J. A. B. SMITH.

TYPE WRITING MACHINE.

APPLICATION FILED JUNE 19, 1915.

1,160,459. Patented Nov. 16, 1915.

FIG. 1.

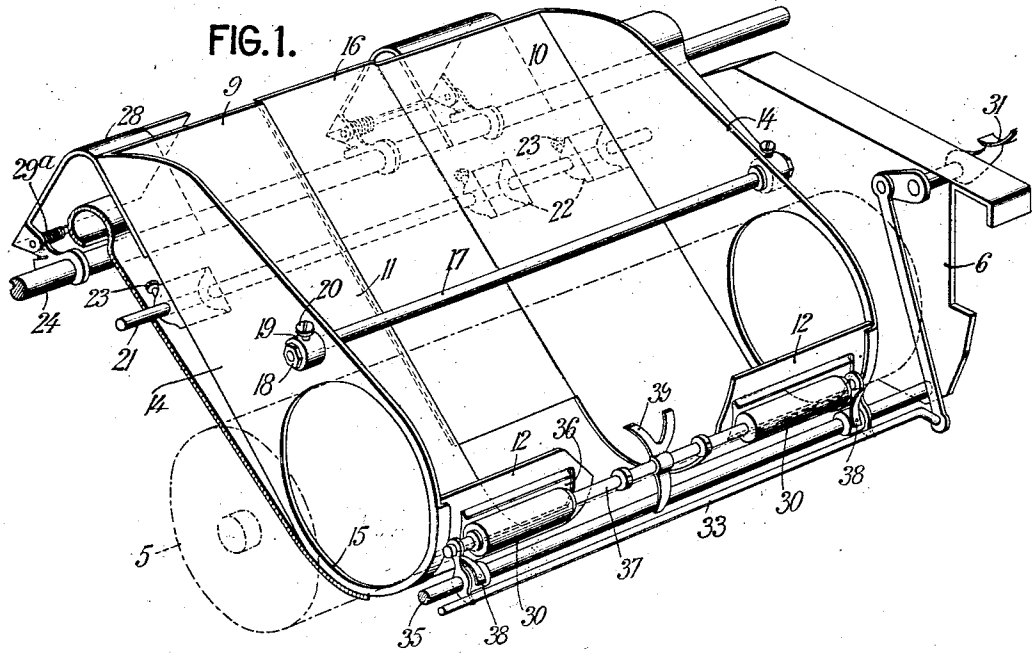


FIG. 3.

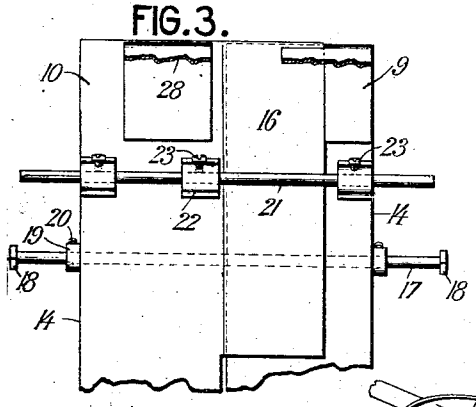


FIG. 2.

