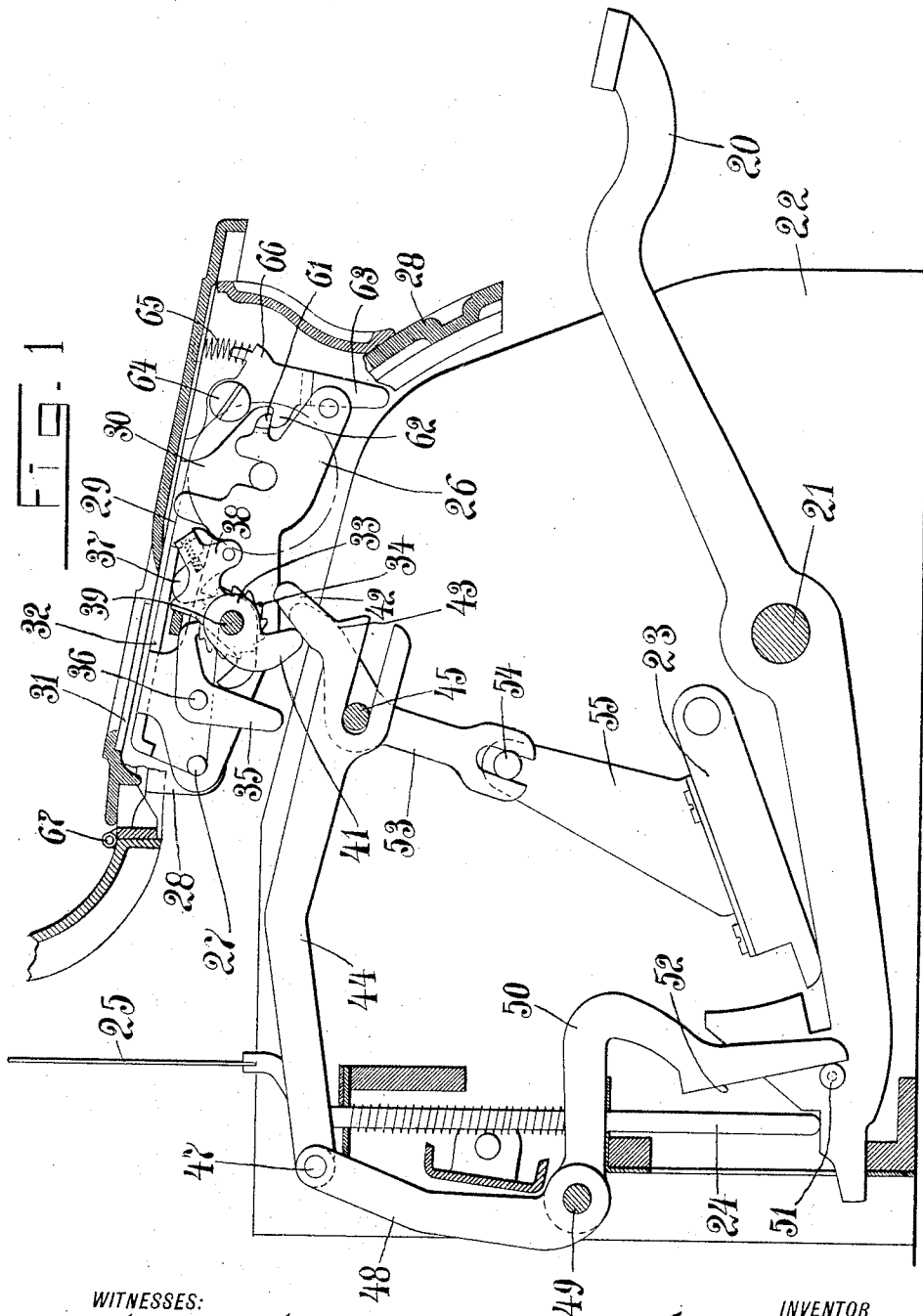


J. A. WERNER.
CASH AND AUTOGRAPHIC REGISTER.
APPLICATION FILED MAR. 14, 1910.

975,489.

Patented Nov. 15, 1910.

