

Feb. 2, 1937.

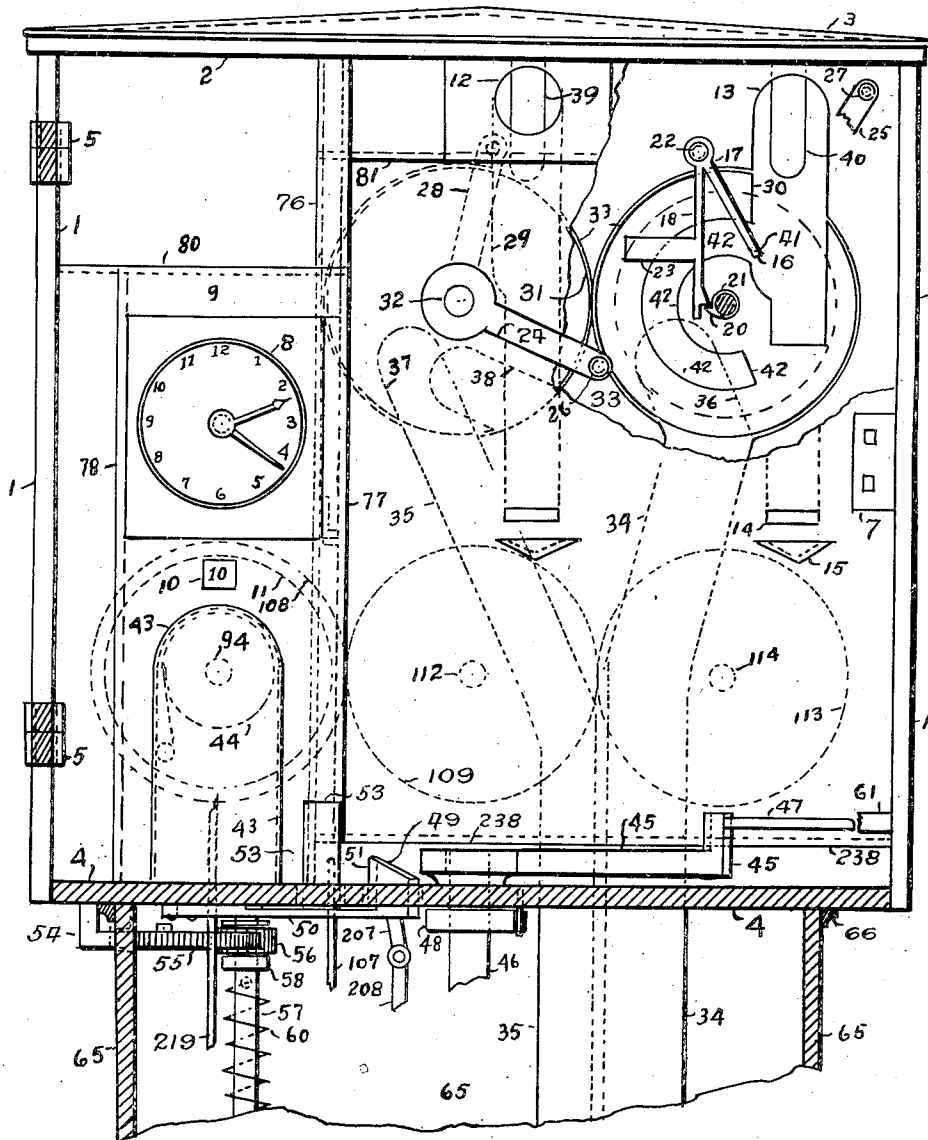
E. HOPKINS

2,069,445

PARKING POST

Filed Jan. 27, 1930

6 Sheets-Sheet 1



INVENTOR:

Edwin Hopkins

Feb. 2, 1937.

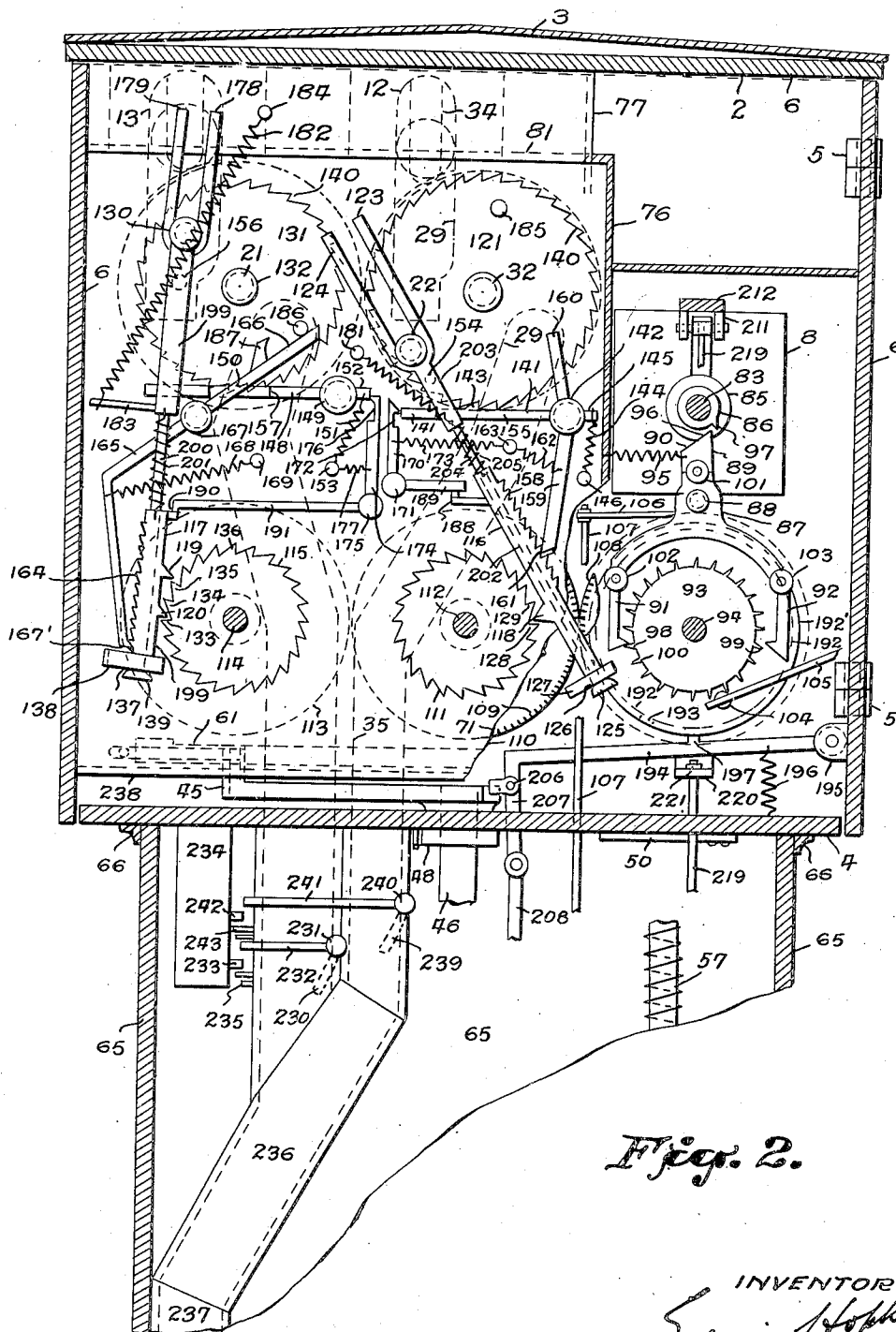
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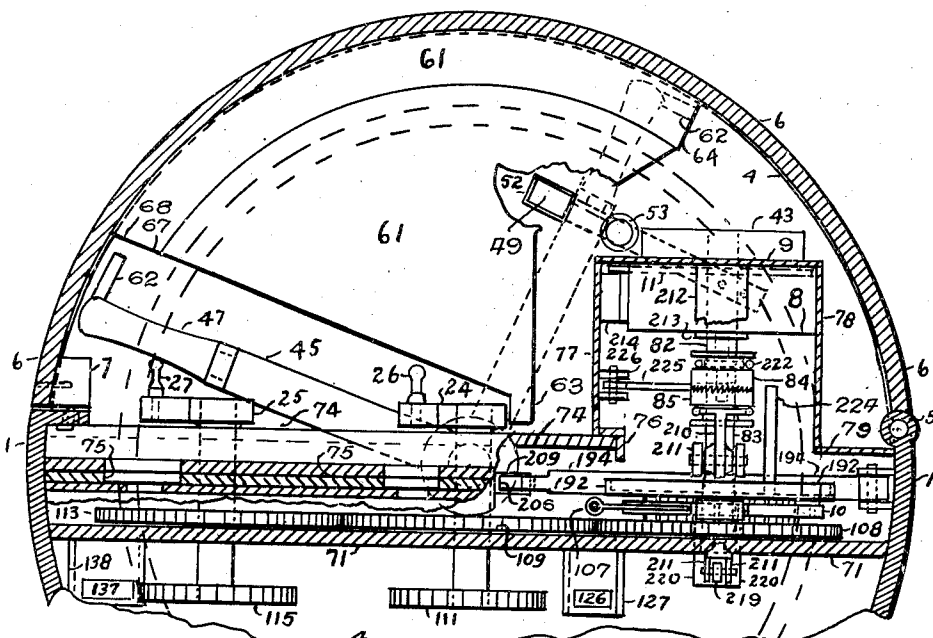


FIG. 3.

