

Jan. 20, 1942.

W. A. ANDERSON

2,270,614

ACCOUNTING MACHINE

Filed Dec. 29, 1939

2 Sheets-Sheet 1

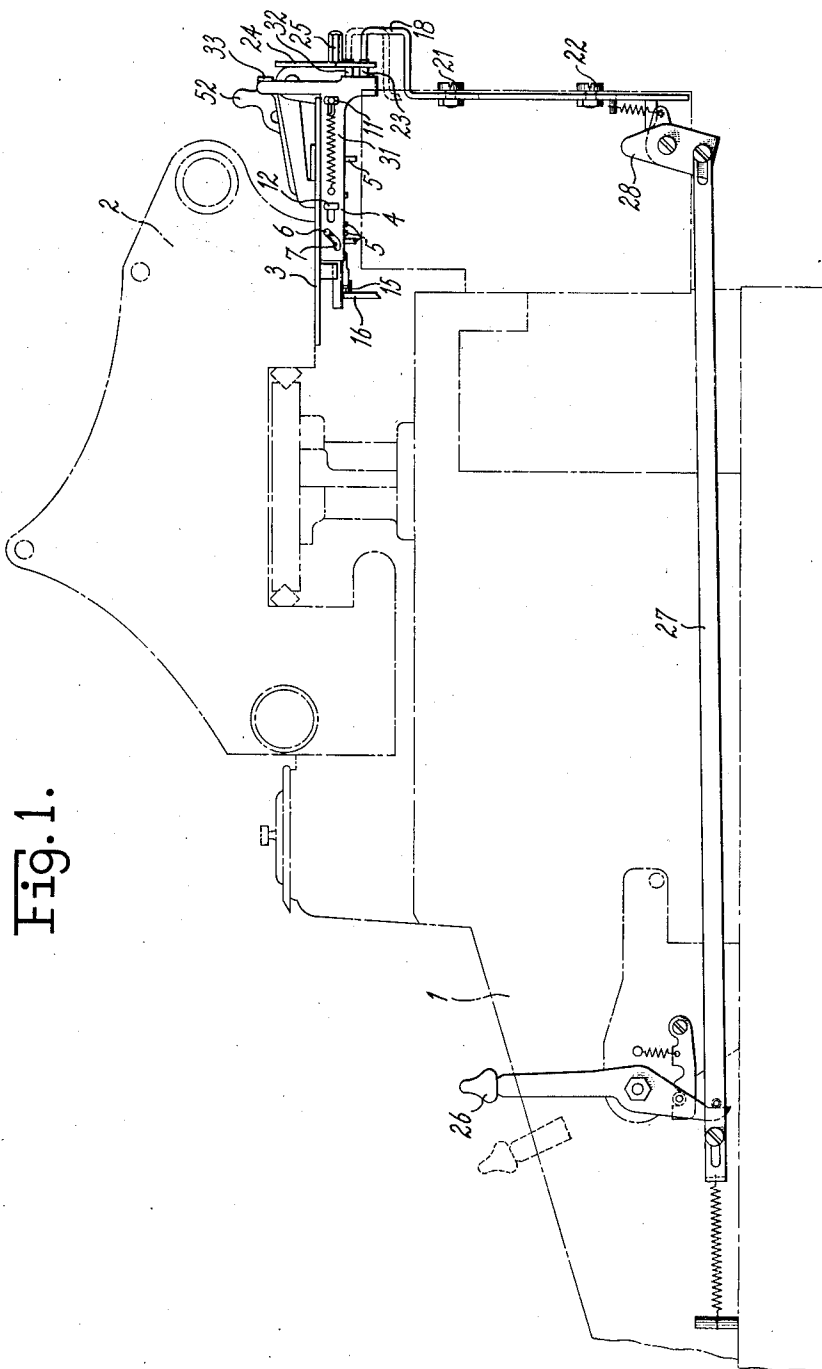


Fig. 1.

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Fig. 2.

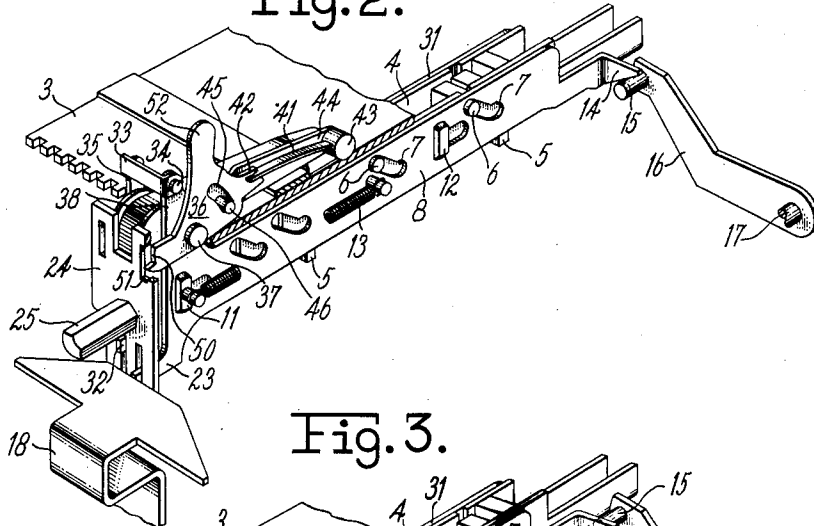


Fig. 3.

