July 25, 1933. C. C. McCAIN 1,919,958

PLATEN FOR PRINTING AND ADDRESSING MACHINES

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Fig. 1

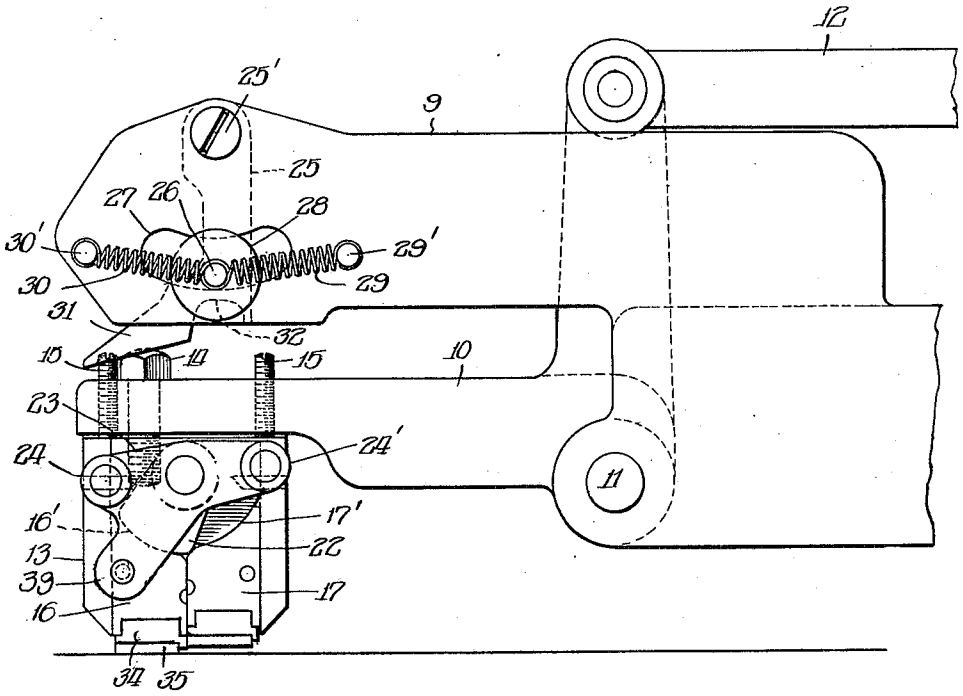
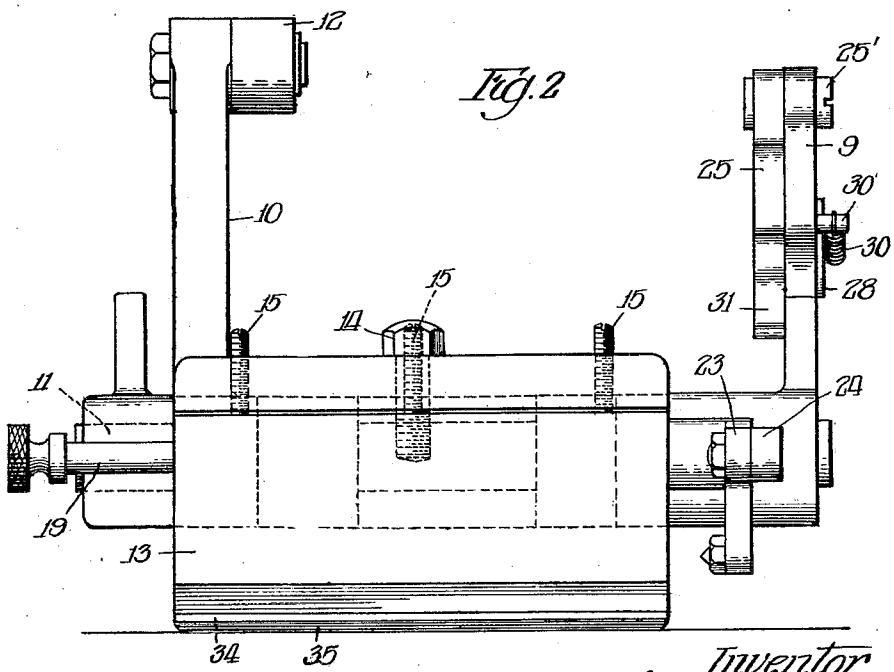


Fig. 2



Inventor
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By Wm. O. Belk Atty.