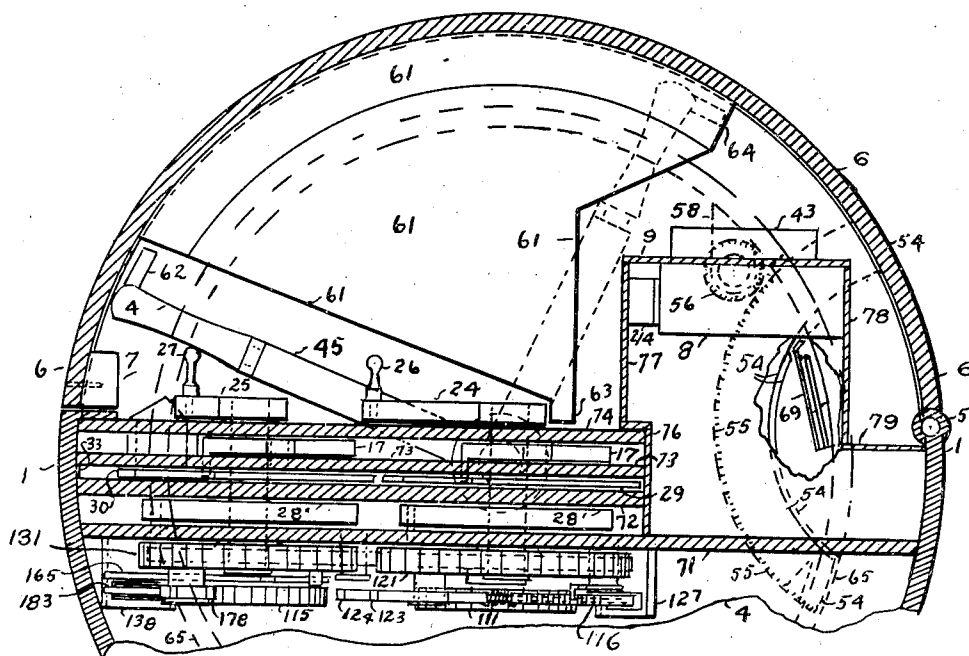


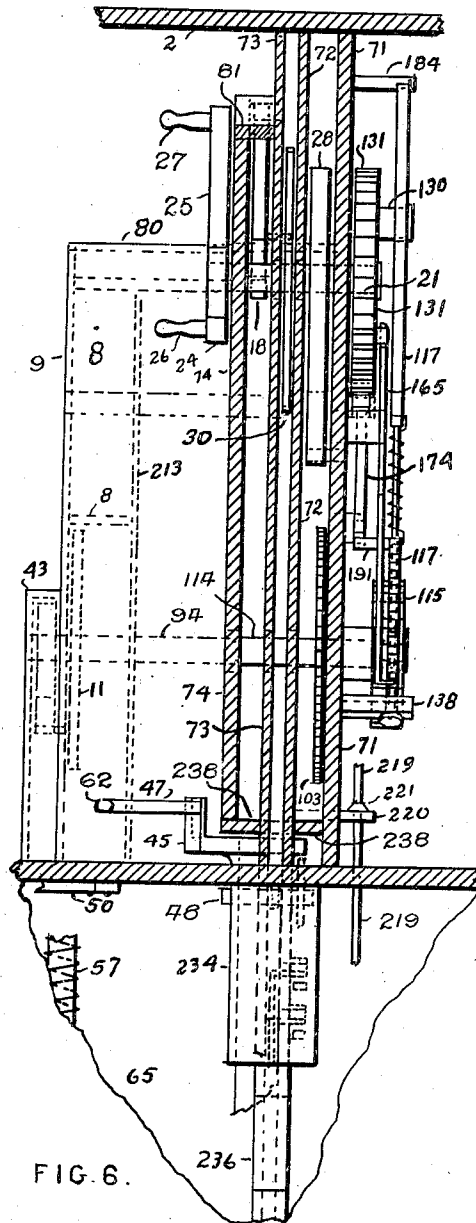
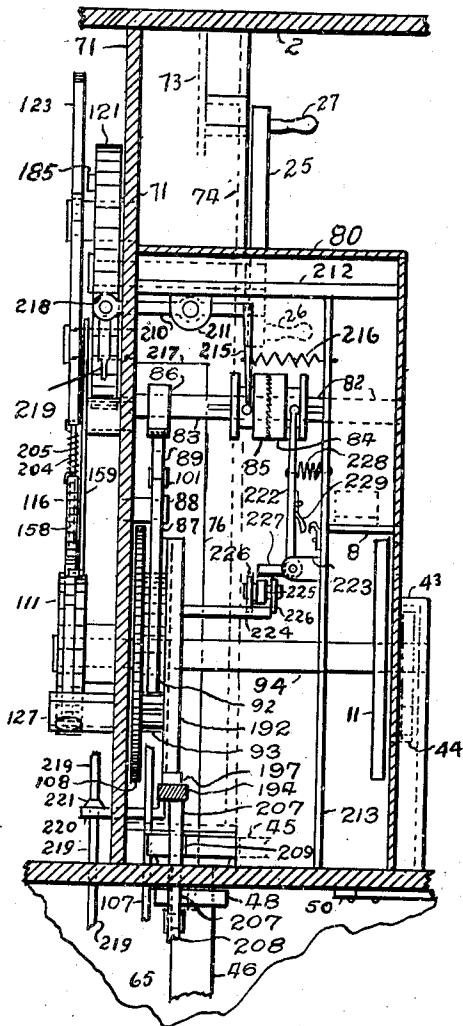
FIG. 4.

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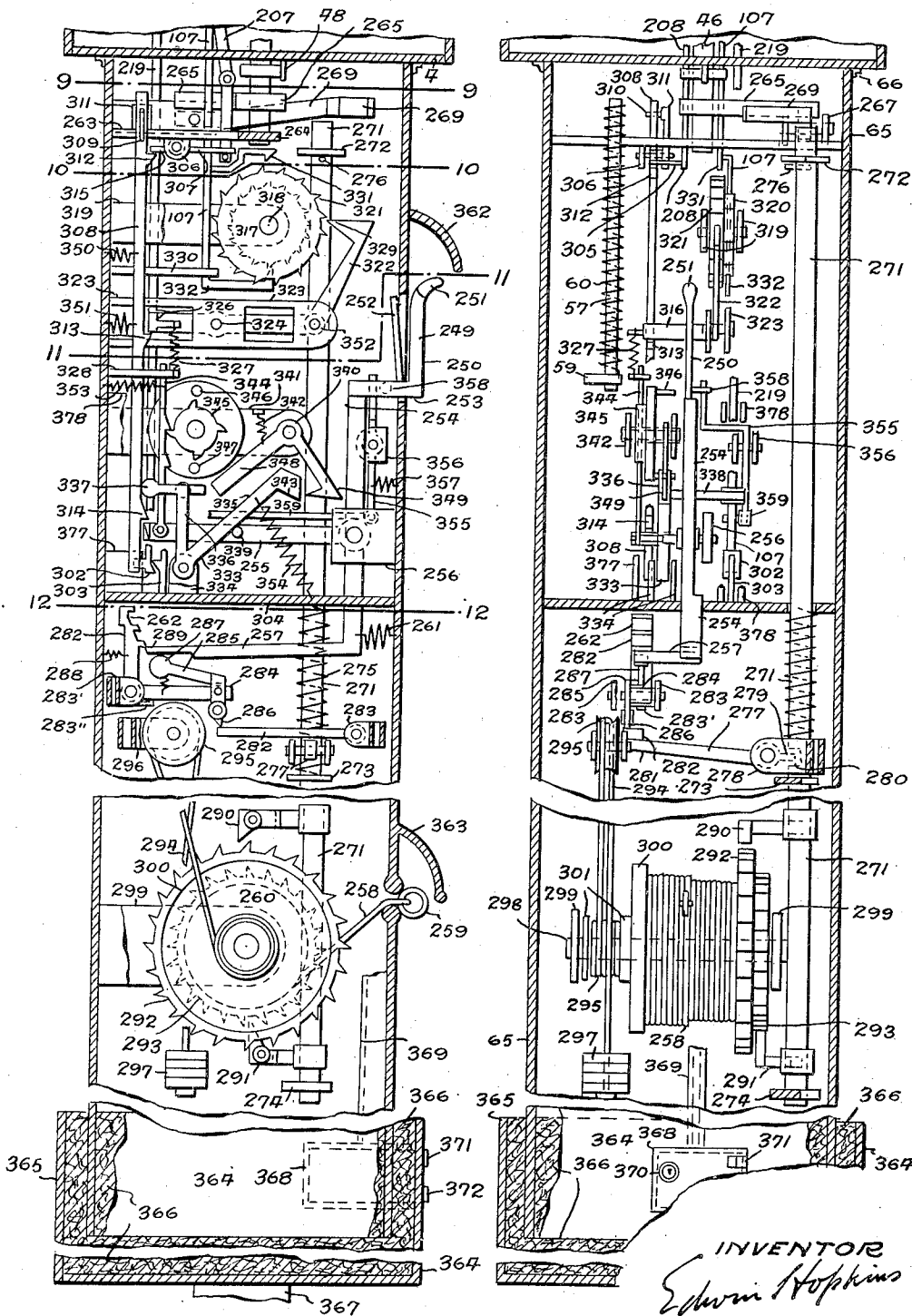


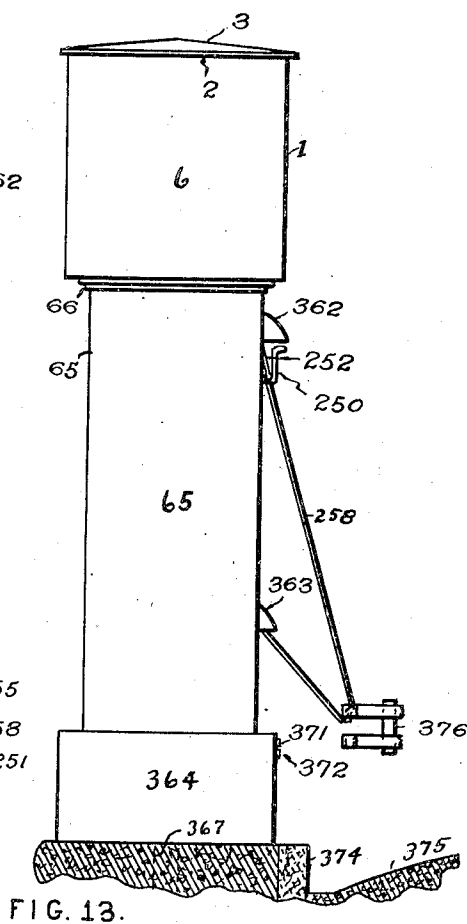
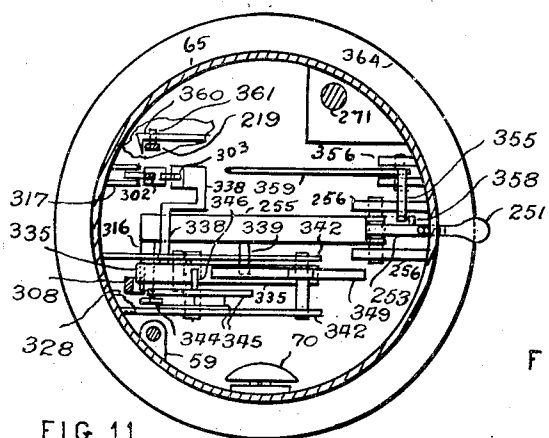
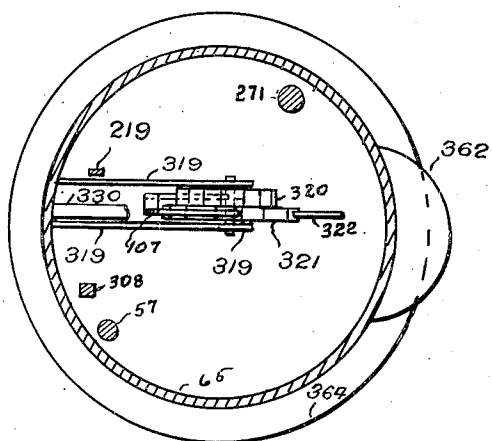
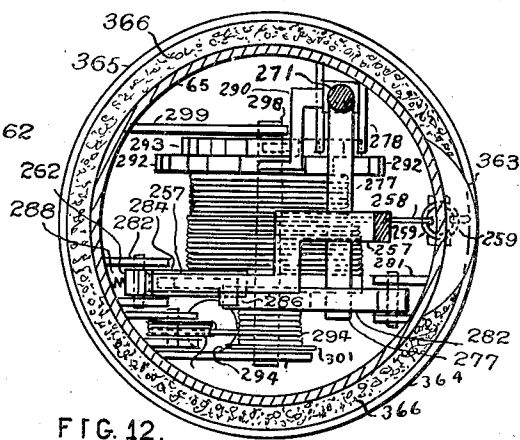
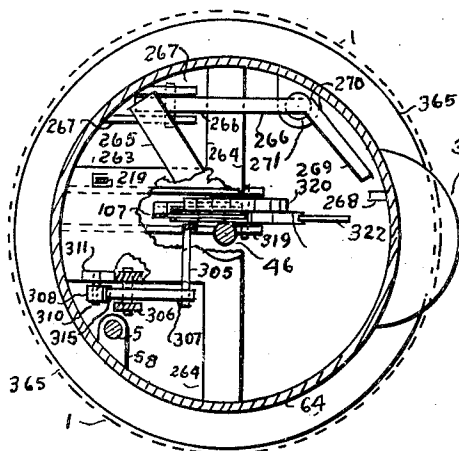
Fig. 7.

Fig. 8.

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6 Sheets-Sheet 6



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UNITED STATES PATENT OFFICE

2,069,445

PARKING POST

Edwin Hopkins, New York, N. Y.

Application January 27, 1930, Serial No. 423,841

36 Claims. (Cl. 194—49)

The main purpose of my invention is to enable automobiles and other vehicles, and animals, to be parked at a post adapted to retain them until a fee is paid to release them, the fee increasing with the length of time the post is so used. The fee is paid by inserting coins and then manually operating the apparatus, whereupon the object retained is automatically released. It is thus not necessary to have an attendant at the post.

The property owner or the municipal authorities may provide such pay-station parking posts and thus derive revenue from the user of the parking space. The latter enjoys the advantage of leaving his vehicle at an authorized place, and is free from worry about parking regulations. An additional safeguard against theft of the vehicle is also provided.

