

July 25, 1933.

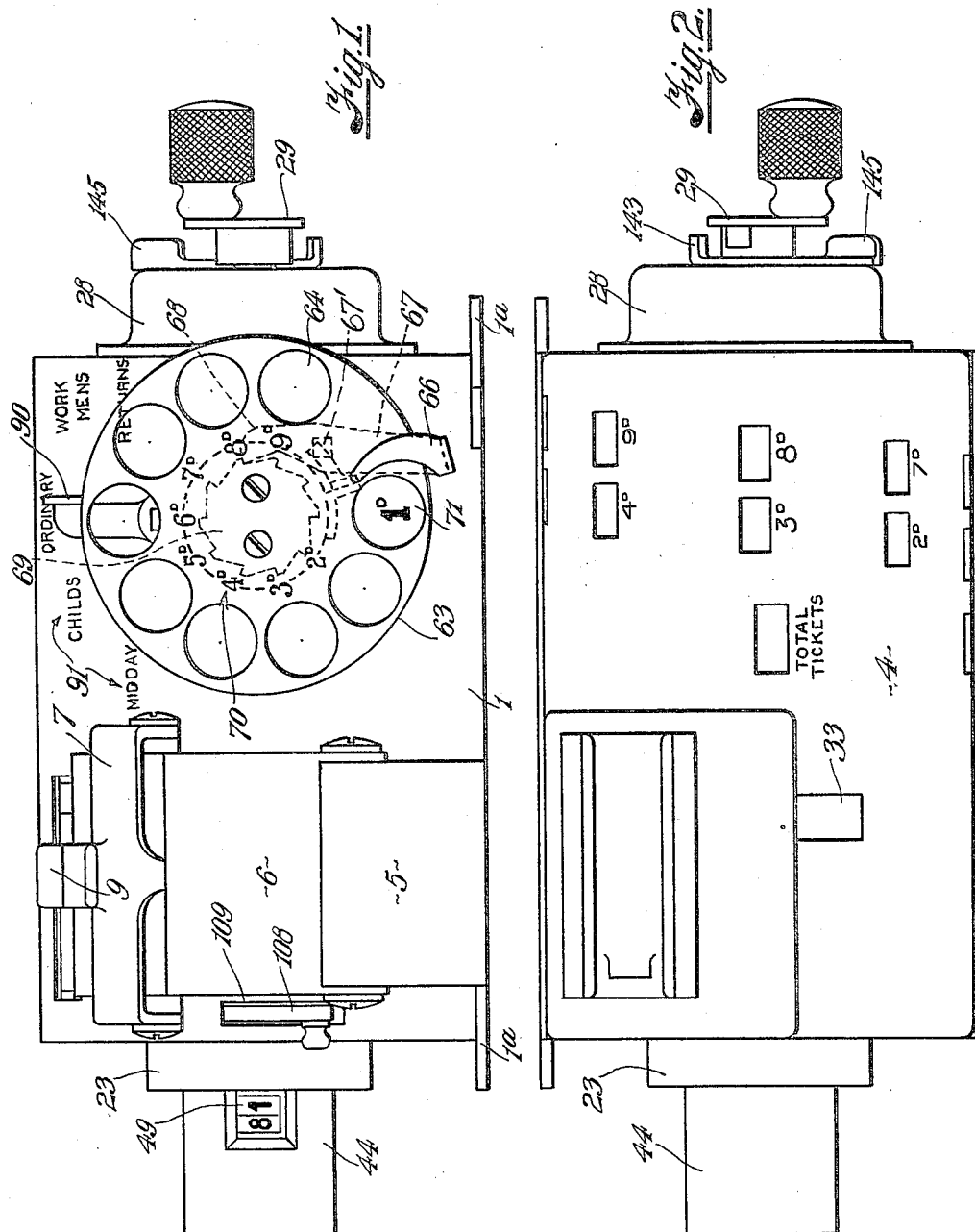
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1,920,085

MACHINE FOR ISSUING TICKETS

Filed Oct. 29, 1931

5 Sheets-Sheet 1



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MACHINE FOR ISSUING TICKETS

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5 Sheets-Sheet 2

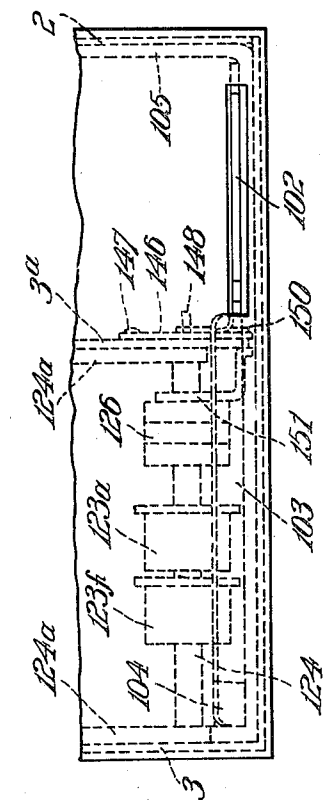


Fig. 11.

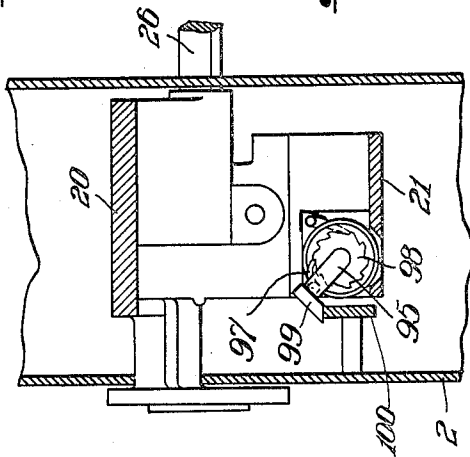


Fig. 12.

