Aug. 3, 1926. 1,594,785

J. LINDBURG

TYPEWRITING MACHINE

Filed Sept. 11, 1923 2 Sheets-Sheet 1

Fig. 1.

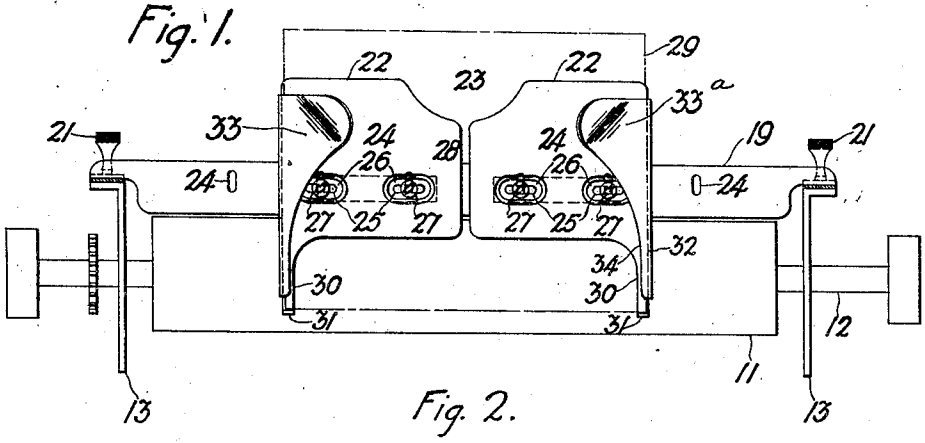


Fig. 2.

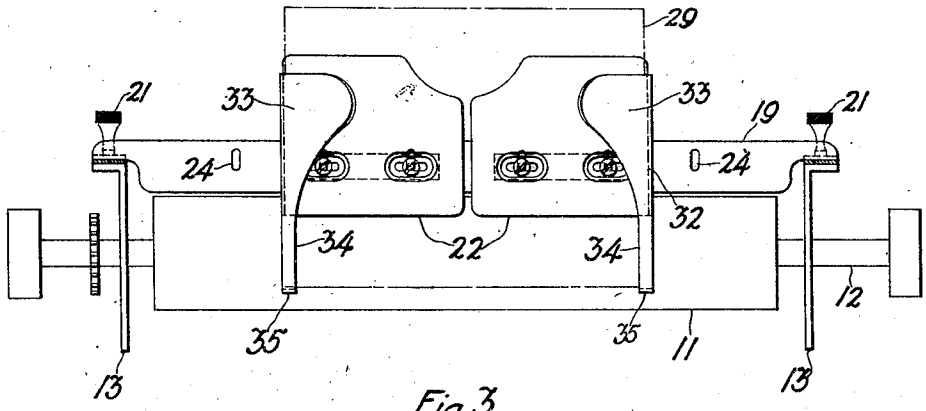
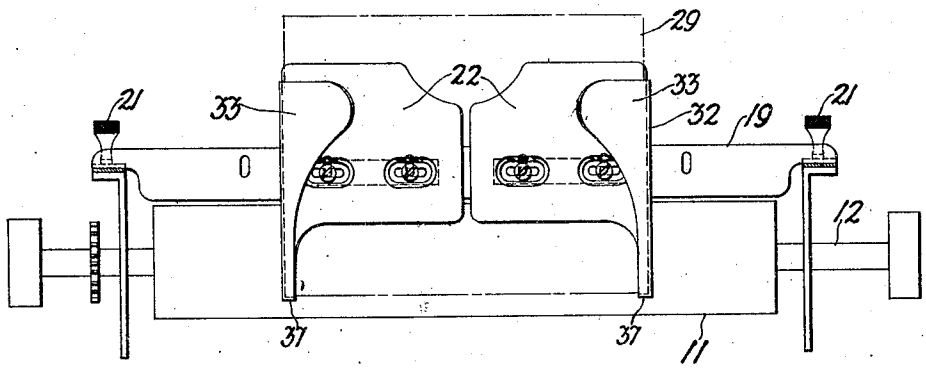


Fig. 3.



