July 3, 1928. 1,675,436

J. WALDHEIM

TYPEWRITING MACHINE

Filed June 9, 1922

Fig. 1.

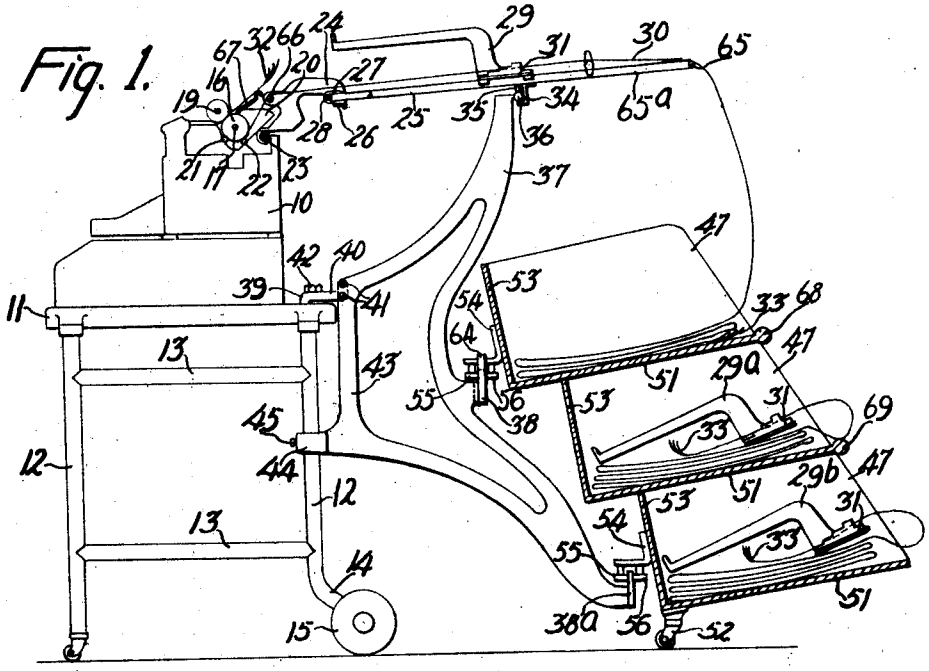


Fig. 3.

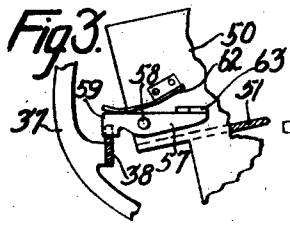


Fig. 2.

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Patented July 3, 1928. 1,675,436

UNITED STATES PATENT OFFICE.

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TYPEWRITING MACHINE.

Application filed June 9, 1922. Serial No. 566,939.

The present invention relates to an improved web or work-sheet cabinet to be used in connection with continuous billing typewritting machines, one form of which is shown in the patent to Wernery & 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 web. Carbon-sheets interleaved between the webs or plies are mounted on a carbon-carriage, so as to advance with the web toward the platen while typewriting, and so as to be drawn back by the carbon-carriage into the succeeding form-section of the web after the leading form-section has been typed, and prior to detachment from the web of such leading form-section.

To save time and trouble in substituting a work-web of one style for that of another, the carbon-sheets, as shown in United States Letters Patent to Fortin, No. 1,237,319, granted August 21, 1917, are not directly attached to the carbon-carriage in the machine, but are attached to a plate or holder which is detachably secured to the carbon-carriage so that a carbon-sheet-holding plate for any set of webs, with the carbon-sheets interleaved therewith, may be removed as a unit from the carbon-carriage, and another carbon-sheet-holding plate, with carbon-sheets already interleaved with the plies of the desired set of webs, substituted therefor. Containers or cabinets for the several webs and their respective carbon-sheet-holding plates and interleaved carbon-sheets have heretofore been devised to provide for a feed of the web from its container to the carbon-carriage of the typewriting machine, when the sheet-holder shall have been placed on the latter.

The present invention has particular reference to an equipment which comprises the above-mentioned continuous billing apparatus as applied to a bookkeeping typewriting machine; and which involves a support, other than the machine-frame itself, for the carbon-carrier table, in order to allow clearance, for, and access to, certain attachments commonly present on the rear of bookkeeping machines. Such other support for the carbon-carrier table in turn involves means for determining a fixed relation of the same to the machine, so that the carbon-carrier table may properly connect to the platen-carriage of the machine, and may move with the latter in letter-feed and return directions without binding. Because of the size of bookkeeping machines, a special stand therefor, easily rolled from place to place, is commonly employed; and, by providing the stand with centering means for the machine and for the auxiliary carbon-carrier table-support, the correct relations of these may be assured. It will be understood, however, that the invention is not confined to use in connection with a bookkeeping machine or with a machine-stand of any special type.

An object of the invention is the provision of a combined holder or support for the carbon-carrier table, and attachment for a plurality of web-containers, or web-cabinet; which combined device is supported by the typewriting-machine-stand, independently of the machine itself; and along which combined device the web-containers or cabinet is adjustable to permit the particular web which is to be used, to be brought to set position with respect to the carbon-carrier table.

