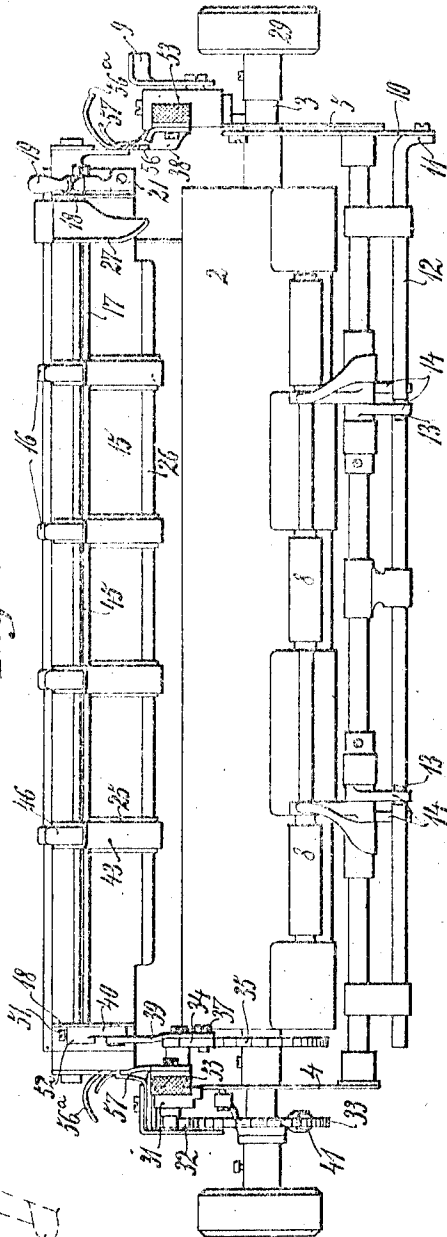
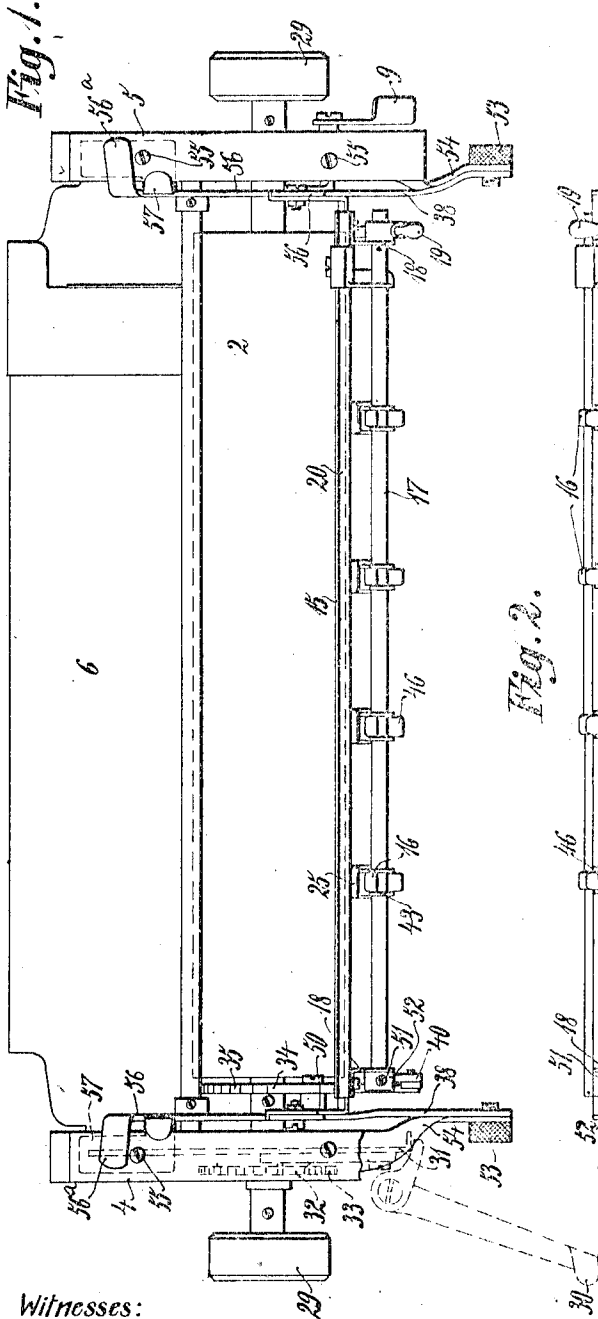


H. S. McCORMACK.
TYPE WRITING MACHINE.
APPLICATION FILED MAY 28, 1906.

1,055,344.

Patented Mar. 11, 1913.

2 SHEETS—SHEET 1.



Witnesses:

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Inventor:

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2 SHEETS—SHEET 2.

Fig. 3.

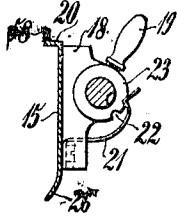


Fig. 4.

