Jan. 2, 1934. J. A. B. SMITH 1,942,008

TYPEWRITING MACHINE

Filed May 25, 1929

Fig. 1.

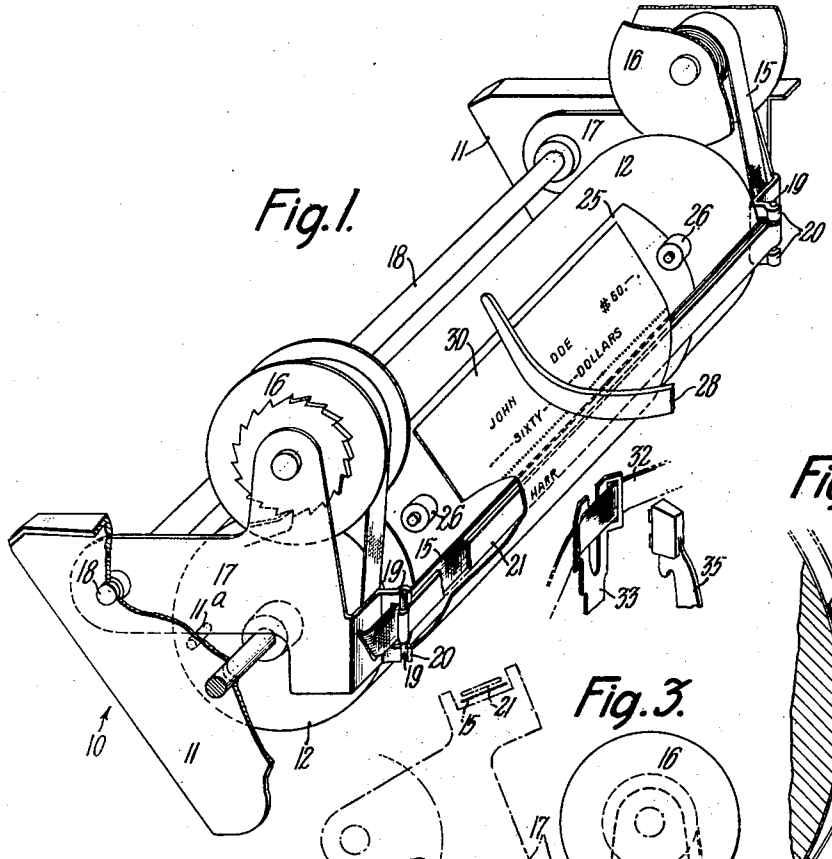


Fig. 2.

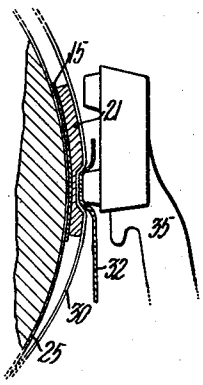


Fig. 3.

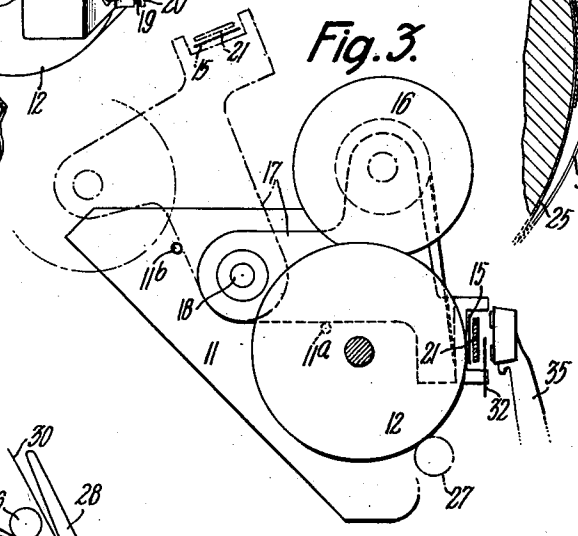
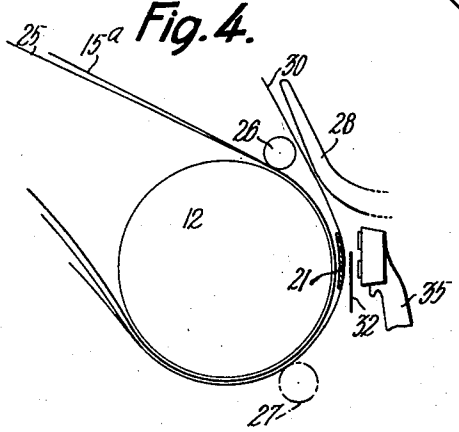


Fig. 4.



Inventor:
Jesse A. B. Smith
by B. B. Stickney
Attorney.

