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PATENTED JUNE 9, 1908.

J. F. OHMER & E. SEEBERS.

FARE REGISTER.

APPLICATION FILED JAN. 28, 1907.

5 SHEETS—SHEET 1.

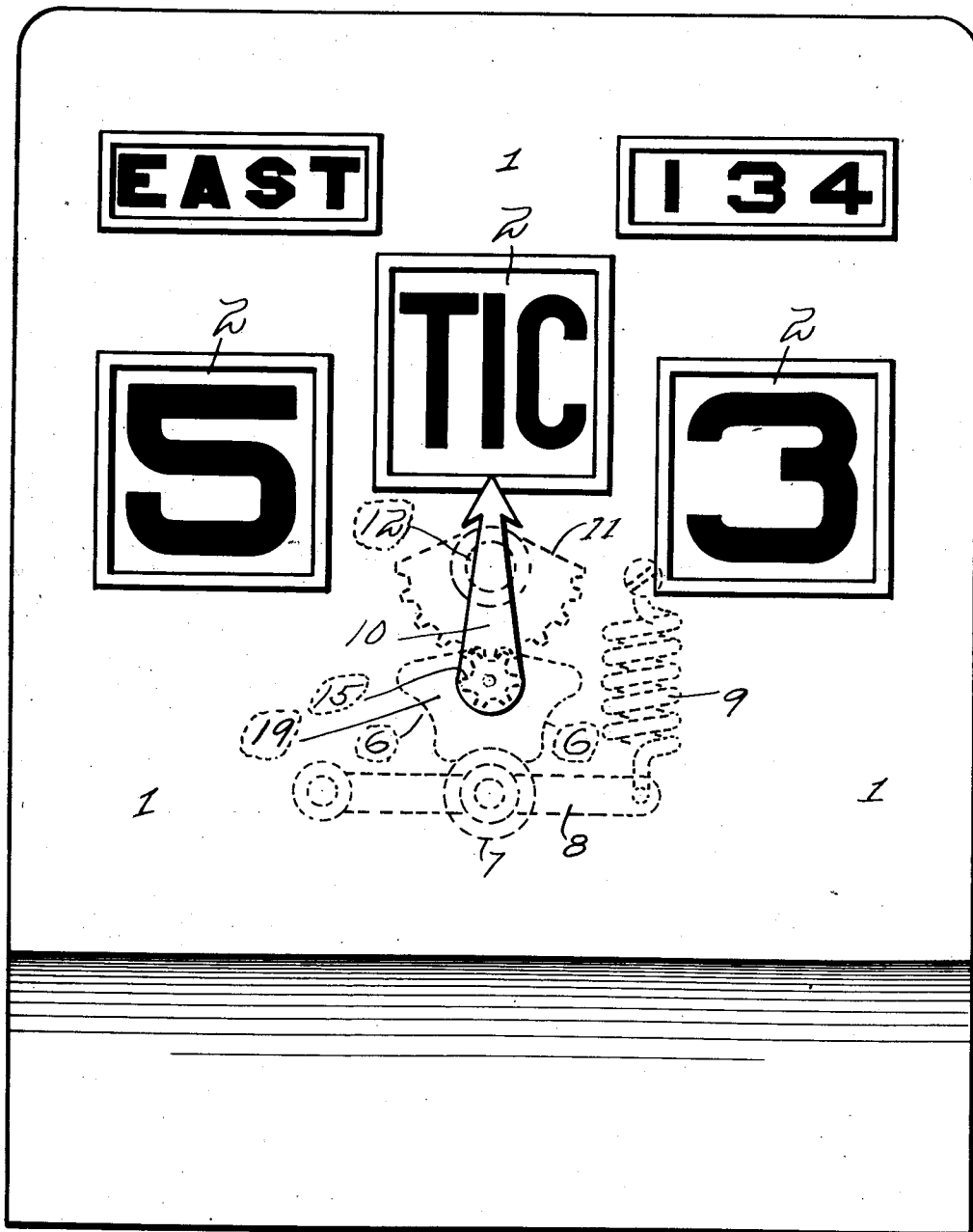


Fig. 1.

Witnesses

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5 SHEETS—SHEET 2.