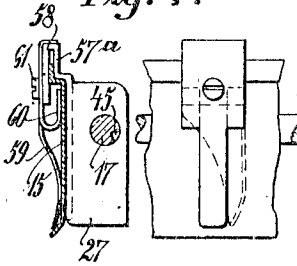


Fig. 5.

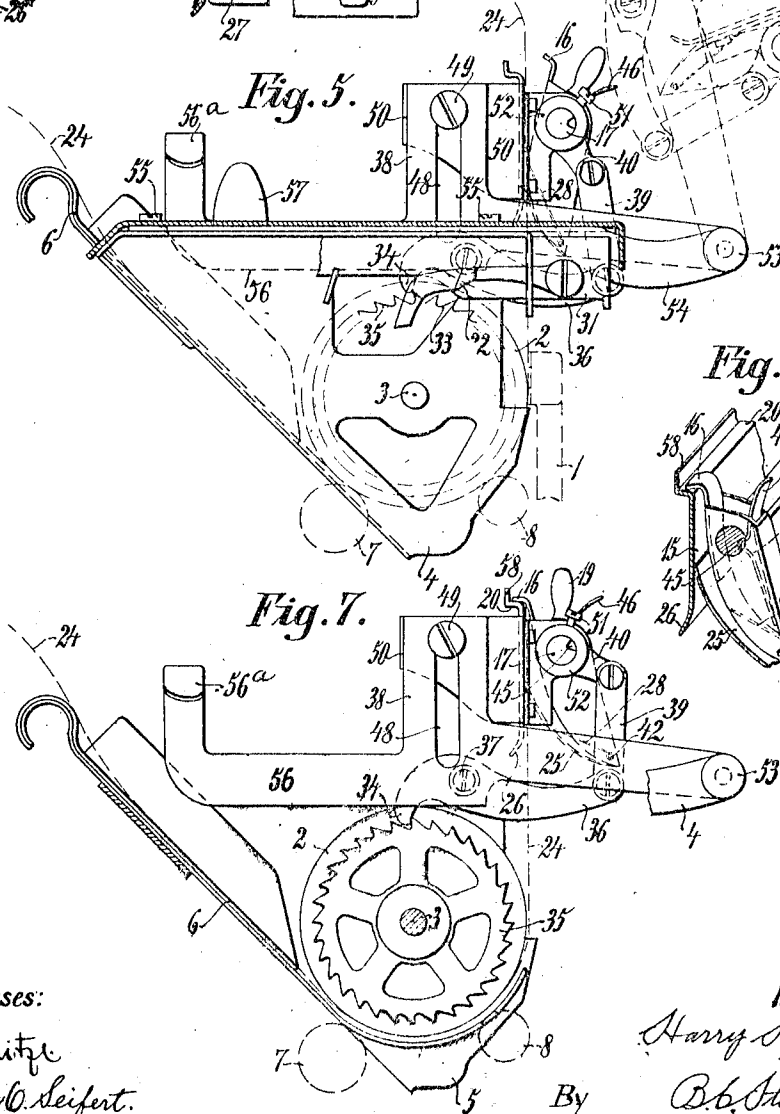


Fig. 6.

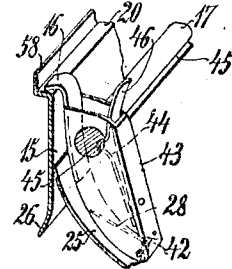
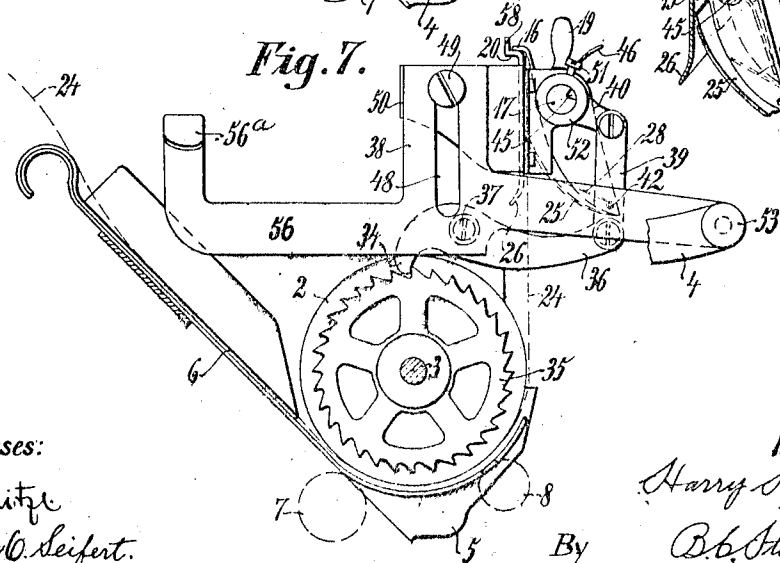


Fig. 7.



