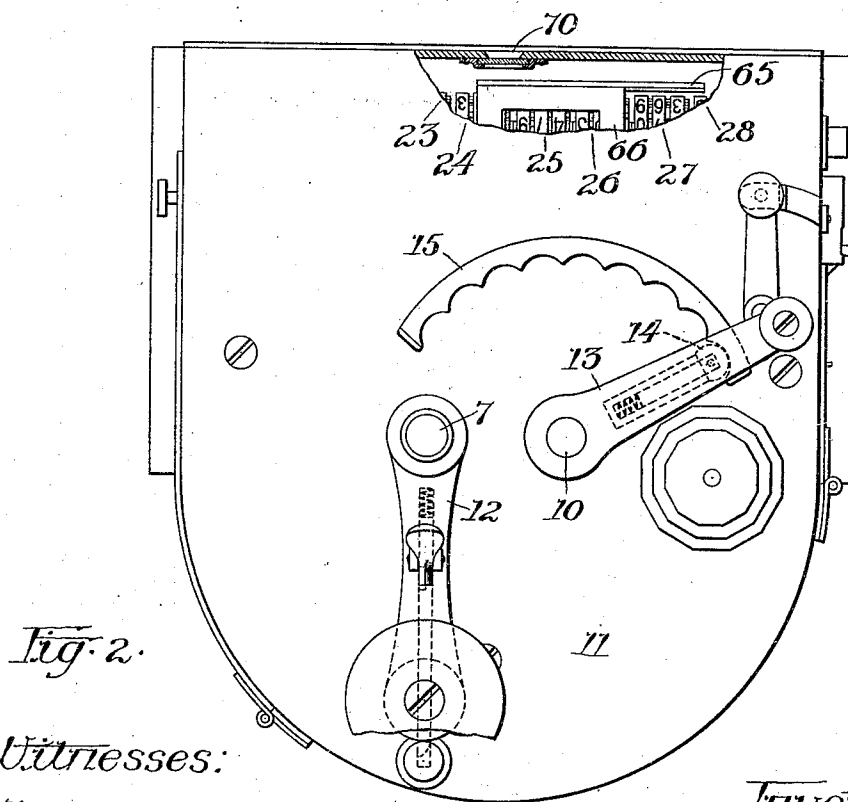
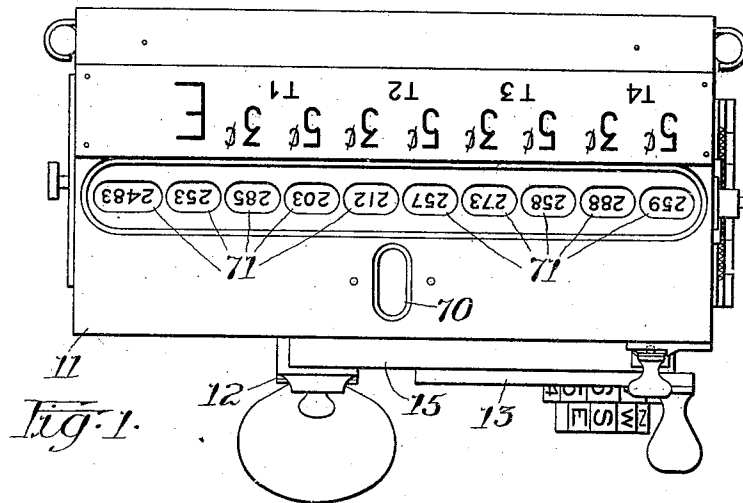


R. NORTH.  
REGISTERING APPARATUS.  
APPLICATION FILED MAR. 6, 1909.

939,296.

Patented Nov. 9, 1909.

