

R. H. HELSEL.
 COIN CONTROLLED TICKET MACHINE.
 APPLICATION FILED JUNE 8, 1917.

1,304,974.

Patented May 27, 1919.
 3 SHEETS—SHEET 1.

Fig. 1.

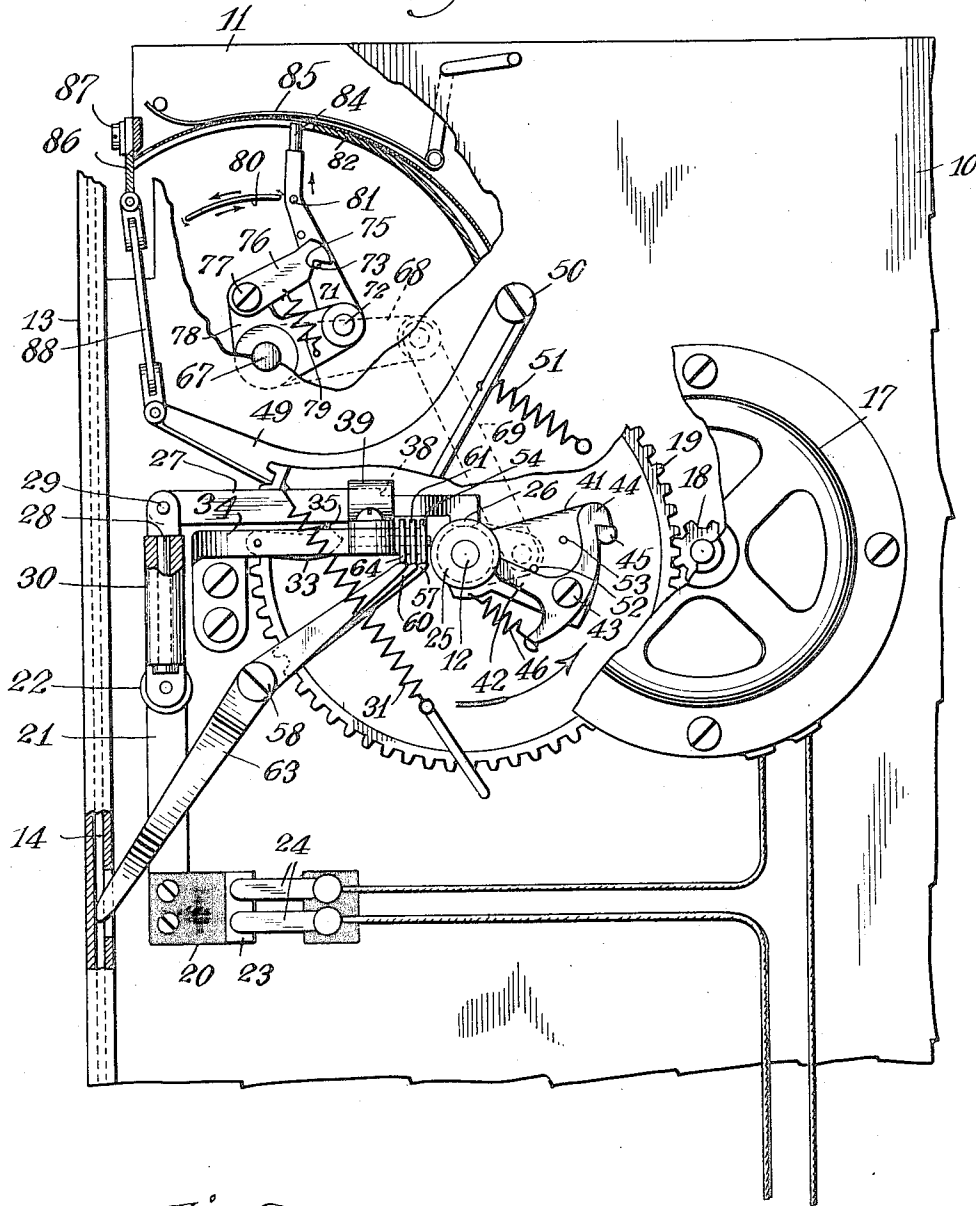
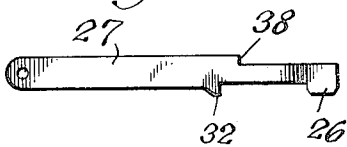


Fig. 7.

