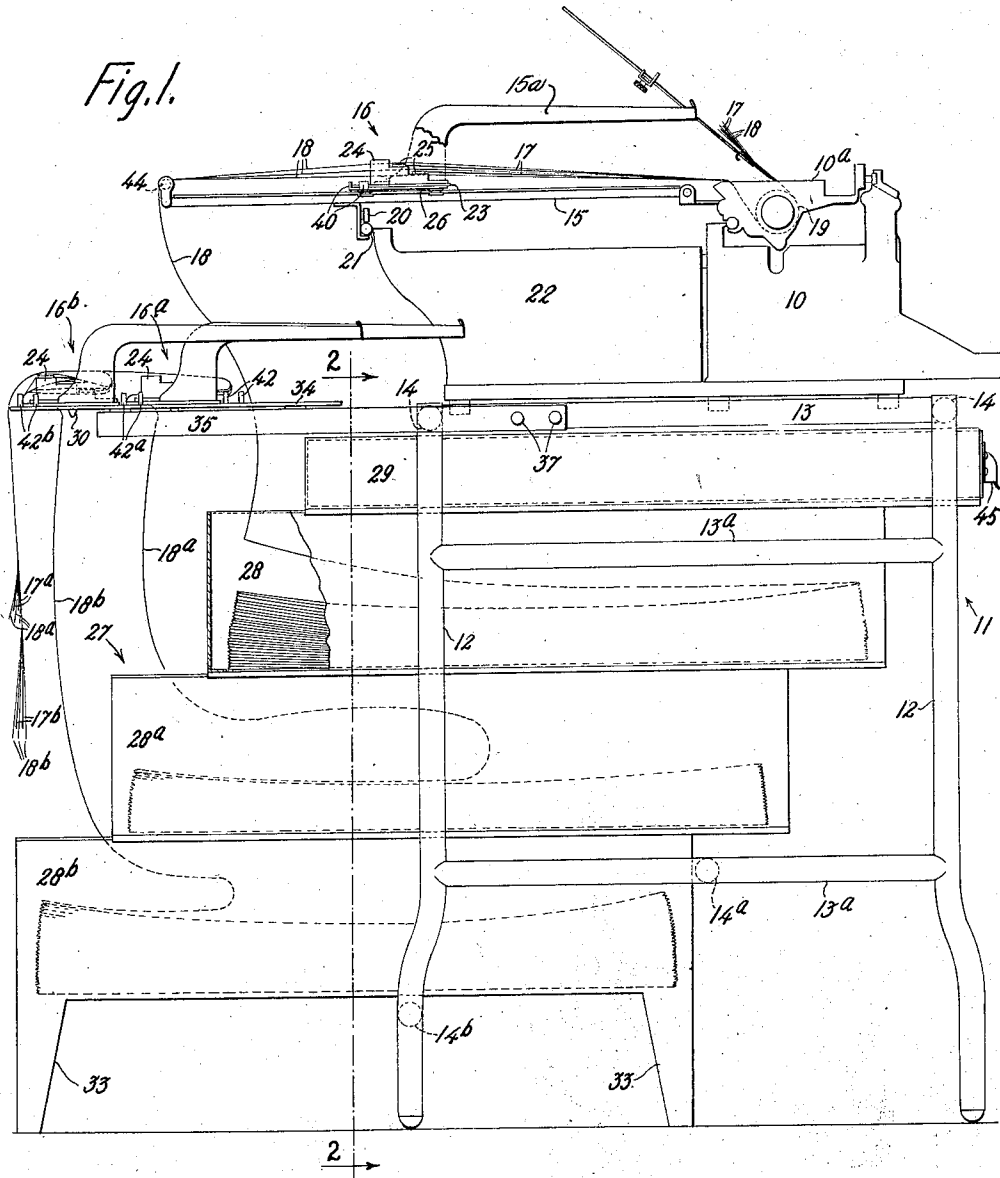
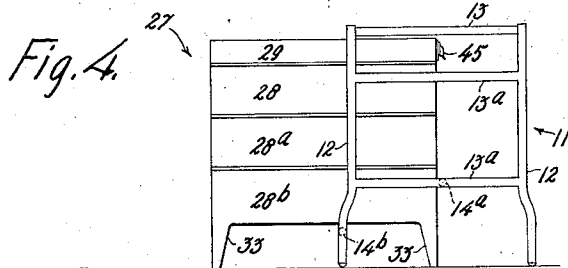


June 3, 1930.