2 SHEETS—SHEET 1.



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INVENTOR

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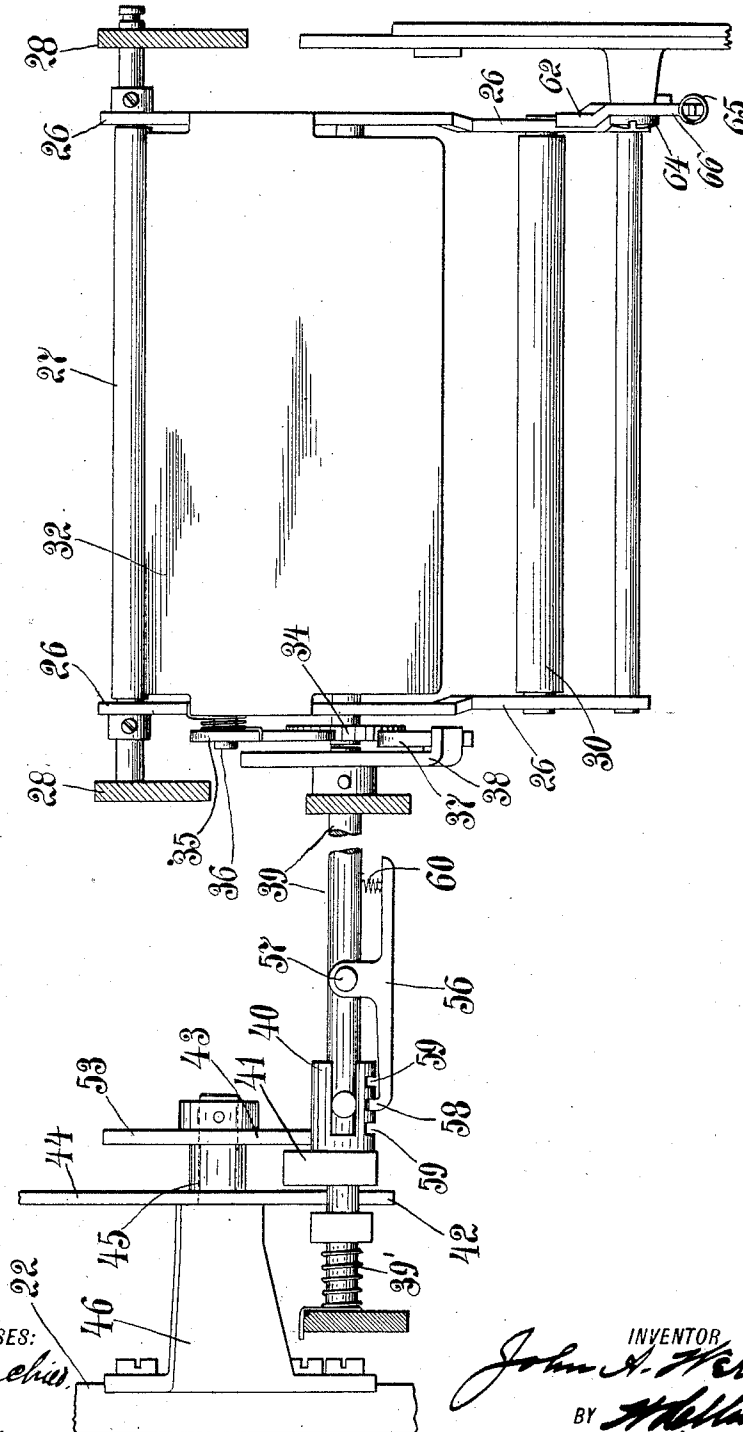
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2 SHEETS-SHEET 2.

FIG. 2.



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UNITED STATES PATENT OFFICE.

JOHN A. WERNER, OF DAYTON, OHIO, ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO, (INCORPORATED IN 1906.)

CASH AND AUTOGRAPHIC REGISTER.

975,489.

Specification of Letters Patent.

Patented Nov. 15, 1910.

Application filed March 14, 1910. Serial No. 549,077.

To all whom it may concern:

Be it known that I, JOHN A. WERNER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Cash and Autographic Registers, of which I declare the following to be a full, clear, and exact description.

This invention relates to improvements in autographic attachments for cash registers and operating mechanism therefor.

In one form of embodiment the present improvements are shown as applied to a machine of the type fully described in Letters Patent of the United States issued May 23, 1893 to Thomas Carney and numbered 497,860. Only so much of a machine of that type has been shown herein as is deemed essential to a proper understanding of the invention but reference may be had to said patent for a more detailed description of the same.

Among the objects of this invention is to provide a combined cash and autographic register with improved means under the control of the cash register for controlling the autographic register upon certain special operations of the cash register.

Another object of the invention is to provide improved controlling means for the autographic register which will bring it into operation on every operation of the cash register, or cause it to be entirely inoperative.

