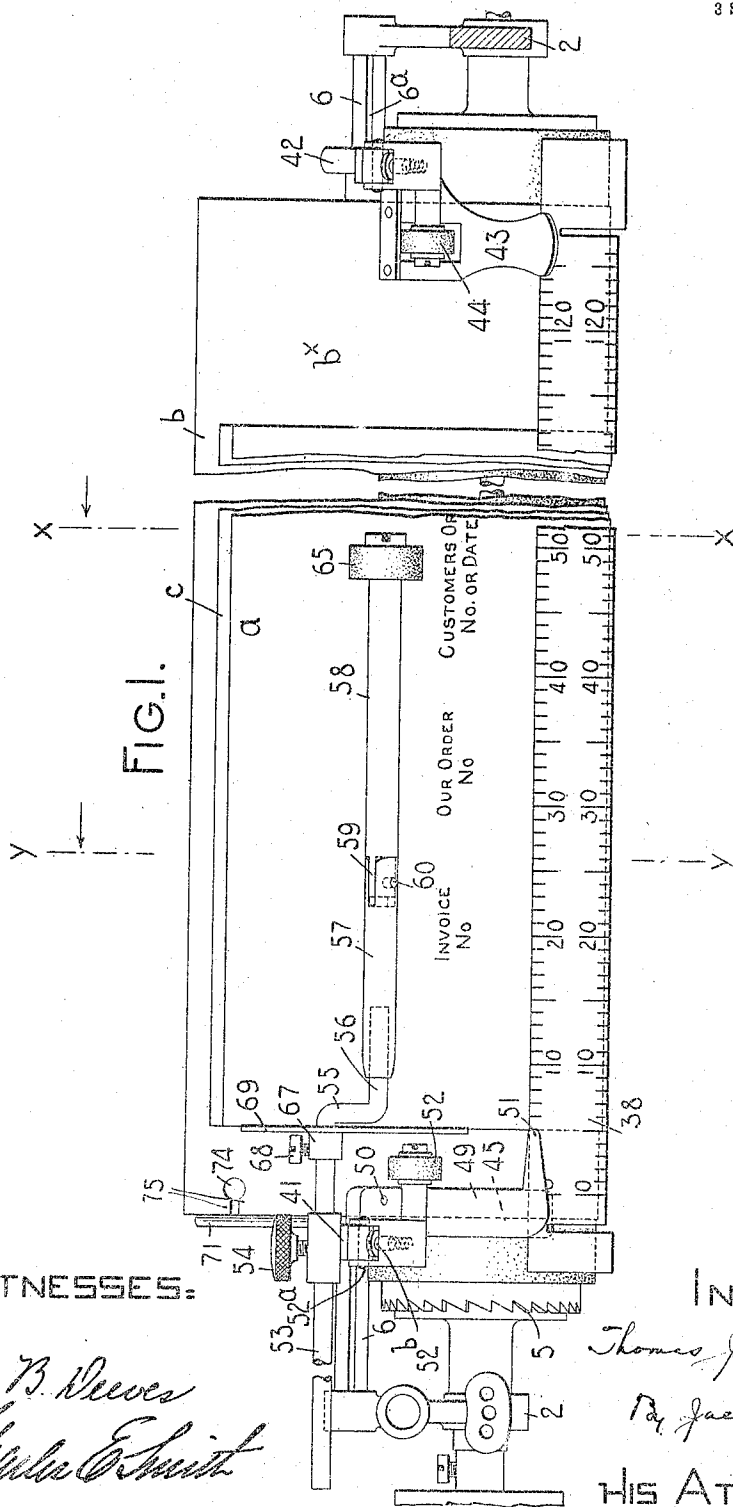


T. J. COO.
TYPE WRITING MACHINE.
APPLICATION FILED OCT. 21, 1907.

1,016,250.

Patented Feb. 6, 1912.

3 SHEETS—SHEET 1.



WITNESSES:

J. B. Reeves
Charles E. Smith

INVENTOR:

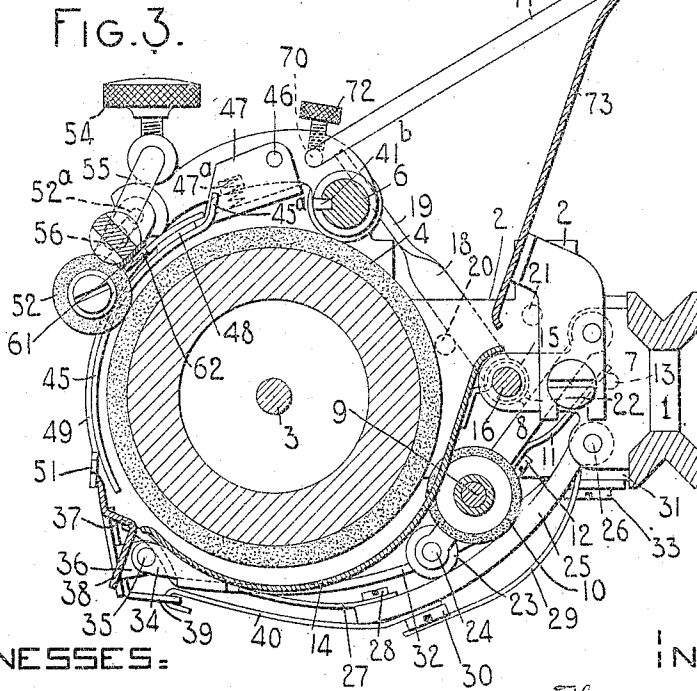
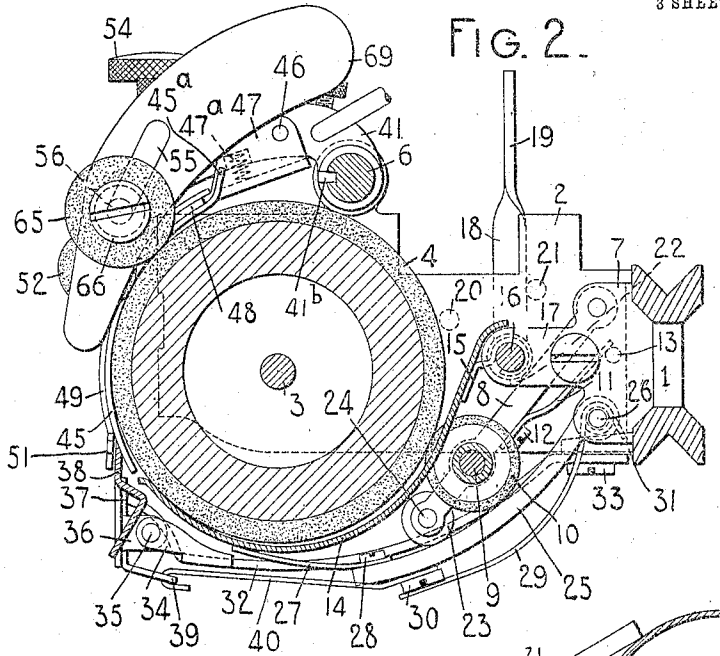
Thomas J. Coe
By Jacob F. Fiedel
HIS ATTORNEY

