Jan. 14, 1930. A. G. KUPETZ 1,743,859

TYPEWRITING MACHINE

Filed Aug. 19, 1927

Fig. 1.

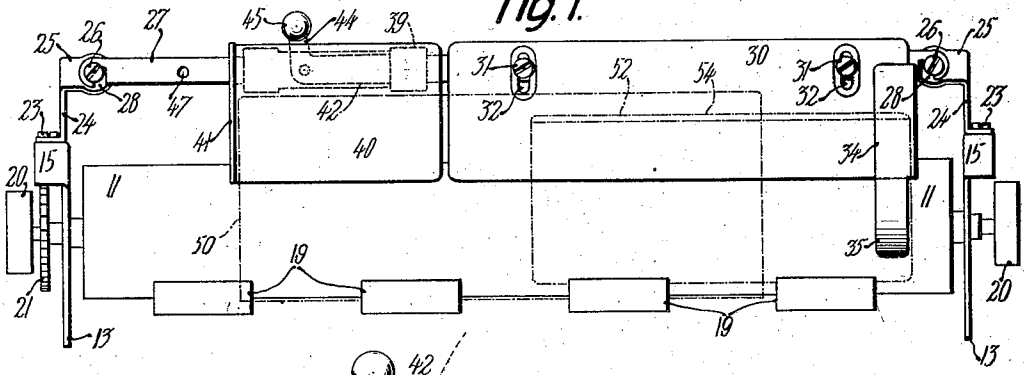


Fig. 2.

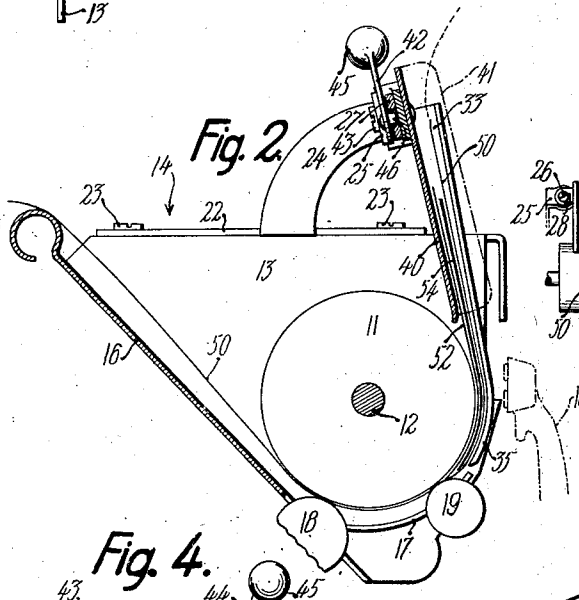


Fig. 6.

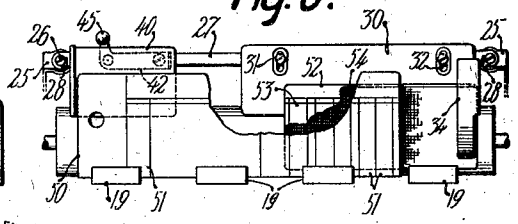


Fig. 5.

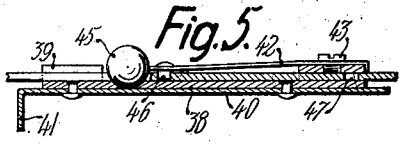


Fig. 4.

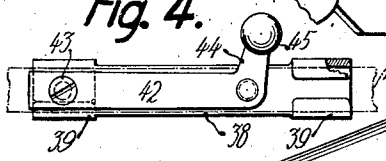


Fig. 3.

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Patented Jan. 14, 1930 1,743,859

UNITED STATES PATENT OFFICE

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TYPEWRITING MACHINE

Application filed August 19, 1927. Serial No. 213,994.

The present invention relates to collating tables for typewriting machines.

In many factories it is customary to furnish each hourly-rated employee with a pay-check slip which show a statement of the employee's pay-roll account, usually including the rate, time worked, amount earned, deductions, etc. It is important that the data on such pay-check slips be the same as that recorded on the weekly pay-roll sheet. This may be had by typing the data on the pay-roll sheet and carbon-copying it on the pay-check slip. It is an object of the present invention to provide an improved collating table for quickly inserting and collating in a typewriting machine a small, short, pay-check slip relative to a pay-roll sheet, so that certain vertical columns on the latter may be superposed over corresponding columns of the pay-check slip.

