

Nov. 30, 1965

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3,220,528

LOCKER FOR RENTED ARTICLES

Filed June 12, 1964

3 Sheets-Sheet 1

Fig. 1

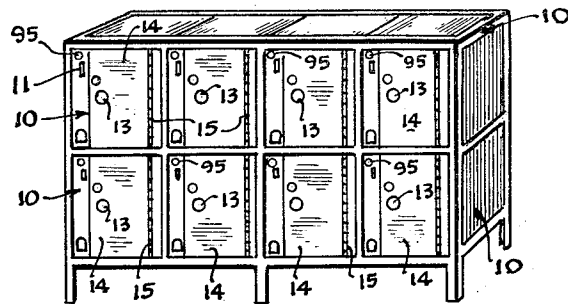


Fig. 2

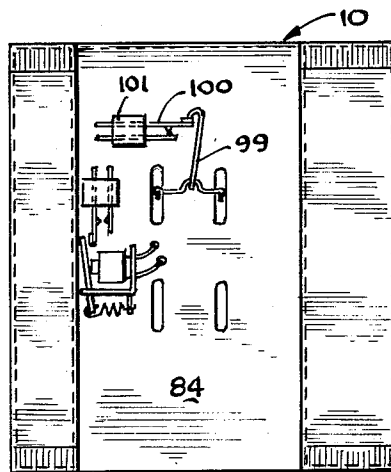
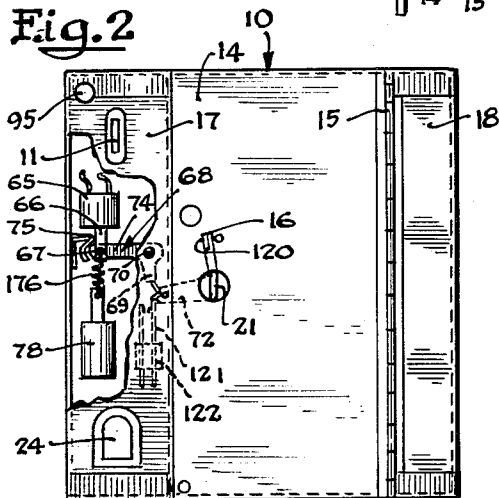