The accompanying drawings are largely diagrammatical and are not to be considered as working drawings, but merely as illustrations of the principles of the invention. Parts are omitted from particular figures and in different figures several planes are taken without being more than approximately indicated, for the purpose of clearness of illustration of the principles of the invention.

In the accompanying figures of drawings, illustrating a form of my invention, and forming a part hereof, and in which the same reference numerals and letters indicate the same or corresponding parts:

Fig. 1 is an elevation, partly in section, of the upper part of the apparatus, or head, as seen by the user when the door is open;

Fig. 2 is a rear elevation of the same head, partly in section;

Fig. 3 is a sectional plan of the head, partly in section, an upper plane indicating the coin receiving portions, and a lower plane, connections to a clock, and other parts;

Fig. 4 is another plan of the head, partly in section, on a median plane, illustrating the coin walls and driving members;

Fig. 5 is a sectional elevation of the head, looking towards the clock side;

Fig. 6 is a sectional elevation of same, looking the opposite way;

Fig. 7 is a sectional front elevation of the pedestal of the apparatus, as seen by an observer looking towards the head as in Fig. 1;

Fig. 8 is a sectional side elevation of the same, looking towards the observer's right as he faces Fig. 7;

Fig. 9 is a sectional plan on line 9—9 of Fig. 7;

Fig. 10 is a sectional plan on line 10—10 of Fig. 7;

Fig. 11 is a sectional plan on line 11—11 of Fig. 7;

Fig. 12 is a sectional plan on line 12—12 of Fig. 7; and

Fig. 13 is a general view of the apparatus in use as seen by an operator with the head door closed and a vehicle fender attached.

Fig. 1 is a front elevation of the head with the door removed, showing what an observer sees when the door is opened. The attitude is that of a vehicle having been secured for two hours as indicated by the dial under the clock.

The parts are mounted on the wall 1 of the head, with top 2, roof 3, floor 4 and hinges 5 for door 6, (Figs. 3—4). Door 6 is locked, on being closed, by snap lock 7. All users of these parking posts are to be provided with a master key, which will enable them to use any of the posts. These keys may be changed annually.

The locks also prevent the posts from being molested by children and passers-by.

Clock 8 is mounted in wall 9, and actuates the mechanism when connected to it. Under clock 8 is aperture 10, showing the amount of money due to obtain the release of the vehicle, ten cents in the illustration. This indicates a two hour use of the apparatus or the equivalent. When the signal dial 11 is returned to zero, the vehicle is automatically released, upon manual operation.

The example of my invention illustrated shows apparatus using nickels or five-cent pieces, and quarters or twenty-five cent pieces. Other examples of the invention may use other coins, or these and others. Coin slot 12 accepts nickels and coin slot 13 accepts quarters. If a dime or penny, one-cent piece, is dropped by mistake in the quarter slot 13, it will drop out through aperture 14 into cup 15 without affecting the mechanism. Nickels are too thick to go in the quarter slot. Dimes or pennies put in the nickel slot fall through similarly. In the illustration the coin slots are shown straight. They may be made with crooked passages, if desired, to prevent improper use of the apparatus.

When a quarter is dropped in slot 13 it strikes, on its descent, arm 16 of lever 17, which also has arm 18, serving as a pawl for tooth 20 of shaft 21, and which is pivoted at 22 on a stud in wall 13. Arm 18 has a portion 23, serving as a counter weight to cause lever 17 to resume its normal position by gravity when it is free to do so. Cranks 24 and 25, with handles 26 and

27, are affixed to shafts 32 and 21 respectively. These cranks enable the mechanism to be manually operated for certain functions.

The idle or normal position of crank 24 is shown by dotted line 28. The full line position is at the attitude where the crank begins to drive other members. It comes to a stop at the bottom and may be turned back, or if released will fly back, retracted by a spring 28'.

Dotted line 29 shows the course of a nickel dropped into the mechanism. There is a lever, not shown, for the nickel unit corresponding to lever 17 of the quarter unit.

Coin carrying discs 30 and 31 are affixed to shafts 21 and 32 respectively and rotate when handles of cranks 25 and 24 respectively are turned. These coin discs are in line with matrix distance plate 33, fitted with coin channels 34—35 indicated in dotted lines.

As coin disc 30 is rotated about 165 degrees, the quarter slot reaches the position shown by the dotted line 36, whereupon the quarter drops into the coin channel 34. Similarly a nickel will drop into coin channel 35 when its receptacle 29 reaches the dotted line position 37. The dotted line position 38 is the position of the receptacle when the crank 24 is in the full line attitude shown.

The initial position of crank 25 is shown in the fragment, Fig. 1. When it descends, the door 6 cannot be closed until it is returned to its initial position, as it comes to a stop before reaching the lower vertical attitude.

When a quarter is inserted when less is due, the mechanism accepts the coin but makes no refund of the excess of the quarter above the amount that may be due.

Channels 39 and 40 are in a partition back of the coin matrix, and are for the convenience in extracting a coin dropped in when the coin disc is not at the receiving attitude.

Lever 17 is pivoted to swing in a plane forward of the coin disc plane as seen in Fig. 1. End 41 of arm 16 extends into the coin disc plane. Channel aperture 42 of the coin disc serves to pass end 41 as the disc is rotated.

As either crank 24 or 25 is rotated, signal dial 11 is rotated backwards, towards the initial zero attitude. If it stands at ten cents, as shown, one nickel is inserted in coin slot 12 and crank 24 is rotated about 165 degrees, which moves the dial back to five cents. The crank 24 is returned to its initial position and another nickel inserted and the crank rotated in a clockwise direction as before, 165 degrees, when the dial is turned back to zero.

If 35 cents were due and the user had in change but one nickel and two quarters, the nickel would be useless and both quarters would have to be used. He would lose 15 cents worth of service, as the dial would return to zero when two-fifths of the action of the second quarter were spent, and the remaining three-fifths would be wasted, as the dial returns no further than zero.

Dial 11 is contained in cover 43 fitted against wall 9, and supplies power to advance the mechanism during operation by the clock, by the unwinding of spring 44, which is wound again by the manual power applied to cranks 24, 25.

When the operator has caused the dial to return to the zero position, crank 45 is freed to be turned, as later described. He turns crank 45 by handle 47. It is affixed to shaft 46 and when he has turned it about 100 degrees, it is caught and held by latch 49 affixed to spring tongue 50,

riveted to the under side of floor 4. Tooth 51 passes through floor 4 at aperture 52. Shaft 46 tends to return crank 45 to its initial position by the unwinding of spiral spring 48, which is wound by the manual operation of crank 45 as described, but latch 49 holds crank 45 in opposition thereto. Shaft 46 cannot be turned by crank 45 until the dial is returned to the zero attitude, as otherwise it is held, as later described.

When a user wishes to secure a vehicle to the post, he unlocks the door 6 and turns the crank 45, which he is able to do at once as the mechanism is not then connected with the clock. This turning and latching of crank 45 enables him to attach the vehicle to the post by a chain or rope, as later described. Having attached the vehicle, he releases the latch 49 by pressing down plunger 53 affixed to spring 50, and the crank 45, having returned to its initial position, he closes door 6 and the vehicle cannot be released, except as before described, since it immediately, automatically registers two hours or 10 cents, as later described.

A semi-circular ring projection 54 in the horizontal plane, below the level of floor 4, enters the base portion of the device. Its outer periphery is fitted with gear teeth 55, which engage pinion 56, fixed to vertically disposed shaft 57, journaled in lugs 58, 59. Spring 60, wound when the door is opened tends to return the door upon its being released, by the unwinding of spring 60.

Door 6, however, cannot be closed as long as crank 45 stands in the latched position, as shelf 61 is affixed to door 6, on the plane of the handle 47 of crank 45, as best seen in Figs. 3, 4. Handle 47 has stud 62 and when the door is opened and crank 45 is latched, tongue 63 of shelf 61 is restrained by lug 62 at point 64, from closing, and can only be closed by the prior return of crank 45 to its initial position.

The upper unit, or head, as seen in Figs. 1, 2, 3 and 4 is supported on the base pedestal, which has circular wall 65 and moulding 66.

The door, semicircular in plan, is under the top 2 when closed, and is protected by the edges of roof 3 from the weather. It is outside of floor 4, so that rain does not leak in on top of the floor 4.

Door 6 cannot be closed until crank 45 is in its initial position, as edge 67 of shelf 61 would contact with stud 62 at point 68, or at any attitude prior thereto. Contact 69 is provided on the inner periphery of 54, so that an electric bell 70, in the pedestal, may be rung when the door is open. This attracts the attention of anyone accidentally leaving the door unlocked or to anyone tampering with the door.

Fig. 2 is a rear elevation of the head, with parts broken away and parts in section and at different planes.

As seen in Figs. 4 and 3, in plan, and Figs. 5 and 6, in side elevation, there are four main partitions or walls, 71, 72, 73 and 74, and a coin matrix partition between walls 72 and 73. Partitions 76, 77, 78 and 79 with ceiling 80 enclose the clock and clock clutch mechanism and ceiling 81 is just below the coin slots.

In line with central shaft 82 of clock 8, is shaft 83, adapted to be thrown into engagement with shaft 82 by clutch members 84, 85 as later described.

As seen in Fig. 2 shaft 83 has collar 86 affixed to it. Collar 86 has tooth 97. An escapement unit is caused to function by this tooth, which

rotates once an hour, in a counterclockwise direction as seen in Fig. 2. Escapement yoke 87 is pivoted on stud 88 set in wall 71. Wall 71 is broken away and stud 88 extends backwards of the plane of wall 71, and the order of planes going backwards is wall 71, gear 108, mostly broken away but shown in dotted lines, escapement yoke 87 and its wheel 93 and annular ring 192.

Escapement yoke 87 has vertical spur 89, with bevelled surface 90. Yoke 87 also carries pendant pawls 91, 92. The spur and the pawl arms are so hinged that they give to a retracting tooth, the spur giving to a standing tooth when forced against it.

Escapement tooth wheel 93 is fixed to shaft 94. Shaft 94 is impelled to rotate in a clockwise direction as seen in Fig. 2, by spiral spring 44. The escapement of two teeth, one on either side of wheel 93, permits dial 11 to be advanced one division, an hour, or a five cent charge when the dial indicates five cents an hour.

As seen in Fig. 2, yoke 87 is in the left-leaning attitude, drawn thereto by spring 95. Point 96 of spur 89 stands retracted after having been pushed to the right-leaning position by point 97 of collar 86. Pawl 91 is holding wheel 93 stopped against clockwise rotation. When shaft 83 rotates about 340 degrees, tooth 97 will strike bevel surface 90 of spur 89, and will drive it to the right. As this slowly takes place in opposition to spring 95, pawl 91 is tilted to the left and presently lets tooth 98 escape. Meanwhile pawl 92 has also been tilted towards the left and when tooth 98 escapes pawl 91, pawl 92 stops wheel 93 by engaging tooth 99. As shaft 83 rotates once an hour and as there are twenty four teeth, dial 11 is advanced one division when the spring 95 thereafter draws yoke 87 to the leftward tilted position. As this takes place pawl 92 allows a tooth to escape and pawl 91 thereafter catches one and the wheel 93 is held until shaft 83 rotates once again. The pawls are so arranged that about $\frac{7}{8}$ ths of the advance of the angular attitude of one division of dial 11 takes place when pawl 91 allows a tooth to escape, while the other $\frac{1}{8}$ th takes place when tooth 97 passes spur 89 and spring 95 draws the yoke back.

Tooth 100 is the one held by pawl 91 after pawl 92 releases tooth 99. Spur 89 is pivoted with a restraining spring at 101, the spring being strong enough not to be affected by the advance of tooth 97 against bevel 90, but adapted to yield when in that position upon manual force being applied, as later described.

Pawl 91 is pivoted to yoke 87 at point 102 and pawl 92 is pivoted to yoke 87 at point 103, so arranged with springs that when wheel 93 is rotated in the counterclockwise direction, they will pass the teeth of 93 without vibrating the yoke 87. A pressure roller 104 mounted on spring 105, attached to wall 1, serves to prevent overthrow of wheel 93 when it is being retracted.