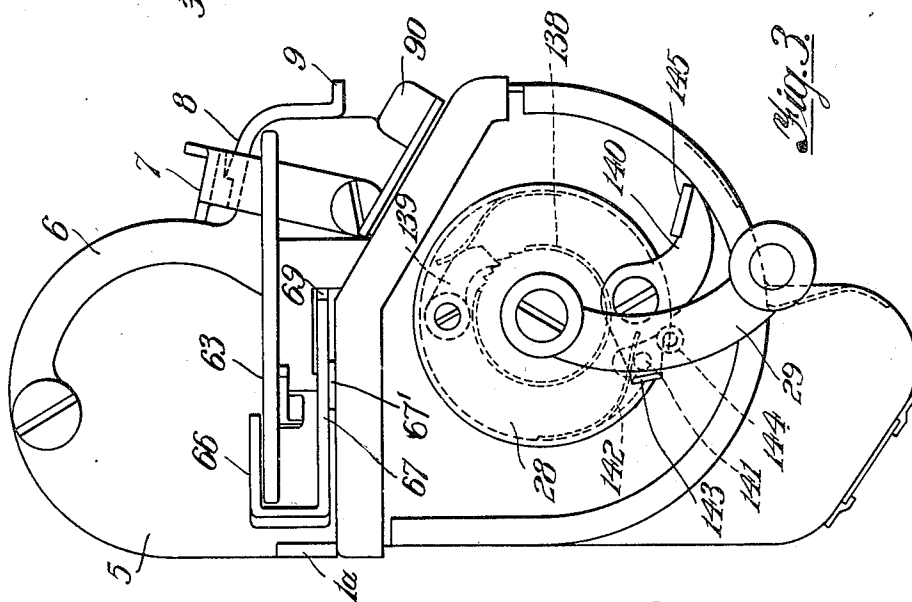


Fig. 3.

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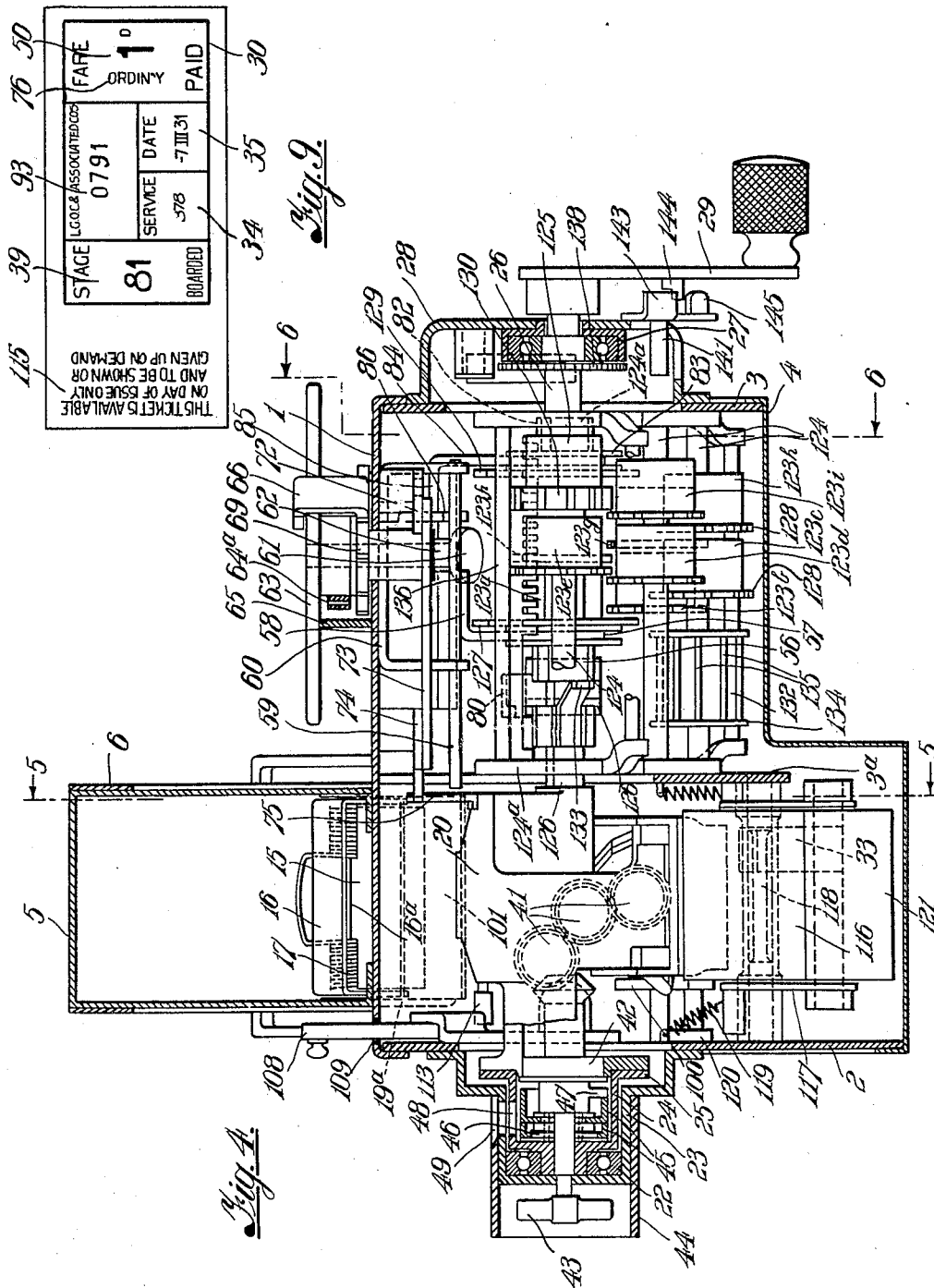
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MACHINE FOR ISSUING TICKETS

