

No. 745,937.

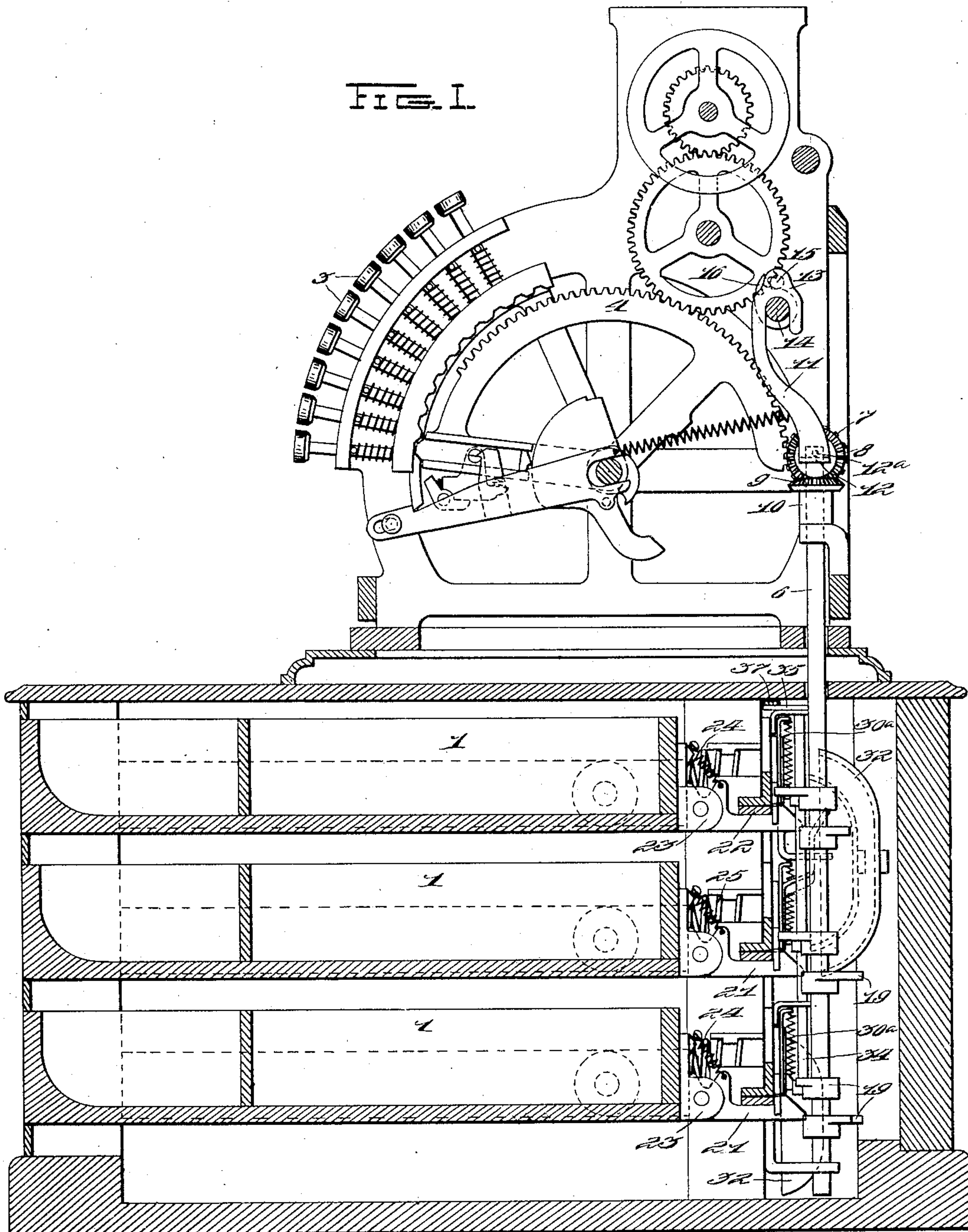
PATENTED DEC. 1, 1903.