4 SHEETS—SHEET 1.



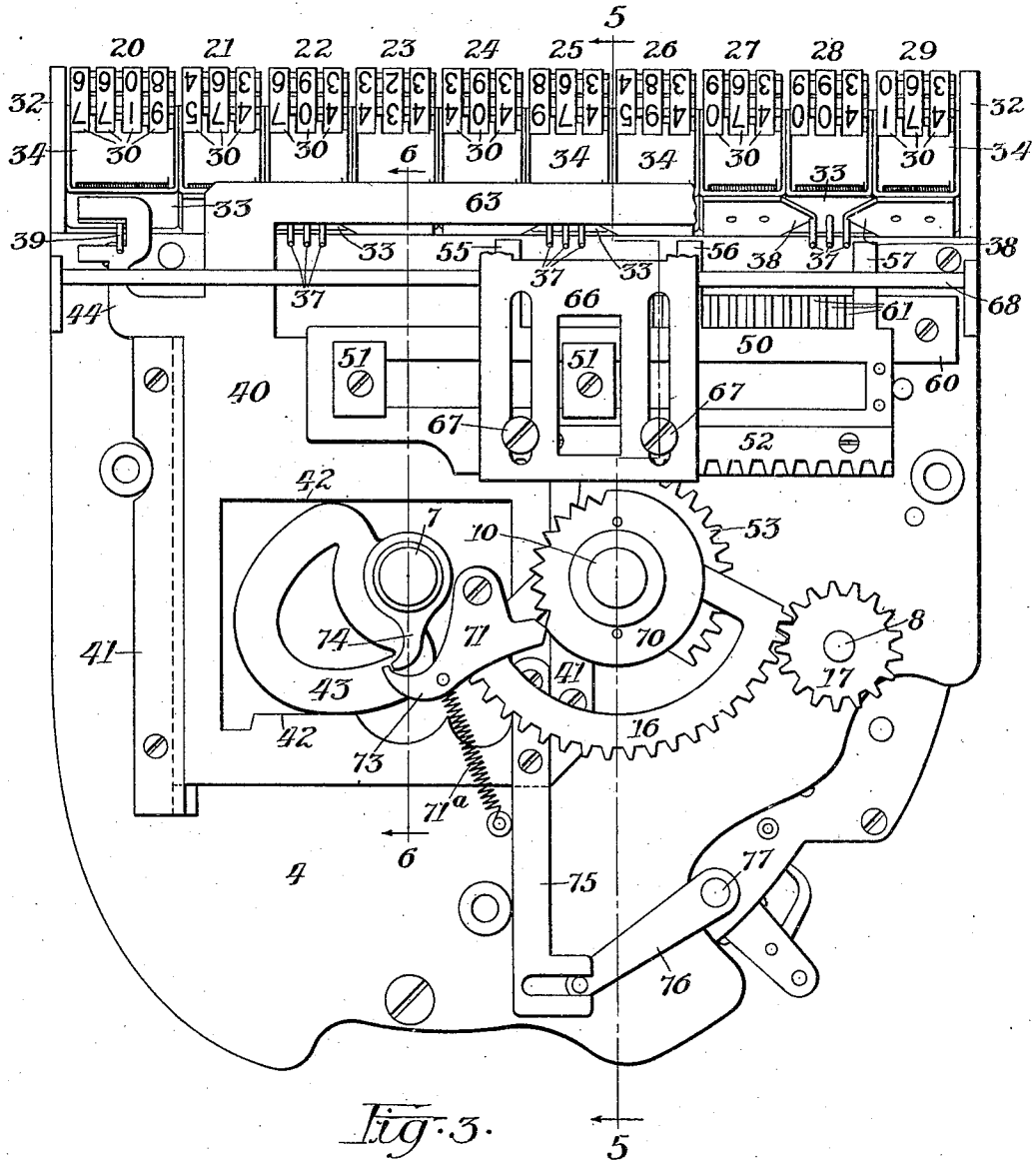
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 APPLICATION FILED MAR. 8, 1909.

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 4 SHEETS—SHEET 2.



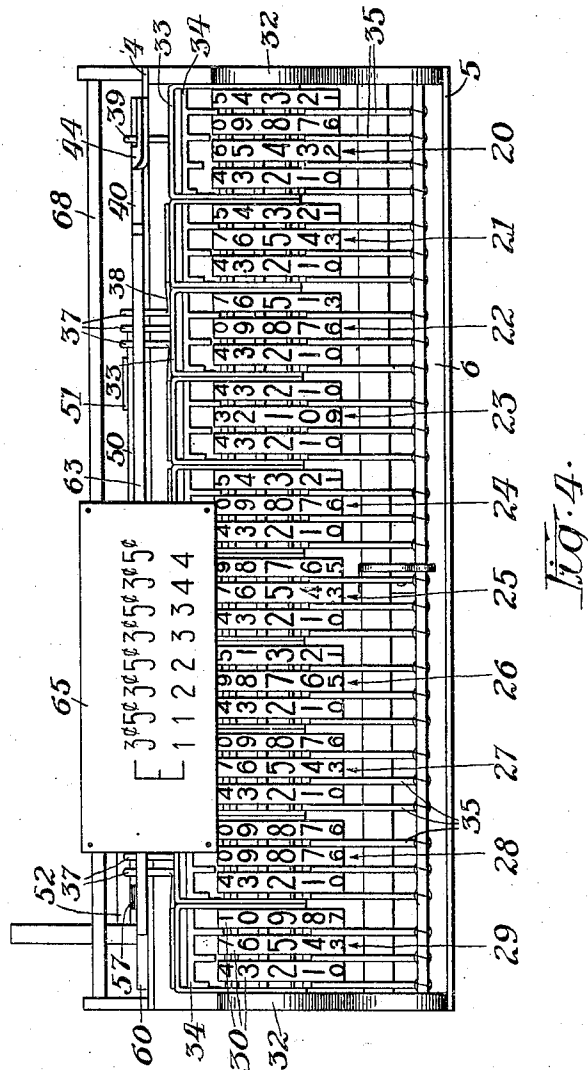
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 4 SHEETS—SHEET 3.



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939,296.

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4 SHEETS—SHEET 4.