A further object of the invention is the provision of such a combined device and of a holder or cabinet for a plurality of web-containers connected thereto and adjustable therealong, but supported on the floor, so as to be movable as a unit with the typewriting-machine-stand.

A feature of the invention is the provision of a runway on the combined carrier-table support and web-cabinet attachment, along which runway the cabinet may be slid, while supported on the floor, and of means for locking the cabinet in selected position on the runway.

Another feature of the invention is the easy detachability of the cabinet, as a whole, from the rest of the apparatus or equipment when the cabinet is not desired, or when another cabinet is desired to be substituted therefor. In the preferred form of the invention, hereinafter described, the cabinet may be positioned or detached by simply sliding the same on or off of one end of a rail on which the cabinet is adjustable for

the setting of any container thereof with respect to the carbon-carrier table.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a view in side elevation, partly cross-sectional, showing an Underwood bookkeeping machine, with continuous billing attachment and stand therefor, and with the combined work-box cabinet and carbon-carrier table-support of the present invention connected to the stand.

Figure 2 is a view in rear elevation of the work-box cabinet and carbon-carrier table-support shown in Figure 1.

Figure 3 is a detail view, in side elevation, of the latch for holding the work-box cabinet in selected position.

The frame 10 of the bookkeeping machine is shown supported on a platform 11 of a stand having uprights 12 and cross-braces 13, and having the feet 14 thereof provided with rollers 15, to permit the stand with the machine and associated parts to be wheeled from place to place.

The platen 16 is revolubly mounted on an axle 17, carried by arms (not shown) forming part of a swinging frame pivoted at 19 to the carriage-frame 20. The normal position of the platen is its full-line, Figure 1 position, but it may be swung up around the axis 19 as a pivot to permit the fan-fold webs to be advanced in the usual manner, for detachment of the leading written section and for placement of the succeeding section thereof. The usual front and rear pressure-rolls 21 and 22 are provided for feeding the web with the platen. The carriage runs on a rod 23 carried by the main frame.

Attached to the carriage are brackets 24 for supporting the forward end of the carbon-carrier table 25. The brackets 24 are connected by a cross-piece 26 having other brackets or ears 27 thereon; and the ears 27 carry the bar 28 which defines the front of the table 25. On the table 25 is a carbon-holder and carrier 29, adapted to move with the carbons (not shown) and with the web 30 toward the platen as the carbons and web have their line-feed movements around the platen, and which is adapted to be moved backward with the carbons, independently of the web, to draw the carbons into a succeeding web-section after the leading web-section has passed around the platen. It is unnecessary here to describe in detail the entire construction of the table and associated parts, reference being made to the aforesaid United States Letters Patent to Fortin, No. 1,237,319, for such description thereof as may be desired. Suffice here to say that the carbon-holder of the Fortin patent comprises a plate 31, having secured thereto a number of clips (not shown), each of which clips engages and holds the rear end of a carbon-sheet, the several clips being stepped up, one from another, more conveniently to enter and slide between the superposed web-plies.

In the Fortin patent, a single fan-fold web is shown: the superposed plies forming the web each being composed of detachable units bearing the same individual form or blank. Instead of the single web comprised of fan-folded superposed sheets or strips, several single strips or webs, as here indicated at 32 above the platen and at 33 in the lower work-boxes, may be employed; each of the superposed webs being composed of such detachable units.

The table 25, near the rear thereof, has a pair of depending brackets 34, each of which carries a roller 35 which rides on a rail 36, supported on brackets 37. The brackets 37 thus support the rear of the carbon-carrier table, and the latter, by reason of the rolls 35 riding on the rail 36, is free to have letter-feed and return movements with the platen-carriage of the typewriting machine, to which it is connected at its forward end.

The right and left hand brackets 37 are connected at the rear by rails 38 and 38ª, and at the front by a bar 39 carried by arms 40 secured by screws 41 to the brackets. The bar 39 serves as a front support for the brackets 37 on the platform of the stand 11, and is secured to the platform of the stand by screws 42. Each of the brackets 37 has also a front vertical reach 43, the lower end of which is turned outward laterally, as shown at 44 in Figure 2, and is turned in the shape of a U around the corresponding rear upright 12 of the machine-stand 11. By means of screws 45, the U-shaped offsets 44 of the brackets 37 are fixed to the uprights 12 of the machine-stand.

In assembling the brackets 37 on the stand 11, the bar 39 is first positioned and screwed in place. The brackets 37 are then separately brought to position against the outside faces of the arms 40 of the bar 39, with their U-shaped extensions 44 embracing the legs 12 of the stand. The screws 41 are then applied to secure the brackets to the bar 39. The rear rails 38 and 38ª are then set in place and secured by screws 37ª to the brackets 37. Thereupon the set-screws 45 are tightened to fix the lower front portions of the brackets 37 to the legs of the stand. The setting of the bar 39 by the screws 42 determines the proper setting of the rail 36, so that the latter may be parallel to the path of movement of the carriage on the machine-frame.