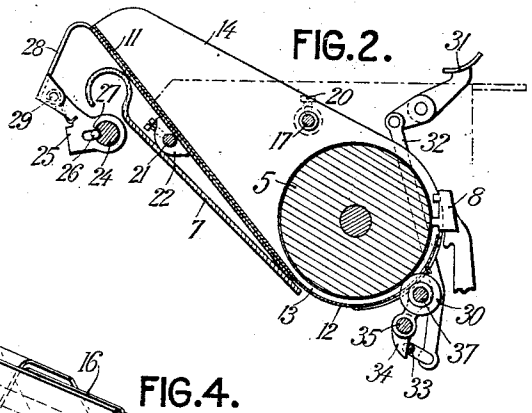
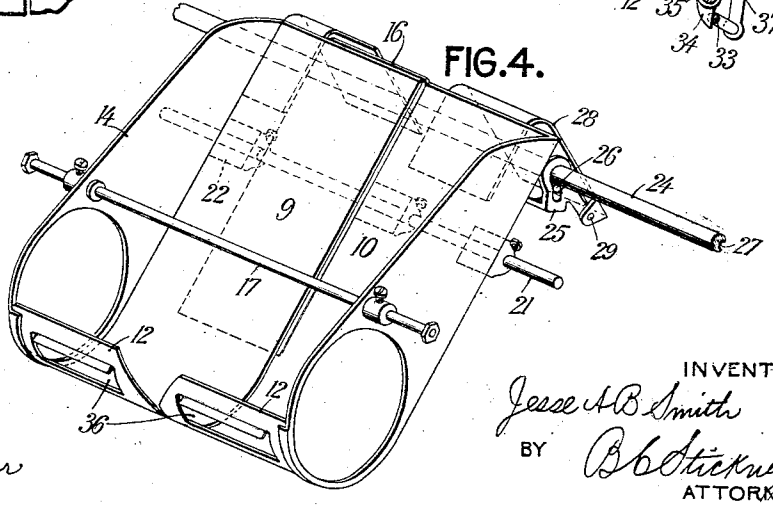


FIG. 4.



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TYPE-WRITING MACHINE.

1,160,459. Specification of Letters Patent. Patented Nov. 16, 1915.

Application filed June 19, 1915. Serial No. 34,971.

To all whom it may concern:

Be it known that I, JESSE A. B. SMITH, a citizen of the United States, residing in Brooklyn borough, in the county of Kings, city and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to means for facilitating the introduction of bills and other forms in a typewriting machine, and guiding them around the platen to the printing point, and especially to devices in which the bills are confined between side gages extending around the under side of the platen, as disclosed in my co-pending applications Nos. 829,162, filed April 3, 1914, and 839,667, filed May 20, 1914. In said applications, a chute extends around the platen in such a manner that the sheet may be dropped into the chute and thrust forwardly to position for beginning the printing thereon without necessitating sidewise adjustment of the sheet; and one or more front pressure rolls are brought to bear against the sheet at the front of the platen to be effective at the line-feeding operation.

One of the objects of the present improvement is to increase the capacity of the device. This is done by making the same adaptable for sheets of various widths. To this end, the chute is made in two sections, each section comprising a side gage and an introductory guiding-shelf or floor, which may incline upwardly and rearwardly from the platen. One shelf or floor may extend partly under the other, and the sections may be connected for relative telescoping movement, whereby the side gages are adjusted nearer to or farther from each other, and may be set to gage any desired width of sheet.

The side gages may be connected at some point above the platen by a rod which may have stops on its ends to limit the separation of the sections from each other; and there may be also placed upon said rod adjustable stops, which may be secured where desired along the rod, so that the sections may be at any time spread apart to the same predetermined relation, while they may also be pressed toward each other to gage narrower sheets from time to time. The overlapping plates may be partly supported against separation by means of a stiffening or supporting rod which passes through bosses provided upon the plates. The device may form a releasable attachment to a rod usually fixed upon the platen frame in rear of the upper part of the paper shelf and extending along said shelf. The front pressure rolls may pass through openings in the front part of the chute, and are slidable along the shaft on which they are carried, to accommodate different positions to which the chute may be adjusted.

Other features and advantages will hereinafter appear.

In the accompanying drawing, Figure 1 is a perspective view of the invention as applied to an Underwood typewriting machine. Fig. 2 is a sectional elevation view. Fig. 3 is a fragmentary rear view of the chute. Fig. 4 is a front perspective view of the same.

The platen 5 may be mounted for rotation in a platen frame 6, said frame comprising a paper shelf 7 extending upwardly and rearwardly from the platen at the introductory side thereof. Types 8 may be operated by the usual mechanism to strike upwardly and rearwardly against the front face of the platen.