E. J. VON PEIN.
CASH REGISTER.

APPLICATION FILED JAN. 5, 1901.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses

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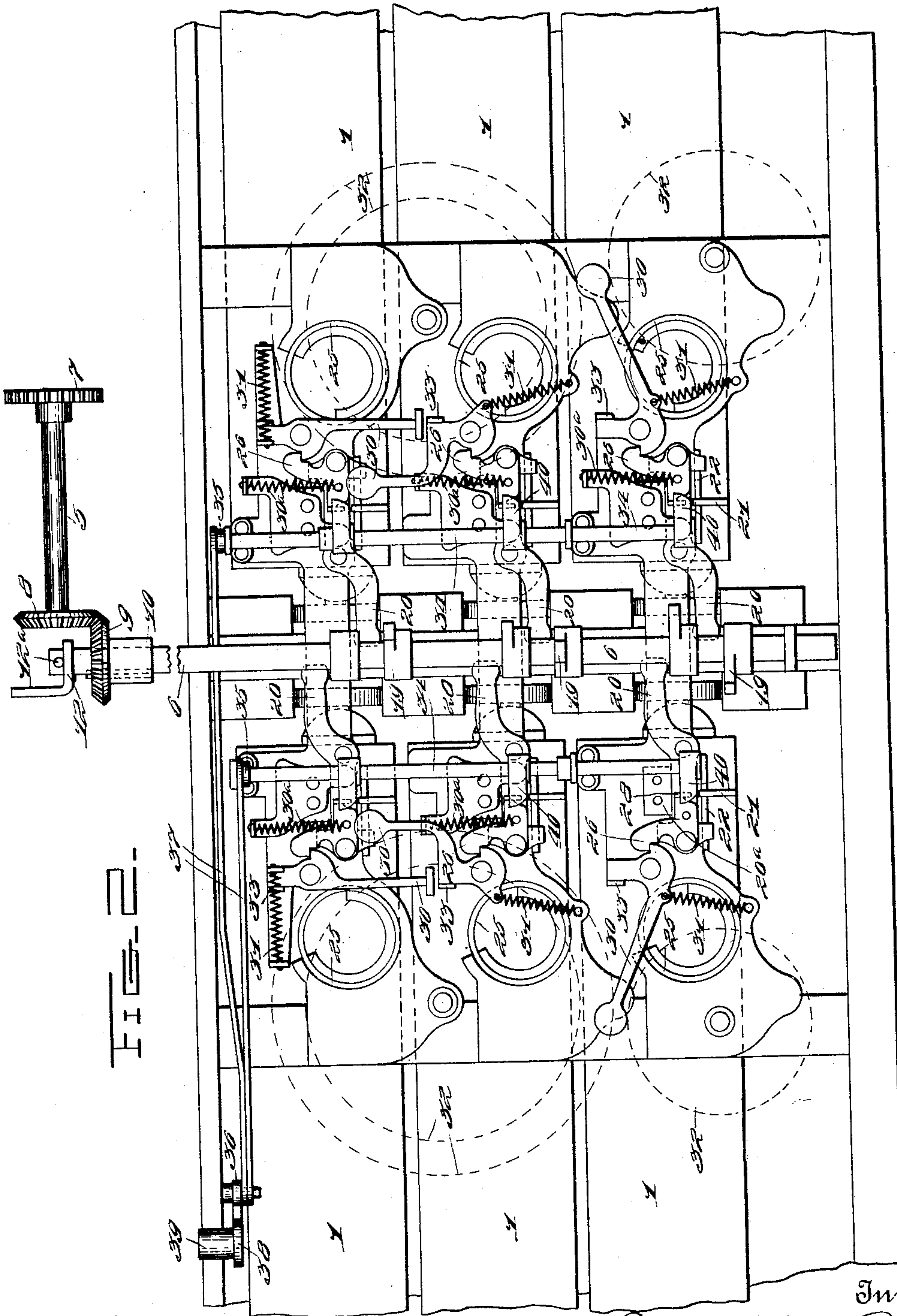
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3 SHEETS—SHEET 2.