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3 SHEETS—SHEET 2.



WITNESSES:

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1,016,250.

Patented Feb. 6, 1912.

3 SHEETS—SHEET 3.

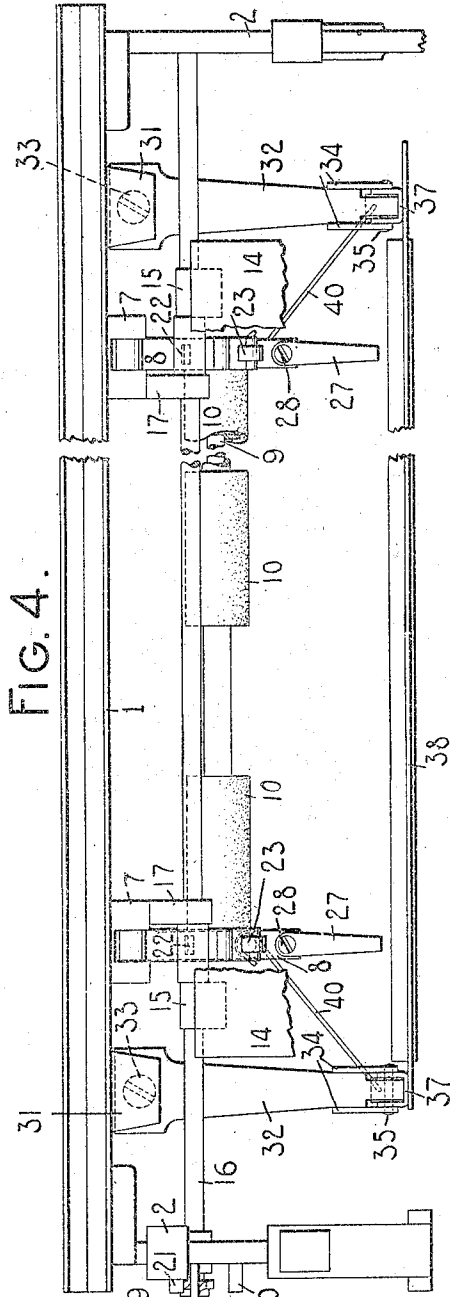


FIG. 4.

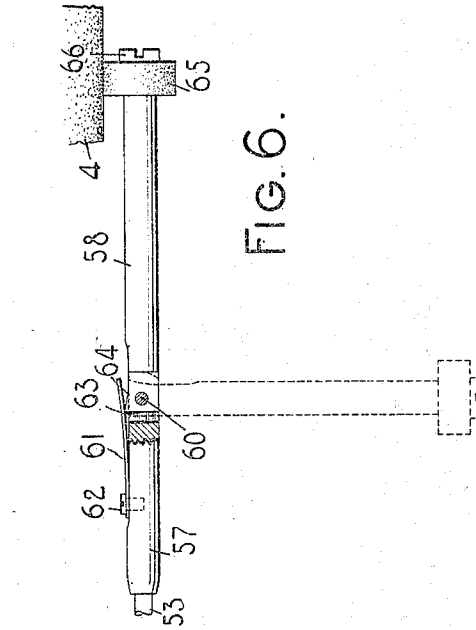


FIG. 6.

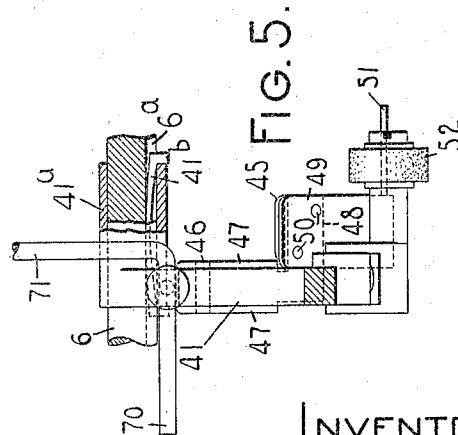


FIG. 5.

WITNESSES:

J. B. Reeves.
Charles Smith.

INVENTOR:

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UNITED STATES PATENT OFFICE.