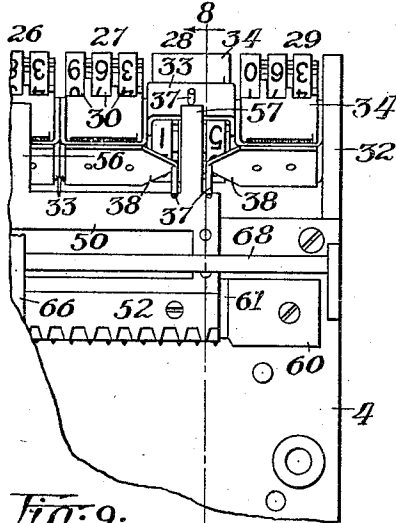


Fig. 9.

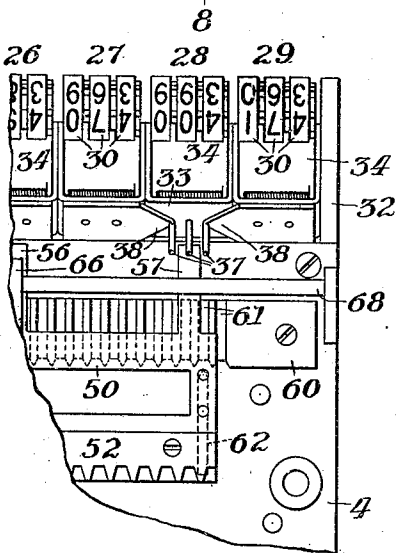


Fig. 7.

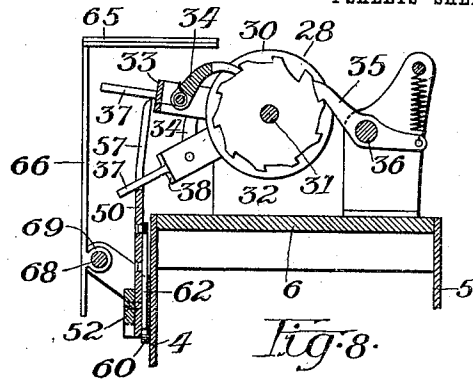


Fig. 8.

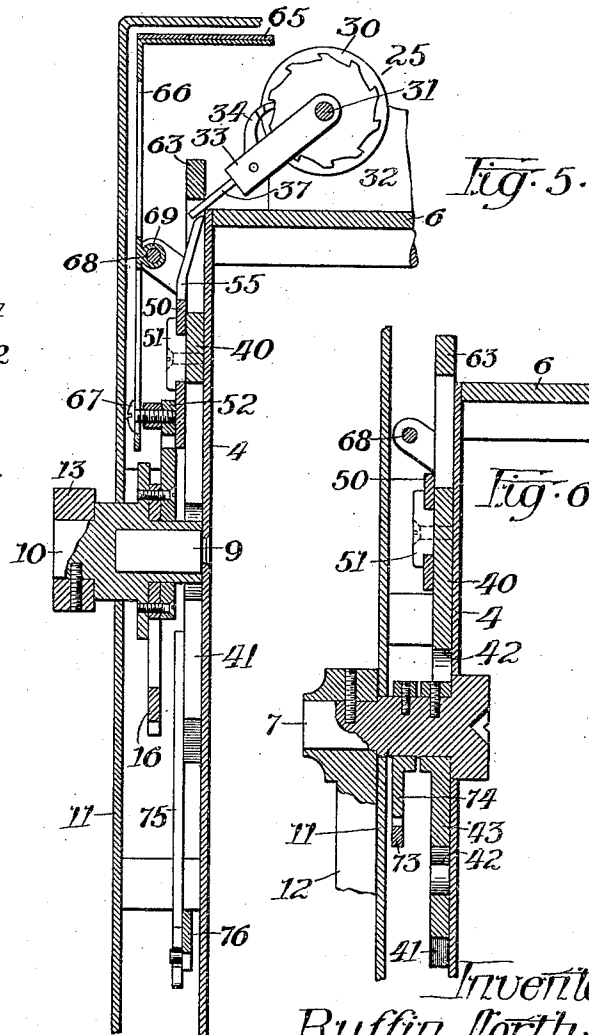


Fig. 5.

Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## REGISTERING APPARATUS.

939,296.

Specification of Letters Patent.

Patented Nov. 9, 1909.

Application filed March 6, 1909. Serial No. 481,742.

*To all whom it may concern:*

Be it known that I, RUFFIN NORTH, a citizen of the United States, and a resident of Paris, France, have invented certain new and useful Improvements in Registering Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the numerals of reference marked thereon, which form a part of this specification.

This invention relates to an improved registering apparatus adapted more especially for use in connection with a device for printing and issuing tickets, such as is shown and described in my application, Serial No. 237,350, filed on the 17th day of December, 1904, but also adapted for general use in cases where it may be desired to register separately quantities or numbers of different classes. Said ticket printing and issuing device embraces a type-carrier of curved or segmental form, an oscillating paper-carrier provided with an impression roller, and type-wheels provided with types indicating the different stages of, or station upon, a route and different rates of fare for which separate tickets may be issued.