Yoke 87 has affixed to it yoke arm 106, which lifts and lowers yoke rod 107 during normal operation, and is lifted and lowered by yoke rod 107 by manual operation as later explained. Forward of the plane of wheel 93 and mostly indicated in dotted lines is escapement gear 108, shown in engagement with nickel gear 109, seen as partition 71 is broken away at 110. Wheel 93 is behind gear 108, and partition 71 is forward of gears 108 and 109, while nickel ratchet wheel 111 is forward of the plane of wall 71. The partitions or walls are considered as non-existent for some of the purposes of the drawings,

in order to indicate by full lines, instead of dotted lines, various parts.

Gear 108 is affixed to shaft 94, and gear 109 is affixed to shaft 112, to which ratchet wheel 111 is also affixed. Gear 109 engages quarter gear 113, affixed to shaft 114, to which quarter ratchet wheel 115 is also attached. When gear 108 rotates in a clockwise direction, gear 113 does likewise, the intermediate gear 109 rotating counterclockwise.

Driving pawl arm 116 with tooth 118 serves to drive gear 109 in a clockwise direction, and driving pawl arm 117, with teeth 119—120 serves to drive gear 113 in a counterclockwise direction. The operation of either driving pawl rotates wheel 93 in a counterclockwise direction and reduces the reading of dial 11. The dial readings are going up, one division per hour, when the apparatus is in operation and during such time, the teeth 118 and 120 are being idly lifted by the ratchet wheels 111 and 115.

If, now, the operator inserts a nickel in slot 29, he is able to rotate crank 24. Affixed to shaft 32 is crank 24 and driving crank disc 121, which has a stud 122, while pawl arm 116 is fitted with a fork at the upper end, the arms of which 123, 124 are guided by stud 122 and driven by it at certain attitudes. The lower end 125 of pawl arm 116 is guided by aperture 126 of lug 127 affixed to wall 71. End 125 is enlarged so that arm 116 cannot be drawn further upward than indicated in the drawings, Fig. 2.

The initial, idle position of stud 122 is about 15 degrees to the left of the top of a vertical line through shaft 32. Arms 123, 124 are continued to be guided by it at this attitude. In the attitude of stud 122 in the drawings, it has been rotated from the initial position and is now about to begin to drive pawl arm 116 downwards. Arm 116 is so limited that tooth 118 can drive wheel 111 forward but one tooth, or fifteen degrees. It thereupon passes off tooth 128. When tooth 118 and pawl arm 116 are retracted to the initial position, it is then in position to drive the next tooth 129, of wheel 111.

Similarly pawl arm 117 is driven by a stud, 130 affixed to driving crank disc 131, attached to shaft 21 and having boss 132. In the attitude shown, pawl arm 117 is ready to be driven. While disc 121 turns about 120 degrees before stud 122 begins to drive pawl arm 116, disc 132 turns but thirty degrees before stud 130 begins to drive pawl arm 117. Pawl arm 116 has to turn wheel 111 but one tooth or division, while pawl arm 117 has to turn wheel 115 through five divisions or teeth, being about 75 degrees. One tooth, as 120 would be insufficient to drive wheel 115 through five divisions, so an additional tooth 119 is supplied. When 115 is rotated, tooth 120 engages tooth 133 and tooth 119 presently engages tooth 135, tooth 134 not requiring an engaging tooth on the pawl arm 117. After wheel 115 is rotated 75 degrees, tooth 119 passes off wheel 115 and continues to descend. When retracted tooth 120 is in position to begin driving tooth 136. A 25-cent piece inserted in slot 13 permits crank 25 on shaft 21 to rotate disc 131, which is also affixed to shaft 21, and thus rotate shaft 114 by 75 degrees.

Pawl arm 117 is guided by pawl aperture 137 in lug 138 affixed to wall 71. Lower end 139 of arm 117 prevents arm 117 from being lifted any higher than shown in Fig. 2.

When pawl arm 117 is driven and causes five teeth to be turned on wheel 115, five divisions on dial 11 are retracted. Thus if the dial showed 75

"40 cents" it would be turned back to "15 cents." Three nickels successively in slot 12 would then enable dial 11 to be turned back to zero.

In order that an operator may not drive cranks 24, 25 back and forth, to work the dial back, discs 121 and 131 are fitted on their peripheries with ratchet teeth as 140.

Pawl lever 141, pivoted on post 142, affixed to wall 71 has tooth 143, which engages the teeth of disc 121 and prevents it from being retracted. Spring 144 affixed to short arm 145 of lever 141 and to post 146 in wall 71, serves to hold tooth 143 against one of teeth 140, so that during a forward driving of crank 24, it cannot be retracted more than the amplitude of one tooth. Lever 148, pivoted to post 149, has tooth 150, and is drawn into working position by spring 151, affixed to short end 152 of lever 148 and post 153 in wall 71.

Member 203 is fitted with stud 154, perpendicular to the disc 121. When the disc is rotated, stud 154 strikes extension 155 of lever 141, drives it downward and throws tooth 143 out of engagement with teeth 140. This occurs after pawl tooth 118 has cleared wheel tooth 128, whereupon pawl arm 116 is free to be driven downward far enough to unlatch lever 141.

Similarly member 199 is fitted with lever stud 156, which strikes extension 157 of lever 148, and unlatches it. The unlatching of levers 141, 148 does not occur until channels 29 and 30 have reached the attitude shown in dotted lines in Fig. 2 which allows the coins to fall into channels 34, 35. Thus the operator cannot recover the coins by turning cranks 24, 25 back.

Pawl arm 116 is fitted with ratchet teeth 158. Pawl arm 159 has short end 160, pivoted on post 142, with tooth 161 which engages one of teeth 158. Pawl arm 159 is held against pawl arm 116 by spring 162, affixed to 159 and to post 163 in wall 71. Thus when pawl arm 116 is driven down, tooth 161 prevents its retraction. Post 142 serves to pivot lever 141 and arm 159, with it affecting their operation, separately.

Similarly pawl arm 117 is provided with teeth 164, and pawl arm 165, with short arm 166, pivoted on post 167, and with tooth 167' which engages teeth 164. Pawl arm 165 is held against 117 by a spring 168, affixed to the long arm and to post 169 in wall 71.

Bell crank lever 170, pivoted on post 171 in wall 71, has a ratchet tooth 172 on its arm 170, which ratchet bears against the long end of lever 141, drawn thereto by spring 173, affixed to arm 170 and to post 163, to which spring 162 is also attached.

When long arm of lever 141 is driven down, tooth 172 latches it in the lower attitude.

Similarly bell crank 174, pivoted on post 175 in wall 71, has ratchet tooth 176 on arm 174 and spring 177 affixed to arm 174 and post 153, to which post spring 151 is also attached, without either affecting the other. Thus arm 148 is latched down when it is driven down by stud 156. In this attitude, pawl arms 116, 117 are latched down and cranks 24, 25 are free to be retracted. The arrangement is such that when studs 122 and 131 are retracted to an attitude 15 degrees off the vertical at the top, to the left, (Fig. 2) pawl arms 116, 117 remain in the extreme depressed attitude, while fork arms 123, 124 of pawl arm 116 and fork arms 178—179 of pawl arm 117 still contain the studs, 122—123 respectively.

Arm 116 has spring 180 affixed to post 181 in wall 71, which tends to restore 116 to its initial

position. Similarly pawl arm 117 has spring 182, affixed to its projecting arm 183 and post 184 in wall 71. Pawl arms 159 and 165 are forward of the plane of the discs 121, 132. When stud 185 on disc 121 strikes short arm 160 and moves it to the left (Fig. 2) tooth 161 is thrown out of engagement with tooth 158 and arm 116 is allowed to be retracted by its spring 180. Stud 185 does this when crank 24 is retracted. Arm 159 is limited by post 146.

Similarly stud 186 on disc 132 strikes arm 166 of pawl 165 and forces it down. This frees pawl arm 117, which is then retracted by spring 182. Stud 186 is limited by stop 187 on arm 117, and when 186 strikes 187 crank arm 25 is stopped, it being arranged to be stopped about 15 degrees off the vertical line at the top, to the left.

In the drawings, stud 185 on disc 121, is in its proper position, but on disc 132 stud 186 is shown as advanced out of its proper position as compared to the other parts, and about to depress arm 166.

When pawl arm 116 is released and is retracted, its stud 188 presently strikes arm 189 of lever 170, and thus latch 172 is caused to unlatch lever 141, thus allowing pawl arm 141 to return to control of disc 121.

Similarly, pawl arm 117 has stud 190 which lifts arm 191 of lever 174 and enables pawl 148 again to control disc 132. Arm 191 does not follow stud 190 down, but is arranged to remain suspended, to be struck by the rising of 190.

Affixed to wheel 93 is a shallow cup opening backwards, with a slot in the side of its periphery or ring 192. Against the periphery 192, tooth lever 194 rests. Lever 194 is pivoted in lugs 195 on wall 1, and is driven upward by spring 196. It has tooth 197 on the upper side bearing against the periphery of the cup, and tooth 197 is adapted to enter slot 193 when gear 108, to which 93 is affixed drives the slot to that point. The ring 192 is shown in dotted lines being beyond the plane of its bottom plate, 192'.

When gear 108 is driven in a counter-clockwise direction by the operation of either crank 24 or 25, tooth 197 presently enters slot 193, which is so set with relation to dial 11 that on tooth 197 entering slot 193, the dial shows zero. The train of gears 108, 109, 113 is also brought to a stop. The apparatus cannot again be started until lever 194 and tooth 197 are depressed freeing ring 192.

If this occurs during the utilization of a quarter, when for example, three divisions only of the dial are turned prior to the tooth 197 entering slot 193, crank 25 and disc 132 are temporarily stopped. In order for the apparatus to possess the quarter, the lower part of arm 117 is fitted with a channel aperture and the upper part 199, is fitted with a shank, 200, which is adapted to slide up and down in the channel of 117. A spring, 201, extends from 117 to 199, being very stiff so that under ordinary circumstances it does not "give" when arm 117 is operated but holds 117—119 together as if they were one piece. When, however, 108 is stopped, the operator, by using greater pressure, is able to depress the spring 201 far enough to enable the coin to fall from channel 30 to channel 35. Unless this is done crank 25 cannot be freed from latch 148, and the door 6 cannot be closed.

Arm 116 is similarly fitted with parts 202, 203, 204 and 205, so that if an extra nickel is inserted inadvertently, it may be retained by the apparatus.

When lever 194 is lifted by tooth 197 entering slot 193, blade 206 on the end of lever 194 is also lifted, together with arm 207 and rod 208, connected with apparatus in the pedestal, as later described. Arm 207 freely passes up and down in a slot in floor 4. When blade 206 is lifted, its lower edge rises above the plane of the top of crank 45. Crank 45 has a notch 209 (Fig. 3) which prevents it being rotated when blade 206 is down. But when blade 206 is lifted by the depositing of the necessary coins and operation of the dial, crank 45 is thus released to be manually operated. It may then be turned about 100 degrees, to be caught by latch 49, accomplishing functions later described.

Clock 8 has main shaft 82, end to end and in line with shaft 83. The clock is attached and detached by a clutch having members 84—85. The clutch is best seen in Figs. 3 and 5 but is omitted from Fig. 4.

Bell crank lever 210 is mounted in pendant lugs 211, affixed to cross bar 212, extending from wall 9 to wall 71, across the top of the clock. Clock 8 is supported by wall 9, standard 213, cross bar 212 and foot 214 to wall 77.

Vertical arm 215 of bell crank 210 is drawn to the right (Fig. 5) by spring 216, thus closing the clutch 84—85 unless prevented from so being drawn to the right.

Wall 76 is cut through at 217 to provide passage for members at that point.

End 218 of lever 210 has a pendant rod affixed thereto, which goes into the base for functions later described.

