

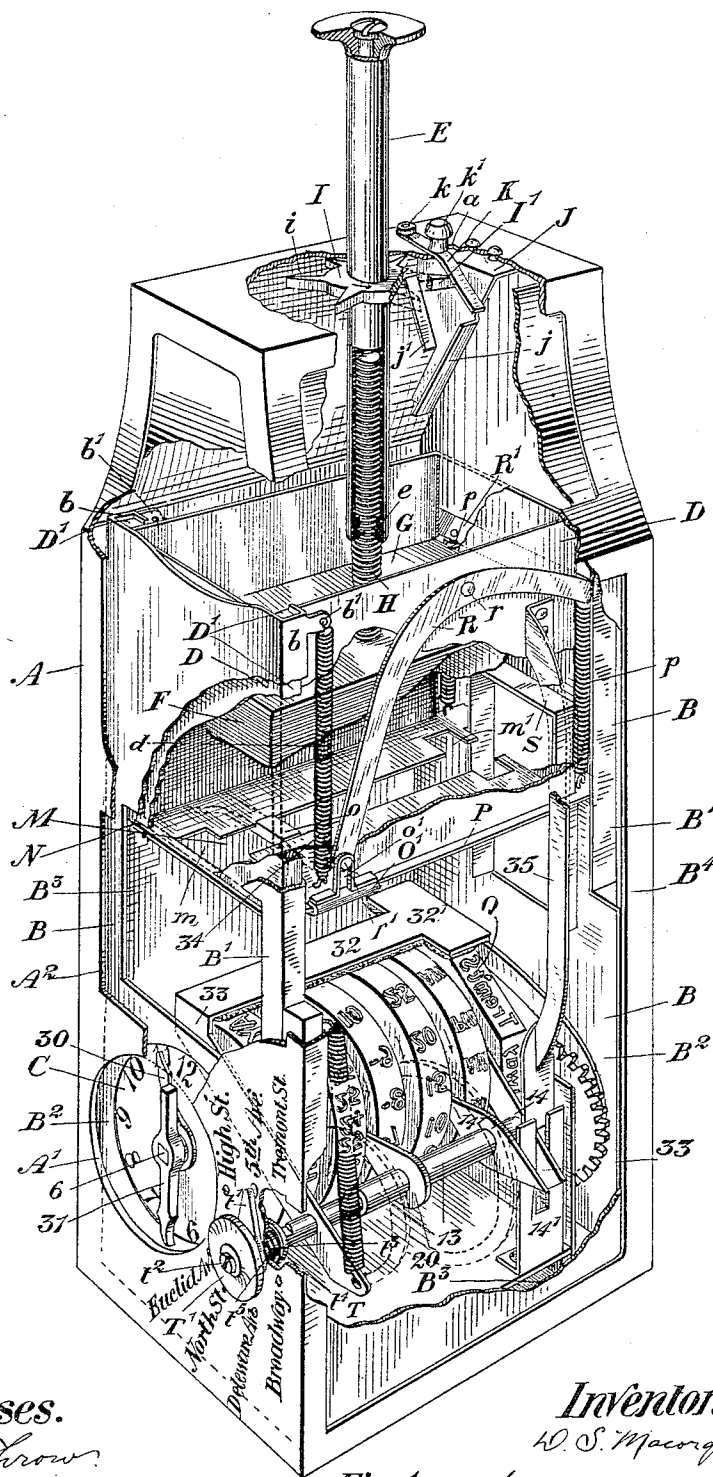
(No Model.)

2 Sheets—Sheet 1.

D. S. MACORQUODALE.
TICKET CASE.

No. 582,656.

Patented May 18, 1897.



Witnesses.

W. J. M. Thrown.
E. R. Case

Inventor.

D. S. Macorquodale

Fig. 1.

