Sept. 27, 1938. J. A. B. SMITH 2,131,149

TYPEWRITING MACHINE

Filed May 3, 1935 2 Sheets-Sheet 1

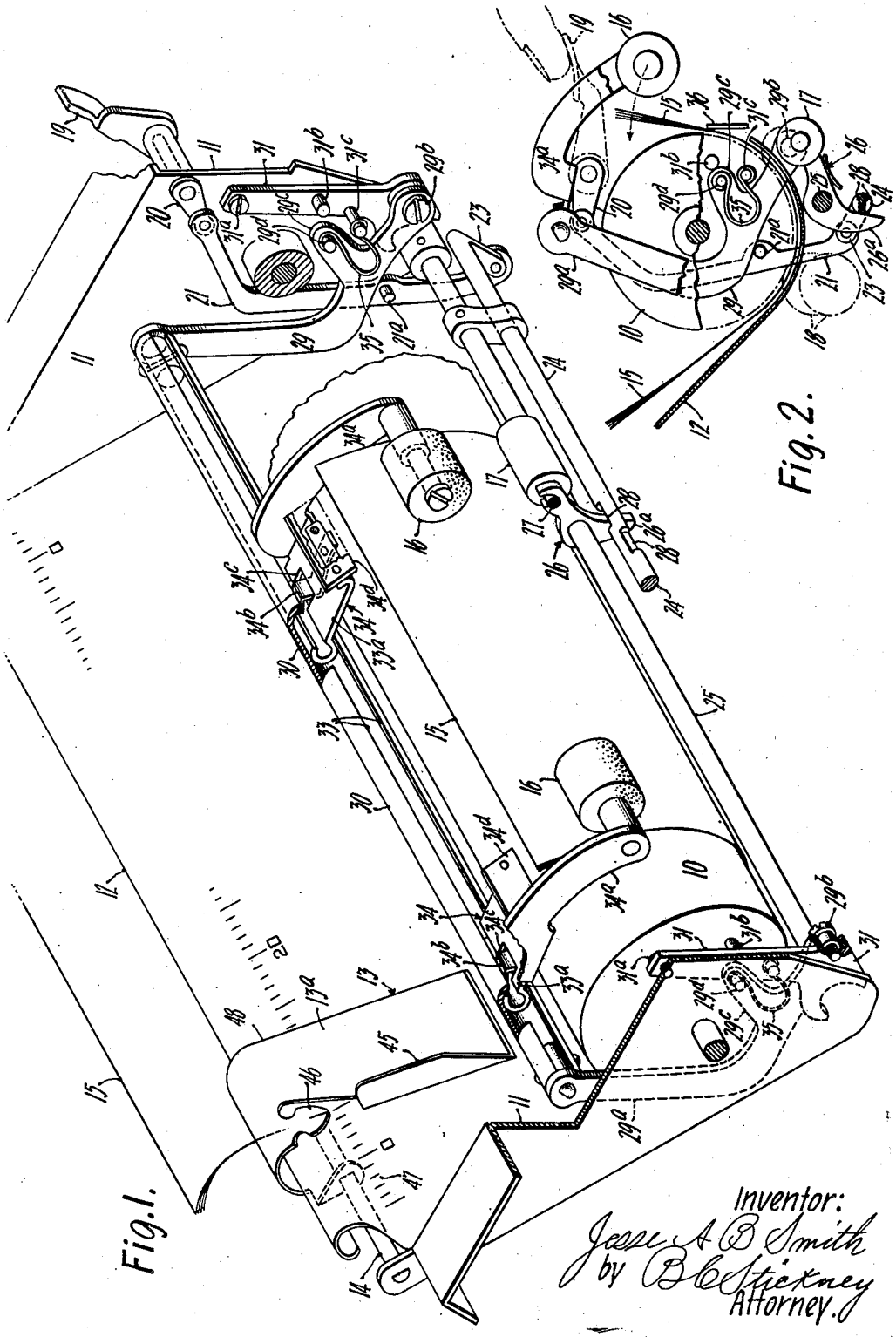


Fig. 1.

Fig. 2.

Inventor:
Jesse A B Smith
by B C Stickney
Attorney.

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Fig. 3.