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Fig. 4.

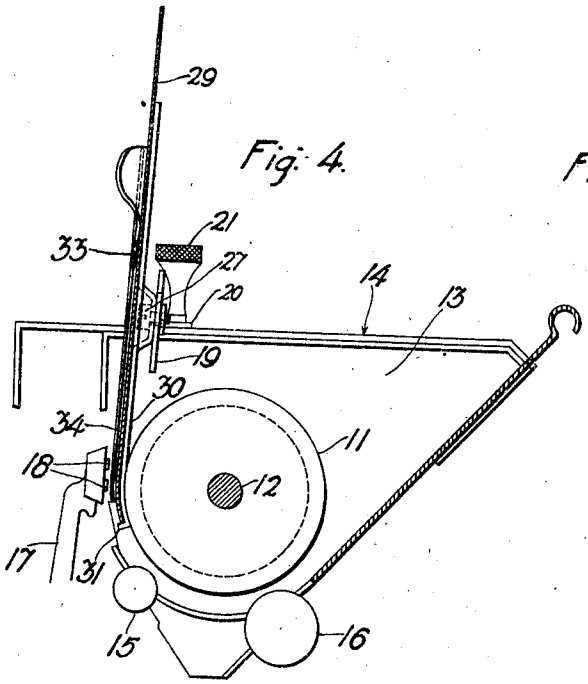


Fig. 5.

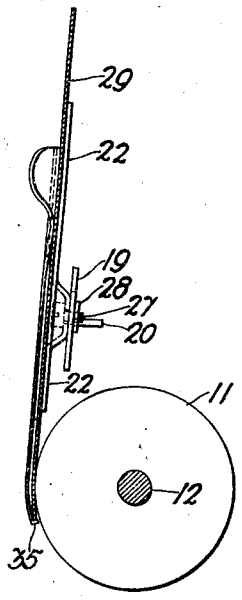
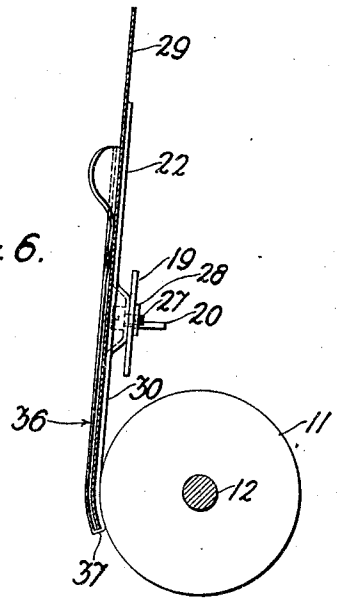


Fig. 6.



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Patented Aug. 3, 1926. 1,594,785

UNITED STATES PATENT OFFICE.

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TYPEWRITING MACHINE.

Application filed September 11, 1923. Serial No. 662,039.

This invention relates to means for positioning and holding cards on a typewriter platen to receive typing.

In certain kinds of work, as, for example, in special filing systems, such as the "Card-ex" system, it is necessary to type on the extreme bottom of the cards.

One of the principal objects of the present invention is to provide improved means for the purpose specified, simple in structure, economical to manufacture, effective in use and readily applicable to standard machines.

The present invention is mainly for the purpose of writing a single line upon the bottom edge of a card, and for that purpose there is employed a work-supporting table erected on edge at the delivery side of the platen, said table having at its ends guides for the side edges of the card as it is thrust down, and also having at its ends fingers which extend downwardly from the table and are provided immediately below the printing line with individual gages which co-operate to arrest the card in a single printing position, leaving the bottom edge of the card entirely exposed to the types; the whole device being permanently mounted upon the platen-frame and therefore dissimilar to the class of stencil-card-feeders, in which the stencil-card is fed line by line at the typing operation, and in which it is impossible to write upon the bottom edge of the card.