J. A. B. SMITH
TYPEWRITING MACHINE
Filed Jan. 21, 1924

1,761,056

3 Sheets-Sheet 1



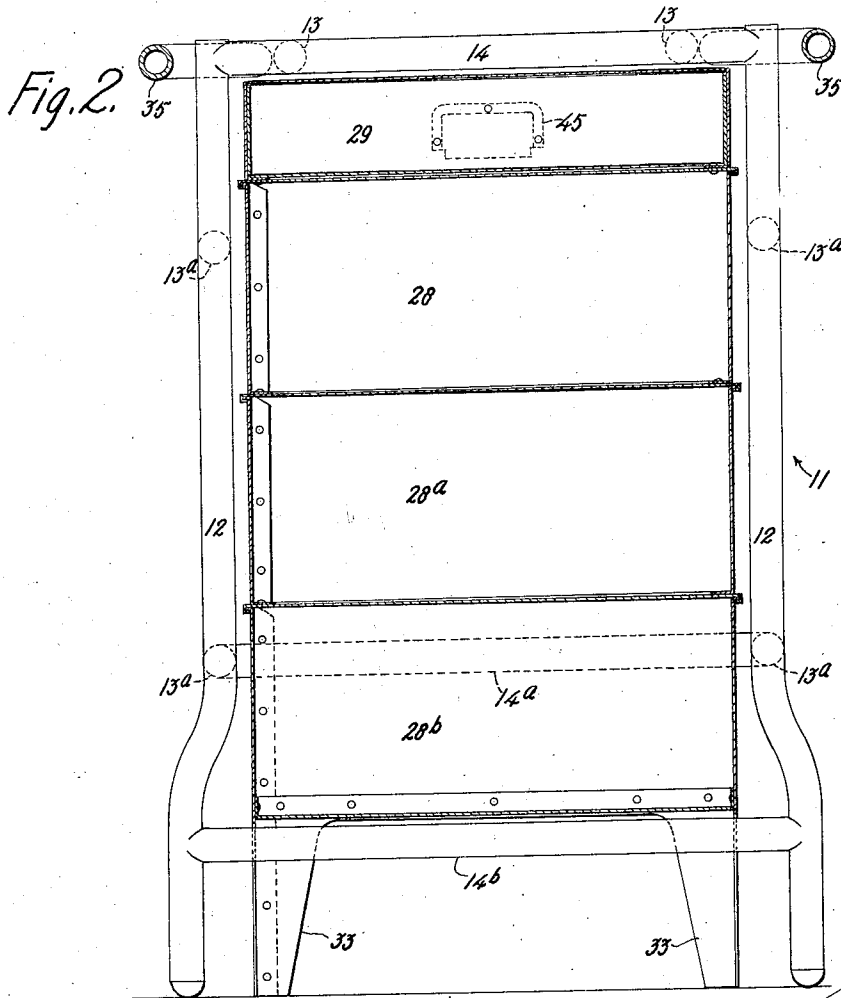
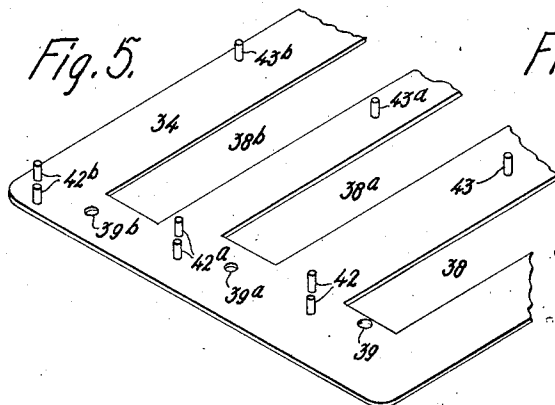
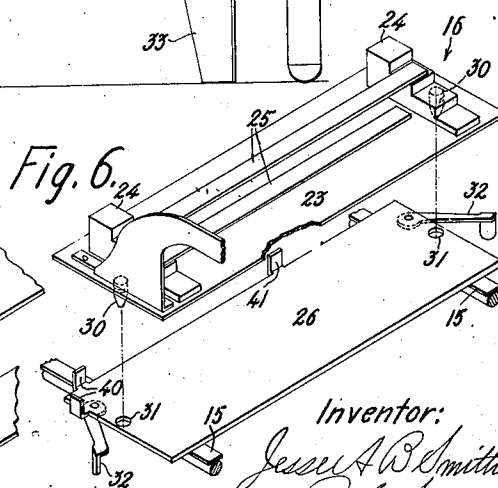
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1,761,056