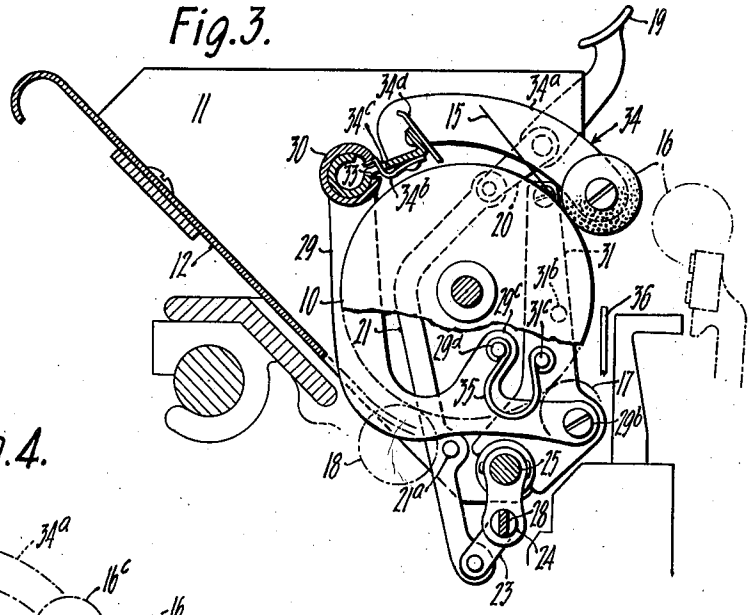


Fig. 4.

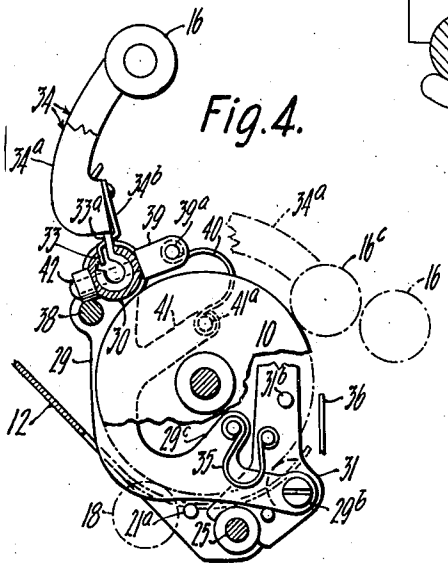
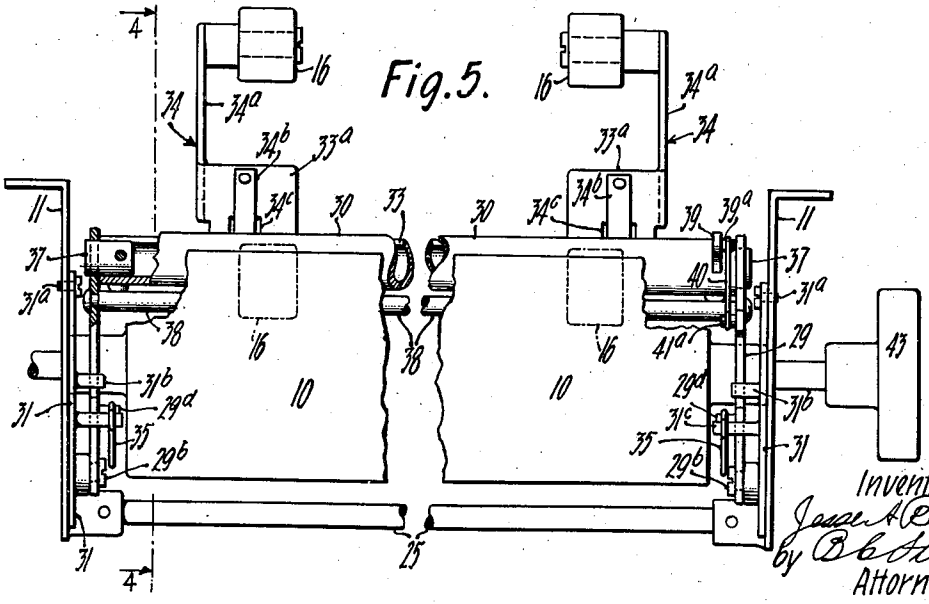


Fig. 5.



Inventor:
Jesse A. B. Smith
by B. C. Stickney
Attorney.

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2,131,149

UNITED STATES PATENT OFFICE

2,131,149

TYPEWRITING MACHINE

Jesse A. B. Smith, Stamford, Conn., assignor to Underwood Elliott Fisher Company, New York, N. Y., a corporation of Delaware

Application May 3, 1935, Serial No. 19,640

19 Claims. (Cl. 197—138)

This invention relates to pressure-rolls for feeding work-sheets around the cylindrical platens of typewriting machines, and it principally relates to the roll-devices which press the sheets against the front of the platen above the printing line.

It has been customary on the Underwood typewriting machines to provide a stationary rod extending along the platen in rear thereof, and to mount roll-carrying fingers adjustably upon said rod. Each finger had to be lifted from the platen independently of the other. There was also mounted upon the rod a pressure-spring for each roll-arm, and the pressure of the springs produced friction upon the rod, so that it was difficult to adjust the arm along the rod.