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 form of embodiment of which is hereinafter described with reference to the drawings which accompany and form part of the specification.

Figure 1 is a cross section of a machine of the type shown in said Carney patent with the present improvements applied thereto. Fig. 2 is a top plan view of the improvements.

The machine to which the present improvements are applied comprises a series of operating keys 20 pivotally mounted on a transverse rod 21 hung between the side frames 22. Each key 20 is adapted when operated to raise and lower a main actuator

or key coupler mechanism 23 of well known form. The key coupler 23 is pivotally mounted in the side frames 22 and extends across the machine above all of the keys 20 to the rear of the rod 21.

Mounted to rest on the rear end of each of the keys 20 are a series of standards 24 each of which carries at its upper end a "flag" 25 of well known form and adapted to indicate the amount registered at an operation of its appropriate key. At an operation of one of the keys its appropriate indicator flag will be raised and held in such raised position to expose to view, through a suitable opening in the cabinet (not shown), the numerals carried thereby.

It is customary in this type of machine to provide in addition to the regular amount keys several special keys representing the different classes of transactions such as "Charge," "Paid out," "Received on account," and "No sale." These special keys are of the same form as the amount keys and serve to actuate the key coupler mechanism and also to raise an indicator but do not operate the accounting mechanism.

For convenience the autographic attachment in its present embodiment has been located in the cover lid of a machine of this general type. This attachment consists of two side frames 26 pivoted at 27 on studs formed on the lid 28 in order to permit the autographic device to be swung clear of its inclosing casing when the lid 28 has been swung upward on its hinge 67 in order to facilitate the replenishing of record material. In order to maintain the autographic device in normal position the side frame 26 is provided with a projection 61 arranged to be engaged by a teat 62 mounted on a lever 63 pivoted at 64 to the cabinet lid 28. Lever 63 is normally spring pressed toward locking position by spring 65 interposed between the projection 66 of said lever and the cabinet frame. The record strip 29 is led from a supply roll 30 beneath a writing opening 31 in the inclosing casing and over the writing table 32. From the table 32 it passes down about the pivot 27 and on to a receiving roll 33. The receiving roll 33 is provided with a feeding ratchet 34 which is actuated at each operation of the machine in a manner hereinafter described to advance the record strip. In order normally to prevent any retrograde movement of the

record strip a retaining pawl 35 is provided which is pivoted to the autographic device side frame 26 at 36 and normally engages one of the teeth of the feeding ratchet. If at any time it is desired to unwind the record strip it will readily be seen that the pawl 35 may be rocked about its pivot 36 to disengage it from the feeding ratchet thereby to permit an unwinding operation. The ratchet 34 is operated by a feeding pawl 37 carried by an arm 38 mounted on a shaft 39 concentric with the feeding roll 33. The shaft 39 is mounted to rock in studs formed on the under side of the lid 28 and has mounted on its left hand end a spring 391 normally tending to hold said shaft and the feeding arm 38 and feeding pawl 37 in normal position. Splined on the left hand end of the shaft 39 is a collar 40 having a downwardly extending finger 41 adapted to be engaged and moved by actuating mechanism to be hereinafter described, for the purpose of rocking the shaft 39 to actuate the feeding mechanism for the record strip.

It is often desirable to have the autographic device so arranged that it will be fed at every operation of the machine or only upon a special transaction being recorded on the machine. Then again, it is often desired to have the autographic device entirely disconnected from the operating mechanism so that the record strip will not be advanced when the machine is operated but may be by any well known form of hand operating device for manually feeding the record strip at the will of the operator and independent of the machine. In order to permit of such an adjustment in the present machine the operating arm 41 has been arranged to be slid along the shaft 39 so as to bring said arm 41 in position to be engaged by one or the other of two actuating arms 42 and 43, or to an intermediate position where it will be free from engagement by either of said operating arms.