THOMAS J. COO, OF TORONTO, ONTARIO, CANADA, ASSIGNOR TO THE MONARCH TYPE-WRITER COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING MACHINE.

1,016,250.

Specification of Letters Patent.

Patented Feb. 6, 1912

Application filed October 21, 1907. Serial No. 398,425.

To all whom it may concern:

Be it known that I, THOMAS J. COO, subject of the King of England, and resident of Toronto, Province of Ontario, in the county of York and Dominion of Canada, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to typewriting machines and more particularly to devices for controlling the paper or work sheets; said devices being more especially used for condensed record billing work, though they are useful for other purposes.

One of the objects of the invention is to provide efficient means of the character specified.

To the above and other ends which will hereinafter appear, my invention consists of the features of construction, arrangements of parts and combinations of devices to be set forth in the following specification and particularly pointed out in the appended claims.

In the accompanying drawings wherein like reference characters indicate corresponding parts in the various views, Figure 1 is a detail front elevation of the platen and carriage of a Monarch machine equipped with the devices of my invention. Fig. 2 is an enlarged detail transverse sectional view of the same, taken on the line $x-x$ of Fig. 1 and looking in the direction of the arrow at said line. Fig. 3 is a section taken on the line $y-y$ of Fig. 1 and showing the paper feeding and guiding devices in their released positions. Fig. 4 is a fragmentary plan view of the carriage and some of the parts carried thereby, the platen being removed. Fig. 5 is an enlarged detail plan view partly in section showing the paper finger at the left-hand end of the platen and some of the parts associated therewith. Fig. 6 is a detail fragmentary view of the center feed roller and the support therefor; parts being shown in section in this view.

I have shown the devices of my invention embodied in a Monarch machine, sufficient only of the machine being shown to illustrate my invention in its adaptation to said machine. It should be understood, however, that the invention may be embodied in other styles of typewriting machines.

In the drawings, 1 indicates the rear cross

bar of the carriage which is supported in the usual manner to move on roller bearings. Projecting forwardly from the cross bar 1 are end bars or plates 2 apertured to provide bearings for a shaft 3 of a rotative platen 4. The left-hand platen head is formed to provide a line spacing ratchet wheel 5. A cross rod 6 extends from one of the side or end plates 2 to the other parallel with and longitudinally of the platen and arranged above it. Lugs or projections 7 extend forwardly from the cross bar 1 of the carriage and are recessed to receive hangers 8 which support a shaft 9 of the main paper feed rollers 10. A spring 11 is secured to each hanger by a screw 12 and bears at its free end against a pin 13 extending across the aperture in the associated lug 7. A paper apron 14 is apertured to enable the main feed rollers 10 to extend therethrough and into contact with the platen as shown in Fig. 2. This paper apron throughout most of its length conforms to the curvature of the platen and is provided with clips 15 at the rear side thereof near the upper edge. These clips loosely surround a rock shaft 16 in order to pivotally connect the paper apron to the rock shaft. The rock shaft 16 is received in bearing openings in extensions 17 of the lugs 7 and is likewise received in bearings in the end plates 2 of the carriage. The left-hand end of the rock shaft 16 extends beyond the left-hand end plate of the carriage where it is provided with an arm 18 terminating in a finger piece 19 by which the rock shaft may be turned from the position shown in Fig. 2 to that illustrated in Fig. 3 or vice versa, stop pins 20 and 21 limiting the arm in its movement. The rock shaft 16 is provided with projections 22 which are adapted to cooperate with the hangers 8 and to force them downwardly and rearwardly around their pivots when the finger piece 19 is moved from the position shown in Fig. 2 to that illustrated in Fig. 3. The effect of this movement is to move the main feed rollers 10 out of cooperation with the platen as indicated in Fig. 3, and the pressure of the springs 11 being exerted endwise against the projections 22 on the rock shaft will tend to hold the rock shaft against turning movement and the parts therefor will be locked in the released positions.

The parts thus far described are similar to the corresponding parts found in the Monarch machine. The feed roll hangers 8 extend down beyond the main feed rollers 5 and are apertured to receive anti-friction rollers 23 which are supported by pivots 24. Rigid arms 25 are each pivoted in the aperture of a lug 7 on a pivot 26 and extend downwardly and forwardly from its pivot 10 beneath the associated anti-friction roller 23 for coöperation therewith. The forward end of each arm 25 has a leaf spring 27 connected therewith by a screw 28. The free ends of the leaf springs bear against the 15 bottom of the paper apron at the forward portion thereof and tend to turn the paper apron around its pivot and to press it into contact with the platen when the arms 25 are in the positions shown in Fig. 2. Each arm 20 25 has a wire spring 29 which is coiled about its pivot and bears at one end against the bottom wall of the aperture of the corresponding lug and at its other end is extended forwardly and bears against the associated arm 25 or against a screw 30 carried thereby. Forwardly projecting lugs 31 extend from the cross-bar 1 and constitute supports for forwardly projecting rigid 30 bracket arms 32 which extend beneath the platen and paper apron near the ends thereof. These arms are rigidly connected to the lugs 31 by screws 33. The bracket arms are preferably made of sheet metal and have ears 34 struck up therefrom at their forward 35 ends. These ears are apertured to receive pivots 35 which also extend through ears 36 of yoke-like pieces 37 secured to a platen and carriage scale 38 near the ends thereof. The yoke pieces 37 are preferably 40 formed as separate pieces and are secured in any suitable manner to the platen scale and are each provided with a rearwardly extending arm 39 apertured to receive the hooked end of a wire link 40 connected at its 45 rear end to an arm 25 by the screw 30 on the associated arm 25. The links or wires 40 extend rearwardly and inwardly toward each other from the scale to the arms 25, as shown in Fig. 4. This construction is such 50 that a movement of the finger piece 19 from the position shown in Fig. 2 to that indicated in Fig. 3 is effective to move the main feed rollers 10 to the releasing position as hereinbefore described and this same movement 55 is effective to turn the arms 25 on their pivots through the coöperation of the anti-friction rollers 23 with said arms. This movement of the arms 25 results in lowering the paper apron to the position shown in Fig. 3, at the same time turning the platen scale around its pivots through the links 40 60 which connect said arms to the paper scale, the paper scale being moved to the position shown in Fig. 3 where it is out of contact with the platen and provides an opening or