3 Sheets-Sheet 2



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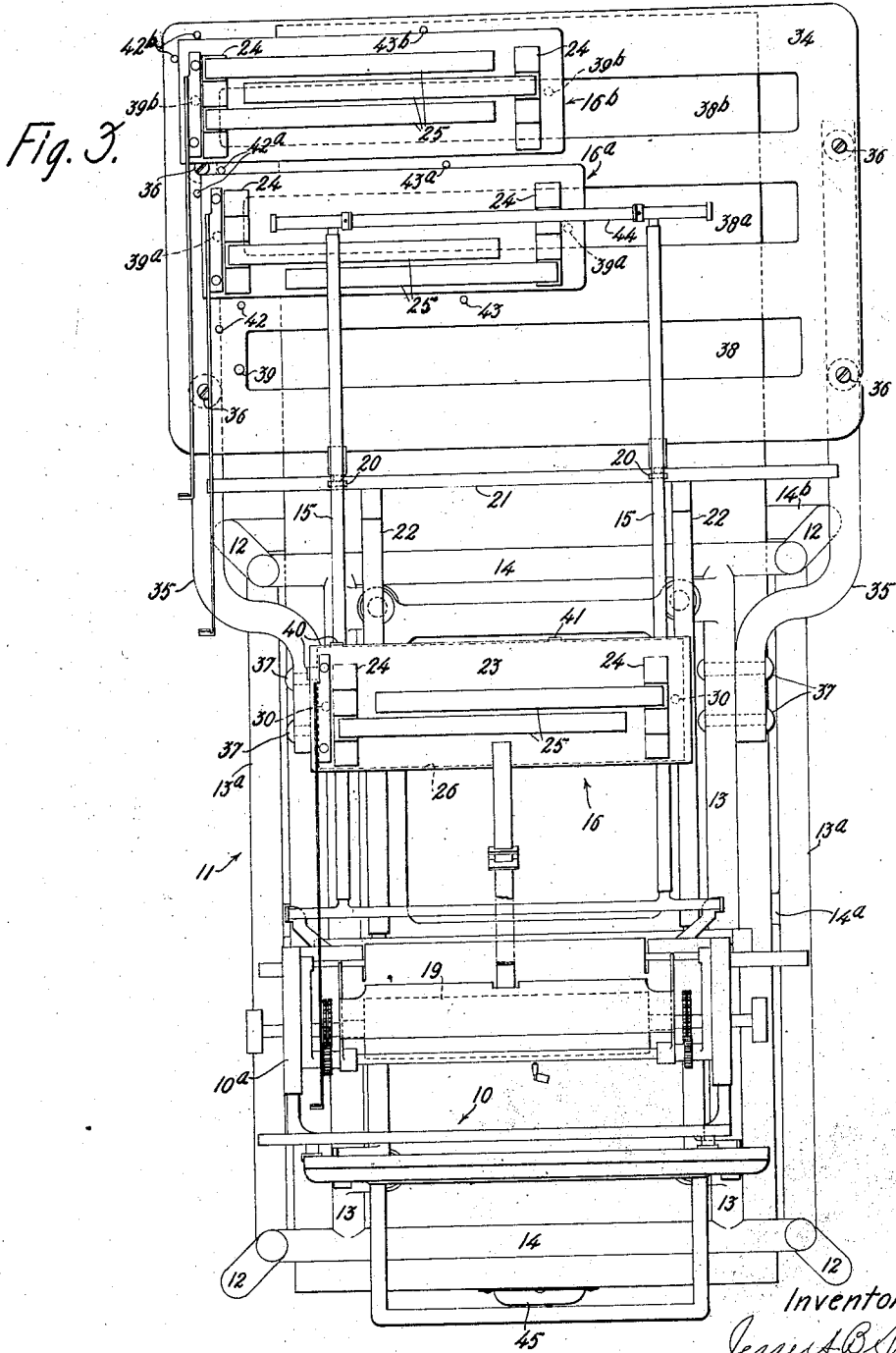
J. A. B. SMITH