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TYPEWRITING MACHINE

Jesse A. B. Smith, Stamford, Conn., assignor to Underwood Elliott Fisher Company, New York, N. Y., a corporation of Delaware

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10 Claims. (Cl. 197—6)

This invention relates to typewriting machines and the like, and it has particular reference to embossing a work-sheet, such as a check, for example, to prevent its alteration.

In making out checks on a typewriter, according to this invention, the type may emboss the checks, by indenting or upsetting them, to render the check proof against alteration. This may be accomplished by the use of either ordinary type, or the usual check-perforating or fracturing type. Checks or other sheets may be embossed by feeding them in front of the mentioned soft rubber strip, and this strip becomes an embossing element, and converts a hard typewriter platen, at will, into an embossing platen.

Other features and advantages will hereinafter appear.

In the accompanying diagram,

Figure 1 is a perspective view of a platen and devices associated therewith for ink-copy manifolding and the embossing of checks or other paper.

Figure 2 is a partial sectional view of certain parts of Figure 1.

Figure 3 is a side sectional view of parts of Figure 1, showing in dotted lines parts in up-raised position.

Figure 4 is a cross-sectional view of related elements for record manifolding and for embossing the work-sheet.

Referring first to Figures 1, 2 and 3 of the drawing, the numeral 10 designates a frame including side plates 11 carrying a rotatable platen 12. An auxiliary ink ribbon 15 preferably used in manifolding a copy of the check, is disposed in front of the platen at the printing zone and winds and unwinds on a pair of spools 16 mounted on side plates 17 which are pivoted on the end portions of a rod 18, the rod being supported by the side plates 11 of the platen-frame. Pins 11^a and 11^b project inwardly from the side plates 11, the former to limit the downward movement and the latter to limit the lifting movement of the plates 17 and the parts carried thereby. The plates 17 being pivotally mounted, it will be seen that the auxiliary ribbon is movable out of the printing zone, as shown in dotted lines in Figure 3. The mechanism for operating the auxiliary ribbon may be the usual mechanism or may be that shown and described in my application filed March 24, 1927, and having the Serial No. 177,884 (now Patent No. 1,764,900, dated June 17, 1930).

The front end portions of the side plates 17 form auxiliary ribbon-guiding brackets and also hold vertically-disposed cylindrical pins 19, the free end parts of the brackets being arcuate clips 20 into which the pins may be removably sprung. A rubber strip 21 lying in front of, and in contact with, the auxiliary ribbon 15, has its ends secured to the pins 19 and is thus movable into and out of the printing zone with the auxiliary ribbon, although it may be supported independently of the plates 17 if desired, so that it may remain in the printing zone when the auxiliary ribbon is raised from said zone.

A record-sheet 25, on which an inked copy is to be manifolded, is shown in contact with the platen, being held in position by one of the auxiliary rolls 26, a feed-roll 27 and a guide-finger 28. The auxiliary ribbon 15 is in front of, and in contact with, the record-sheet 25, and a work-sheet 30, which may be a check, for example, is disposed in front of, and in contact with, the band 21, which thus forms an embossing web for the check. A primary ink ribbon 32 passes through a guide 33, and a type-bar 35 is shown in front of the guide.

The embossing web 21 is preferably a thin strip of soft rubber and is under tension when stretched between the two pins 19. The embossing is accomplished on the check 30 by the types on the bar 35. Thus, for manifolding, the tensioned rubber 21 allows the type to strike through to the record-sheet, the latter being inked by the auxiliary ribbon.

In typing checks, it is usual to type the name of the payee, and, in numerals, the amount to be paid, on one line, and on the line below the amount to be paid is typed in letters. For example, "John Doe—$60.00" is typed on the first line and "Sixty Dollars" on the second line. For record purposes, only the first line may be printed on the record-sheet, and if no record is to be made when typing the second line on the check, the auxiliary ribbon may be temporarily raised from the printing zone, so that no impression will be made on the record-sheet.

If it is desired to emboss the amount line of the check, without manifolding, then the ribbon may be moved from the printing zone, in any well-known manner, leaving the rubber embossing strip 21 in the printing zone.

It may at times be desirable to emboss a sheet to protect against alteration everything typed on it; in this case the auxiliary ribbon may be removed and the embossing web will remain in the printing zone. It may be desired to make a record copy of both first and second lines on the check, and in this case the auxiliary ribbon 15 will remain in working position.

Referring to Figure 4, the same relation of parts obtains as in Figure 2, except that a carbon-sheet 15^a is substituted for the auxiliary ribbon 15, which is done when a carbon-copy instead of a ribbon-copy is to be made.