Filed Oct. 29, 1931

5 Sheets-Sheet 3



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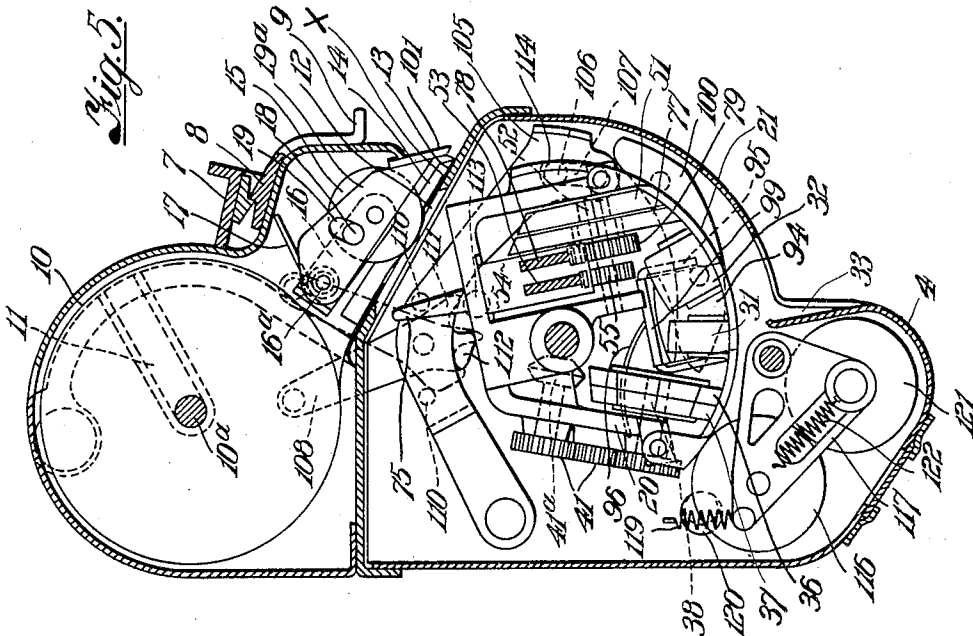
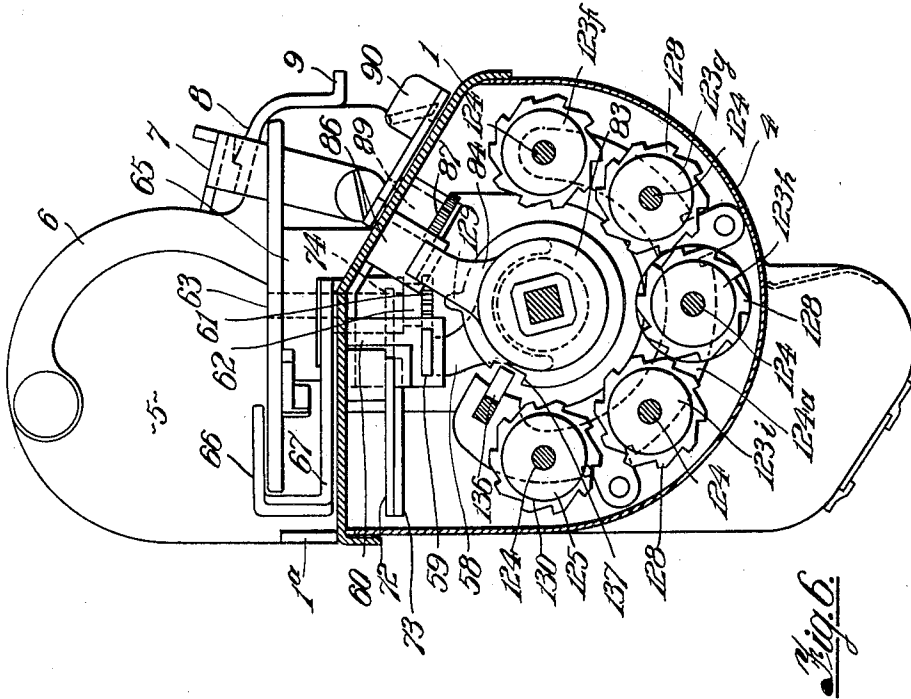
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MACHINE FOR ISSUING TICKETS

Filed Oct. 29, 1931

5 Sheets-Sheet 4



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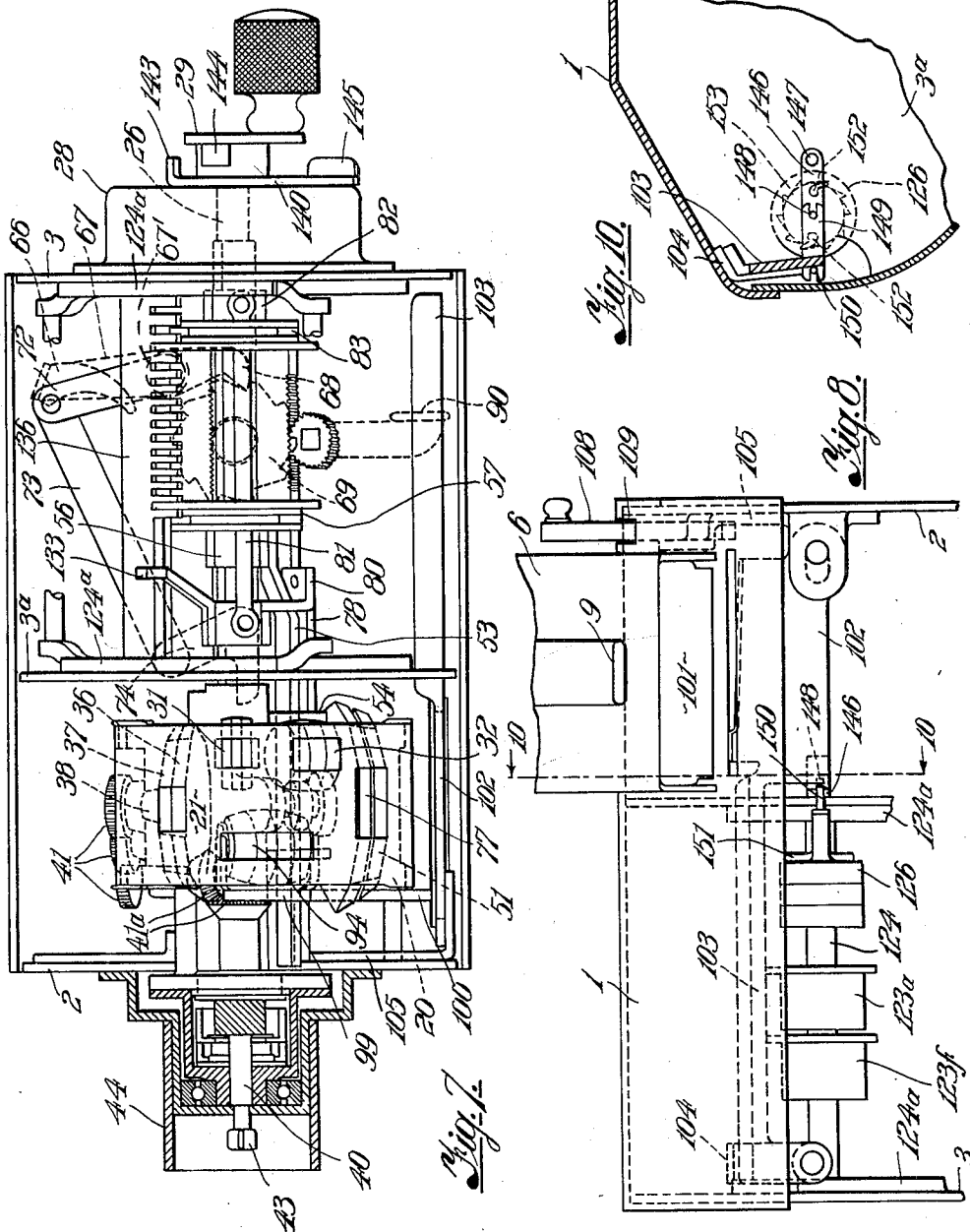
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MACHINE FOR ISSUING TICKETS

