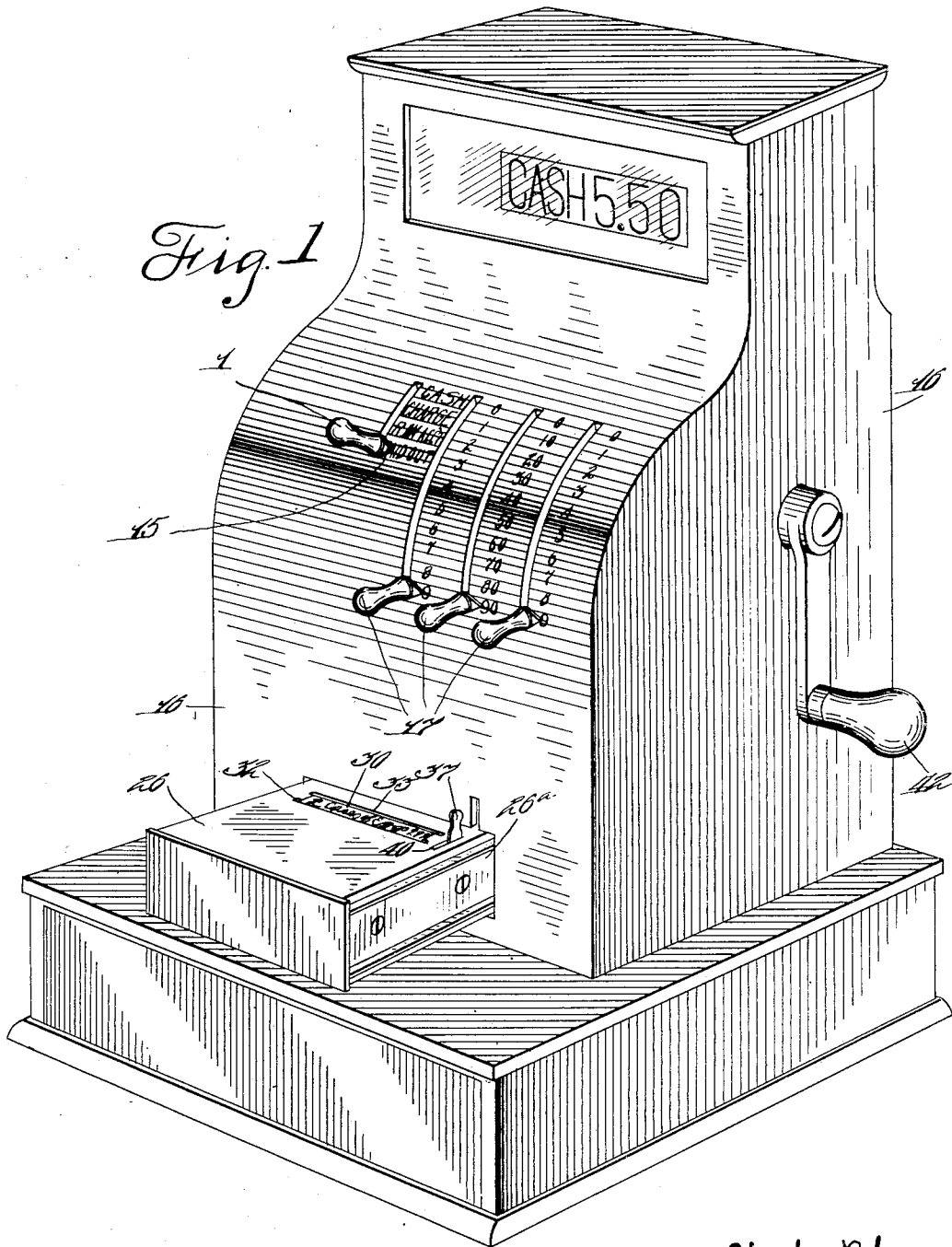


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CASH REGISTER.
APPLICATION FILED MAY 20, 1908.

929,006.

Patented July 27, 1909.
2 SHEETS—SHEET 1.



Witnesses:
W. M. McCarthy
Carl H. Ernst.

Charles Palmer
Inventor

By his Attorneys J. B. Hayward
and R. C. Glass.

