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ADJUSTABLE PAPER SUPPORT FOR ACCOUNTING MACHINES

Filed March 30, 1942

2 Sheets-Sheet 1

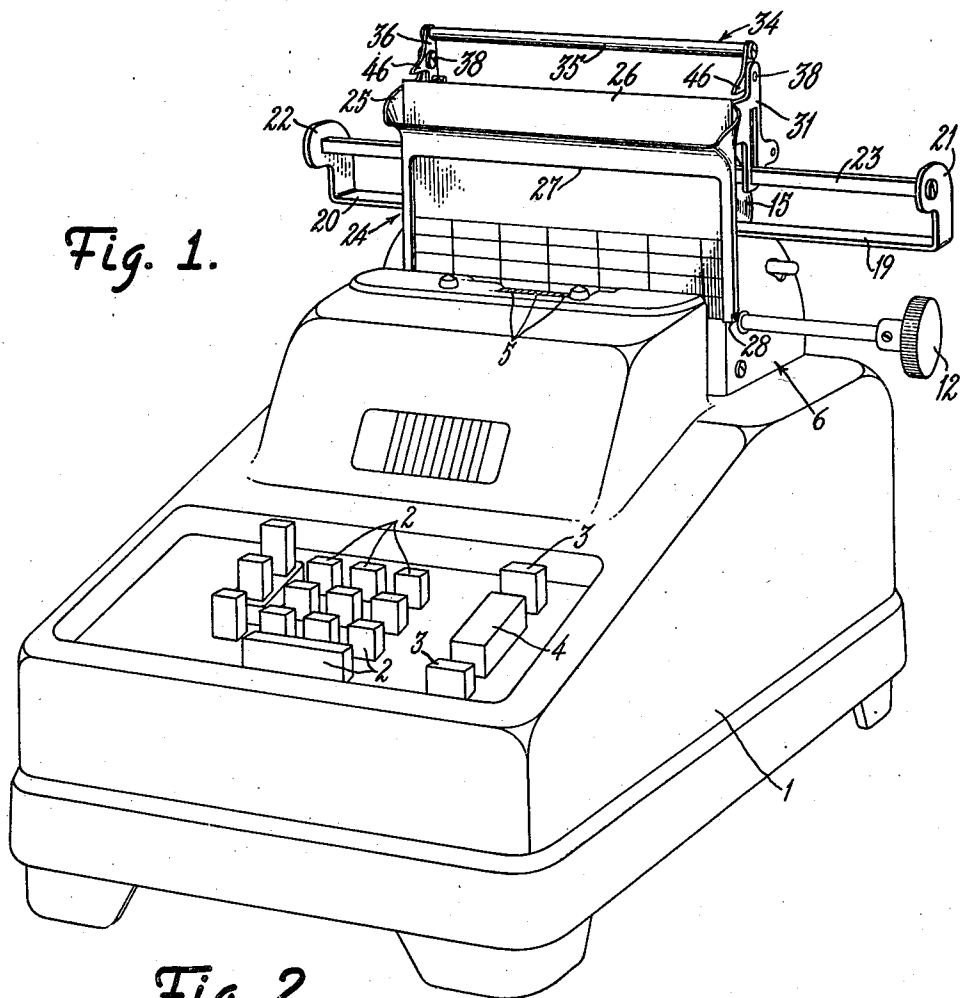
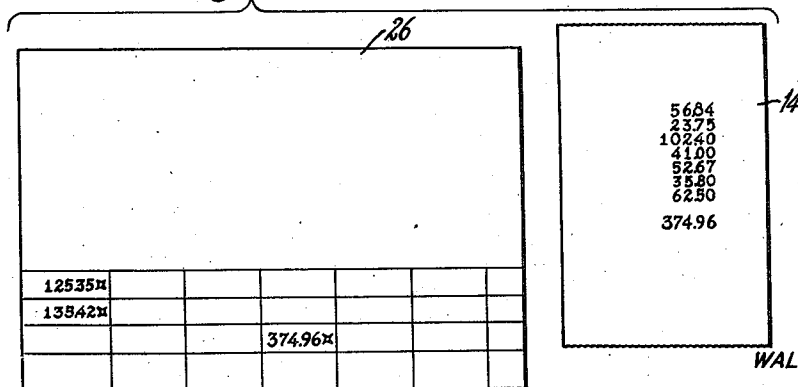


Fig. 2.



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2 Sheets-Sheet 2

Fig. 3.