Behind the brackets 37 is the web-cabinet. This is shown as comprising six work-boxes 47 arranged in two tiers of three each. The cabinet is formed of three vertically-disposed boards 48, 49 and 50; three rear-wall boards 53; and three horizontal floor-sections

51. The cabinet is supported by casters 52 secured to the lowest floor-section 51 of the cabinet, which casters run on the floor which supports the stand 11. For connecting the cabinet to the brackets 37, the rear walls 53 of the upper and lower work-boxes in both tiers have, secured thereto, brackets 54, each of which carries two rollers 55 and 56. The rollers 55 engage the rails 38 and 38ª at the front thereof, and the rollers 56 engage these rails at the rear thereof. The rails 38 and 38ª therefore serve not only to connect the cabinet to the brackets 37, but serve also as runways on which the cabinet may be slid to the right or left to bring either the left-hand or the right-hand tier of work-boxes into position for the feeding of a web therefrom to the carbon-carrier table. In Figure 2, the cabinet is thrown to the right to bring the left-hand tier of work-boxes into centered position with respect to the carbon-carrier table.

For holding the web-cabinet in selected centered position for one or the other tier of work-boxes, a latch is provided. As shown in Figure 3, this latch comprises a dog 57 pivoted at 58 to the outer face of the left-hand wall 50 of the cabinet. According to the position of the cabinet, the nose 59 of the dog 57 is adapted to enter one or the other of two notches 60 and 61 in the upper edge of the rail 38. The notch 60 defines the position of the cabinet for use of webs in the right-hand Figure 2 tier of work-boxes, and the notch 61 the position of the cabinet for use of webs in the left-hand Figure 2 tier of work-boxes. A leaf-spring 62, bearing on the upper edge of the dog 57, causes the dog automatically to enter one or the other of the notches 60 and 61 when the cabinet has been slid to bring the dog into registration with such notch; and holds the dog in the notch against accidental displacement. A finger-piece 63 serves to lift the dog from the notches in the rail against the action of the spring 62. A stop 64 on the end of the rail 38 prevents the cabinet from being overthrown or displaced from the rail when moved to the left. The cabinet may, however, be entirely removed from the brackets 37 by being slid off the right-hand ends of the rails 38 and 38ª, Figure 3.

The several multi-ply webs in the different work-boxes in the cabinet may, together with their interleaved carbons and attached carbon-holders, be substituted one for another on the carbon-carrier table, in a manner well understood in the art. In the drawings, the web in use is that which is being fed from the upper left-hand Figure 2 work-box, and the carbon-holder 29 for that web is in place on the carbon-carrier table. The other webs are shown as disconnected from the carbon-carrier table and as wholly contained in their respective work-boxes; the carbon-carriers 29ª and 29ᵇ for such other webs being shown as also in the work-boxes of their respective webs.

The web 30 in use is shown as being fed out of its box 47, over a rod 65, supported on an extension 65ª of the rear end of the table 25; thence forward over the table 25 and over a rod 66, carried by the brackets 24 at the rear of the platen. From the rod 66, the web is led downward, around the platen, and thence upward across a table 67 on the platen-carriage. In order that the webs may feed freely from the lower boxes, the boxes are offset downward and rearward, one from another, in each tier; and the outer ends of the floors of the upper and lower boxes carry rounded rails 68 and 69, over which the webs from the lower boxes may slide without friction. The boxes have a slight forward dip in order that the web-packages may not be accidentally dropped therefrom, either in the feeding of the webs or in the handling of the equipment.

It will be noted that, by reason of the connections of the cabinet to the stand, and by reason of the casters on which the cabinet rides, the stand, with the carbon-carrier table and work-piece cabinet, may be rolled as a unit from place to place.

It will also be noted that, in supporting the carbon-carrier table on the brackets 37, instead of on the machine-frame, and in so shaping the brackets 37 to provide considerable clearance between the same and the machine-frame, ample space is allowed for the attachments (not shown), but usually present on the rear of the bookkeeping machine, and ample provision is made for easy access to such attachments.

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 of a stand for a typewriting machine, brackets having vertical reaches secured on the rear of the stand and provided with arms inclined in a rearward and downward direction from the rear of the stand, horizontal rails one spaced above the other and both laid across the arms and connecting them together, a work-web-holder-cabinet, including tiers of work-web-holders, and brackets on the cabinet adjustably engaging said rails for lateral adjustment of the cabinet on the rails and supporting the cabinet in a forwardly and upwardly inclined position, whereby the tiers may be brought selectively in vertical register with the carriage of a typewriting machine supported in operative position on the stand.

2. The combination of a stand for a typewriting machine, brackets having vertical reaches and secured to the stand and provided with arms inclined in a rearward and

downward direction from the rear of the stand, horizontal rails one spaced above the other and both laid across said inclined arms and connecting them together, a forwardly-inclined work-web-holder-cabinet, including tiers of work-web-holders, brackets on said cabinet adjustably engaging said top and bottom rails for lateral adjustment of the cabinet on the rails, whereby the tiers may be selectively brought into vertical register with the carriage of a typewriting machine in operative position on the stand, notches in the top rail, and a dog on the cabinet for engaging the notches for defining the adjusted position of the cabinet for use with the tiers as selected and holding the cabinet in its said adjusted positions.

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