

952,949.

K. SCHAUB.
POCKET CASH REGISTER.
APPLICATION FILED OCT. 10, 1908.

Patented Mar. 22, 1910.

2 SHEETS—SHEET 1.

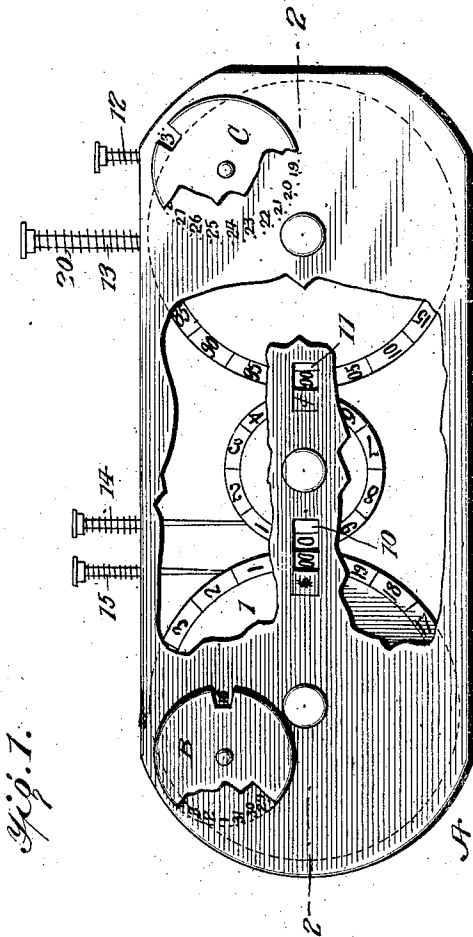
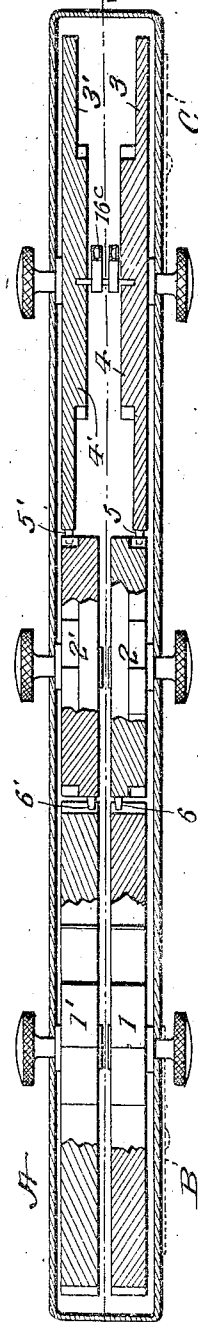


Fig. 1.

Fig. 2.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

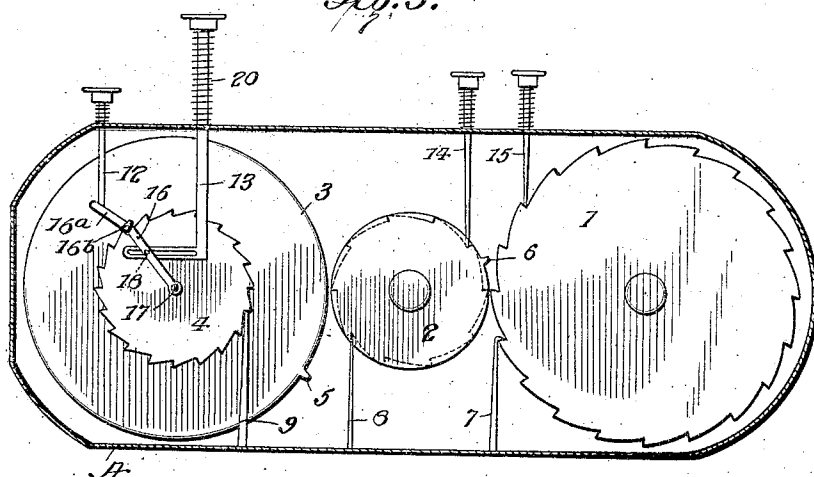


Fig. 4.