space between the edge of the platen scale and the platen. When the parts are in the positions shown in Fig. 3 the work sheet is guided between the platen and paper apron and through the unobstructed space or channel 70 formed between the paper apron and platen. When the work sheet is properly positioned so as to receive the first line of writing the finger piece 19 is moved to the position shown in Fig. 2. This movement of 75 the finger piece enables the springs 11 and 29 to move the parts back to the normal positions to clamp the sheets in place as will hereinafter more clearly appear. The platen scale is preferably bent so as to be of 80 a form in cross section such as that shown in Figs. 2 and 3.

The connecting rod 6 which extends above the platen constitutes a supporting rod for supports 41 and 42. The support 42 carries 85 a spring-pressed paper finger 43 which is pivoted to the carrier and extends down in front of the platen scale as shown in Fig. 1. The support 42 also carries on a separate pivot an independently spring-pressed margin feed roller 44. These parts are or may 90 be of the usual construction employed in the Monarch machine and which are also fully shown and described in the application of George A. Seib, Serial No. 277,209 and a 95 detailed description thereof is deemed unnecessary, except to point out that these parts are adjustable along the supporting rod 6. The support 41 has a sleeve 41^a (Fig. 5) which receives a combined friction 100 spring and spline 41^b received in a spline groove 6^a in the supporting rod 6 so as to prevent the support from turning but to afford an adjustment of the support along 105 the rod 6.

A special construction of paper finger 45 is pivoted at 46 to the support 41, the construction of the paper finger being best shown in Figs. 3 and 5, from which it will 110 be seen that a sheet metal yoke-like member 47 is pivoted to the rigid support 41 at 46 and is provided with a coiled spring 47^a which bears at one end against the fixed support 41 and at its opposite end against 115 the yoke so as to normally press the free end of the yoke toward the platen. The upper end of the finger 45 is bent upwardly at 45^a (Figs. 2 and 3) to prevent work sheets 120 from catching on the finger during a backward movement of the work sheets, as will hereinafter more clearly appear. The yoke-like member 47 is likewise provided with a projection 48 received between and connected to the upper ends of two resilient 125 arm or fingers, one of which, 45, constitutes the paper finger proper and the other member 49 of which is riveted thereto at 50 (Fig. 1) and conforms to the shape of the paper finger proper except that it is bent 130 forwardly at its lower end and is formed

with an off-set pointer 51 which coöperates with the indices on the platen scale. The slight forward deflection of the lower end of the member 49 provides a space between the two members at the lower ends thereof for the reception of the edge of the platen scale as shown in Figs. 2 and 3 so that the paper finger proper 45 is between the platen scale and platen, whereas the pointer carrying member is forward of or outside of the platen scale. It will be understood from this construction that a movement of the platen scale from normal position on its pivots 35 in the manner hereinbefore described will effect a pivotal movement of the paper finger 45 to the released position shown in Fig. 3 where it is maintained out of contact with the platen and will likewise cause a corresponding movement of the paper finger 43 at the opposite end of the platen.

A margin paper feed roller 52 is carried by a hanger pivoted at 52^a on the support 41 so that the roller may swing into and out of contact with the platen and is normally forced by a spring-pressed plunger 52^b against the platen. The support 41 is likewise provided with a bearing opening for the reception of a supporting rod 53 adjustable longitudinally in its bearing and secured in its adjusted position by a thumb screw 54 received in a tapped opening in the bearing and engaging at its inner end against the supporting rod. The rod is bent at 55 in order to provide an off-set portion or end 56 received in an opening in an enlarged extension 57 of the supporting rod. The extension 57 is connected to a portion 58 by a knuckle joint 59, the pivot of said joint being indicated at 60.

From an inspection of Fig. 6 it will be seen that a leaf spring 61 is secured by a screw 62 to the extension 57 and bears near its free end against either the flattened side 63 or toe 64 of the section or member 58 of the supporting rod, depending whether the portion 58 is in the full or dotted line position shown in Fig. 6. The normal position of the parts is shown in full lines and the pressure of the spring is at this time exerted against the toe 64 to maintain the section 58 in operative position, whereas when the section 58 is turned to the dotted line position the spring tends to maintain said section in the inoperative position. The joint is preferably disposed as shown in Fig. 1 so that the section 58 when turned to the inoperative position will be turned upwardly and forwardly. The free end of the member 58 carries a center paper feed roller 65 received on a shouldered screw 66 threaded into the free end of the member 58. The pressure of the spring 61 when the parts are in normal position is exerted against the toe 64 to exert a slight pressure on the