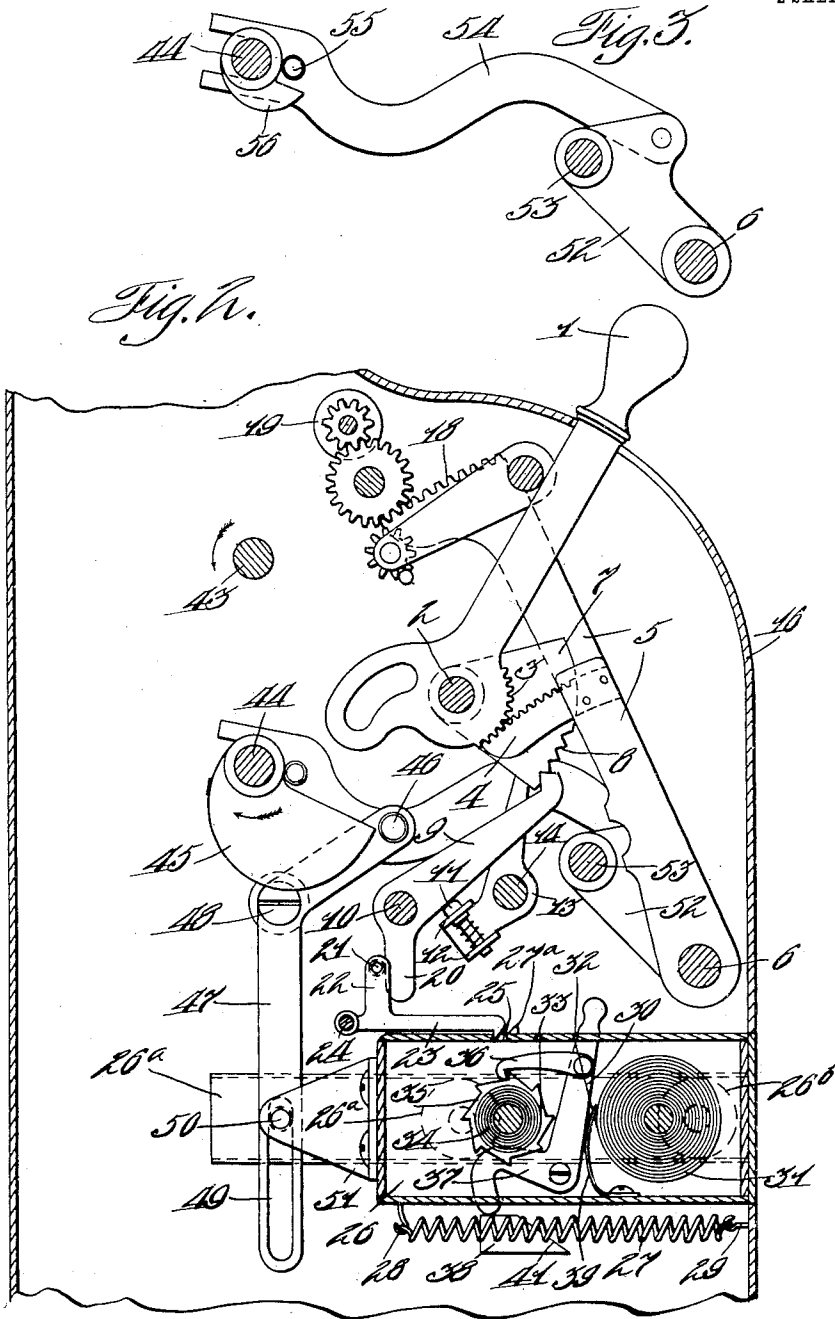
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Witnesses:
W. M. W. Carthy
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By his Attorneys J. H. Hayward
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UNITED STATES PATENT OFFICE.

CHARLES PALMER, OF NEW YORK, N. Y., ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO, (INCORPORATED IN 1906.)

CASH-REGISTER.

No. 929,006.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed May 20, 1908. Serial No. 433,812.

To all whom it may concern:

Be it known that I, CHARLES PALMER, a subject of the King of Great Britain and Ireland, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cash-Registers, of which I declare the following to be a full, clear, and exact description.

10 This invention relates to improvements in cash registers and more particularly to a recording attachment for same.

The principal object of this invention is to provide a cash register with a normally inaccessible recording attachment which is arranged to be moved into an accessible position whenever a special transaction is to be entered upon the machine.

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

30 Of said drawings: Figure 1 represents a perspective view of the invention with the recording attachment in an exposed position. Fig. 2 represents a central transverse section through the machine with the indicators and cash drawer broken away. Fig. 3 represents a detail view of the mechanism for returning the manipulative devices to normal position.