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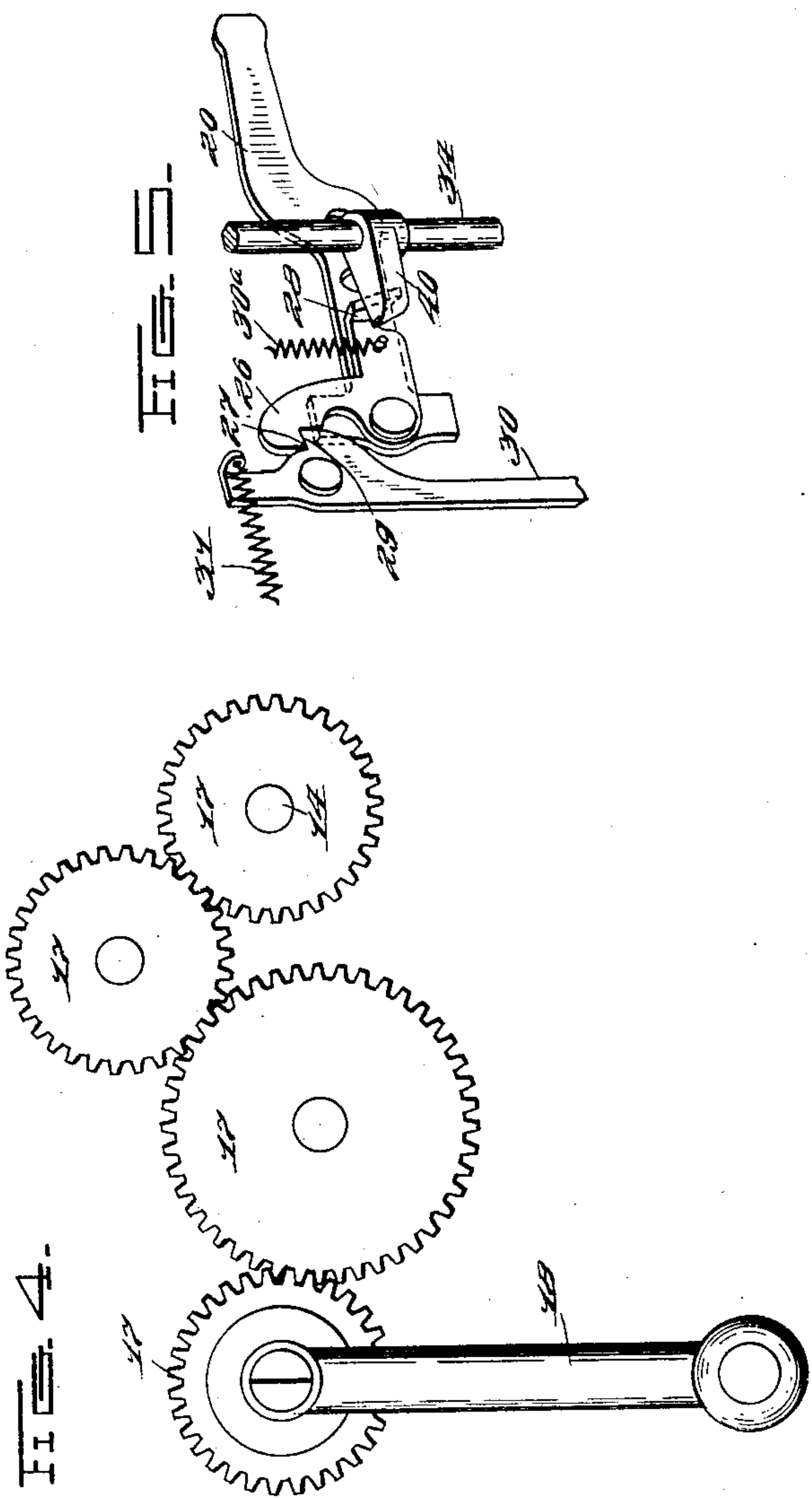
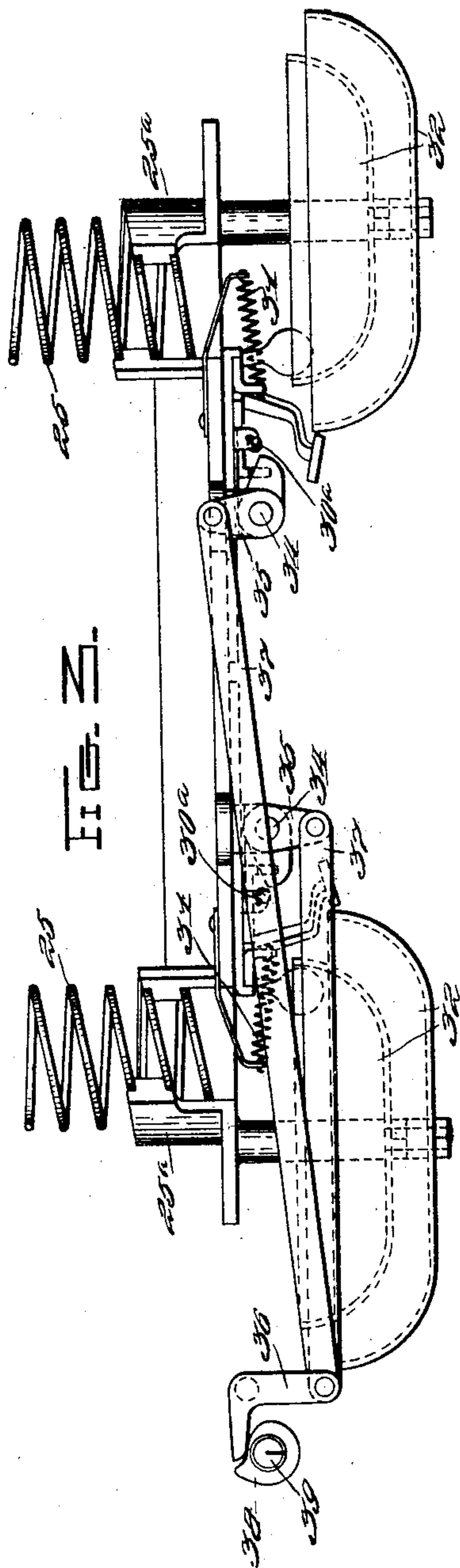
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