1,761,056

TYPEWRITING MACHINE

Filed Jan. 21, 1924

3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

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TYPEWRITING MACHINE

Application filed January 21, 1924. Serial No. 687,484.

The present invention relates to an improved work-sheet cabinet to be used in connection with continuous billing typewriting machines, one form of which is shown in the patent to Wernery and Smith, No. 1,132,055, granted March 16, 1915.

In a machine of this type, work-sheets or webs are used in several layers or plies, each provided with printed forms constituting one piece of work, which, when completed, may be torn from the continuous webs. Carbon-sheets interleaved between the webs or plies are mounted to move on a carriage or carrier, so as to advance with the webs toward the platen while typewriting, and so as to be drawn back by the carbon-holder on the carriage into the succeeding form-section of the webs after the leading form-section has been typed, and prior to detachment from the webs of such leading form-section.

To save time and trouble in substituting webs of one style for that of another, the carbon-sheets, as shown in the patent to Fortin, No. 1,237,319, granted August 21, 1917, are attached to a holder which is detachably secured to the carrier so that a holder for any set of webs, with the carbon-sheets interleaved therewith, may be removed as a unit from the carrier, and another holder, with carbon-sheets already interleaved with the plies of the desired set of webs, substituted therefor.

Containers, receptacles or a cabinet with compartments for the several webs and their respective holders and carbon-sheets have heretofore been devised to provide for the selective feeding of the webs from a container to the carbon-holder on the carrier of the typewriting machine, when the holder shall have been placed on the latter. Accessibility, easy manipulation in positioning the cabinet for feed of the webs, and large capacity for webs in small space are among the principal desiderata of such containers or cabinets.

The present invention has particular reference to a novel work-piece feeder cabinet resting upon the floor and straddled by the supporting stand of the machine. The cabinet comprises a plurality of feeder contain-

ers for the webs in the form of banks of compartments or drawers, set one upon the other and slidingly displaceable with respect to each other to position same for selectively feeding the webs therefrom.

A feature of the invention is the provision of means whereby the typewriter stand and certain fixtures with respect thereto may be used to expeditiously change the holders and work-pieces and to properly feed any work-piece from its drawer. In this feature of the invention a rack for the idle carbon-holders is mounted on the rearwardly-extending supports attached to the top side frames of the stand, so that in changing the holders they are moved practically the shortest possible distance and may be easily and conveniently manipulated between the rack and the carrier on the machine, thus saving much time and labor. The rack is designed with cut-out portions to accommodate the passage and allow the required free movement of any of the webs for the proper feeding thereof from any compartment to the machine.

A feature of the invention that results in a further saving of time and labor is the provision of corner and back stops on the rack and on the carrier to facilitate positioning the holders when mounting the same either in idle position on the rack or for typing on the carrier, said stops acting as guiding means to center the dowel pins on each holder in aligning the same with holes in the rack or in the carrier when mounting the holder on either.

Other features and advantages will herein-after appear.