The registering mechanism illustrated in the accompanying drawings is adapted to be operated by the movements of the printing mechanism and by the shifting of the type-wheels and is designed to indicate the total number of tickets issued, and also to indicate separately the number of tickets issued for each rate of fare and for each of the several stages of, or stations upon, a route.

The invention consists in the matters hereinafter described and pointed out in the appended claims.

In the accompanying drawings illustrating my invention:—Figure 1 is a top view of the exterior casing of an apparatus embodying my invention. Fig. 2 is a face view of the same. Fig. 3 is a side view of the apparatus with the casing removed to show the operative parts. Fig. 4 is a top view of the same. Fig. 5 is a sectional view taken upon line 5—5 of Fig. 3. Fig. 6 is a sectional view taken upon line 6—6 of Fig. 3. Fig. 7 is a detail face view of one of the groups of registering disks. Fig. 8 is a sectional view taken on line 8—8 of Fig. 9. Fig. 9 is a view like Fig. 7, showing a changed position of the parts.

The frame on which the operative parts of the apparatus are mounted embraces upright, parallel frame plates 4 and 5, and a horizontal top plate 6. Mounted in and extending through the frame plate 4 is a rock-shaft 7 through which is operated the ticket printing and issuing devices of a machine such as is shown in my said prior application, in case the registering apparatus be applied for the purpose of registering the number of tickets issued by such a machine. In the plate 4 is also mounted a rotatively adjustable shaft 8 which, in a machine of the kind referred to, is turned or rotated for the purpose of bringing one of the series of types in position for printing the rate of fare and the stage of a journey for which a ticket is issued. A stud 9 (Fig. 5) is attached to and projects outwardly from said plate 4, and on said stud is mounted a rock-shaft 10.

11 indicates the exterior casing of the apparatus through the front wall of which project the rock-shafts 7 and 10. The rock-shaft 7 is provided, outside the front wall of the casing 11, with a rigidly attached crank-arm 12 to which oscillatory movement may be given for operating the printing devices. On the shaft 10, outside the front wall of the casing, is secured a crank-arm 13 by which rocking or turning movement is imparted to said shaft. The swinging end of said crank-arm 13 is provided with a spring actuated holding detent 14 operating in connection with a notched segment 15 secured to the outer face of the front wall of the casing to hold said arm yieldingly from movement when placed in either one of a plurality of positions, the said detent permitting the crank-arm to move from one position to another by the exertion of considerable pressure thereon. Attached to the rock-shaft 10 is a gear-segment 16 which intermeshes with the gear-wheel 17 on the shaft 8, so that said shaft 8 has rotative adjustment to correspond with the positions of the crank-arm 13. By shifting said crank-arm the type-wheel operated by the shaft 8 will be brought into position for printing different rates of fare and characters indicating different stages of a journey. So far as described, the parts are like those shown in a separate application for Letters Patent Serial Number 481,743, filed by me Mar. 6th, 1909.

Above the top plate 6 and within the

upper part of the casing 11 are located a plurality of sets of numbered disks, the several sets being indicated by 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29 in Fig. 3. In the construction shown, all of said disks are alike or of the same size, each of the several disks in the drawings being indicated by 30, and said disks are mounted to turn on a common supporting shaft 31, (Figs. 5 and 8) which extends across the machine above and parallel with the top plate 6 and is supported at its ends in brackets 32, 32 on said plate. For each set of disks is provided an oscillating, actuating member 33 which is pivotally supported upon the rod 31; all of said actuating members being indicated by the same reference number. Each set of disks and the oscillating member therefor constitute a registering device, adapted for operation separately from the other sets.

The oscillating actuating member 33 of each set consists of a plate provided with two arms which are pivotally mounted on the rod 31, one on either side of the set of disks. Each of said actuating members 33 is provided with a pivoted pawl 34 having a plurality of fingers, one for each of the disks, the fingers being of different lengths. Each disk is provided at one side thereof with ten notches, and the tenth notch in each disk is deeper than the others, so that when the units disk has been turned to record ten units, the pawl finger operating tens disk is rendered effective, and the latter disk is moved forward one space. In a similar manner, upon the tens disk making its tenth movement, the hundreds disk is moved forward one space. Each set of disks will include a sufficient number of disks to give the largest number desired to be registered; the drawings showing each set as consisting of three disks, except in the case of the set 20, which has four disks. A spring-pressed holding pawl 35 is, moreover, provided for each disk and the holding pawls for the several disks are mounted on a common supporting rod 36 arranged parallel with and at the rear of the rod 31. Said holding pawls prevent the disks from turning backward, in the usual manner. Each of the disk-actuating members 33 is provided with a forwardly extending pin 37 through which movement is given thereto. The nine sets of disks illustrated, indicated by 21 to 29, inclusive, are arranged in groups of three and the three pins 37, 37, 37 belonging to each group are brought together or located closely adjacent to each other; the actuating member of the outermost sets of each group being provided with laterally extending arms 38 which extend over the actuating member of the intermediate set (Figs. 3, 7 and 9) so as to support the pins 37, 37 belonging thereto on either side of the pin 37 belonging to the intermediate member. In the

case of the set of disks marked 20, at the left hand side of the machine, (Fig. 3) the actuating member 33 is provided with a single centrally arranged pin 39.