feed roller 65 to cause it to bear against the platen or paper thereon. The length of the supporting rod as a whole is such that the position of the roller 65 may be varied for a considerable extent longitudinally of the platen, though, generally speaking, the roller 65 is what may be termed a center feed roller and in use is intended to bear upon the invoice sheet about centrally in the width of the sheet. The supporting rod 53 to the left of the off-set or bent portion 55 thereof has a sleeve 67 mounted thereon for adjustment longitudinally of the rod. This sleeve has a tapped opening for the reception of a set screw 68 which bears at its free end against the rod to secure the sleeve in its adjusted position. One side of the sleeve carries a flat side edge guide or gage 69 situated at or near the front of the platen and the plane of the contact face of which is at right angles to the axis of the platen, so that the guide or gage is adapted to coöperate with the left-hand side edge of a work sheet *a* as shown in Fig. 1. The support 41 has a second transverse bearing opening for the reception of one arm 70 of an L-shaped side edge guide or gage comprising arms 70 and 71 and which is best shown in Figs. 3 and 5. This mounting affords an adjustment of the guide longitudinally of the arm 70 and of the platen and a set-screw 72 coöperates with the arm 70 and holds the guide in its adjusted position on the support 41. When the guide 70—71 is in use the free arm 71 thereof, which is situated in a plane that extends at right angles to the axis of the platen occupies a position such as that shown in Fig. 3 where the free end thereof rests upon the paper table 73 of the machine or is situated to one side thereof.

In the operative position of the guide 70—71 it extends to the rear of the platen and in a position where the arm 71 thereof may coöperate with the left-hand side edge of a record sheet *b* as the same is introduced into the machine at the rear of the platen. When the guide is not to be used it may be swung forward on the supporting arm 70 thereof as a pivot to a position where the arm 71 will not bridge the space between the paper table and platen. It will be understood that the support 41, like the support 42, is adjustable along the support or rod 6 and by this arrangement the support 41 and all of the parts carried thereby may be adjusted simultaneously with the support without disturbing the individual adjustment of the parts or the different parts may be adjusted independently of each other. Thus, for instance, the feed roller 65 may be adjusted independently of the support 41 and of the other parts carried thereby and this is likewise true of the side edge guides 69 and 70—71

In employing the devices of my invention for condensed record billing work a condensed record sheet *b* is employed and this sheet is wider than the invoice or bill sheet *a* and is wider than the interposed carbon sheet *c*, the latter being of substantially the same width as or slightly wider than the invoice sheet. According to one method of operation the condensed record sheet is considerably wider than the invoice and carbon sheets in order that that portion *b'* of the condensed record sheet to the right of the invoice sheet in Fig. 1 may be employed for special entries which may be written thereon but which are not intended to be written on the invoice sheet.

In adjusting the devices above described, a blank record or loose leaf sheet *b* which is usually ruled to receive specific entries in certain columns thereon, is first inserted around the platen in the usual manner, the sheet being centered on the platen and usually occupying substantially the entire length of the platen. Where a tabulator is employed in connection with the work, the column stops are next set in accordance with the ruling on the record sheet and the support 41 is adjusted to the right or left along the supporting rod 6 so as to bring the paper finger 45 to a position where the slots or openings 74 in the record sheet will pass under said paper finger. The right-hand paper finger 43 and margin feed roller 44 are adjusted to the other edge of the record sheet in the usual manner and are positioned as shown in Fig. 1. The side edge guide 70—71 is then adjusted so that the arm 71 thereof will aline with the left-hand side edge of the record sheet, as shown in Fig. 1. The invoice sheets are usually of such a character that they bear a specific relation to the record sheet. Thus, for instance, it will be observed that the "Invoice No.", "Our Order No.", "Customer's order No. or date", etc., appears on the invoice sheet *a* and it will be understood that the record sheet may be ruled to receive these entries in the proper columns or spaces and in this event it is necessary that the invoice sheet bear a fixed relation to the record sheet considered widthwise of the latter. This may be readily determined in the first instance when the carbon sheet is not in place by inserting the invoice sheet and placing it in proper position with reference to the record sheet but when the carbon sheet is in place this cannot be readily done as the carbon sheet covers the face of the record sheet. When the invoice sheet has been adjusted to the proper position with reference to the record sheet and brought around to the front face of the platen the supporting rod 53 is adjusted longitudinally on the support 41 so as to bring the roller 65 about centrally in the width of the invoice sheet and the set

screw 54 is tightened to hold the rod in its adjusted position on the carrier 41. The side edge guide 69 is then adjusted along the rod 53 until its contact face is brought into register with the left-hand side edge of the invoice sheet *a* as shown in Fig. 1, and the screw 68 is tightened to hold the guide in its adjusted position on the support 41. This completes the setting of the parts and a further setting is unnecessary unless the character of the invoice sheet or record sheet or both be changed.

After the parts are set in the manner described above and it is desired to use the machine for condensed record work, the condensed record sheet *b* and carbon sheet *c* are introduced into the machine from the rear of the platen in the ordinary manner with their leading edges together and with the left-hand edge of the record sheet contacting with the rear gage or side edge guide 70—71, as shown in Fig. 1, the record sheet being next to the platen. If desired the carbon sheet may be of a width corresponding substantially to the invoice sheet as shown in Fig. 1 in which event the carbon sheet will be situated with reference to the record sheet so that the left-hand edge of the record sheet will be in or substantially in register with the side edge guide 69. However, I prefer to use a carbon sheet of a width which will reach approximately from the right-hand edge of the invoice sheet approximately to the left-hand edge of the record sheet and of a length which corresponds substantially to the length of the long record sheet as this enables the operator to allow the carbon sheet to remain in the machine until a new record sheet is introduced and repeated handling of the carbon sheet at the introduction and withdrawal of the various invoice sheets is unnecessary. The leading edges of the record and carbon sheets are brought a short distance above the printing line and in a position where the record sheet may receive a copy of the first line of writing near the top of the sheet. The finger piece 19 is now moved from the position shown in Fig. 2 to that shown in Fig. 3, thereby moving the main paper feed rollers, paper apron and platen scale away from the platen to provide a free unobstructed passage around the platen and the center feed roller 65 is turned with the member 58 on the pivot 60 to the inoperative position. At this time, however, the margin feed roller 44 remains in contact with the right-hand edge of the record sheet and the left-hand margin feed roller remains in contact with the carbon and record sheets so as to clamp said sheets in position while the invoice sheet is being inserted. A bill or invoice sheet *a* is then introduced cornerwise outside of the carbon sheet and is moved around the platen and up and around to the