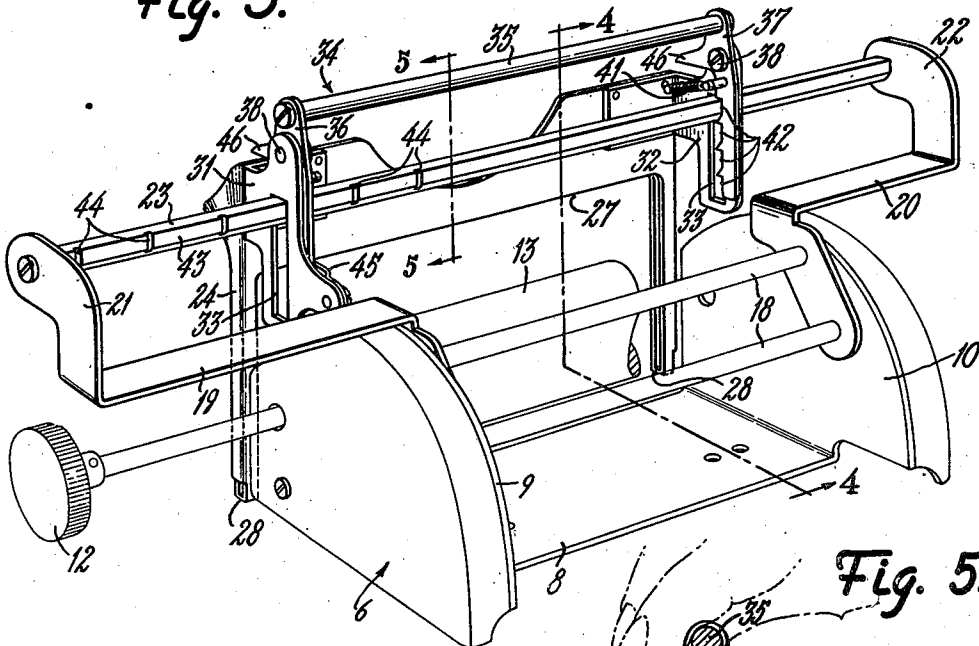


Fig. 5.

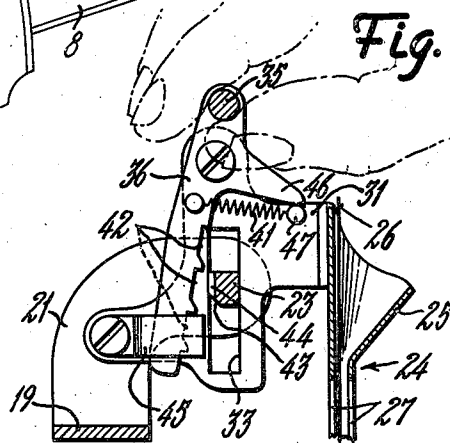
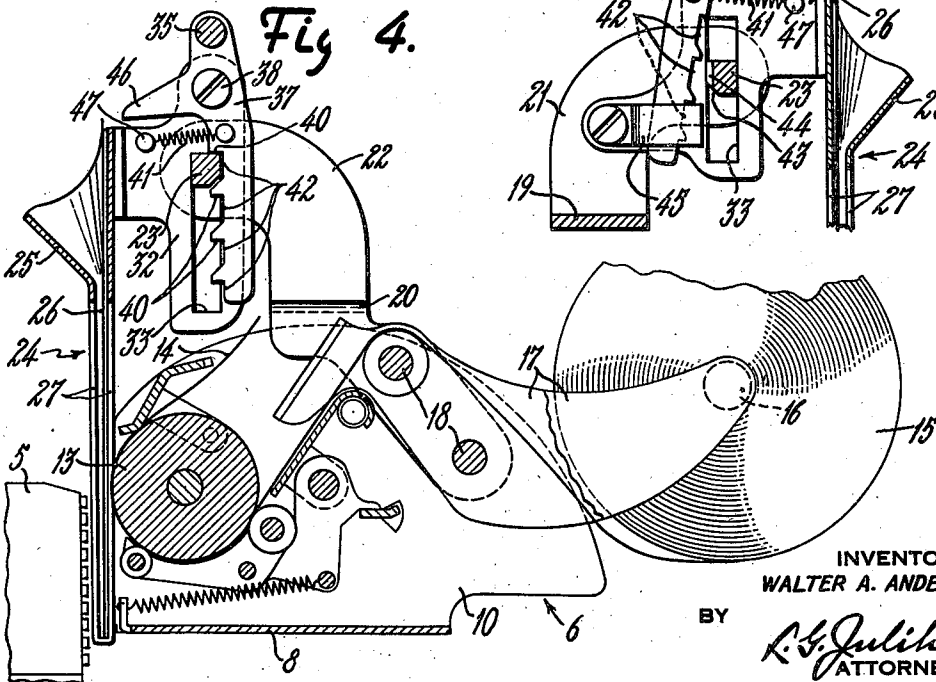


Fig. 4.