Now referring to the devices which act upon the pins 37 and 39 for operating the several sets of disks, located at the front face of the plate 4, the same embrace features as follows: 40 indicates the vertically sliding or reciprocating plate engaged at its side margins with guide strips 41, 41 attached to said plate 4. Said plate 40 is provided with a space or opening through which passes the rock-shaft 7 and which has horizontal top and bottom bearing faces 42, 42. Attached to said rock-shaft 7 is a cam-arm 43 having bearing engagement with the horizontal bearing surfaces 42, 42. Said cam-arm gives vertical reciprocatory movement to the said plate 40, when the rock-shaft 7 is rocked or rotated backwardly and forwardly. Attached to the left hand end of said plate 40 (Fig. 3) is an upwardly extending arm 44 adapted to act upon the pin 39 on the actuating member 33 of the set 20 of the disks. Said arm 44 is provided with a horizontally extending slot, which engages the pin 39 so as to give movement to said pin both upwardly and downwardly with said arm. As a result of this construction, each time the rock-shaft 7 is swung or oscillated backwardly and forwardly, the plate 40 will be raised and lowered and in its upward movement the actuating member 33, belonging to the set of disks 20, will be operated to advance the unit disks thereof one space. Mounted on said plate 40 is a secondary plate 50 which has lateral sliding or horizontal movement thereon. As shown, the plate 50 is provided with a longitudinal horizontal slot, the top and bottom edges of which engage two guide-blocks 51, 51 secured to the front face of the plate 40. Attached to the lower margin of said plate 50 is a horizontal rack-bar 52, located above the rock-shaft 10, and provided with downwardly facing teeth which are adapted for intermeshing engagement with the teeth of a gear-segment 53 attached to said shaft 10. A connection is thereby afforded between said secondary plate 50 and said shaft 10, whereby said plate will be shifted laterally on the main plate 40 to bring the same into positions corresponding with the positions occupied by the crank-arm 13 on the segment 15. The rack-bar 52 is engaged with the gear-segment 53 only when the plate 40 is in its lowermost position, and when said plate 40 is lifted or thrown upwardly the said rack-bar and gear-segment are disengaged from each other. The upper edge of said secondary plate 50 is provided with three upwardly extending arms 55, 56 and 57, corresponding generally in location with and adapted severally to act upon each

group of three pins 37, 37, 37 which belong to each group of registering devices. Said arms are, moreover, so located laterally with respect to each other, that only one of the arms will be in position at any one time to engage one pin of each group of pins. In other words, the arms are spaced at a distance apart laterally, considerably less than the distance between the groups of pins, so that when the arm 57 is in position to engage the first pin (counting from right to left) of the first group, the second and third arms will stand to the right of the pins of the second and third groups, and when said arm 57 is moved to the left from the third pin of the first group, the second arm 56 will be in position to engage the first pin of the second group, and when said second arm 56 has passed toward the left from the third pin of the second group, the third arm 55 will be in position to engage the first pin of the third group. It follows that, by turning the rock-shaft 10, the plate 50 may be shifted to bring one or another of the arms 55, 56 and 57 into position for operating separately upon the several pins 37 of each of the three groups of said pins. The notched segment 15 on the front wall of the machine casing is provided with nine notches, adapted to be engaged by the spring-actuated detent 14 on the crank-arm 13, and said notches are spaced to correspond with the positions occupied by the plate 50 when the same is shifted to bring one or the other of the arms 55, 56 and 57 in position to operate upon one or another of the pins 37, 37, so that the operator, by swinging or moving said crank-arm, may set the apparatus for the operation of either one of the sets of registering disks, as desired. Said rock-shaft 10 has geared connection with the spindle 8, through the medium of which the type-wheel for printing fares or the like is adjusted, as in the machine shown in said prior application, and the rotative adjustment of said rock-shaft 10 brings into operation that one of the registering devices corresponding with the character on the type-wheel which is brought into position for printing by the turning of said rock-shaft.

As before stated, when the secondary plate 50 is moved or shifted upwardly with the plate 40 to effect the operation of one of the registering devices, the rack-bar 52 is disconnected from the gear-segment 53 and, in order to hold the said plate from shifting laterally on the plate 40 at the time said rack-bar and gear-segment are disengaged from each other, devices are provided as follows: Attached to the front face of the plate 4 at the rear of the upper edge of said plate 50 is a transversely extending guide plate 60 provided in its front face with a series of upright, parallel, guide grooves 61,

61 which are spaced to correspond with the several positions to which the said plate 50 is shifted for the operation of the arms 55, 56 and 57 thereof upon the pins 37, 37, 37. On the rear or inner face of the plate 50 is an upright guide rib 62 arranged to fit closely and slide vertically within either one of said guide grooves 61, 61. Said guide rib 62 is shown in side elevation in Fig. 8 and in dotted lines in Fig. 7. When the plate 50 is in its depressed position the upper end of the said guide rib 62 stands below the lower ends of the guide grooves 61, 61, but when said plate 50 is lifted the guide rib engages one of the guide grooves and holds said plate from lateral movement during the advance or rising and the backward or falling movement of said plate. It follows that after the plate 50 has been moved laterally to bring one of its arms 55, 56 or 57 into position to engage one of the pins 37, said plate 50 will be held from lateral movement during the time it is disengaged from the gear segment 53 and is acting to operate one of the registering devices.

