

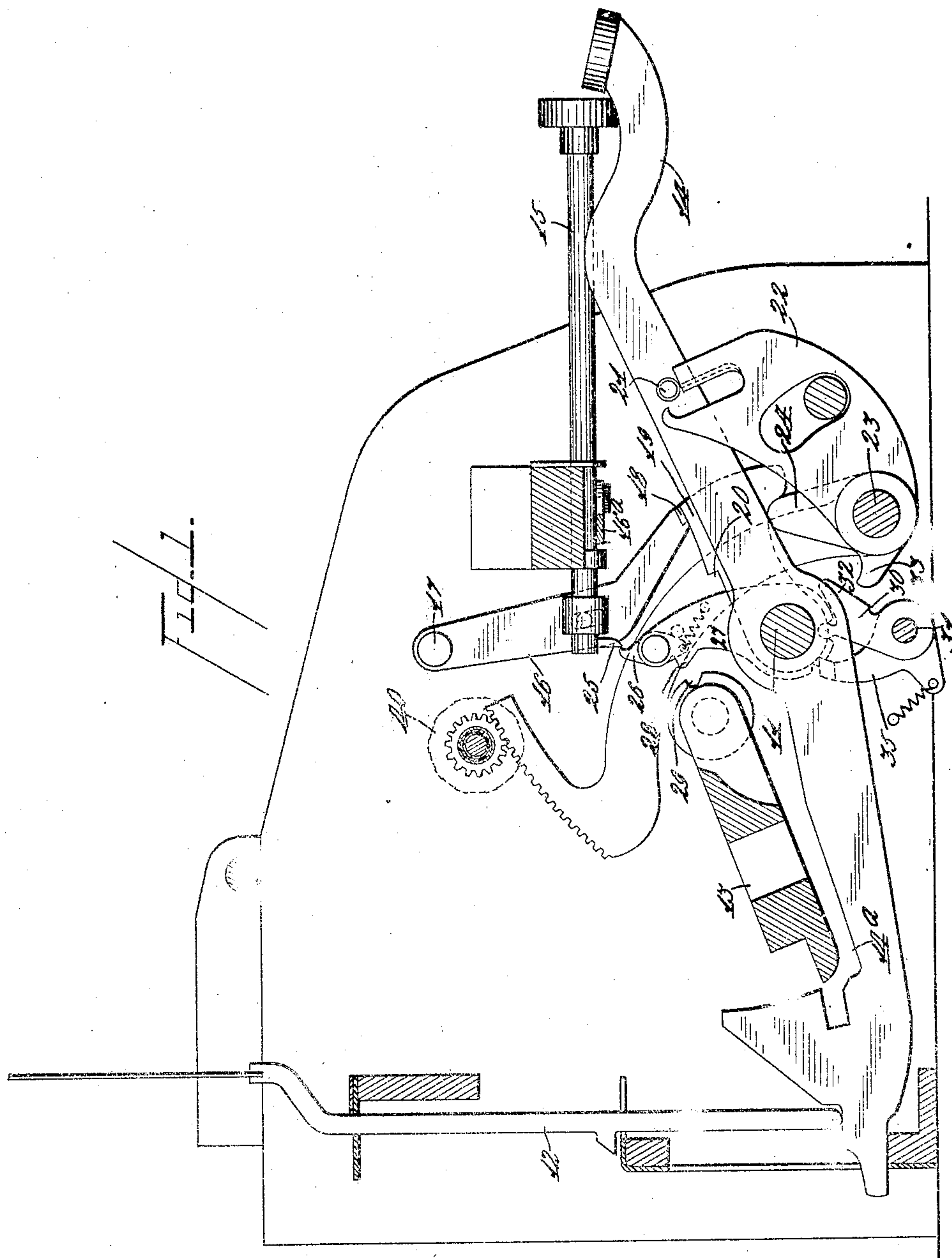
No. 887,673.

PATENTED MAY 12, 1908.

C. A. LUNDGREN.  
CASH REGISTER.

APPLICATION FILED MAR. 19, 1908.