Filed Oct. 29, 1931

5 Sheets-Sheet 5



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MACHINE FOR ISSUING TICKETS

Application filed October 29, 1931, Serial No. 571,886, and in Great Britain November 14, 1930.

This invention relates to machines for issuing tickets such as those used on tramway cars and omnibuses and has for its object to provide an improved and simplified machine for printing and issuing tickets in which the class of ticket, the fare stage, and if necessary other features can be readily adjusted as required before issuing any ticket.

According to the invention a ticket issuing machine comprises a rotary printing device, adapted to print and issue tickets from a ticket strip magazine and means for independently recording the numbers of the various values and totals of tickets issued. The invention also provides means for preventing the ticket strip from being accidentally or unintentionally stopped during operation, means for severing the printed tickets in such a manner as to prevent their flying loose, means for rendering the severing device automatically inoperative when it is desired to issue a ticket for a value not specifically provided for in the setting mechanism and a construction intended for a machine adapted to be carried on the person of a tramway car or omnibus conductor which permits access to be obtained to the strip magazine for inserting a fresh ticket strip without moving the machine from the position in which it is carried by the operator.

In carrying the invention into effect according to the preferred form and as applied to a machine adapted to be carried on the person of a tramway car or omnibus conductor, the machine comprises a casing within which is disposed a rotatable shaft carrying a printing drum or other rotatable printing element adapted to perform in one rotation the printing of a ticket and having adjustable dies which print at one time the value of the fare, the consecutive number of the tickets and the service or the number or nature thereof and any other features which may be necessary.

Certain of the adjustable dies are controlled by hand actuated adjusting devices mounted on the exterior of the casing and capable of being adjusted when the drum

is in the rest position so as to print a ticket of a required value and class upon a strip carried in a magazine and to issue the printed ticket from the machine.

A machine constructed according to the preferred form of the invention is illustrated in the accompanying drawings in which:—

Figure 1 is a plan view,

Figure 2 is an inverted plan view,

Figure 3 is an end view,

Figure 4 is a rear elevation partly in section,

Figure 5 is a sectional view taken on the line 5—5 of Figure 4 and looking in the direction of the arrows.

Figure 6 is a sectional elevation taken on the line 6—6 of Figure 4 and looking in the direction of the arrows.

Figure 7 is an inverted plan view partly in section.

Figure 8 is a fragmentary front elevation showing the arrangement of the knife mechanism for partially severing the printed tickets from the ticket strip.

Figure 9 is a representation of the ticket printed by the machine.

Figure 10 is a section on the line 10—10 of Figure 8 looking in the direction of the arrows.

Figure 11 is a fragmentary plan of the parts shown in Figures 8 and 10 and

Figure 12 is a fragmentary section on the lines 12—12 of Figure 5.

The machine shown in the drawings is enclosed in a casing consisting of a bed plate 1, two end frame plates 2 and 3 and an intermediate frame plate 3a projecting downwardly from the ends of the plate 1 and cover 4 secured to the bed plate 1 and frame plates 2 and 3. The bed plate 1 also carries a ticket strip magazine or casing 5 fixed to the upper side of the bed plate 1 near one end thereof and having an open front fitted with a hinged cover 6. The casing is provided with lugs 1a for attachment to shoulder straps for supporting the machine upon the person of the conductor in such a way that the machine can be operated and the hinged cover 6 opened for replenishing the ticket magazine without mov-

ing the machine from its normal position on the person of the conductor.

The cover 6 is held in the closed position by means of a hinged bracket 7 which is carried by the bed plate 1 and which engages a detent 8 fixed on the cover 6 as shown in Figures 3, 5 and 6 of the drawings, the detent 8 being formed with a projecting finger piece 9 by which the cover 6 can be depressed for the purpose of releasing the bracket 7 from the detent 8 and permitting the bracket to be swung down against the bed plate 1 when it is required to open the cover 6 to gain access to the ticket strip magazine.

The ticket strip is in the form of a roll 10 which is fitted into the casing 5 as shown in Figure 5 and which may be carried by a detachable spindle 10a adapted to engage in slots 11 formed in the sides of the casing 5. One of these slots 11 is preferably made wider than the other, the ends of the detachable spindle being of corresponding dimensions so that the position of the spindle cannot be reversed end for end. If the ticket rolls are provided ready mounted on spindles adapted to engage in the slots 11 this arrangement will ensure that the ticket roll is inserted in the casing 5 in the correct position.