35 Described in general terms, the machine comprises a plurality of amount manipulative devices for controlling the amount to be registered and indicated and a similar device for controlling the indication of the kind of transaction. Whenever a special transaction, such as "Charge", "Received on account" and "Paid out", is to be entered
40 upon the machine, the transaction manipulative device is moved opposite the transaction that is desired to be entered. The movement of this manipulative device or lever releases a recording attachment which
45 springs forward into position to have written upon a recording strip carried thereby, any desired information concerning the transaction. Upon the operation of an operating handle the different manipulative devices
50 will be restored to normal position and the

recording attachment returned to an inaccessible position within the machine.

The transaction manipulative device 1 as shown in Fig. 2 is mounted upon a central transverse shaft 2 and is provided at its inner end with a segmental rack 3 which meshes
60 with a rack 4 secured to the upper end of a lever 5, which is loosely mounted at its lower end upon a transverse shaft 6. Attached to the side of lever 1 is a segmental plate 7 provided with alining teeth 8 which are engaged
65 by a pawl 9 pivoted upon a shaft 10. The pawl 9 is held into engagement with the plate 7 by a spring pressed plunger 11 guided by ears 12, projecting from an arm 13 mounted
70 upon a shaft 14. The lever 1 is provided with a pointer 15, (see Fig. 1) which plays over an index suitably engraved upon or attached to the front of the cabinet 16 so as to
75 act as a guide to the attendant in operating the machine.

The amount manipulative devices or levers 17 and connections are similar to the transaction lever with the exception that the levers 5 controlled by the amount manipulative devices 17 extend upwardly farther and are provided with rack teeth 18 at
80 their extreme upper end, which operate the registering mechanism 19 upon the return of the levers 5 to normal position by mechanism 85 hereinafter described.

The alining pawl 9 of the transaction lever is provided with a downwardly extending portion 20, which, as said pawl 9 is rocked by the movement of the transaction lever, 90 engages with an anti-friction roller 21 projecting from an upwardly extending arm 22 of a latching pawl 23, which is pivoted as at 24 to a rod projecting from the left hand side of the frame of the machine and raises
95 the forward end of said pawl out of engagement of one end of a recess 25 formed in the top of a movable recording carriage 26, and allows the latter to be drawn forward by a spring 27 connected at its ends to a pin 28
100 projecting from the bottom of the carriage 26 and a similar pin 29 secured to the front of the cabinet 16, the forward movement of said carriage being limited by a lug 27^a projecting from the upper side of said carriage,
105 contacting with the inner side of the front portion of the cabinet 16. This carriage 26 has attached to its sides rails 26^a which ride upon rollers 26^b mounted upon stub shafts projecting inwardly from the side frames of
110

the machine. The carriage 26 is provided with a record strip 30 which is fed from a supply roll 31, through a recess 32 formed in the top of the carriage over a portion of said top and through a recess 33 similar to the recess 32, down to a storage roll 34. At one end of the storage roll is located a ratchet wheel 35 which is arranged to be rotated by a pawl 36 attached to the vertical arm of a bell-crank lever 37 pivoted within the carriage 26.

The horizontal arm of the bell-crank 37 is provided with a downwardly extending portion, which, when the carriage 26 is within the machine, rests upon the upper side of a lug 38 projecting from one of the side frames of the machine. When the carriage 26 is drawn forwardly by its spring 27, as previously described, the downwardly extending portion of the horizontal arm will pass off of the upper side of the lug 38 and a leaf spring 39 located within the carriage 26 and bearing against the forward side of the vertical arm of the bell-crank 37, will rock the said bell-crank rearwardly, the pawl 36 carried thereby engaging with the next tooth of the ratchet wheel 35. The portion of record strip 30 which passes over the top of the carriage 26 is only large enough to have one item written thereon. If it is desired to enter a plurality of items, the vertical arm of the bell-crank 37 extends through an opening 40 (see Fig. 1) in the top of the carriage 26 so that the operator may grasp the upper end of said arm and move it back and forward to feed the record strip. If only a single item is to be entered upon the record strip 30, the latter will be fed forward automatically upon the return of the carriage by the downwardly extending portion of the bell-crank 37, riding up an incline surface 41 of the lug 38.