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Fig. 3

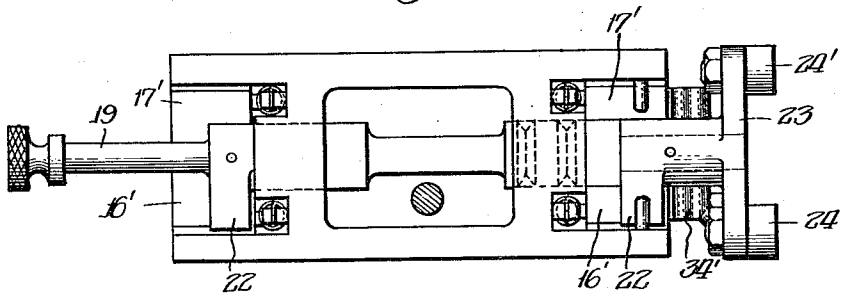


Fig. 4

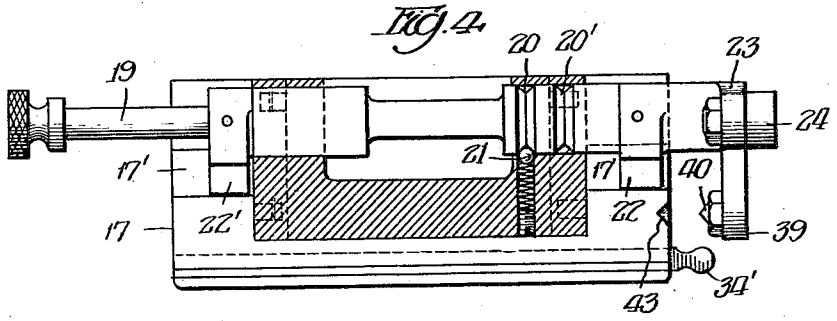


Fig. 5

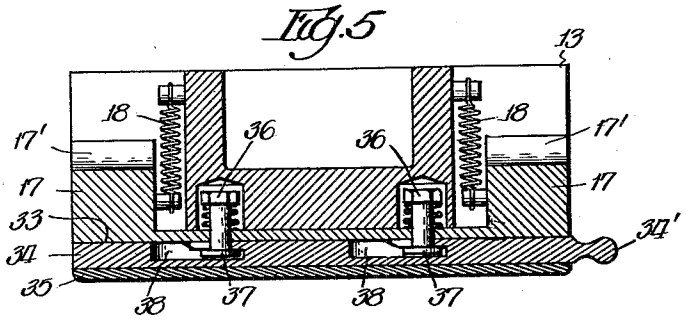


Fig. 6

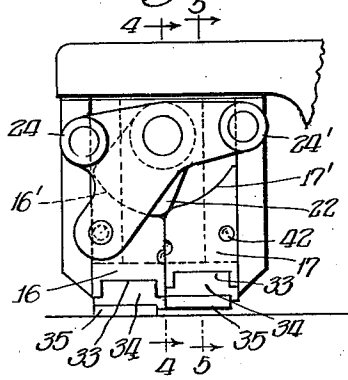


Fig. 7

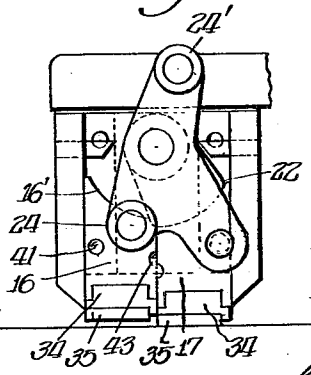
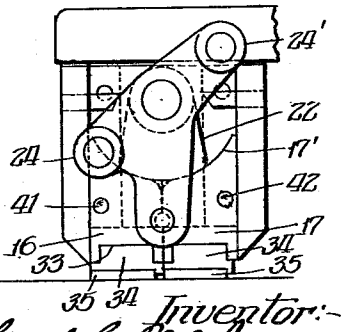


Fig. 8



Inventor:-
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Patented July 25, 1933 1,919,958

UNITED STATES PATENT OFFICE

CECIL C. McCAIN, OF GLEN ELLYN, ILLINOIS, ASSIGNOR TO ADDRESSOGRAPH COMPANY, OF WILMINGTON, DELAWARE, A CORPORATION OF DELAWARE

PLATEN FOR PRINTING AND ADDRESSING MACHINES

Application filed February 25, 1929. Serial No. 342,367.