The bed plate 1 is formed with an opening 12 (Figure 5) over which is fitted a ticket strip guide plate 13 formed with up-standing edges or flanges 14 by which the ticket strip is guided over the bed plate 1. The hinged cover 6 carries a spring loaded pressure roller 15 which engages the upper surface of the ticket strip when the cover 6 is closed so as to press the ticket strip against the guide plate 13 as shown in Figure 5. The pressure roller is carried between the arms of a frame 16 pivoted on a spindle 16a fixed to the side walls of the cover 6 and controlled by a spring 17 which tends to rock the frame 16 in a direction to press the roller 15 towards the opening 12, this movement being limited by the engagement of pins 18 carried by the arms of the frame 16 in slots 19 formed in brackets 19a which are fixed to the cover 6.

The machine is provided with a printing drum 20 mounted to rotate about a horizontal axis beneath the bed plate 1 and provided with a printing surface indicated generally at 21 which is arranged to print upon the under-side of the ticket strip through the opening 12 and to feed the ticket strip forward so as to eject the printed ticket from the machine. The printing drum is supported at one end by means of a ball bearing 22 (Figure 4) which is fitted into a sleeve or cup 23 fixed to the side frame plate 2 and which supports a hollow sleeve 24 located concentrically within the sleeve 23 and formed at its inner end with a flange 25

which is fixed to a corresponding flange formed on the printing drum. The other end of the printing drum is fixed to a shaft 26 which extends horizontally across the machine beneath the bed plate 1 and is supported at its end remote from the printing drum by means of a ball bearing 27 carried by a sleeve or cup 28 fixed to the side frame plate 3. The end of the shaft 26 projects outside the sleeve or cup 28 and carries a crank handle 29 by which the printing drum can be rotated.

The printing surface of the printing drum is composed of a number of fixed dies adapted to print the frame or border 30 and other invariable parts of the ticket illustrated in Figure 9 and also a number of adjustable dies for printing the value of the ticket, class of ticket, the consecutive number of the ticket, the fare stage, the service number and the date of issue.

The dies 31 for printing the service number and the dies 32 for printing the date of issue are adjustable directly by hand, the dies 32 being accessible through an opening 33 in the cover 4 when the printing drum is in the normal or rest position shown in the drawings so that the conductor can adjust these dies to print the date of issue without removing the cover 4 from the machine. In Figure 9 the service number is shown at 34 and the date of issue at 35.

The fare stage dies are carried by a pair of rotary die holders 36 and 37 which are journaled upon a common spindle 38 within the printing drum and are adjustable to print any one of a series of numbers representing fare stages as indicated at 39 in Figure 9. The die holder 36 prints the unit digit, whilst the die holder 37 prints the tens digit and is coupled to the die holder 36 by suitable gearing (not shown) so as to be moved forward through one step at the end of each complete rotation of the die holder 36.

The adjustment of the fare stage dies is effected by means of an adjusting spindle 40 which is mounted co-axially with the printing drum so as to be rotatable relatively thereto and is geared to the spindle 38 (to which the die holder 36 is attached) through the medium of a pair of bevel wheels 41a and a series of toothed wheels 41 carried by the printing drum.

The fare stage adjusting spindle 40 is supported near its inner end by means of a ball bearing 42 carried by the printing drum and projects at its outer end beyond the end of the sleeve 23 where it is fitted with a butterfly grip 43. The butterfly grip 43 is protected by an open ended sleeve 44 fitted on the sleeve 23 but is accessible through the open end of this sleeve so that the spindle 40 can be rotated for the purpose of adjusting the fare stage printing wheels.

In order to provide an indication of the fare stage to which the fare stage printing wheels are adjusted, a pair of number wheels 45 fitted with suitable carrying mechanism (not shown) corresponding to that provided between the wheels 36 and 37 are rotatably supported within the sleeve 24 by means of washers 46 fixed by screws to the end of the sleeve 24 and are adjusted by a driving lug 47 fixed to the spindle 40 and engaging the units number wheel. The relevant numbers on the wheels 45 are visible through an opening 48 in the sleeve 24, the sleeves 23 and 44 being formed with corresponding openings 49 which register with the opening 48 when the drum is in the normal or rest position shown in the drawings.

The value dies for printing a value indication on the ticket as indicated at 50 in Figure 9 are carried on a rotary disc or die holder 51 which is carried by a rotatable spindle 52 mounted in the printing drum and is controlled by a sliding rack 53 (see Figures 5 and 7) which is guided in brackets 54 fixed to the printing drum and meshes with a pinion 55 fixed to the spindle 52. The rack 53 is fixed at its end remote from the printing drum to a bracket 56 fixed to a grooved disc 57 which is mounted to slide on a squared portion of the shaft 26. The disc 57 is located and controlled as regards its sliding movement on the shaft 26 by means of a yoke 58 (Figure 4 and 6) carried by a sliding rack 59 which is guided in brackets 60 fixed to the bed plate 1 and meshes with a toothed pinion 61 carried by a spindle 62 supported by the bed plate 1. The spindle 62 projects through the bed plate 1 and carries at its upper end a dial plate 63 (Figure 1) formed with a series of finger holes 64, each one of which corresponds to one of the values of the tickets which the machine can issue. The dial plate 63 is normally held in the position shown by a spring 64^a located between the spindle 62 and a boss or housing 65 fixed to the bed plate 1, but the conductor can adjust the dial plate to any one of a number of positions corresponding to the different positions to which the disc 51 is adjustable for printing different fare values by placing his finger in one of the holes 64 and rotating the plate 63 until his finger is arrested by a finger stop 66 disposed above the plate 63.