Attempts were made to overcome the difficulties by devising a rod extending along in front of the platen, the rolls being independently adjustable along said rod, thus dispensing with the arms which carried the rolls. The objection was then found that the roll-carrying front rod obscured the typing upon the work-sheet.

It is an object of the present invention to improve the feed-roll mechanism so as to render the rolls efficient and readily adjustable, but without obscuring the line of typing. The rolls may run upon the margins of wide or narrow sheets, and may press firmly against the platen, and are readily adjustable along the same. Moreover, it is no longer necessary to lift one roll and then the other away from the platen, since the movement of either will release both; and they will be mechanically held in released positions, so as to free the hands of the operator for adjustment of the work-sheets.

In the preferred form of the invention, a rod extends along the rear upper side of the platen, and is mounted at its ends rigidly upon a pair of bail-arms; the latter extending downwardly and forwardly, and being hinged to the platen-frame at a point below the platen and about vertically under the point at which the front rolls impinge on the platen. Upon this bail are mounted front roll-arms, so that by swinging the bail the rolls may both be carried forwardly from the platen. Enough space is left to permit the leading edge of the rising work-sheet to find its way between the platen and the released rolls, without the necessity for guidance by the operator.

Slides are mounted upon the rod, preferably by making it hollow and inserting the slides within the rod. Each slide has a tongue-portion which serves as a spline and which extends out through a longitudinal slot that is formed in the rod. These tongue-portions are integral with bent-up arms that extend forwardly over the platen; the front rolls being mounted thereon. The rolls are directed toward each other, so as to run upon the sheet-margins, while the sheet rises off from the platen between the arms, whereby obscuring of the typed lines by the rod which carries the roll-arms is avoided. The arms are adjustable lengthwise of the platen, and also were movable as a unit away from the platen, and are mechanically held in either effective or released positions.

In one form of the invention, the hollow rod, which carries the roll-arms, is hinged upon a complete bail, so that it may be rotated upon its hinge; both rolls being swung up as a unit, since the lifting of one roll causes the rod to rotate, and the rotating rod lifts the other roll; while the advantage is preserved of releasing the rolls from the front of the platen by the bodily swinging of the bail which serves as a mount for said hollow guide-rod.

The bail has a fore-and-aft movement, having the two arms hinged to the platen-frame and rigidly connected by the rod for carrying the front paper-feed rolls. Said rod extends along the platen in the rear of same.

The spline-slot in the tube allows the arms to slide independently of each other. Said arms reach forwardly from the rod, and have the rolls on their forward ends. Said slides are yieldingly splined in the slot of the rod, to accommodate various thicknesses of work.

To swing the bail fore and aft, there is employed a release key, which casts off the upper feed-rolls and all lower rolls. The key swings the bail forwardly. The upper feed-rolls are detained in cast-off position by double-acting springs.

The upper feed-rolls may be restored by touching either one with the finger. The upper rolls tend to smooth out any wrinkles in the work-sheets.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a fragmentary perspective, showing the platen with the upper and lower feed-roll mechanism in effective positions.

Figure 2 is a sectional elevation of platen and feed-rolls disengaged.

Figure 3 is a sectional elevation, showing the feed-roll mechanism in an effective position.

Figure 4 is a sectional elevation of another form of feed-roll rod hinged in the platen-frame.

Figure 5 is a fragmentary elevation of the platen, showing the parts seen in Figure 4. In Figures 4 and 5 the top feed-rolls may be swung up and back off from the platen, upon a hinged tube **30**, which is distinct from the main tie-rod **38** fixed to the bail-arms **29**.

A platen **10** is journaled in a frame **11**, having a rear paper-table **12**. A side-gage **13** slides over rod **14**, to guide work-sheets **15**. Novel front feed-rolls **16** and bottom rolls **17** and **18** are all releasable. Release-key **19** has an arm **20**, connected by link **21** to crank **23** of rock-shaft **24**. Arms **26** on rod **25** operate release-shaft **27**, together with the bottom front feed-rolls **17**. Cams **28** co-operate with arms **26a** of release-arms **26**. The bottom rear rolls are released in a similar manner.

When all the rolls **16**, **17** and **18** are released from the platen, Figure 2, the work-sheet **15** may be readily introduced and adjusted around the platen. The front rolls **16** at this time stand so far from the platen that the leading edge of the work-sheet passes readily up around the platen, passing in back of the front rolls, without guidance by the operator.

Instead of mounting the rolls **16** adjustably upon a single transverse axial front rod, whereby some of the typing on the work-sheet is hidden, the present invention provides for the adjustable rolls to be released from the platen by a common releaser, without obscuring the typing.