Fig. 3

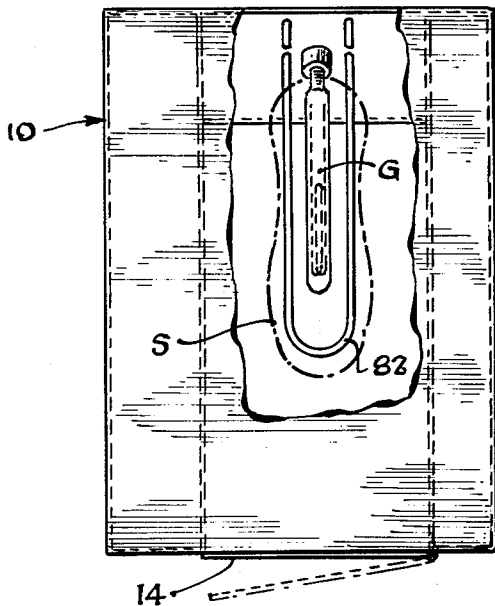


Fig. 4

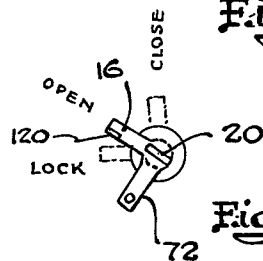


Fig. 2A

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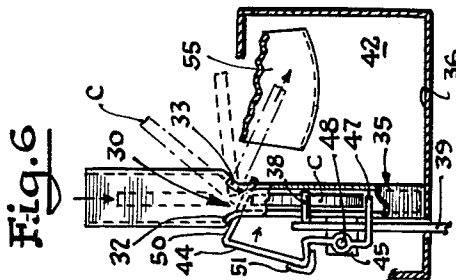
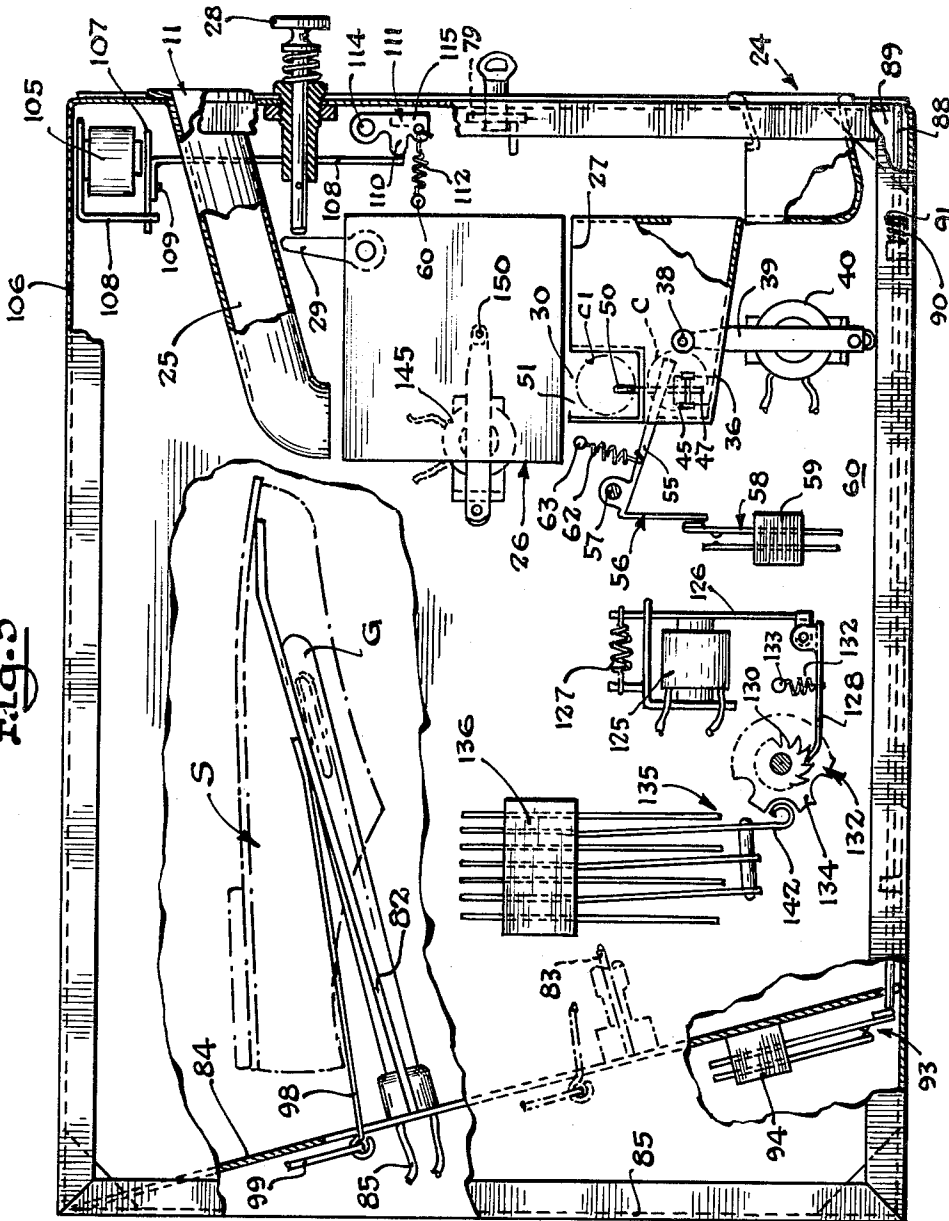
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LOCKER FOR RENTED ARTICLES