EDWARD J. VON PEIN, OF DAYTON, OHIO, ASSIGNOR TO NATIONAL CASH REGISTER COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CASH-REGISTER.

SPECIFICATION forming part of Letters Patent No. 745,937, dated December 1, 1903.

Application filed January 5, 1901. Serial No. 42,216. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. VON PEIN, 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-Registers, of which I declare the following to be a full, clear, and exact description.

This invention relates to improvements in cash-registers, and has more particular relation to improvements in registers of the multiple-drawer type, such as patented to Wm. F. Bockhoff December 27, 1898, No. 616,866.

The object of the invention is to provide improved latch-tripping devices and also to provide improved bell sounding and controlling mechanism.

In the accompanying drawings, forming part of this specification, Figure 1 represents a central vertical section through a machine of the type mentioned with my invention applied thereto. Fig. 2 represents an enlarged detail elevation, partly broken away, of the drawer-latches, bell-operating devices, and coöperating parts. Fig. 3 represents an enlarged detail top plan view of the nested bells and the bell-muffling devices. Fig. 4 represents a detail end elevation of the operating crank-handle and gearing for driving the rotation-shaft, and Fig. 5 represents an enlarged detail perspective view of one of the bell-hammers and its operating devices.

As before stated, the machine is provided with a series of cash-drawers 1, suitably mounted in the drawer-cabinet, and each of which is adapted to be released and projected from the casing when its respective key is depressed and the machine operated.

The operation of the keys 3, segment 4, horizontal shaft 5, and vertical operating-shaft 6 is substantially the same as shown and described in the said patent, and reference is therefore made to the same for a detail description of these parts. One exception to the above, in which the present structure differs from that shown in the patent mentioned, is that the segment 4 is extended and meshes with a gear 7, fast to one end of a horizontal shaft 5, the opposite end of said shaft carrying a bevel-pinion 8, which meshes

with a similar pinion 9, (see Fig. 2,) fast to a sleeve 10. This sleeve is mounted on the shaft 6 by a suitable feather-and-groove connection, whereby the shaft may move vertically independent of the sleeve, but when rotated carries said sleeve with it. The above-mentioned gears provide for the rotation of the shaft 6, according to the degree of movement of the segment 4, which latter is controlled by the keys, all as shown and described in the aforesaid patent. The vertical movement of the shaft is secured by a link-bar 11, provided at its lower end with an apertured lug 12, through which the upper end of the shaft passes, said shaft being provided with a pin 12^a above said lug and against which said lug bears during the raising operation. The upper end of the link 11 is formed into a hook 13, which passes over the main rotation-shaft 14 and is provided with a laterally-projecting pin 15. This pin is so located as to be engaged by a cam 16, fast to said shaft 14, thus raising the link-bar and shaft. The shaft 14 receives its movements through suitable intermediate gears 17, such as illustrated in Fig. 4, and which connect said shaft to the operating crank-handle 18.