Arm 215 controls clutch member 85, and when spring 216 is allowed to function, it closes the clutch and connects the clock with the rest of the apparatus. When rod 219 is pushed up, overcoming spring 216, clutch member 85 is withdrawn from clutch member 84, and the clock is thus disconnected from the rest of the apparatus. The lifting of rod 219 is accomplished by lever 194, which has a shelf 220 through which rod 219 passes. Collar 221 is affixed to rod 219 and thus when lever 194 lifts by its tooth 197 entering slot 193, rod 219 is thrust upward.

When a vehicle is parked for twenty-four hours means are provided to de-clutch the clock and automatically to start the ringing of a bell 70 to attract attention.

To accomplish this, the clutch member 84 is arranged to be moved towards the clock by bell crank lever 222, pivoted in lugs 223 on standard 213, having long arm engaging clutch member 84 and short arm 227. Post 224 is affixed to the bottom of cup 192, parallel with shaft 94. Lever 225 is provided, pivoted in lugs 226 on wall 77. It is adapted to be lifted by post 224, which is so located on 192 that it reaches lever 225 and strikes it from beneath at about the end of twenty-four hours of continuous parking. When post 224 forces the outer end of lever 225 upward, the latter strikes short arm 227 of lever 222, and drives long arm towards standard 213, in opposition to spring 228, which ordinarily holds clutch member 84 in the attitude shown in Fig. 5, even when clutch member 85 is withdrawn. While this de-clutching is occurring, electrical contacts 229 are closed and an electric circuit set up from a source of electricity through bell 70, which begins to ring and rings continuously until the vehicle is released.

When a coin descends in channel 34, it encounters short arm 230 of bell crank lever 231,

which forces long arm 232 to depress arm 233 of counting machine 234, thus counting the coin. As arm 233 descends it causes electrical contacts 235 to be closed, and bell 70 is rung one stroke. The coin then passes into a common channel 236 and from there to 237 and into the base.

Similarly when a coin descends in channel 35 it strikes arm 239 of lever 240 and long arm 241 strikes arm 242 of counter 234, and contacts 243 are closed, ringing bell 70 momentarily. It then drops into the common channel 236 and thence to 237. The user is thus, by the stroke of the bell, made aware that the apparatus has functioned.

A floor 238 at the bottom of walls 72, 73 and 74 affords a recess in which crank 45 operates.

The head is mounted on a circular pedestal with wall 65, and fillet 66 between the pedestal and the floor of the head, as the pedestal is smaller in diameter than the head.

The pedestal contains the parts with which to secure and release the vehicle, and has five members in communication with the head; escapement yoke rod 107; arm 207 of stopping lever 194, connected to rod 208; clock clutch rod 219; pin-ion shaft 57 and central shaft 46.

Fig. 7 is an elevation, partly in section, of the pedestal with wall 65 removed or in section, as seen by an observer looking at the clock when door 6 is open. The vehicle is then on the observer's right. Fig. 8 is an elevation, partly in section, of the pedestal apparatus as seen from the roadway when the vehicle is parked at the right of the observer as he looks at the clock.

Figs. 9, 10, 11, and 12 are sectional plans taken on the lines indicated in Fig. 7.

The vehicle is attached at the upper part of lever 249 which includes a prong 250, a hand hold at its top, 251, and a reception horn 252, all rising from a horizontal elbow member 253. The remainder of the lever is composed of vertical bar 254, a horizontal bar 255, a lower continuation of vertical bar 254 and a lower horizontal pawl arm 257, the lever pivoted in lugs 256. The lever as shown is in the position of rest between the securing of vehicles. Some of the other parts, however, are in different attitudes, as will be noted, in order to illustrate the action more clearly.

When a vehicle is to be secured, crank 45 is turned until it is held by its ratchet tooth. A wire rope 258, terminating in a ring 259 is then drawn off a windlass 260 manually. It is put through a portion of the vehicle, as between spokes, or through a fender or handle, and then the prong 250 is drawn out and the ring settled on the horn 252. The hold 251 is released and horn 252 snaps back into the wall 65, its lower portion at the ring being unable to re-enter. Lever 249 is retracted by spring 261, which causes lever 249 to be latched by latch lever 262, end 289 of arm 257 being caught by the middle tooth of 262. The windlass automatically draw in the slack rope.

Assuming the apparatus to be closed and a user desires to secure a vehicle. He first opens door 6 and pulls crank 45 around until it is latched. Crank 45 is affixed to short shaft 46, which is journaled in floor 4 and a horizontally placed T-shaped bar with stem 263 and bar 264. Spiral spring 48 tends to retract crank 45, being wound as it is turned to the ratchet.

Affixed to shaft 46 is arm 265, which is turned about 100 degrees as the crank 45 is so turned.

Arm 266, journaled in lugs 267 is normally tilted at a slight upward incline towards its outer end. It consists of inclined bar portion 266 and rest portion 269. At the point 270, where the arm is crooked, it rests on the top of a vertical rod 271, sliding in lugs 272, 273, 274 and pressed up by spring 275 and held against upward action by stud 276.

When arm 266 is turned, it strikes and depresses arm 266 which forces rod 271 downwards. After depressing 266, arm 266 slides on rest portion 269, which causes no further depression of rod 271, and at the end of the movement of arm 266 it is stopped by stud 268. While crank 45 is latched, rod 271 remains in the down position, and when crank 45 is returned to its initial position, rod 271 accordingly rises.

Lever arm 277, pivoted in lugs 278 has short end 279 which fits in a notch 280 in rod 271. When rod 271 descends, end 281 of arm 277 rises and lifts lever 282, which is pivoted in lugs 283.

Latch 262 is composed of a bell crank lever 282, pivoted in lugs 283, one of which has a projection 283' which prevents arm 284 of lever 282 from falling below a horizontal position. Arm 262 has three teeth, two lower-teeth and an upper stop tooth. A bell crank lever 285, with a semi-circular end 287 is pivoted on the outer end of arm 284, and has a tooth 286, which is so pivoted with a spring that it may lean to the left as seen in Fig. 7. Portion 287 is held down by arm 257 against a spring which tends to force it upwards.

When arm 282 is forced up it strikes tooth 286 and thus lifts end 284 of lever 282 against spring 288. This frees pawl arm 257 of the middle or lower tooth of arm 282, as the case may be and it is free to be lifted, but does not rise of its own accord as spring 261 opposes that.

When 257 is lifted by manual operation of 251, arm 285 is allowed to rise, whereupon point of tooth 286 is pushed off the outer end of arm 282. This causes arm 262 to be pressed forward by spring 288 in position to retain 257 when it is returned, 257 striking the upper stop tooth of 262, which limits the outward movement of 251.

When lever 249 is allowed to be retracted by spring 261, the descent of arm 257 forces arm 285 down and forces tooth 286 against the end of lever 282. It "gives" and remains in that position until arm 282 is lowered, when it snaps back into the position indicated in Fig. 7. The purpose of this is to prevent lever 249 being worked back and forth by a user. When it releases itself, it will be caught again if allowed to be drawn back. As this occurs the dial 11 is set at 10 cents automatically as later explained so that the apparatus cannot be operated again until the 10 cents is inserted. It is thus not an apparatus to be monkeyed with.

The descent of rod 271 frees cord 259 so that it can be drawn out. Rod 271 carries two pawls, 290 and 291. Windlass 260 has two ratchet teeth wheels, with teeth facing in opposite directions. Wheel 292 is engaged by pawl 290 above it and wheel 293 is engaged by pawl 291 below it.

In Figs. 7 and 8 the rod 271 is shown in the idle position. This permits pawl 291 to engage wheel 293 so that cord 259 cannot be drawn out. When rod 271 descends, pawl 290 is lowered and is in position to engage the teeth of wheel 292, while pawl 291 is lowered out of the range of wheel 293. The operator can now draw cord 259 out by taking hold of ring 259, and the cord is prevented from being retracted and jerked out of his hands by pawl 290 engaging teeth of wheel 292. Ring

259 is then put through a portion of the vehicle and settled on horn 252 as described.

The vehicle now being secured, crank 45 is released and door 6 closed. When crank 45 is released and returns to its initial position, rod 271 rises and presently withdraws pawl 290 and restores pawl 291 to wheel 293. This allows the cord to be drawn taut and prevents it from being pulled out.

The teeth of pawls 290 and 291 are pivoted with springs so that they "give" when their wheels retract.

Windlass 260 has two cords, one 258 for securing the vehicle and one, 294, which winds on a much smaller core 295, mounted on shaft 298 in lugs 299. Cord 294 runs over pulley 295, journaled on a shaft in lugs 296, and carries weight 297. The windlass has side discs 300 and 301 to guide the cords, wheel 292 also serving as a side disc. When rod 271 rises, weight 297 retracts the windlass and draws the cord taut while pawl 291 prevents it from being drawn out.

When lever 249 is manually released after ring 259 has been settled on horn 252, spring 261 retracts lever 249 and would draw in the horn as seen in Fig. 7, but ring 259 at the bottom of the horn prevents that portion from being drawn in, while the top of the horn does pass into the slot in 65 provided for it and end 289 of arm 257 is caught by the middle tooth of 262. Arm 257 cannot descend lower and be caught by the lower tooth of 262 as ring 259 prevents it descending that far. Lever 249 thus has three positions, rest, drawn out and secured. Ring 259 cannot be withdrawn from the horn as the top of the horn is inside wall 65.

In addition to the functions of lever crank 45 and its communicating members just described, the three rods 107, 208 and 219 also affect functions of the pedestal apparatus.

When the proper number of coins have been inserted and the dial retracted, and lever 194 rises as its tooth 197 enters slot 193, and this de-clutches the clock as rod 219 is forced up by lever 194 striking its collar 221. When this occurs lower end 302 of rod 219, which is in the form of a tooth, is lifted and engaged by stationary tooth 303, erected in partition floor 304. The clock remains disconnected even after lever 194 descends, because end 302 is held up by tooth 303, and the clock will not again be connected until tooth 302 is thrown off tooth 303.

Means are provided for drawing tooth 197 down out of slot 193 so that the apparatus may be started again. Rod 208 has at its lower end a pin 305. Lever 307 is pivoted in lugs 306 in floor 263. The outer end of the lever 307 rests on pin 305, and on lever 307 being depressed it forces pin 305 down enough to cause 197 to clear 193. Blade 266 of lever 194 is spring pivoted to "give" on this action taking place, dropping when crank 45 is turned to its initial position.

Lifting rod 308 has a slot 309 at its upper end. Stud 310 fixed in standard lug 311 slides in the slot, its outer end slightly enlarged, and when rod 308 is dropped it serves to suspend it.

Lifting rod 308 has three teeth 312, 313, 314, tooth 312 being adapted to lift short end 315 of lever 307, which thus depresses rod 208 and clears 197—193. Lifting rod 308 is caused to rise by the manual operation of lever 249, arm 255 of which engages tooth 314 of rod 308, by means of its elbow 316.

Toothed wheel 317 is journaled on shaft 318 held in lugs 319, the forward one of which is 75

broken away in the drawings, Fig. 7, and it has two rows of teeth in different planes. Teeth 320 are beyond teeth 321.

Wheel 317 is driven by pawl arm 322, pivoted in lug arms 323 at axis 324. It has elbow 316, which is engaged and lifted by tooth 313 of rod 308. When the end 326 of 322 is freed of the support of tooth 313 it is drawn back to idle position by spring 327 attached to lug 328, and in so doing beak 329 advances wheel 317 $\frac{1}{8}$ of a revolution.

Escape yoke rod 107, which slides in apertures in floors 4 and 264 and in lug 330 carries attached to it an upper arm 331, contacting with the teeth of 321 and a lower arm 332, contacting with the teeth of 320.

The object of this arrangement is to cause yoke 87 to function and release dial 11 for two divisions, so that ten cents will be charged at the outset.

When wheel 317 is caused to rotate in a counterclockwise direction by tooth 329, rod 107 may, at the start, be either in the upper or the lower position, or between them. In Fig. 7 it is shown in the upper position but in Fig. 2 it is shown in the lower position.