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Fig. 5



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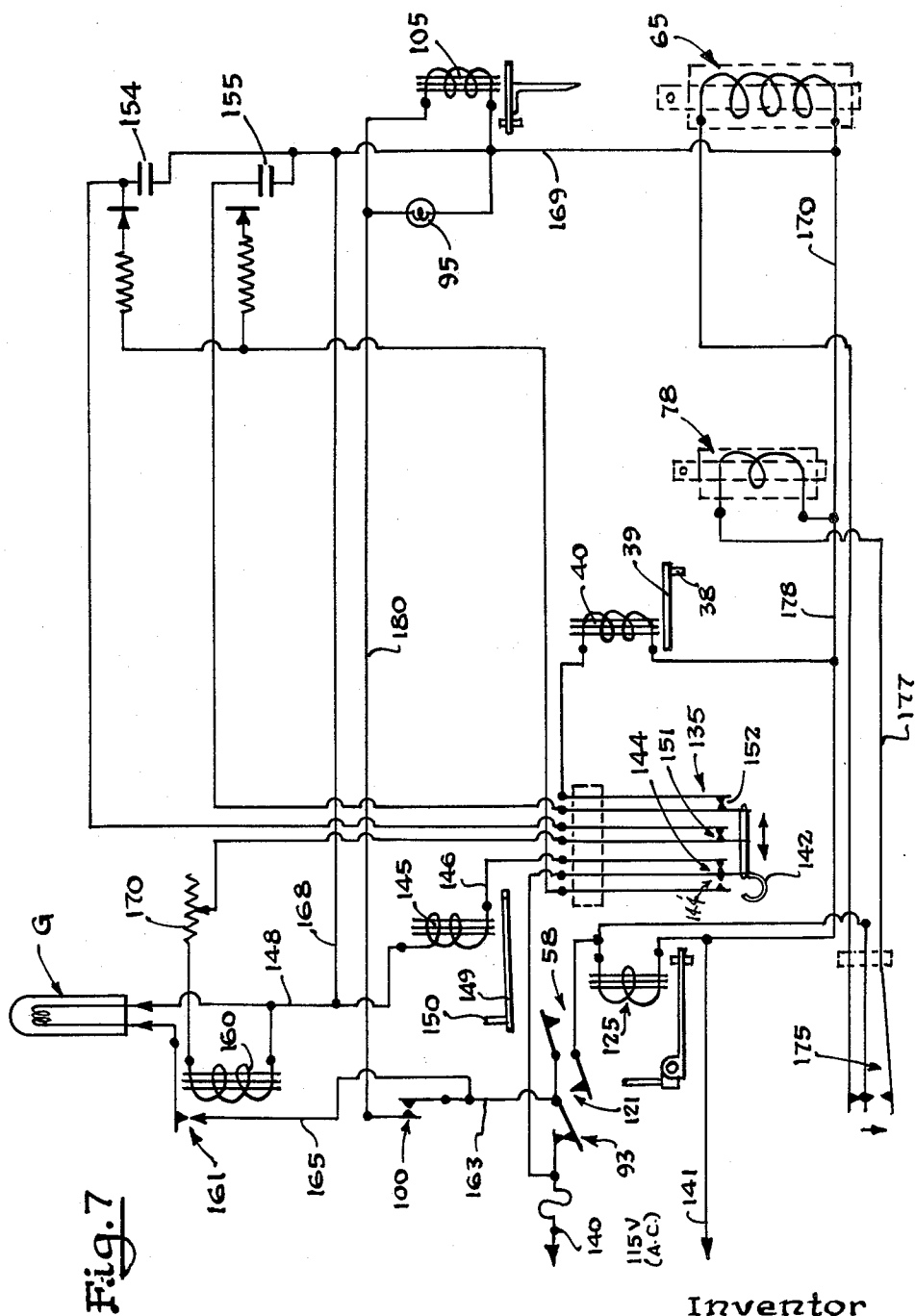
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LOCKER FOR RENTED ARTICLES

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3 Sheets-Sheet 3



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3,220,528

LOCKER FOR RENTED ARTICLES

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13 Claims. (Cl. 194-2)

This invention relates to storage lockers for rented articles, and more particularly to storage lockers for articles to be bailed, rented or leased automatically upon insertion of coins, tokens or the like into a coin slot on the storage lockers.

The present invention is particularly adapted to affording an individual locker or the like for each of the articles to be rented and to be automatically released for opening upon the reception of coins, tokens or the like into a coin slot associated with the individual locker. Many articles, which are rented from a service counter or the like of an establishment can be rented automatically from an individual locker under the present invention. For instance, bowling shoes are commonly rented by bowlers over a service counter at a bowling alley require the payment of money to a clerk, who then selects the size of bowling shoes and rents or bails them to the bowler. After bowling, the shoes are returned and again handled by the clerk. Such handling of shoes is distasteful to many clerks and the time involved in waiting for service is annoying to the customer. Accordingly, an object of the present invention is the provision of a coin or token operated storage locker for bowling shoes or the like, each assigned to an individual pair of shoes wherein, after insertion of the appropriate coin, coins or tokens, the locker may be opened to afford access to the bowling shoes.