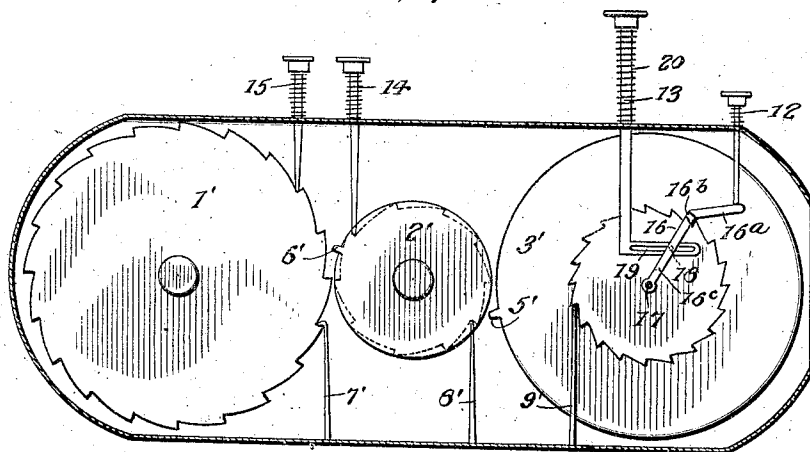


Fig. 5.

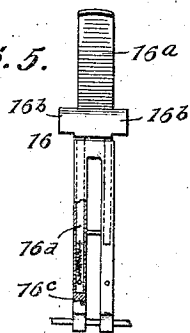


Fig. 6.

WITNESSES

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UNITED STATES PATENT OFFICE.

KARL SCHAUB, OF KANSAS CITY, MISSOURI.

BEST AVAILABLE COPY. POCKET CASH-REGISTER.

952,949.

Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed October 10, 1908. Serial No. 457,038.

To all whom it may concern:

Be it known that I, KARL SCHAUB, a citizen of the United States, and a resident of Kansas City, in the county of Jackson and State of Missouri, have made certain new and useful Improvements in Pocket Cash-Registers, of which the following is a specification.

My invention relates to improvements in pocket expense controllers or cash registers, and it consists in the constructions, combinations and arrangements hereinafter described and claimed.

In carrying out my invention I provide a number of wheels, upon the margin of which are certain figures representing monetary values. These wheels are operated by means of a series of rods or plungers and when so operated are turned to register the amounts expended, such registration appearing in openings in the casing of the device.

The main object of my invention is to provide a light and handy apparatus for personal or family use, which can be easily carried in the pocket, and which can be worked without being seen.

A further object of my invention is to provide a device by means of which a record of the different smaller and larger daily, individual or family expenses may be indicated without the necessity of mental calculation or a written record.

A further object of my invention is to provide a device in which the actual amount of cash on hand may be seen at a glance as well as the amount which has been expended.

Other objects and advantages will appear in the following specification and will be particularly pointed out in the annexed claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the device, a portion of the casing being broken away to show certain of the operating wheels. Fig. 2 is a transverse section through the device along the line 2—2 of Fig. 1. Fig. 3 is a longitudinal sectional view along the line 3—3 of Fig. 2, looking in the direction of the arrows. Fig. 4 is a sectional view along the same line looking in the opposite direction. Fig. 5 is an enlarged detail view of the bifurcated lever, and Fig. 6 is an enlarged view of the bifurcated operating rod or plunger.