2 SHEETS—SHEET 1.



Witnesses

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 Carl Hunt

Inventor

by Charles A. Lindgren  
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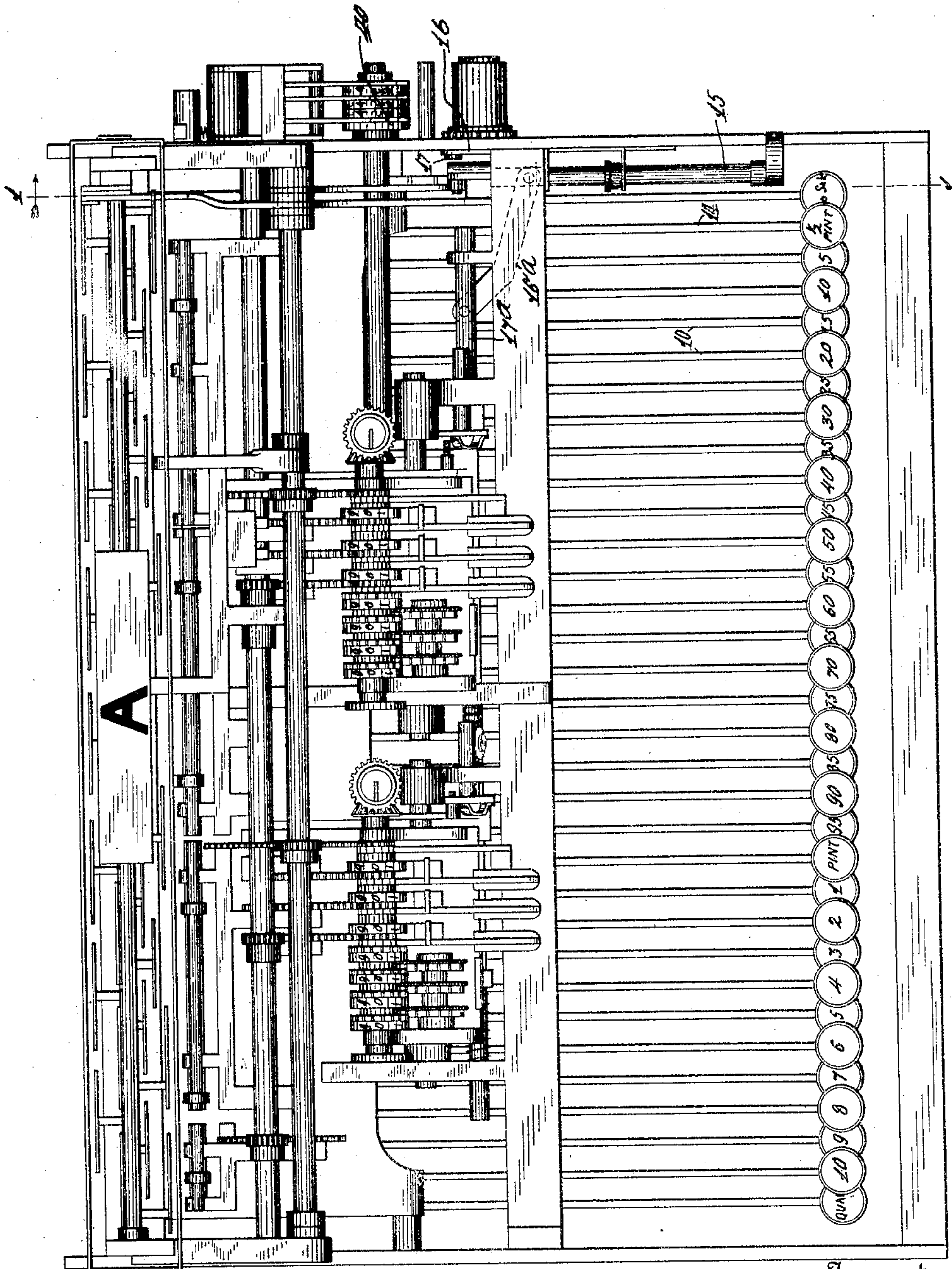
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Witnesses

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# UNITED STATES PATENT OFFICE.

CHARLES A. LUNDGREN, OF DAYTON, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE NATIONAL CASH REGISTER COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO, (INCORPORATED IN 1906.)

## CASH-REGISTER.

No. 887,673.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed March 19, 1906. Serial No. 306,905.

*To all whom it may concern:*

Be it known that I, CHARLES A. LUNDGREN, 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 cash registers, and has for a main object to provide an improved printing device for this style of machine.