In the accompanying drawings,

Figure 1 is a view in side elevation, partly in section, showing a continuous billing typewriter on a stand straddling a work-piece feeder cabinet, normally open, with fan-fold webs passing from one of the drawers of the cabinet to a holder positioned on the typewriter and other webs from other drawers connected to idle carbon-holders supported at the rear of the machine.

Figure 2 is a sectional view, taken on the line 2-2 of Figure 1, showing the construction of the cabinet drawers in detail.

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Figure 3 is a plan view of that shown in Figure 1.

Figure 4 is a diagrammatic view, in side elevation, showing the position of the typewriter stand and cabinet with the drawers closed.

Figure 5 is a fragmentary portion of a perspective view of the rack for supporting the idle holders, showing the corner and back stop pins to facilitate mounting each holder by guiding the same to proper position for centering the dowels in alignment with the holes in the rack.

Figure 6 is a perspective view of a fragmentary portion of the apparatus, showing the holder and its interlocking mounting means with the carrier of the machine including corner and back stops to facilitate guiding the holder into proper alignment for centering the dowels in alignment with the holes in the carrier.

In the accompanying drawings, an Underwood continuous billing typewriting machine 10 is shown supported on top of a stand 11 having uprights 12, upper side braces 13, lower side braces 13^a, upper cross-braces 14, a middle cross-brace 14^a, and a lower cross-brace 14^b. The stand 11 may be constructed in any conventional manner, but preferably may be made of metal tubing or pipe which is light and strong and may be formed into a neat appearing structure. The machine, here intended to be shown as illustrating the invention, is like that disclosed in the above-mentioned Fortin Patent, No. 1,237,319, of which the platen-carriage 10^a of the machine 10 has attached thereto a rearwardly-extending track-table 15 on which a carbon-sheet-holding plate or carbon-holder 16, provided with the usual handle 15^a, is adapted to move with carbons 17 and webs 18 toward a platen 19 of the machine 10 as the carbons 17 and webs 18 have their line-space movement around the platen 19, and which is adapted to be moved backwardly with the carbons 17 to draw the latter into successive sections of webs 18 after the leading webs 18 have passed around the platen 19.

Track-table 15 has rollers 20 near the rear end thereof which ride on a cross-rail 21 supported on brackets 22. The table 15, being thus supported, is free to have letter-feed and return movement with the platen 19 on the machine 10. It is unnecessary to describe in detail the structure of the table 15 on which the carbon-holder 16 bears, reference being made to the aforesaid Fortin patent for such description thereof as may be desired. Suffice here to say that the carbon-holder 16, as in the Fortin patent, comprises a plate 23 and a pair of stepped blocks 24 mounted thereon. Detachably secured to blocks 24 are clips 25, each of which engages and holds the rear end of one carbon-sheet 17, the several clips 25 being arranged in stepped relation from one

another to more conveniently enter and slide between the superimposed webs 18, see Figures 1, 2 and 6.

In the Fortin patent, above mentioned, a work-piece comprising a single set of fan-fold webs is described, the superimposed plies forming the webs, and each set being composed of detachable units bearing the same individual forms or blanks. Instead of a single set of fan-fold webs, several strips of webs, one of which is indicated in Figure 1 as 18, above the platen 19, another at 18^a, and still another at 18^b, may be employed, each of the superimposed webs being composed of such detachable units.

The carbon-holder 16 with the carbons 17 attached thereto interleaved with webs 18, is not directly mounted on track-table 15, but has carbon-holder 16 detachably secured to a sheet-plate wheeled carrier or carbon-holder carriage 26 which moves on the track-table 15 to and from platen 19, as above described. This detachable connection between the carbon-holder 16 and the carrier 26 is made by providing dowels 30 near each side of the plate 23 on the carbon-holder 16, which, when the carbon-holder 16 is properly placed on carrier 26, register with and pass through holes 31 therein. Dowels 30 are grooved below the carrier 26 to receive pivoted blades 32 which may be swung into and out of interlocking engagement with the dowels 30, thereby serving as means for locking the carbon-holder 16 to carrier 26 (see Figure 6).