In carrying out my invention I provide

an oblong casing A of the relative length and width shown in Fig. 1 and of comparatively small depth as shown in Fig. 2. Journaled within the casing on individual axes are the three pairs of wheels 1—1', 2—2' and 3—3'. The axes of each of these wheels pass through the outer walls of the casing and may terminate either in a flat thumb portion or a round milled head to permit each of the wheels to be turned individually on its axis. Each of the wheels 1 and 1' is provided with twenty ratchet teeth, while on the inner side of each of the wheels 3 and 3' is secured a small ratchet wheel, such as 4 and 4'. These ratchet wheels are concentric with the larger wheels. On the periphery of each of the wheels 3 and 3' are single teeth 5 and 5' respectively, that are adapted to engage the teeth of the central wheels 2 and 2', to turn the latter. The central wheels 2 and 2' have a diameter half of that of the larger wheels, the latter being of equal diameter. The central wheels are each provided with ten ratchet teeth, and they have also the single teeth 6 and 6' adapted to engage the teeth on the wheels 1 and 1' to turn the latter. In order to keep the wheels from being turned too far or from retracting, I have provided the spring detents 7, 8 and 9.

The outer edges of the wheels 1 and 1' are divided into twenty equal sections, which are numbered consecutively from 0 to 19 as shown in Fig. 1. The central wheels are divided into ten sections and are numbered consecutively from 0 to 9. The wheels 3 and 3' are divided into twenty sections and each section has a figure greater by five than the section before it. Thus the first section is numbered 00, the second 5, the third 10, the fourth 15, &c., up to 95. On each side of the casing I have left the openings 10 and 11, through which the numbers on the wheels may be seen when they are turned to register therewith, the opening 10 showing the amount in dollars and the opening 11 in cents. The opposite side of the casing is provided with similar openings, also indicating dollars and cents.

In order to manipulate the register I have provided the plungers 12, 13, 14 and 15. The plunger 12 is arranged to actuate a lever 16. This lever is shown in detail in Fig. 5. It consists of two parts, the upper part 16^a provided with laterally extending lugs 16^b, and a bifurcated lower part 16^c, which has hollow members arranged to receive the arms

16^a of the part 16^b, the two parts being held together by a spring. The lever is pivoted at 17 and is provided with a pin 18 arranged to enter the slot 19 in a latera^l extending lower arm of the plunger 13. Both of the plungers are held normally in a raised position by means of coiled springs 20. When the plunger 12 is depressed the lever 16 engages a tooth of the ratchet 4 and 4' through the medium of the lugs 16^b and turns the wheel one tooth. On the release of the plunger the lever 16 is returned to its normal position by means of the spring 20 of the plunger 13, the lugs 16^b riding over the teeth on the ratchets, this construction being permitted by the telescopic feature just described. When the plunger 13 is depressed the lever 16 is turned 90° or five teeth and is again restored to normal by means of the spring 20 when the plunger is released. The plunger 14 operates directly on the teeth of the ratchet members 2 and 2', turning the wheels one tooth at each depression of the plunger. So also with the plunger 15 which turns the wheels 1 and 1' one step forward at each depression. The plungers 14 and 15 both consist of forked resilient rods, the ends of which are arranged to bear upon the teeth of the pair of wheels on each side of the rod, so that when the rod is depressed the corresponding wheels on each side of the device are turned.

The device described above provides means for registering the amount expended as well as for registering the amount remaining of a given sum. The side registering the amount paid out I designate the "out" side, while that recording the balance left I designate the "balance" side. In order to clearly explain the operation I will designate the plunger 12 as the nickel-rod, the plunger 13 as the quarter-rod, the plunger 14 as the dollar-rod, and the plunger 15 as the ten dollar-rod. The opening 10 I designate as the "out-dollar-eyelet," the opening 11 as the "out-cent-eyelet." Similar openings on the opposite side of the wheel would be designated as the "balance-dollar-eyelet" and the "balance-cent-eyelet."