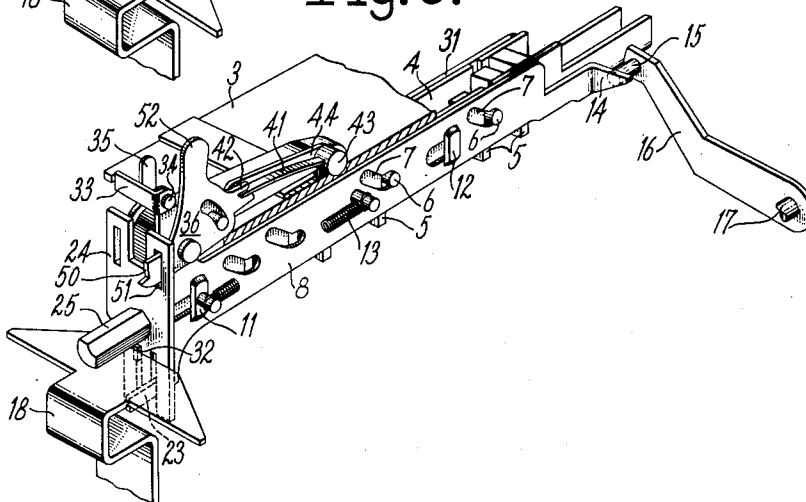
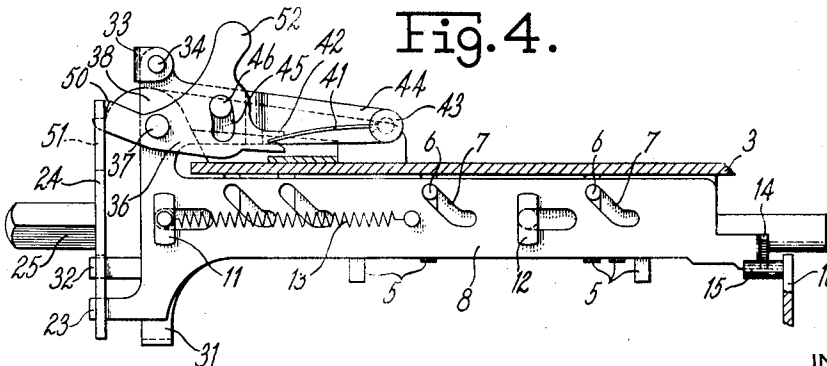


Fig. 4.



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2,270,614

ACCOUNTING MACHINE

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Application December 29, 1939, Serial No. 311,576

1 Claim. (Cl. 235—60)

This invention relates to accounting machines having a traveling paper carriage, and more particularly to the mechanism on the carriage for controlling the various functions of the machine in the several columnar positions of the paper carriage. The invention as illustrated, is applied to a machine such as disclosed in Patent No. 2,194,270, issued to Oscar J. Sundstrand on March 19, 1940, and my pending application Serial No. 92,164, filed July 23, 1936, and is an improvement over the structure disclosed in my pending application Serial No. 182,680, filed December 31, 1937.

In machines of this type it is often desirable to alter the character of the operation performed under the control of the carriage, in one or more of the columnar positions. Where this alteration is required for any considerable time, it has been found desirable to employ a manually operable latch to enable or disable certain of the controls in the desired columnar positions.

An object of the present invention is to provide such a manually operated latch mechanism, and one which may be readily adjusted and which will be simple to manufacture.

With this 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 claim, and a preferred form of 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 right side elevation of an accounting machine embodying the present invention,

Figure 2 is a perspective view showing a magazine slide in the position to which it is operated by a cam situated behind the carriage,

Figure 3 is a view similar to Figure 2 but showing the magazine slide in its normal position, and

Figure 4 is a left side elevation of the magazine showing the magazine slide in the position to which it is moved manually by the operator.

Referring to Figure 1, the accounting machine generally indicated at 1 has a traveling carriage generally indicated at 2, carrying a control plate 3 (see also Figure 2) having secured thereon control magazines such as 4. Each magazine may carry control lugs 5 having pins 6 extending in cam slots 7 in a slide 8 mounted at 11 and 12 on magazine 4 for sliding movement forwardly and rearwardly of the machine. A spring 13, connected to the magazine and to the slide, tends to pull the slide to its normal rear position. A cam