The finger stop 66 is carried at one end of a two-armed lever 67 secured between its ends to the upper end of a spindle 67' which is journaled in the bed plate 1. The lever 67 is formed with a pawl 68 which cooperates with a ratchet wheel 69 fixed to the spindle 62, the arrangement being such that the pressure of the finger on the stop 66 when the dial plate 63 is adjusted as described above causes the pawl 68 to engage one of the teeth of the ratchet wheel 69 for the purpose of

holding the dial plate 63 in its adjusted position against the action of the spring 64^a. Indications of ticket values 70 are marked on the dial plate 63 adjacent the finger holes 64 as shown in Figure 1, the indication adjacent each hole corresponding to the value to which the machine will be adjusted by placing the finger in that hole and rotating the dial plate until the finger is arrested by the stop 66. The value indication of 1¢ to which the machine is normally adjusted is marked on the base plate 1 so as to be visible through the first hole 64 as shown at 71 in Figure 1. The spindle 67' of the lever 67 carries a lever arm 72 disposed beneath the bed plate 1 (see Figure 4) and connected by the link 73 to a bell crank lever 74, one arm of which lies in the path of a pin or projection 75 carried by the printing drum (see Figures 4 and 5) and so arranged that as the printing drum rotates the pin 75 will engage the lever 74 and will move the same in a direction to retract the pawl 68 from engagement with the ratchet wheel 69 after the operation of printing the ticket has been completed, with the result that the dial plate 63 will be automatically restored by the spring 64^a to the position shown in the drawings after a ticket has been printed.

The class dies for printing the class indications as shown at 76 in Figure 9 are carried by a rotary disc or die holder 77 which is mounted side by side with the disc 51 on the spindle 52 and is controlled by a sliding rack 78 similar to the rack 53 and similarly guided in the brackets 54. The rack 78 meshes with the pinion 79 fixed to the disc 77. The rack 78 is attached at its end remote from the printing drum to a bracket 80 mounted to slide on the squared portion of the shaft 26 between the printing drum and the bracket 56 and connected by links 81 to a bracket 82 which is attached to a grooved disc 83 similar the grooved disc 57 and mounted to slide on the squared portion of the shaft 26 beyond the disc 57 and remote from the printing drum.

The disc 83 is located and controlled in its sliding movement on the shaft 26 by means of a yoke 84 (Figures 4 and 6) attached to a sliding rack 85 guided in brackets 86 fixed to the bed plate 1. The movements of the rack 85 are controlled by a pinion 87 carried by a spindle 89 supported by the bed plate 1. The spindle 89 projects through the bed plate 1 and carries an external class adjusting lever 90 which is operable by hand. Class indications corresponding to the class indications capable of being printed by the disc 77 in its various positions are marked on the bed plate 1 as shown at 91 (Figure 1) in such a way that when the class adjusting lever 90 is brought into register with any of the class indications 91 the disc 77 is adjusted to

print the corresponding class indication on the ticket.

The printing of the consecutive number of the ticket indicated at 93 in Figure 9 is printed by a set of numbering wheels 94 carried by the printing drum and adapted to be advanced through one step every time the printing drum is rotated. For this purpose a U-shaped bar or bracket 95 (see Figure 12) mounted to pivot about the axis of the numbering wheels and controlled by a spring 96 carries a pawl 97 co-operating with a ratchet wheel 98 attached to the units numbering wheel. The bracket 95 is formed or provided with a tappet or projection 99 arranged to co-operate with a cam plate 100 (Figures 4, 5 and 12) which is fixed to the side frame 2 and is arranged to engage and move the tappet 99 in such a way as to move the pawl 97 through the space of one of the ratchet teeth against the action of the spring 96 as the printing drum rotates. The release of the bracket 95 after the tappet 99 has passed the cam plate 100 causes the pawl to move back and engage the next tooth.

After the printed ticket has been ejected from the machine by the rotation of the printing drum it is partly severed by a cutting device consisting of a fixed knife blade 101 carried by the brackets 19a fixed to the ticket magazine cover 6 and a movable knife blade 102 formed on the lever 103 which is located beneath the bed plate 1 and extends substantially across the front of the machine within the cover 4. The lever 103 is pivotally supported, as shown in Fig. 8, at one end by means of a bracket 104 fixed to the bed plate 1 and its other end has a pin and slot connection with the free end of a lever 105 which is pivoted to the side plate 2 and has a vertical swinging movement limited by the engagement of a pin 106 fixed to the side plate 2 with a slot 107 formed in the lever 105. The lever 105 carries a pivoted hand lever 108 which projects upwards through a slot 109 in the bed plate so as to be accessible for hand manipulation.

The lever 108 is movable between two limiting positions determined by pins 110 on the lever 105 and is formed with two projections 111 and 112 at its lower end which lie in the path of a pin 113 fixed to the printing drum. The projections 111 and 112 are so shaped as shown in Figure 5 that when the lever 108 is set to the position shown in full lines the projection 112 is engaged by the pin 113 during the rotation of the printing drum in such a manner as to rock the lever 105 and thereby to actuate the knife blade 102 for the purpose of partly severing the ejected ticket from the ticket strip. The edge of the knife blade 102 is inclined to the edge of the knife blade 101 and the movement of the blade 102 is so adjusted that the cutting movement of this

blade almost, but not quite, severs the issued ticket from the strip, thereby preventing the ticket from becoming detached from the machine until the conductor removes it by hand. When the lever 108 is moved to the position shown by chain dotted lines in Figure 5 the pin 113 will clear the projections 112 as the drum rotates so that the lever 105 is not displaced and the ticket which has been issued is not cut. After the pin 113 has passed the projection 112 however, it engages the projection 111 and swings the lever 108 into the position shown in full lines so that, upon a subsequent operation of the machine to print a further ticket, the knife blade 102 will be actuated.

The portion of the ticket strip indicated at x in Figure 5 as extending between the pressure roller and knife blades is printed upon by a die 114 fixed on the printing drum and, when the knife blade 102 is actuated, the portion of the ticket strip is severed from the portion of the ticket strip which has been printed upon by the printing surface 21. The part x of the ticket strip therefore forms part of the next ticket issued and must consequently constitute one of the invariable parts of the ticket. In the machine shown in the drawings the die 114 prints a notice as indicated at 115 in Figure 9.

The machine is provided with an inking device consisting of an inked roller 116 mounted on a frame or bracket 117 which is supported on a spindle 118 fixed to the frame of the machine and is pressed towards the printing drum by a spring 119, its movement being limited by stops 120. The ink supply roller 121 carried by the frame 117 is pressed against the inked roller by springs 122.