The mechanism for operating the actuating arms 42 and 43 is as follows. The operating arm 42 is carried by a link 44 arranged at one end to slide on a stub rod 45 carried by a standard 46 mounted on the side frame of the machine. At its other end the link 44 is pivoted at 47 to an arm 48 rigidly mounted on a shaft 49 extending across the rear side of the machine. The shaft 49 also carries a series of L shaped arms 50 which arms are positioned to be engaged by pins 51 mounted on the sides of the special keys before mentioned. It will readily be seen that by this construction whenever one of the special keys is depressed that the pin 51 will ride up along the edge 52 of the lever 50 and rock said lever and consequently the shaft 49 and arm 48 and draw said link 44 rearwardly and thereby also

move the actuating arm 42 rearwardly to rock the arm 41 on shaft 39 if said arm 41 has been positioned to be engaged by said actuating arm 42. The actuating arm 43 is carried by a lever 53 pivoted on the short rod 45 and bifurcated at its lower end, to straddle a pin 54 carried by a standard 55 mounted on the key coupler 23. The arm 53 will therefore be rocked upon every operation of the key coupler 23 thereby to rock its arm 43 rearwardly to actuate the arm 41 on shaft 49 in case said arm has been positioned to be engaged by said lever 43.

As shown in Fig. 2 the arm 41 may be positioned to be engaged by either one of said levers 42 and 43 or be moved to a position just between said levers, and is arranged to be locked in any one of such three positions by a locking lever 56 pivoted at 57 to the shaft 39 and having its left end 58 bent to engage any one of three locking notches 59 in the collar of the arm 41. Such locking engagement is maintained by spring 60 interposed between the shaft 39 and one end of the locking lever 56. With this construction if the proprietor of the store desires to have the record strip operated upon every operation of the machine he need merely release the lever 41 by disengaging the locking lever 56 from the notches 59 and then slide the arm 41 to the right along the shaft 39 to bring the left hand notch 59 into position to be engaged by the bent portion 58 of the locking lever 56. If the part 58 is then permitted to engage said left hand notch 59 the arm 41 will thereby be locked in a position to be engaged by the arm 43, which as above described, is rocked at every operation of the machine. If he desire to have the record strip advanced only when a special key is operated he need merely slide the arm 41 to the left to a position in which the right hand notch 59 is in alinement with the part 58 of the locking lever 56 and permit an engagement of said part 58 with said right hand notch 59. This will lock the arm 41 in a position to be engaged by the arm 42, which arm as above described is moved only upon an operation of one of the special keys. If he desire to disconnect the autographic device entirely from the operating mechanism of the machine he need merely adjust the arm 41 to a position intermediate the actuating arms 42 and 43 in which position it will be locked by engagement of the part 58 of said locking lever 56 with the middle one of the three notches 59 formed in the collar 40.

While the form of mechanism herein shown and described is admirably adapted to fulfil 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 shown and described as it is

susceptible of embodiment in various forms all coming within the scope of the claims which follow.

What is claimed is—

5 1. In a cash register having amount keys, special keys and a main actuator operated thereby; the combination with an auto-graphic device having a feeding mechanism
10 for record material said feeding mechanism comprising a movable shaft and a feeding arm carried thereby; driving means for said shaft operated by said special keys; a second driving means for said shaft operated by the main actuator; and means slidable longitudinally of the shaft and capable of adjustment to establish a coöperative relation between said shaft and either of its driving means.

2. In a cash register having amount keys, special keys and a main actuator operated thereby; the combination with an auto-graphic device having a feeding mechanism comprising a movable shaft and a feeding
25 arm carried thereby; driving means for said shaft operated by said special keys; a second driving means for said shaft operated by the main actuator; means slidable longitudinally of the shaft and capable of adjustment to establish a coöperative relation between said shaft and either of its driving means and means for holding said adjustable means in adjusted position.

3. In a cash register having amount keys, special keys and a main actuator operated thereby; the combination with an auto-graphic device having a feeding mechanism for record material said feeding mechanism

comprising a movable shaft and a feeding arm carried thereby; driving means for said shaft operated by said special keys; a second driving means for said shaft operated by the main actuator; and means slidable longitudinally of the shaft and capable of adjustment to establish a coöperative relation between said shaft and either of its driving means and means for holding said adjustable means in adjusted position or in a position preventing any such coöperative relation and consequent feeding of the record material.

4. In a cash register having amount keys, special keys and a main actuator operated thereby; the combination with an auto-graphic device having a feeding mechanism for record material said feeding mechanism comprising a movable shaft and a feeding arm carried thereby; driving means for said shaft operated by said special keys; a second driving means for said shaft operated by the main actuator; means slidable longitudinally of the shaft and capable of adjustment to establish a coöperative relation between said shaft and either of its driving means and means for holding said adjustable means in adjusted position or in a position preventing any such coöperative relation and consequent feeding of the record material and spring means for holding said adjustable means in adjusted position.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN A. WERNER.

Witnesses:

ROY C. GLASS,
CARL W. BEUST.