Nov. 6, 1923. 1,472,900

M. H. BOWDLE

TAX SALES REGISTER

Filed Feb. 6, 1922

Fig. 1.

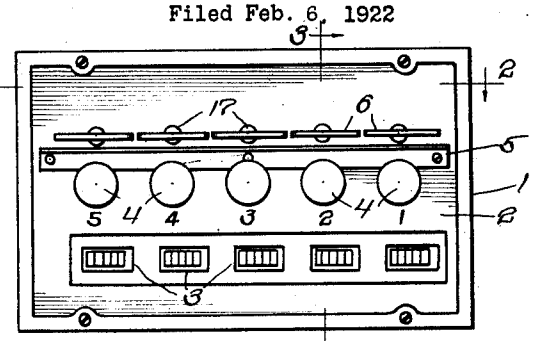


Fig 2.

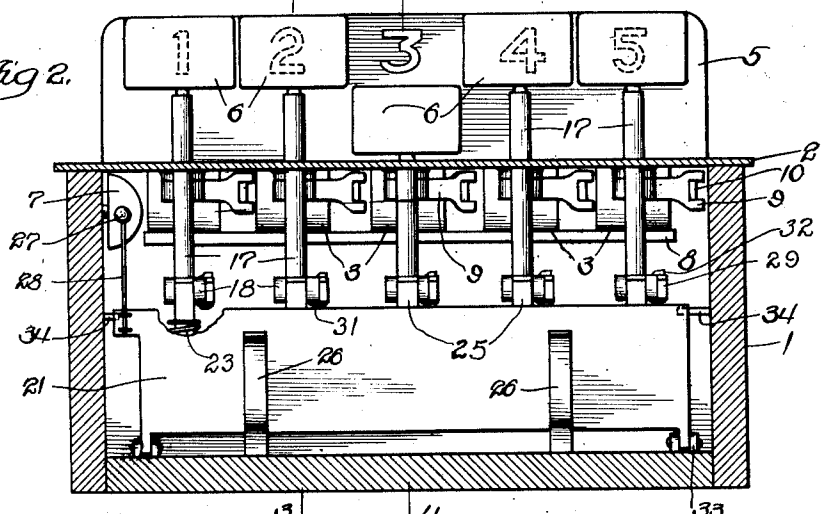


Fig. 3.

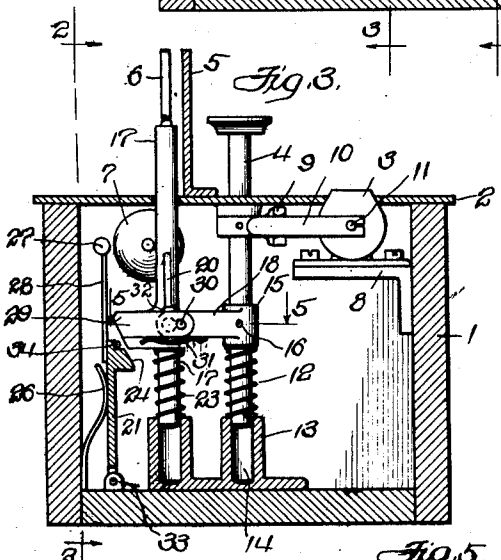


Fig. 4.

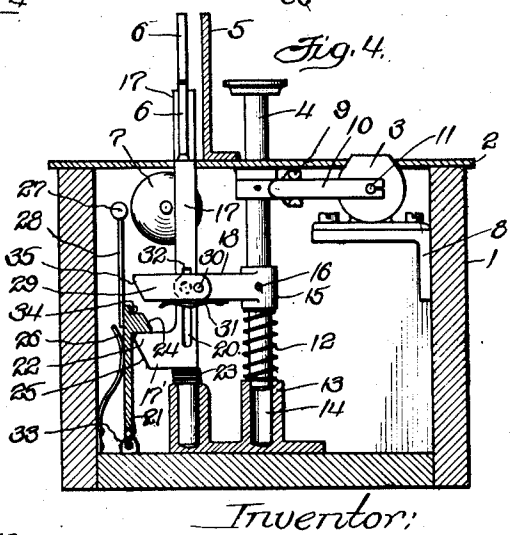
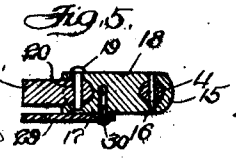


Fig. 5.