This invention relates to platens for printing and addressing machines and it has for its object generally to provide a novel and simple sectional platen for repetition printing of all or a certain part of a printing form or for alternative printing of parts of the form.

The invention is applicable, for example, to an addressing machine for making printing impressions from printing devices which are run through the machine one at a time. A simple embodiment of these printing devices comprises a form for printing a name and a city and state address in two lines one above the other. Many of these printing devices are provided with forms for street addresses and for a variety of other information but the simple form will be sufficient to illustrate a use of the invention. It may be desired to print only the name, or only the address, of all of such simple printing devices, or it may be desired to print the name and the address end to end on the same line for listing or other purposes. I have found that this can be easily accomplished and produce entirely satisfactory printing impressions by providing a sectional platen which is adapted to have one or the other section or both sections set for repetition printing or to have the sections set for alternative printing.

Another object of the invention is to provide novel and simple shifting means for causing the platen sections to operate automatically in succession upon different parts of a printing form.

And a further object of the invention is to provide novel and simple means for detachably securing the cushion plates of the platen to the platen blocks.

The invention can be embodied with a reciprocating platen or stamper arm as shown for example in Patent No. 1,681,525, patented August 21, 1928; or it can be embodied with a spring or snapping platen and with a reciprocating or fixed platen or stamper arm as disclosed in the application of Henry E. Hubbard, Serial No. 341,935 filed February 23, 1929, but I have chosen to illustrate it with a fixed platen or stamper arm as a selected embodiment of the invention, and referring to the accompanying drawings

Fig. 1 is a side elevation with the platen in printing position.

Fig. 2 is a front elevation.

Fig. 3 is a top plan view of the platen as shown in Fig. 6.

Fig. 4 is a sectional view on the line 4—4 of Fig. 6.

Fig. 5 is a sectional view on the line 5—5 of Fig. 6.

Figs. 6, 7 and 8 are end views showing different positions of the platen sections.

Referring to the drawings 9 is a fixed platen or stamper arm of an addressing machine in which printing devices are fed one at a time to printing position, but so far as the present invention is concerned it might just as well be a reciprocating arm. A support for the platen which is shown in the form of a rocker 10 is pivotally mounted at 11 on the platen arm and is adapted to be controlled by means 12 connected with selector mechanism on the machine which causes the platen to operate or not to operate in accordance with well understood practice. The platen comprises a skeleton head 13 which is secured on the support by a holding screw bolt 14 and is maintained in proper position by adjusting screws 15. There are two platen blocks 16, 17 movably arranged side by side on the platen head and they are provided at their ends with cam surfaces 16′, 17′. These blocks are yieldingly held in the head by springs 18 which are attached at their ends to pins on the head and to pins on the blocks. A shaft 19 is rotatably and longitudinally movable in the platen head and it has two grooves 20, 20′. A spring-pressed ball 21 in the head is arranged to engage either groove to retain the shaft in adjusted position. Cams 22, 22′ are fastened on the shaft 19 to engage the cam surfaces 16′, 17′ and a shifter 23 is rigid on the shaft and may be made integral with the cam 22, as shown, and carries two rollers 24, 24′. A tripper 25 is pivoted at 25′ on platen arm 9 and it carries a pin 26 which projects through an arcuate slot 27 in the arm and carries a washer 28 which overlaps the slot.