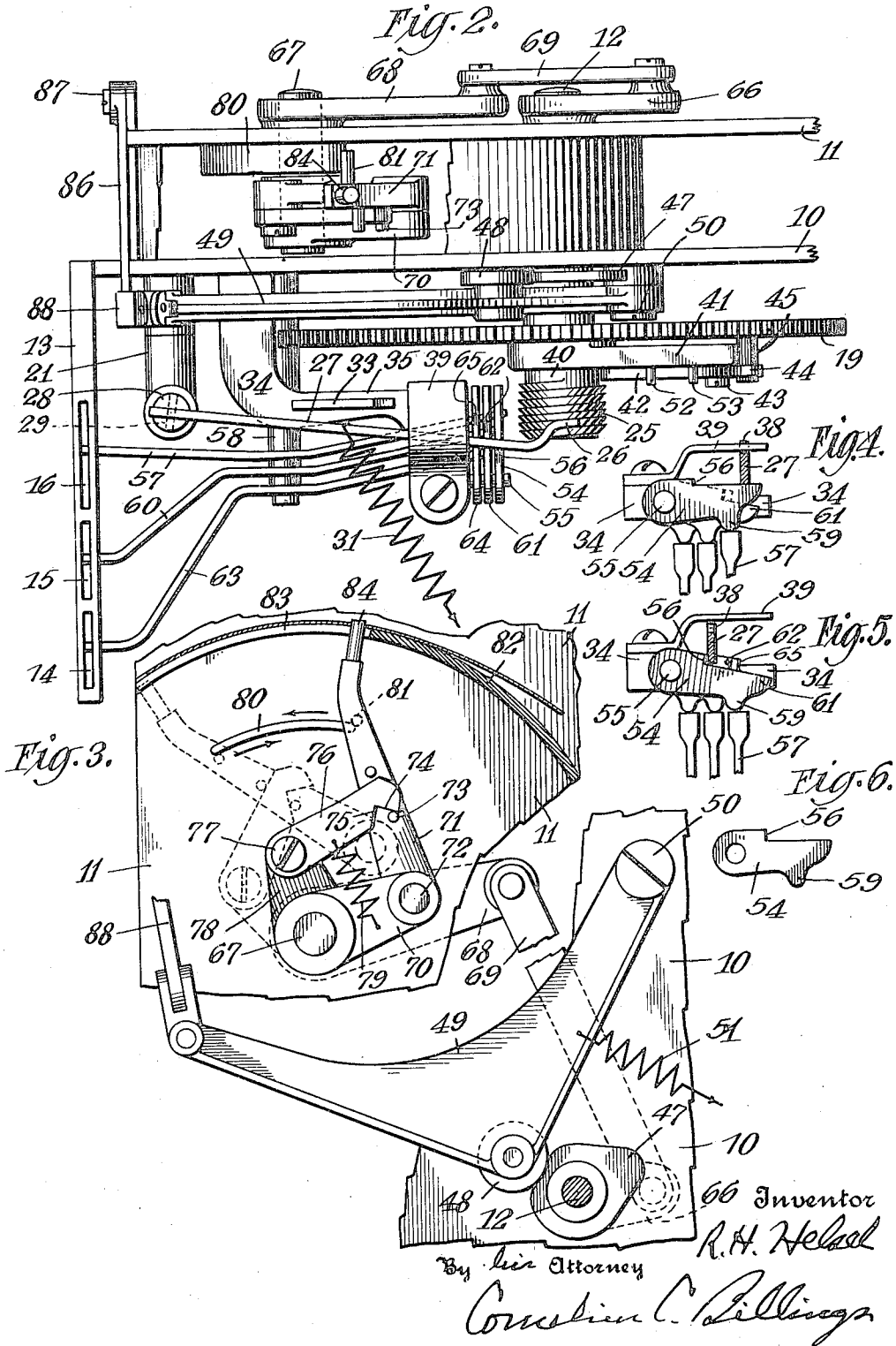


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 By *his Attorney*
Conrad C. Billings

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 3 SHEETS—SHEET 2.

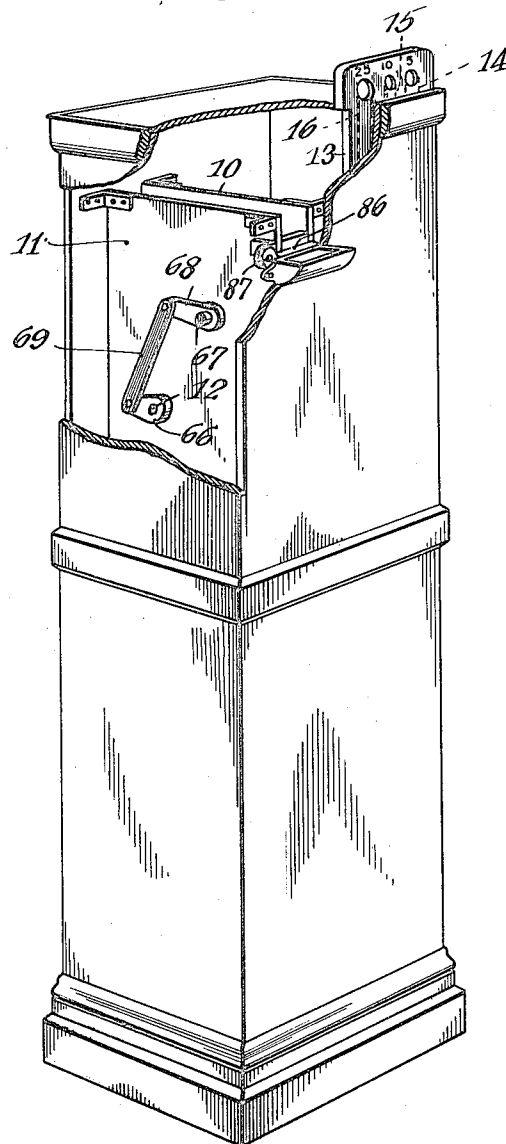


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3 SHEETS—SHEET 3.

Fig. 8.



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UNITED STATES PATENT OFFICE.

REUBEN H. HELSEL, OF LONG ISLAND CITY, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE AUTOMATIC TICKET SELLING AND CASH REGISTER COMPANY, OF NEW YORK, N. Y., A CORPORATION.

COIN-CONTROLLED TICKET-MACHINE.

1,304,974.

Specification of Letters Patent.

Patented May 27, 1919.

Application filed June 8, 1917. Serial No. 173,474.

To all whom it may concern:

Be it known that I, REUBEN H. HELSEL, a citizen of the United States, and a resident of Long Island City, Queens county, New York, have invented certain new and useful Improvements in Coin-Controlled Ticket-Machines, of which the following is a specification.

My invention relates to coin controlled ticket issuing or selling machines of the type or class designed to issue one or a plurality of tickets each time the machine is caused to operate, the number of tickets issued being dependent upon the value of the coin presented by the purchaser; and the object thereof is to provide a ticket selling machine which will be entirely automatic in its operation and in which the mere act of supplying a coin to the machine will set the same in operation, and cause it to issue one or a plurality of tickets separate and distinct from one another to the purchaser, according to the value of the coin inserted therinto; and without the necessity on the part of the purchaser to effect the delivery of the tickets to him, or further effort on his part other than that involved in picking up or receiving the tickets.

With the above and other objects of invention in view, my invention consists in the improved ticket selling machine and in the various subcombinations, separate purpose mechanisms, elements, and parts thereof illustrated in the accompanying drawings and hereinafter described at length and particularly claimed, and in such variations and modifications thereof as will be obvious to those skilled in the art to which my invention relates.

In the drawings accompanying and forming a part of this specification and wherein the preferred embodiment of my invention is illustrated, and wherein the same reference numerals are used to designate the same parts in the various views:

Figure 1 is a view showing the operative elements and mechanisms of my machine in side elevation;

Fig. 2 is a view showing the same in plan;

Fig. 3 is a fragmentary view upon a larger scale showing the principal elements of the ticket strip feeding and knife operating mechanisms of my machine;

Fig. 4 is a view showing the coin operated releasing mechanism of my machine at one stage of its operation;

Fig. 5 is a similar view showing the releasing mechanism in another and later stage or condition;

Fig. 6 is a view showing one of a plurality of similar releasing members included in the coin operated releasing mechanism of the machine;

Fig. 7 is a view showing a movable member or lever employed in my machine; and,

Fig. 8 is a perspective view showing the external appearance of my machine when the operating mechanism thereof is inclosed or incased in one of various appropriate forms of external casing.