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UNITED STATES PATENT OFFICE.

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TAX-SALES REGISTER.

Application filed February 6, 1922. Serial No. 534,428.

To all whom it may concern:

Be it known that I, MONTRAVILLE H. BOWDLE, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Tax-Sales Registers, of which the following is a specification.

This invention relates to sales registers and the like, and the main objects of the invention are to provide an improved form of such a device adapted to register and keep account of sales and especially to facilitate sales tax accounting; to provide a combination of counters and registering means adapted for ready inspection from time to time and adapted to fully apprise a customer or the public of the data registered; to provide in such a device a prominently visible indicator and an audible signal or sounder to operate synchronously with each registration; and to provide for complete functioning for successive like numerical transactions as well as those which are different.

An illustrative embodiment of this invention is shown in the accompanying drawings, in which—

Figure 1 is a plan of the device.

Fig. 2 is a vertical longitudinal section on the line 2—2 of Figures 1 and 3.

Fig. 3 is a transverse section on the line 3—3 of Figures 1 and 2.

Fig. 4 is a transverse section on the line 4—4 of Fig. 2.

Fig. 5 is a section on the line 5—5 of Fig. 3.

In the construction shown in the drawings, the device as a whole comprises mainly a housing in the form of a wooden box 1 having a removable top or cover plate 2, a plurality of counters 3 (for which purpose the commercially well known Veeder counters may be used) mounted on the wall within said box adjacent to the under side of said plate, corresponding manually operated plungers 4, a vertically positioned designation plate 5 mounted on and above the cover 2, and a series of vertically movable shutters 6 operated by and in front of said plungers respectively, a bell 7, and certain complementary mechanisms to be described.

The counters 3, preferably five in number, are individually mounted on a common support in the form of a bracket 8 secured to the inner side of the front wall of the box, near the top. Each plunger 4 is provided with a rigid apertured arm 9 of bifurcated form to receive the rocker arm 10 which is fixed on the rock-shaft 11 of the counter. Every downward movement of a plunger 4 operates the corresponding counter one point, as will be understood. Each plunger 4 is provided with a restoring spring 12 arranged to react between the top edge of wall 13 of guide socket 14 and the sleeve 15 which is fixed on a medial part of the plunger rod as by means of a screw or pin 16.

In order that each operation of a plunger 4 may be registered visually, connecting means are provided for depressing the corresponding shutter 6 thereby displacing a number on the designation plate 5 corresponding with the plunger operated as illustrated in Figure 2. For this purpose each shutter 6 is mounted on the upper end of a vertically movable plunger 17 disposed adjacent to and parallel with the corresponding plunger 4. The sleeve 15 of plunger 4 is provided with a horizontal arm 18 which is bifurcated to receive plunger 17 between its arms. Said arms are connected by a pin 19 which is movable vertically in the slot 20 of plunger 17. The slot 20 is so positioned that when plunger 4 is depressed, pin 19 seats against the bottom of slot 20 and depresses plunger 17 and the shutter 6 carried thereby.

In order that the registration may remain visible after the plunger 4 is released, a latch-plate 21 is arranged to engage the shoulder 22 of arm 17′ adjacent to the lower end of plunger 17 and thereby hold said plunger down against the expansive force of its compression spring 23. At the same time the slot 20 permits pin 19 and its supporting member to rise independently of plunger 17. In order that latch 21 may coact properly with the shoulder 22 said members are mutually beveled as at 24 and 25 respectively so that downward movement of plunger 17 pushes latch 21 laterally sufficient to let shoulder 22 pass. Then when plunger 17 is in its lowermost position the latch springs 26 snap the latch back into place to engage said shoulder 22 and lock plunger 17 down.

In order to attract the attention of the purchaser or the public generally, whenever a sale is made and the register is used, a hammer 27 carried by a spring arm 28 secured to latch 21 is arranged to strike against

the gong or bell 7 when said latch springs into engagement with shoulder 22.

