheel connected to said shaft.

9. In a type-writing machine, the combination with a platen, of a paper-table that directs the paper to the platen, a slide that is adapted to move transversely on the paper-table and longitudinally of the platen, a guide for a side edge of the paper and which is connected to said slide, a finger-wheel, and intermediate connections between said finger-wheel and slide.

10. In a type-writing machine, the combination with a platen, of a paper-table that directs the paper to the platen, slides that are adapted to move toward and away from each other on said paper-table and transversely thereof, a guide connected to each of said slides and against which a side edge of the paper is adapted to abut, a finger-wheel and intermediate connections between said finger-wheel and slides, whereby a turning of the finger-wheel effects an adjustment of said guides toward or away from each other.

11. In a type-writing machine, the combination with a platen, of a paper-table that directs the paper to said platen, a paper-guide for a side edge of the paper, which guide is carried by and is adjustable on said paper-table, a bell-crank lever operatively connected to said guide, and hand-operated means for adjusting said bell-crank lever.

12. In a type-writing machine, the combi-

nation with a platen, of a paper-table that directs the paper to said platen, a pair of guides for the side edges of the paper, a pair of oppositely-disposed bell-crank levers mounted on the paper-table and connected to said guides, and hand-operated means for adjusting said bell-crank levers for affording an adjustment of the guides in opposite directions.

13. In a type-writing machine, the combination with a platen, of a paper-table that directs the paper to said platen, a pair of guides for the side edges of the paper, which guides are carried on the front face of the paper-table and are adjustable intermediate and beyond the sides thereof, oppositely-disposed bell-crank levers mounted on the rear or back side of paper-table and operatively connected to the guides, and hand-actuated means for adjusting said bell-cranks to afford an adjustment of the paper-guides in opposite directions and for maintaining the guides in their adjusted positions.

14. In a type-writing machine, the combination of a paper-table, a pair of guides for the side edges of the paper, which guides are carried on the front face of the paper-table and are adjustable intermediate of the sides thereof, bell-crank levers operatively connected to the guides, a hand-wheel, a shaft to which said hand-wheel is connected, a pinion on said shaft, a rack that meshes with said pinion and intermediate connections between the rack and bell-cranks.

15. In a type-writing machine, the combination of a paper-table, a pair of guides for the side edges of the paper, which guides are carried on the front face of the paper-table, and are adjustable intermediate of the sides thereof, oppositely-disposed bell-crank levers, mounted on the rear or back side of paper-table and operatively connected to the guides, a hand-wheel, a shaft to which said hand-wheel is connected, a pinion on said shafts, a rack that meshes with said pinion, said rack-pinion and shaft being mounted on the rear side of the paper-table, and intermediate connections between the rack and bell-cranks.

16. In a type-writing machine, the combination of a slotted paper-table, a pair of guides for the side edges of the paper, which guides are carried on the front face of the paper-table and have connections that extend through the slots in the paper-table, oppositely-disposed bell-crank levers mounted on the rear or back side of the paper-table, and operatively connected to the guides through the connections that extend through the slots in the paper-table, a hand-wheel, a shaft to which said hand-wheel is connected, a pinion on said shaft, a rack that meshes with said pinion, said rack-pinion and shaft being mounted on the rear side of the paper-table, and intermediate connections between the rack and bell-cranks.

17. In a type-writing machine, the combination of a carriage-truck, a shifting platen, and a paper-table that is connected to the carriage-truck and is adapted to slide back and forth during the shifting of the platen.

18. In a type-writing machine, the combination of a platen, a shifting-platen frame carried by the carriage, and a paper-table connected to the carriage and to the platen-frame and affording a free shifting movement of the platen-frame.

19. In a type-writing machine, the combination of a truck, a platen, a platen-frame carried by the truck and which is connected to the truck so as to be shifted relatively thereto for upper and lower case writing and to swing so as to expose the printing-line, and a paper-table that is movably supported on the truck and is connected to the platen-frame and does not intefere with the shifting or swinging movements of the platen-frame.

20. In a type-writing machine the combination with a platen, of a paper-table having a hinged extension which directs the paper to said platen.

21. In a type-writing machine, the combination of a platen, coöperating paper-apron, a paper-table, and an extension hinged to said paper-table and extending into the bight between the paper-apron and the platen.

22. In a type-writing machine, the combination of a platen, a coöperating paper-apron, a paper-table, and an extension hinged to said paper-table and extending longitudinally of the platen and adjacent to the point of introduction of the paper between the paper-apron and platen.

23. In a type-writing machine, the combination of a carriage, a shifting-platen frame, a paper-table movably supported upon said carriage, and an extension hinged to the paper-table and connected to the platen-frame.

24. In a type-writing machine, the combination of a carriage, a shifting-platen frame, a platen, paper-feeding devices coöperating with the platen, a paper-table movably supported upon said carriage, and an extension hinged to the paper-table and connected to the platen-frame and extending longitudinally of the platen and adjacent to the bight between the paper-feeding devices and the platen, whereby the paper-table shifts with the platen-frame and directs the paper to the bight between said feeding devices and platen in either shifted position of the platen.

25. In a type-writing machine, the combination of a carriage, a swinging-platen frame, a paper-table supported by the carriage, and an extension hinged to the paper-table and connected to the platen-frame and adapted to swing on its hinged connection with the paper-table when the platen is swung back.

26. In a type-writing machine, the combination of a carriage, a swinging-platen frame, a paper-table supported by the carriage, an extension hinged to the paper-table and connected to the platen-frame and adapted to swing on its hinged connection with the paper-table when the platen is swung back, a guide for a side edge of the paper, said paper-

guide being carried by the paper-table, and means for adjusting the paper-guide in the direction of the length of the platen.

27. In a type-writing machine, the combination of a carriage, a swinging-platen frame, a paper-table supported by the carriage, an extension hinged to the paper-table and connected to the platen-frame and adapted to swing on its hinged connection with the paper-table when the platen is swung back, guides for the side edges of the paper which guides are carried at the forward or front face of the paper-table, and means for simultaneously adjusting said side-edge paper-guides toward and away from each other.

Signed at Chicago, in the county of Cook and State of Illinois, this 20th day of August, A. D. 1902.

FOSTER KENDRICK CAMP.

Witnesses:

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ROBT. J. PENNEY.