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UNITED STATES PATENT OFFICE.

HARRY S. McCORMACK, OF NEW ROCHELLE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE.

TYPE-WRITING MACHINE.

1,055,344.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed May 28, 1908. Serial No. 435,404.

To all whom it may concern:

Be it known that I, HARRY S. McCORMACK, a citizen of the United States, residing in New Rochelle, in the county of Westchester 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 paper-controlling devices of typewriting machines, and particularly to those of the front strike variety.

In my co-pending applications No. 402,583 (filed Nov. 8, 1907) and No. 431,745, (Patent No. 929,158) is disclosed a tablet or plate standing on edge above the front portion of the platen and over the printing point, upon which the sheet can readily be adjusted, a stop being provided to gage the leading edge of the sheet, said stop movable to permit the sheet to pass, and a directrix being also provided to guide the sheet up to the gage.

The general object of the present invention is to improve and simplify the construction and operation of the tablet and its appurtenances.

One of the features of the present invention relates to the sheet-gaging means. In place of a single gage extending nearly the entire length of the platen, I have devised a series of small gages or gage-pins, which I adjust independently of one another to any desired points along the platen.

In place of a single directrix extending nearly the entire length of the platen I provide a series of directrices also adjustable independently of each other along the platen, and preferably mounted upon the gage-pins themselves. The latter are shown splined upon a rock-shaft which extends along the platen and performs the functions of rocking the gages into and out of sheet-arresting positions. Said directrices are preferably in the form of yielding fingers to press lightly against the tablet or the sheet thereon, to hold the sheet temporarily after its adjustment and until the usual pressure rolls are brought into operation to advance the sheet.

In said application No. 402,583 the pressure-roll release key is connected to a stop or gage which is mounted upon the tablet, so that the gage is thrown into working

position when the rolls are released from the platen; and upon lifting the key to restore the rolls, the gage is automatically moved out of working position.

One of the objects of the present invention is to preserve the automatic gage-releasing feature without incurring the liability of the sheet becoming disarranged during the return stroke of the pressure-roll key, owing to the simultaneous movements of the gage and rolls. To this end, I disconnect the key from the gage and provide a separate finger-piece to move the gage to working position, and I also provide means whereby upon rotating the platen, the gage is automatically swung away from the tablet to permit the sheet to advance as the platen turns. This automatic release of the gage is secured by means of a tumbler which at the gage-setting operation is caused to fall into a notch in a toothed wheel, which is secured to the platen. Said wheel may be also used for line-spacing; but in the present instance a separate wheel is used for line-spacing, and the wheels have similar numbers of teeth, so that when the platen is brought to rest by the line-spacing mechanism there is always a notch in position to receive the tumbler. Upon turning the platen, the tumbler is thrown out and causes the gage to release the sheet.

The tablet and its appurtenances are mounted for movement up and away from the platen to permit free access to the latter, which is a great convenience for many purposes, and especially where a tally strip mechanism is employed at one end of the platen frame, since the movement of the tablet upwardly and forwardly away from the platen gives the operator an opportunity to manipulate the strip conveniently, to pass it around the platen, to wind the spools, etc. The hinged tablet frame is preferably disconnectible as a whole from the platen frame, to permit the machine to be used for ordinary purposes when desired. The tablet is adjustable up and down or away from and toward the printing line on the platen, and provision is made for causing automatic release of the sheet gage at any position to which it may be adjusted with the tablet.

Other features and advantages will hereinafter appear.

In the accompanying drawings, Figure 1 is a plan of the platen frame and a portion of the carriage of an Underwood typewriting machine showing my improvements applied thereto, the sheet-gage being shown out of use. Fig. 2 is a front elevation of the same. Fig. 3 is a detail of the yielding detent to hold the gage-carrying rock-shaft in either a position of use or a position of disuse. Fig. 4 shows a cross section and a rear view of an adjustable side gage for the sheets. Fig. 5 is an end elevation partly in section showing the tablet frame in full lines in working position, and in dotted lines as swung upwardly and forwardly from the platen, to give freedom of access to the same. Fig. 6 is a perspective view to show the adjustable combined gage pin and sheet-directrix. Fig. 7 is a sectional end elevation of the mechanism showing the sheet-gage in working position.

Types 1 strike on the front side of a revolvable platen 2 mounted by means of an axle 3 in the ends 4, 5, of a platen frame, which also comprises a paper shelf 6 in rear of the platen. Upon the under side of the platen run pressure rolls 7, 8, which are released by means of a key 9 in the usual manner, said key connected by means of a link 10 to a crank 11 on the rock shaft 12, having cams or flats 13 to release arms 14 which control the pressure rolls. Mounted on edge above the platen and about directly over the printing point is a tablet 15, upon which to adjust the sheet when the pressure rolls 7, 8 are released by the key 9. The sheet is set up to a series of two or more stops or gage pins 16, which are mounted upon a rock-shaft 17, the latter journaled at its ends in ears 18 secured upon the front face of the tablet 15, and the rock-shaft having a handle 19, whereby it may be rocked to throw the gages backwardly over a backturned ledge 20 formed on the upper edge of the tablet 15. A yielding detent 21 engages notches 22 in a collar 23 provided on said shaft, to hold the same either in working position, as at Fig. 7, or in the Fig. 5 position with the gage-pins 16 out of use.