In carrying out one form of the invention, provision is made of a cross member or strip attached at its ends to the ends of the platen-frame, and so arranged as to support a card-holder in substantially vertical position at the delivery side of the platen. The card-holder comprises a table, preferably formed of two separate sections or aligner-plates adjustably secured to the bar to enable the width of the table to be varied according to the widths of the cards to be used. At the side edges of the table there are side gages perpendicular to the table, and resilient members or plates extend from the tops of the side gages inwardly over the table to form chutes to receive the side edges of the cards and to press the cards against the table to detain them against accidental displacement. The resilient members are bent towards the table so as to press the cards against the table and are flared outwardly, diagonally across their upper and inner edges, to facilitate the insertion of the side edges of the card between the resilient members and the table which is provided at each side with a finger extending downwardly across the printing line and having an outwardly-projecting lower end to gage the bottom edge of the card. The side gages extend substantially to the printing line, and the resilient members, which gradually decrease in width, are continued downwardly to the same extent as the side gages.

According to a second form of the invention, the fingers extending downwardly from the table in the first form and also the corresponding portions of the side gages are omitted, and the downwardly-extending portions or fingers of the resilient members are continued across the printing line and turned toward the platen at their lower ends to form gages for the bottom edges of the cards.

According to a third form of the invention, the chutes at the sides of the table are extended across the printing line, and are provided with closed lower ends to provide gages for the bottom edges of the cards.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a front elevation showing one form of the invention applied to the platen-frame of an Underwood standard typewriting machine.

Figure 2 is a view similar to Figure 1, showing a second form of the invention.

Figure 3 is a view similar to Figure 1, showing a third form of the invention.

Figure 4 is a sectional side elevation showing the same form of the invention as Figure 1.

Figure 5 is a view similar to Figure 4, but showing the same form of the invention as Figure 2.

Figure 6 is a view similar to Figure 4, but showing the same form of the invention as Figure 3.

A platen 11 is mounted on an axle 12 journaled in ends 13 of a platen-frame 14 in which are mounted the usual front and rear feed-rolls 15 and 16, respectively, to co-operate with the platen in feeding work-sheets to the printing line to be typed upon by means of type-bars 17 having types 18 thereon. In case the machine is in use for typ-

ing single lines on a plurality of cards inserted in succession, the feed-rolls 15 and 16 are usually cast off and special means provided for holding the inserted cards in position to receive typing.

In carrying out the invention, provision is made of a strip or bar 19 having rearwardly offset lugs 20 resting on the ends 13 of the platen-frame and bridging said ends and secured thereto by means of thumb-screws 21, the main portion of the bar or strip 19 being substantially vertical. Adjustably mounted on the bar are aligner-plates 22 which constitute a table 23 substantially tangential to the platen at the delivery side thereof. For securing the aligner-plates 22 to the bar 19, provision is made of vertical slots 24 in the bar and of horizontal slots 25 in depressed portions 26 of the aligner-plates, which are held in position on the bar by means of screws 27 extending through slots 25 in the plates and certain slots 24 in the bar and threaded into strips 28 at the rear of the bar. It should be noted that, as a result of providing the horizontal slots 25 in the depressed portions of the aligner-plates, the heads of the screws lie to the rear of the surface of the aligner-plates. As disclosed in Figures 1, 2 and 3, the tables are arranged for use with comparatively narrow cards 29. If wider cards are to be used, however, the aligner-plates may be adjusted farther apart, if necessary, by utilizing the unused vertical slots 24 shown at the right and left of the tables in Figures 1, 2 and 3.

In the form of the invention shown in Figure 1, the aligner-plates are provided with narrow extensions or fingers 30 extending across the printing line, and having at their lower ends outwardly-projecting portions 31 to serve as gages for the bottom edges of the cards. At their outer edges the aligner-plates are provided with side gages 32 perpendicular thereto, which may be either integral therewith or secured thereto by suitable means, as by soldering or brazing. From the upper edges of the side gages 32 resilient members or plates 33 extend inwardly over the aligner-plates and are bent toward the aligner-plates, as shown in Figures 4, 5 and 6, to press against a card positioned thereon to hold the same in position, and are flared away from the aligner-plates diagonally across their upper and inner edges to facilitate the insertion of cards from above. In this form of the invention the side gages 32 and the fingers 34 or narrow extensions of the resilient members are continued substantially to the printing line. Notwithstanding this hugging of the work-table 23 by each of the wings 33, it is still easy to insert a card, each wing or clip at its inner position being bent obliquely forward and sidewise, or on a bias, the diagonal axis of the bend being indicated at 33^a, Figure 1. The lower corner of the card may be inserted in the throat formed by the co-operation of the work-table with the diagonally bent or flaring wing, and may be used to wedge this resilient wing or clip forwardly to permit the card to be pushed behind the body-portion of the wing and to be clipped thereby to the work-table 23. Either wing may be used in this manner, and the card then readily slips into place between the other wing and the work-table.