by T. H. Stonebaugh & Co.
attys

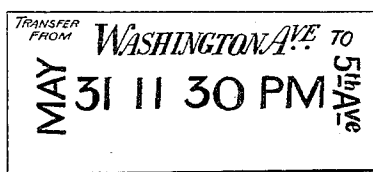
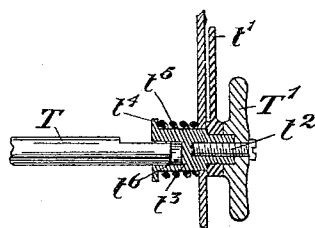
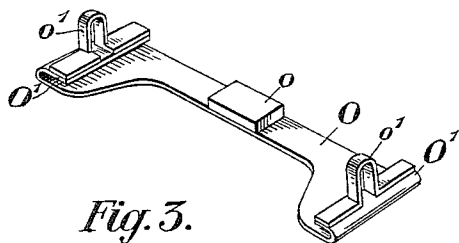
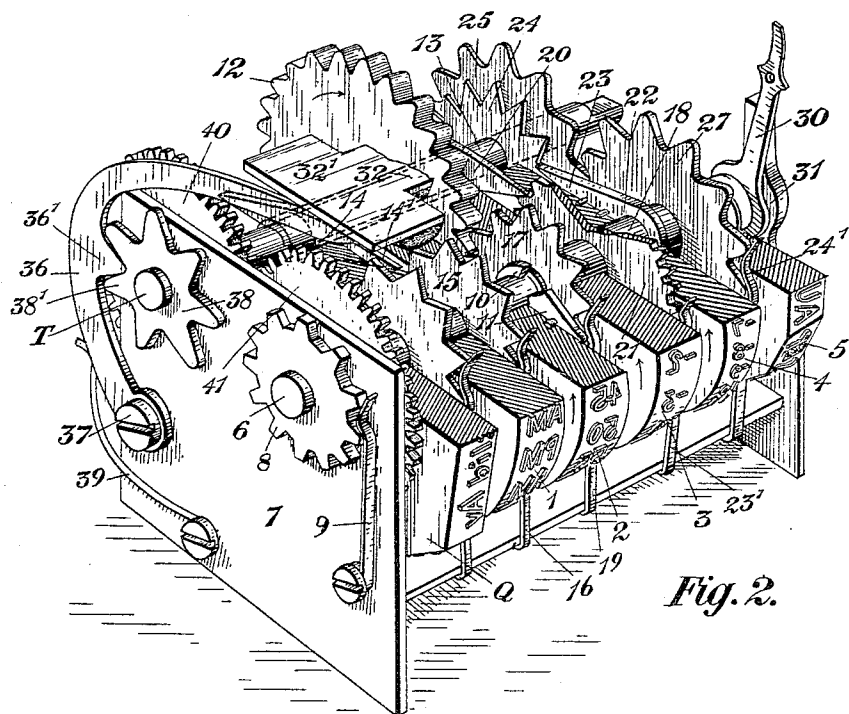
(No Model.)

2 Sheets—Sheet 2.

D. S. MACORQUODALE.
TICKET CASE.

No. 582,656.

Patented May 18, 1897.



Witnesses.

W. J. Withrow.
E. R. Case.

Inventor.

Fig. 5.

D. S. Macorquodale
by T. H. Donahue & Co.
Attys

UNITED STATES PATENT OFFICE.

DUNCAN SUTHERLAND MACORQUODALE, OF TORONTO, CANADA.

TICKET-CASE.

SPECIFICATION forming part of Letters Patent No. 582,656, dated May 18, 1897.

Application filed May 22, 1894. Renewed October 19, 1896. Serial No. 609,368. (No model.)

To all whom it may concern:

Be it known that I, DUNCAN SUTHERLAND MACORQUODALE, inventor, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Ticket-Cases, of which the following is a specification.

My invention relates to ticket-cases, more particularly adaptable for the reception and ejection of transfer-tickets; and the object of the invention is to provide a receptacle within the box which will contain a large quantity of transfer-tickets, and, further, in providing mechanism whereby the transfer-ticket may be printed and after such printing ejected from the box; and it consists, essentially, of supporting the ticket-casing within the box by spiral-spring hangers in suitable guideways and providing a peculiarly-arranged plunger, the bottom of which is connected to a plate which fits into the open end of the ticket-casing, which has a slotted opening at the bottom, through which the bottom ticket is printed when the casing is brought down from the printing-wheels, which are manipulated, inked, and governed in the manner hereinafter more particularly explained.

Figure 1 is a perspective view of my transfer-ticket case, a portion of the sides of the case, the frame supporting the mechanism, and ticket-casing being broken away to exhibit more clearly the construction. Fig. 2 is a perspective detail of the printing-wheel gears from the opposite side to that shown in Fig. 1, the printing-wheels being in sectional perspective, so as to exhibit clearly the connection and operation of the gears of the several printing-wheels. Fig. 3 is a detail of the cross-bar for ejecting the tickets. Fig. 4 is a sectional detail showing the means of connecting the street-turning knob to the spindle of the gear meshing with the gear of the street-registering wheel. Fig. 5 is an enlarged detail of the transfer-ticket as printed.