Before a sheet of paper 24 is introduced, the rolls 7, 8 are cast off by means of the key 9, and the paper is inserted around the platen and thrust up in front thereof; a series of directrices 25 being provided to guide the leading edge of the sheet up to the gage-pins 16; and the bottom edge of the tablet 15 also preferably having a rearward flare 26 for aiding to guide the sheet. The handle 19 being pressed back, the gage-pins are thrown into use, and the operator adjusts the top edge of the sheet to said pins and the side edge to a gage 27. The directrices 25 are pressed lightly by springs 28 against the sheet, to hold the latter tem-

porarily while the operator lifts the key 9 to restore the pressure rolls 7, 8, that are to cooperate with the platen to advance the sheet. After lifting the key 9, the operator turns the platen to advance the sheet, either by means of the usual hand wheels 29 or by means of the usual line-spacing mechanism, including a lever 30, a slide 31, a pawl 32 and a ratchet wheel 33.

The same operation that advances the platen also throws the gage pins 16 forwardly out of the path of the advancing sheet 24, this being accomplished by means of a tumbler 34 connected to the gage-carrying rock-shaft 17, and adapted to fall into a notch of a toothed wheel 35 fixed upon the platen axle 3, the wheel 35 turning with the platen, and throwing said tumbler 34 up from the Fig. 7 to the Fig. 5 position, thereby turning the rock-shaft 17 and rocking the gages 16 forwardly. The tumbler is formed upon the rear end of a lever 36, which is pivoted between ends at 37 upon one of a pair of side plates 38 to which the tablet 15 is fastened. When the tumbler 34 rises the lever pulls down a link 39, the upper end of which is pivoted to a crank 40 provided upon the rock-shaft 17, whereby the latter is turned to the Fig. 5 position. It will also be understood that when the handle 19 is thrown back to set the gage-pins, the link 39 lifts the lever 36 to drop the tumbler 34 into a notch of the wheel 35, Fig. 7. Said wheel has the same number of notches as the line-space wheel 33, and the latter is of course provided with the usual detent 41, so that there is always a notch beneath the tumbler 34 to receive the same. It is not essential that the wheel 35 be separate from the wheel 33, as they may be regarded as parts of wheel. Whenever desired, the handle 19 may be used for throwing the gage pins 16 forwardly; and this may conveniently be done when the key 9 is restored, and by the same hand of the operator, said handle 19 being arranged in proximity to said key 9.

Referring again to the directrices 25, it will be seen that they are pivoted at 42 to the lower ends of brackets 43 upon which the gage-pins 16 are formed, said brackets adjustable independently of each other along the rock-shaft 17 and having spring detents 44 to engage a groove 45 extending along the rock-shaft, to cause the brackets and hence the gage-pins to rock with the shaft. Each spring detent 44 is provided with an extension 46 to form a finger-piece for withdrawing the detent from the groove, to facilitate slipping the bracket 43 along the rock-shaft. Each of the brackets 43 carries not only the gage pins 16, but also a directrix 25, and as well a spring 28 to press the directrix very lightly against the tablet 15 or the sheet 24 thereon for the purpose

already mentioned, the pivot 42 of the directrix permitting the latter to yield to accommodate the paper. The aforesaid side plates 38 are provided with vertical slots 48 in which play screws 49, whereby the tablet is secured upon said side plates, ears 50 extending back from the ends of the tablet to receive the shanks of said screws. The screws may be loosened to permit adjustment of the tablet bodily down and up or toward and away from the printing line on the platen, to accommodate different depths of headings upon different styles of bills.

When the tablet is being adjusted up or down, the operator loosens a screw 51 which secures to the rock-shaft 17 the hub 52 of the crank 40; and after the tablet has been secured in its new position, the crank 40 is adjusted around the rock-shaft 17 to compensate for the change in position of the tablet, and then the screw 51 is tightened, so that when the rock-shaft is in the Fig. 3 position the tumbler 34 may stand in the Fig. 5 position. It will be observed that the side plates 38 are hinged at their forward ends by means of thumb screws 53 upon a pair of brackets 54, secured by screws 55 upon the ends of the platen frame. By means of handles 56 having finger-pieces 56^a which extend rearwardly from the side plates 38, the entire frame, comprising said side plates and the tablet 15, may be swung upwardly and forwardly away from the platen, to give freedom of access to the latter, such swinging movement being indicated by dotted lines at Fig. 5. The tablet frame is normally held down by yielding latches 57, which catch over the tops of the arms 56 and may be pressed aside to release said arms. It will be understood that when the tablet frame is turned to normal position, the tumbler 34 resumes its proper position relatively to the wheel 35, the automatic release of the gage-pin 16 being thus secured by means which do not require to be cast off or attended to when it is desired to raise or swing the tablet frame upwardly and forwardly from the platen. The thumb screws 53 may be taken out and the tablet frame may be moved entirely from the machine whenever desired, to permit the latter to be used for ordinary letter-writing or other purposes. The side gage 27 may have a clasp 57^a fitted over a flange 58 projecting up from the ledge 20; and may be yieldingly held in position by spring-fingers 59, 60 secured by a screw 61 upon the part 57.