Another object of the invention is a novel key-operated locker for letting articles after payment of the required sum to the coin receiver associated with a locker wherein the lessee may remove the article, lock the locker door, and remove the key for the locker.

Another problem encountered when bailing or renting articles is to induce the return of the rented articles, and accordingly, another object of the invention is inducing the return of the rented article by holding at least one or more of the required coins or tokens "in escrow" until the articles is returned, whereupon the return of the article causes return of the coin held in escrow.

A more specific object of the invention is the inducing of the return of articles to their storage lockers by holding a coin in escrow, which is released only after return of the article, return of a key for the locker and the turning of the key to a door locking position to lock the article within the locker.

With many articles that are rented, the articles are subject to having an odor and/or to have bacteria thereon, which is objectionable to both the people dispensing the article and to the renter. Accordingly, a further object of the invention is to reduce the requirement for handling of articles by clerks or the like and to assure to the renter that the rented article is sanitized or sterilized. More specifically, another object of the invention is the provision of an sanitizing apparatus in each of the individual lockers for rented articles in which the sanitizing apparatus is operable automatically to sanitize the rented article after its return to the storage locker.

A specific object of the present invention is an individual locker for each pair of bowling shoes, ice skating shoes, or roller skating shoes, wherein, upon the deposit of a predetermined amount of coins or tokens the locker can be opened to remove the shoes and the key for the locker, so that the locker can be closed until opened by the key, whereupon the return of the shoes and the turning of the key to a locking position causes a release of a coin held in escrow and the starting of a sanitizing operation by sanitizing apparatus within the locker.

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Other and further objects of the present invention will be apparent from the following description and claims and are illustrated in the accompanying drawings which, by way of illustration, show preferred embodiments of the present invention and the principles thereof and what is now considered to be the best mode contemplated for applying these principles. Other embodiments of the invention embodying the same or equivalent principles may be used and structural changes may be made as desired by those skilled in the art without departing from the present invention.

In the drawings:

FIG. 1 is a perspective view of a plurality of lockers for articles to be returned;

FIG. 2 is a partially sectional view showing the door locking mechanism;

FIG. 2A is a front view of the various positions of the door latch;

FIG. 3 is a rear view of a locker showing electrical contacts operable upon return of a shoe;

FIG. 4 is a plan view showing a shoe inserted over a germicidal lamp;

FIG. 5 is a side view of the control panel, including a coin accepting device, and a coin escrow device.

FIG. 6 illustrates a second coin of the coin escrow device falling sideways into a coin collecting container; and

FIG. 7 is an electric schematic view of the control circuitry.

Referring now to the drawings, and more particularly to FIG. 1, there is illustrated a plurality of individual compartments or lockers 10, each of which is adapted to contain an article to be rented upon the reception of the required amount of coins, tokens or the like in a coin slot 11, individual to that locker. Each of the lockers is adapted to contain one or more articles, which are adapted to be stored in a locker 10 between bailing or renting operations. For purposes of illustration, and ease of description only, the lockers 10 will hereinafter be described as containing bowling shoes, although the invention is not to be construed as limited to lockers for bowling shoes, since the invention is also applicable to renting many other articles, each as ice skates, roller skates, towels, golf clubs, etc.

Each of the lockers 10 has a door 14 pivotally mounted on a hinge 15, which is retained in a closed position by a key-operable door latch 13, FIG. 2, having a latch member or finger 16 adapted to be disposed behind a stationary front panel 17, in which is disposed the coin slot 11. The front of each locker 10 also has on the right-hand side a stationary front panel 18, to which is secured a portion of the hinge 15 for the door 14.