A is the outside case.

B is the inner rectangular open frame, which has the corner-standards B' at the upper portion and the end plates B² at the lower portion and the bottom B³. One of the end plates B² is provided with a circular dial-plate C, situated directly opposite the circular opening A' in this side of the case.

D is the ticket casing or receptacle, and E is the plunger for operating it. The normal position of the transfer-ticket casing D is that shown in Fig. 1, in which position it is held by the spiral-spring hangers *d*, one only of which is shown, the other being hidden at the opposite side of the casing. The tops of the spiral-spring hangers are connected to the lugs *b'*, forming part of the guideways *b*, while the lower ends of the spiral-spring hangers are connected to hooks attached at the bottom of the side of the casing D. At one end of the casing D, I provide vertical guide-bars D', which extend laterally from the casing and move within guiding-grooves *b*, formed at the upper ends of the standards B'.

F are the tickets, which are shown broken away in order to exhibit the construction of the bottom of the ticket-casing D.

G is a compression-plate or follower which is held so as to continually press against the top of the tickets in the manner I shall now describe.

The follower G has secured in its center a screw-threaded rod H, which extends up through an internally-threaded collar *e*, formed at the bottom of the hollow plunger E.

I is a toothed disk secured to the plunger E immediately beneath the top plate of the case when the plunger is in its normal position.

J is a vertical plate which is secured to the top of the case A and having inclined sides which are provided with guiding-ribs *j j'*.

K is a guiding-bar which is pivoted at *k* on the top of the case A and provided with a knob *k'*. The end of the bar K is inclined downwardly and extends through a slot *a*, made in the top of the case A. The inner end of the bar K extends beyond the top edge of the rib *j* and is situated directly above the edge at a slight distance away from the side of the vertical plate J. Upon the plunger being pushed downwardly it will be seen that the tooth I', immediately below the inclined inner end of the bar K, will pass down and be guided by the inclined rib *j* to a position to the outside of the lower edge of the rib *j'*, so that when the plunger is forced upwardly again this tooth will pass to the outside of the guiding-rib *j'*, thus partly rotating the plunger in the

direction indicated by arrow and thereby operating upon the screw-threaded rod H so as to force it slightly downwardly to compensate for the ticket which has been ejected in the manner I shall hereinafter describe.

When the plunger E is forced upwardly, the next succeeding tooth to the one hereinbefore mentioned will pass up to the outside of the guiding-rib *j* under the guiding-bar K and thereby turn the plunger E still farther around, so that the preceding tooth as to the direction of rotation will be brought round sufficiently far so that when the plunger is pressed down again it will escape the top of the rib *j* and pass down to the outside of it. The tooth under the bar K will now be in proper position for the depression of the plunger, which operates as hereinbefore described. It will now be seen that upon every downward pressure of the plunger E the casing D will be caused to descend, bringing the bottom ticket against the printing-wheels, the slot M in the bottom of the casing allowing the ticket to come in contact with the printing-wheels to receive the impression. As the tickets are ejected the threaded rod H follows the pile, so as to hold them rigid.

In Fig. 1, it will be noticed, about one-third of the tickets are ejected. When all the tickets are removed, the top of the threaded rod H will have reached the collar *e*. In order to refill the casing D with tickets, the frame B, between the standards B' of which the casing D is situated, held, and moves, is removed through the open bottom of the case A, whereupon the ticket-casing D, being free from the follower, may be filled with tickets. It will be understood that the frame B is suitably held and locked in the case A and that it has to be unlocked before it can be removed through the open bottom of the case A.

In order to raise the follower sufficiently high, so as to permit the full complement of tickets being placed in the casing D, it is necessary that the bar K be removed by the knob *k'* toward the plate J in order to permit the plunger being turned freely without the teeth of the disk I being impeded in rotating.

After the ticket has been printed it is necessary, of course, to eject it. For this purpose I provide a slot N at the bottom of one end of the ticket-casing, opposite the rectangular opening B³ in the frame B and the rectangular opening A² in the case A. In the normal position of the ticket-casing D the slot N is opposite to the top portion of the openings B³ and A². I also provide beneath the bottom of the ticket-casing D the cross-bar O, having a projecting rib *o* extending into and across the slot M and slightly above the level of the bottom of the casing about the thickness of a ticket. I may here mention that the ends of the slot are widened at *m* and *m'* in order to permit of the printing of the month or street, which necessarily occupies a much greater width on the month and street printing wheels, as hereinafter de-

scribed. The ends of the cross-bar O are turned inwardly at O' at each end and rest upon the guiding-ribs P, extending from the bottom of the casing D.

o' are vertical slotted brackets secured at the top of the ends of the bar O.