Preferably the front rolls **16** may be released by the same finger-piece **19** that releases the bottom rolls. However, it will be understood that if desired the rolls **16** may be released independently of the bottom rolls. If either roll **16** is pulled forwardly, it will be accompanied by the other roll, even though the bottom rolls remain against the platen.

For accomplishing this simultaneous release of the rolls **16**, they are mounted upon a novel swing-frame which is in the form of a bail. The bail consists of a transverse rod **30** for carrying the rolls, and arms **29**, **29a** to carry the rod, the arms being hinged upon the lower front part of the platen-frame, so that the rolls may be released from the platen by a considerable movement in a forward direction. The hinge of the platen-frame is about vertically under the point where the front rolls press against the platen.

A lug or pin **21a**, on link **21**, may bear against right-hand bail-arm **29**, standing between platen **10** and the side of frame **11**, thereby to lift this arm, which is rigidly connected by the transverse tubular rod **30**, with companion bail-arm **29a** arranged between the opposite end of the platen and the platen-frame end. Arms **29** and **29a** are hinged by screws **29b** upon a pair of brackets **31** fixed to the platen-frame ends. The brackets are removably attached by screws **31a**.

Upon removing screws **31a** and lifting both brackets **31**, the removal of the whole upper paper-feed mechanism can be effected, giving access to the platen for its removal or for other purposes.

While the upper feed-roll mechanism is shown detachable as a unit from the platen-frame, still such detachment may be dispensed with in some cases, and the bail may be hinged directly upon the ends of the platen-frame.

The arms **29**, **29a** and the rod **30** form a rigid unit along which the front rolls **16** may be independently adjusted, and by which said rolls may be maintained either against the platen or away therefrom. Since the rolls **16** extend toward each other from the arms **34a**, a space is left for the passage of the work-sheet, at Figure 1. It will be seen that the rolls wherever adjusted may run upon the margins of the sheet, and that when either roll is lifted the other roll accompanies it, so that a single movement by the operator effects the release of both rolls.

Tubular rod **30** has a slot **33** for its entire length. Two slides **34**, right and left, are inserted from the ends. At one end each slide is hubbed to fit the bore of tube **30**, and carries an arm **34a**, upon whose extreme forward end is mounted roll **16**. The tube or hollow rod is mounted in rear of the platen, and the arms **34a** extend forwardly and down nearly to the printing line on the platen. These arms at Figures 1 and 2 do not rock independently of the bail **29**, **29a**, **30**, but the bail, the arms and the rolls **16** swing forwardly as a unit to release the rolls from the platen.

Slides or wrists **34** have sufficient clearance to give easy adjustment along tube **30**.

Each slide is rolled into the form of a bead at the rear end of a plate or tongue **33a**, which extends forwardly from the open slot of the tubular rod. The arm **34a** is bent up from the outer portion of the tongue **33a**.

This slide is splined to the tubular rod. The key consists partly of tongue **33a**, which bears against the lower edge of the slot, and partly of a guiding finger **34b** that bears against the upper edge of the slot. Thus each roll-arm **34a** is rendered freely adjustable longitudinally of the platen, but is otherwise immovable relatively to the hollow rod. The fingers **34b** may be in the form of springs, and hold the rolls **16** firmly against the platen independently of each other. The spring-finger is fastened to the tongue **33a**, and extends up a hole **34c** and projects into the slot or spline of tube **30**. It therefore presses arm **34a** downwardly, to effect firm contact between roll **16** and platen **10**.

A small plate **34d**, tangential to the platen, is fastened upon each tongue **33a**, to conduct the work-sheets over the tubular shaft **30**, whereby the work-sheets are delivered rearwardly from the back of the machine, no part of the typed page being obscured, at any stage, notwithstanding the presence of the bail mechanism, whereby the feed-rolls **16** are set forwardly from the platen at different points in their range of adjustment and mechanically held either against or away from the platen.

To disengage the rolls, the release-key **19** is preferably depressed, thereby not only releasing the bottom rolls, but also, by means of pins **21a** on the links **21**, swinging forwardly the bail-arms **29** and **29a**, together with tubular shaft **30**. The entire bail swings forwardly around hinge-pintles **29b**, together with the rolls **16** and their supporting arms.

This releasing movement continues until lugs **29c**, on bail-arms **29**, **29a**, are arrested by stops **31b** on brackets **31**, Figure 2.

The rolls are held released by means of a double-acting spring **35**, connecting pins **29d** on the bails to pins **31c** on brackets **31**. Said springs **35** are of sufficient strength to hold the rolls **16** firmly against the platen in normal positions; the springs operating through the arms **29**, **29a**, the bail-rod **30** and the roll-arms **34a**. They also serve to hold the rolls **16** released, as at Figure 2, thus leaving the hands of the operator free to adjust the sheets. At this time the bottom rolls **17**, **18** may be held away from the platen by the usual cam-rod **28**.