The detachability of any carbon-holder permits interchanging of carbon-holders whereby a carbon-holder with the carbons interleaved with webs of one character may be substituted for another carbon-holder with its attached carbons and webs having a different character, thus avoiding the necessity at each time of substituting webs of one form for webs of another form in the carbon-holder mounted on the machine; the interleaving of webs having the desired form with a set of carbons, and attaching the latter to the carbon-holders. In other words, the webs of each set or style of individual forms which the operator may be called upon to use have their carbons interleaved therewith and attached to one of several carbon-holders. It is therefore a simple matter to substitute a carbon-holder with selected webs for a carbon-holder and webs which may be in the machine.

The work-piece cabinet or magazine 27 may preferably be made of riveted metal-sheets fashioned to form a bank of feeder compartments or drawers 28, 28^a, 28^b and 29, set one upon the other, each supporting the one above and displaceable with respect thereto, for allowing the fan-fold webs contained in the drawers 28, 28^a and 28^b to be fed therefrom, as shown in Figure 1. The top

compartment 29 may have a handle 45 and form a handy drawer useful for storing material, accessories and tools.

The upper side edges of each drawer 28, 28^a and 28^b are bent outwardly from the up-
 5 standing sides thereof and have the corresponding side edges of the bottoms of drawers 29, 28 and 28^a immediately thereabove bent down and under said upper edges to
 10 form a supporting and sliding connection between the several drawers. Legs 33 may form a part of the lower compartment 28^b to elevate the cabinet 27 a convenient distance above floor level and to provide a passage
 15 under drawer 28^b for cross-brace 14^b which strengthens the lower portion of the rear uprights 12 of machine-stand 11. Stand 11, without being connected with cabinet 27, may straddle and confine the latter in restricted
 20 position between the rear uprights 12 and brace 14^a which crosses the outside front of the drawer 28^b, as shown in Figures 1 and 4. This arrangement of stand 11 and cabinet 27 provides an improved apparatus for use with
 25 billing machines in which the webs may be neatly stored in closed compartments, when not being fed, as shown in Figure 4, and, by simply sliding drawers 28, 28^a and 29, access may be had to any compartment, as required
 30 by the typing operation, an example of which is illustrated in Figure 1.

To care for the idle interchangeable carbon-holders 16^a and 16^b carrying carbons 17^a and 17^b and interleaved between webs 18^a and
 35 18^b, respectively, there may be provided a platform-rack 34 extending over the rear portion of the cabinet 27. Rack 34 is rigidly mounted on supports 35 by means of screws
 40 side braces 13 by rivets 37. Rack 34 may be provided with transverse, parallel, cut-out sections or slots 38, 38^a and 38^b to accommodate therethrough the passage of webs 18, 18^a and 18^b, and to allow the free movement of
 45 said webs. Said cut-out sections are made sufficiently long so as not to interfere with the proper feeding of said webs during letter-feed movements of the platen 19. Holes 39, 39^a and 39^b on rack 34, similar to holes 31
 50 on the carrier 26, may be provided adjacent the left side of the cut-out sections 38, 38^a and 38^b, respectively, in which may be inserted a dowel 30 of each carbon-holder. These holes 39, 39^a and 39^b are not in alignment, but are staggered so as to permit the compact arrangement or nesting of carbon-holders on the rack 34. Rack 34 provides simple and adequate means for safely storing the
 55 idle carbon-holders, and, by situating the same adjacent the track-table 15, as best shown in Figures 1 and 2, said rack 34 permits easy and convenient manipulation for interchanging the carbon-holders.

As a further improvement to assist in quickly interchanging carbon-holders, car-

rier 26 may be provided with corner stops 40 and a back stop 41, preferably formed by bending projecting portions of the top plate of carrier 26 upwardly to the positions shown in Figure 6. Likewise rack 34 may have secured in the top side thereof similarly situated upwardly-extending corner pins 42, 42^a and 42^b and back pins 43, 43^a and 43^b adjacent the cut-out portions 38, 38^a and 38^b, respectively, as shown in Figure 5.