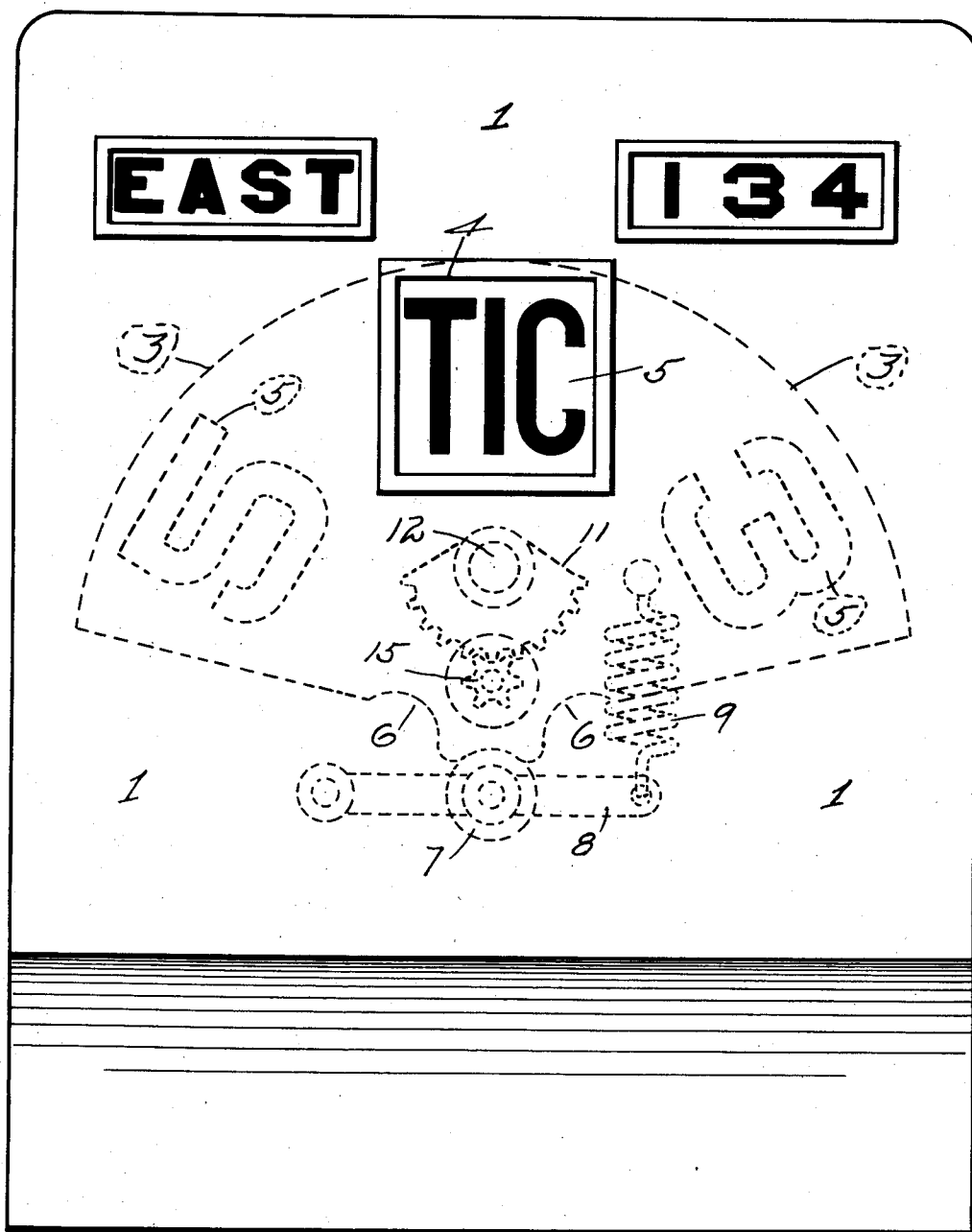


Fig. 2.

Witnesses

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5 SHEETS—SHEET 3.