While it would not be necessary in all embodiments of the invention, it is nonetheless preferred to have the door latch 16 operated by a key 20 so that it requires the appropriate key to be inserted into the door lock 21 to operate the latch 16 between any one of its three positions, namely, "close," "open" or "lock," as best seen in FIG. 2A. The use of a key 20 permits the closing of the locker door 14 while the article is being used, and the locker is empty. Thus, when it is desired to return the article, the key 20 will afford access to the locker 10 which is being held closed until the key 20 is returned. As will be explained more fully hereinafter, the return of the articles and the turning of the key 20 to the lock position, FIG. 2A, causes a coin or token to be refunded to a coin return chute or slot 24. At this time, the key 20 cannot be removed from the lock and the key 20 is blocked from turning to the open position until the deposit of the appropriate number of coins in the coin slot 11 by a would-be renter of the article.

For example, to rent a pair of bowling shoes, two coins, such as quarters, would be inserted into the coin slot 11 of a locker 10 bearing the appropriate designation for the shoes contained therein. Thus, each locker 10 would designate the type of shoe, male or female, and the size of the shoe in the locker such as "size 11," as illustrated in FIG. 2.

As best seen in FIG. 5, the coins entering the coin slot 11 roll downwardly through a coin chute 25, into a coin acceptance or rejector mechanism 26, which tests the validity of the coin. If the coin is not accepted for any reason, the coin is returned to the person upon pushing a plunger 28 to operate a lever 29 to release the coin from the coin acceptor 26, whereupon the coins are returned at the right-hand end of the coin acceptor 26 to a channel member 27 leading to the coin return chute 24.

Preferably, the coin acceptor device is that available from National Rejectors, Inc. designated as the 11,000 series, which is a commercially available item and will not be described in detail hereinafter.

Assuming that the coins have been accepted as being valid, the coin is dropped from the bottom of the coin acceptor 26 at its left-hand end as viewed in FIG. 5 into an opening 30, FIG. 6, leading to side walls 32 and 33 of a coin holder 35. The side walls 32 and 33 are spaced apart so as to neatly receive the coin, and their upper edges are flared to guide the coin C therebetween.

As best seen in FIG. 5, the first coin C is held in the slot in the coin holder 35 between the side walls 32 and 33 and retained from rolling down the inclined bottom or panel 36 of the coin holder 35 by a pin 38 inserted through one of the side walls 32 or 33.

The first coin C engages the pin 38 extending through the side wall 32 of the coin holder 35. The pin 38 is carried on the armature 39 of an electromagnet 40 so that the pin 38 is disposed within the coin holder 35 until the electromagnet 40 is energized to pull its armature 39 leftwardly, as viewed in FIG. 6, to remove the pin 38 whereupon the coin C rolls down the inclined bottom 36 of the coin holder and into the coin return chute 24. As will hereinafter be explained, the coin C is the first of two coins, and is being held in escrow so that the coin C is released or refunded only when the conditions are satisfied to pulse the electromagnet 40 to pull the pin 38 from its blocking position within the coin holder.

The second coin, C-1, after moving down the chute 25 and through the coin acceptor 26, falls into the space 30, but is diverted into a coin-collecting container 42, FIG. 6, secured behind the coin holder 35, as viewed in FIG. 5. The coin container 42 is the permanent collector of coins C-1 which are charged as the fee for renting the bowling shoes, and none of these coins is returned to the renter. Thus, the coins C-1 are collected in the box and can be removed by the owner of the locker 10 at a later time. While the distance between the walls 32 and 33 is only sufficient to receive one coin, and the second coin would readily bounce off the first coin and fall sideways into the coin collecting container 42, it has been found that where two thin coins are provided that one coin will occasionally wedge itself between a side wall 32 or 33 and the other coin, and not fall into the container 42.

To prevent such a wedging of two coins, a coin deflecting lever 44, FIG. 6, is secured by a bracket 45 to the side wall 32 of the holder 35 with a lower foot 47 inserted through an opening 48 in the side wall 32. The foot 47 is disposed to project above the lower inclined plate 36 at the slot 30 so that the weight of the coin C will engage the inclined foot 47 and pivot the deflecting lever 44 about a pivot pin 48 on the bracket 45 to bring a deflecting lip 50 into position across the top of the open side walls 32 and 33 at an opening 51 in the coin holder 35 so that the coin C-1 is deflected rightwardly, as viewed in FIG. 6 into the coin container 42. The lever 44 is balanced by a weight 51 so as to return to the dotted line

position shown in FIG. 6, with the coin deflecting lip 50 disposed in a non-interfering position so that the first coin C is not deflected as it falls into the coin holder 35 between the side walls 32 and 33. Thus, it will be apparent that the first of two acceptable coins falls into the coin holder 35 and rotates the coin deflecting lever 44 about the pivot 48 to bring the lip 50 into effective deflecting position for the second coin C-1.

