Dec. 20, 1927. 1,653,025

J. A. B. SMITH

TYPEWRITING MACHINE

Filed Jan. 12, 1925 2 Sheets-Sheet 1

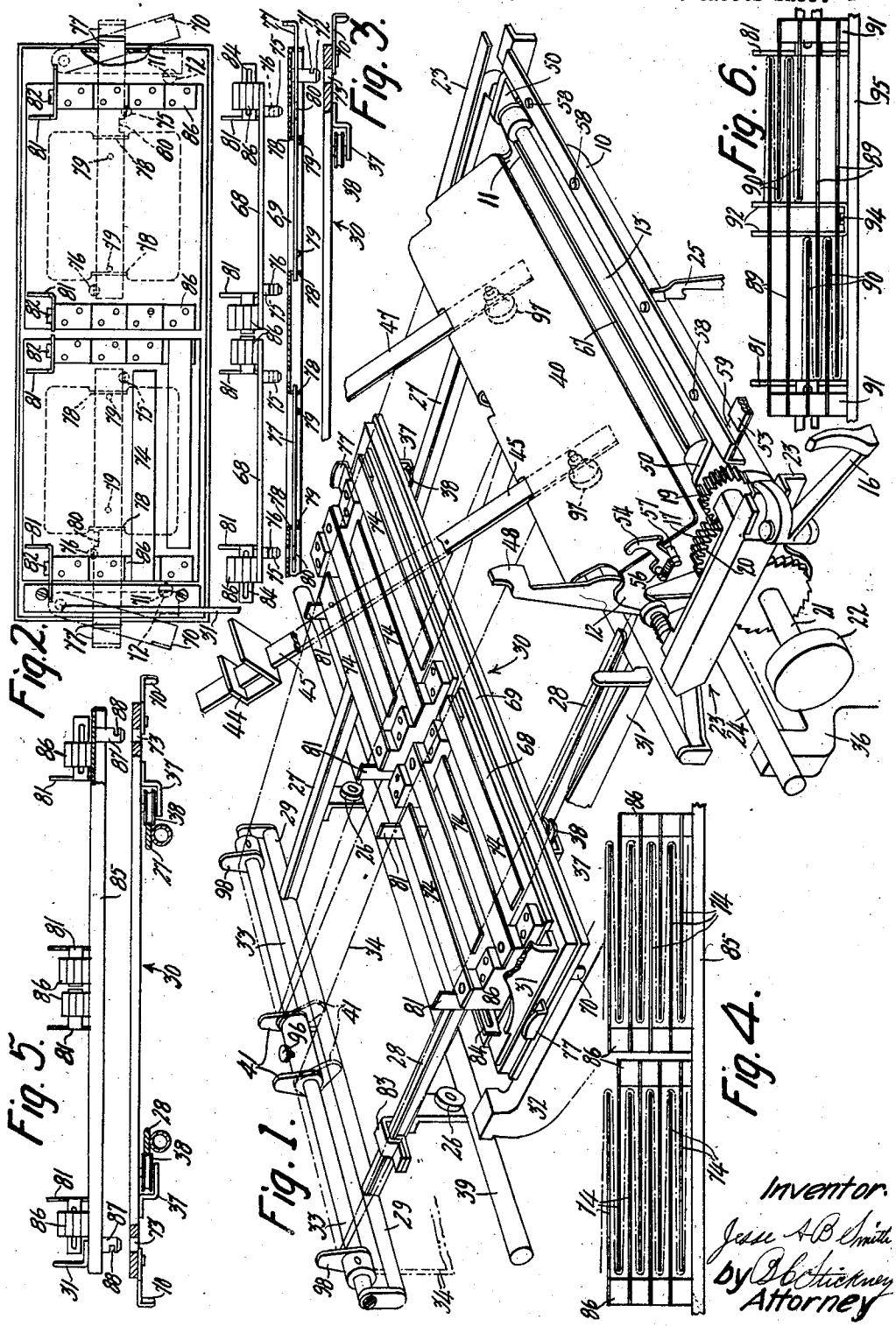


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Inventor.
Jesse A B Smith
by A B Stickney
Attorney

Dec. 20, 1927. 1,653,025

J. A. B. SMITH

TYPEWRITING MACHINE

Filed Jan. 12, 1925 2 Sheets-Sheet 2

Fig. 7.