Figure 2 shows all rolls disengaged and spring

35 holding them released. The work-sheets can now be inserted and adjusted over the table 12 and passed under the platen. They are guided upwardly by the wing-scale 36, and are adjusted for typing. By restoring the release-key 19, the adjusted work-sheets will be pressed against the platen by all rolls 17, 18, and the platen-knob 43 may be rotated to advance the sheets.

The upper paper-feed-rolls 16, while disengaged from the platen, can be easily adjusted along the rod 30 to suit the width of the work-sheets. Then said rolls and bail can be pressed back to the platen, as shown in Figure 3, and will tend to draw the sheets upwardly and therefore to smooth them back against the platen. Springs 35 constantly press the restored rolls 16 against the work-sheets, near the printing line.

Besides guiding the work-sheets while being inserted and adjusted, the rolls 16 afford an unobstructed view of the typing. This is due to mounting them separately on their sliding supports, having joint rear splined connection within the bail-rod 30. The operation of the two rolls 16 as a unit, while leaving the typing on the work-sheet fully exposed, gives an important advantage. The simple spring-structure 35 holds the rolls firmly against the platen, and also mechanically detains them in released positions, while permitting free adjustment of the rolls along the rod 30.

When it is desired to afford access to the top and front of the platen for the purpose of making erasures or collating sheets, the rolls 16 may, if desired, be swung up and back, entirely clear of the platen, as seen at Figure 4. For this purpose, the hollow rod, to which the roll-arms are splined, may be supported upon a bail which is complete in itself. The rod may hence be hinged between arms 29, 29a, and these arms 29, 29a may be secured to each other by rod 38, to make a rigid bail, which is hinged, and also spring-pressed, in the manner already described. In this form of the invention, it will be understood that the bail with the rolls 16 may be swung as a unit by the key 19 from normal to the cast-off position, as seen in dotted lines at Figure 4, at the front of the platen. Thus the roll-arms are splined to the shaft 30 that is journaled upon the bails, so as to swing up to idle position shown in full lines at Figure 4, and, moreover, the device is constructed to be swung automatically to the releasing position shown by dotted lines at Figure 3, this being done either by finger-pressure applied directly upon the roll (whereby both rolls are either released or restored), or by use of the key 19, as above explained, when said key either casts off or restores the bottom rolls.

The upper rolls 16, with their slides or supports 34, can be turned upwardly to remain in vertical position, if desired. Figure 4 shows that the entire top of the platen has been cleared. Pivots 37 are provided in the ends of the rotatable rod or shaft 30, whereby the latter is journaled in the upper ends of bail-arms 29 and 29a. Tie-rod 38 rigidly connects said arms, independently of 30, to form a complete rigid bail.

Springs 40 working between pivots 39a on ear 39 and 41a on ear 41, and arm 29, hold the rolls in elevated position of disuse, Figure 4. While the rolls are in effective positions, said springs 40 constantly press them against the platen, through their action on the ears 39, tending to swing the shaft 30 and rolls 16 downwardly. At this time, the main springs 35 are forcing the bail 29, 29a, 38 rearwardly, to furnish a support for springs 40, and thereby co-operate in pressing the rolls 16 against the platen.

On the rear side of tube 30, is a pin 42, to arrest the feed-rolls 16 in Figure 4 position. It is convenient to hold the rolls 16 away while the sheets are held on the platen by the bottom rolls 17, 18.

Owing to the splining arrangement at 33, 34, it results that a forward and downward pull upon the roll 16 or the arm 34a at either end of the journaled rod or shaft 30 will bring both rolls forward from Figure 4 and down upon the platen, as at 16c. By lifting either roll 16, the other roll will also respond, and reach the top idle positions at Figure 4, regardless of their relative adjustments along the rod 30. The forward movement of restoration of the rolls is accomplished by pulling on one of them with the finger. Both rolls will swing down, as the slides 34 are keyed within the slot of the tube or rod 30.

The turned-up flange 45 of the side-edge guide 13 on the paper-shelf may be placed in line with the left-hand roll-carrying arm 34a. The main plate 13a of this guide may be bent rearwardly over the top of the paper-shelf 12, and formed with ears to slide upon the guide-rod 14. An index 46 may be cut in the plate 13a above a scale 47 provided upon the paper-shelf 12. It will be seen that the plate 13a at its upper portion may be formed of a neck-portion 48 and an index-portion 46, side by side, thus making a simple structure and giving a serviceable indexing device.