As seen in Fig. 7 when pawl 322 functions, it advances wheel 317 for two teeth. The first effect is to force arm 332 down by the passing of a tooth of 320. This also lowers arm 331 into the path of a tooth of 321, which then raises 331 and consequently 332. The latter is now in the path of the next tooth of 320 and is lowered by it which accordingly brings arm 331 into the path of the next tooth of 321. It is then lifted and rod 107, after thus making two complete movements rests at its initial position, having caused two divisions of dial 11 to be advanced.

It is to be noted that 197—193 is cleared by tooth 312 of rod 308 and lever 307 before 317 is moved. Thus after wheel 317 has rotated $\frac{1}{8}$ of a revolution, ring 192 has advanced accordingly and tooth 197 is resting on the periphery of 192. To release the vehicle it is necessary to insert two nickels, as though the vehicle had been secured for two hours.

As lever 249 is moved out and in when the vehicle is secured, and is again moved out and in when the vehicle is released, it is necessary that rod 308 be moved or lifted but once during such a cycle, and that only on the out-and-in-movement of the lever 249 when the vehicle is secured. The following means are provided to accomplish this effect.

Dislodging lever 333 is pivoted in lugs 334, the forward one of which is broken off in the drawings, Fig. 7, rising from floor 304. Lever 333 has two arms, 335 to the right and 336 to the left (Fig. 7). Arm 336 has a semicircular end, serving as a hammer head to strike rod 308, and a second such head on elbow 338, serving to strike rod 107, both heads being out of the plane of lever 333.

Stud 339 on the side of arm 255 strikes the underside of arm 335, as 255 rises. This forces hammer 337 against rod 308, and when 308 has been lifted to a selected height, 337 drives rod 308 to the left and teeth 312, 313 and 314 are no longer in engagement with 307, 326 and 255 respectively.

Arm 335, terminating in tooth 343, is at the same time latched by pawl 340 with tooth 349. Pawl 340 is provided with arm 348 and is drawn upwards by spring 342 when tooth 349 engages 343. Pawl 340 is pivoted in lug arms 341, the forward one of which is broken away in the drawings, (Fig. 7).

When arm 255 lifts rod 308 the first function that takes place is the clearing of 197—193. The second function is the catching of a tooth of 317 by beak 329, the third function is the releasing of rod 308 by being pushed off arm 255 by hammer 337. When this takes place beak 329 advances wheel 317 and two divisions of dial 11 are advanced. The final function is the pushing of tooth 302 off tooth 303, so that the clock may be clutched in. Spring 216 (Fig. 5) forces rod 107 and tooth 302 downwards and closes clutch 84—85.

The operator now settles ring 259 over horn 252 and releases lever 249. Spring 261 draws 252 in and causes end 289 of arm 257 to be caught by the middle tooth of 262. Windlass 260 draws 15 steel cord 258 taut when crank 45 is returned to its initial point. The door 6 is then closed and the vehicle left secured to the post.

When the user comes to release the car, he opens door 6, puts in the necessary coins and presently 197—193 is cleared and the clock unclutched. Crank 45 may now be turned and caught by latch 49, depressing rod 271. Bell crank 282 is tilted so that end 289 of arm 257 is clear of the tooth of 262. Pawl 291 is forced down, so that the user 25 may draw out free cord in releasing the vehicle. The user then tilts lever 249 to bring horn 252 out of wall 65. He then removes ring 259 from horn 252 and disengages cord 259 from the vehicle, and the cord then lies on the ground.

When the tilts lever 249 and arm 257 is lifted away from 262, tooth 286 escapes the end of lever 282. When the user releases handle 251 and allows lever 249 to return to its initial position, end 289 of arm 257 is drawn back by spring 261 and engages the lower tooth of 262. It then cannot be released until rod 271 is lifted and lowered again.

The lifting of arm 255 when the vehicle was secured has caused arm 335 to be engaged by latch 349. Thus rods 308 and 107 are not engaged or molested on the lifting of arm 255 when the vehicle is released. Lever 307 is also not disturbed. Rod 219 is held up in the disengaged position of the clutch by arm 194 during this time.

Arm 255 is fitted with a pawl lever arm 244 which has two teeth, and is adapted to rotate wheel 345 $\frac{1}{4}$ of a revolution on each down stroke.

Ratchet tooth wheel 345 is mounted on an axle in lugs 341, the forward one of which is broken off in the drawings, Fig. 7. Attached to wheel 345 is a disc portion having two posts, 346 and 347. They are on the other side of wheel 345 as seen in Fig. 7. On the down stroke of pawl arm 344, which slides in guide 328, after the vehicle is secured, the quarter turn of 345 brings post 347 to the attitude shown in the drawings, Fig. 7. In this attitude arm 335 should be latched by 349, bringing end 348 of 340 into the path of post 347. On the down stroke of 344 after the release of the vehicle, post 347 is carried $\frac{1}{4}$ turn which causes it to strike arm 348 and unlatch 335. This allows hammers 337 and 338 to retract and causes tooth 302 to be engaged by tooth 303, and tooth 314 to be in position to be lifted by arm 255. Spring 350 drives rod 219 to the left and spring 351 drives rod 308 to the left, Fig. 7. In this figure of drawings lever 249 is in the position of rest between attachments of the vehicles, and 308 is in the same attitude of rest, but tooth 302 is in the attitude of operation. Levers 333 and 340 are also in the attitude of rest. Wheel 345 is in the attitude just before the down stroke of the release of a vehicle. These attitudes serve to illustrate the parts more clearly.

During the periods between the attachment of vehicles, lever 194 is in the upper position, 197 being in slot 193. This also forces the unclutching of the clock. Rod 107 remains in the last position to which it was moved. Arm 322 is spring pivoted at point 358, so that it may slide readily across the teeth of 317 when being drawn down. Spring 353 pushes pawl arm 344 against wheel 345. Spring 354 draws arm 335 down against stud 339.

In order to further assure the disengagement of the clock between the securing of vehicles, lever 355 is provided, pivoted in lugs 356, its upper end adapted to be drawn to the right (Fig. 7) by spring 357, against a stud 358 on arm 353 of lever 249. Arm 359 is hinged to the lower end of lever 355. When lever 249 is opened to secure a vehicle, arm 359 is thrown to the left, and when 249 secures a vehicle, tooth 360 of arm 359 does not affect rod 219. The end 360 is best seen in a small, broken-in insert in Fig. 11. When arm 359 is drawn to the right when lever 249 is at rest after releasing a vehicle it draws rod 219 to the right so that tooth 302 will be above tooth 303. It will be held there until lever 249 is tilted to secure another vehicle. Stud 361 on rod 219 holds arm 359 in a horizontal position.

Wheels 317 and 345 move under slight friction in order to prevent them from retracting on the return of their pawls.

Hoods 362 and 363 provide a protection against the weather.

The base 364, is composed of a metal receptacle with metal walls and base 365. It is full of concrete 366, pedestal 65 being inserted in it when the concrete is freshly mixed. Post 367 is attached to the base and serves to hold the post firmly to the ground, although the weight of the concrete is sufficient to maintain the post in any selected location.

Strong box 368 is set in the concrete, and coins reach it through coin channel 369, which is a continuation of coin channel 238, deflected on the way down to pass other members of the apparatus. Strong box 368 has lock 370 and hinges 371 and 372.

In Fig. 13 is shown an elevation of the parking post as it appears to one about to make use of it, the same view as that taken in Fig. 1.

It is secured in a concrete sidewalk 373, near stone curb 374, while an automobile on street 375 has fender 376 through which cord 258 passes to horn 252. When the cord is thrown to the ground after being released from horn 252 and fender 376, it is drawn back on windlass 260 when the rod 271 rises. Rods 308 and other portions are provided with guides as 377, 378 to keep them in the working attitudes. In Fig. 8 one of the lugs 256 is omitted for clearness in the drawings. In Figs. 7 and 8 the walls are taken in median section while the working parts are in elevation, some forward of the plane of wall sections.

The apparatus may be used for other purposes, as when attached to a container which cannot be opened until the proper coinage is deposited, or as to a room or bank vault or receptacle for packages.

What I claim is:

1. Apparatus adapted to secure a vehicle and to retain it until manually released, comprising a post in which is mounted a rotatable windlass, a cord or chain wound on said windlass and adapted to be drawn off upon the release of said windlass, means to so release said windlass; a cord

or chain holder pivoted in said post having a member adapted to be drawn out manually, said cord or chain when drawn off said windlass adapted to be passed through a portion of a vehicle to be secured and thereafter secured to said chain holder; said holder means adapted, upon being manually released to automatically return partly within said post; means wherein said holder means is thereupon automatically latched against manual withdrawal, and coin controlled releasing means, adapted to increase, as time passes from the securing of said vehicle, the amount of coin necessary to release said holder from said latch, and means manually operable, upon reception of the necessary coin, to effect the release of said holder, it being thereby adapted to permit the cord or chain to be removed.

2. The matter of claim 1 wherein the coin controlled releasing means comprises a clock, a coin dial adapted to indicate coin increasing in proportion to time elapsed from the securing of a vehicle, governing means whereby said clock controls the advance of said dial; means adapted to throw said clock into engagement with said dial moving mechanism automatically upon the securing of a vehicle, and releasing means adapted to be operated on the reception of the indicated coinage, including automatic means to disengage said clock from the dial operating means and to release said vehicle cord or chain holder.

3. In a parking post a clock having a shaft adapted to rotate once an hour, or other selected length of time; slidably mounted on said shaft a clutch member; a second shaft in line with said clock shaft, end to end, a slidably mounted clutch member on said second shaft, adapted to engage with the said clutch member of the clock shaft; whereby to cause said second shaft to be rotated by said clock shaft when clutched thereto, a bell crank lever having a horizontal lever pivoted medianly, and an arm positioned perpendicularly thereto, adapted to control said second shaft's clutch member; the other end of said bell crank lever provided with a pendant rod whereby it may be controlled, a collar affixed to said second shaft, said collar fitted with a tooth projecting therefrom; an escapement yoke positioned below and in the plane of and parallel to said second shaft collar; said yoke provided with a vertically projecting arm having a bevelled surface towards the advance of said collar tooth, whereby said rotation of said collar tooth is adapted to force or tilt said yoke; a spring adapted upon the passing of said tooth past said vertical arm to retract or tilt said yoke back to its initial attitude; pendant escapement pawls, one each attached to an end of the arm of the said yoke; an escapement tooth wheel in the plane of said pawls and between them; said escapement wheel fixed to a shaft, said shaft parallel to said clock shaft; a spiral spring affixed to said shaft and to a stationary member, said stationary member, adapted to be wound upon the retraction of said shaft, and adapted to unwind and turn said escapement wheel in opposition to said pawls one wheel tooth division upon being released by said escapement yoke and pawls on a go-and-return movement; a coin indicating dial having a plurality of divisions corresponding in number to the teeth of said escapement wheel, affixed to said escapement shaft and adapted to be rotated one division on each go-and-return movement of said yoke and pawls; a partition before said dial and a window therein, adapted to exhibit one division at a time, and in communication with the fore-

going apparatus a coin controlled mechanism having members adapted to be advanced in consonance with the advance of said escapement wheel shaft, and adapted to be manually operated in the reverse direction, and adapted when so operated to retract said dial and escapement wheel to the initial position.

4. The matter of claim 3 including a horizontal bar affixed to said yoke extending to one side, a vertically positioned rod affixed to the end of said bar and means whereby said rod may be moved up and down, whereupon to tilt said yoke a go-and-return movement for each cycle of up and down motions.

5. The bell-crank clutch rod as set forth in claim 3, including a collar positioned below said escapement wheel and adapted to be struck by a rising lever and adapted thereupon to declutch said clock, and said rising lever.

6. In a parking post of the class described having a base, a pedestal and a head, and mechanism in the pedestal and head adapted to secure a vehicle to said post, in the pedestal a primary bell crank lever, retracted by a spring, said spring, said lever pivoted in lugs and having an arm positioned vertically and two arms positioned horizontally, a lower latch arm and an upper lifting arm; said bell crank lever pivoted at the juncture of said lifting arm and said vertical arm, said vertical arm having a horizontal elbow, from which project two vertically placed members, a hand hold member, whereby said bell crank lever is tilted and a horn member behind said hand hold member, said horn member adapted to receive a vehicle securing cord, and said wall of said pedestal having a slot whereby said horn may be drawn outside said wall by said hand hold member, the remaining portions of said bell crank lever being enclosed in said pedestal.