According to the second form of the invention, Figure 2, the narrow extensions or fingers 34, at the front of the cards, are continued across the printing line and bent rearwardly to form gages 35 for the bottom edges of the cards, the downward extensions 30 of the aligner-plates and the corresponding portions of the side gages 32 being omitted. In this form of the invention the card is held more closely against the platen since the fingers 30 projecting downwardly from the aligner-plates are omitted.

According to the third form of the invention, Figures 3 and 6, the chutes 36 formed by the extensions of the aligner-plates, the side gages, and the resilient members are extended across the printing line and are entirely closed at the bottom, forming pockets, the inwardly-bent flanges 37 of which serve to gage the bottom edges of the cards. In Figure 4 the flange 31 is shown as bent forward to form a bottom gage. In Figure 6 the flange 37 is shown bent forward to form a bottom gage. Both are out of the path of the type-bars.

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 front-strike typewriting machine, the combination with a platen and a platen-frame, of a pair of card-holding chutes open at the top and permanently fixed to the platen-frame and arranged above the printing line and receiving both side edges of a card as it is thrust downwardly at the front of the platen toward the printing line thereon, said chutes having guides above said printing line for the side edges of the card and also having both front and back relatively broad members above the printing line for supporting and guiding the card, said broad chutes merging into relatively narrow downward extensions at the side edges of the card crossing the printing line and leaving the bottom edge of the card exposed substantially for its entire length and terminating immediately below the printing line, and said extensions having means engaging the bottom edge of the card to locate the card with its bottom edge portion exposed to the types at the printing line.

2. In a front-strike typewriting machine, the combination with a platen and a platen-frame, of a card-holding attachment mounted upon said platen-frame and including a support in proximity to the front of the platen, a work-support-means at the delivery side of the platen above the printing line and mounted upon said support, gages above the printing line for the side edges of a card supported upon said work-supporting means, means above the printing line for confining the side edges of the card to said work supporting means, and downward extensions from the sides of said work-supporting means crossing the printing line and terminating immediately below the printing line, said extensions having bottom gages for the card immediately below the printing line, means being provided for permitting shifting whereby the relation of one side gage to the other may be adjusted, to gage cards of different widths, and securing means for maintaining the relative adjustment.

3. In a front-strike typewriting machine, the combination with a platen and a platen-frame, of a work-table permanently erected on the platen-frame in front of the platen, with its lower edge substantially above the printing line, said table being about tangential to the platen, said gages at the edges of said table for locating the work, and introductory front guides at the sides of the table and holding the work to the table, said front guides co-operating with said table and said side gages to form a pair of card-guiding chutes both open at the top, said front guides having downward extensions crossing the printing line and holding the work against the platen and having gages for the bottom edge of the card immediately below the printing line.

4. A card-writer attachment fixed to the platen-frame of a typewriting machine and including a support mounted on said frame, co-operative relatively adjustable devices open at the top and secured upon said support above the printing line and of relatively great breadth for receiving the card bottom edge first and supporting the card in front and rear and guiding it downwardly to the printing line by its opposite side edge portions, each of said devices merging into a relatively narrow downward extension crossing the printing line and leaving the bottom edge of the card exposed for substantially its entire length, each extension provided with means immediately below the printing line to gage the bottom edge of the card, and said gaging means co-operative to enable the card to receive a line of typing on its bottom edge.