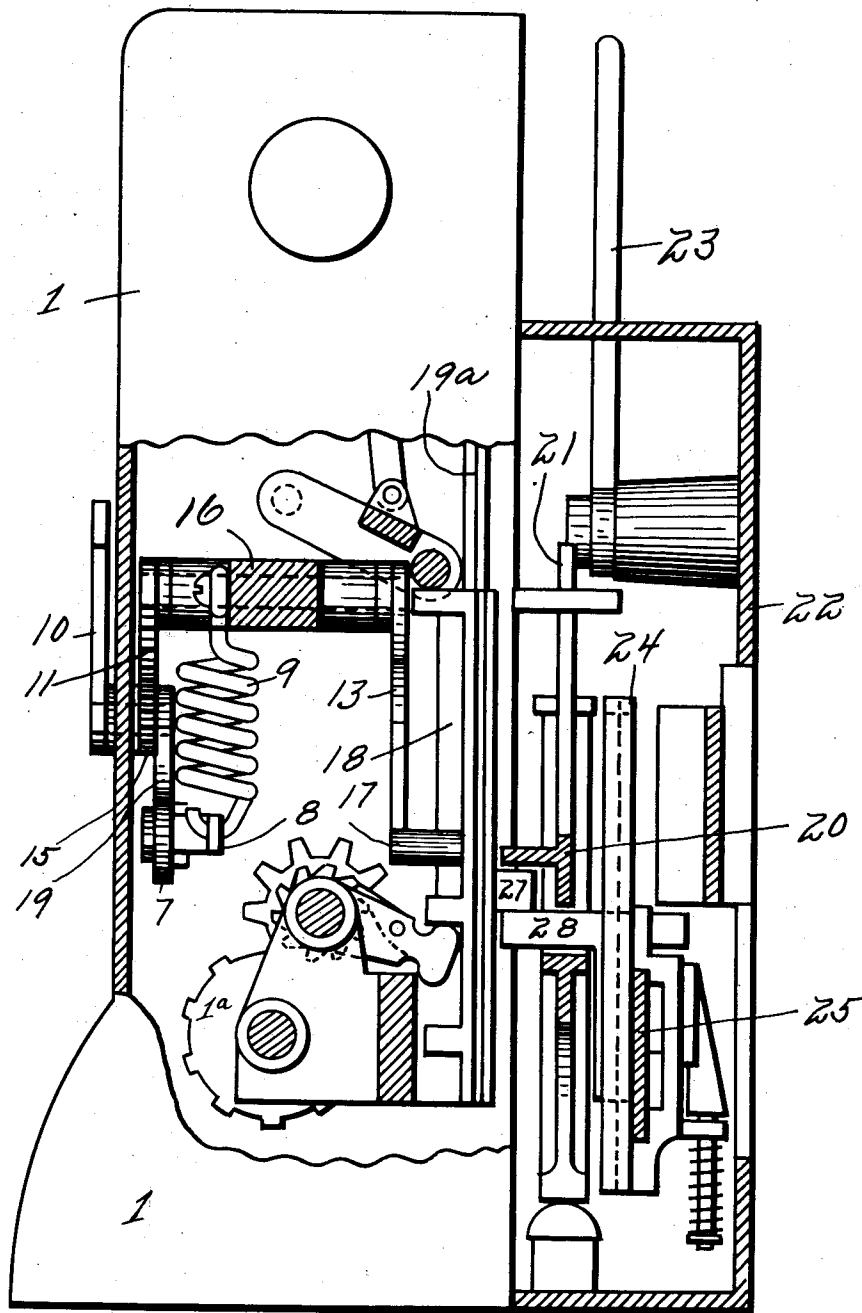


Fig. 3.

Witnesses

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5 SHEETS—SHEET 4.