It particularly refers to machines having a plurality of counters and means for predetermining into which one of the counters an amount shall be registered, and in connection with this, a printing device which records all amounts whether registered on one counter or another.

In particular the machine is designed to register on one counter the quantities of goods sold, as, for example, in bottles, and on the other counter miscellaneous kinds of goods.

A further object is to provide locking means between the several kinds of keys, which in case one of the counters is to be operated, will compel the depression of a special key in addition to the usual amount keys, but when another counter is to be operated the special keys need not be so depressed.

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 specifically described with reference to the drawings which accompany and form part of this specification.

Of said drawings: Figure 1 is a transverse elevation on the line 1, Fig. 2. Fig. 2 is a plan of the machine.

Described in general terms, the machine may be said to comprise a series of value keys 10, which when operated cause the registration on one of the counters. These keys are pivoted on a transverse shaft 11, and have at their rear ends a part for lifting the usual indicator standard 12. A key coupler 13 is provided, with which all the keys are adapted to engage in the usual manner. Special keys 14 are provided, and these keys are of the same structure as the value keys.

A push button 15 furnishes the means for predetermining which of the counters shall be operated. When pushed in this key, through a link 16<sup>a</sup>, moves longitudinally a plunger 17<sup>a</sup> in the manner shown in patent to Cleal 773,060, thereby establishing the operative connection from the counter-rocking frame to the rotation shaft of the machine. This push key 15 is connected by a pin and slot connection to a lever 16, pivoted to the framework of the machine at the shaft 17 and having at its lower end a transverse lug 18. This lug normally rests over a bar 19, pivoted on the shaft 11, and a part of the upper edge of which is curve-struck from the pivot 17 as a center. At the rearward end of this curve is a notch 20. It will be evident that when the key 15 is pushed in the lever 16 will be rocked so as to carry the lug 18 beyond the notch 20. In this position of the device the bar 19 may be elevated.

The special keys have each an anti-friction roller 21 on the side thereof, engaging one of a series of differential cams 22. These cams are pivoted on the shaft 23 and rigidly connected to an arm 24 which is under the bar 19. It will be evident that in the position shown in Fig. 1 the special keys will be locked until the push key 15 is operated, inasmuch as the lever 16 prevents motion of the bar 19, a movement of this bar being compelled by the operation of any one of the keys. The push key 15 has at its rear end a depending lug 25 adapted to engage a wiper pawl 26 pivoted on the arm 27, which arm is also journaled on shaft 11. This arm has a lug 28 adapted when moved rearward to engage a notch 29 of the key coupler trunnion. From this structure it evidently follows that when key 15 is operated the coupler will be locked in normal position by means of lug 28. Bar 27 has on the side, underneath shaft 11, a notch into which a projection on a lever 30 is arranged to be inserted. This lever is pivoted on a shaft 31, and has a forward projection 32 adapted to be engaged by a lug 33 on bar 24.

The operation of the above described parts will be as follows: When push key 15 is pushed in, lug 28 on bar 27 will be carried into the notch of the key coupler trunnion, so as to lock the same and thereby prevent depression of the value keys. This operation also unlocks the special keys by moving



lever 16 rearwardly. When the special key is then depressed, lug 33 will engage projection 32, which has then been moved into its path, and rock the projection rearwardly.

5 This will return bar 27 to its normal position, and thereby unlock the value keys, so that they can then be depressed.

10 It follows, as above stated, that in the normal position of the parts the value keys can be depressed at will, but that if the push key 15 is operated to change the operative connection from one counter to another, a depression of a special key will then be required before the value keys can be operated.

15 The special keys in the embodiment shown are marked with indications of quantity, as, for example, quarts, pints and half pints. These special keys are arranged as in the patent referred to, to set up a special printing wheel 40, which is in addition to the ordinary amount printing device of the machine, so that when these keys are depressed a record will be made, showing that the given quantity of goods has been sold in bottles. In cases where the special keys have not been depressed the amount will be added in on the other counter, and a record will be made showing the value of the sale.