Referring to the drawings, the reference numerals 10, 11 designate supporting plates or frames spaced apart from one another and of such size, form and construction as to support the various elements of my machine hereinafter referred to at length in proper position relative to one another, so that they may cooperate in the manner specified.

The reference numeral 12 designates the main driving shaft of my machine wherefrom the various elements thereof are operated, said shaft being normally at rest but adapted to rotate one or more times when the machine is caused to operate by means of a coin passing through coin slots provided in a plate 13 carried by and extending at a right angle to the plate 10; the coin slot 14 being adapted to receive a 5 cent coin whereby the shaft is caused to rotate one rotation and the machine to issue a single ticket, the coin slot 15 being of a width to receive a 10 cent coin and to secure two rotations of said shaft and the issuing of two tickets, while a 25 cent coin inserted in the coin slot 16 will be followed by five rotations of the shaft 12, during which the machine will issue five tickets in the embodiment of my invention illustrated.

The shaft 12 is driven in a counter-clockwise direction from a suitable motor when a ticket or tickets are to be issued, preferably by means of an electric motor 17 which is normally not in operation, or at rest, which motor is carried by the plate 10 and acts to drive said shaft through a pinion 18 on the

motor shaft in engagement with a gear 19 rotating about the shaft 12 as a center; the gear being ordinarily detachably connected with the shaft so that it may be released therefrom and permitted to continue its forward movement for a short time after the ticket or tickets have been issued through releasable driving mechanism to be hereinafter explained in detail. The said motor is supplied with current from a suitable source through a circuit controlled by suitable circuit controlling means adapted to close said circuit when the machine is to operate, and to open said circuit after the requisite number of tickets have been issued; said circuit controlling means being shown as comprising a plate 20 of insulating material carried by a vertically arranged oscillating member 21 pivotally supported from the plate 10 at 22, and having a metallic strip 23 which contacts with brushes 24 included in the circuit aforesaid when the shaft 12 is to be driven, but which strip will be moved to the right and from beneath the brushes when the machine has issued the predetermined number of tickets, thus breaking the circuit and permitting the motor to come to rest.

Secured to or formed integrally with the shaft 12 so as to rotate therewith is a threaded member 25, the thread being preferably of the buttress form shown in Fig. 2 so that the end 26 of a longitudinally movable swinging lever will not be liable to become disengaged therefrom as it is operated by the threaded member; and 27 designates a lever operatively connected with the upper end of the oscillating member 21 through a pin 28 with which said lever is pivotally connected at 29, and which pin is provided with a depending portion which fits loosely in a vertically extending bearing 30 at the upper end of said oscillating member; whereby said lever may swing about the axis of said pin as a center, or about a vertically extending axis as, while the position of the said axis changes somewhat as the position of the vertically extending oscillating member changes, it will always extend in a vertical or an approximately vertical direction.

Operatively connected with the lever 27 is a spring 31 which acts thereupon at such an angle as to move the same downward and to the right as will appear from Fig. 1, and to swing it about the pin 28 as a center as will be understood from Fig. 2, whereby longitudinal movement as well as a swinging movement may be imparted to said lever by said spring. The lever 27 is provided with a lug or catch 32 upon its under side which is adapted to engage with a pivotally supported latch 33 supported by a bracket 34 carried by the plate 10, and which latch has a hook 35 at its free end and is swung upwardly against a stop by a suitable spring or equivalent device whereby said lever will

be held in an initial position to the left of the position in which it is shown in Fig. 1 when the catch is in engagement with the hook of the latch 33. Said lever is also provided with a shoulder or stop 38 upon its upper side which is adapted to engage the side or edge of a guide plate 39 carried by the bracket 34, and extending above and transverse to the lever, when the said lever is lifted to thereby move the catch 32 thereof out of engagement with the hook 35 of the latch member; which movement will release the lever from the holding means above described and permit the spring 31 to swing the same away from the plate 10, and to also move said lever longitudinally or to the right, Fig. 1.

The various elements illustrated in Fig. 1 are shown in the positions which they assume after the lever 27 has been released from the holding means whereby it is held in its initial position, and after the spring 31 has swung the lever away from the plate 10 and moved it bodily toward the right to cause its free end 26 to engage the rotating threaded member 25. During this movement the upper end of the oscillating member 21 is moved toward the right, and the lower end thereof toward the left, whereby the plate 23 is moved into contact with the brushes 24 thus closing the circuit in which the motor 17 is included; whereupon the motor will drive the threaded member and shaft 12 whereby it is carried.

The effect of the rotary movement imparted to the threaded member is to swing the lever 27 about the vertical axis provided by the pin 28 and toward the plate 10 until the free end 26 thereof is moved beyond the thread upon the threaded member and into an annular groove 40, as a preliminary step in returning said lever to its initial position; after which said lever is moved longitudinally and bodily to the left to thereby move its free end 26 away from the threaded member 25 and return the lever to its initial position and cause the catch 32 to engage the latch 33, whereupon the lever will be held in its initial position until it is again released. This final movement of the lever to the left will swing the lower end of the oscillating member 21 to the right, thus moving the plate 23 out of engagement with the brushes 24 and breaking the circuit in which the motor is included.

The driving connection between the gear 19 and the shaft 12 is broken as the lever 27 is moved to the left and into its initial position, after which the shaft and rotating threaded member are returned to their initial position (which corresponds with the position in which they are shown in Fig. 1) and the gear is permitted to continue its forward motion until the momentum of the motor and of the said gear is expended; the