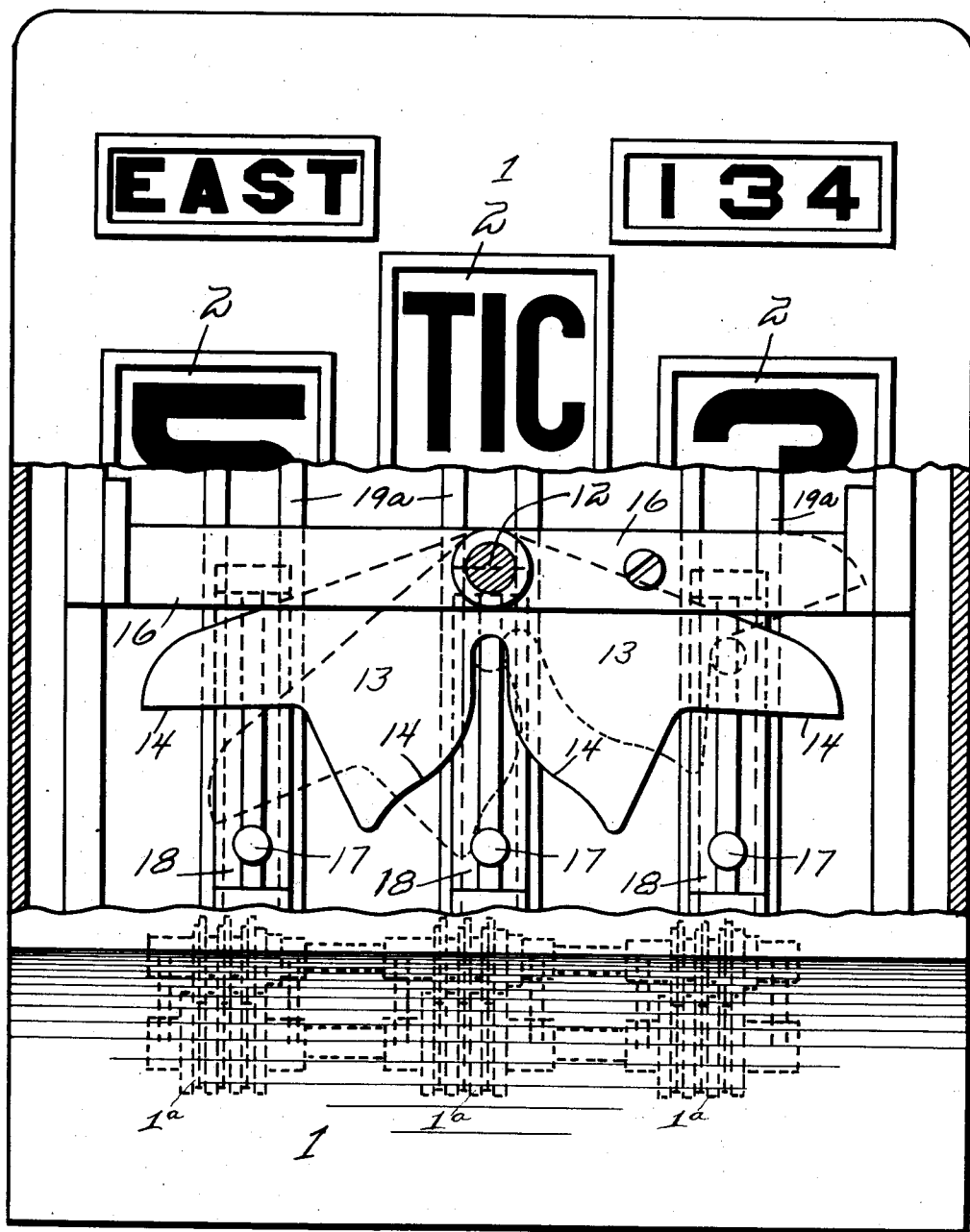


Fig. 4.