A single illustration will suffice for showing the operation of the device. Suppose I have on hand a certain amount of money, let us say \$180.30, which I may have to spend and of which I wish to keep a record without going to the trouble of remembering by memory or making a written record. Before expending any of the money I set the wheels on the "out" side so that they all register ciphers to show that nothing has been spent. I then set the wheel 4' so that the number 30 appears in the "balance-cent-eyelet," the wheel 2' so that a cipher appears in the opening and the wheel 1' so that the figure 18 appears in the "balance-dollar-eyelet," showing that I have \$180.30. The mechanism is

now ready for work. Let us assume that I wish to spend forty cents. I press the nickel rod three times and the quarter rod once. The wheel 4 will have turned three divisions corresponding to the number of times the nickel rod has been pressed and will have turned five divisions corresponding to the one pressure on the quarter rod. Thus eight divisions will have been passed which will bring the figure 40 in front of the "out-cent-eyelet." At the same time the wheel 4' will be turned in the opposite direction relatively, that is, while the first wheel will be turned from right to left, the latter wheel will be turned from left to right, viewed of course from opposite sides. Similarly the other wheels will be turned in the reverse direction corresponding amounts, so that when viewed from the "balance" side the amount now registered will be \$179.90, this amount being automatically subtracted from the original amount without any error being possible. Obviously any additional amount may be added on one side and subtracted on the other and a record of the same kept by the register.

I may attach to the outside of the apparatus the dials B and C. The former may be set to record the date and the latter the amount of money originally possessed. Thus I may have a complete record of the time, the amount of money originally possessed, the amount expended and the balance left.

This device may be carried in the pocket, and owing to the different disposition and size of the plungers, one may readily know by feeling what plunger is being depressed and the device can thus be operated without taking it out to look at it. Of course the characters indicating the amounts might be in other units than dollars and cents, thereby making it applicable to the monetary system of any country.

I am aware that other forms of the device, based upon the same general idea might be made, but I consider as my own and desire to claim, all such modifications as fairly fall within the spirit and scope of the invention.

I claim—

1. In a pocket cash register, a casing, a pair of dials mounted for rotation at each end of said casing, a pair of center ratchet wheels mounted between said end dials, teeth on one pair of said end dials adapted to engage the teeth on said center ratchets, teeth on said center ratchets adapted to engage the teeth on the other pair of end dials, separate plungers for operating each pair of said dials, and a series of indicating marks carried by said dials to indicate the amount expended and the balance.

2. In a pocket cash register, a casing, a pair of dials mounted for rotation at each

end of said casing, a plunger at each end of said casing arranged to operate its individual pair of dials, a pair of center ratchet wheels mounted between said end dials, a plunger for operating said center ratchet wheels and an auxiliary plunger arranged to give one pair of said end dials a greater rotation than the other plunger for operating the same.

10 3. In a pocket cash register, a casing provided with a pair of openings on each side thereof, a pair of end dials mounted for rotation at each end of said casing, a pair of center ratchet wheels mounted for rotation, 15 each of said dials and said ratchet wheels being provided with indicating marks, adapted to be brought into registration with said openings, the indicating marks on one side of the dials denoting the amount expended and the indicating marks on the 20 other side of the dials denoting the balance, a separate plunger for operating each pair of dials, a plunger for operating the ratchet wheels and an auxiliary plunger for turning 25 one pair of said dials through a greater angle of rotation.

4. In a pocket cash register, a casing provided with a pair of openings on both sides thereof, a pair of dials mounted for rotation at each end of said casing, a pair of center ratchet wheels mounted between said

end dials and provided with teeth arranged to engage the teeth on said end dials, a series of indicating marks carried on the outer sides of each pair of dials and the ratchet 35 wheels, the marks of one of the dials and one of the ratchet wheels being arranged to appear before one of said openings on one side of the casing to indicate the amount expended in dollars, the marks on the other 40 end dial being arranged to appear before the other opening on the same side of the casing to indicate the amount expended in cents and the marks on the dials on the opposite side being arranged to appear before 45 the respective openings to indicate the balance in dollars and cents respectively.

5. In a pocket cash register, a casing, a pair of dials mounted for rotation at each end of said casing, each of said dials being 50 provided with teeth, a separate spring actuated forked plunger arranged to operate each pair of said dials, one pair of said dials being also provided with an auxiliary spring actuated slotted plunger arranged to 55 turn its pair of dials a greater distance than the first named plunger.

KARL SCHAUB.

Witnesses:

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HENRY F. ROSE.