7. In a parking post of the class described having a base, a pedestal and a head; a vehicle securing cord or chain, wrapped upon a windlass in the pedestal, said windlass, said cord adapted upon release of said windlass to be manually withdrawn therefrom and secured to said vehicle, and the end of said cord thereupon being adapted to be secured to said horn set forth in claim 6, means adapted to so release said windlass; said horn adapted to be drawn out of said pedestal manually for the reception of said cord, and upon being manually released adapted to retract partially into said pedestal whereby the top of said horn is held within said pedestal while the lower portion securing said cord remains outside said pedestal, and automatic latch means adapted to retain said horn within said pedestal until released.

8. In a parking post of the class described, having a base, a pedestal and a head, and mechanism adapted to secure a vehicle; included therein a primary bell crank lever having one vertically positioned and two horizontally positioned arms, an upper and a lower horizontal arm, said lower arm adapted upon the retraction of said primary bell crank lever by a spring to be automatically latched, said spring, and a latch therefor comprising a secondary bell crank lever with a vertical arm fitted with three teeth, an upper limiting tooth, and a middle and lower engaging teeth each adapted to latch said primary bell crank lever depending on its position, and a horizontal arm having pivoted to its end a tertiary bell crank lever; said tertiary bell crank lever pivoted thereto, comprising a vertical arm and pivoted thereto, a retractable tooth positioned vertically,

adapted upon being pressed upward by a transmitting lever to lift said horizontal arm of said secondary bell crank lever, and a horizontally disposed arm terminating in a bearing disc, said disc adapted to press against the underside of said latched lower horizontal arm of said primary bell crank lever, forced thereto by a spring, said spring positioned between the upper side of said horizontal arm of said secondary bell crank lever and the underside of the said horizontal arm of said tertiary bell crank lever, and means, manually operable, adapted to lift said transmitting lever and thereby lift said horizontal arm of said secondary bell crank lever, whereby to free said lower horizontal arm of said primary bell crank lever and adapt said primary bell crank lever to be manually tilted.

9. In a parking post a head comprised of a roof, a top plate thereunder, a semi-circular rear wall, a semi-circular front wall in the form of a door vertically disposed, a horizontally disposed floor, a pedestal, said floor supported on said pedestal, a base, said pedestal supported on said base, and said floor bearing four vertically disposed partition walls, parallel to each other and at selected distances apart, one of them running across said head from said door's hinges to said door's lock, and said partitions adapted to provide journals for shafts and to have other uses for the purposes set forth.

10. In a parking post having four walls as set forth in claim 9, a rear wall, an adjacent second wall, a third wall and a front wall adjacent said third wall, a coin channel between said second and third walls, a main shaft, a manually operable crank affixed to said main shaft, said main shaft journaled in all four walls, said crank forward of said front wall, said main shaft having a collar attached, positioned between said third and fourth walls, a pawl similarly positioned, said collar having a tooth adapted to be engaged by said pawl, said pawl fitted with a second arm having a portion turned into said coin channel and adapted upon being struck by a coin to release said toothed collar; affixed to said main shaft between the rear and second walls a spiral spring, also affixed to said rear wall and adapted to be wound by the rotation of said manually operable crank, and thereupon to retract said crank to its initial position upon said crank being released, and affixed to said main shaft outside said rear wall a disc fitted with a stud, said stud adapted to drive a driving pawl rod upon said disc being rotated by said manually operable crank in a forward direction, and a driving pawl rod adapted to be driven by said disc stud, and connections whereby said driving pawl rod is adapted upon being driven to retract other portions of the said mechanism.

11. The matter of claim 30 including an additional set of crank, main shaft, pawl, collar, tooth for collar, a second coin channel, second arm for said pawl adapted to extend into said coin channel, a spiral spring adapted to retract said crank upon being released, and a driving disc with a stud adapted to drive a second driving pawl rod, and said second driving pawl rod, and connections therefor similar to those set forth for its driving pawl rod in claim 30.

12. The driving stud disc and stud set forth in claim 30 including a driving pawl rod adapted to be driven by the rotation of said disc in a forward direction, and a pawl arm adapted to retain said driving pawl rod in the lowermost position to which it may be driven by said disc.

13. A driving stud disc as set forth in claim 30 having a driving stud adapted to drive and serve as a guide for the upper end of a driving pawl rod, said driving pawl rod forked at the upper end, said fork branches adapted to be retained by said stud positioned between them and adapted to be slidably mounted with respect to said stud, said stud set at a selected angular attitude in respect to the angular attitude of the manually operable crank, said attitude being that which will end the driving by said stud of said driving pawl upon said manually operable crank reaching the vertical attitude of its down stroke.

14. In a parking post of the class described a driving pawl rod adapted to be driven by a manually operable crank and adapted to drive a ratchet tooth wheel, comprising two portions, an upper portion and a lower portion, and an intermediate connection; said lower portion fitted on one edge near the bottom with a tooth adapted to engage and drive a pawl, and on the opposite edge with a set of teeth, adapted to be engaged by a holding pawl on the descent of said rod, a guide adapted to hold the lower end of said rod, said rod at its lower end working in said guide, below said guide a stop on said rod, adapted to be stopped by said guide on the retraction of said rod and retain said rod against further rising, said rod fitted with a stud, affixed to said rod above said tooth and adapted upon said rod rising to cause other parts to operate; said upper portion of said rod comprising a forked end, adapted to be guided by, and at a selected angular attitude, to be driven by a stud on a driving disc, said upper portion provided with a shank at its lower end, and said lower portion provided with a longitudinal hole in which said shank is adapted to slide, and a stiff spring encircling said shank and affixed at one end to the upper portion above said shank, and to the upper end of the lower portion, whereby to maintain said portions at a selected distance apart during normal operation and to permit them to be driven nearer each other on selected occasions.

15. In a parking post of the class described having a manually operable crank adapted to drive a driving disc, said disc, provided on its periphery with teeth, a driving pawl rod adapted to be driven by said disc, a disc pawl adapted to engage said disc teeth, held thereagainst by a spring, said spring, and means adapted to release said disc pawl from said disc teeth and permit said disc to be retracted, comprising a bell crank lever with a vertical arm and a horizontal arm, said disc pawl arm having a long arm carrying said pawl tooth and a short arm, said vertical arm of said bell crank lever fitted with a tooth adapted to engage said short arm of said pawl disc lever upon said lever having its long arm depressed, whereby to retain said pawl tooth free of said disc teeth; said disc pawl arm fitted with a shelf extending beyond the plane of said disc wheel; said driving pawl rod fitted with a stud adapted upon the rotation of said disc wheel forward to presently strike said shelf and depress said long arm of said disc pawl whereupon said bell crank lever's vertical arm is adapted to engage the short arm of said disc pawl lever, whereby to retain said disc pawl lever free from said disc teeth.

16. In a parking post of the class described having a manually operable crank adapted to drive a driving disc, the matter set forth in claim 15, including said driving pawl rod adapted to be depressed by the forward rotation of said disc,

a holding pawl therefor, adapted to retain said rod in the lowermost position to which it may be driven, and means adapted to release said rod and to return said disc pawl lever to contact with said disc teeth comprising said holding pawl, pivoted to a post and having a long arm adapted to retain said rod, and a short arm, and a spring adapted to hold said pawl in engagement with said rod, said short arm forward of the plane of said disc, said driving pawl rod provided with a stud adapted upon retraction of said disc, and so positioned, as to strike said short arm of said holding pawl as it reaches the initial position to which it is carried by the retraction of said disc, whereby to release said rod from said holding pawl; said rod provided with a horizontal arm near the top of its lower portion, in the plane of the bell crank lever set forth in claim 15, said bell crank lever having a horizontal arm adapted, upon the rising of said rod, to be struck by said horizontal arm of said rod, whereby to release said disc pawl lever from the vertical end of said bell crank lever and restore said disc pawl lever tooth to the periphery of said disc, and said rod being provided with a spring, whereby to retract said rod upon its release by said holding pawl.

17. In a parking post of the class described having a holding pawl with a short arm, a driving disc with a stud adapted to strike the short arm of said holding pawl, means adapted to stop the rotation of said disc at an angular attitude immediately subsequent to the attitude at which the said disc causes the release of said pawl.

18. In a parking post of the class described having an escapement wheel and affixed thereto the bottom of a cup having sides in the form of an annular ring away from said escapement wheel, a slot through said annular ring at a selected location; said escapement wheel and cup mounted on a shaft; said shaft being adapted to rotate, means to effect such rotation affixed to said shaft, a dial marked in divisions, an initial one marked zero, and said slot of said annular ring located at angular position corresponding to that of the zero division of said dial; a horizontally positioned stopping lever, under said annular ring, and having a projecting tooth normally bearing on the periphery of said ring, pressed thereagainst by a spring, said spring; said tooth adapted to enter said slot upon said wheel being advanced to said angular position, and thereupon to stop said shaft.

19. The matter of claim 18 including also a pendant arm at the outer end of said stopping lever, and affixed to said arm a retractable tooth, adapted at its lower attitude to rest against a shoulder of the collar of a manually operable crank and prevent the manual rotation thereof, and adapted, when in the upper attitude to free said crank collar and permit its manual rotation.

20. In a parking post of the class described having a train of gears with an escapement ratchet tooth wheel, a pressure roller adapted to rest between adjoining teeth of said escapement wheel and to pass over a tooth when said wheel is driven one tooth, whereby to prevent overthrow of said wheel beyond the next tooth upon being driven by an angular attitude equivalent to one tooth.

21. In a parking post of the class described having a base, a pedestal and a head, a door for said head, means adapted to retain said door in the wide open position when it is manually moved thereto, and automatic means adapted to close said door automatically upon its being released

manually from said retaining means, said means for holding said door open comprising a horizontally positioned shelf or projection affixed to the inside of said door, said projection adapted, upon said door being opened, to contact with a movable member of said head, said movable member, adapted to be retained in an open position when manually opened, and when in said open position adapted to obstruct the movement of said door shelf projection, whereby to retain said door in the open position.

22. In a parking post of the class described a windlass, a vehicle holding cord or chain wrapped thereon, means whereby said windlass may be released for manual withdrawal of said cord; said cord adapted to be secured to a vehicle and return to and secure to said post, means adapted to secure said cord to said post adapted to be automatically self locking upon said cord being so secured, and means adapted to release said cord from said post adapted to operate automatically upon the deposition in said post of coins in an amount selected in proportion to the time during which the vehicle remained secured to the said post.

23. In a parking post of the class described a sinking rod positioned vertically and slidably mounted in lugs with a spring adapted to press it into the upper attitude; two pawls fitted on its lower end, each having a retractable tooth; a windlass mounted on a shaft journaled in lugs; said windlass fitted at its end adjacent said sinking rod with two ratchet tooth wheels adjoining each other, said toothed wheels of different diameters, a larger wheel and a smaller wheel; said wheels fitted with ratchet teeth inclined in opposite directions to each other; said upper pawl of said sinking rod positioned above and adapted to engage the teeth of the larger toothed wheel, and said lower pawl of said sinking rod positioned below and adapted to engage the teeth of said smaller toothed wheel, said pawls so positioned that the upper pawl is free of the larger diameter ratchet tooth wheel when said sinking rod is in its upper attitude, and said lower pawl is in engagement with said smaller diameter ratchet tooth wheel when the sinking rod is in said upper attitude; and said upper pawl is in engagement with said larger ratchet wheel and said lower pawl is out of engagement with said smaller ratchet tooth wheel when said sinking rod is depressed to its lowest attitude, said pawls and ratchet teeth so arranged that said vehicle cord may be drawn out manually when said sinking rod is in the lowermost attitude, and automatic means adapted to draw in said vehicle cord upon its release, when said sinking rod is in its uppermost position.