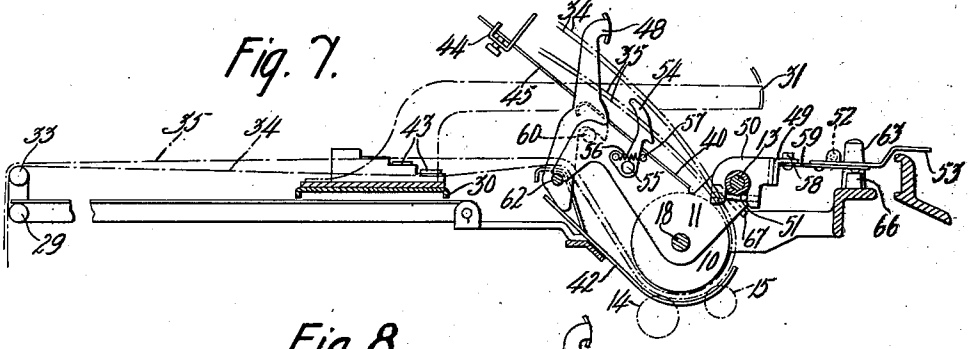


Fig. 8.

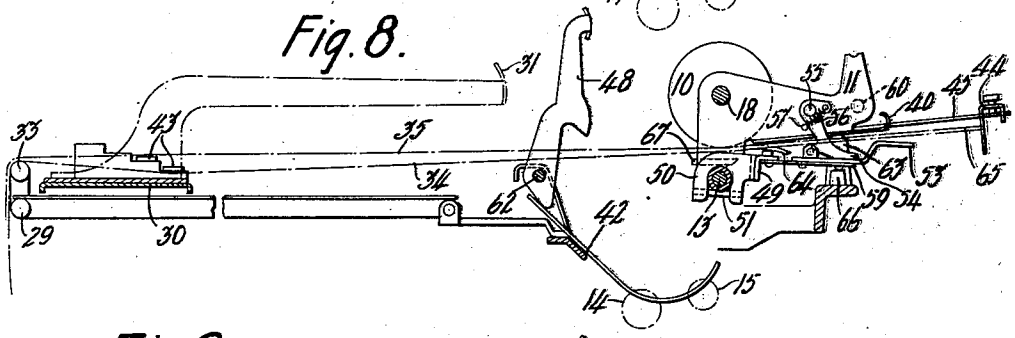


Fig. 9.

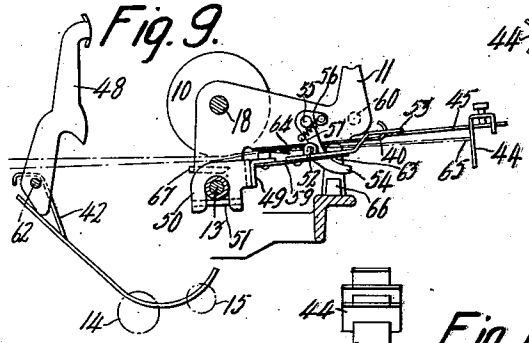


Fig. 10.

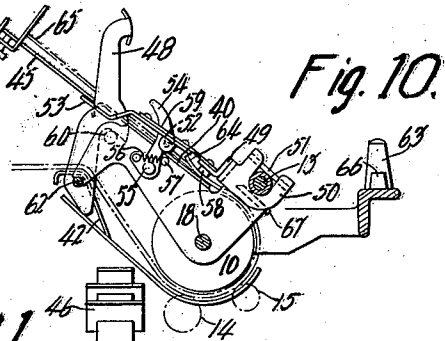
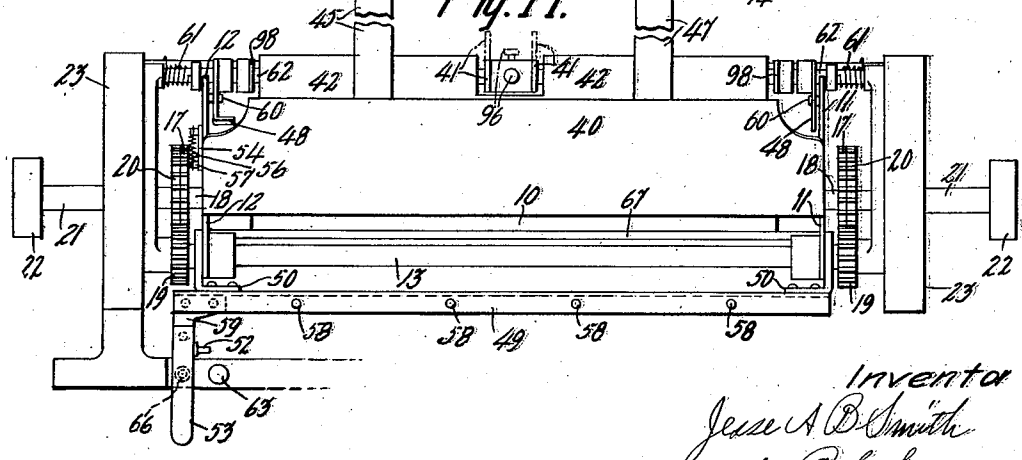


Fig. 11.