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ADJUSTABLE PAPER SUPPORT FOR
ACCOUNTING MACHINES

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5 Claims. (Cl. 197—135)

This invention relates to paper carriage for computing machines and more particularly to a mechanism for supporting and positioning front fed cards that are to be printed on such machines.

The cards used by many business establishments for keeping records have spaced vertical and horizontal lines forming a plurality of separate spaces in which data is to be printed. It is desirable to have a simple inexpensive means on modern computing machines that will facilitate rapid insertion and removal of these cards, and which may be readily adjusted from one position to another in either a vertical or horizontal direction, or both, to locate a particular space on an inserted card in printing position opposite the type bars.

With these and incidental objects in view, the invention consists in certain novel features of construction and combinations of parts, the essential elements of which are set forth in appended claims, and a preferred embodiment of which is hereinafter described with reference to the drawings which accompany and form part of the specification.

In the drawings:

Figure 1 is a perspective view of a computing machine having a paper carriage embodying the present invention,

Figure 2 shows a record card and a portion of a tally strip and illustrates the type of work performed,

Figure 3 is a perspective view of the carriage, taken from the rear, and showing the improved card supporting and adjusting mechanism,

Figure 4 is a sectional elevation, taken from the left on the line 4—4 of Figure 3, and

Figure 5 is a partial sectional elevation, taken from the right, on the line 5—5 of Figure 3.

Referring to Figure 1, the computing machine 1 has the usual amount keys 2, operation controlling keys 3, motor bar 4, type bars 5 and carriage indicated generally at 6. Carriage 6 comprises a frame 8 (Figure 3) having side walls 9 and 10 between which are mounted the usual roller platen 13 around which paper 14 (Figure 4) from the tally supply roll 15 is fed for printing by type bars 5. Roll 15 is mounted on a rod 16 supported between rearwardly extending arms 17 that are fixed on spaced tie rods 18 secured at their opposite ends in side walls 9 and 10. Platen 13 may be rotated manually by a knob 12 secured to the platen shaft or automatically line space advanced by the usual pawl and ratchet wheel mechanism (not shown) operable

during each machine cycle. Brackets 19 and 20 (Figure 3) secured on rods 18 adjacent walls 9 and 10 extend outwardly from the walls and are formed with projections 21 and 22 respectively, between which are connected the opposite ends of a square rod 23 that supports the front feed card holding and adjusting mechanism.

The card holding mechanism comprises a chute 24 (Figure 1) having a flared throat 25 at its upper end to facilitate insertion of the cards 26. The body portion of the chute has a large aperture 27 in its front and rear walls so that substantially any portion of the printing surface of an inserted card may be presented to type bars 5, the bottoms 28 of the sides of the chute serving as stops for the bottom edge of the card. Chute 24 is mounted in front of platen 13 for adjustable movement upon rod 23 by brackets 31 and 32 secured on opposite ends of the back of the chute and having vertical slots 33 through which the rod extends. By this construction, since chute 24 is shorter than rod 23, the chute may be moved bodily along the rod to position an inserted card 26 horizontally with respect to type bars 5 and, by the provision of slots 33, the chute may also be moved upwardly or downwardly as required to position the card vertically with respect to the type bars.

The mechanism for holding the chute in adjusted position will now be described. A bail indicated generally at 34 is comprised of a rod 35 secured at its opposite ends between depending arms 36 and 37 that are each pivoted at 38 on brackets 31 and 32 respectively. Bail 34 is normally tensioned clockwise (Figures 1, 3 and 4) about pivots 38 by springs 41 connected between arms 36 and 37 and brackets 31 and 32 so that the forward edges of arms 36 and 37 engage the back of rod 23. Each arm 36 and 37 has a series of corresponding spaced recesses 42 forming shoulders 40, any pair of which may be adjusted to engage the top of rod 23. The spacing between shoulders 40 corresponds to the spacing between the horizontal lines on cards 26. The upper surfaces of shoulders 40 are beveled to correspond with a bevel 43 provided adjacent the bottom of rod 23 so that the pair of recesses 42 that lie opposite rod 23 snugly embrace the rod under the tension of springs 41 and latch the chute in any one of the vertical positions to which it may be adjusted. The recesses 42 in the left arm 36 (Figures 3 and 5) are of less depth than the recesses 42 in the right arm 37 (Figure 4) and, in addition to embracing rod 23, are also engageable within any one of a series of spaced notches 44 provided in the back of rod 23 to latch chute

24 in any one of the horizontal positions to which it may be adjusted. The spacing between notches 44 corresponds to the spacing between the vertical lines on cards 26. A flange 45 (Figures 3 and 5) secured on the lower end of bracket 31 guides the lower end of arm 36 and holds this arm against lateral displacement incident to horizontal adjustment of the chute.