In order to prevent accidental shifting or movement of either of the actuating members 33, a guard arm 63 is provided, which is attached at one end to the plate 40 and extends horizontally across the machine above the several pins 37, 37. The said arm 63 is arranged in such vertical relation to the plate 40 that when the plate is depressed the arm extends just above the pins 37, 37 (Fig. 5), and is in position to prevent any upward swinging movement thereof. When, however, the said plate 40 is lifted to effect the actuation of one of said pins, said arm rises with the plate, leaving the pin free to be moved or swung upwardly.

In order to indicate to the eye of the operator the lateral position of the plate 50 or, in other words, the particular set of registering disks on which the apparatus is adjusted to operate at any particular time, a construction is provided as follows:

65 indicates a laterally movable, horizontal scale or indicator plate, located at the top of the machine below the top wall of the casing, and attached to a vertical supporting plate 66 which is connected with the plate 50 by means affording lateral movement of the scale plate with said plate 50, without any vertical movement in said scale plate.

As illustrated, the supporting plate 66 is mounted to slide laterally on a horizontal guide rod 68 extending across the front of the machine frame and engaged by guide-lugs 69, 69 on the plate 66. Said plate 66 extends downwardly in front of the plate 50 and has vertically sliding connection with said plate 50 by means of two screw studs 67, 67 which pass through upright guide slots in the opposite sides of said plate 66.

The plate 65 is arranged below and parallel with the top plate of the casing 11 and in said top plate is provided a sight opening 70, through which may be observed the marks on the scale plate; said sight opening being covered by a glass plate, as shown. By observation of the scale plate through said sight opening, as the crank-arm 13 is manually moved or swung to shift the secondary plate 50, the operator may adjust the device for the operation of either of the registering devices 21 to 29, as desired. The top plate of the casing 11 is also shown as provided with a series of sight openings 71, 71, 71, one for each set of registering disks, through which may be read the numbers upon said registering disks.

The apparatus illustrated is one designed for use on a street railway line where the route is divided into a number of zones or sections in which transfers are given to other lines and the apparatus is adapted to register tickets or receipts issued for fares, at the rate of five cents and three cents, in each transfer zone or section. In this apparatus, therefore, the sight holes 71, 71 are severally marked to indicate five and three cent fares for each of four transfer zones or sections, which latter are indicated by the characters  $T^1$ ,  $T^2$ ,  $T^3$ ,  $T^4$ , marked on the top wall of the casing. These indicating characters referred to apply to eight of the recording devices and the ninth is marked "E" indicating "exchange" and is used for registering tickets which entitle the holder to ride on another or intersecting line and constitute transfers. The scale plate 65 is marked to correspond with the markings on the top of the casing, the characters on said scale plate being spaced at distances apart corresponding with the several lateral positions of the plate 50.

As before stated, the plate 50 is disengaged from the rock-shaft 10 during the rising and falling movement of said plate, by which the registering devices are actuated. In order to prevent any turning or shifting movement of the gear segment 53, which would carry it out of register with the rack bar 52, during the time these parts are disengaged from each other, a locking device is employed to hold the rock-shaft 10 from turning, except when said rack bar and gear segment are engaged with each other. As illustrated, said locking devices are made as follows:—On the rock-shaft 10 outside of the gear segment 16 is formed a disk 70 provided at one side thereof with a series of V-shaped notches corresponding in number and angular distance apart with the notches in the segment 15 and with the several positions to which the plate 50 is shifted for operating the registering devices. On the plate 4 is mounted a detent lever 71, arranged to swing on an axis located be-