Inventor
Jesse A. B. Smith
by B. B. Stuckey
Attorney

Patented Dec. 20, 1927. 1,653,025

UNITED STATES PATENT OFFICE.

JESSE A. B. SMITH, OF STAMFORD, CONNECTICUT, ASSIGNOR TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE.

TYPEWRITING MACHINE.

Application filed January 12, 1925. Serial No. 1,755.

This invention relates to typewriting machines of the variety set forth in the patent to Wernery & Smith, No. 1,132,055, dated March 16, 1915, in which work-sheets or printed forms may be fed to the machine in succession as elements of a fan-fold web, which may be led into the machine and passed downwardly, forwardly, and up around the revoluble platen, and in which carbons may be interleaved between the elements of the fan-fold web or between the loose plies of other work-webs. As disclosed in said patent, the platen is displaceable to permit the webs to be straightened out, so that the carbons may be readily shifted back along the plies of web to unused portions thereof.

In using this machine to turn out a variety of work, it is sometimes desired to have assembled, ready for immediate use, a plurality of fan-fold webs with a plurality of carbon-carriers, so that typewriting can be done upon either set of webs, at will, and, for this purpose, it has been the practice to provide carbon-carriers which are readily detachable from the machine, so that, when it is desired to stop typing on one set of webs, it may be removed from the machine, together with the associated carbon-carrier, and the other carbon-carrier with the other set of webs may be placed in the machine to receive the typing.

One of the features of this invention is that means are provided to facilitate writing alternately upon each of a plurality of web sets having sectional forms defined by transverse perforated lines, and especially upon two webs which are simultaneously fed around the platen of the machine in fan-fold form.

Another feature is that the means provided are in the nature of an attachment to the Underwood standard typewriting machine of the variety hereinbefore specified. According to the present invention, a wide-carriage machine may be readily adapted, with little or no alteration thereof, to use two webs which may be kept in the machine side by side, and which may be typed upon alternately, or one of which may be used while the other is left idle.

In one form of this invention two parallel work-webs having a plurality of plies are inserted in the machine by interleaving the plies of the web with carbon-sheets fastened to cooperating carbon-paper clips. The leading edges of the two webs are fed over a rear table, then down around the platen to engage with cooperating feed-rolls and up in front of the platen over a front table. One of the work-webs may then be typed upon and line-spaced step by step. The platen is then swung forwardly in the ordinary way to straighten out the webs, and to draw up the active web to its corresponding leading-edge gage, of which the are two, one for each work-web, so that the carbon-sheets interleaving the typed or active web may be backed up into a new portion covering a fresh section of said web. In order to move the carbon-sheets rearwardly, it will be necessary to hold the leading edge of the typed or active web against the gage, otherwise the friction of the carbon-sheets against the leaves of the web would move the web along to the rear when the carbon-carriage and the carbon-sheets are moved backwardly.

It will be noted that both the idle and the active webs are simultaneously line-spaced while typing upon the active web when the typing upon the active web is completed, the platen is displaced, and the leading edge of the active web is drawn up to its corresponding gage. The carbon-carriage is then moved rearwardly to position the carbons in a fresh section of the active web while the idle web is moved rearwardly with the carbons due to the friction of the paper-clips and carbon-sheets interleaving the plies of the web. It will be noted also that while the carbons are retracted the active web is held with one hand against the gage while the idle web is left free to follow the carbons.

When the platen is lowered to its normal or effective position, the leading edge of the idle web has a tendency to shift out of place, or, in other words, to shift from a position between the knife and platen, and above the knife as shown in Figure 10, to a position considerably below the knife, and, in order to control the web while the platen is moved, there is provided a clamp extending the full width of the front table to effectively hold the webs between the table and the clamp. A latch is also provided to lock the clamp while the platen is swung.

In operation, the clamp is lifted by means of a handle and the latch snaps and holds the clamp in place while the platen is low-

ered. Previous to severing the active web, however, the clamp must be restored to its ineffective position, so that the web may be torn off against the knife.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a perspective view of the invention in its preferred form.

Figure 2 is a plan view of the carbon-carriage showing the removable carbon-carrying frames.

Figure 3 is a cross-sectional view through the carbon-carriage, showing the two carbon-carrying frames and an adapter to attach the frames to the machine.

Figure 4 is a cross-sectional view showing diagrammatically the preferred arrangement of the work-webs and the carbon-clips as applied to the form shown in Figure 5.

Figure 5 is a cross-sectional view of the carbon-carriage using a wide web.

Figure 6 is a diagrammatical view of the work-webs shown in connection with carbon-carrying frames having end supports only.

Figure 7 is a cross-sectional view in elevation showing the carbon-carriage in its forward position with the platen lowered in its effective position and cooperating with the feed-rolls, and the clamp swung to the front in its ineffective position.