The machine is provided with a number of registering counters 123a, 123b . . . 123i, each of which registers the total number of tickets issued for a given fare value. These counters are mounted on spindles 124 disposed parallel to the shaft 26 and at equidistance therefrom, the counters being arranged around the shaft 26 in such a way that they can be read through openings formed in the cover 4 as shown in Figure 2. The machine is also provided with a registering counter 125 for registering the total number of return tickets issued and a counter 126 for registering the total number of complete tickets issued, it being understood that when the printing drum is rotated more than once for the purpose of issuing a ticket of a value not specifically provided for by the printing apparatus the ticket produced by the two or more rotations of the drum is regarded as one ticket.

All of these registering counters are carried on the spindles 124 which are connected at their ends to metal plates 124a. The spin-

dles 124 and plates 124a constitute a self-supporting skeleton frame so that the whole of the meters can be detached from the machine as a unit for resetting or replacement.

5 Access to the interior of the machine for reading the counters is unnecessary however, as the various records are all visible through openings in the cover 4 (see Figure 2) without unsealing the machine.

10 The counters 123a . . . 123i are operated by a finger 127 formed on the disc 57; each of the counters having a toothed wheel 128 attached to its units numbering wheel and adapted to be engaged by the finger 127 and
15 rotated through the space of one unit as the disc 57 rotates with the printing drum. The counters 123a . . . 123i are so arranged that whenever the machine is adjusted by means of the dial plate 63, the disc 57 is
20 moved along the shaft 26 to a position which permits its finger 127 to actuate the appropriate counter 123a . . . 123c or 123i according to the value which is to be printed on the ticket.

25 The counter 125 is operated by a finger 129 formed on the disc 83 and has a toothed wheel 130 which is similar to the toothed wheels 128 and is so disposed as to be engaged and actuated by the finger 129 during
30 rotation of the printing drum when the disc 83 is in an appropriate position. Owing to the fact that the machine illustrated in the drawings is designed to issue two kinds of return tickets, viz. ordinary
35 return tickets and workmen's tickets, the toothed wheel 130 is wider than the wheels 128 and is arranged to be actuated by the finger 129 in either of the two positions which the disc 83 assumes during printing
40 of the two kinds of return tickets.

The counter 126 is actuated by the lever 103 through the medium of a lever 146 which is pivoted at 147 to the frame plate 3a and coupled to the lever 103 by the en-
45 gagement of a pin 148 on the lever 146 with a slotted bracket 149 on the lever 103. The free end of the lever 146 is slotted and engages a pin 150 carried by the disc 151 which is rotatably mounted on the spindle
50 124 carrying the counter 126 and carries pawls 152 cooperating with internal ratchet teeth 153 of the units numbering wheel, the arrangement being such that every operation of the lever 103 causes the counter
55 126 to be advanced through the space of one unit.

A further registering counter 132 for registering the total number of the rotations of the drum is provided and this counter
60 is actuated by a finger 133 which is fixed to the bracket 80 and which drives the counter 132 through the space of one unit during every rotation of the printing drum whatever may be the position along
65 the shaft 26 to which the bracket 80 is ad-

justed. As shown in the drawings a pair of discs 134 are loosely mounted on the shaft of the counter 132 at opposite ends thereof and are connected together by rods 135 which constitute an elongated pinion
70 capable of being engaged and advanced through the space of one tooth by the finger 133 during every rotation of the printing drum.

In order to prevent the drum from being
75 rotated when either of the fare stage or fare value adjusting devices are incorrectly adjusted and also to prevent movement of the fare stage and fare value adjusting devices after the drum has been moved away
80 from its normal or rest position, a toothed bar or comb 136 is fixed in the machine as shown in Figures 4 and 6, in such a way that the edges of the discs 57 and 83 are engaged between two teeth of the comb in
85 every one of the several positions to which the discs may be adjusted. Each of the discs 57 and 83 is provided with a recess 137 which registers with the comb when the drum is in the normal or rest position
90 so as to permit of axial movement of the disc 57 and 83 for the purpose of adjusting the fare value or fare stage whilst the drum is in the normal or rest position.

In order to prevent reverse rotation of
95 the drum the spindle 26 carries a ratchet wheel 138 which is located in the sleeve or cup 28 and is engaged by a pawl 139 mounted in the cup 28.

Mounted on the outside of the sleeve or
100 cup 28 is a lever 140 carrying a pin 141 which projects through an opening in the cup 28 and is engaged by a leaf spring 142 which normally holds the lever 140 in the position shown so that a lug 143 formed on
105 this lever lies in the path of a pin 144 carried by the crank handle 29. The engagement of the lug 143 with the pin 144 arrests the rotation of the handle 29 when the drum is in the normal or rest position
110 shown in the drawings thereby preventing accidental rotation of the crank handle beyond this position. The lever 140 has a projection 145 which is located in a position convenient to the hand of the operator and permits the lever 140 to be moved
115 against the action of the spring 142 into a position in which the lug 143 is clear of the path of the pin 144 so that the crank handle can be rotated when required.
120

In the use of the machine, the conductor
adjusts the fare stage by rotating the butterfly grip 43 backwards or forwards until the numbering wheels 44 indicate the required
125 fare stage. The conductor will usually adjust the fare stage in this way as the vehicle enters the successive stages but in the event of a passenger being carried beyond the stage at which he boarded the vehicle before the conductor can issue his ticket, the
130

fare stage printing device can easily be adjusted prior to the issue of that passenger's ticket to indicate the correct stage at which the vehicle was boarded by the passenger.

- 5 The conductor adjusts the lever 90 in accordance with the class of ticket which is to be issued and also adjusts the fare value by means of the dial plate 63.

- 10 After these adjustments have been made, the conductor releases the stop lever 140 and rotates the crank handle through one revolution. The consequent rotation of the printing drum prints and issues a ticket marked with the fare stage and value to which the machine was adjusted by the conductor and registers the issue of this ticket on one of the counters 123a . . . 123i and on the counter 132. As the drum reaches the end of its rotary movement the knife blade 102 is operated so as partially to sever the ticket which has been ejected from the machine and the movement of the lever 103 which actuates the knife blade causes the issue of the ticket to be registered on a counter 126. Further, if the ticket is a return ticket the counter 125 is actuated by the finger 129, so that the ticket is registered on this counter also.