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 typewriting machine, the combination with a platen and a platen frame, of a stop-gage for the leading edge of the sheet

thereon, and means dependent upon any forward rotation of the platen and connected to the stop gage for releasing the latter.

2. In a typewriting machine, the combination with a platen and a stop-gage for the leading edge of the sheet, of a connection to said gage to cause a movement of the platen to release the stop-gage.

3. In a typewriting machine, the combination with a platen and a stop or gage for the leading edge of the sheet, of yielding means for holding the gage either in or out of working position, means to advance the platen together with the paper thereon, and means dependent upon the rotation of the platen itself to cause the gage to move out of working position.

4. In a typewriting machine, the combination with a platen and a ratchet connected thereto, of a stop-gage for the leading edge of the sheet, and a tumbler connected to the stop-gage to be dropped into a notch of the ratchet at the movement of the stop-gage to working position, and then to be operated by said ratchet to release the stop-gage.

5. In a typewriting machine, the combination with a platen and a ratchet connected thereto, of a gage for the leading edge of the sheet, a rock-shaft carrying said gage, and a lever connected to said rock-shaft and having a tumbler to be thrown into engagement with the ratchet when the gage is turned to working position; the tumbler being liftable by the ratchet teeth to throw the gage out of working position.

6. In a typewriting machine, the combination with a revoluble platen having a notched wheel, of a tablet above the platen upon which to adjust the sheets, a stop movable to said tablet to gage the leading edges of the sheets, and a tumbler connected to the stop to be moved into a notch of said wheel when the gage is moved to working position, and to be caused by said wheel to restore the gage to inoperative position.

7. In a typewriting machine, the combination with a revoluble platen having a notched wheel, of a tablet above the platen upon which to adjust the sheets, a stop movable to said tablet to gage the leading edges of the sheets, and a tumbler connected to the stop to be moved into a notch of said wheel when the gage is moved to working position, and to be caused by said wheel to restore the gage to inoperative position; the tablet and stop being together adjustable toward and away from the printing point, and the connection between the stop and the tumbler including a part adjustable to compensate for such adjustment of the stop.

8. In a typewriting machine, the combination with a revoluble platen having a notched or toothed wheel, of a tablet above the platen upon which to adjust the sheets,

said tablet adjustable toward and away from the printing point, a stop movable to gage the leading edges of the sheets, said stop mounted on a rock shaft which is shiftable together with said tablet, an arm upon said rock shaft, and a lever connected to said arm and having a tumbler to engage a notch or tooth of said wheel at the movement of the stop to working position, and to be caused by said notch or tooth to rock said shaft to release the stop, adjustable means being provided to vary the connection between the rock-shaft and the lever.

9. In a typewriting machine, the combination with a revoluble platen having a notched or toothed wheel, of a tablet above the platen upon which to adjust the sheets, said tablet adjustable toward and away from the printing point, a stop movable to gage the leading edges of the sheets, said stop mounted on a rock shaft which is shiftable together with said tablet, an arm upon said rock shaft, and a lever connected to said arm and having a tumbler to engage a notch or tooth of said wheel at the movement of the stop to working position, and to be caused by said notch or tooth to rock said shaft to release the stop, said arm being adjustable about said rock shaft to compensate for the different positions to which the rock shaft is adjustable relatively to the printing point.

10. In a typewriting machine, the combination with a revoluble platen having a toothed wheel, of a tablet above the platen upon which to adjust the sheets, a platen frame, means supporting the tablet for adjustment along said platen frame toward and away from the printing point, a rock shaft to be adjusted with the tablet, a gage on said rock shaft for the leading edges of the sheets, an arm mounted upon said rock shaft and adjustable to different positions around the same, a link connecting said arm to a lever, and a tumbler upon said lever to be moved against a tooth of said wheel at the gage-setting operation, and to be caused by the wheel to release the gage.

11. In a typewriting machine, the combination with a revoluble platen having a toothed wheel, of a tablet above the platen upon which to adjust the sheets, a platen frame, means supporting the tablet for adjustment along said platen frame toward and away from the printing point, a rock shaft to be adjusted with the tablet, a gage on said rock shaft for the leading edges of the sheets, an arm mounted upon said rock shaft and adjustable to different positions around the same, a link connecting said arm to a lever, and a tumbler upon said lever to be moved against a tooth of said wheel at the gage-setting operation, and to be caused by the wheel to release the gage, a yielding detent

being provided upon said tablet to hold said rock shaft in gage-setting position.