Figure 8 is a cross-sectional view in elevation showing the carbon-carriage in its rearward position with the platen-frame swung forwardly in its ineffective position, and the clamp also in its ineffective position.

Figure 9 is a cross-sectional view in elevation showing the platen-frame swung forwardly and the clamp in its effective or clamping position.

Figure 10 is a cross-sectional view in elevation showing both the platen and the clamp in their effective positions.

Figure 11 is a plan view of the platen-frame showing the clamp in its ineffective position.

In the Underwood fan-fold typewriting machine, a platen 10 is journaled in a swing frame which includes end plates 11 and 12, journaled to a front shaft 13, extending across the platen-carriage, so that the platen may be swung forwardly in line with the work-web on the fan fold table and clear of the feed-rolls 14 and 15, which usually cooperate with the platen for feeding the work-web in line-space direction. The platen is shown geared to the line-space mechanism, which includes a line-space lever 16, by means of pinions 17 fast on the axle 18 of the platen, said pinions meshing with idlers 19 on the front shaft 13, which idlers, in turn, mesh with pinions 20 fast on the shafts 21 which carry finger-wheels 22 for operating the platen, and are journaled in platen-frames 23.

The platen-carriage is mounted upon rails including the rail 24 and is fed along in the usual manner whenever any type-bar 25 rises to print upon a work-sheet passed around the platen. The fan-fold machine also usually includes a rear extension of the carriage having rails 27 and 28, upon which a carbon-carriage 30 is adapted to be reciprocated by a handle 31. Said rear extension also includes a cross-bar 29 connecting the rails 27 and 28, which support the cross-bar 33 over which the initially fan-folded complemental webs 34 and 35 are drawn past the carbon-carriage and under the platen and up over the front table 40. For supporting the rear extension there may be provided wheels 26 operatively mounted upon a rail 39 fast upon a rearwardly-extending bracket 32 which forms an integral part of the main frame 36. Upon the carriage 30 there are provided the usual plates 37 for supporting the wheels 38 which operatively guide the carriage 30 on the rails 27 and 28.

When the work-webs 34 and 35 are initially fed to the machine, they are passed over the rear cross-bar 33, between paper-guides 41 and 98, and between carbon finger-carrying frames 86 on the carbon-carriage 30, the webs being interleaved with carbon-sheets fastened in the usual manner to carbon-fingers 43. With the leading edges of each web in alignment, the webs are inserted between the knife and the platen, when the latter is in its displaced position, so that a considerable portion of each web will extend forwardly therefrom, and, when the platen is returned to its normal or effective position, the leading edges will be above the knife. The platen is then reversely rotated to simultaneously back-feed both webs until the leading edges thereof coincide with the cutting edge of the knife, when typing upon either web can take place.

Supporting guides 45 and 47 are mounted upon the front table 40 by means of thumb-screws 97, and slidably and adjustably mounted upon the guides are leading-edge gages 44 and 46 respectively, one for each web.

While the necessary data is being typed upon one of the webs, 34 for example, and line-spaced, it will be understood that the other or inactive web 35 will also be line-spaced.

The platen is then swung forwardly to straighten out the webs, by releasing the latch 48, to a position as shown in Figure 8 so that the carbon-sheets interleaving the active web may be backed up into a fresh section of the web. Since it is customary to write but a few lines on each web, it very seldom occurs that the leading edge is fully line-spaced to its corresponding gage. With the platen in its displaced position, the lead-

ing edge of the active web is therefore brought up to its gage, said web moving relatively to the interleaved carbon-sheets. In order to withdraw the carbon-sheets, the leading edge of the active web is held with one hand against the gage while the carbon-carriage is moved rearwardly to the stop 83 by pushing the handle 31. While the carbons are moved rearwardly, the idle web is also moved along due to the friction of the carbons and clips against the several plies of the web, the idle web being free to move along with the carbons while the active web is held during the displacing of the carbons. The carbon-carriage stop is so positioned that when the carriage is brought up to said stop, the leading edge 64 of the inactive web will project beyond the knife 67, as shown in Figure 8. Furthermore, the leading-edge gage 44 is so adjusted that when the active web is pulled up thereto, the perforations of the typed sectional form will be in alignment with the leading edge of the inactive web; in other words, the distance from the knife-edge to the leading-edge gage will be greater than a sectional printed form of a ply by the distance the leading edge of the inactive web projects beyond the knife.