mechanism through which the shaft and threaded member are driven directly by the gear 19 (but from the motor 17 which furnishes power for operating the machine), and the manner in which the said mechanism operates to interrupt the driving action of the motor when the lever has been returned to its initial position, being preferably as follows: Secured either to the shaft 12 or to the threaded member 25 so as to move in unison with said members is a supporting member or wing 41 which carries a pivotally supported combined restoring and releasing member having an arm 42 the extremity of which lies in the annular groove 40, and which arm will therefore be brought into engagement with the end 26 of the lever 27 as the gear 19 rotates, after which the said lever will be moved to the left until the lug or catch 32 engages latch 35 and further movement to the left is arrested. Thereupon and as the gear continues to advance the end of the lever will serve as an abutment, and the said restoring and releasing member will be swung about its pivotal connection 43 with the support 41, thus swinging a hook 44 formed integrally with said member out of the path of travel of a pin or lug 45 carried by the gear 19. This action will disengage the hook from the lug and break the driving connection between the gear, and the shaft and threaded member 25; after which the gear and motor will be free to continue their onward movement to a greater or less extent. The swinging movement of the restoring and releasing member is opposed by a spring 46 and, as the driving connection between the gear and shaft 12 and threaded member 25 is broken as aforesaid, the said spring acts through the arm 42 and against the end of the lever 27 as an abutment to give an impulse or push in a backward or clockwise direction to the support 41 through the pivot 43; thus returning the shaft 12, threaded member 25, and support 41 to the initial position in which they are illustrated; the backward movement of the parts being arrested and their initial position determined by a depression provided in a knife operating cam 47 carried by the shaft 12 and into which a roller 48 carried by a knife operating lever 49 drops, the said lever being pivotally supported from the plate 10 at 50 and the said lever being drawn toward the cam 47 by a spring 51, as shown most clearly in Fig. 3 of the drawing. As this backward movement takes place the arm 42 is swung against a stop 52 carried by the wing 41, thus leaving the hook 44 in the path of movement of the lug 45 so that the latter will again engage the hook and operate the parts when the motor is again caused to operate; and movement of the hook 44 away from the lug 45 when the

driving engagement aforesaid is broken is limited by a stop 53 also carried by the said wing.

The mechanism whereby the lever 27 is disengaged from the hook 33 so that the spring 31 may swing the same about the pin 28 as a center and away from the plate 10 to various extents according to the value of the coin supplied to the machine (and which determines the number of tickets which the machine will issue each time it is set into operation by the action of a coin passing through one of the coin slots 14, 15 or 16), and then move the said lever longitudinally until its free end 26 engages the rotating threaded member 25, and the manner in which said mechanism operates is as follows: The reference numeral 54 designates a vertically movable releasing member pivotally supported from the bracket 34 by means of a pin 55 and lying beneath and extending transverse to the lever 27, said releasing member having a stop or shoulder 56 so located that when the said lever has been swung into contact therewith, and the lever has been moved longitudinally, the free end thereof will engage the threaded member 25 five threads distant from the inner end thereof and from the annular groove 40; and 57 designates a lever pivotally supported from the plate 10 through a boss 58, the right hand end of which lever lies beneath and is adapted to move the releasing member 54 upward, while the left hand end thereof extends into the 25 cent coin slot 16 so as to be engaged by a coin of that value passing therethrough. This feature will be understood from Fig. 1, although in that figure it is the lever operated by a 5 cent coin which is shown extending into the 5 cent coin slot 14.

When a 25 cent coin is dropped into the slot 16 it will engage the end of the lever 57, thus swinging said lever about the pivotal support 58 and moving the releasing member 54 upward, the said member being preferably provided with a projection 59 with which the end of the lever engages, as best shown in Figs. 4, 5 and 6 of the drawings. This upward movement imparted to the member 54 will lift the lever 27, thus disengaging the same from the holding member 33 and moving the stop or shoulder 38 thereof into engagement with the edge of the plate 39. The lever 27 being thus released from the means which holds it in its initial position the spring 31 will swing the same about the pin 28, the stop or lug 33 sliding along the edge of the plate 39 during this movement until the lever comes into contact with the stop 53 of the releasing member 54. By this time the coin will have passed by the end of the lever 57 and the releasing member being thus freed from the lifting action of the said lever will be moved

downward (by the action of the spring 31 as will be appreciated), thus disengaging the stop 38 from the plate 39, after which the lever 27 will be moved longitudinally until its free end engages the rotating threaded member 25, during which last mentioned movement the lever will slide along the stop 56 of the releasing member as a guide and the end 26 of the lever will engage the threaded member 25 five threads distant from the inner end thereof. The movement of the lever 27 as above will start the motor 17, the shaft 12 will be rotated 5 rotations during which five tickets will be issued by the machine, and the lever will then be returned to its initial position and held therein, and the motor stopped, all as hereinbefore and at length explained.

While my improved ticket selling machine may be provided with a single coin operated releasing mechanism as above explained (in which case it will issue the same number of tickets each time it is caused to operate, as will be appreciated) it will, as hereinbefore explained, ordinarily be equipped with two or more coin operated releasing mechanisms operable by coins of different denominations, so that the machine will issue various numbers of tickets according to the value of the coin by which it is set in operation. Thus the reference numeral 60 designates a second lever pivotally supported from the support 58 and the left hand end of which extends into the 10 cent coin slot 15, while the right hand end thereof lies beneath and is adapted to operate a releasing member 61 pivotally supported from the bracket 34 at 55, and having a shoulder or stop 62 for arresting the swinging movement of the lever 27 two threads distant from the groove 40, so that the shaft 12 and threaded member 25 will be driven through two rotations and the machine will issue two tickets when it is caused to operate by a 10 cent coin. In like manner a 5 cent coin inserted into the coin slot 14 will operate a lever 63 pivotally supported at 58, and a releasing member 64 pivotally supported at 55 will be moved upward to release the lever 27, the swinging movement of the same being arrested at a distance of one thread from the groove 40 by a stop 65 upon said releasing member, after which the shaft 12 will be driven one rotation and a single ticket will be issued.

The construction and operation of the ticket issuing mechanism of my machine is as follows: Secured to the main shaft 12 of the machine is a crank 66 located preferably beyond the plate 11, as shown in Fig. 2, and 67 is an oscillating strip feeding shaft supported in bearings in the plates 10, 11 and having an arm 68 with which the crank 66 is operatively connected through a link 69, whereby as the shaft 12 rotates oscillat-

ing motion is communicated to the said last mentioned shaft. Secured to the shaft 67 and located between the plates 10 and 11 is a bracket 70 to which a reciprocating strip feeding member 71 is pivotally secured at 72; and said feeding member is provided with a pin 73 with which inclined surfaces 74, 75 at the free end of a spring actuated holding member 76 engage, the said last mentioned member being pivotally connected at 77 with an arm 78 carried by the bracket 70, and 79 being a spring which acts to draw the holding member inward and toward the shaft 67.