R are rocking arms pivoted at *r* to the outside of the ticket-case. The bottom ends of the rocking arms R have studs *r'*, which extend into the vertical slotted brackets *o'* on the ends of the cross-bar O. The top ends of the rocking arms R are connected together by a cross-bar R', attached to or forming part of the rocking arms R.

P are spiral springs connecting the cross-bar R' to the bottom of the casing D.

S is a contact-bracket secured to or forming part of the frame B. When the casing D is pushed downwardly, the contact-bracket comes against the cross-bar R', pushing it upwardly, so as to cause the rocking arms R to tilt on their pivot and draw the cross-bar O back beyond the end rear wall of the casing D. Upon the pressure being removed from the plunger E it will be seen that as the casing D moves upwardly the springs P will immediately force the cross-plate forward, and the rib, projecting just the thickness of the ticket, will force the bottom ticket out through the slot N sufficiently far so that it may be readily grasped by the conductor and given to the party wishing the transfer. The cross-bar R' of the rocking arms R will be operated in this manner by the contact-bracket S upon every downward pressure of the casing D.

The printing-wheels are arranged in the manner following: The "A. M." and "P. M." wheel 1 is divided into twelve spaces containing "A. M." and "P. M." alternately. The minute-registering wheel 2 is divided into five-minute spaces containing "0" to "55." The hour-registering wheel 3 is divided also into twelve spaces containing the numerals from "1" to "12." The day-wheel 4 is divided into thirty-one spaces containing the numerals from "1" to "31," and the month-wheel 5 is divided into twelve spaces containing in an abbreviated form the twelve months of the year.

The street-registering wheel Q has the rim preferably formed in the shape of a regular polygon, each side of which has a name of a street embossed or otherwise formed upon it. The street-registering wheel is controlled entirely independent of the other registering-wheels above mentioned and by the means hereinafter described.

The minute-wheel 2 is the controlling-wheel and is keyed to the central spindle 6. The spindle has secured on it outside of one of the standard-plates 7, in which the ends of the spindles are journaled, a tooth-pinion 8, with which engages a spring-dog 9, affixed to one of the standard-plates 7, so that the minute-wheel is always held in the exact position to which it is turned. 10 is a disk provided with one tooth 11, which meshes with the gear-

wheel 12, having twenty-four teeth. The gear-wheel 12 is keyed on the sleeve 13 of the spindle T. 14 is a disk also secured on the sleeve 13 and provided with two teeth 14'. These teeth 14' are arranged to engage with a gear-pinion 15, which has twelve teeth and is engaged by a spring-catch 16. The pinion 15 is attached to or forms part of the "A. M." and "P. M." wheel 1. It will now be seen that upon every revolution of the minute-wheel 2 the gear-wheel 12 will be moved one tooth by the one-toothed disk 10—that is to say, in every hour the gear-wheel 12 will be moved one tooth, or will have completed its revolution in twenty-four hours. The disk 14 will have completed its revolution in twenty-four hours, but as this disk 14 has two teeth 14' on its periphery, and as these teeth mesh with the pinion 15, having twelve teeth, it will be seen that the "A. M." and "P. M." wheel to which the pinion 15 is attached will be moved alternately from "A. M." to "P. M." every twelve hours. The position in which it is moved will be maintained by means of the spring-catch 16. The gear-wheel 12 has teeth sufficiently wide to also mesh with the gear-pinion 17, attached to or forming part of the hour-wheel 3. The gear-pinion 17 has twelve teeth and is secured on the sleeve 18, extending from the pinion 17 to and through the hour-wheel, date-wheel, month-wheel, and hour-hand, respectively. The sleeve 18 is loose on the shaft.

When the wheel 12 is moved forward one tooth in the direction indicated by arrow by the one-toothed disk 10, it will be seen that it will move the pinion 17 forward one tooth and consequently the hour-wheel forward one space, so that upon every revolution of the minute-wheel the hour-wheel will be moved forward one space, and as the pinion 17 has twelve teeth it will be seen that the hour-wheel will be moved twice around in twenty-four hours—that is, the time it takes to rotate the gear-wheel 12 one revolution. The pinion 17, attached to or forming part of the hour-wheel 3, has also a spring-catch 19 engaging with it, so as to hold the wheel steady after it has been moved.