5. In a front-strike typewriting machine having a platen and a platen-frame, a card-controlling device fixed permanently on said platen-frame and including adjustably mounted aligner-plates forming a table tangential to the platen at the printing line, upright side gages at the sides of the table, wings extending from the tops of the side gages across the table to form with the table and with the side gages chutes to receive the side edges of a card, and fingers extending from said wings adjacent the side edges of the table below the printing line and leaving the bottom edge of the card exposed to the types and having rearwardly projecting tips to gage the bottom edge of the card.

6. In a front-strike typewriting machine, the combination with a platen and a platen-frame, of means for typing a single line on the bottom edge of a card, including a card-controlling device fixed permanently on said platen-frame and comprising two relatively adjustable plates forming a table tangential to the front of the platen, upright side gages at each side of the table, wings extending from the tops of the side gages across the table to form with the table and with the side gages chutes receiving the side edges of a card, fingers extending from the side edges of the plates beyond the printing line, extensions of the side gages and of said wings co-operating with said fingers to form extensions of the chutes to points below the printing line, and bottoms for said chutes acting as gages for the bottom edge of the card immediately below the printing line, said fingers leaving the bottom edge of the card exposed to the types.

7. In a typewriting machine, the combination with a platen and a platen-frame, of means for typing on the bottom edge of a card, comprising a work-table erected on edge at the delivery side of the platen above the printing line and having chutes at its side edges receiving the edges of a downwardly-thrust card and guiding the card to the printing line, and fingers, one at each end of the table, extending down from the table across the printing line and holding the lower portion of the card against the platen and leaving the bottom edge of the card exposed substantially for its entire length, said fingers having gages for the lower edge of the card, said work-table having guiding means or clips extending inwardly from the side edges of the table and forming therewith said chutes, one of said clips being flared away from the table at its top to facilitate introduction of the card between the clip and the table.

8. In a typewriting machine, the combination with a revoluble platen and a platen-frame, of means for holding a card against the front of the platen in position to receive a line of typing along its lower edge, said means including a pair of co-operating resilient fingers, means fixedly supporting them upon the platen-frame to extend across

the printing line, co-operative means upon said fingers guiding the side edges of the card, and means upon said fingers immediately below the printing line forming gages or rests for the lower edge of the card and leaving said lower edge exposed to the types throughout substantially its entire length, said fingers being relatively adjustable longitudinally of the platen, and means being provided for securing the fingers in different relative adjustments for a single line of typing.

9. In a typewriting machine, the combination with a revoluble platen and a platen-frame, of a work-table erected in front of the platen and mounted upon said platen-frame, means associated with said table for locating the work thereon, and a spring-clip holding the work to the table, said clip bent sidewise and forwardly on a bias and co-operating with the table to form a throat for the insertion of an edge of the work-piece, enabling the work-piece to wedge forward the clip and push its way between the same and the table.

10. In a typewriting machine, the combination with a revoluble platen and a platen-frame, of a work-table erected in front of the platen and mounted upon said platen-frame, a side guide and bottom gage associated with said table for locating the work thereon, and a spring-clip holding the work to the table, said clip bent sidewise and forwardly on a bias and co-operating with the table to form a throat for the insertion of an edge of the work-piece, enabling the work-piece to wedge forward the clip and push its way between the same and the table.

11. A card-holder for a typewriting machine including a pair of relatively adjustable plates forming a work-table, the opposite ends of said work-table being bent to form a card-receiving throat and side guards, each side guard having a bottom gage for arresting a downwardly-thrust card.

12. In a typewriting machine, the combination with a platen and a platen-frame, of means for typing upon the bottom edge of a card, including work-supporting means extending upwardly at the delivery side of the platen above the printing line, means for gaging the opposite side edges of the card, and relatively broad pressure plates extending inwardly from the side gages and frictionally holding the card against said work-supporting means, said work-supporting means, said plates and said side gages formed to serve as introductory chutes open at the top for a downwardly-thrust card, said chutes merging into downwardly extended relatively narrow fingers for holding the card against the face of the platen, and also including gaging means for locating the card relatively to the printing line on the platen, to receive type impressions upon its lower edge portion.

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