In order that, when the platen is lowered to its normal or effective position, the webs may not be accidentally shifted out of place, there is provided a clamp designed to hold the webs fast against the front table 40. Said clamp comprises a cross-bar 49 pivotally mounted upon the shaft 13 by means of brackets 50 which form an integral part of said clamp and are rotatably held on the shaft 13 by means of pins 51. The clamp is provided with a pin 52 which forms an integral part of a handle 53 for operating the same, and the pin cooperates with a latch 54 pivotally mounted upon the frame 11 at 55 and is held by a spring 56 against a pin 57 also fast to the frame 11. As shown in the drawings the clamp is provided with means whereby webs of different thicknesses may be effectively clamped, said means comprising a plurality of resilient plugs 58 fast to the cross-bar 49 and a flexible piece 59 connecting the clamp and the latching means. The latch 54 is operable by forcing the same rearwardly away from the pin 52 to release the clamp.

Referring more particularly to Figures 7, 8, 9 and 10, it will be noted that in Figure 7 the latch 54 is shown in its ineffective position and the platen lowered and held against the feed-rolls by means of latches 48 held in engagement with pins 60 by the springs 61, which swing the latches forwardly on a rock-shaft 62. The two webs 34 and 35, aligned abreast of each other are shown completely fed around the platen and the carbon-carriage 30 is consequently shown in its forward position, near the platen, at the end of its travel. Figure 8 shows the platen swung forward resting on a front stop 63 on the carriage. The carbon-carriage 30 is shown in its extreme rear position against a stop or gage 83 in which position it will be after displacing the carbons into a new position covering a fresh section of the web. It will be noted that the leading edge 64 of the idle web is shown displaced relatively to the leading edge 65 of the active web, the latter being held when displacing the carbons, while the former is permitted to move rearwardly with the carbons. In Figure 9 the clamp is shown in its effective position having been lifted by means of the handle 53 from the position shown in Figure 8, in which it is resting on a stop 66, to the position shown in Figure 9 in which the pin 52 is thrown into engagement with the latch 54 to resiliently hold the webs clamped between the bar 49 and the table 40. The platen is then thrown backwardly to a position as shown in Figure 10 in which the pin 60 engages the latch 48 and holds the platen against the feed-rolls. The latch 54 is then released by forcing the same rearwardly so that the clamp may be swung forwardly to a position as shown in Figure 7. To bring the aligned leading edge of the inactive web and the bottom perforated line of the typed sectional form of the active web against the cutting edge of the knife, the platen is rotated in a reverse direction to back-feed both webs simultaneously, whereupon the typed sectional form may be severed along the perforated line. Both webs are now in such position that either one may be typed upon.

In order that the webs may be removed from the machine and substituted by other webs, the carbon-carrying frames 68 are designed, in the preferred form, to be detachably mounted upon the carbon-carriage 30. To this end there is provided an adapter plate 69 which is secured to the carriage 30 by means of the regular clamps 70 engaging slots 71 in pins 72 which form an integral part of the plate 69 and fit into holes 73 in the carriage 30. Upon the adapter plate 69 there are mounted the two frames 68 which in turn carry the carbon-clips 74 fast thereon. Said frames 68 are detachably mounted upon the adapter plate by means of pins 75 having slots 76 engaging with locking bars 77, of which there are two to facilitate the individual removal of either of the carbon-carrying frames 68. The bars 77 are operatively mounted in slots cut into downwardly-extending tabs 78 which form an integral part of the adapter plate 69. To release the frames it is only necessary to pull the bars outwardly to the end of their travel, which is limited by the pin 79 striking the tabs 78 so that the notches 80 in the

bars 77 will clear the pins 75. The work-webs are guided between gages 81 fast to the frames 68 by means of the screws 82 fitting into slots 84 which provide a lateral adjustment, to suit the width of the different webs.

In Figure 5, there is provided a plate 85 having the two carbon-carrying frames 86 attached thereto. The plate is attached to the carbon-carriage 30 in a similar manner by means of the pins 87 entering the holes 73 to be engaged by the clamps 70 fitting into slots 88 in the pins 87. In Figure 4 there is shown a diagrammatic view of the webs and the carbon-clips 74 in the preferred form. Said clips are shown fastened by one of their ends to the frames 86 while the other end is shown interleaving the plies of the webs.

One of the features shown at Figure 6 is that the stock parts in the regular fan-fold machine are used with little or no alteration thereof. This consists in alternately disposing long and short carbon-clips respectively numbered 89 and 90, both kinds of clips being fastened at the outer supports 91 and having no support in the center. The two end supports are fast to a plate 95 which is in turn attached to the carriage 30 in the regular manner. There is provided a special web-gage 92 at the center fastened to the plate 95 by means of a screw 94, and at the ends the web is guided by the regular gage in the fan-fold machine indicated by numeral 81 throughout the several views.

Another feature of this device is that the same may be converted into a regular single-web fan-fold machine for wide webs, by simply changing the carbon-carrying frames and by swinging the web-guides 41 on the shafts 33 and 62 to the idle position shown in dot-and-dash lines (Figures 1 and 11). The guides are then fastened by means of thumb-screws 96, so that the single wide web is then guided between the outer guides 98, the central guides 81 and central frames 86 at Figure 5 being also omitted.