Above I have described how the shaft 6 is first turned to a selecting position and then moved longitudinally, and I will now describe how these movements result in the release of the proper cash-drawer and the sounding of a distinguishing-alarm.

The shaft 6 is provided with a series of rigid radiating arms 19, each of which projects into a different vertical plane from that of any of the others, so that by the rotation of the shaft they may be successively brought into operative positions but no two at the same time. These arms are arranged to coöperate, respectively, with levers 20, which are pivoted upon the door-frame to both sides of said shaft. As all of these levers and their respective coöperating parts are substantially alike, I will describe one only, as this description will suffice for all. As before stated, each of the levers 20 is arranged to have its inner end elevated by its respective arm 19 upon the shaft 6, when the latter is moved longitudinally, so that its outer end is depressed

and engages the top of the rear end of its respective drawer-latch 21 and depresses the same to disengage it from the stationary cross-bar 22, with which it engages to hold the drawer in its closed position. The latch 21 is pivoted between lugs 23 on the rear of the drawer and is normally drawn upward at its rear end by a coil-spring 24, which connects it to the drawer. The drawer when released is forced outward by a coil-spring 25, located between it and the drawer-casing frame, said spring being supported by an internally-screw-threaded sleeve 25^a, into which it is screwed at its rear end. The lever 20 abuts against a plate 20^a, mounted on the drawer-casing frame, and thus limits the upward movement of said lever.

The lever 20 is provided at its outer end with a pivoted bell-crank pawl 26, formed at one end with a hook 27 and at the other with a lug 28, having a bevel-face. (See Fig. 5.) The hook 27 is normally forced into engagement with a nose 29, formed on a pivoted bell-hammer 30 by a coil-spring 30^a, so that when the lever 20 is operated the bell-hammer will be moved against the tension of a spring 31, which connects it with the frame, and then released and allowed to strike its respective bell 32. The movement of the hammer is limited by a lug 33 on the frame and against which a portion of the hammer abuts. The bells 32 are of different tones and are mounted on suitable standards fast to the frame, the four upper bells being nested in pairs to economize space, as shown in Fig. 3. The different bell-hammers extend in different directions, as shown in Fig. 2, but are in other respects substantially alike.

As it is at times desirable to muffle the bells, so that they will not ring in connection with the opening of the drawers, I provide means for holding the pawls 26 out of operative position. This means comprises two vertical shafts 34, each provided at its upper end with a crank-arm 35. The crank-arms are connected to a pivoted bell-crank lever 36 by means of pivoted link-bars 37, so that when said bell-crank lever is operated both of the shafts 34 will be rocked. The movement of the bell-crank lever is effected by means of a cam 38, forming part of a lock 39, which is adapted to be turned by a suitable key inserted from the exterior of the machine. Each of the shafts 34 carries a series of rigid arms 40, which when said shafts are rocked engage the bevel-faces of the lugs 28 of the pawls 26 and rock the latter into inoperative position, so that when the levers 20 are operated the pawls will not engage the shoulders 29 and the alarms will not be sounded.

The present invention is preferably used in connection with cash-registers having multiple counters, so that there may be a drawer and a corresponding counter for each clerk. By this arrangement the drawers and counters must balance and mistakes may be instantly located.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a cash-register the combination with a series of separate cash-receptacles, independent alarms for the respective receptacles, means for exposing the desired receptacle and sounding its respective alarm, and mechanical means adjustable at will for simultaneously throwing all of the alarm devices out of their regular operative condition.

2. In a cash-register the combination with a series of independent cash-drawers, independent alarms for the respective drawers, means for releasing the desired drawer and sounding its respective alarm, and mechanical means adjustable at will for simultaneously throwing all of the alarm devices out of their regular operative condition.

3. In a cash-register the combination with a series of separate cash-receptacles, independent alarms for the respective receptacles, pivoted levers for releasing the cash-receptacles, alarm-operating devices mounted on said levers, and means for simultaneously throwing all of said alarm-operating devices out of operative position.