20 is a disk having one tooth secured on the sleeve 13. The tooth engages with the saw-toothed disk 21, attached to or forming part of the date-wheel, which is loose on the sleeve 18. It will now be seen that upon every revolution of the wheel 12—that is to say, every twenty-four hours—the rotating tooth 20 will have moved forward the toothed disk 21 the space of one tooth and the date-wheel to which the disk is attached the corresponding distance. Should there be less than thirty-one days in a month, it will of course be seen that the rotating tooth 20' may be moved around from contact with the toothed disk 21 and the toothed disk 21 moved around until the numeral representing the first of the month is opposite to the point where the printing is made from.

22 is a one-toothed disk attached to or forming

part of the date-wheel 4. The tooth 23 engages with the tooth-disk 24, having twelve teeth attached to a gear-wheel 25, also having twelve teeth. These gear-wheels 24 and 25 are loose on the spindle T. The gear-wheel 25 meshes with the gear-wheel 27, attached to or forming part of the month-wheel 5. The gear-wheel 25 has a corresponding number of teeth to the gear-wheel 27, so that when the gear-wheel 24 is moved forward the space of one tooth the gear-wheels 25 and 27 are moved forward the space of one tooth, and the month-wheel to which it is attached is moved forward a corresponding space sufficient to transfer the characters representing the one month to the characters representing the next succeeding month.

23' and 24' are spring-catches arranged to hold the toothed disk 21 and gear-wheel 27 in position after they have been moved.

The dial-plate C, hereinbefore mentioned, has the numerals from "1" to "12," representing the hours, arranged on it in ordinary clock form.

30 and 31 are the hour and minute hands, respectively. The hour-hand 30 is secured to the sleeve 18 and the minute-hand 31 is secured to the spindle 6. It will now be seen that upon turning the minute-hand 31 the spindle 6 may be caused to rotate one revolution or portion of a revolution, and the time will be indicated on the dial-plate, and the numerals corresponding to the hours and minutes at which the hands are pointing will, as the wheels are so arranged, be rotated to such a position that an impression corresponding to the time indicated on the dial-plate will be made.

From what has been before described it will now readily be understood that the minute-wheel, being the controlling-wheel, changes the hour-wheel, the "A. M." and "P. M." wheel, the date-wheel, and the month-wheel successively by the mechanism connected thereto, so that the minute-spindle 6 alone is all that is necessary to manipulate to regulate the month, the day of the month, and the hour, whether "A. M." or "P. M.," necessary to be imprinted on the transfer-ticket for the protection of the company.

It will of course be understood that the printing-wheels are all the same diameter and that the numbers or characters on them are all arranged on the periphery, so that they are in alinement when ready to print, as will be seen from the ticket. (See Fig. 4.)

In order to provide for the inking of the type on the periphery of the printing-wheels, I provide a pad 32, which is secured on the ends of the levers 33, which are pivoted on the spindle T. One of the levers 33 of the pad is connected at its outer and lower end to the cross-bar B⁴, forming part of the frame B.

35 is a downwardly-extending arm which is secured at the top on the side of the plunger ticket-casing D. The bottom of the arm 35 is parallel to the side of the casing D. It

will be seen that the ink-pad will normally rest upon the type by which the transfer-ticket is to be printed. When the ticket-casing D is caused to move downwardly, the arm 35 presses against the free end of the connecting-lever 33, tilting it on its pivot and throwing the pad 32 out of the path of the plunger ticket-casing D as it descends, so that the bottom ticket will be caused to strike the type. When the plunger E is released and the plunger ticket-casing D recedes, the spring 34 will force the inking-pad again on top of the type.