tween the rock-shafts 7 and 10. Said detent 71 has a holding tooth 72 adapted to engage the notches in the disk 70 and is also provided with a hooked end 73 adapted for engagement with a rigid arm 74, attached to the rock-shaft 7. A spring 71<sup>a</sup> acts on the detent lever 71 in a direction to press the tooth 72 thereof against the disk 70. When the parts are in their normal or inoperative position, as shown in Fig. 3, the arm 74 on the rock-shaft 7 engages the hooked end of the detent lever 71, which latter is held in position for engagement with said arm 74 by contact of its tooth 72 with the periphery of the disk 70. No movement of the arm 74 or turning movement of the rock-shaft 7 can now take place, but as soon as the rock-shaft 10 is turned to carry the plate 50 into position for action of one of its arms on one of the pins 37, the tooth 72 will stand opposite one of the notches in the disk 70, permitting said tooth to be drawn by the spring 75 into the said notch, and thereby disengaging the hooked end of said arm 73 on the detent 71 from the arm 74 and permitting the rock-shaft 7 to be turned. During the oscillatory or turning movement of said rock-shaft 7, by which the plate 40 is elevated and again depressed, any turning of the rock-shaft 10 will be prevented by engagement of the tooth 72 with one of the notches in the disk 70, so that the gear segment 53 will be held in position for reengagement of the rack bar 52 therewith after said rock-shaft 7 is returned to its starting point when turned backwardly and forwardly to effect the operation of one of the registering devices. It will of course be understood that each time said plate 40 is so actuated by the turning of the rock-shaft 7 the registering device 20 will be actuated by the action of the arm 44 on the pin 39, so that each time one of the registering devices 21 to 29 is operated to register the receipt of a fare of a certain amount or covering a certain stage of the trip, the total registering device 20 will be operated to record the total number of fares received. In the machine shown in said prior applications, wherein the tickets printed are numbered successively as issued, the printing wheels or disks by which the successive numbers are printed on the tickets will be operated from the plate 40, operating devices for this purpose being shown in the drawings as consisting of a downwardly extending arm 75 on said plate 40, adapted to act upon and give oscillatory movement to a crank-arm 76 attached to a spindle 77 through which the serial-number printing wheels of the printing apparatus are operated.

The operation of the registering devices described may be understood from the following: Assuming that the operator has received a fare during one stage of the trip,

as for instance during the part of the trip indicated by the characters "T<sup>3</sup>", if the fare received be a five cent fare, he moves or adjusts the crank-arm 13, so as to bring the characters "5¢" and "3" on the index plate 65 beneath the sight-hole 70. While standing in the position shown in Fig. 3, the rock-shaft 7 is locked from movement by the detent 71, as hereinbefore described. When, however, said crank-arm 13 is adjusted to another position, the tooth 72 of said detent 71 will stand opposite one of the notches of the disk 70, and the arm 74 will be disengaged so that the rock-shaft 7 can be turned. When oscillatory movement is given to the rock-shaft 7, the cam-arm 43 will advance and retract the plate 40, and one of the arms 55, 56 or 57 on the plate 50 will turn through a distance of one space the units disk of that one of the registering devices indicated by the characters on the top plate of the casing, corresponding with those on the scale plate 65 which appear through the sight opening 70. Upon the completion of the stroke of the plate 40, at the same time that one of the registering devices 21 to 29 is operated, the units disk of the registering device 20 for registering totals will be operated by the arm 44 on the plate 40, in the manner hereinbefore described. After the completion of the stroke of said plate 40, the arm 13 may swing to indicate any other rate of fare or stage of the trip, it being manifest that the plate 50 may be shifted to bring one of its arms 55, 56 and 57 into operative relation with either one of the pins 37, 37, in any order desired or regardless of the previous position of said plate.

It is to be understood that an apparatus embodying the essential features of my invention may be made in form differing from the specific embodiment thereof illustrated, and I do not, therefore, desire to be limited to the specific features of construction shown and described, except so far as the same may be set forth in the appended claims as constituting parts of my invention.

I claim as my invention:—

1. A registering device comprising a plurality of sets of rotative disks which turn on a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member, a secondary actuating member carried by and having shifting movement with said main actuating member, said secondary actuating member being movable on the main actuating member in a direction transverse to the direction of movement of said main actuating member, and said secondary actuating member being provided with an arm adapted to act on the swinging operating member of either one of the several sets of disks, a manually operable member act-

ing on said secondary actuating member when the main actuating member is in its retracted position to give shifting movement to said secondary actuating member, and means for holding said secondary actuating member from shifting movement on the main actuating member in the forward and backward movements of said main actuating member.

2. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member provided with an arm adapted to act constantly upon the operating member of one of the said sets of disks for registering totals, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of the others of said sets of disks, and a manually adjustable member connected with and giving shifting movement to said secondary actuating member.

3. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member, a secondary actuating member carried by the main actuating member and movable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of said sets of disks, a manually operable member acting on said secondary actuating member when the main actuating member is in its retracted position to give shifting movement to said secondary actuating member on the main actuating member, and a scale-plate which partakes of the shifting movement of said secondary actuating member and has sliding connection with the latter.

4. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of the said sets of disks, a manually operable member, a rack-bar on the secondary actuating member and an oscillat-

ing gear-segment which is given movement by the said manually operable member, said rack-bar having intermeshing engagement with said gear-segment when the main actuating member is in its retracted position.

5 5. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of the said sets of disks, a manually operable member, a rack-bar on the secondary actuating member, an oscillating gear-segment connected with and actuated by the manually operable member, said rack-bar having intermeshing engagement with the gear-segment when the main actuating member is retracted, and means acting to hold said secondary actuating member from shifting movement at times when said rack-bar is disengaged from the gear-segment.