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 revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rear rod upon which the roll-arms at only their rear ends are mounted to be independently adjustable lengthwise of the platen, a bail including side arms hinged at their lower ends to the platen-frame and also including said rod at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable forwardly upon the bail-hinge to carry the rolls away from the platen to leave a gap for the passage of the leading end of the sheet as it rises above the printing line, said rolls extending toward each other from said roll-arms, so as to run upon the margins of the sheets which emerge from the machine between the arms, whereby a forward pull upon either roll will carry both rolls away from the platen, and vice versa, a spring for acting upon said bail either to press the rolls against the platen or to hold them away from the platen, a release-key effective to swing said bail to roll-releasing position, and rolls running upon the bottom of the platen and connected to be released by said key; said bail being mounted for releasing movement independently of the key at will, whereby the spring may hold the upper rolls released, while the bottom rolls retain the work-sheet upon the platen.

2. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rear rod upon which the roll-arms at only their rear ends are mounted to be independently adjustable lengthwise of the platen, a bail including side arms hinged at

their lower ends to the platen-frame and also including said rod at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable forwardly upon the bail-hinge to carry the rolls away from the platen to leave a gap for the passage of the leading end of the sheet as it rises above the printing line, said rolls extending toward each other from said roll-arms, so as to run upon the margins of the sheets which emerge from the machine between the arms, whereby a forward pull upon either roll will carry both rolls away from the platen, and vice versa, said roll-arm rod being pivoted upon said bail-arms, and a shaft rigidly connecting said bail-arms, the roll-arm rod being hinged upon the bail for a simultaneous movement of both rolls up and back from the platen, to leave the work-sheets clear for manipulation; whereby said rolls when in effective positions may be released by a forward movement from the platen, by swinging the bail and rod.

3. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rear rod upon which the roll-arms at only their rear ends are mounted to be independently adjustable lengthwise of the platen, a bail including side arms hinged at their lower ends to the platen-frame and also including said rod at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable forwardly upon the bail-hinge to carry the rolls away from the platen to leave a gap for the passage of the leading end of the sheet as it rises above the printing line, said rod being formed like a tube having a slot for its entire length, and slides mounted within the tube and having tongue-portions which extend out through the slot and carry said roll-arms, the latter being integral with the tongues and bent up therefrom, said roll-arms being yieldingly splined in the slot of the rod, to accommodate various thicknesses of work.

4. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rear rod upon which the roll-arms at only their rear ends are mounted to be independently adjustable lengthwise of the platen, a bail including side arms hinged at their lower ends to the platen-frame and also including said rod at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable forwardly upon the bail-hinge to carry the rolls away from the platen to leave a gap for the passage of the leading end of the sheet as it rises above the printing line, a release-key pivoted upon the platen-frame, a link extending from said release-key, a pin upon said link to engage said bail to release the rolls, and a bottom feed-roll release-mechanism to which said link is pivoted for simultaneous operation of said bottom release-mechanism.

5. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rear rod upon which the roll-arms at only their rear ends are mounted to be independently adjustable lengthwise of the platen, a bail including side arms hinged at their lower ends to the platen-frame and also including said rod at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable forwardly upon the bail-hinge to carry the rolls away from the platen to leave a gap for the passage of the leading end of the sheet as it rises above the printing line, a release-key pivoted upon the platen-frame, a link extending from said release-key, a pin upon said link to engage said bail to release the rolls, and a bottom feed-roll release-mechanism to which said link is pivoted for simultaneous operation of said bottom release-mechanism; the bail being movable to and from releasing position independently of said key and said bottom release-mechanism.

6. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rod underlying the work-sheet at the rear of the platen, said arms only at their rear ends being mounted upon said rod to be independently adjustable lengthwise of the platen, said rolls extending toward each other from said roll-arms, so as to run upon the margins of the sheets which emerge from the machine between the arms, while leaving the typed matter entirely exposed to view, said arms being positively splined to said rear rod, and the latter being journaled upon a support, so that either arm may rock said rod, carrying both arms and their rolls upwardly and rearwardly from the platen, and means for floating said rear rod bodily forward over the platen, to set said rolls forwardly away from the platen, to afford an introductory passage for the work-sheets.

7. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rear rod upon which the roll-arms at only their rear ends are mounted to be independently adjustable lengthwise of the platen, said rolls extending toward each other from said roll-arms, so as to run upon the margins of the sheets which emerge from the machine between the arms, said arms being positively splined to said rear rod, and the latter being journaled upon a support, so that either arm may rock said rod, carrying both arms and their rolls upwardly and rearwardly from the platen, and means for enabling a forward pull upon either roll to withdraw it forwardly from contact with the platen, and thereby withdraw the companion roll.

8. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rear rod upon which the roll-arms at only their rear ends are mounted to be independently adjustable lengthwise of the platen, said rolls extending toward each other from said roll-arms, so as to run upon the margins of the sheets which emerge from the machine between the arms, said arms being positively splined to said rear rod, and the latter being journaled upon a support, so that either arm may rock said rod, carrying both arms and their rolls upwardly and rearwardly from the

platen, means for enabling a forward pull upon either roll to withdraw it forwardly from contact with the platen, and thereby withdraw the companion roll, and means for mechanically maintaining the rolls either in contact with the platen or withdrawn forwardly therefrom.

9. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of a rod or bar in rear of the top of the platen, rolls riding on the platen above the printing-line and directing the paper back to deliver it rearwardly over said rod from the top of the platen, said rolls being mounted upon the forward ends of arms which extend rearwardly over the platen to the rear thereof, the roll-arms being mounted at only their rear ends upon said rod, to be independently adjustable thereon lengthwise of the platen, and a bail including side arms hinged at their lower ends to the platen-frame and also including said rod at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable upon the bail-hinge forwardly over the platen to carry the rolls away from the platen to leave a gap for the passage of the leading end of the sheet under the rolls as it rises above the printing-line.

10. In a front-strike typewriting machine, the combination with a revoluble platen, of means to guide a work-sheet through and out toward the rear from the printing point of the machine while keeping all the typing always in view of the operator, including side marginal rolls to run upon the front of the platen above the printing line, arms carrying said rolls, a rock-shaft upon which said arms are mounted for independent adjustment therealong, said rock-shaft extending lengthwise of the platen, and said arms extending forwardly over the platen, and said rolls directing the work-sheet back over said rock-shaft, and a mount upon which said rock-shaft is journaled to permit it to rock as a unit to carry the arms and rolls up above the platen to clear the latter for manipulation of the sheets, said mount being movable to carry the rolls forwardly from effective positions to give clearance for the introduction of the sheets, and said roll-arms being splined to said rock-shaft.

11. In a front-strike typewriting machine, the combination with a revoluble platen, of means to guide a work-sheet through and out of the rear of the machine while keeping all the typing always in view of the operator, including side marginal rolls to run upon the front of the platen above the printing line, arms carrying said rolls, a rock-shaft upon which said arms are mounted for independent adjustment therealong, said rock-shaft extending lengthwise of the platen, and said arms extending forwardly over the platen, and said rolls directing the work-sheet back over said rock-shaft, and a mount upon which said rock-shaft is journaled to permit it to rock as a unit to carry the arms and rolls up above the platen to clear the latter for manipulation of the sheets, said mount being movable to carry the rolls forwardly from effective positions to give clearance for the introduction of the sheets, and said roll-arms being splined to said rock-shaft, and said mount being in the form of a rigid bail which is pivoted at its lower end to the ends of the platen-frame.

12. In a front-strike typewriting machine, the combination with a revoluble platen, of means to guide a work-sheet through and out of the rear of the machine while keeping all the typing always in view of the operator, including side marginal rolls to run upon the front of the platen above the printing line, arms carrying said rolls, a rock-shaft upon which said arms are mounted for independent adjustment therealong, said rock-shaft extending lengthwise of the platen, and said arms extending forwardly over the platen, and said rolls directing the work-sheet back over said rock-shaft, and a mount upon which said rock-shaft is journaled to permit it to rock as a unit to carry the arms and rolls up above the platen to clear the latter for manipulation of the sheets, said mount being movable to carry the rolls forwardly from effective positions to give clearance for the introduction of the sheets, and said roll-arms being splined to said rock-shaft, said mount being in the form of a complete spring-pressed bail which is hinged at the lower end of the platen-frame ends and includes a tie-rod connecting the bail-arms; said rock-shaft being hinged upon said bail.

13. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of means for feeding a work-sheet around the platen and out of the machine while keeping in view all the typing on the sheet, including paper-guiding rolls running upon the platen above the printing-line and mounted upon arms that extend rearwardly over the platen to the rear thereof, a rod extending lengthwise of the platen at the rear thereof, said roll-arms at their rear ends being mounted upon said rod for independent adjustment therealong, said rolls directing the work-sheet rearwardly over said rod to be delivered from the machine, and mounts upon the ends of said platen-frame, said rod being carried upon said mounts for a bodily movement forward to release said rolls from the front of the platen, to leave a gap for the introductory passage of the work-sheets.

14. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of means for feeding a work-sheet around the platen and out of the machine while keeping in view all the typing on the sheet, including paper-guiding rolls running upon the platen above the printing-line and mounted upon arms that extend rearwardly over the platen to the rear thereof, a rod extending lengthwise of the platen at the rear thereof, said roll-arms at their rear ends being mounted upon said rod for independent adjustment therealong, said rolls directing the work-sheet rearwardly over said rod to be delivered from the machine, and mounts upon the ends of said platen-frame, said rod being carried upon said mounts for a bodily movement forward to release said rolls from the front of the platen, to leave a gap for the introductory passage of the work-sheets, said rolls extending toward each other from said roll-arms, so as to run upon the margins of the sheets which emerge from the machine between the arms, the entire view of the typing upon the sheets being unobstructed at all times.

15. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of paper-guiding rolls riding on the platen above the printing line and mounted upon the forward ends of arms which extend rearwardly over the platen, a rear rod upon which the roll-arms at only their rear ends are mounted to be independently adjustable lengthwise of the platen, said rear rod underlying the work-sheet at the delivery side of the platen, a bail including side arms hinged at their lower ends to the platen-frame and also rigidly connected by a rod

at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable forwardly upon the bail-hinge to carry the rolls away from the platen to leave a gap for the passage of the leading end of the sheet as it is caused to rise above the printing line, said rear rod being journaled upon a support provided upon said rigid bail, to swing the rolls up and back off from the platen, and means splining said roll-arms to said journaled rod.

16. In a front-strike typewriting machine having a revoluble platen and a frame therefor, in combination, side arms hinged at their lower ends to the platen frame and a rod connecting the arms at their upper ends, constituting a bail, a pair of arms mounted on said rod for relative longitudinal adjustment thereon, each arm extending over the revoluble platen and having a roll at its free end adapted to ride on the platen above a printing line to deflect a work-sheet rearwardly from the printing line, said bail, the roll-carrying arms, and rolls, constituting a unit which is swingable to move the rolls forwardly away from the platen and rearwardly to restore them against the platen, and means adapted to yieldably retain the rolls in either of said positions, whereby when in position against the platen they serve to deflect the sheet rearwardly and when in position away from the platen they allow unobstructed passage of the leading end of the work-sheet tangentially from the front side of the platen upwardly in front of said rod, behind the said rolls, and between the said longitudinally adjustable arms.

17. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of rolls running upon the platen above the printing line to deflect a work-sheet rearwardly from the printing line, side rolls mounted upon arms and extending toward each other therefrom, said arms reaching rearwardly over the platen at each side of the work-sheet, a rod behind the path of sheet deflection extending lengthwise of the platen, said roll-arms at their rear ends being mounted upon said rod for independent adjustment therealong, mounts upon the ends of said platen-frame, said rod being carried upon said mounts for a bodily movement forward to release said rolls from the platen, and a spring-device to either hold said mounts so that said rolls bear against the platen for deflecting the work-sheet rearwardly or so as to allow passage of the leading-end of the work-sheet in a tangential path substantially from the printing line upwardly in front of said rod, behind the said rolls and between the said arms.

18. In a front-strike typewriting machine, the combination with a revoluble platen and a frame therefor, of a rod or bar in rear of the top of the platen, rolls riding on the platen above the printing-line and directing the paper back to deliver it rearwardly over said rod from the top of the platen, said rolls being mounted upon the forward ends of arms and extending toward each other therefrom, said arms reaching rearwardly over the platen, one at each side of the work-sheet, the roll-arms being mounted at only their rear ends upon said rod, to be independently adjustable thereon lengthwise of the platen, and a bail including side arms hinged at their lower ends to the platen-frame and also including said rod at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable upon the bail-hinge forwardly over the platen to carry the rolls away from the platen in substantially a horizontal direction to leave a gap for the passage of the leading end of the sheet under the rolls and between the said arms as it rises above the printing-line, said bail being hinged to the platen-frame along a line that is below the platen and substantially in a plane tangential to the platen at the printing line.

19. In a front-strike typewriting machine, the combination wtih a revoluble platen and a frame therefor, of a rod or bar in rear of the top of the platen, rolls riding on the platen above the printing-line and directing the paper back to deliver it rearwardly over said rod from the top of the platen, said rolls being mounted upon the forward ends of stiff arms which extend rearwardly over the platen to the rear thereof, the roll-arms being mounted at only their rear ends upon said rod, to be independently adjustable thereon lengthwise of the platen, a bail including side arms hinged at their lower ends to the platen-frame and also including said rod at their upper ends, said rolls, roll-arms and bail forming a unit which is swingable upon the bail-hinge forwardly over the platen to carry the rolls away from the platen to leave a gap for the passage of the leading end of the sheet under the rolls as it rises above the printing-line, said rod being formed like a tube having a slot for its entire length, slides being mounted within the tube and having tongue-portions which extend out through the slot and carry said roll-arms, said tongue-portions being narrower than the slot to permit limited hinging movement of the roll-carrying arms, and a spring associated with each roll-carrying arm to resiliently press it downwardly to assure contact of both rolls upon the platen.

JESSE A. B. SMITH.