In my invention I also provide, as hereinbefore mentioned, a street-registering wheel in order that the street transferred to may be imprinted at the same time as the other particulars hereinbefore described. This street-registering wheel has the rim made in the form of a regular polygon, and in order to provide for the inking of each side as it passes beneath the pad I make one end 32' of the pad 32 wider than the remaining portion of the pad, so that it will extend across and rest upon all the letters on the side on which it rests for the time being. In order to provide for the raising of this portion of the pad so that the polygonal wheel may be turned, I provide the following mechanism:

36 is a bent arm pivoted at 37, having a tooth 36', which extends and normally rests in between the tooth 38' of the wheel 38, which is secured on the end of the spindle T. The upper end of the bent arm extends beneath the wide portion 32' of the pad 32. 39 is a spring the free end of which presses against the bent arm 36 and normally holds the tooth 36' in engagement with the wheel 38. In order to operate this bent arm 36 and also to turn the registering-wheel, I provide the following mechanism:

40 is a gear-wheel secured on the spindle T inside the standard-plate 7, and 41 is a gear-wheel secured on the side of the street-registering wheel Q, which is loose on the spindle 6. The gear-wheel 41 meshes with the gear-wheel 40 on the spindle T. By turning the spindle T the gear-wheel 40 communicates motion to the gear-wheel 41, attached to the registering-wheel, and which may therefore be brought to any street desired. In turning the spindle T the wheel 38 being secured to the spindle T operates on the tooth 36', and thereby throws the bent arm upwardly, so as to push the pad upwardly and thereby permit the rotation of the polygonal registering-wheel.

In order to turn the spindle T, I provide a turning-knob T', with pointer t', so as to indicate by pointing to one of the names of the streets on the side of the case A the particular street which is opposite the ticket under the slot M of the casing D. The knob T' is adjustably connected to the end of the shaft T by having secured to it within the side of the case A by the central screw t² a collar t³, provided with a flange t⁴, between which and the side of the casing surrounding the collar

an extension spiral spring t⁵ fits. The inner end of the collar has a hole t⁶, one side of which is straight, and such hole is normally held over the end of the spindle T, which has a corresponding straight side, by the spring t⁵. (See Figs. 1 and 4.)

As the spindle T is journaled in the standard-plates, which are supported on the bottom B³ of the frame B, it will be seen that when it is desired to remove the frame B, so as to put in more tickets, it is merely necessary to draw outwardly upon the knob, so as to move the inner end from off the end of the spindle T, when the frame may be unlocked and withdrawn from out of the bottom of the end of the case A. Ordinarily, however, the spring t⁵ will hold the inner end of the knob upon the end of the spindle T, so that the street to which it is desired to give a transfer may be readily turned uppermost upon the street-registering wheel.

From the description above it will be seen that the ticket will receive an imprint corresponding to that shown in Fig. 4. It will also be seen that the printing-wheels will always be kept well inked, so that a clear imprint is insured on the transfer-ticket.

What I claim as my invention is—

1. In a fare-box a transfer-ticket chamber having a rectangular casing to contain the tickets, a plunger to operate it, guideways for the casing, a slot made in the bottom of it and means for printing the ticket through the slot as and for the purpose specified.

2. In a fare-box a transfer-ticket chamber having a rectangular casing to contain the tickets, a plunger to operate it, guideways for the casing, a slot made in the bottom of it, means for printing the ticket through the slot, an end slot made in the case and means for ejecting the ticket through such slot as and for the purpose specified.

3. In a fare-box a transfer-ticket chamber having a rectangular casing to contain the tickets, a plunger to operate it, guideways for the casing, a follower or compression-plate for the tickets operated through the plunger, a slot made in the bottom of it and means for printing the ticket through the slot as and for the purpose specified.

4. In a fare-box a transfer-ticket chamber having a rectangular casing to contain the tickets, a plunger to operate it, guideways for the casing, a slot made in the bottom of it spiral springs connected to the bottom of the casing and to a suitable portion of the frame and means for ejecting the ticket through the slot as and for the purpose specified.

5. The combination with the casing for holding the tickets having a slot in the bottom thereof, means for holding said casing rigid laterally and for returning it to its normal position when depressed, a follower provided with a threaded rod a hollow plunger having an internally-threaded portion through which the threaded rod is adjustable, means for turning the hollow plunger auto-

matically as the same is reciprocated and means for discharging the ticket.

6. In combination, the casing, the ticket-carrier movable therein, the follower in the ticket-casing, the plunger for operating the follower and through it the ticket-casing the discharge mechanism for the tickets and the means for automatically advancing the follower in the ticket-carrier at each reciprocation thereof, substantially as described.

7. In combination the casing, the reciprocating ticket-carrier, the discharge mechanism for the tickets, the follower in the ticket-casing the threaded rod extending therefrom the internally-threaded sleeve or nut on said threaded rod to advance the same and the means for automatically turning said sleeve or nut as the ticket-casing is reciprocated, substantially as described.