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 of the continuous billing or fan-fold type, a letter-spacing carriage, a unitary or single-section platen rotatably mounted on the carriage, a frame forming an extension at the back of said carriage, a single carbon-carriage movable on said frame-extension toward and away from the platen, twin carbon-carriers, aligned abreast of each other, mounted on said carbon-carriage, and means for moving the carbon-carriage.

2. In a typewriting machine of the continuous billing or fan-fold type, a letter-spacing carriage, a unitary or single-section platen rotatably mounted on the carriage, a frame forming an extension at the back of said carriage, a single carbon-carriage movable on said frame-extension toward and away from the platen, an adapter plate detachably mounted on the carbon-carriage, two independent carbon-carriers aligned abreast of each other and detachably mounted on the adapter plate, and means for moving the carbon-carriage.

3. In a typewriting machine of the continuous billing or fan-fold type, in combination, a letter-spacing carriage and a unitary or single section platen revolubly mounted on the carriage, a single set of feed-rolls co-operating with said platen, a frame forming an extension at the back of the carriage, a carbon-carrying device movable on said extension toward and away from the platen at the introductory side thereof, means for displacing the platen away from the feed-rolls to straighten out a plurality of work-webs fed side by side around the platen, said webs being interleaved by carbon-sheets and one of the webs being in a typing zone to receive lines of typing thereon while the other web is idly line-spaced around the platen, means against which the typed web may be manually held while the carbons are displaced away from the platen into a fresh section of the typed web while drawing along the other web, and means for holding the webs against accidental shifting while the platen is moving back into engagement with the feed-rolls.

4. In a typewriting machine of the continuous billing or fan-fold type, in combination, a letter-spacing carriage and a unitary or single-section platen revolubly mounted on the carriage, a single set of feed-rolls cooperating with said platen, a frame forming an extension at the back of the carriage, a carbon-carrying device movable on said extension toward and away from the platen at the introductory side thereof, means for displacing the platen away from the feed-rolls to straighten out a plurality of work-webs fed side by side around the platen, said webs being interleaved by carbon-sheets and one of the webs being in a typing zone to receive lines of typing thereon while the other web is idly line-spaced around the platen, a paper-table at the delivery side of the platen onto which both the typed web and the idle web are fed, leading-edge gages mounted on the paper-table, one for each of said webs, the leading edge of the typed web being manually held against its corresponding gage, while the carbons are displaced away from the platen into a fresh section of the typed web and incidently drawing along the other web, and means for holding both webs against accidental shifting while the platen

is moving back into engagement with the feed-rolls, said last-mentioned means including a clamp and a latch therefor for effectively holding the leading edge of the displaced web against the paper-table.

5. In a typewriting machine of the continuous billing or fan-fold type, in combination, a letter-spacing carriage and a revoluble unitary or single section platen therefor, means for supporting and guiding either a single or a double web around the platen, said means including an extension at the back of the carriage, side gages adjustably disposed to guide the outer edge of the webs, and a center gage for guiding the inner sides of the double web, the latter being displaceable out of engagement when the single web is used in the machine.

6. In a typewriting machine of the continuous billing or fan-fold type, a carbon-carriage, and means for selectively mounting a double carbon-carrier having independent carbon-carrying frames for accommodating two narrow webs side by side or a single carbon-carrier for accommodating a single wide web.

7. In a typewriting machine of the continuous billing or fan-fold type, the combination with a web-presenting frame, of a carbon-carriage shiftable on said frame, independent carbon-carriers on the carriage for accommodating two narrow webs side by side, pairs of web-guides on the frame for guiding each web, and means permitting the removal of the carriers from the carriage, so that a carrier for a single web of wide width may be substituted therefor, the central web-guides being displaceable when the wide web is used.

8. In a typewriting machine of the continuous billing or fan-fold type, in combination, a letter-spacing carriage and a revoluble unitary or single section platen therefor, a single set of feed-rolls co-operating with the platen for feeding two work-webs having a plurality of plies, an extension at the back of the platen upon which a carbon-carrying device is slidably mounted, a handle to operate said device away from the platen, a plurality of sheets of carbon-paper fastened at one of their ends to the carbon-carrying device and interleaving the plies of the webs, means whereby the platen may be displaced away from its co-operating feed-rolls to straighten out the webs, so that the carbons interleaving the webs may be displaced by moving the carbon-carrying device rearwardly, and means whereby the webs may be positively clamped while the platen is restored to its effective or normal position.