The paper chute on which the bills or other work-pieces are supported and guided to printing position on the platen, comprises sections 9 and 10 relatively adjustable lengthwise of the platen to vary the width of the chute to accommodate work-pieces of different widths. Each of said sections may comprise a flat body portion 11 extending upwardly and rearwardly from the platen, and a curved portion 12 extending forwardly beneath the platen and upwardly to within a short distance of the printing line. The curved extensions 12 conform to the curvature of the platen, and are spaced therefrom to provide a passageway 13 through which a work-piece may slide freely to bring it to position to be written upon, independently of the rotation of the platen. The straight portions 11 form an introductory guiding shelf or floor.

Each section 9, 10, is provided at its outer edge with a side gage or guide 14 for the edges of the work-pieces. Said gages may

be in the form of upwardly projecting flanges, and said flanges comprise extensions 15 curved around the platen, whereby the work-forms are guided to the printing line, until the last line has been written. Said extensions 15, which also form end-walls for the passage 13, may fit closely around the platen and thereby prevent the work-pieces from slipping between them and the platen. In the construction shown, the flanges extend completely around the platen, being formed by providing circular openings in the gages 14.

The sections 9 and 10 may have a telescopic connection for relative adjustment, the section 10 being provided with an off-set extension 16 which underlies the section 9, so that work-piece-supporting surfaces of the sections 9 and 10 lie in the same plane. The side gages 14 may be connected by a rod 17 at some convenient position above the platen, said gages being slidable along the rod which is provided at its ends with stops, such as nuts 18 to limit the extent of separation of the gages. Adjustable stops comprise collars 19 slidable on the rod, and which may be clamped in any position of adjustment by set screws 20. The stops 19 may be set to determine the adjustment of the gages for work-pieces of any desired width, and the gages may at any time be moved toward each other without resetting the stops, to adjust the chute for narrower work-pieces. If preferred, one or both of the stops may be fixed to its adjoining gage.

The overlapping plates 9 and 10 may be partly supported against separation by means of a stiffening or supporting rod 21, which passes through bosses 22, the latter being fixed to the rear faces of the plates. Set screws 23 releasably clamp the rod and hold the said plates in any relative position of adjustment.

The device in the form shown, is designed for use as an attachment on the commercial Underwood machine, and when so used, may overlie the usual paper shelf 7, each of the sections 9 and 10 being connected to a rod 24 which is usually provided behind the shelf 7. The means for connecting the attachment to said rod may comprise brackets 25 slidable along the rod and held against free rotation thereon by pins 26, held by leaf springs in a groove 27 in the rod. Connecting plates 28, each fixed at one end to the chute 9, 10, have their opposite ends connected by pivots 29 to the brackets 25. If desired, the attachment may be moved out of the way, to permit the machine to be used independently thereof, by first withdrawing the platen, then folding the brackets 25 and connecting plates 28 together as at Fig. 4, (whereby the pins 26 are forced out of the groove 27 and said plates and brackets held in folded position by springs 29[a]) then swinging the sheets upwardly and rearwardly about the rod 24 to a position behind the shelf 7, and finally replacing the platen.

Pressure rolls 30 are arranged to bear against the front face of the platen a short distance below the printing line, and cooperate with the platen in feeding work-pieces over the platen past the printing line. Said pressure rolls may be lifted from the platen to permit the work-pieces to be slid through the passageway 13 while the platen is at rest, into position for receiving the first line of writing. The rolls are lifted or thrown off the platen by means of a key 31 connected through a link 32 to a rock shaft 33 which actuates levers 34 pivoted to a tie-rod 35 of the platen frame. The rolls 30 are mounted on a rod 37 carried by the levers 34 and are held against the platen by springs 38. The curved extensions 12 are provided with openings 36 to accommodate the pressure rolls, the latter being loosely mounted on the shaft 37 for adjustment along the shaft with the sections of the chute. A paper-holding device 39 may be connected to the shaft 37 to bear against the platen adjacent the printing point to hold the work-pieces close against the platen at the printing point.

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. The combination with a rotary platen, of a chute at the introductory side of the platen to receive work-pieces, said chute comprising means extending around the platen toward the printing line for guiding the work-pieces into position to be written upon, and including side gages or guides for the edges of the work-pieces, said gages relatively adjustable lengthwise of the platen to accommodate work-pieces of different widths.