20 The special printing device, as above stated, is controlled by the special keys, the differential cams 22 cause motion of the shaft 23 which is connected by means shown in Fig. 1 to a printing wheel 40 which is carried by a sleeve on the shaft carrying the amount printing wheels. An impression is thus made corresponding to the key depressed. It should also be stated that the special keys 14 have a cut away portion 14<sup>a</sup> under the key coupler so that these keys are capable of an initial movement without operating the coupler and also have a final movement with the coupler. This initial movement is required to release the lock 28 for the value keys. If the special key was normally touching the coupler movement of the key would be prevented inasmuch as after push key 15 is operated the coupler is locked, so that the machine would be completely locked unless this initial movement of the special keys was provided for. A pawl 35 serves to hold locking bar 27 in either locking or unlocking position, being adapted to engage one of two notches in said bar 27 as shown in Fig. 1. It will be evident therefore, that this machine provides means for registering ordinary sales on one counter, and for registering sales of a particular kind on a second counter, and that in connection with sales of this second kind a depression of a special key will be necessitated, thereby compelling a record to be made of the kind of transaction of the second class.

65 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 disclosed, 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 cash register, the combination of accounting devices for different classes of transactions, a series of special elements for indicating quantities, a manipulative device for predetermining which accounting device shall be operated, and means compelling an operation of the manipulative device before a special element can be operated. 70 75

2. In a cash register, the combination with a plurality of counters of a series of normally operative value elements for operating said counters, means for locking the value elements, a series of special elements, means for normally locking the same, and a manipulative counter selecting device and mechanism controlled thereby for unlocking the special elements and locking the value elements. 80 85

3. In a cash register, the combination of a plurality of accounting devices, a series of value elements for operating any one of said accounting devices, means for predetermining which accounting device shall be operated, a series of special elements, means for normally locking the same, and a locking device for said value elements disabled by the operation of a special element. 90 95

4. In a cash register, the combination of a series of special keys having initial and final movements, a member common to all said keys, a manipulative device, means operated thereby for locking the common member, and means operated by the special keys in their initial movement for disabling the lock. 100

5. In a cash register, the combination of a hand operated push key, a lever movable therewith and having a laterally extending lug, a pivoted bar having a curved edge and a notch for coöperation with said lug, a special key, and a camming device coöperating with said bar and normally holding said key from operation. 105 110

6. In a cash register, the combination of a series of value keys, a member common thereto, and having a locking notch, a pivoted bar having a projection to enter said notch and lock the common member, a spring pressed pawl for holding the pivoted bar in locking or in unlocking position, a push button to move the bar in one direction and a special key to move it in the reverse direction. 115 120

7. In a cash register, the combination of a plurality of counters, a series of value keys normally operative and controlling said counters, a series of special keys, a push key for selecting a counter, means to compel the depression of a special key when the push key has been depressed, before the value keys can be operated. 125

8. In a cash register, the combination 130



with an operating mechanism, of a counter normally in position for operation thereby, a second counter normally in inoperative position, a manipulative device for reversing the condition of the counters, a series of special keys for classifying transactions, and means permitting the operation of said special keys only in connection with said second counter.

9. In a cash register, the combination of a series of keys and a member common thereto, and having a locking notch, a locking bar having a projection for engagement with said notch, a push key for operating said locking bar to lock said member, and a special key and connections for disabling the lock.

10. In a cash register, the combination of a series of value keys, printing devices set thereby, a series of special keys indicating characteristics of transactions with means normally locking same and a printing device set by said special keys, a plurality of counters operated by said value keys, a manipulative device for determining which counter shall be operated, and means for unlocking said special keys controlled by said manipulative device.

11. In a cash register, the combination with an operating mechanism, of a plurality of accounting devices controlled thereby, and one of which is normally in operative position, a series of special keys and a print-

ing device set thereby, a manipulative device for placing a second accounting device in operative condition, and means allowing the operation of a special key only after said manipulative device has been moved.

12. In a cash register, a series of value keys normally operative, a series of special keys, means normally preventing operation of the special keys, and a push key and connections for rendering the value keys inoperative and the special keys operative.

13. In a cash register, the combination with a series of value keys normally operative, of a series of special keys, means normally preventing operation of the special keys, a push key and connections for rendering the value keys inoperative and the special keys operative, and means operated by the special keys for rendering the value keys subsequently operative.

14. In a cash register, a plurality of counters one of which is normally operative, selecting means for shifting the operative connection to another counter, a plurality of special keys and a lock for said keys controlled by the counter selecting mechanism.

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

CHARLES A. LUNDGREN.

Witnesses:

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CARL J. BEUST.