In carrying out my present invention, provision is made of a lateral mounting bar supported on the ends of the platen-carriage of the typewriter. A collating table in two separate sections is supported on the mounting bar at the delivery side of the platen, each section bearing a side-edge gage. The right-hand section has a depending concavo-convex finger for guiding the right edge of the pay-check slip against the platen, and means for adjusting the finger toward or away from the platen. The left-hand table-section is laterally adjustable. The above-mentioned pay-check slips are front inserted, and a bottom-edge gage is arranged for them by using the front feed-rolls at the bottom of the platen.

A feature of the present invention is the provision of a readily operated latch for locking the left-hand side-edge gage in any one of a plurality of predetermined operative positions so that the collating table may be conveniently used with different widths of pay-roll sheets and pay-check slips.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a partial front elevational view of an Underwood typewriting machine having my invention applied thereto.

Figure 2 is a fragmentary cross-sectional view, front to rear, of the structure shown in Figure 1.

Figure 3 is a perspective view, broken away in part, of the platen-carriage, showing the collating table-sections mounted thereon.

Figures 4 and 5 are fragmentary rear and sectional detail views, respectively, illustrating the construction of a latch for the movable side-edge gage.

Figure 6 is a fragmentary diagrammatic view of an Underwood typewriting machine having my invention applied thereto and illustrating how it may be employed in simultaneously typing pay-roll sheets and pay-check slips of pay-roll accounts.

In an Underwood typewriting machine, types 10 strike against a platen 11 mounted on a shaft 12, which is journaled in ends 13 of a platen-frame, generally designated as 14. The ends 13 have integral flanges 15 at their tops. A usual paper-table 16 is fastened between the ends 13 at the receiving side of the platen and has an apron 17 extending forwardly and arranged with usual cut-outs to permit rear feed-rolls 18 and front feed-rolls 19 to engage against the platen in the usual way.

The platen 11 may be line-spaced by means of finger-wheels 20, or usual line-spacing mechanism, not shown. This mechanism may be operatively connected with a ratchet-wheel 21 on the platen-shaft 12. The feed-rolls 18 and 19 may be released, i. e., moved away from the platen by the usual means, not shown.

For mounting my improved collating table on the platen-carriage, a mounting plate 22 may be fastened by screws 23 on each flange 15 and have an upwardly and forwardly extending arm 24 with an inreaching lateral extension 25 tapped for receiving a screw 26. A mounting bar 27, inclined slightly rearward from a vertical plane, has a notch 28 in its lower edge adjacent each end which engages over the adjacent screw 26. A paper-table 30 extends from substantially midway of the ends of the platen 11 to a point adjacent the right end of the latter, and is fastened on the cross-bar 27 for adjustment up and down by

screws 31 engaging in elongated slots 32. At the right end of the table 30, a portion thereof is bent forward to form a side-edge gage 33 for work-pieces and is further bent parallel with the body of the table 30 to form a guide-throat 34 for a purpose to presently appear. The guide 34 may have an integral finger 35 which extends downwardly adjacent the top edge of apron 17, and is curved substantially parallel to the platen.

It is a feature in the present invention to provide a quickly adjustable side-edge gage mounted for co-operation with the laterally fixed side-edge gage 33. To this end, a mounting plate 38 is slidably fastened against the forward side of the bar 27, by having integral T-shaped portions at each end of the plate bent rearwardly to form sleeve-like elements 39 which engage around the bar 27 with a sliding fit, as illustrated in Figure 4. A collating table 40, having an integral side-edge gage 41 at its left side, may be riveted to mounting plate 38. A leaf-spring 42 may be fastened to the rear face of the right-hand sleeve-element 39 by a screw 43, so as to lie alongside of the rear face of the mounting bar 27, as shown in Figures 4 and 5. The free end of the spring 42 has an upward finger-piece projection 44 terminating in a ball 45. A forwardly-projecting pin 46 is rigidly fastened in the free end of the spring 42, and the resiliency of the spring normally tends to press the pin forward against the bar 27. Two or more holes 47 are made in the bar 27 in the path of the pin 46, and, when the latter is moved opposite one of the holes, it snaps into it by pressure of the spring 42, and locks the gage 41 securely against lateral movement. It will be noted that the gage 41 may be locked in a plurality of different predetermined, operative positions, by simply providing the requisite number of properly located holes 47 in the mounting bar 27. The location of the holes 47 relative to the side gage 33 will be presently set forth.

In one use of the present invention, a pay-roll sheet 50, having vertical columns 51 for usual data, is fed around the platen 11 from the rear (see Figures 1 and 2), and its left edge is gaged against the side-edge gage 41. The sides of this sheet 50 may be squared with the printing line by setting the usual adjustable rear side-edge gage, not shown, on the rear paper-table 16, to register or co-operate with the side-edge gage 41. Column 51 nearest the right edge of the pay-roll sheet 50 is usually disposed a distance from the laterally-fixed side-edge gage 33 determined by the distance between the right edge of a pay-check slip 52 and a column 53 on the slip nearest the right edge thereof. Column 51 is required to register with, i. e., to be superposed over column 53, and, since the latter column is gaged by the laterally-fixed side-edge gage 33, the side-edge gage 41 which controls the positioning of column 51 is made laterally adjustable. It may therefore be used for gaging different widths of pay-roll sheets or for gaging the same pay-roll sheet 50 with a plurality of pay-check slips 52 of different widths.