Witnesses

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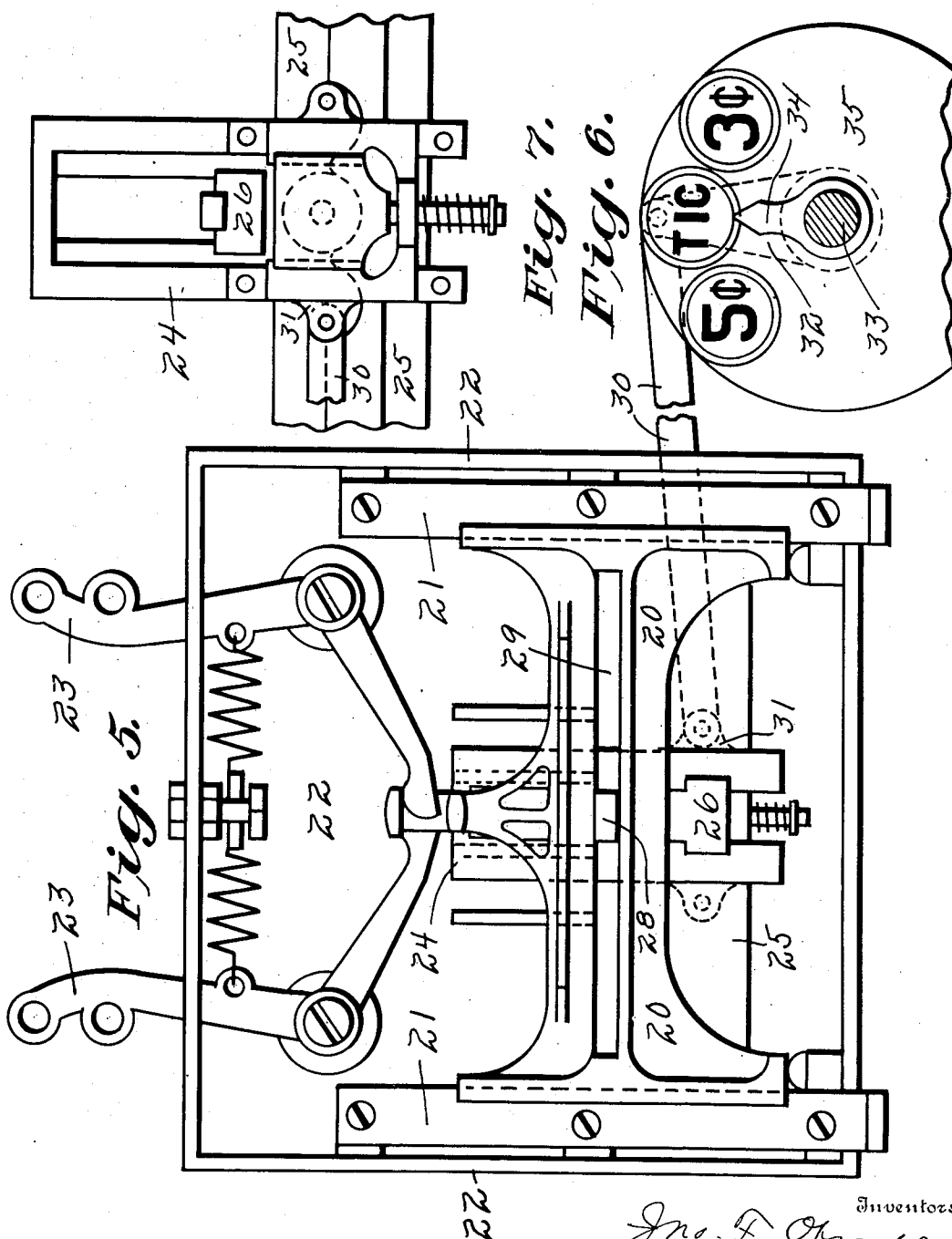
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5 SHEETS—SHEET 5.



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UNITED STATES PATENT OFFICE.

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FARE-REGISTER.

No. 890,171.

Specification of Letters Patent.

Patented June 9, 1908.

Application filed January 28, 1907. Serial No. 354,550.

To all whom it may concern:

Be it known that we, JOHN F. OHMER and EDWARD SEEBERS, citizens of the United States, residing, respectively, at Dayton, Montgomery county, Ohio, and Portland, Multnomah county, Oregon, have invented certain new and useful Improvements in Fare-Registers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in fare registers, and more specifically to improvements in the means for indicating the fares registered, at the machine or register.

The object of the invention is to provide, in lieu of a plurality of specific fare indicators, one indicator operating in conjunction with any of the specific fare counters, or in other words, a unitary indicator which carries indications for all the specific fare counters, and which is operated when a fare is registered on any of said specific fare counters. The said indicator is operatively connected with auxiliary fare indicators which show corresponding fare indications; such a machine is fully described and illustrated in my re-issue Patent No. 11,681 of July 19, 1898.

Another object of the invention is to prevent movement of the unitary indicator in or at the register during the setting movement of the actuating device, at which time the auxiliary indicators are moved to positions. So far as we are aware, all registers having unitary fare indicators, operatively connected with auxiliary fare indicators, are so constructed that the indicators in the register are moved simultaneously and correspondingly with the auxiliary indicators during the preliminary or setting movement, thereby making it easy for a conductor operating the register to practice fraud by collecting, say twenty-five cents, and registering a fare of a smaller denomination, and then immediately setting the register to indicate twenty-five cents. The present invention provides means coöperating with a unitary indicator, whereby said indicator can be moved only with the registration of a

specific fare, having its own specific fare indication.