The main operating handle 42 (see Fig. 1) is fast to a shaft 43 (see Fig. 2) and rotates the same in the direction of the arrow. By suitable gearing, not shown, a shaft 44 located beneath the shaft 43 is rotated in the direction of the arrow as shown in Fig. 2. Two cams 45, only one of which is shown, are located near the opposite ends of the shaft 44, each one of which is arranged to engage with an anti-friction roller 46 located upon the forward end of the horizontal arm of a bell-crank 47, the latter being pivoted as at 48 to the side frame of the machine and return the carriage 26 to its normal inaccessible position by means of an elongated slot 49 formed in the lower end of the bell-crank lever 47 and in which plays an anti-friction roller 50, projecting laterally from a bracket 51 secured to the rear of the carriage 26.

It is to be understood that only the alining pawl engages with the transaction lever, which is provided with a downwardly extending projection 20 and consequently the

release of the carriage 26 is controlled entirely by the transaction lever 1 and the carriage 26 is only released when the lever 1 is moved to a position to indicate "Charge", "Received on account", or "Paid out". It is also to be understood that the carriage 26 is provided with a similar bracket 51, located at the opposite end from that shown in Fig. 2 and that a similar bell-crank lever 47 is also provided. Mounted upon the opposite ends of shaft 6 are levers 52 (only one of which is shown), these levers being connected by a cross rod 53. One of these levers 52 has pivoted thereto the forward end of a link bar 54, the rearward end of which straddles the shaft 44 and is provided with an anti-friction roller 55 which is engaged by a cam 56 near the end of the rotation of the shaft 44 and moves the link bar 54 and the levers 52 forwardly, thereby returning the levers 5 and the manipulative devices 1 and 17 to normal position by means of the transverse rods 43 contacting with the rearward side of the levers 5.

It is to be understood that the manipulative devices 1 and 17 are fully returned to their normal position before the cams 45 pass out of engagement with the rollers 46 of the bell cranks 47 for restoring the carriage 26, so as to eliminate the danger of the carriage being released unintentionally.

For a detailed description of the indicating and registering mechanisms controlled by the manipulative devices 1 and 17, reference may be had to the application of Thomas Caroll, Serial No. 355,924.

While the form of mechanism here 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 described, for it is susceptible of embodiment in various forms all coming within the scope of the claims which follow.

What is claimed is as follows:

1. In a machine of the class described, the combination with mechanism for entering accountings of several classes of transactions, of means for designating in the accounting mechanism characteristics of entered transactions, an autographic device having means rendering it normally inaccessible, and mechanism governed by said designating means for permitting access to said autographic device when said designating means is adjusted for certain only of said classes of transactions.

2. In a machine of the class described, the combination with an operating mechanism, of a movable recording device normally inaccessible, means for controlling the movement of the recording device to an accessible position, and means controlled by the operating mechanism for returning the recording device to an inaccessible position.

3. In a machine of the class described, the combination with an operating mechanism, of a movable recording device normally inaccessible, a manipulative device arranged
5 to be moved to a plurality of positions, means controlled by the latter device when in certain positions for moving the recording device to an accessible position, and means
10 returning the recording device to an inaccessible position.

4. In a machine of the class described, the combination with an operating mechanism, of a movable recording device containing a
15 record strip normally inaccessible, means for controlling the movement of the recording device to an accessible position, means controlled by the operating mechanism for returning the recording device to an inaccessible
20 position, and means for feeding the record strip upon the return of the recording device.

5. In a machine of the class described, the combination with an operating mechanism, of a movable recording device containing a
25 record strip normally inaccessible, means for controlling the movement of the recording device to an accessible position, means controlled by the operating mechanism for returning the recording device to an inaccessible
30 position, and means for feeding the record strip controlled by the movement of the recording device.

6. In a machine of the class described, the combination with a recording device having
35 a record strip, with means normally preventing access to said device, of a manipulative

device capable of being differentially positioned, connections whereby adjustment of said manipulative device to certain of its
40 differential positions permits access to said recording device to be had, means for rendering said recording device inaccessible after actuation of said manipulative device, and
45 means for feeding said strip.

7. In a machine of the class described, the combination with a recording device with
means normally preventing access thereto, of a manipulative device capable of being
50 differentially positioned, with means whereby the adjustment of said manipulative device to certain of its differential positions only permits access to be had directly and immediately to said recording device.

8. In a machine of the class described, the combination with a recording device with
55 means normally preventing access thereto, of a manipulative device capable of being differentially positioned, connections whereby the adjustment of said manipulative device to certain of its differential positions
60 will permit access to be had to said recording device, and means including an operating mechanism for rendering said recording device again inaccessible, the construction being
65 such that if desired the recording device may be rendered again inaccessible manually.

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

CHARLES PALMER.

Witnesses:

C. A. HERBIG, Jr.,
CARL W. BENST.