- 30 If the conductor is required to issue a ticket of a value not specifically provided for by the dies in the machine he can make up the required value by two operations of the printing drum. When the conductor desires to issue a double ticket in this way he moves the lever 108 to the position shown in dotted lines in Figure 5 before rotating the crank handle and then rotates the crank handle through two revolutions, stopping after the first revolution to adjust the fare value printing die by means of the dial plate 63, if necessary for the purpose of making up the required value. During the first rotation of the printing drum the lever 108 is restored to the position shown in full lines and during the second rotation of the printing drum the movable knife blade is operated so as to sever the printed portion of the strip and facilitate the detachment of the double ticket from the machine.

- 50 When the ticket roll 10 is exhausted, the conductor opens the cover 6 and inserts a new ticket roll. In order to give the conductor warning when the ticket roll is nearly exhausted, the ticket strip may be marked with a coloured line or other indication for a sufficient distance from the end of the strip. Alternatively, the magazine cover 6 may be provided with a window through which an indicator preferably in the form of a red coloured disc or plate becomes visible when the ticket roll is nearing exhaustion. This indicator may be mounted on an arm bearing against the roll or an element movable therewith and maintained in such engagement by means of a spring so that when the

roll is reduced to a predetermined diameter the indicator appears beneath the window to warn the conductor that the magazine will shortly require replenishing.

The machine described with reference to the accompanying drawings is a portable machine adapted for use on tramcars, motor-buses and like vehicles but the machine may be adapted without material alterations in its construction to operate at a fixed point as for issuing railway or other tickets at a booking office or other fixed station. Moreover, a non-portable machine substantially similar in construction and operation to that described with reference to the accompanying drawings may be associated with an electric motor or other power device for rotating the printing drum shaft, suitable clutch mechanism being provided for the purpose of obtaining a single rotation of the printing drum shaft at every operation of a switch or other control.

I claim:

1. A ticket issuing machine, comprising a ticket-strip magazine, a rotary printing drum adjacent said magazine, a printing die in said drum, said printing die having a plurality of printing faces and being movable in said drum to present any of said faces at the periphery of said drum and said drum being operable at each revolution to impress the printing face of said die disposed at its periphery to the ticket strip coming from said magazine and to deliver said ticket, a disc rotatably mounted on the exterior of said machine and having a plurality of finger holds, means operative by the rotation of said disc to different extents in one direction to selectively move the printing faces of said die into printing position at the periphery of said drum, and a finger stop associated with said rotatable disc and against which a finger engaging any of said finger holds will bear when said disc is partially rotated.

2. A ticket issuing machine, comprising a ticket-strip magazine, a rotary printing drum adjacent said magazine, a printing die in said drum, said printing die having a plurality of printing faces and being movable in said drums to present any of said faces at the periphery of said drum and said drum being operable at each revolution to impress the printing face of said die disposed at its periphery to the ticket strip coming from said magazine and to deliver said ticket, a disc rotatably mounted on the exterior of said machine and having a plurality of finger holds, means operative by the rotation of said disc to different extents in one direction to selectively move the printing faces of said die into printing position at the periphery of said drum, means tending to restore said disc to normal position, a finger stop adjacent said disc for

abutment by a finger engaging a finger hold of said disc and by which said disc is partially rotated for arresting said disc against further rotation, and means between said 5 finger stop and disc operative to hold the disc in adjusted position against the resistance of said disc-restoring means.

3. A ticket issuing machine according to claim 2 wherein the means between the 10 finger stop and disc for holding the disc in adjusted position against the resistance of the disc-restoring means comprises a ratchet wheel carried by the disc, a lever on which the finger stop is mounted and a pawl carried 15 by said lever and engageable with said ratchet wheel.

4. A ticket issuing machine according to claim 3 including means between the means for holding the disc in adjusted position and 20 the drum and operative by the drum during its return to normal position to release the disc holding means from the disc.

5. A ticket issuing machine, comprising a casing including a ticket-strip magazine, a 25 drum rotatable in said casing adjacent said magazine, a printing die in said drum, said die having a plurality of printing faces and being movable in said drum to present any of its faces in printing position at the periphery of said drum, a finger piece at one 30 end of said casing, said finger piece being rotatable relatively to said drum for moving said die to selectively present the printing faces of the latter at the periphery of the drum, a second printing die in said drum, 35 said second die also having a plurality of printing faces and being movable to present any of its faces in printing position at the periphery of the drum, a rotatable spindle extending longitudinally of said casing for 40 rotating said drum, and means for moving the last-named printing die to selectively present the printing faces thereof at the

periphery of the drum, said last-named means comprising a disc rotatable on the exterior of said casing, a plurality of finger holds carried by said disc, a finger stop associated with said disc for abutment by a finger 70 which engages any of said finger holds and thereby limiting the extent of rotation of said disc, and a member between said rotatable disc and the last named printing die and actuated by the rotation of said disc, 75 said member being rotatable with said spindle and shiftable longitudinally thereof to an extent proportionate to the extent to which said disc is rotated.

6. In a ticket issuing machine comprising 80 a ticket-strip magazine and a rotatable printing drum mounted adjacent said magazine and operable at each revolution to print a ticket upon the leading portion of a ticket-strip coming from said magazine and to 85 advance such portion, means for severing the printed portion from said strip, said means comprising a pin carried by said drum, a lever, a knife operatively connected with said lever and movable, when said lever 90 is actuated, in a plane substantially at a right angle to said strip, and a setting member carried by said lever and manually movable into operative and inoperative positions, 95 said setting member having a projection which, when said member is set in operative position, is disposed in the path of and engaged by said pin for rocking said lever and actuating said knife and, when said 100 member is in inoperative position, is out of the path of said pin, said setting member having a second projection which, when said member is in inoperative position, is disposed in the path of and engaged by 105 said pin for restoring said member to operative position.

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