9. In a typewriting machine of the continuous billing or fan-fold type, in combination, a letter-spacing carriage and a revoluble unitary or single section platen therefor, an extension at the back of the carriage, a carbon-carrying frame slidably mounted upon said extension, and means for holding sheets of carbon-paper including a plate having slotted pins entering corresponding openings in the frame and engaging with a lock in said frame, two sets of side frames fast upon the plate, and clips holding the carbon-sheets fastened at one end upon said side frames.

10. In a typewriting machine of the continuous billing or fan-fold type, in combination, a letter-spacing carriage and a revoluble unitary or single section platen therefor, means for holding a plurality of carbon-paper sheets interleaving the plies of two fan-fold webs, means including a single set of feed-rolls for simultaneously feeding the two webs side by side around the platen, means whereby the carbon-sheets may be simultaneously displaced into a fresh section of one of the webs, means whereby the platen may be thrown to its ineffective position away from the feed-rolls, so as to straighten out said web to render possible the shifting of the carbon-sheets, and means for holding the two webs while the platen is restored to its effective or normal position engaging with the feed-rolls.

11. In a typewriting machine of the continuous billing or fan-fold type, in combination, a letter-spacing carriage and a revoluble unitary or single section platen therefor, a table at the delivery side of said platen, means for holding a plurality of carbon-paper sheets interleaving the plies of two fan-fold webs, means including a single set of feed-rolls for simultaneously feeding the two webs side by side around the platen and onto the table, means whereby the carbon-sheets may be simultaneously displaced into a fresh section of one of the webs, means whereby the platen may be thrown to its ineffective position away from the feed-rolls, so as to straighten out said web to render possible the shifting of the carbon-sheets, and means for holding the two webs while the platen is restored to its effective or normal position engaging with the feed-rolls, said last-mentioned means including a rockably mounted clamping bar and a handle therefor, a spring-latch for locking the clamping bar against the table, thus holding the work-webs between the clamping bar and said table, and a resilient connection between the latch and the clamping bar, so that webs of different thickness may be clamped thereinbetween.

12. In a typewriting machine of the continuous billing or fan-fold type, in combination, a letter-spacing carriage and a revoluble unitary or single section platen therefor, means for holding a plurality of carbon-paper sheets interleaving the plies of two fan-fold webs, means including a single

set of feed-rolls for simultaneously feeding the two webs side by side around the platen, means whereby the carbon-sheets may be simultaneously displaced into a fresh section of one of the webs, means whereby the platen may be thrown to its ineffective position away from the feed-rolls, so as to straighten out said web to render possible the shifting of the carbon-sheets, said last-mentioned means including two rockably mounted end frames in which the platen is journaled, a table at the delivery side of said platen carrying paper-gages engaging with the leading edge of the webs, and pins on said frames engaging with a manually-operable lock fulcrumed on a shaft which forms an integral part of the carriage, and means for holding the two webs while the platen is restored to its effective or normal position, including a rockably mounted clamping bar displaceable away from the platen, a handle therefor, a latch fulcrumed on one of the end frames disposed to engage a pin resiliently mounted on the clamping bar, a spring to operate said latch, and a plurality of resilient plugs fast to the clamping bar to render the clamping bar more effective.

13. In a typewriting machine of the continuous billing or fan-fold type, a platen and a platen-carriage therefor, a shaft secured at its end in said carriage, a swing-frame, including end plates and a front paper-table straddling said end plates, journaled to said shaft, feed-rolls for feeding a web around the platen and up over the paper-table, a clamping bar rockably mounted on said shaft and a handle therefor having a locking pin, and a spring-latch on one of the end plates of the swing-frame coacting with said locking pin to grip the web between the paper-table and the clamping bar.

14. In a typewriting machine of the continuous billing or fan-fold type, a platen and a platen-carriage therefor, a shaft secured at its ends in said carriage, a swing-frame, including end plates and a front paper-table straddling said end plates, journaled to said shaft, means for locking the platen and swing-frame in normal operating position, feed-rolls for feeding a web interleaved with carbon-sheets around the platen and up over the paper-table, a clamping bar rockably mounted on the shaft and normally extending forwardly thereof during the typing operation, means whereby the platen and swing-frame may be thrown to ineffective position away from the feed-rolls so as to straighten out the web interleaved with carbon-sheets, means for shifting the carbon-sheets to an untyped portion of the web, a spring-latch on one of the end plates of the swing-frame, and a locking pin on the clamping bar and a handle therefor, whereby, upon slight upward push of said handle, the spring-latch will engage the locking pin to grip the web between the paper-table and the clamping bar to insure against displacement of said web, upon the platen and swing-frame being brought to normal operative position.