It will be noted that the auxiliary ribbon 15 may be removed temporarily from the printing zone, and successive lines may be embossed on a work-sheet without manifolding; that with the ribbon

15 temporarily removed, it is possible to withdraw the embossing web 21 from the printing line by lifting the frame 17, to print the date, payee's name, and numeral-amount on the check, and then restore the web 21 to its embossing-line position, to emboss the printed word-amount upon the amount-line of the check; and that the shifting of the frame 17 up or down immediately changes a standard platen and standard printing types into co-operating embossing elements, so that printing and embossing may be alternated at will.

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, the combination with a primary printing ribbon and an auxiliary printing ribbon, of a protecting rubber blind between said ribbons, said blind being sufficiently yieldable to allow the type to emboss a work-sheet.

2. In a typewriting machine, the combination with types and a hard cylindrical platen, of a tensioned soft rubber stationary strip covering the printing zone of the platen, said strip being yieldable to each impact of the types sufficiently to emboss a check-sheet, said platen being rotatable independently of the elastic strip, and means to co-operate with the platen to feed the check-sheet, means being fed between the elastic strip and the cylindrical platen, effective to preserve a manifold record of the characters embossed on the check-sheet.

3. In a typewriting machine, the combination with types, a hard rotatable platen and a platen-frame of a tensioned soft rubber strip mounted by means of a movable carrier upon the platen-frame, to be interposable at will between the platen and a check, to yield to the type-blows and produce embossed characters on the check, and means co-operating with the platen to feed the check past the embossing strip, and also operative to feed worksheets when the embossing strip is withdrawn from working position.

4. In a typewriting machine, the combination with a hard rotatable platen and striking types, of means for converting the machine into a check-embossing machine, including a soft rubber strip and a movable carrier upon which it is mounted for interposition at will between the platen and a check, and effective to emboss the check.

5. In a typewriting machine, the combination with a hard rotatable platen and striking types, of means for converting the machine into a check-embossing machine, including a soft rubber strip and a movable carrier upon which it is mounted for interposition at will between the platen and a check, and effective to emboss the check, said platen being rotatable independently of the elastic web, and means to co-operate with the platen to feed the check-sheet.

6. In a typewriting machine, the combination with a hard rotatable platen and striking types, of means for converting the machine into a check-embossing machine, including a soft rubber strip and a movable carrier upon which it is mounted for interposition at will between the platen and a check, and effective to emboss the check, said platen being rotatable independently of the elastic web, and an ink-ribbon between the check-sheet and the elastic web to ink the embossed characters on the back of the check-sheet.

7. In a typewriting machine, the combination with a hard rotatable platen and striking types, of means for converting the machine into a check-embossing machine, including a tensioned soft rubber strip and a movable carrier upon which it is mounted for interposition at will between the platen and a check, and effective to emboss the check, said platen being rotatable independently of the elastic web, means to co-operate with the platen to feed the check-sheet, a record-sheet being fed betwen the elastic web and the platen, and a ribbon between the elastic web and the record-sheet to manifold the characters embossed on the check-sheet upon the record-sheet.

8. In a check-protecting typewriting machine, the combination with types, a cylindrical platen and a main printing ribbon for printing a check-sheet, of an auxiliary printing ribbon, and a soft rubber embossing strip mounted upon a carrier by which it is movable into and out of operating printing position between the platen and the main ribbon, said rubber strip compressible under the printing pressure of said types to emboss the check-sheet and manifold the impressions of the types through said auxiliary ribbon upon a copy-sheet retained against the platen.

9. In a typewriting machine, the combination of a carriage, a rotatable platen, types to print upon a work-sheet fed around the platen, and means for embossing characters at will upon the work-sheet, said embossing means including an embossing frame upon the carriage, and a soft rubber strip stretched along the platen between sides of the frame, said frame pivoted upon the carriage to swing the rubber strip into and out of the printing zone of the platen.

10. In a typewriting machine, the combination with a carriage having a cylindrical platen, and types to print upon a work-sheet superposed upon a record-sheet when inserted around the platen, of means for jointly embossing the characters printed upon the work-sheet and manifolding the printed characters upon the record-sheet, said embossing and manifolding means including a frame pivotally mounted upon the carriage and having side plates extending forwardly to the printing line, a ribbon stretched between the ends of the side plates to be swung by the frame to cover the printing line over the record-sheet, and a soft rubber embossing strip also stretched between the ends of the side plates to cover the printing line between the ribbon and the work-sheet and yieldable under a printing pressure to emboss the work-sheet into the strip and manifold the printed characters through the strip and ribbon upon the record-sheet.

JESSE A. B. SMITH.