A spring 29 is attached at one end to the pin 26 and at its other end to a pin 29′ on platen arm 9 at the right of pin 26, Fig. 1. A spring 30 is attached to the pin 26 and to a pin 30′ on the platen arm 9 at the left of pin 26, Fig. 1. The tripper hangs freely from its pivot 25′ but is held normally in centered position by the springs 29, 30 and it is provided at the bottom with a foot 31 and a recess 32. By adjusting the shaft longitudinally the shifter will be moved into operative relation with the tripper for alternative printing or out of operative relation with the tripper for repetition printing. Each platen block 16, 17 is provided with a longitudinal recess 33 to receive a removable plate 34 which has a cushion facing 35. The plates are detachable so that they can be easily replaced whenever required. Spring-pressed retainers 36 carried by the platen blocks 16, 17 are provided with heads 37 to engage keyhole slots 38 in the plates 34. The heads 37 are adapted to enter the keyhole slots when the plates are arranged in the longitudinal recesses 33 in the platen blocks. The heads and the walls of the keyhole slots are beveled to effect interlocking engagement of the heads with the plates when the plates are moved lengthwise relative to the platen blocks so that the plates will be held snugly in place on the blocks. The plates are provided with handles 34′ to facilitate attachment and detachment with the blocks. The shifter has an arm 39 which carries a detent 40 adapted to engage a recess 41 in the end of platen block 16, a recess 42 in the end of platen block 17, or a recess 43 partly formed in platen block 16 and partly formed in platen block 17 to lock the shifter in position when the shaft and shifter are adjusted for causing either or both of the platens to operate.

Assuming that the invention is embodied in an addressing machine and a plurality of printing devices having two line printing forms are feeding through the machine, and it is desired to print only a certain line of the form, the shaft 19 will be adjusted longitudinally to move the shifter out of operative relation to the tripper, and will also be adjusted rotatably to position the platen section for making a printing impression from the particular line form. Then the machine will operate in the usual manner for printing only the one line for which the platen section is set from each of the printing devices feeding through the machine; and this printing operation may be controlled by selector mechanism as commonly embodied in addressing and printing machines. If it is desired to print from the other line form of the printing devices the shaft will be turned to cause the cams to set the other platen section in operative position, Fig. 7. If it is desired to print from both line forms of the printing devices the cams will be adjusted to hold both platen sections in operative position, Fig. 8. The detent 40 is engaged with the recess 41, the recess 42 or the recess 43 to hold the shifter in adjusted position, as indicated in Figs. 6–8. If it is desired to print the two line forms end to end on the same line on the sheet, two printing operations will be necessary and the printing devices or the sheet or both must be shifted accordingly, but this forms no part of the present invention. However it is necessary to provide for automatically shifting the printing sections alternately into and out of printing position as indicated, for example, in Figs. 6 and 7, and the shaft 19 is adjusted longitudinally to position the shifter for operative engagement with the tripper, Fig. 2. Then the shaft is set rotatively to adjust the cams for causing one or the other platen section to print first, as shown for example in Fig. 6. This adjustment will be conveniently made with the platen in lowered position. When the platen rises the shifter will engage and be shifted by the tripper to its other position as indicated in Fig. 7 with the other printing section in operative position. On the printing stroke of the platen this other platen section will make the printing impression. On the return stroke of the platen the shifter will again engage and be shifted by the tripper to its first position Fig. 6. When the shifter is in the position shown in Fig. 6 and the platen rises the roller 24 will engage the inclined portion of the shoe 31 and travel thereon into the recess 32. This causes the shifter to swing to the position shown in Fig. 7. When the platen rises again with the shifter positioned as shown in Fig. 7 the roller 24′ will engage the recess 32 in the tripper and swing the shifter to the position shown in Fig. 6. The tripper swings on its pivot to permit and to effect these shifting movements of the shifter but when the shifter moves out of contact with the tripper the latter is immediately centered by the springs 29, 30 for the next operation. It will be readily understood that in this operation of the platen the two sections are alternately moved to and from operative position and this is effected automatically by engagement of the shifter with the tripper as described.

I have shown the invention in a simple embodiment but, as before indicated, the invention is capable of embodiment in machines having reciprocating platen arms and machines having spring or snapping platens as well as in addressing and printing machines of many kinds, and I reserve the right to make all such adaptations and to make any changes in the invention that may be necessary or desirable within the scope of the following claims.