left until the left-hand edge thereof coöperates with the guide 69 until the sheet is squared and positioned to receive the first line of writing. The center roller 65 is then moved to operative position to clamp the invoice sheet in place and the finger piece 19 is then moved back to the position shown in Fig. 2, thereby restoring the main feed rollers, paper apron, platen, scale, etc., to normal position where the parts are effective to feed all three sheets together. The operator then proceeds to fill in the bill and to make the special entries on the record sheet at *b** to the right of the invoice sheet. A copy of the matter written on the bill will be reproduced through the interposed carbon in the appropriate spaces on the record sheet. After the bill is completed the operator may divide the copy of the bill on the record sheet from the one which is to follow by drawing a stylus along the upper edge of the platen scale, thereby imprinting a dividing line on the record sheet through the carbon, or the operator may give the platen a double line space movement after completing each bill to effect a sufficient spacing between succeeding copies of bills on the record sheet. After the bill is completed, the roller 65, the main feed rollers, paper apron, etc., are moved to the inoperative positions in the manner hereinbefore explained and the completed invoice is removed without disturbing the record and carbon sheets, they being held by the margin feed rollers. A new invoice sheet is inserted from the rear of the platen in the manner hereinbefore explained and brought to proper position to receive the first line of writing and into register with the guide 69. The feed rollers 65 and 10, etc., are again moved to operative position and the bill written as before. The operations described may continue indefinitely or until the record sheet has been filled when a new record sheet may be inserted and the operation continued as before.

If during the operation of the machine for condensed billing work the operator should for any reason desire to remove the record and other sheets to use the machine for ordinary work such, for instance, as filling in a telegraph blank, it is merely necessary for the operator to observe the point on the platen scale where the pointer 51 is situated and bear this point, which may be assumed to be five, in mind. After the sheets *a*, *b* and *c* are removed, the support 41 may be adjusted where desired to bring the paper finger, etc., carried thereby into coöperation with the telegraph blank. After it is filled in the operator moves the support 41 back until the pointer 51 registers with the fifth mark on the scale and the parts are again set to continue the billing operations and the relative adjustment between the parts 70—71, 69, 45, 52, etc., have not been dis-

turbed. This feature of my invention I regard as of importance as it adds greatly to the general utility of the machine.

It is usual in condensed record work to employ condensed record sheets which have openings 74 therein near one edge thereof by which the sheets may be secured in a binder. In practice it has been found that the tongues 75 formed by the openings 74 are liable to catch upon the left-hand paper finger. By the use of the paper finger 45—49 of my present invention the difficulty is overcome as the guides are unslotted throughout and there is no liability of the tongues catching. It will also be seen that the lower end of the paper finger 45 is so close to the forward edge of the paper apron in the normal position of the parts that the record sheet is guided directly from the paper apron to the finger and that there is no opportunity for the opening in the record sheet to catch upon the finger. Moreover, as the finger 45 lies back of the platen scale, it prevents the tongues 75 of the openings 74 from catching on said scale, if, for any reason, the platen be rotated backward or during a backward withdrawal of the record sheet. As the part 49 lies in front of the scale plate, the paper finger 45, 49 is lifted away from the platen when the lever 19 is moved to the position shown in Fig. 3, and the paper finger 43 is also lifted away from the platen at the same time. This makes it easier to adjust the record sheet on the platen if, at any time, such adjustment should be necessary.

In practice it may be found desirable to use the paper finger 45—49 at both ends of the platen in order to prevent the tongues 75 from catching if for any reason the record sheet is reversed so that the openings 74 are presented at the right-hand end of the platen.

In the Monarch machine the supporting rod 6 is detachable and it will be understood that the usual left-hand paper finger, margin feed roller and the support therefor may be readily removed and replaced by the support 41 and the special paper finger 45—49, the side edge guides and other devices carried by said support 41 without changing the structural features of the machine and that said special devices of my invention are not only used for condensed record and other billing work but may constitute parts of the regular equipment of the machine for use in carrying out the ordinary work thereon. The special paper finger 45—49, the margin feed roller 52, the center feed roller 65 and the side edge guides are all mounted on the single support 41, so that all of these parts constitute one unitary attachment.

The central roller 65 and the means for supporting it and the means for moving

the scale plate away from the platen when the feed rolls are cast off, are not of my invention but are the invention of Hubbard N. Josleyn and are claimed in an application filed by him October 28th, 1907, Serial No. 399,436. The devices are not claimed by me herein except in combination with novel devices of my invention.

Various changes may be made without departing from the spirit and scope of my invention.

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

1. In a typewriting machine, the combination of a paper finger, two side edge guides, and an adjustable support which carries said paper finger and guides.

2. In a typewriting machine, the combination of a platen, a paper finger, an adjustable support therefor, a side edge guide at the back of the platen, and a side edge guide at the front of the platen, both of the guides being carried by and adjustable with said support.

3. In a typewriting machine, the combination of a platen, a paper finger, an adjustable support therefor, a side edge guide at the back of the platen, a side edge guide at the front of the platen, both of the guides being carried by and adjustable with said support, and means for affording an adjustment of each of said guides relatively to the support.