12. In a typewriting machine, the combination with a revoluble platen having a toothed wheel, of a tablet above the platen upon which to adjust the sheets, a platen frame, means supporting the tablet for adjustment along said platen frame toward and away from the printing point, a rock shaft journaled upon ears connected to said tablet to be adjusted therewith, a finger-piece upon said rock-shaft, a gage on said rock shaft for the leading edges of the sheets, adjustable means connecting said rock shaft to a tumbler to be moved against a tooth of said wheel at the gage-setting operation, and to be caused by the wheel to release the gage.

13. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, and a series of paper-gages mounted upon said rock-shaft to turn therewith and independently adjustable therealong.

14. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, and a series of paper-gages mounted upon said rock-shaft to turn therewith and independently adjustable therealong, each of said paper-gages having a releasable spring to engage a longitudinal groove formed in the rock shaft.

15. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, and a series of paper-gages mounted upon said rock-shaft to turn therewith and independently adjustable therealong, each gage also having a yielding finger to press lightly against the tablet or the paper thereon, to hold the sheet temporarily after it has been adjusted to the gage.

16. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, a series of paper-gages mounted upon said rock-shaft to turn therewith and independently adjustable therealong, each of said paper-gages having a releasable spring to engage a longitudinal groove formed in the rock shaft, and a finger-piece upon said rock shaft.

17. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, a series of paper-gages mounted upon said rock-shaft to turn

therewith and independently adjustable therealong, and means connected to the platen to rock said shaft to carry the gages away from the tablet.

18. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, a paper-gage mounted upon said rock-shaft, the latter mounted in ears projecting from said tablet, and the tablet having means whereby it is supported for up and down adjustment upon brackets supported on the ends of the platen frame.

19. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, a paper-gage mounted upon said rock-shaft, the latter mounted in ears projecting from said tablet, and the tablet having means whereby it is supported for up and down adjustment upon brackets supported on the ends of the platen frame; said brackets being hinged to the platen frame forward of the platen to permit the tablet and its appurtenances to be swung upwardly and forwardly away from the platen.

20. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, a paper-gage mounted upon said rock-shaft, the latter mounted in ears projecting from said tablet, and the tablet having means whereby it is supported for up and down adjustment upon brackets supported on the ends of the platen frame; said brackets being hinged to the platen frame forward of the platen to permit the tablet and its appurtenances to be swung upwardly and forwardly away from the platen, and catches for holding said brackets in their normal positions.

21. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, a paper-gage mounted upon said rock-shaft, the latter mounted in ears projecting from said tablet, and the tablet having means whereby it is supported for up and down adjustment upon brackets supported on the ends of the platen frame; said brackets being hinged to the platen frame forward of the platen to permit the tablet and its appurtenances to be swung upwardly and forwardly away from the platen, and catches for holding said brackets in their normal positions, each bracket having a rearwardly extending finger-piece.

22. In a typewriting machine, the combi-

nation with a revoluble platen, a platen frame, and a tablet above the platen upon which to adjust the sheets, of a rock shaft extending along the tablet and a paper-gage mounted upon said rock shaft to turn therewith, said gage having a yielding finger to press lightly against the tablet or the paper thereon, to hold the sheet temporarily after it has been adjusted to the gage.

23. In a typewriting machine, the combination with a revoluble platen, a platen frame, and a tablet above the platen upon which to adjust the sheets, of a rock shaft extending along the tablet and a paper-gage mounted upon said rock shaft to turn therewith, said gage having a yielding finger to press lightly against the tablet or the paper thereon, to hold the sheet temporarily after it has been adjusted to the gage, and means connected to the platen to rock said shaft to carry the gage away from the tablet.

24. In a typewriting machine, the combination with a revoluble platen, a platen frame, and a tablet above the platen upon which to adjust the sheets, brackets supporting said tablet and hinged to the platen frame, to permit the tablet to be swung upwardly and forwardly away from the platen.

25. In a typewriting machine, the combination with a revoluble platen, a platen frame, and a tablet above the platen upon which to adjust the sheets, brackets supporting said tablet and hinged to the platen frame, to permit the tablet to be swung upwardly and forwardly away from the platen, and catches for holding said brackets in their normal positions.

26. In a typewriting machine, the combination with a revoluble platen, a platen frame, and a tablet above the platen upon which to adjust the sheets, brackets supporting said tablet and hinged to the platen frame, to permit the tablet to be swung upwardly and forwardly away from the platen, and catches for holding said brackets in their normal positions, each bracket having a finger-piece.

27. In a typewriting machine, the combination with a revoluble platen and a tablet above the platen upon which to adjust the sheets, of a paper gage movable to and from said tablet and having a yielding finger to press lightly against the tablet or the paper thereon to hold the sheet temporarily after it has been adjusted to the gage.

28. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a pair of brackets or arms hinged to the platen frame, and a tablet normally lying on edge above the platen, upon which to adjust the sheets; said tablet mounted at its ends upon said hinged arms to be swung away from the platen.

29. In a typewriting machine, the com-

- bination with a revoluble platen and a platen frame, of a pair of brackets or arms hinged to the platen frame, a tablet normally lying on edge above the platen, upon which to adjust the sheets; said tablet mounted at its ends upon said hinged arms to be swung away from the platen, and releasable means to hold the arms in normal positions.
30. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a pair of brackets or arms hinged to the platen frame, and a tablet normally lying on edge above the platen, upon which to adjust the sheets; said tablet mounted at its ends upon said hinged arms to be swung away from the platen; said arms mounted one at each end of the platen frame and hinged at their forward ends.
31. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a pair of brackets or arms hinged to the platen frame, and a tablet normally lying on edge above the platen, upon which to adjust the sheets; said tablet mounted at its ends upon said hinged arms to be swung away from the platen; said arms mounted one at each end of the platen frame and hinged at their forward ends upon ears extending forwardly from the ends of the platen frame.
32. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a pair of brackets or arms hinged to the platen frame, a tablet normally lying on edge above the platen, upon which to adjust the sheets; said tablet mounted at its ends upon said hinged arms to be swung away from the platen, and means upon said tablet to gage the leading edges of the sheets.
33. In a typewriting machine, the combination with a revoluble platen and a tablet above the platen upon which to adjust the sheets, of a paper gage upon said tablet for the leading edges of the sheets, means to detain the paper gage yieldingly in working position, and an automatic device connected to the paper-controlling devices of the machine to release the gage; said tablet and its appurtenances being mounted upon the platen frame for movement upwardly away from the platen to give freedom of access to the latter.
34. In a typewriting machine, the combination with a revoluble platen, having a notched wheel and a platen frame, of a tablet above the platen upon which to adjust the sheets, a gage movable to said tablet to arrest the leading edges of the sheets, and a tumbler connected to the gage to be moved into a notch of said wheel when the gage is moved to working position, and to be caused by said wheel to restore the gage to inoperative position; said tablet, gage and tumbler being all mounted upon a support which is hinged upon said platen frame to permit them to be swung up away from the platen to give freedom of access to the latter.
35. In a typewriting machine, the combination with a revoluble platen and a tablet above the platen upon which to adjust the sheets, of a paper gage movable to and from said tablet, and a yielding directrix for the upwardly advancing leading edge of the sheet, a spring being provided to cause said directrix to press lightly against the tablet or the paper thereon.
36. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, a series of paper-gages mounted upon said rock-shaft to turn therewith and independently adjustable therealong, and means for directing the upwardly advancing leading edge of the sheet toward said gages, said directing means comprising a series of directrices, one upon each gage.
37. In a typewriting machine, the combination with a revoluble platen, a platen-frame, and a tablet above the platen upon which to adjust the sheets, of a rock-shaft extending along the tablet, a series of paper-gages mounted upon said rock-shaft to turn therewith and independently adjustable therealong, and means for directing the upwardly advancing leading edge of the sheet toward said gages, said directing means comprising a series of directrices, one upon each gage, and each of said directrices mounted to press lightly and yieldingly against the tablet or the sheet thereon.
38. In a typewriting machine, the combination with a revoluble platen and a tablet above the platen upon which to adjust the sheets, of a directrix to guide the upwardly advancing leading edge of the sheet against a stop or gage, and means whereby said tablet, gage and directing means are mounted for movement upwardly and away from the platen to give freedom of access to the same.
39. In a typewriting machine, the combination with a revoluble platen and a tablet mounted over the platen upon which to adjust the sheet, gaging means for the leading edge of the sheet, and a series of directrices to guide said leading edge to the gaging means, said directrices adjustable independently of each other along the platen.
40. In a typewriting machine, the combination with a revoluble platen and a tablet mounted over the platen upon which to adjust the sheet, gaging means for the leading edge of the sheet, and a series of directrices to guide said leading edge to the gaging means, said directrices adjustable independently of each other along the platen; and

each having a yielding construction to bear lightly upon the tablet or upon the sheet thereon.

means operable by a part of the paper-advancing mechanism to release the stop.

48. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame mounted upon the platen frame and having a tablet erected over the platen above the printing point, and a stop to gage the leading edge of the sheet; the platen having a notched wheel and the frame having a tumbler to drop into the notch of the wheel, to enable the rotation thereof to throw the stop to release the sheet.

49. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame detachably mounted upon the platen frame and having a tablet erected over the platen above the printing point, a stop to gage the leading edge of the sheet, said tablet and stop being adjustable upon said detachable frame away from and toward the printing line, means to hold the stop in working position, means operable by a part of the paper-advancing mechanism to release the stop, and means to permit adjustment of the stop-releasing means to compensate for the adjustment of the tablet.

50. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame detachably mounted upon the platen frame and having a tablet erected over the platen above the printing point, a stop to gage the leading edge of the sheet, said tablet and stop being adjustable upon said detachable frame away from and toward the printing line, means to hold the stop in working position, means operable by a part of the paper-advancing mechanism to release the stop, the platen having a notched wheel and the detachable frame having a tumbler to drop into the notch of the wheel, to enable the rotation thereof to throw the stop to release the sheet, and means to permit adjustment of the stop-releasing means to compensate for the adjustment of the tablet.

51. In a typewriting machine, the combination of a platen, a feed roller, key controlled releasing means for the feed roller, paper stop devices, and a key for controlling said devices, said key being arranged in proximity to the release key and being operative by the same hand that operates the release key and concurrently therewith.

52. In a typewriting machine, the combination of a platen, a paper stop, paper controlling devices, means for locking said devices in abnormal position, and separate means for locking said paper stop in abnormal position.

53. In a typewriting machine, the combination of a platen, a normally operative feed roller, a normally inoperative paper stop, means for releasing said feed roller and locking it in released position, and sepa-

41. In a typewriting machine, the combination with a revoluble platen, releasable pressure rolls therefor, and a tablet mounted over the platen upon which the sheet may be adjusted, and provided with gaging means for the leading edge of the sheet, of a series of yielding fingers to bear lightly upon the tablet or upon the paper thereon, to hold the sheet temporarily after the adjustment of the sheet and until the pressure rolls are brought into operation to advance the same.

42. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame detachably mounted upon the platen frame and having a tablet erected over the platen above the printing point, and extending along the platen to serve as a rest upon which to adjust the leading edge of the sheet.

43. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame detachably mounted upon the platen frame and having a tablet erected over the platen above the printing point, and a stop to gage the leading edge of the sheet.

44. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame detachably mounted upon the platen frame and having a tablet erected over the platen above the printing point, and a stop to gage the leading edge of the sheet; said tablet and stop being adjustable upon said detachable frame away from and toward the printing line.

45. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame detachably mounted upon the platen frame and having a tablet erected over the platen above the printing point, a stop to gage the leading edge of the sheet; means to hold the stop in working position, and means operable by a part of the paper-advancing mechanism to release the stop.

46. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame detachably mounted upon the platen frame and having a tablet erected over the platen above the printing point, and a stop to gage the leading edge of the sheet, the platen having a notched wheel and the detachable frame having a tumbler to drop into the notch of the wheel, to enable the rotation thereof to throw the stop to release the sheet.

47. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a frame mounted upon the platen frame and having a tablet erected over the platen above the printing point, a stop to gage the leading edge of the sheet, means to hold the stop in working position, and

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rate means for moving said paper stop into operative position and locking it.

54. In a typewriting machine, the combination with a platen and a ratchet therefor having teeth at line-space intervals, of a platen frame, a stop-gage on said frame for the leading edge of the sheet, and means to cause the ratchet to release the stop-gage.

55. In a typewriting machine, the combination with a rotatable platen, of an alining member for a sheet passing around said platen, a finger-piece for moving said member to effective position, and means set by said finger-piece for causing any rotation of the platen to move said member to ineffective position.

56. In a typewriting machine, the combination with a rotatable platen and a tablet above the platen on which to adjust a sheet, of an alining member cooperating with said tablet to gage the end of a sheet, a finger-piece for moving said member to effective position, and means set by said finger-piece to cause any rotation of the platen to move said member to ineffective position.

57. In a typewriting machine, the combination with a rotatable platen and a frame in which said platen is mounted, of side plates adjustably mounted on said frame, a paper adjusting tablet carried by said side plates, an alining member carried by said side plates, and a device carried by said side plates for causing any rotation of the platen to automatically move said member to ineffective position.

58. In a typewriting machine, the combination with a rotatable platen and a frame on which it is mounted, of side plates each

secured to said frame by a thumb screw, an alining member carried by said side plates, and a device carried by said side plates for causing any rotation of the platen to move said member to ineffective position.

59. In a front strike typewriting machine, the combination with a rotatable platen and a tablet above the printing point of said platen, of alining members cooperating with said tablet to aline a sheet thereon, means for moving said members to ineffective positions by rotation of the platen, and manual means for moving said members to effective and ineffective positions irrespective of the rotation of said platen.

60. In a typewriting machine, the combination of a rotatable platen, a paper alining member, a paper controlling device, means for locking said device in abnormal position, separate means for locking said paper alining device in abnormal position, and a connection for positively moving said alining member to normal position by rotation of the platen.

61. In a typewriting machine, the combination of a rotatable platen, a normally operative feed roller, a normally inoperative paper alining member, means for releasing said feed roller and locking it in said releasing position, separate means for moving said alining member into operative position and locking it there, and means for positively returning said alining member to inoperative position by rotation of said platen.

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Witnesses:

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