surface 14 on one end of slide 8 lies in the horizontal plane of a stud 15 on an arm 16 pivoted at 17. A cam 18 is mounted on studs 21 and 22 (Figure 1) for vertical movement on the machine frame. An extension 23 on one end of slide 8 is guided by a slot in an end plate 24 secured to magazine 4 by a nut 25. A lever 26 (Figure 1), operable from the keyboard through connections 27 and 28, moves cam 18 to either its upper or lower position of adjustment. If desired, a second slide 31 similar to slide 8 except that it does not have a cam surface 14 thereon, may be similarly mounted on the opposite side of magazine 4. This slide may likewise control movement of certain of the control lugs 5 other than those controlled by slide 8, and has an extension 32 similar to but at a higher elevation than extension 23. A movable arm 33 pivoted at 34 on slide 8 may be swung to effective position, as shown in Figures 2 and 3, where it lies behind an arm 35 on slide 31, so that operation of slide 8 may also operate slide 31. Arm 33 may be swung upwardly about pivot 34 out of engagement with arm 35 to render slides 8 and 31 independently operable.

Assuming that arm 33 is in effective position, when lever 26 is in the position shown in Figure 1, cam 18 is in its lower position where it is in the path of extension 23 on slide 8, so that when the carriage tabulates to the position where lugs 5 in the magazine under consideration are effective, slides 8 and 31 are moved to the right as seen in Figure 2. This movement of slides 8 and 31 raises all of the lugs 5 to ineffective position through the operation of cam slot 7, and moves cam surface 14 of slide 8 in position to depress stud 15 and lever 16 as it moves over the stud. Depression of lever 16 causes the machine to tabulate through this columnar position, and, since the control lugs 5 are held ineffective at this time, this particular magazine has no controlling effect. However, when lever 26 is moved to its forward position (shown in dotted lines in Figure 1), cam 18 is raised to the position shown in Figure 3, where it is in the path of extension 32 and above the path of extension 23. Now, when the magazine comes to its effective position with cam 18 in its raised position, extension 23 passes under cam 18 and slide 8 remains in its left hand position shown in Figure 3. In this position, cam surface 14 does not contact stud 15, allowing the carriage to stop in this position. Slide 31 alone is moved to the right to render ineffective only those control lugs 5 operable by this slide. As shown in Figure 3, when slide 8

is in its left hand position, lugs 5 controlled thereby remain in effective position.

It has been found desirable, at times, to have rendered ineffective not only the magazines having their slide extensions in the horizontal plane of cam 18, but one or more other magazines having their slide extensions in the other plane. It is, therefore, desirable that the operator be able to render these magazines ineffective by some means other than cam 18. The following mechanism has therefore been provided.

Referring to Figure 2, a latch lever 36 is pivoted on a stud 37 on an upstanding arm 38 of slide 8. A leaf spring 41 is supported by a yoke 42 formed on lever 36, and by a stud 43 fixed on an extension 44 of arm 38, the spring extending into a recess in the stud. Spring 41 is bowed and normally tensions lever 36 counter-clockwise about pivot 37, so that the lower end of a slot 45 in the lever abuts a pin 46 secured in arm 38, limiting movement of the lever in this direction. In this position, a shoulder 50 on the left end of lever 36 lies in alignment with an aperture 51 provided in guide plate 24, as shown in Figure 3. In such position, slide 8 may move to the left to lower lugs 5 to effective position, when extension 23 moves beyond cam 18 after being engaged therewith during tabulating movement of the carriage. The latch, therefore, does not interfere with the normal operation of the machine.

However, when the operator wishes to render inoperative one or more magazines whose extensions 23 or 32 do not lie in the plane in which cam 18 is to be located, it is only necessary for the operator to exert a slight pressure, downwardly and to the right (Figure 4), on a finger piece 52, provided on lever 36. This rocks the lever clockwise against the tension of spring 41 and moves slide 8 toward the right, raising lugs 5 to ineffective position. When yoke 42 passes beyond the line of centers of studs 37 and 43, spring 41 rotates lever 36 clockwise until the upper end of slot 45 abuts pin 46. In this position, shoulder 50 engages a portion of plate 24

above the upper end of aperture 51, as shown in Figure 4. The latch will remain in this position under tension of spring 41 as long as it is desired to have the magazine remain ineffective. To return the parts to their former positions, it is only necessary for the operator to exert a slight pressure to the left (Figure 4). Incident to this movement, spring 13 returns slide 8 to the left to its normal position.

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 claim which follows.

What is claimed is:

In an accounting machine having a traveling carriage, a magazine thereon having elements to control various machine functions, a slide on the magazine connected with the control elements and having a normal and an operated position, the combination of a spring to tension the slide toward its normal position, a latch pivoted on the slide and having an arm cooperating with a member stationary with respect to the magazine, and a finger piece, the finger piece being so located that pressure thereagainst by the operator in a direction opposite to the direction of tension of the spring to move the slide to its operated position, rotates the latch when the slide reaches its operated position, and thereby moves the arm into engagement with the stationary member, the finger piece being so formed that pressure may also be exerted on the opposite side thereof by the operator to remove the said arm from cooperation with the stationary member to enable the spring to move the slide to normal position, and a spring connected to the latch to retain it in either position to which it is moved by the operator.

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