15. In a typewriting machine of the continuous billing or fan-fold type, the combination with a swing-frame and a revoluble platen therefor, around which a plurality of work-webs are fed side by side in line-spaced relation, of a front paper-table and a cutting-off knife, the webs being fed below the knife and over the paper-table, and means for clamping the webs to the table, when the platen is in its displaced position, prior to throwing the platen to its operative or effective position, to insure against displacement of the webs, the clamping means including a clamping bar extending across the table, a handle therefor having a locking pin, and a spring-controlled latch pivoted on the swing-frame for engagement with the locking pin.

16. In a typewriting machine of the continuous billing or fan-fold type, the combination with a unitary or single-section displaceable platen, of a single set of feed-rolls co-operating with said platen for simultaneously line-spacing two multiple-ply webs interleaved with carbons and arranged side by side while typing upon one, leading-edge gages adjustably mounted at the delivery side of the platen, one for each web, means whereby the interleaved carbons of the typed web are shifted into a new section of the web, when the platen is displaced and the leading edge of the typed web is held against its corresponding gage, the untyped web and its interleaved carbons being shifted simultaneously with the carbons of the typed web, and means for clamping the leading edge of the untyped web to insure against displacement upon the platen being brought to its normal or effective position.

17. In a typewriting machine of the continuous billing or fan-fold type, the combination with a displaceable revoluble platen around which a plurality of multiple-ply webs, having sectional forms defined by transverse perforated lines, and interleaved carbons, are fed side by side in line-spaced relation, while typing upon one, of a front paper-table and a cutting-off knife associated therewith, the webs being fed below the knife and over the paper-table, leading-edge gages adjustably mounted on the paper-table, means whereby the interleaved carbons of the typed web are shifted to a new or untyped section of the web, when the platen is displaced and the leading edge of the typed web is held against its corresponding gage, the untyped web and its interleaved carbons being shifted simultaneously with the carbons of the typed web, means for

limiting the shifting of all the carbons and untyped web, the position of the leading-edge gage of the typed web and the displacement of the carbons and untyped web being such that the lower perforated line of the typed sectional form of the active web and the leading edge of the untyped web are in alignment above the cutting edge of the knife, and means for clamping both webs against the platen just above the knife to insure against displacement as the platen is thrown back to its normal or effective position, whereupon, by releasing the clamp and rotating the platen to simultaneously back-feed both webs, the typed sectional form of the active web may be torn off on the perforated line, so that either web will now be in position to be typed upon.

18. In a typewriting machine of the continuous billing or fan-fold type, the combination with a displaceable platen common to a plurality of work-webs line-fed side by side, of a front paper-table and a cutting-off knife, the webs being fed over the paper-table, means for interleaving the work-webs with carbons, means for stripping the carbons of either web and concomitantly returning the untyped web idly, the leading portion of the returned web being slightly above the knife, and means for clamping the webs to the table, when the platen is in its displaced position, prior to throwing the platen to its operative or effective position, to insure that said leading portion of the returned web remains above the knife and that both webs are held against displacement.

19. In a machine for typing upon a plurality of fan-fold webs which are placed in the machine side by side, said machine including a platen common to the webs and a line-spacing mechanism common to the webs, whereby the untyped web is line-fed idly during the typing of the other web, the combination of means for interleaving said fan-fold webs with carbons in a manner that the webs are typed in fan-fold form, and means for stripping the carbons of either web and concomitantly returning the untyped web and its carbons idly.

20. In a machine for typing upon a plurality of multiple-ply webs which are placed in the machine side by side, said machine including a platen and a line-spacing mechanism common to the webs, whereby the untyped web is line-fed idly during the typing of the other web, the combination of means for stripping the carbons of either web and concomitantly returning the untyped web idly, said stripping and returning means including a double-width truck provided with a set of carbon-holding devices for each web, said truck being movable backward to strip the carbons for one web and return the other web idly, the set of carbon-holding devices for one web being at one side of said truck, and the set for the other web being at the other side of said truck for interleaving carbons of the work-plies for both webs, each of said sets of carbon-holding devices forming a unit which is detachable from said truck independently of the other carbon-holding unit.

21. In a machine for typing upon a plurality of multiple-ply webs which are placed in the machine side by side, said machine including a platen and a line-spacing mechanism common to the webs, whereby the untyped web is line-fed idly during the typing of the other web, the combination of means for stripping the carbons of either web and concomitantly returning the untyped web idly, said stripping and returning means including a double-width truck provided with a set of carbon-holding devices for each web, said truck being movable backward to strip the carbons for one web and return the other web idly, the set of carbon-holding devices for one web being at one side of said truck, and the set for the other web being at the other side of said truck for interleaving carbons of the work-plies for both webs, each of said sets of carbon-holding devices forming a unit which is detachable from said truck independently of the other carbon-holding unit, said truck including a platform detachable therefrom, and each of said carbon-holding sets being detachably held as a unit upon said platform.

JESSE A. B. SMITH.