2. The combination with a rotary platen, of a sectional paper guiding shelf at the introductory side of the platen, the sections of said shelf provided with side gages or guides for the edges of the work-pieces, said sections relatively adjustable in a direction lengthwise of the platen to vary the distance between said gages to accommodate work-pieces of different widths, each of said sections having a curved guiding portion extending forwardly and upwardly around the platen toward the printing line but spaced from the platen to provide a passageway through which the work-pieces may be slid into position to be written upon.

3. The combination with a rotary platen, of a sectional chute for receiving work-pieces and guiding them onto the platen, each section comprising a side gage, and an introductory guiding shelf, said sections

relatively adjustable lengthwise of the platen to vary the distance between said gages to accommodate work-pieces of different widths, a rod connecting said sections, a stop adjustable lengthwise of the rod to adjustably limit the relative movement of the sections, and means to secure the stop in its adjusted position.

4. The combination with a roller platen, of a chute for receiving and guiding work-pieces onto the platen, said chute being made in sections, each comprising a side gage for the edge of the work-piece and an introductory guiding shelf or floor to support the work-piece, a rod on the platen frame, and means forming a slidable connection between each of said sections and said rod, so that each section may be adjusted along said rod, whereby the sections are relatively adjustable to vary the distance between the side gages.

5. The combination with a roller platen, of a chute for receiving and guiding work-pieces onto the platen, said chute being made in sections, each comprising a side gage for the edge of the work-piece and an introductory guiding shelf or floor to support the work-piece, a rod on the platen frame, means forming a slidable connection between each of said sections and said rod, so that each section may be adjusted along said rod, whereby the sections are relatively adjustable to vary the distance between the side gages, a rod having a slidable connection with said sections, and means to clamp said rod and sections together to prevent relative movement of the sections for their relative position of adjustment.

6. The combination with a rotary platen, of a paper-guiding shelf comprising relatively adjustable sections, each section having a flange along its outer edge to serve as a side gage for the work-sheet, each section also having a portion curving around forwardly beneath the platen, the curved portions each provided with a side gage for the work-sheet, said sections having a telescoping connection permitting relative adjustment in a direction lengthwise of the platen, whereby the said gages may be adjusted to work-sheets of different widths.

7. The combination with a rotary platen, of a paper-guiding shelf comprising relatively adjustable sections, each section having a flange along its outer edge to serve as a side gage for the work-sheet, each section also having a portion curving around forwardly beneath the platen, the curved portions each provided with a side gage for the work-sheet, said sections having a telescoping connection permitting relative adjustment in a direction lengthwise of the platen, whereby the said gages may be adjusted to work-sheets of different widths, and an adjustable stop to variably limit the distance apart said gages may be adjusted, said sections freely adjustable toward and from each other while the stop remains in its adjusted position, within the limit of adjustment determined by said stop.

8. The combination with a rotary platen, of a paper guiding shelf formed in sections, each section having a flange along its outer edge to serve as a side gage for a work-sheet, and also having a portion curving around forwardly beneath the platen, said curved portions provided with side gages for the work-sheet, and a rod arranged longitudinally of the platen and affording a support along which each of said sections may be adjusted relatively to the other section, whereby the side gages may be adjusted to correspond to work-sheets of different widths.

9. The combination with a rotary platen, of a sectional work-sheet guide mounted at the introductory side of the platen and extending forwardly around the platen and spaced from the platen to permit a work-sheet to be slid between the platen and the guide into position to be written upon, each of said sections comprising lateral guiding means for the edges of the work-sheet to guide the sheet both at the introductory side of the platen and near the printing line, said guiding means being relatively adjustable in a direction lengthwise of the platen.

10. The combination with a rotary platen, of a work-sheet guide mounted at the introductory side of the platen and extending forwardly around the platen and spaced from the platen to permit a work-sheet to be slid between the platen and guided into position to be written upon, lateral gaging means for the work-sheet at each side of said guide to gage the sheet both at the introductory side of the platen and near the printing line, a rod upon which the rear portion of said guide is supported, said guide comprising sections carrying said gaging means and relatively adjustable along said rod in a direction lengthwise of the platen, and an adjustable stop to determine the extent of said relative adjustment.