24. The matter of claim 23 said automatic means including also on said windlass a secondary division with a secondary cord, said secondary cord adapted to pass through a pulley above said windlass, said pulley, journaled on a shaft set in lugs, and said cord adapted after passing through said pulley to sustain a weight, and said weight; said windlass, vehicle cord, weight cord, pulley and weight so positioned as to oppose the manual drawing out of said vehicle cord, by said weight, and said weight adapted to supply the energy to draw in said vehicle cord when said sinking rod is in its uppermost position.

25. In a parking post of the class described having a coin controlled mechanism containing a coin indicating dial with a plurality of dial divisions, and vehicle securing means in operative

connection with said coin controlled mechanism, and a vehicle cord adapted to be manually drawn from said post, and adapted to be secured to a vehicle, securing means for the end of said cord, adapted to secure said end after said cord has been secured to the vehicle, adapted to have two operative functions, the first function being to be manually drawn out upon the securing of a vehicle and to be automatically retracted upon being manually released thereupon, to a selected position, and a second function, upon the release of the vehicle, of being manually drawn out therefor and of being automatically retracted to a selected position upon being manually released therefrom, said selected positions being different from each other; a clock included in said coin controlled means, said clock adapted to be thrown into engagement with and out of engagement with said coin controlled mechanism; said clock adapted to govern the advance of said coin indicating dial, and means upon the first function of said securing means taking place to automatically engage said clock to said coin indicating means, and adapted thereupon to advance said coin indicating means regularly during the time said vehicle remains secured to said post, and means adapted, upon the drawing-out-manually phase of the second function of the said securing means taking place to prevent said coin controlled apparatus from being affected thereby between said coin controlled mechanism and said vehicle securing mechanism communicating members adapted to effect the indicated operations, means adapted automatically to retract said cord, and means adapted upon the automatic retraction of said securing means after the first phase of said second function to draw into positions the said communicating members between said coin controlled mechanism and said vehicle securing mechanism, suited to cause the said members to be in positions to be caused to function upon the first and second phases of the first function of the securing means taking place upon the next vehicle being secured.

26. In a parking post of the class described adapted to secure a vehicle, a time piece coin indicating means the reading of which is adapted to increase with the passage of time from the securing of the vehicle to the post and means adapted, upon the securing of the vehicle to the post to automatically advance the reading a selected amount, and means thereupon adapted to connect or engage said coin indicating means to said time piece in said post, said time piece adapted to continue to advance the reading of said coin indicating means with the passage of time.

27. In a parking post of the class described a train of three gears of equal size, in the same plane, an escapement shaft a second shaft and a third shaft, the first of said gears attached to said escapement shaft and the second and third of said gears attached respectively to the second and third of said shafts, and affixed to each of the shafts of the second and third gears a ratchet tooth wheel adapted to be rotated each by a pawl, and pawls adapted to rotate said ratchet tooth wheels.

28. In a parking post of the class described for the attachment of a vehicle having means therefor and having a clock and having coin indicating means, said clock and coin indicating means adapted to be engaged, said coin indicating means adapted to be controlled in its advance by said clock when engaged therewith, means adapted automatically to disengage said clock from said coin indicating

means upon the completion of a predetermined lapse of time from the moment of the engagement of said clock thereto; said clock disengaging means comprising a clock clutch, a bell crank lever having a long arm positioned vertically with forked ends in engagement with said clock clutch member, and a short arm horizontally positioned and an adjoining member, said bell crank lever pivoted so that said vertical arm disengages said clock clutch member from said adjoining member when said short arm is forced upward; a shaft for said clutch member and a helical spring encircling said shaft; said clock clutch member moved in opposition to said helical spring encircling the said shaft of said clutch member; and means adapted to drive said short horizontal arm upwards comprising a rotating member of a shaft controlled by said clock when in engagement, said shaft parallel to said clock shaft and positioned below it; a post affixed to said rotating member; a lever arm pivoted to lugs, horizontally disposed and in the path of said post and at right angles thereto when said post reaches the underside of said lever arm in the progress of its rotation; said lever arm so positioned as to be beneath the short horizontal arm of said bell crank lever and at right angles thereto, and said lever arm adapted to be driven upward by the said post upon said post reaching its position, and said lever arm adapted to drive said short arm of said bell crank lever upward thereupon, whereby to disengage said clock upon said post rotating to a predetermined angular position.

29. In a parking post of the class described, a head, a pedestal, said pedestal adapted to support said head, a floor intermediate said head and pedestal, and a base adapted to support said pedestal, and apparatus in said head and apparatus in said pedestal, said sets of apparatus in operative connection or communication, communicating members adapted to effect said communication, said communicating members comprising a vertically positioned shaft journaled in said floor and in a lug in the pedestal, a lug in the pedestal adapted to journal said vertical shaft; said vertical shaft having a hand operable crank attached to its upper portion, said shaft adapted to be turned through angular positions by the operation of said crank, and three rods having up-and-down movements; a clock in said head adapted to be clutched and de-clutched into and out of engagement with other parts by one of said rods, an escapement yoke in said head adapted to be operated by another of said three rods; a stopping lever in said head adapted to be retracted, said lever adapted to be retracted by the other of the three said rods.

30. In a parking post a head comprising a roof, a top plate thereunder, a semi-circular rear wall, semi-circular front wall in the form of a door vertically disposed, a horizontally disposed floor, a pedestal, said floor supported on said pedestal, a base, said pedestal supported on said base, and said floor bearing four vertically disposed partition walls, parallel to each other and at selected distances apart, said four walls comprising a rear wall, and adjacent second wall, a third wall and a front wall adjacent said third wall; a coin channel between said second and third walls, a main shaft journaled in all four walls, a manually operable crank affixed to said main shaft, said crank forward of said front wall, said main shaft having a collar attached positioned between said third and fourth walls, a pawl similarly positioned, said collar having a tooth adapted to

be engaged by said pawl, said pawl fitted with a second arm having a portion turned into said coin channel and adapted upon being struck by a coin to release said toothed collar; affixed to said main shaft between the rear and second walls a spiral spring also affixed to said rear wall and adapted to be wound by the rotation of said manually operable crank, and thereupon to retract said crank to its initial position upon said crank being released, and affixed to said main shaft outside said rear wall a disc fitted with a stud, said stud adapted to drive a driving pawl rod upon said disc being rotated by said manually operable crank in a forward direction, and a driving pawl rod adapted to be driven by said disc stud, and connections whereby said driving pawl rod is adapted upon being driven to retract other portions of the said mechanism.

31. The matter of claim 18 including also a clock engaging and releasing clutch, a bell crank lever adapted to operate said clutch having a vertical arm and a horizontal arm, pendant from said horizontal arm a vertically positioned rod, a shelf affixed to said stopping lever on the edge forward of said annular ring, said shelf bearing an aperture through which said vertically positioned rod is adapted to slide, a collar affixed to said rod at a position slightly above the top of said shelf when said stopping lever is in its lower position, said collar adapted to be driven upward on the stopping lever rising and thereby forcing said rod upward, whereby to disengage said clock.

32. In a parking post of the class described and escapement wheel shaft having affixed to it an escapement wheel and a gear, and a cup, said cup having sides in the form of an annular ring, said ring having a slot at a selected location; a train of three gears in parallel planes, said three gears comprising said escapement shaft gear, a second gear in engagement therewith, of the same size, and a third gear in engagement with the second gear and of the same size, and either of said gears upon being rotated adapted to rotate the other two.

33. In a bell crank lever as set forth in claim 6 having two horizontal arms, an upper arm and a lower arm; said lower arm adapted to terminate in a tooth, adapted to be engaged by a pawl having three teeth, a lower, a middle and an upper tooth, said bell crank lever adapted to be engaged by said middle tooth upon a vehicle being secured by said horn, and adapted to be engaged by said lower tooth when said bell crank lever is in the attitude of rest, said upper tooth adapted to be a stop tooth and prevent said lower arm tooth end from rising thereabove.

34. In a parking post of the class described having a primary bell crank lever with two horizontal arms, the lower of which terminates in a tooth adapted to be engaged by a pawl; said pawl comprising a secondary bell crank lever with a vertical arm and a horizontal arm and pivoted in lugs, said vertical arm fitted with three teeth, an upper, a middle and lower tooth, said upper tooth being a limiting tooth, and said lower and middle teeth being adapted to engage the tooth-terminating lower arm of the said primary bell crank lever, depending on the attitude thereof, and a tertiary bell crank lever pivoted to the end of said secondary bell crank lever.

35. The matter of claim 34 including said tertiary bell crank lever, comprising a vertical arm, and a horizontally disposed upper arm, terminating in a pressure disc, said vertical arm comprising a retractable tooth normally standing

vertically, adapted, in the attitude of rest to be supported by a transmitting lever positioned beneath said tooth, said horizontal arm adapted to be depressed by and rest against the under side of the tooth-terminating arm of the primary bell crank lever, forced thereagainst by a spring, said spring, positioned between the upper side of the horizontal arms of said secondary bell crank lever and the lower side of the tooth-terminating arm of said primary bell crank lever, said disc-terminating arm of said tertiary bell crank arm adapted, upon the rise of said tooth-terminating arm of said primary bell crank lever, to rise in consequence thereof, and thereupon to push said retractable tooth off the outer end of said transmitting lever.

36. The matter of claim 8, with means adapted to lift said secondary bell crank's horizontal arm, including in the head of said parking post a horizontally positioned crank, affixed to a centrally located vertical shaft, said crank adapted to be manually turned when released by the rising of a tooth, affixed to the vertical shaft of said crank, below the floor of said head and in said pedestal a horizontally positioned depressing arm adapted to be rotated a portion of a revolution by the manual rotation of said crank; positioned in the path of said depressing arm, a horizontally positioned inclined lever pivoted in lugs and inclined upward towards its motor end, its upper edge adapted to be struck by said depressing arm and be thereby forced downward with the advance of said depressing arm towards the outer end of said inclined lever; a vertically positioned sinking rod, slidably mounted in lugs and adapted to be forced upward by a spring, said spring helically encircling said sinking rod for a portion of its length, affixed to said rod and to a lug, whereby to be compressed upon the depression of said sinking rod, a stop pin in said sinking rod adapted to limit its upward movement by contact with a lug; the said depressing rod so positioned that its upper end is under the outer end of said inclined lever, in contact therewith when

said lever is in its upper attitude, forcing said lever thereto, said depression of said inclined lever thereby adapted to depress said sinking rod; positioned below said primary bell crank lever a lifting lever, pivoted in lugs, said lever having a long end and a short end, said short end adapted to be depressed by said sinking rod on its depression, and said long arm thereby adapted to be lifted; a transmitting lever pivoted in lugs, set at right angles to said lifting lever and thereabove, the long arm of said transmitting lever lying on said lifting lever's long arm about midway of said transmitting lever and at the outer end of said lifting lever's long arm; said transmitting lever supporting on its outer end said retractable tooth of said tertiary bell crank lever, whereby to lift said tooth upon the manual operation of said horizontally positioned manually operable crank.

37. The matter of claim 8 including said primary bell crank lever, adapted to be manually tilted; said tertiary bell crank lever thereupon adapted to be tilted by its said spring on the rising of the lower horizontal arm of said primary bell crank lever, and said retractable tooth of said tertiary bell crank lever thereupon adapted to be pushed off the end of said transmitting lever, whereby to permit said secondary bell crank lever to be tilted only once for each tilting manually of said primary bell crank lever.

38. In a parking post of the class described having a train of gears, and pawls for two of the gears as set forth in claim 27, a driving pawl rod adapted to drive the ratchet tooth wheel of the second gear, having a driving tooth therefor, and a driving pawl rod adapted to drive the ratchet wheel of the third gear, having two driving teeth therefor, and adapted each to drive its ratchet tooth wheel a selected angular distance, said pawls fitted each with ratchet teeth on the edge opposite the driving tooth or teeth, and a holding pawl for each rod adapted to engage said ratchet teeth and retain said driving rods in the position to which they are moved.

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