I claim:

1. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for moving said sections automatically into and out of printing position, and means for locking said sections in printing position and rendering said moving means inoperative.

2. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, means comprising a cam adapted to be adjusted for holding a selected section in printing position, and means for locking said cam after adjustment thereof.

3. A platen for printing and addressing machines comprising a plurality of separately operable sections, yielding means for holding each section out of printing position, a cam device, means for adjusting the cam device for holding a selected section in printing position, and means for locking said cam device in adjusted position.

4. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, a cam device, manually operable means for adjusting said cam device to hold a selected section in printing position, and means for locking said cam device in adjusted position.

5. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, a cam device, means comprising a shifter for adjusting the cam device for holding a selected section in printing position and means for locking said cam device in adjusted position.

6. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, and means comprising a rotatably movable shaft, a cam on said shaft, a shifter on said shaft adapted to be adjusted for causing the cam to hold a selected section in printing position, and means for locking said shifter in adjusted position.

7. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, a cam device, a shifter for adjusting said cam to hold a selected section in printing position, a tripper for operating said adjusting means, and means for holding said shifter in operative relation with said tripper.

8. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, a cam device, a shifter, a tripper for automatically operating the shifter to adjust the cam device for operating the platen sections in rotation, and means for moving the shifter to and from operative relation with the tripper.

9. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, shiftable means for holding a section in printing position, a tripper adapted to operate said shiftable means automatically for holding said sections in operative position in rotation, and means for moving the shiftable means to and from operative relation with the tripper.

10. A movable platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, shiftable means movable bodily with the platen, a relatively fixed tripper for adjusting said shiftable means to hold said sections in printing position in rotation, and means for moving the shiftable means to and from operative relation with the tripper.

11. A platen for printing and addressing machines comprising, a plurality of separately operable sections, means for holding each section out of printing position, shiftable means supported on the head and adapted to be adjusted for selectively holding the platen sections in printing position, a tripper for operating said shiftable means, means for moving the shifter to and from operative relation with the tripper, and means for retaining the shifter in adjusted positions relative to said tripper.

12. A platen for printing and addressing machines comprising a head, a plurality of separately operable platen sections in the head, means for holding each section out of printing position, shiftable means on the head adapted to be adjusted for holding said sections in printing position in rotation and comprising two spaced rollers, a tripper, said platen head and tripper being relatively movable, and said rollers and tripper being adapted to engage for operating the shiftable means.

13. A platen for printing and addressing machines comprising a platen head, a plurality of separately operable platen sections in the head, means for holding each section out of printing position, shiftable means for holding said sections in printing position in rotation, and a tripper for operating said shiftable means, said shiftable means comprising a pair of spaced rollers and said tripper comprising an inclined edge and a recess for engagement with said rollers to operate the shiftable means.

14. A platen for printing and addressing machines comprising a movable head, a plurality of separately operable platen sections

in the head, means for holding each section out of printing position, shiftable means on the head adapted to be adjusted for holding the sections in printing position in rotation, a relatively fixed support, a yieldingly held tripper pivotally mounted on the support, said shiftable means comprising a pair of spaced rollers, and said tripper comprising an inclined edge and a recess arranged in the path of movement of said rollers for operating the shiftable means.

15. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, shiftable means adapted to be adjusted for holding a selected section in printing position, recesses in the ends of said sections, and a detent on the shiftable means for engaging said recesses.

16. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, means for moving said sections into printing position, and means for selectively locking either or both of said sections in printing position.

17. A platen for printing and addressing machines comprising a plurality of separately operable sections, means for holding each section out of printing position, said platen sections having cam surfaces thereon, a cam operable on said cam surfaces for moving either or both of said platen sections into printing position, and means for locking said cam in adjusted positions.

18. A platen for printing and addressing machines comprising two sections having cam surfaces thereon, means for holding each section out of printing position, a cam operable on said cam surfaces for moving either or both of said sections into printing position, each of said sections having a pocket therein, said sections having recesses therein adapted to be moved into operative relation to provide another pocket, and means movable with said cam to be selectively positioned at said pockets to hold said cam in adjusted positions.

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