4. In a typewriting machine, the combination of a platen; a paper finger; a margin feed roller; two side edge guides; and a support adjustable longitudinally of the platen and on which said paper finger, margin feed roller and guides are carried.

5. In a typewriting machine, the combination of a platen; a paper finger; a margin feed roller; a side edge guide at the front of the platen; a side edge guide at the rear of the platen; and a support adjustable longitudinally of the platen and by which said paper finger, margin feed roller and guides are carried.

6. In a typewriting machine, the combination of a platen; a paper finger; a margin feed roller; a side edge guide at the front of the platen coöperative with invoice sheets; a side edge guide at the rear of the platen and coöperative with record sheets; and a support which is adjustable longitudinally of the platen, and by which said paper finger, margin feed roller and side edge guides are supported.

7. In a typewriting machine, the combination of a carriage; a platen carried thereby; a side edge guide carried by the carriage at the rear of the platen, a side edge guide carried by the carriage at the front of the platen, a platen scale, and a pointer adjustable with said guides and coöperative with said scale.

8. In a typewriting machine, the combination of a carriage; a platen carried thereby; a side edge guide carried by the carriage at the front of the platen; a side edge guide carried by the carriage at the rear of the platen, said last mentioned guide being mounted to be moved into and out of operative position; a platen scale; and a pointer adjustable with said guides and coöperative with said platen scale.

9. In a typewriting machine, the combination of a carriage; a paper finger, two side edge guides, an adjustable support carried by the carriage and which carries said paper finger and guides; a platen scale, and a pointer carried by and adjustable with said support and coöperative with said scale.

10. In a typewriting machine, the combination of a carriage; a platen; a paper finger; an adjustable support therefor carried by the carriage; a side edge guide at the back of the machine; a side edge guide at the front of the machine, both of said guides being carried by and adjustable with said support; means for affording an adjustment for each of said guides relatively to the support; a platen scale; and a pointer carried by said support and coöperative with said scale.

11. In a typewriting machine, the combination of a carriage; a platen carried thereby; a paper finger; a margin feed roller; two side edge guides; a support carried by the carriage and adjustable longitudinally of the platen and on which said paper finger, margin feed roller and guides are carried; a platen scale; and a pointer carried by said support and coöperative with said platen scale.

12. In a typewriting machine, the combination of a carriage; a platen carried thereby; a paper finger; a margin feed roller; a side edge guide at the front of the platen; a side edge guide at the rear of the platen; a support carried by the carriage and adjustable longitudinally of the platen and by which said paper finger, margin feed roller and guides are carried; a platen scale; and a pointer carried by said support and coöperative with said scale.

13. In a typewriting machine, the combination of a carriage; a platen carried thereby; a supporting rod that is carried by the carriage and extends lengthwise of the platen and above the same; a support adjustable along said rod; a paper finger and margin feed roller carried by said support; two side edge guides carried by and adjustable on said support; a platen scale; and a pointer carried by said support and coöperative with said scale.

14. In a typewriting machine, the combination of a platen; a supporting rod that extends lengthwise of the platen and above

the printing line; a support adjustable along said rod; a margin paper feed roller, a center paper feed roller, and two side guides carried by and adjustable with said support; a platen scale; and a pointer carried by said support and coöperative with said scale.

15. In a typewriting machine, the combination of a platen; a supporting rod that extends lengthwise of the platen above the printing line; a support adjustable along said rod; a margin paper feed roller, a center paper feed roller; and two side edge guides carried by and adjustable with said support and mounted for independent adjustment thereon; a platen scale; and a pointer carried by and coöperative with said scale.

16. In a typewriting machine, the combination of a platen, a supporting rod that extends lengthwise of the platen and above the same, a support adjustable along said rod, a paper finger carried by said support, a second supporting rod adjustable longitudinally on said support, a center paper feed roller carried by said second supporting rod, two side edge guides carried by and adjustable with said support, a platen scale, and a pointer carried by said support and coöperative with said scale.

17. In a typewriting machine, the combination of a platen, a supporting rod that extends lengthwise of the platen and above the same, a support adjustable along said rod, a paper finger carried by said support, a second supporting rod adjustable longitudinally on said support, a center paper feed roller carried by said second supporting rod and movably mounted thereon toward and away from the platen, a side edge guide carried by and adjustable on said second supporting rod, a side edge guide carried by and adjustable on said support, a platen scale, and a pointer carried by said support and coöperative with said scale.

18. In a typewriting machine, the combination of a carriage, a platen scale carried thereby, an adjustable paper finger carried by the carriage, and a pointer carried by said paper finger and off-set inwardly therefrom and coöperative with the indices on the platen scale.

19. In a typewriting machine, the combination of a carriage, a platen scale carried by the carriage and movable to and from normal position, hand-actuated means for controlling such movement of said scale, an adjustable paper finger carried by the paper carriage, and a pointer carried by said paper finger and off-set inwardly therefrom and coöperative with the indices on the platen scale.

20. In a typewriting machine, the combination of a platen scale, and a paper finger, the lower end portion of one member of

the paper finger being on one side of the scale and the lower end portion of another member of the finger being on the other side, so as to embrace said scale.

21. In a typewriting machine, the combination of a platen scale movable to and from normal position, a paper finger, one member of the paper finger being on one side of the scale and another member of the finger being on the other side so as to embrace said scale, and hand-actuated means for controlling the movement of the platen scale to and from normal position.

22. In a typewriting machine, the combination of a platen scale, movable to and from normal position, paper feed rollers, a paper finger, one member of the paper finger being on one side of the scale and another member of the finger being on the other side so as to embrace said scale, hand-actuated means for controlling the movement of the paper feed rollers into and out of coöperative relation with the platen and for moving the platen scale to and from normal position.