11. The combination with a rotary platen, of a sectional paper guide or chute, each section comprising an introductory portion arranged in rear of the platen, and a portion extending around the under and front sides of the platen, each of said sections having an outer flange extending upwardly therefrom and provided with an opening through which the platen extends, said flanges forming guides for the edges of the work-piece, said sections relatively adjustable to move the flanges toward and from each other to gage work-pieces of different widths.

12. The combination with a rotary platen, of a sectional paper guide or chute, each

section comprising an introductory portion arranged in rear of the platen, and a portion extending around the under and front sides of the platen, each of said sections having an outer flange extending upwardly therefrom and provided with an opening through which the platen extends, said flanges forming guides for the edges of the work-piece, said sections relatively adjustable to move the flanges toward and from each other to gage work-pieces of different widths, and pressure rolls to bear against the front face of the platen to feed a work-piece thereover, said sections provided with openings to accommodate said rolls, the latter adjustable lengthwise of the platen to correspond with the adjustment of the said chute.

13. The combination with a rotary platen, of a sectional paper guide or chute, each section comprising an introductory portion at the rear of the platen and a curved portion extending around the under and front sides of the platen to a point adjacent the printing line, side gages on said sections for gaging the edges of a work-piece, said sections being relatively adjustable in a direction lengthwise of the platen to accommodate work-pieces of different widths, pressure rolls to bear against the platen adjacent the printing line, a rod carrying said rolls and on which the rolls are loosely mounted for adjustment lengthwise of the platen as said sections are adjusted, said sections provided with openings through which the rolls project into engagement with the platen and whereby the rolls are adjusted with said sections, and means to throw the rolls off the platen to permit the work-piece to be slid between the platen and rolls into position to receive the first line of writing.

14. The combination with a rotary platen, of a paper guide or chute at the introductory side of the platen, comprising telescoping sections relatively adjustable lengthwise of the platen and each provided along its outer edge with a gage for the edge of a work-piece, one of said sections having an extension underlying the other section, whereby a continuous floor or support for the work-piece is provided as said sections are adjusted toward and from each other, said extension being offset to permit the supporting surfaces of both sections to lie in the same plane.

15. The combination with a rotary platen, of a paper guide or chute at the introductory side of the platen, comprising telescoping sections relatively adjustable lengthwise of the platen and each provided along its outer edge with a gage for the edge of a work-piece, one of said sections having an extension underlying the other section, whereby a continuous floor or support for the work-piece is provided as said sections are adjusted toward and from each other, said extension being offset to permit the supporting surfaces of both sections to lie in the same plane, a supporting rod, means forming a slidable connection between said sections and rod to support said sections and permit adjustment thereof along the rod, a brace-rod underlying said sections, bosses on said sections in which the brace-rod is slidably mounted to permit adjustment of the sections, and means to clamp said brace-rod in said bosses and thereby lock the sections at any relative position of adjustment.

16. An article of manufacture for use as an attachment for a typewriting machine, said article consisting of a sectional paper guide or chute for supporting work-pieces and guiding them onto the platen of the machine, said attachment comprising telescoping sections each including a flat portion forming a floor or support for the work-piece and a flange at its outer edge forming a gage for the edge of the work-piece, each section having an extension curved to conform to the curvature of the platen, and means to clamp said sections together in different relative positions of adjustment.

17. An article of manufacture for use as an attachment for a typewriting machine, said article consisting of a sectional paper guide or chute for supporting work-pieces and guiding them onto the platen of the machine, said attachment comprising telescoping sections each including a flat portion forming a floor or support for the work-piece and a flange at its outer edge forming a gage for the edge of the work-piece, each section having an extension curved to conform to the curvature of the platen, one of said sections comprising a lateral extension to underlie the other section, thereby forming a telescoping connection between said sections, a connecting rod underlying said sections and said lateral extension, means forming a slidable connection between said rod and sections, and means to clamp the rod to said sections with the latter in any relative position of adjustment.

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Witnesses:
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