To accurately position the column 53 on the small short pay-check slips 52 at right angles to the printing line, a bottom-edge gage to co-operate with the side-edge gage 33 is necessary. This bottom-edge gage may include the feed-rolls 19 adjacent the right end of the platen. It will be understood that only the upper portions of the feed-rolls closely adjacent the points of tangency with the platen, i. e., the junctions of the feed-rolls and the platen, are effective as a bottom-edge gage.

The pay-roll sheet 50 having been fed around the platen to bring the desired line to the printing point, the operative will grasp the leading portion of the sheet and will hold it substantialily upright with the left hand and can easily insert the greater portion of the small pay-check slip 52 and a superposed carbon-sheet 54 with the right hand down behind the pay-roll sheet until the bottom edge of the slip 52 is stopped by the feed-rolls 19. The right edge of the slip will be kept in engagement with the side-edge gage 33 all the time while being inserted. To provide for keeping the right-hand portion of the pay-check slip closely adjacent the platen for proper engagement with the bottom-edge gage (feed-rolls 19), the guide-finger 35 has means for moving it toward and from the platen, which include the arrangement of the paper-table 30 with the elongated slot 32. The upper portion of the right-hand edge of the pay-check slip is held adjacent the platen by the guide 34.

It will be noted that employment of the ball-tipped finger-piece 44 on the end of the spring 42 permits an operative to both unlatch and shift the side-edge gage 41 from one position to the next at one operation by simply pressing on the ball 45 in a direction at an actute angle to the bar 27.

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 having a carriage and a platen around which may be fed a pay-roll sheet having vertical columns adjacent its right edge, means for collating in printing position behind said sheet a front-inserted pay-check statement-slip partly underlying said sheet and having vertical columns adjacent its left edge so that said last-named columns will align with said first-named columns, said means including, in combination, a lateral mounting bar supported between the ends of said platen-carriage above the delivery side of said platen, a lat-

erally movable collating table for said pay-roll sheet supported on said mounting bar adjacent the left end of said platen, a side edge gage at the left side of said collating table, a laterally fixed collating table for said pay-check slip fastened on said mounting bar to the right of said first-named table, a side-edge gage at the right side of said last-named table, means for latching said first-named collating table in a plurality of predetermined positions on said mounting bar, a bottom edge gage for said pay-check slip including feed-rolls which engage against the forward side of said platen below the printing line thereof, and means for guiding the bottom edge of the exposed right-end portion of said pay-check slip into operative engagement with the junction of said feed-rolls and said platen.

2. In a typewriting machine having a carriage and a platen around which may be fed a pay-roll sheet having vertical columns adjacent its right edge, means for collating in printing position behind said sheet a pay-check statement-slip partly underlying said sheet and having vertical columns adjacent its left edge so that said last-named columns will register in said first-named columns, said means including, in combination, a perforated lateral mounting bar supported between the ends of said platen-carriage above the delivery side of said platen, a laterally movable collating table for said pay-roll sheet supported on said mounting bar adjacent the left end of said platen, an integral side-edge gage at the left side of said collating table, a collating table for said pay-check slip fastened on said mounting bar for adjustment up and down and disposed to the right of said first-named collating table, an integral side-edge gage at the right side of said last-named collating table, a bottom edge gage for said pay-check slip including feed-rolls engaging against the forward side of said platen below the printing line, a guide-finger for directing said pay-check slip downwardly along the periphery of said platen into engagement with said bottom edge gage, said guide-finger being arranged for adjustment toward or from said platen by the up-and-down movement of said collating table to which it is attached, and a latch fastened to said first-named collating table and including a spring-pressed pin arranged for engaging in the perforations in said mounting bar for locking the first-named side-edge gage in a plurality of positions relative to said second-named side-edge gage, whereby different widths of pay-roll sheets may be collated with said check-slip.

3. In a typewriting machine having a carriage and a platen around which may be fed a work-sheet having vertical columns adjacent its right edge, means for collating in printing position behind said work-sheet, a small pay-check statement-slip extending out from the right side thereof and having vertical columns adjacent its left edge so that said last-named columns will align with said first-named columns, said means including, in combination, a collating table for said work-sheet adjacent the left end of said platen at the delivery side thereof, a side-edge gage at the left side of said collating table, a collating table adjacent the right end of said platen at the delivery side thereof for said pay-check slips, a side-edge gage at the right side of said last-named collating table, a bottom edge gage for said slip including feed-rolls engaging against the forward side of the platen below the printing line thereof, and a device for guiding the bottom edge of the exposed right-end portion of said pay-check slip into operative engagement with said bottom-edge gage.