The reference numeral 80 designates a curved guide plate secured to the plate 11, and 81 a pin carried by the strip feeding member 71 and adapted to move along the upper surface of said guide when said member is moved to the left, Figs. 1 and 3, and along the under surface of said guide when said member is moved to the right and returned to its initial position. A curved strip supporting plate and guide 82 having a slot 83 in which the cylindrical end 84 of the strip feeding member 71 operates is secured in place between the plates 10, 11, and over which a ticket strip, provided with holes at suitable intervals into which the round end of the feeding member may enter, passes, the ticket strip being held against the plate 82 by means of a spring pressed holding member 85.

The strip feeding mechanism above described operates as follows: Referring to Figs. 1 and 3, the various elements of the strip feeding mechanism are illustrated in Fig. 1 in the positions which they occupy when the machine is at rest, at which time the extremity of the round end 84 is below the surface of the plate 82 and out of engagement with the ticket strip, and the pin 81 lies adjacent the right hand end of the guide 80; while Fig. 3 shows the position of the parts just after the machine has commenced to operate, the round end 84 having been moved into a hole in the ticket strip and the movement of the strip feeding member 71 to the left having just commenced.

The elements through which the ticket issuing mechanism is operated are so arranged and proportioned that initial movement of the oscillating shaft 67 will move the strip feeding member 71 upward and project the end 84 thereof through a hole in the ticket strip, after which and upon further angular movement of the said shaft the pin 81 will slide along the upper side of the guide 80. During this forward movement the strip feeding member will lag somewhat relative to the holding member 76, and the pin 73 thereof will move along the inclined surface 74 of the holding member 76 in opposition to the spring 79. At the

end of the movement of the feeding member to the left the pin 81 will run off the guide 80 and, as the said feeding member begins its return movement, the free end thereof will be withdrawn from the hole in the ticket strip and the pin 81 will slide along the under side of the guide 80 during the return movement thereof, during which movement the feeding member will again lag somewhat and the pin 73 thereof will move along the inclined surface 75 of the member 76 in opposition to the spring 79 until the pin 81 runs off the guide 80 at the end of the return movement of the parts; all as will be understood from the full and dotted lines in Fig. 3 of the drawings; the purpose of the holding member 76, the spring 79, the inclined surfaces 74 and 75, and the pin 73 being to keep the pin 81 in contact with the guide 80 during the forward and return movements of the strip feeding mechanism, and the feeding member in engagement with the ticket strip upon the forward, and out of engagement therewith upon the return movement of said member, as will be appreciated.

The knife operating cam 47 and knife operating lever 49 have been hereinbefore referred to. The free end of said lever is operatively connected with a knife 86 pivotally supported at 87 through a link 88, and said knife acts to sever a ticket from the ticket strip each time it moves upwardly; and the strip feeding mechanism, and the knife being each operated once at each rotation of the shaft 12, it follows that each rotation of said shaft will advance the strip a length corresponding with a single ticket, after which a ticket will be cut off from the strip; the number of rotations of the shaft and the number of tickets cut off from the strip and issued to the purchaser each time the machine is set into operation being dependent upon the value of the coin supplied thereto, as will be appreciated.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; means operatively connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; a motor operatively connected with said

threaded member; means operated by said lever for causing said motor to drive said threaded member; and ticket issuing mechanism operated by said motor.

2. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; a motor operatively connected with said threaded member and adapted to drive the same; means operated by said lever for causing said motor to drive said threaded member; means for interrupting the driving action of said motor when said lever has been returned to its initial position; and ticket issuing mechanism operated by said motor.

3. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; a shaft to which said threaded member is secured; a gear rotatable about said shaft as a center; a driving connection through which said threaded member is driven by said gear; means for breaking said driving connection when said lever has been returned to its initial position; a motor adapted to drive said gear; means operated by said lever for controlling the operation of said motor; and ticket issuing mechanism operated by said shaft.

4. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the

axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; an

5 electric motor operatively connected with said threaded member; a circuit for supplying current to said motor; an oscillating member to which motion is communicated from said lever as the same moves longitudinally; circuit controlling means operated by
10 said oscillating member and adapted to control the circuit aforesaid; and ticket issuing mechanism operated by said motor.

5. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with
15 said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it
20 to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; an electric motor operatively connected with said threaded member and adapted to drive the same; a circuit for supplying current to said
25 motor; means for interrupting the driving action of said motor when said lever has been returned to its initial position; an oscillating member with which said lever is connected and to which motion is communicated as said lever moves longitudinally; circuit controlling means carried by said oscillating
30 member and adapted to control the circuit aforesaid; and ticket issuing mechanism operated by said motor.

6. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for
45 holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded
50 member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; a shaft to
55 which said threaded member is secured; a gear rotatable about said shaft as a center; a driving connection through which said threaded member is driven by said gear; means for breaking said driving connection when said lever has been returned to its
60 initial position; an electric motor adapted to drive said gear; a circuit for supplying current to said motor; a vertically arranged

oscillating member with the upper end of which said lever is pivotally connected and to which motion is communicated as said lever moves longitudinally; circuit controlling means carried by the lower end of said
70 oscillating member and adapted to control the circuit aforesaid; and ticket issuing mechanism operated by said shaft.

7. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same
75 about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; an
80 electric motor operatively connected with said threaded member; a circuit for supplying current to said motor; a vertically arranged oscillating member with the upper end of which said lever is pivotally connected and to which motion is communicated as said lever moves longitudinally; circuit controlling means carried by the lower end of
85 said oscillating member and adapted to control the circuit aforesaid; and ticket issuing mechanism operated by said motor.

8. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected
90 with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return to its initial position; an electric motor operatively connected with said
95 threaded member; a circuit for supplying current to said motor; a vertically arranged oscillating member having a vertically extending bearing at its upper end; a pin loosely supported in said bearing and with the upper end of which said lever is pivotally connected, and through which motion is communicated to said oscillating member as said lever moves longitudinally; circuit controlling means carried by the lower end of
100 said oscillating member and adapted to control the circuit aforesaid; and ticket issuing mechanism operated by said motor.

9. In a coin controlled ticket selling machine, a lever adapted to move longitudinally

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and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected
 5 with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about
 10 the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; a shaft to which said threaded member
 15 is secured; a gear rotatable about said shaft as a center and operatively connected with said threaded member to drive the same; a support adapted to partake of the movement of said threaded member; means carried by
 20 said support for returning said lever to its initial position and for interrupting the driving action of said gear; a motor adapted to drive said gear; means operated by said lever for controlling the operation of said
 25 motor; and ticket issuing mechanism operated by said shaft.

10. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis;
 30 means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same about the axis aforesaid, and
 35 to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position;
 40 means for moving said lever longitudinally to complete the return thereof to its initial position; a shaft to which said threaded member is secured; a gear rotatable about said shaft as a center; a driving connection
 45 through which said threaded member is driven by said gear; a support adapted to partake of the movement of said threaded member; a releasing member carried by said support and adapted to engage the free end
 50 of said lever to thereby move the same longitudinally and into its initial position; means operated by said releasing member for breaking the driving connection between said gear and said threaded member; a motor
 55 adapted to drive said gear; means operated by said lever for controlling the operation of said motor; and ticket issuing mechanism operated by said shaft.

11. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis;
 60 means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring
 65 connected with said lever and acting to

swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said
 lever about the axis aforesaid as a preliminary 70
 step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; a shaft to which said threaded member is secured; a gear rota- 75
 table about said shaft as a center; a lug carried by said gear; a support adapted to partake of the movement of said threaded member; a releasing member pivotally connected with said support and having an arm 80
 adapted to engage the free end of said lever to thereby move the same longitudinally and into its initial position, and a hook adapted to engage said lug but which is disengaged therefrom when said lever has been returned 85
 to its initial position; a spring for normally holding said releasing member in a position such that said hook will be engaged by said lug; a motor adapted to drive said gear; means operated by said lever for controlling 90
 the operation of said motor; and ticket issuing mechanism operated by said shaft.

12. In a coin controlled ticket selling machine, a lever and means for moving the same longitudinally and about a vertical 95
 axis; means for holding said lever in its initial position; coin controlled means for releasing said lever; a motor; means operated by said motor for returning said lever to its initial position; means operated by said lever 100
 for controlling said motor; and ticket issuing mechanism operated by said motor.

13. In a coin controlled ticket selling machine, a lever and means for moving the same longitudinally and about a vertical 105
 axis; means for holding said lever in its initial position; coin controlled means for releasing said lever; a motor which is normally at rest; means operated by said motor for returning said lever to its initial position; 110
 means operated by said lever for starting and stopping said motor; and ticket issuing mechanism operated by said motor.

14. In a coin controlled ticket selling machine, a lever and means for moving the 115
 same longitudinally and about a vertical axis; means for holding said lever in its initial position; coin controlled means for releasing said lever; an electric motor for returning said lever to its initial position; an 120
 oscillating member operated by said motor; means operated by said oscillating member for controlling the supply of current to said motor; and ticket issuing mechanism operated by said motor. 125

15. In a coin controlled ticket selling machine, a lever and means for moving the same longitudinally and about a vertical axis; means for holding said lever in its initial position; coin controlled means for re- 130

leasing said lever; an electric motor for returning said lever to its initial position; a circuit for supplying current to said motor; a vertically arranged oscillating member
 5 with the upper end of which said lever is operatively connected, and which member is operated by said lever as it moves longitudinally; circuit controlling means carried by the lower end of said oscillating member for
 10 controlling said circuit; and ticket issuing mechanism operated by said motor.

16. In a coin controlled ticket selling machine, a lever and means for moving the same longitudinally and about a vertical
 15 axis; means for holding said lever in its initial position; coin controlled means for releasing said lever; an electric motor for returning said lever to its initial position; a circuit for supplying current to said motor;
 20 a vertically arranged oscillating member having a vertically extending bearing at its upper end; a pin loosely supported in said bearing and with the upper end of which said lever is pivotally connected, and through
 25 which motion is communicated to said oscillating member as said lever moves longitudinally; circuit controlling means carried by the lower end of said oscillating member and adapted to control said circuit; and ticket
 30 issuing mechanism operated by said motor.

17. In a coin controlled ticket selling machine, a rotating shaft; a threaded member carried by said shaft; a gear rotatable about
 35 said shaft as a center and operatively connected with said threaded member to drive the same; a support adapted to partake of the movement of said threaded member; a motor operatively connected with said gear but which motor is normally not in operation;
 40 means for starting and stopping said motor; and means carried by said support for interrupting the driving action of said gear as said starting and stopping means operate to stop the motor.

45 18. In a coin controlled ticket selling machine, a rotating shaft; a threaded member carried by said shaft; a gear rotatable about said shaft as a center and operatively connected with said threaded member to
 50 drive the same; a lug carried by said gear; a support adapted to partake of the movement of said threaded member; a motor operatively connected with said gear but which motor is normally not in operation;
 55 means for starting and stopping said motor; a releasing member pivotally connected with said support and having an arm the end of which lies adjacent one end of said threaded member, and a hook adapted to
 60 engage with said lug, and to be disengaged therefrom as said starting and stopping means operate to stop the motor; and a spring for normally holding said member in a position such that the hook thereof
 65 will be in the path of movement of said lug.

19. In a coin controlled ticket selling machine; a rotatable shaft; a threaded member carried by said shaft; a gear rotatable about said shaft as a center; means whereby
 70 said shaft and threaded member are driven by said gear; an electric motor adapted to drive said gear; a coin controlled movable member normally out of engagement with said threaded member; means for moving
 75 said movable member into engagement with said threaded member; means operated by said movable member for controlling the supply of current to said motor; means operated by said gear for returning said
 80 movable member to its initial position; means for interrupting the driving action of said gear when said movable member has been returned to its initial position; and ticket issuing mechanism operated by said shaft.
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20. In a coin controlled ticket selling machine; a rotatable shaft, a threaded member carried by said shaft; a gear rotatable about
 90 said shaft as a center; a lug carried by said gear; an electric motor adapted to drive said gear; a coin controlled movable member normally out of engagement with said threaded member; means for moving said movable
 95 member into engagement with said threaded member; a support adapted to partake of the movement of said threaded member; a releasing member pivotally secured to said support and having an arm adapted to engage said movable member and return it to
 100 its initial position, and a hook which normally lies in the path of movement of said lug but is swung out of said path to thereby release said lug as said movable member is returned to its initial position as aforesaid;
 105 a spring for normally holding said hook in the path of movement of said lug; means operated by said movable member for controlling said motor; and ticket issuing mechanism operated by said shaft.

21. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded
 110 member; a movable member normally out of engagement with said threaded member; means for holding said movable member in its initial position; means for moving said movable member into engagement with said
 115 threaded member; a releasing member for releasing said movable member from said holding means, and which releasing member is provided with a stop to limit the movement of said movable member; coin operated means for operating said releasing
 120 member; and ticket issuing mechanism operated by said motor.
 125

22. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded
 130 member; a movable member normally out of engagement with said threaded member; 130

means for holding said movable member in its initial position; means for moving said movable member into engagement with said threaded member; a releasing member for releasing said movable member from said holding means, and which releasing member is provided with a stop to limit the movement of said movable member; coin operated means for operating said releasing member; means operated by said movable member for controlling the operation of said motor; and ticket issuing mechanism operated by said motor.

23. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a movable member normally out of engagement with said threaded member; means for holding said movable member in its initial position; means for moving said movable member into engagement with said threaded member; a releasing member for releasing said movable member from said holding means, and which releasing member is provided with a stop to limit the movement of said movable member; coin operated means for operating said releasing member; means operated by said movable member for controlling the operation of said motor; and ticket issuing mechanism adapted to issue a plurality of tickets each time said motor is caused to operate.

24. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a movable member normally out of engagement with said threaded member; means for holding said movable member in its initial position; means for moving said movable member into engagement with said threaded member; a releasing member for releasing said movable member from said holding means, and which releasing member is provided with a stop to limit the movement of said movable member; coin operated means for operating said releasing member; means operated by said movable member for controlling the operation of said motor; strip feeding means operated by said motor and adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; and a knife operated by said motor and adapted to sever a ticket from the ticket strip upon each rotation of said threaded member.

25. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a movable member normally out of engagement with said threaded member; means for holding said movable member in its initial position; means for moving said movable member into engagement with said threaded member; a plurality of coin oper-

ated releasing members each of which is adapted to release said movable member from said holding means and which releasing members are provided each with a stop to limit the movement of said movable member, the said stops being so arranged as to permit said movable member to be moved to various extents according to which releasing member is operated; and ticket issuing mechanism operated by said motor.

26. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a swinging member normally out of engagement with said threaded member; means for holding said member in its initial position; a spring for moving said swinging member into engagement with said threaded member; a releasing member for releasing said swinging member from said holding means, and which releasing member is provided with a stop to limit the movement of said swinging member; coin operated means for operating said releasing member; and ticket issuing mechanism operated by said motor.

27. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a swinging member normally out of engagement with said threaded member; means for holding said member in its initial position; a spring for moving said swinging member into engagement with said threaded member; a plurality of coin operated releasing members each of which is adapted to release said swinging member from said holding means so that said spring may move the same into engagement with said threaded member and which members are provided each with a stop to limit the movement of said swinging member, the said stops being so arranged as to permit said member to swing to various extents according to which releasing member is operated; and ticket issuing mechanism operated by said motor.

28. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a swinging member normally out of engagement with said threaded member; means for holding said member in its initial position; a spring for moving said swinging member into engagement with said threaded member; a plurality of coin operated releasing members each of which is adapted to release said swinging member from said holding means so that said spring may move the same into engagement with said threaded member and which members are provided each with a stop to limit the movement of said swinging member, the said stops being so arranged as to permit said member to swing to various extents according to which

releasing member is operated; means operated by said swinging member for controlling the operation of said motor; and ticket issuing mechanism operated by said motor and adapted to issue a plurality of tickets each time said motor is caused to operate.

29. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a swinging member normally out of engagement with said threaded member; means for holding said member in its initial position; a spring for moving said swinging member into engagement with said threaded member; a plurality of coin operated releasing members each of which is adapted to release said swinging member from said holding means so that said spring may move the same into engagement with said threaded member and which members are provided each with a stop to limit the movement of said swinging member, the said stops being so arranged as to permit said member to swing to various extents according to which releasing member is operated; means operated by said swinging member for controlling the operation of said motor; strip feeding mechanism operated by said motor and adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; and a knife operated by said motor and adapted to sever a ticket from the strip upon each rotation of said threaded member.

30. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages said threaded member; a vertically movable releasing member for releasing said lever from said holding means so that said spring may move the free end thereof into engagement with said threaded member as aforesaid, and which member is provided with a stop to limit the swinging movement of said lever; coin operated means for operating said releasing member; and ticket issuing mechanism operated by said motor.

31. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages said threaded member; a plurality of coin operated releasing

members each of which is adapted to release said lever from said holding means so that said spring may move the free end thereof into engagement with said threaded member as aforesaid and which members are provided each with a stop to limit the swinging movement of said lever, the said stops being so arranged as to permit said lever to swing to various extents according to which releasing member is operated; and ticket issuing mechanism operated by said motor.

32. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages said threaded members; a vertically movable releasing member for releasing said lever from said holding means so that said spring may move the free end thereof into engagement with said threaded member as aforesaid, and which member is provided with a stop to limit the swinging movement of said lever; coin operated means for operating said releasing member; means operated by said lever for controlling the operation of said motor; and ticket issuing mechanism operated by said motor.

33. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages said threaded member; a plurality of coin operated releasing members each of which is adapted to release said lever from said holding means so that said spring may move the free end thereof into engagement with said threaded member as aforesaid and which members are provided each with a stop to limit the swinging movement of said lever, the said stops being so arranged as to permit said lever to swing to various extents according to which releasing member is operated; means operated by said lever for controlling the operation of said motor; and ticket issuing mechanism operated by said motor.

34. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages said threaded mem-

ber; a stop carried by said lever; a guide plate located above and extending transverse to said lever; a vertically movable releasing member adapted to move said lever out of
 5 engagement with said holding means and into a position such that said stop will engage said plate, to thereby release said lever and permit said spring to move the free end thereof into engagement with said threaded
 10 member as aforesaid, and which releasing member is provided with a stop to limit the swinging movement of said lever; coin operated means for operating said releasing member; means operated by said lever for
 15 controlling the operation of said motor; and ticket issuing mechanism operated by said motor.

35. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages said threaded member; a stop carried by said lever; a guide plate located above and extending transverse
 30 to said lever; a pivotally supported releasing member adapted to move said lever vertically to thereby disengage the same from said holding means, and to an extent such that said stop will engage the edge of said
 35 plate, whereby said lever is released so that said spring may move the free end thereof into engagement with said threaded member as aforesaid; a stop carried by said releasing member for arresting the swinging movement of said lever; coin operated means for
 40 operating said releasing member; means operated by said lever for controlling the operation of said motor; and ticket issuing mechanism operated by said motor.