30 6. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of the said sets of disks, a manually operable member, a rack-bar on the secondary actuating member, an oscillating gear-segment connected with and actuated by said manually operable member, said rack-bar having intermeshing engagement with the gear-segment when the main actuating member is in its retracted position, and a guide-plate provided with a plurality of parallel guide-grooves, said secondary actuating member having a guide-projection adapted for engagement with one or another of said guide-grooves at times when said rack-bar is disengaged from the said gear-segment.

7. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating

member being provided with an arm adapted to act upon the operating member of either one of the said sets of disks, a manually operable member, a rack-bar on the secondary actuating member, an oscillating gear-segment which is given movement by the said manually operable member, said rack-bar having intermeshing engagement with the gear-segment when the main actuating member is in its retracted position, and means for locking said gear-segment from turning when the said rack-bar is disconnected therefrom during the forward and backward movement of said main actuating member.

8. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member, a main, reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, said secondary actuating member being provided with an arm adapted to act upon the operating member of either one of the said sets of disks, a manually operable member connected with and giving shifting movement to said secondary actuating member, and means for locking from movement the main actuating member during the shifting movement of the secondary actuating member from one position to another.

9. A registering apparatus comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each set of disks being provided with a swinging operating member provided with an outwardly extending pin, a main, reciprocating actuating member, a secondary actuating member carried by the main actuating member and adjustable thereon in a direction transverse to the direction of movement of said main actuating member, and a manually operable member connected with and giving shifting movement to said secondary actuating member, pins on the operating members of the several sets of disks being arranged in separated groups, with the pins of each group adjacent to each other, and the secondary actuating member being provided with a plurality of arms corresponding in number with the groups of pins, and each of which is adapted to act upon the pins constituting one of said groups.

10. A registering device comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each of said sets of disks being provided with a swinging operating member, a main, sliding actuating member, a rock-shaft provided with a cam-arm adapted to give reciprocatory movement to said main actuating mem-

ber in the turning of said rock-shaft, a secondary actuating member mounted to slide transversely on the main actuating member, a manually operable member, a gear-segment operated by said manually operable member, a rack-bar on the secondary actuating member adapted for intermeshing engagement with said gear-segment when the main actuating member is in its retracted position, said secondary actuating member being provided with an arm adapted to act separately upon the operating members of the several sets of disks, and means for holding the secondary actuating member from shifting movement during the forward and backward movement of said main actuating member, embracing a guide-plate provided with a plurality of parallel guide-grooves, the said secondary actuating member being provided with a projection adapted to engage one or another of the said guide-grooves.

11. A registering device comprising a plurality of sets of rotative disks which turn upon a common axis of rotation, each of said sets of disks being provided with a swinging operating member, a main, sliding actuating member, a rock-shaft provided with a cam-arm adapted to give reciprocal movement to said main actuating member in the turning of said rock-shaft, a secondary actuating member mounted to slide transversely on the main actuating member, a swinging crank-arm adapted for manual operation, means for yieldingly holding said crank-arm in different adjusted positions, a gear-segment attached to and turning with said crank-arm, a rack-bar on the secondary actuating member adapted for intermeshing engagement with said gear-segment when the main actuating member is in its retracted position, said secondary actuating member being provided with an arm adapted to act separately upon the operating members of the several sets of disks, a guide-plate provided with a plurality of parallel guide-grooves, said secondary actuating member being provided with a projection adapted to engage one or another of said guide-grooves to hold the secondary actuating member from shifting movement during the forward and backward movement of said main actuating member.

12. A registering device comprising a plurality of sets of rotative disks which turn on a common axis of rotation, each of said sets of disks being provided with a

swinging operating member, a main, sliding actuating member, secondary actuating member mounted to slide transversely on the main actuating member, a manually operable member, a gear-segment operated by said manually operable member, a rack-bar on the secondary actuating member adapted for intermeshing engagement with said gear-segment when the main actuating member is in its retracted position, said secondary actuating member being provided with an arm adapted to act separately upon the operating members of the several sets of disks, a laterally movable scale-plate, and a guide-rod on which said scale-plate is mounted, extending transversely to the direction of movement of the main actuating member, said scale-plate and secondary actuating member having sliding connection, affording lateral movement of the scale-plate with said secondary actuating member while permitting sliding movement of said secondary actuating member relatively to the scale-plate during the forward and backward movement of said secondary actuating member with the main actuating member.

13. A registering apparatus comprising a plurality of registering devices, a main, reciprocating actuating member, a secondary actuating member carried by and adjustable on said main actuating member in a direction transverse to the direction of movement of said main actuating member, to bring said secondary actuating member in a position to act upon either one of said registering devices, a manually operable member connected with and giving shifting movement to said secondary actuating member, an oscillatory rock-shaft giving reciprocal movement to said main actuating member, said rock-shaft being provided with a rigid arm, an oscillatory notched disk connected with and moved by said manually operable member, and a spring-pressed detent lever provided with a tooth adapted to engage the notches of said disks and with a hooked arm adapted to engage the arm on said rock-shaft when the main actuating member is in its retracted position.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 23rd day of February A. D. 1909.

RUFFIN NORTH.

Witnesses:

EUSTACE H. BARKER,  
HARRY STEVENS.