8. In combination, the outer casing, the reciprocating ticket-casing having the slot M in its bottom, the printing-wheels under the ticket-casing and in line with the said slot, the follower operating in the ticket-casing to feed the tickets constantly to the said slot the rod extending from the follower, the means for automatically advancing the said rod and follower as the ticket-casing is reciprocated and the discharge mechanism for the printed tickets.

9. In combination in a ticket-case, the outer casing, the reciprocating ticket-casing guided therein, the follower, the threaded rod extending therefrom, the hollow plunger having an internally-threaded portion engaging the rod, the toothed wheel on the hollow plunger, guiding means for engaging the tooth of said wheel as the plunger is reciprocated to turn said plunger and adjust the screw-rod longitudinally to feed the follower and the discharge mechanism for ejecting the tickets, substantially as described.

10. In combination in a ticket-case, the outer inclosing casing, the ticket-holding case arranged to reciprocate therein, the follower, the threaded rod connected therewith the hollow plunger having an internally-threaded portion, the toothed wheel on the hollow plunger, the guiding means on the casing for engaging the toothed wheel and rotating the plunger step by step to feed the plunger, the said guiding means having an adjustable portion K arranged to be turned aside to permit the hollow plunger to be turned by hand without striking the toothed wheel and the means for discharging the tickets, substantially as described.

11. The combination with the casing, D, guideways to hold it laterally rigid and spiral springs, *d*, to hold the casing in its normal position, of a follower, G, and plunger to operate it as specified, a slot, N, made in one end of the ticket-casing and a corresponding slot, M', made in the bottom of the case a cross-bar, O, having a projecting rib, *o*, and means whereby the cross-bar is given a forward movement from the opposite end of the

casing immediately upon the plunger being caused to ascend as and for the purpose specified.

12. The combination with the casing, D, having a slot M, made in the bottom of it, guideways to hold it laterally rigid and spiral springs, *d*, to hold the casing in its normal position, of a follower, G, and plunger to operate it as specified, a slot, N, made in one end of the ticket-casing and openings made in the frame, B, and case, a cross-bar, O, having a projecting rib, *o*, extending into the slot, M and means whereby the cross-bar is given a forward movement from the opposite end of the casing immediately upon the plunger being caused to ascend as and for the purpose specified.

13. The combination with the casing, D, having a slot M, made in the bottom of it, guideways to hold it laterally rigid and spiral springs, *d*, to hold the casing in its normal position, of a follower, G, and means for operating said follower, a slot, N, made in one end of the ticket-casing and openings made in the frame, B, and case, a cross-bar, O, having a projecting rib, *o*, extending into the slot, M and having the outer ends moving on guideways, *p*, a slotted bracket *o'* attached to the ends of said bar O, rocking arms R, pivotally connected at one end to said brackets *o'* the cross-bar R' connected to or forming part of the arm R, the spiral springs, P, attached at one end to the cross-bar and at the other end to a suitable portion of the frame and the contact-bracket, S, designed to press against the cross-bar in its descent and thereby tilt the rocking arms and operate the cross-bar to discharge the tickets as and for the purpose specified.

14. The combination with the ticket-casing, D, plunger, E, for operating it, slot, M, made in the bottom of the casing and follower, G, with mechanism connected to the plunger for holding the tickets against the slot, of the printing-wheels 1, 2, 3, 4, 5, designed to imprint the particulars on the ticket through the slot as and for the purpose specified.

15. The combination with the ticket-casing, D, plunger E, for operating it, slot, M, made in the bottom of the case and follower, G, with mechanism connected to the plunger for holding it against the slot, of the printing-wheels, 1, 2, 3, 4 5, designed to imprint the particulars on the ticket through the slot, an inking-pad, 32, and means for throwing the pad outside the path of the casing as it is caused to descend as and for the purpose specified.

16. The combination with the ticket-casing, D, plunger E, for operating it, slot, M, made in the bottom of the case, and follower, G, with mechanism connected to the plunger for holding it against the slot, of the printing-wheels, 1, 2, 3, 4 5, designed to imprint the particulars on the ticket through the slot, an inking-pad, 32, supported on the ends of the levers, 33, spiral springs, 34, designed to hold the pad normally against the surface of the type on

the printing-wheels, arm, 35, connected to the ticket-casing, and designed to tilt the lever, 33, and throw the pad outside the path of the casing as it is caused to descend as and for the purpose specified.