To interchange the carbon-holder 16 with 16^a, for example, the pivoted blades 32 on carrier 26 are swung out of interlocking position with the dowels 30 of carbon-holder 16, and the rack is lifted from carrier 26 and positioned over cut-out portion 38 on rack 34. The left corner of carbon-holder 16 is then brought into engagement with corner pins 42, and the rear side edge thereof with back pin 43. The left-hand dowel 30 on carbon-holder 16 now registers in alignment with hole 39 in rack 34, and, on further lowering carbon-holder 16, dowel 30 will pass into hole 39 to properly position carbon-holder 16 on rack 34. Carbon-holder 16^a may now be lifted from rack 34 to a position over carrier 26, and the left corner and rear edge of holder 16^a may be brought into engagement with the corner stops 40 and the back stop 41 on carrier 26, respectively. The dowels on holder 16^a corresponding to dowels 30 on holder 16 will then register in alignment with the holes 31 in carrier 26, and on lowering the holder 16^a the dowels will pass into holes 31 to properly position the holder 16^a in place on carrier 26. Blades 32 may then be swung to interlock with the dowels, to secure against displacement the holder 16^a on carrier 26.

The rearwardly-extending track-table 15 overhangs cross-rail 21 and has a work-piece guide-bar 44 mounted on the extreme rear ends of table 15 over the middle cut-out section 38^a for guiding the webs from any one of the compartments to the carbon-holder mounted on the carrier 26, and hence to platen 19 as shown in Figure 1.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. The combination with a continuous billing typewriting machine having a carbon-holder for carbons interleaved with the plies of a work web and a carrier on which said carbon-holder may be detachably mounted, a dowel on said carbon-holder for interlocking with a hole in the carrier, said carrier having corner and back stops to automatically align the hole therein with the dowel of the carbon-holder, of a rack having a hole therein and corner and back stops to align the hole with the dowel of the carbon-holder when mounting the latter thereon detached from the carrier.

2. The combination with a web-manifolding, carbon-stripping typewriting machine having means for stripping carbons interleaved between the plies of a plurality of multiple-ply work-webs, including a carbon-carrier truck, a separate carbon-carrier frame for each of said webs arranged to be detachably mounted on said truck, and a forwardly-extending operating handle fastened to each of said frames, of a stand on which said machine is supported, said stand having a depository at the rear of said machine, having means for detachably carrying all of said frames with the handle of each frame projecting forwardly to be conveniently grasped by an operative from the front of the stand, preparatory to lifting the frame and its associated web and placing them on said truck for feeding the web through said machine.

3. The combination with a plurality of carbon-carrier frames of a continuous billing typewriting machine, each frame having means for holding carbons interleaved between plies of a multiple-ply work-web, a forwardly-extending operating handle, and means for mounting the frame on a carbon-carriage of said typewriting machine, of a stand on which may be supported, adjacent the forward side thereof, said typewriting machine, said stand having a depository at the rear of said machine, having means for nesting said frames sufficiently near to the forward side of said machine to enable the operative to conveniently grasp the handle of each frame for separating it from the depository and placing it on said carbon-carriage preparatory to feeding the web associated with it to said machine.

4. In combination, a web-manifolding, carbon-stripping typewriting machine having a carbon-carrier truck provided with mounting holes and a plurality of carbon-carrier frames to be operatively positioned on said truck, one at a time, by means of dowel pins fixed to each frame which has a forwardly-extending operating arm for moving said truck rearwardly to strip carbons interleaved between the plies of a multiple-ply work-web, and a stand on which may be supported said typewriting machine, said stand being arranged with a depository at the rear of said machine, including a plate having a plurality of sets of holes, each set receiving the dowel pins of one of said frames, said holes being positioned whereby said forwardly-extending arms of the frames will be nestably disposed relatively to each other, thereby bringing the arm of the rearmost frame within reach of the operative at the front of said machine.

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