Preliminary to a detailed description of my invention, reference is made to the accompanying drawings, of which—

Figure 1, is a front elevation of a fare register having our improvements applied. Fig. 2, is a similar view showing a modification in the unitary indicator. Fig. 3, is a side elevation of a register and the operating devices associated therewith, parts appearing in section. Fig. 4, is a front elevation of a register with a portion of the casing broken away to disclose the operating devices for the unitary indicator. Fig. 5, is a front elevation of the operating mechanism for the register. Fig. 6, is a detail view of an auxiliary fare indicator and the mechanism for selecting the fares to be registered and for indicating such fares at various points on the interior of the car by means of the auxiliary indicators. Fig. 7, is a detached view of the carriage comprising a portion of the selecting and operating devices.

In a detail description of the invention, similar reference characters indicate corresponding parts.

As illustrated in Fig. 1, of the drawings, the fare indicators 2 are permanent or immovable, being placed on the front face of the register casing 1, and as so shown comprise three distinct denominations of fares, to-wit—"tickets"—"5c" and "3c" fares.

Operating in connection with the fare indications so arranged on a unitary indicator, and which may of course be varied to include fare denominations, other than those shown is a pointer 10 which is movable to positions to point to the fare registered. This pointer lies in the front of the casing and has fixed to its shaft a pinion 15 lying on the inside of the register casing. In mesh with said pinion is a segment gear 11 which is fixed to a shaft 12 extending rearwardly and which is journaled in a rigid cross bar 16 attached to the sides of the casing or in any other suitable manner. On the rearward end of the shaft 12 there is fixed a cam plate 13 having four downwardly-disposed working surfaces 14 which are alternately engaged by pins 17, one of which is fixed to the outer side of each of the operating members 18 through which the ratchets of the specific fare counters 1^a are actuated.

From Fig. 4, of the drawings, it will be

seen that the shaft 12 is rocked according to the movement given the cam plate 13 by the engagement of a pin 17, and as a consequence, the pointer 10 will be moved to a position to indicate the fare of the particular specific fare counter 1^a thus actuated by its operating member 18. On the shaft of the pointer 10 there is a plate 19 which has a series of peripheral recesses 6 which are engaged, according to the position of the pointer, by a roller 7 which interlocks therewith and holds the pointer 10 in each position in which it is placed and until the next succeeding operation of said pointer. The locking roller 7 is mounted upon a pivotal arm 8 which is normally under the influence of a spring 9 to maintain a proper engagement between said roller and the periphery of the plate 19. The arm 8 and its controlling spring 9 are suitably mounted on the interior of the casing.

The modification illustrated in Fig. 2, consists of the substitution of a segmental dial 3 in place of the pointer 10; this dial operates in substantially the same manner and has inscribed upon it the fare indications 5 which are movable in the rear of the visual opening 4 in the front of the casing. The said dial is geared to the rock shaft 12 through gearing 11 and 15 similar to that employed in connection with the pointer 10. The lower portion of said dial is provided with the locking recesses 6 which cooperate with the roller 7 to maintain the indications on said dial at the visual opening in the same manner that the pointer 10 is maintained in position. The operating members or slides 18 move in the usual guide-ways 19^a in the rear of the casing 1 and movement is imparted to said operating members to simultaneously register a selected fare counter, and the cam plate 13, by the well known operating mechanism shown in Fig. 5. This operating mechanism briefly described comprises the lifting bar 20 which is movable upon guides 21 fixed to opposite sides of the frame 22 which is attached at the rear of the register casing; the lifting bar 20 is elevated by either of the bell crank levers 23 from connections extending on the interior of the car in a well known manner. The horizontally-movable carriage 24 lies in the rear of the lifting bar 20 and is movable on the horizontal guide 25 fixed to the stationary framework. This carriage 24 supports the actuating member 26 which is adapted to engage the rearward lug 27 on each of the operating members 18 in a well known manner, and the said member 26 is lifted by the lifting bar 20 through means of the extension 28 which projects through the elongated slot 29 in said lifting bar 20 and is thus movable to a position to actuate the selected fare-operating member 18.