17. In combination with the case D having a slotted bottom carrying the tickets to be printed and the plunger E for depressing the said case to bring said tickets into contact with the printing mechanism, of the spindle 6, the minute-wheel 2 secured on said spindle, the one-toothed disk secured to said minute-wheel and adapted to rotate therewith, the sleeve 13, the gear-wheel 12 secured thereon and meshing with the tooth-disk the hour-wheel 3 on the spindle 6 the pinion 17 secured thereto and meshing with the gear-wheel 12 the two-toothed disk 14 secured on said sleeve 13, the "A. M." and "P. M." wheel 1 the pinion 15 secured thereto and arranged on the spindle 6 said pinion 15 meshing with the teeth of the disk 14 and means for setting the train of mechanism to bring a predetermined point on the periphery of the disks 1, 2 and 3, to register with the slot in the case D and means for retaining said wheels rigidly in the position after having been moved, substantially as described.

18. In combination with the case D having a slotted bottom carrying the ticket to be printed, and the plunger E for depressing said case to bring said tickets in contact with the printing mechanism, of the spindle 6, the minute-wheel 2 secured on said spindle, the one-toothed disk secured to said minute-wheel and adapted to rotate therewith, the sleeve 13 the gear-wheel 12 secured thereon and meshing with the toothed disk 10, the hour-wheel 3, the pinion 17 secured thereto and meshing with the gear-wheel 12, the date-wheel 4, the gear-wheel 21 secured thereto, the tooth 20 carried by said sleeve 13 and meshing with gear 21, the two-toothed disk 14 also secured on said sleeve 13, the "A. M." and "P. M." wheel 1 having the pinion 15 secured thereto on the spindle 6 said pinion 15 meshing with the teeth of the disk 14 and means for setting the train of mechanism to bring a predetermined point of the periphery of the disks 1, 2, 3 and 4 to register with the slot in said case D, substantially as described.

19. In combination with the ticket-casing D having a slotted bottom and the plunger E for depressing said case, of the spindle 6, the minute-wheel 2 connected thereto, the sleeve 13, the gear-wheel 12 carried thereby, the one-toothed disk 10 secured to or forming part of said wheel 2, the hour-wheels, the pinions

17 secured to or forming part of the hour-wheel 3 meshing with said wheel 12, the date-wheel 4, the gear 21 secured thereto, the tooth 20 carried on the sleeve 13 engaging with said gear 21, the one-toothed disk 22 secured on the opposite side of the wheel 4, the toothed pinion 24 engaging therewith, the spindle T carrying the sleeve 13, the gear-wheel 25 carried loosely on said spindle T having the said gear 24 secured thereto, the month-wheel 5, the gear-wheel 27 attached thereto and meshing with said gear-wheel 25 whereby the rotation of the spindle 6 to a predetermined position will bring a predetermined point on the periphery of the wheels 2, 3, 4 and 5 to register with the slot in the case D, substantially as described.

20. In a ticket-case the combination with the minute-wheel connected to the spindle 6 and operating to rotate therewith, the hour-wheel, the sleeve carrying the same and arranged on the spindle 6, the date and month wheels loosely journaled thereon, the "A. M." and "P. M." wheel also arranged on said spindle 6, the train of mechanism from the minute-wheel for controlling the hour, date, month and "A. M." and "P. M." wheels the clock-dial at the end of the spindle 6, the minute-hand on said spindle arranged to move over the dial and the hour-hand secured to the sleeve 18 and also arranged to move over the said dial, substantially as described.

21. In combination with the casing A and the polygonal street-registering wheel therein the ticket-case adapted to be rotated, the inking-pad 32 having the wide portion 32', the arm 36 under spring tension having its upper end extending under said widened portion of said pad and provided with a tooth 36' the spindle T, the toothed wheel 38 carried thereby engaging with said tooth whereby the partial rotation of said spindle will actuate said lever and raise the widened portion of said pad to allow the rotation of the said polygonal street-registering wheel, substantially as described.

22. The combination with the polygonal wheel turned as specified, the pad having the wide portion, 32', the spring-pressed arm, 36, having its upper end extending under the widened portion of the pad and provided with a tooth, 36', engaging with the wheel, 38', on the end of the spindle, T, as and for the purpose specified.

DUNCAN SUTHERLAND MACORQUODALE.

Witnesses:

K. GREENWOOD,
E. R. CASE.