4. In a cash-register the combination with a series of bells, means for predetermining which of said bells will be sounded, bell-hammers, operating-pawls for said hammers and shafts, carrying-arms arranged to move the pawls simultaneously out of operative position.

5. In a cash-register, the combination with a series of cash-receptacles of a series of alarms one for each receptacle, means for exposing the desired receptacle and sounding its respective alarm, means for simultaneously adjusting all of the alarm-sounding means against operation and a lock mechanism for said means.

6. In a cash-register, the combination with a series of cash-drawers, of pivoted latches mounted upon the same, pivoted levers for operating said latches, a shaft carrying operating-arms for said levers, and alarms also operated by said levers.

7. In a cash-register, the combination with a series of cash-receptacles of retaining-latches for the same, pivoted levers for operating said latches, means for operating said levers, and alarm devices also operated by said levers.

8. In a cash-register, the combination with a series of bells, of bell-hammers, operating devices for the bell-hammers, and mechanical means operated at will for simultaneously moving all of the operating devices out of their normal operative positions.

9. In a cash-register, the combination with a series of cash-receptacles, of a series of bells for the respective receptacles, pivoted levers for releasing the receptacles, pivoted pawls mounted on said levers, bell-hammers operated by said pawls and means for adjusting said pawls to inoperative positions.

10. In a cash-register, the combination with

a series of cash-drawers, of pivoted latches mounted on the same, pivoted levers for tripping said latches, means for selecting and operating a desired lever, a series of alarms
5 one for each drawer, movable means carried by the levers for operating said arms, and devices for adjusting the movable means to render the alarms inoperative.

11. In a cash-register, the combination with
10 a series of separate cash-receptacles, independent alarms for the respective receptacles, means for automatically exposing the desired receptacle and sounding its respective alarm, and mechanical means operated at
15 will for simultaneously throwing all of the alarm devices out of operative condition.

12. In a cash-register, the combination with a series of keys, of a driving member, a driven member arranged to be coupled thereto and
20 controlled by said keys, a series of cash-drawers, a series of latches for said drawers, a series of alarms for the respective drawers, means controlled by the driven member for operating said latches and alarms, and means
25 for simultaneously throwing all of the alarm devices out of their regular operative condition.

13. In a cash-register the combination with a series of cash-receptacles, of a series of
30 alarms, one for each receptacle, means for exposing the desired receptacle, means for sounding a corresponding alarm, a common adjusting device for simultaneously adjusting the alarm-sounding means against operation
35 and a lock having a removable key and controlling the adjusting device to lock it in its different positions.

14. In a cash-register, the combination with a series of setting devices, an operating-handle, a series of cash-drawers, a series of
40 latches for said drawers, a series of alarms, means for operating said latches and alarms arranged to be controlled by the setting de-

vices and operated by the operating-handle, and means for simultaneously throwing all of
45 the alarm devices out of operative condition without disturbing the connections with the drawer-latches.

15. In a cash-register, the combination with a series of independent cash-drawers, inde-
50 pendent alarms for the respective drawers, latches for said drawers, combined latch and alarm operating devices, and means for simultaneously throwing all of the alarm de-
55 vices out of operative condition without affecting the latch-operating devices.

16. In a cash-register, the combination with a series of cash-drawers, of a series of latches for the same, a series of alarms, a series of
60 latch-operating devices, means for operating the alarms carried by the latch-operating devices, and means for adjusting all of the alarm-operating devices to inoperative posi-
65 tions without affecting the latch-operating devices.

17. In a cash-register the combination with a series of keys, of a rack-segment the move-
ments of which are controlled by said keys, a series of cash-receptacles, a series of latches
70 for said receptacles, latch-operating devices and intermeshing gearing intermediate the rack-segment and latch-operating devices for positively connecting the same for simultane-
ous movement.

18. In a cash-register, the combination with
75 a series of independent cash-drawers, independent alarms for the respective drawers, and mechanical means operated at will for simultaneously throwing all the alarm de-
80 vices out of their regular operative condition.

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

EDWARD J. VON PEIN.

Witnesses:

ALVAN MACAULAY,
IRA BERKSTRESSER.