36. In a coin controlled ticket selling machine, a rotating threaded member; a motor operatively connected with said threaded member; a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages said threaded member; a stop carried by said lever; a guide plate located above and extending transverse to said lever; a plurality of pivotally supported releasing members each of which is adapted to move said lever vertically to
 50 thereby disengage the same from said holding means, and to an extent such that said stop will engage said plate, whereby said lever is released so that said spring may move the free end thereof into engagement
 55 with said threaded member as afore-

said; a plurality of coin operated members for operating said releasing members; a plurality of stops, one carried by each of said releasing members, for arresting the swinging movement of said lever, and the location
 70 of which stops is such as to permit said lever to swing to various extents according to which coin operated member is operated; means operated by said lever for controlling the operation of said motor; and ticket issuing mechanism operated by said motor.

37. In a coin controlled ticket selling machine, a rotating threaded member; a movable member normally out of engagement with said threaded member; means for holding said movable member in its initial position; a coin operated releasing member adapted to release said movable member and permit the same to be moved into engagement with said threaded member; means for moving said movable member as aforesaid after it has been released from said holding means; strip feeding mechanism adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; a knife adapted to sever a ticket from the ticket strip upon each rotation of said threaded member; a motor for driving the machine; and means operated by said movable member for controlling
 85 the driving action of said motor.

38. In a coin controlled ticket selling machine, a rotating threaded member; a movable member normally out of engagement with said threaded member; means for holding said movable member in its initial position; a plurality of coin operated releasing members adapted to release said movable member and permit the same to be moved into engagement with said threaded member at various points thereof; means for moving said movable member as aforesaid after it has been released from said holding means; strip feeding mechanism adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; and a knife adapted to sever a ticket from the ticket strip upon each rotation of said threaded member.

39. In a coin controlled ticket selling machine, a rotating threaded member; a movable member normally out of engagement with said threaded member; means for holding said movable member in its initial position; a plurality of coin operated releasing members adapted to release said movable member and permit the same to be moved into engagement with said threaded member at various points thereof; means for moving said movable member as aforesaid after it has been released from said holding means; strip feeding mechanism adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; a knife adapted
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to sever a ticket from the ticket strip upon each rotation of said threaded member; a motor for driving the machine; and means for causing said motor to drive the machine when tickets are to be issued.

40. In a coin controlled ticket selling machine, a rotating threaded member; a movable member normally out of engagement with said threaded member; means for holding said movable member in its initial position; a plurality of coin operated releasing members adapted to release said movable member and permit the same to be moved into engagement with said threaded member at various points thereof; means for moving said movable member as aforesaid after it has been released from said holding means; strip feeding mechanism adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; a knife adapted to sever a ticket from the ticket strip upon each rotation of said threaded member; a motor for driving the machine; and means operated by said movable member for controlling the driving action of said motor.

41. In a coin controlled ticket selling machine, a rotating threaded member; coin controlled means cooperating with said threaded member for determining the number of tickets to be issued by the machine each time it is caused to operate; strip feeding mechanism adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; a knife adapted to sever a ticket from the ticket strip upon each rotation of said threaded member; and a motor for driving the machine.

42. In a coin controlled ticket selling machine, a rotating shaft; a threaded member carried by said shaft; coin controlled means cooperating with said threaded member for determining the number of tickets to be issued by the machine each time it is caused to operate; strip feeding mechanism operated by said shaft and adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation thereof; a knife operated by said shaft and adapted to sever a ticket from the strip upon each rotation thereof; a motor for driving the machine; and means operated by said coin controlled means for controlling the operation of said motor.

43. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating

threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; a motor operatively connected with said threaded member and adapted to drive the same; means operated by said lever causing said motor to drive said threaded member; means for interrupting the driving action of said motor when said lever has been returned to its initial position; strip feeding mechanism operated by said motor and adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; and a knife operated by said motor and adapted to sever a ticket from the ticket strip upon each rotation of said threaded member.

44. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position; means for moving said lever longitudinally to complete the return thereof to its initial position; a shaft to which said threaded member is secured; a gear rotatable about said shaft as a center; a driving connection through which said threaded member is driven by said gear; means for breaking said driving connection when said lever has been returned to its initial position; a motor adapted to drive said gear; means operated by said lever for controlling the operation of said motor; strip feeding mechanism operated by said shaft and adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; and a knife operated by said shaft and adapted to sever a ticket from the ticket strip upon each rotation of said shaft.

45. In a coin controlled ticket selling machine, a lever adapted to move longitudinally and to swing about a vertical axis; means for holding said lever in its initial position; coin operated means for releasing said lever from said holding means; a spring connected with said lever and acting to swing the same about the axis aforesaid, and to move it longitudinally until its free end engages a threaded member; a rotating threaded member adapted to swing said lever about the axis aforesaid as a preliminary step in returning it to its initial position;

means for moving said lever longitudinally to complete the return thereof to its initial position; an electric motor operatively connected with said threaded member; a circuit for supplying current to said motor; an oscillating member to which motion is communicated from said lever as the same moves longitudinally; circuit controlling means operated by said oscillating member and adapted to control the circuit aforesaid; strip feeding mechanism operated by said motor and adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; and a knife operated by said motor and adapted to sever a ticket from the ticket strip upon each rotation of said threaded member.

46. In a coin controlled ticket selling machine; a rotatable shaft; a threaded member carried by said shaft; a gear rotatable about said shaft as a center; means whereby said shaft and threaded member are driven by said gear; an electric motor adapted to drive said gear; a coin controlled movable

member normally out of engagement with said threaded member; means for moving said movable member into engagement with said threaded member; means operated by said movable member for controlling the supply of current to said motor; means operated by said gear for returning said movable member to its initial position; means for interrupting the driving action of said gear when said movable member has been returned to its initial position; strip feeding mechanism operated by said shaft and adapted to advance a ticket strip a distance corresponding with a single ticket upon each rotation of said threaded member; and a knife operated by said shaft and adapted to sever a ticket from the ticket strip upon each rotation of said shaft.

In witness whereof I have hereunto set my hand at the city, county, and State of New York, this 31 day of May, 1917.

REUBEN H. HELSEL.

In presence of—

ALEXR. DONEGAN,
FRIEDA C. MUEHLICHEN.