4. In a typewriting machine, in combination, a platen, a platen-carriage, a paper-table supported on said carriage at the delivery side of said platen, a side-edge gage on said paper-table against which a front-inserted work-piece may be laterally positioned, a bottom edge gage for said short work-piece, including feed-rolls engaging against the forward side of the platen below the printing line thereof, and means for guiding a bottom-edge portion of said work-piece adjacent said side-edge gage into operative engagement with said bottom-edge gage, said guiding means being adjustable toward and from said platen.

5. In a device of the class described, in combination, a platen, a slotted collating table at the delivery side of said platen for inserting a short work-piece to printing position in front of said platen, a bottom edge gage for said work-piece including lower feed-rolls engaging against said platen, a side-edge gage on said collating-table, an integral downwardly-depending guide-finger on said gage bent substantially parallel with the periphery of said platen in close proximity thereto for guiding said work-piece between said feed-rolls and said platen, and means for moving said guide-finger toward or from said platen, including mounting devices for said table engaging through elongated mounting slots therein and effective to permit said table to be raised or lowered relative to the platen.

6. In a typewriting machine, in combination, a platen-carriage, a platen around which may be fed from the rear a work-sheet which extends from adjacent the left end of the platen laterally over a large portion thereof, a paper-table for said work-sheet on said carriage at the delivery side of the platen, a left-hand side-edge gage on said table, and means for rearwardly inserting in printing position in said machine a small work-piece and a superposed carbon, said work-piece and said carbon partly underlying said work-sheet, said means including a paper-table on

said carriage positioned to the right of the right edge of said work-sheet, a bottom edge gage for said small work-piece including feed-rolls below the printing line, the effective gaging portions of said feed-roll being the upper parts thereof adjacent their lines of tangency with said platen, a guide-piece effective for holding the upper portion of the right-hand edge of said small work-piece adjacent the platen, a depending finger on said guide-piece for directing the right-hand portion of the bottom edge of said small work-piece into effective engagement with said bottom edge gage, and a right-hand side-edge gage for said small work-piece positioned for causing a portion thereof to be disposed beyond the right edge of said work-sheet, whereby the latter will help to guide said small work-piece into effective engagement with said bottom edge gage, the latter gage and said last-named side-edge gage co-operating with said work-sheet for holding said small work-piece squarely in position relative to the printing line.

7. In a typewriting machine, the combination with a revoluble platen, a platen-carriage and a lateral mounting bar supported on the ends of said carriage, of a collating table at the delivery side of said platen having two elongated mounting slots disposed in planes perpendicular to the axis of the platen, a side-edge gage on said table including a forwardly-extending flanged member at one side of said table, a throat for receiving a side-edge portion of a work-piece inserted downwardly over said table, including an inreaching extension on said flange, a bottom-edge gage for said work-piece, including upper portions of lower feed-rolls adjacent the contact lines of said feed-rolls and said platen, the bottom edge of said work-piece engaging substantially against the junctions of said feed-rolls and said platen, and means for guiding the lower edge of said work-piece to said junction, including a downwardly-extending integral guide-piece on said extension curved substantially parallel to the periphery of said platen.

8. In a typewriting machine, the combination with a carriage, a platen and a mounting bar extending between the ends of said carriage at the delivery side of said platen, of a collating table disposed adjacent the left end of said platen and having a left-hand side-edge gage for laterally gaging a wide pay-roll sheet fed around the platen from the rear, said sheet having vertical columns adjacent its right edge in which data is typed, a collating table supported on said mounting bar to the right of said first-named table and having a right-hand side-edge gage for gaging a front-inserted pay-check slip and an overlying carbon to typing position, said slip lying partly behind said statement-sheet and having columns adjacent its left edge corresponding to the columns on said statement-sheet adjacent the right-hand edge thereof, a bottom-edge gage for said slip, and means for guiding the right-hand portion of the bottom edge of said slip into engagement with said bottom-edge gage, said guiding means including an integral member on said right-hand collating table, said left-hand collating table being laterally adjustable, said right-hand collating table being laterally fixed and movable up and down for adjustment of said guiding member toward or from the platen, said left-hand side-edge gage and said right-hand side-edge gage, and said bottom-edge gage co-operating to bring said columns of said pay-roll sheet and the corresponding columns of said pay-check slip in registration with each other.

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