23. In a typewriting machine, the combination of a platen, a supporting rod that extends lengthwise of the platen and above the printing line, a support adjustable along said rod, a margin paper feed roller, a center paper feed roller, and a side edge guide carried by and adjustable with said support.

24. In a typewriting machine, the combination of a platen, a supporting rod that extends lengthwise of the platen and above the printing line, a support adjustable along said rod, a margin paper feed roller, a center paper feed roller, and a side edge guide carried by and adjustable with said support and mounted for adjustment relatively to one another.

25. In a typewriting machine, the combination of a platen, a supporting rod that extends lengthwise of the platen and above the same, a support adjustable along said rod, a paper finger carried by said support, a second supporting rod adjustable longitudinally on said support, a center paper feed roller carried by said second supporting rod, and a side edge guide carried by and adjustable with said support.

26. In a typewriting machine, the combination of a platen, a supporting rod that extends lengthwise of the platen and above the same, a support adjustable along said rod, a paper finger carried by said support, a second supporting rod adjustable longitudinally on said support, a center paper feed roller carried by said second supporting rod, and movably mounted thereon toward and away from the platen, and a side edge guide carried by and adjustable on said second supporting rod.

27. In a typewriting machine, the combination of a platen, a platen scale movable

relatively to the platen, hand actuated means for controlling the movement of said platen scale relatively to the platen, a supporting rod extending above and lengthwise of the platen, a support adjustable along said rod, and a paper finger carried by said support and comprising two members one arranged at one side and one at the other side of said platen scale, the paper finger being adapted to be moved into and out of cooperation with the platen by a movement of the platen scale.

28. In a typewriting machine, the combination of a platen; a platen scale movable relatively to the platen; hand-actuated means for controlling the movement of said platen scale relatively to the platen; a supporting rod extending above and lengthwise of the platen; a support adjustable along said rod; and a paper finger and side edge guide carried by said support, said paper finger comprising two members one arranged at one side and one at the other side of said platen scale, the paper finger being adapted to be moved into and out of cooperation with the platen by a movement of the platen scale.

29. In a typewriting machine, the combination of a platen; a platen scale movable relatively to the platen; hand-actuated means for controlling the movement of said platen scale relatively to the platen; a supporting rod extending above and lengthwise of the platen; a support adjustable along said rod; a paper finger; a margin feed roller, and a side edge guide carried by said support, said paper finger comprising two members one arranged at one side and one at the other side of said platen scale, the paper finger being adapted to be moved into and out of cooperation with the platen by a movement of the platen scale; and a pointer on the paper finger which cooperates with the indices on the platen scale.

30. In a typewriting machine, the combination of a platen; a platen scale movable relatively to the platen; paper feed rollers; hand-actuated means for controlling the movement of said platen scale and paper feed rollers relatively to the platen; a supporting rod extending above and lengthwise of the platen; a support adjustable along said rod; and a paper finger carried by said support and comprising two members one arranged at one side and one at the other side of said platen scale, the paper finger being adapted to be moved into and out of cooperation with the platen by a movement of the platen scale.

31. In a typewriting machine, the combination of a platen; a platen scale; paper feed rollers; hand-actuated means for controlling the movement of said platen scale and paper feed rollers relatively to the platen; a supporting rod extending above

and lengthwise of the platen; a support adjustable along said rod; a paper finger; a margin feed roller and side edge guide carried by said support, said paper finger comprising two members one arranged at one side and one at the other side of said platen scale, the paper finger being adapted to be moved into and out of cooperation with the platen by a movement of the platen scale; and a pointer on the paper finger which cooperates with the indices on the platen scale.

32. In a front-strike typewriting machine, the combination of a carriage, a platen carried thereby, a paper apron at the under side of said platen and terminating below the writing line at the front of the platen, a scale plate carried by the carriage below the writing line, and a paper finger at the front of the platen, said paper finger having a part which always lies between the scale plate and platen and which extends to a point adjacent the forward edge of the paper apron.

33. In a typewriting machine, the combination of a platen, and two independent side edge guides at the same end of the platen cooperative simultaneously with sheets of different width, one side edge guide cooperative with a record sheet, and the other side edge guide cooperative with an invoice sheet, both side edge guides being arranged to cooperate with the sheets when introduced and positioned in the machine from the rear side of the platen one after the other and without disturbance of the position of either side edge guide.

34. In a typewriting machine, the combination of a paper finger, two side edge guides one off-set laterally relatively to the other, and an adjustable support which carries said paper finger and guides.

35. In a typewriting machine, the combination of a platen, a paper finger, and an adjustable support therefor; a side edge guide at the back of the platen and a side edge guide at the front of the platen both carried by and adjustable with said support and the front side edge guide being arranged nearer the middle of the platen than the rear side edge guide.

36. In a typewriting machine, the combination of a platen, a paper finger and an adjustable support therefor, a rear side edge guide and a front side edge guide carried by said support, and means for enabling each of said guides to be adjusted relatively to said support.

37. In a typewriting machine, the combination of a platen, a record-sheet side edge guide, an invoice-sheet side edge guide, and an adjustable support carrying both said guides.

38. In a typewriting machine, the combination of a platen, a record-sheet side edge guide, an invoice-sheet side edge guide lat-

erally separated therefrom, and an adjustable support carrying both said guides, and means for enabling relative adjustment between said guides for varying the amount of
5 their separation.

Signed at the borough of Manhattan, city of New York, in the county of New York,

and State of New York, this 19th day of October A. D. 1907.

THOMAS J. COO.

Witnesses:

J. BELLE DEEVES,
CHARLES E. SMITH