The carriage 24 is movable along the guide

bar 25 to thus bring the operating member 26 below the selected fare-operating member 18 by the means shown and described in our pending application No. 348,362 which consists briefly of a pitman 30 which is pivotally connected to an ear 31 projecting from a side of the carriage, said pitman being connected at its other end to a crank arm 32 fixed to a setting rod 33 which extends into the car and is operated by hand to move the carriage 24 to a position to enable the operating device 26 to be moved to a position to operate a selected fare counter. The setting rod 33 has also fixed to it a pointer 34 which is in alinement with the crank arm 32 and is movable over the face of a setting dial 35 with the axis of which the setting rod 33 is in alinement. The dial 35 may be duplicated at suitable points along the rod 33 and the fares indicated thereon correspond to those indicated at the register during the subsequent operation of the fare selected.

We claim:

1. In a registering machine, a plurality of specific fare counters, means for selecting a specific counter to be operated, operative means through which the counter selected is operated, and a rocking indicator actuated by the means through which each individual selected counter is operated, and indicating the fare registered simultaneously with the registration thereof.

2. In a registering machine, a plurality of specific fare counters, means for selecting a specific counter to be operated, individual devices for operating the counter selected, a rocking fare indicator, and means actuated by the individual operating device of the selected counter and whereby the fare registered is simultaneously indicated by said rocking indicator.

3. In a registering machine, a plurality of specific fare counters, an individual operating member for each counter, a selective device adapted to be brought into operative relation with a selected counter, means for actuating said selective device to move the individual operating member of the selected counter, a rocking fare indicator, and means engaged by said individual operating member of each counter to actuate said rocking fare indicator to a position to indicate the fare registered.

4. In a registering machine, a plurality of specific fare counters, an individual operating member for each counter, a selective device adapted to be brought into operative relation with the individual operating member of the selected counter, means for setting said selective device, means for operating said selective device to impart operating movement to the individual operating member of the selected counter, a permanent indicator, and means for rocking said permanent indicator through the movement of the individual op-

erating member of the selected counter and whereby the fare of said selected counter is indicated simultaneously with its registration.

5 5. In a registering machine, a plurality of specific fare counters, an individual operating member for each counter, means for actuating each individual operating member independently, a permanent indicator to exhibit the fares of each counter, a cam plate controlling the movement of said indicator, and means on the individual operating members of the counters for tripping said cam plate to rock the indicator to a position to indicate the fare of the counter actuated.

15 6. In a registering machine, a plurality of specific fare counters, means for selecting a specific counter to be operated, an individual actuator for operating each counter selected for operation, an oscillating indicator to indicate the fare of the selected counter when said counter is operated, said indicator being actuated by the individual actuator of each selected counter, and means for locking said indicator in the position to which it has been moved in the registration of the fare.

20 7. In a registering machine, a plurality of specific fare counters, an individual operating member for each counter, a rocking indicator to exhibit the fares as registered on each counter, a cam common to all of said individual operating members and adapted to be actuated by each of said individual operating members of the fare counters to rock the indicator to a position to simultaneously indicate the fare with the registration thereof.

25 8. In a registering machine, a plurality of specific fare counters, an individual operating member for each counter, a cam arranged to be engaged at different points by each individual operating member, a shaft rocked by said cam, and an indicator rocked by said shaft to a position to indicate the fare of the counter operated.

30 9. In a registering machine, a plurality of specific fare counters, an individual operating member for each counter, a cam plate actuated by each individual operating member in registering the fares on any specific counter, a rock shaft actuated by said cam plate, and a fare indicator geared to said rock shaft and adapted to be moved to positions to indicate the fare registered, simultaneously with the operation of the individual operating member of the counter upon which said fare is registered.

35 10. In a registering machine, a plurality of specific fare printing counters, an individual operating member for each counter, a selective operating device adapted to be brought into operative relation with the individual operating member of a selected counter, selective means for indicating the position of said selective device relative to the individual operating member of the fare counter se-

lected, an operating member to impart movement to the individual operating member of the fare counter selected through the selective device, a permanent indicator, means interposed between said permanent indicator and the individual members of the fare counters and whereby said indicator is caused to exhibit the fare simultaneously with the registration thereof through the actuation of the individual operating member of the selected fare counter.