In order that the device may function normally and especially that the bell may be sounded when the same plunger 4 is operated twice in succession, the arm 18 is provided with a supplemental arm or shoulder member 29 which is normally disposed beside and parallel with shoulder member 22 but is pivoted at 30 to arm 18 in such manner that after being forced down and thereby caused to swing latch 21 and ring bell 7, it may swing downward against the tension of its spring 31 and slip upward past the latch shoulder when urged upward by plunger 4 as the latter restores to its normal position. The pivoted arm 29 is prevented from swinging upward beyond its horizontal position by means of an over-reaching shoulder 32 on the arm 18.

The latch plate 21 is provided with a hinge-like support 33 at each end, and the forward movement of its upper edge, under the stress of spring 26, is limited by a pair of stop shoulders 34 at the ends respectively.

Referring to Figure 1, the keys or plungers 4 are numbered 1 to 5 respectively, provided that these numbers represent values convenient to express the number to be registered, it being understood that other numbers, as for instance 5, 10, 15, 20, and 25 might be used. The same is true of the numbers on the designation plate 5.

The operation of the device is normally as follows: in case sales taxes are to be registered, as for instance in a drug store where the items are of small value, the first button may represent a sales tax of one cent, the next two cents, and so on. If then the tax is two cents, the No. 2 button will be depressed. This will swing the counter arm 10 downward and thereby register one more on the counter. At the same time the arm 18 will carry the plunger 17 downward and cause its shoulder arm 29 to push back the latch 21 against its spring 26. When plunger 17 is fully depressed its shutter 6 will uncover the corresponding number on the plate 5, and the shoulder member 22 will release and pass under the shoulder of latch 21 which will then be sprung forward to lock plunger 17 down, where it will be retained until another button is depressed. When another button, as for instance No. 3, is depressed the beveled face on the arm 22 of its corresponding plunger will retract the latch 21 and thereby release the shutter plunger corresponding with button No. 2, but the arm 22 of the shutter plunger corresponding with button No. 3 will then be held in its depressed position until some other button is depressed.

In case the same button, as for instance No. 2, is pressed a second time without the operation of any other button intervening the pivoted arm 29 by reason of its beveled face 35 will coact with face 24 of latch 21 and thereby swing back latch 21 which will then spring forward and again lock the same plunger down and incidentally ring the bell 7.

Although but one specific embodiment of this invention has been herein shown and described it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. In a device of the character described, a support and a pair of self-restoring plungers mounted thereon in parallel relation, one of said plungers having a manual push member, and connections for said plungers being provided, including a limited movement sliding guide and stop shoulder mechanism and an automatic latch for the other plunger to hold it in effective position.

2. In a device of the character described, a key plunger, a registering plunger, restoring means therefor respectively, a latch for the latter plunger, and operating connections for said plungers including an arm fixed on said key plunger and having limited sliding relation to the registering plunger, and the latter plunger having releasable interconnecting stop shoulder relation to said latch.

3. In a register of the character described, a series of self-restoring spring actuated plungers each having a shoulder, in combination with a common latch plate having shoulders corresponding with the plunger shoulders respectively to coact therewith for retaining any plunger in its actuated position, said shoulders having mutually beveled relation to permit engagement and to effect interchangeable release successively, in use.

4. In a register of the character described, a series of self-restoring spring actuated plungers each having a shoulder, in combination with a common latch plate having shoulders corresponding with the plunger shoulders respectively to coact therewith for retaining any plunger in its actuated position, said shoulders having mutually beveled relation to permit engagement and to effect interchangeable release successively, in use, said latch having a sounder attachment and said plungers each having a relatively movable actuating key member respectively, each provided with a supplemental latch tilting shoulder to insure operation of the sounder when the same plunger is operated in immediate succession.

5. In a register of the character described, a key plunger and a registering plunger disposed side by side, both being operatively connected and spring restoring, the former

having an arm fixed thereon and arranged to carry the other plunger with it in a positive direction but being slidable thereon in the reverse or negative direction when the latter is held in its advanced position, a latch to engage and retain said registering plunger in its advanced position, and a tilting arm having a spring return, which arm is connected to the fixed arm for releasing said latch upon depressing the corresponding key when the said registering plunger is held by said latch.

Signed at Chicago this 4th day of Feb. 1922.

MONTRAVILLE H. BOWDLE.