In operation, a card 26 is inserted in chute 24 with its bottom edge resting on stops 28. The particular space on the card in which it is desired to print is then adjusted into printing position opposite type bars 5 by the operator grasping rod 35 and tilting the bail 34 as shown in Figure 5 to withdraw recesses 42 and shoulders 40 from engagement with notches 44 and rod 23. Arms 36 and 37 have forwardly extending projections 46 that engage studs 47 secured in brackets 31 and 32 to limit such movement of the bail. The chute is then free to be raised or lowered, or shifted horizontally to the right or to the left, or both, as may be required, until the desired printing space on the card lies opposite the type bars 5 whereupon the bail is released and springs 42 reengage the corresponding set of shoulders 40 with rod 23 and the corresponding recess 42 within the corresponding notch 44, to latch the parts in adjusted position.

If the adjustment to be made is solely in a vertical direction and upwardly from a lower position, the beveled surfaces of shoulders 40 permit such adjustment by simply lifting upwardly on rod 35, the beveled surfaces of the shoulders ratcheting over the corresponding beveled surface 43 of rod 23 until the desired position is reached. Also, if only an approximate lateral adjustment of the mechanism has been made, i. e., if the left arm 36 has not engaged one of the horizontally spaced notches 44, the operator need only exert a slight pull either to the left or to the right to effect an exact registration, springs 41 urging the arm 36 into latched position within the proper recess 44.

Referring now to Figure 2, it is noted that the mechanism lends itself very nicely to a record keeping operation wherein various items are listed upon the tally strip 14, a sub-total of the items printed, a record card 26 then inserted in the chute and the desired printing space on the card being properly adjusted opposite the printing type as above described, a total of the amount is printed in its proper space on the record card.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein disclosed, for it is susceptible of embodiment in various forms all coming within the scope of the claims which follows.

What is claimed is:

1. In a paper carriage having a platen, a rod near the platen, a card holder shiftable horizontally and vertically on the rod to adjust the card transversely of and along the platen, and a spring-urged member on the card holder normally co-

operating with the rod to retain the holder both in its horizontally and vertically adjusted positions, said member and rod having formations interlockable and defining different horizontal and vertical positions of the holder.

2. In a paper carrier having a platen, a card positioning mechanism including a rod located near the platen, a chute for holding the card, said chute being readily shiftable both horizontally and vertically on the rod to present different portions of substantially the entire body of the card into printing position, and a single releasable latching means on the chute cooperating with the rod to locate the chute in shifted position, said latching means being adapted to define relative line space positions.

3. In a paper carriage having a platen, a card supporting and positioning mechanism including a chute for receiving a card, a rod extending parallel to the platen, adjustable means for supporting the chute in such a manner that it may be moved horizontally and vertically on the rod, means for latching the chute in adjusted position on the rod, the supporting means including a bail pivoted on the chute, arms on the bail having a series of vertically spaced recesses for engaging the rod, a series of horizontally spaced notches in the rod engageable by one of the arms, and means normally urging the arms into engagement with the rod.

4. In a paper carriage having a platen, a card supporting and positioning mechanism including a chute for holding a card, a rod having a series of horizontally spaced notches therein, means connecting the rod and the chute in such a manner that the chute may be adjusted both vertically and horizontally on the rod, means pivoted on the connecting means for latching the chute in adjusted position, said latching means comprising a bail having arms with vertically disposed recesses, the recesses in one arm being deeper than the recesses in the other arm, and means normally urging the bail in a direction to cause the said other arm to enter one of the said notches and engage the rod.

5. In a paper carriage having a platen, a card supporting and positioning mechanism including a chute for holding a card, a rod having a series of horizontally spaced notches therein, means for connecting the rod and the chute in such a manner that the chute may be adjusted both vertically and horizontally on the rod, means pivoted on the connecting means for latching the chute in adjusted position, said latching means comprising a bail having arms with vertically disposed recesses, the recesses in one arm being deeper than the recesses in the other arm, and means normally urging the bail in a direction to cause the said other arm to enter one of the said notches and engage the rod, the recesses and the rod being beveled to permit ratcheting of the arms over the rod when the chute is being adjusted upwardly.

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