70 11. In a registering machine, a plurality of specific fare printing counters, an actuating member for each counter, a cam having four working surfaces, each one of which cooperates with a different one of the individual operating members of the fare counters, a fare indicator adapted to receive rocking movements from said cam when the latter is actuated by any one of the individual operating members simultaneous with the registration of a fare and whereby the fare so registered is caused to be indicated on said indicator.

75 12. In a registering machine, a plurality of specific fare counters, an individual operating member for each counter, a cam adapted to be rocked on either side of its pivot by the engagement of the individual operating members therewith, a shaft rocked by said cam, and an indicator rocked by said shaft to positions to indicate the fares registered upon the specific fare counters, said indicator having a series of indications thereon corresponding in position to the working surfaces of the cam, and in number to the number of specific fare counters.

80 13. In a machine of the type specified, the combination with a plurality of specific fare counters, and an individual actuator for each counter, of a unitary fare indicator for all the counters, an auxiliary fare indicator for all the counters, means for selecting a specific fare counter to be operated and to move the auxiliary indicator to indicate the fare of such selected counter, and means for operating the individual actuator of a selected counter to register a fare on such counter and to operate the unitary indicator to indicate such fare.

85 14. In a machine of the type specified, the combination with a plurality of specific fare counters, and an individual actuator for each counter, of an oscillating unitary indicator actuated by each of the individual counter actuators to indicate the fare of each counter when operated, auxiliary fare indicators, means for selecting an individual actuator and a specific counter for operation, said means also controlling the auxiliary fare indicators to indicate the fare of the selected counter, and means for actuating the individual actuator of the selected counter to register a fare on such counter and to operate the unitary indicator.

15. In a machine of the class specified, a plurality of fare counters, a segmental unitary fare indicator upon which is noted the various fares, an auxiliary fare indicator, means
5 for selecting a fare counter to be operated, said selective means being guided in its operations from the auxiliary fare indicator, and means for simultaneously actuating the selected fare counter and indicating upon the
10 unitary indicator the fare registered.

16. In a machine of the class specified, a plurality of fare counters for different specific fares, an indicator to indicate at the register the fares of said counter, auxiliary fare indicators, means for selecting a fare counter to
15 be actuated, said selective means concurrently indicating upon the auxiliary fare indicators the specific counter selected, and means for simultaneously actuating the selected counter and indicating the fare of such
20 counter on the indicator at the register.

17. In a machine of the class specified, a plurality of specific fare counters, selective means for placing a desired counter in a condition to be operated, a unitary fare indicator and an auxiliary fare indicator, the unitary fare indicator being actuated simultaneously with the operation of the selected counter, and the auxiliary indicator being
25 actuated in the operation of selecting a counter to be operated.

18. In a machine of the class specified, a plurality of specific fare counters, an individual actuator for each counter, selective
35 devices for selecting a counter to be operated through its individual actuator, an oscillating unitary fare indicator at the register operated by said individual actuator simultaneously with the operation of the selected
40 counter, and an auxiliary fare indicator to

enable the selective devices to be moved to the proper positions.

19. In a machine of the class specified, a plurality of specific fare counters, an individual actuator for each counter, an oscillating indicator actuated by each of the individual counter actuators and upon which the fare of any counter selected for operation is indicated, an auxiliary indicator, means for
45 selecting a specific counter to be operated 50 and to move the auxiliary indicator to a position to indicate the fare to be registered on such counter, and means for actuating the individual actuator of a selected counter to simultaneously operate such counter and the
55 oscillating indicator in registering a fare upon a counter.

20. In a machine of the class specified, a plurality of specific fare counters, an individual actuating member for each counter, a
60 unitary fare indicator actuated by any of the individual actuating members to indicate the fare denomination of each counter when a counter is operated, auxiliary fare indicators, means for simultaneously selecting the indi-
65 vidual actuating member of any specific counter to be operated and moving the auxiliary fare indicator to indicate in advance the counter to be operated, and means for simultaneously actuating a selected counter 70 and the unitary indicator through the individual actuating member of such counter.

In testimony whereof we affix our signatures in presence of two witnesses.

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Witnesses:

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