As the second coin C-1 falls rightwardly, as viewed in FIG. 6, it engages a wide, curved surface 55 on a bellcrank 56 to pivot the bellcrank 56 clockwise, as viewed in FIG. 5, about a pivot pin 57 to close a pair of contacts 58 mounted in a contact block 59 on the side panel 60. The bellcrank 56 is urged in a counterclockwise position by a contractile spring 62 hooked between a post 63 on the panel 60 and the coin contracting arm 55. Thus, the weight of the coin C-1 is sufficient to momentarily move the bellcrank in a clockwise direction against the bias of the spring 62 to momentarily close the normally open contacts 58, to indicate that the second coin C-1 has been received in the coin container 42.

The closing of the contacts 58 causes the pulsing of a door-open solenoid 65, FIG. 2, which has an armature 66 secured by a pin 67 to a door lock bellcrank 68. As viewed in FIG. 2, the energization of the solenoid 65 pulls the armature 66 upwardly to rotate the bellcrank 68 in a clockwise direction to rotate bellcrank arm 69 about a pivot pin 70 in the front panel 17. The arm 69 of the bellcrank 68 is in blocking relationship with the latch arm 16, so that the key 20 cannot be turned from a generally horizontal position to a position at 45 degrees to the horizontal, namely, the position designated as open.

The pulsing of the solenoid 65 pivots arm 74 of bellcrank 68 upwardly above a leaf spring detent or finger 75 so contoured as to be cammed to a position beneath the arm 68 to hold the arm 68 and plunger 66 in the upward position until pulled downwardly by a return or door lock solenoid 78. Thus, the door latch arm 16 is free to be pivoted upwardly to a 45 degree position with the turning of the key 20; and in so pivoting the latch member 16 is removed from being inserted through an opening slot 79 in the panel 60. With the key 20 at the open position, a second latch arm 72 disposed at approximately 90 degrees to latch arm 16 is also disposed outside of the latching slot 79 so that the door 14 can be swung open to afford access into the interior of the locker 10.

The interior of the locker 10 behind the door 14 is preferably a hollow storage space having suitable supports for the article stored therein. In the present embodiment of the invention as viewed in FIG. 5, an upper and lower shoe support member 82 and 83 are disposed to receive shoes S therein, which can be grasped about the toes by the renter and removed from the supports 82 and 83. The supports 82 and 83 are fixedly secured to an inclined rear wall 84 defining an interior rear wall for the locker. The inclined wall 84 is disposed at an oblique angle to a rear panel 85 for the locker 14 and provides suitable operating space between the rear wall 84 and rear panel 85 for control mechanisms, to be hereinafter explained.

As an important aspect of the present invention, germicidal lamps G are disposed in the open space between the wire loops constituting the respective support members 82 and 83. The germicidal lamps G are supported on a socket connection to which extend electrical leads 85 to operate the germicidal lamps G. The germicidal lamps G are adapted to be inserted into the interior of the shoe S, as seen in FIG. 5, to deodorize and kill any bacteria present within the shoe. There are a pair of germicidal lamps G for each of the individual lockers 10 so that a bowler is assured that the shoes he rents are relatively free of bacteria and odors. While lamps G are employed in the present embodiment of the invention, other sterilizing

apparatus such as ozone, sterilized air or the like could also be employed.

So long as the door 14 is open, an open-door sensing rod 88 disposed along a bottom panel 89, constituting the bottom of the locker 14, is spring-biased by a spring 90 operating on a collar 91 fixed to the rod to extend outwardly or rightwardly, as viewed in FIG. 5, through the door opening. Opening of the door 14 and rightward movement of sensing rod 88 opens contacts 93 carried by contact block 94, on the inclined rear wall 84. The opening of the contacts 93 is effective to prevent operation of the germicidal lamps G and small indicator lamps 95, which are lighted when the locker 14 is rented. The indicator lamps 95 are disposed on the panels 17 above the coin slot 11, as best seen in FIG. 2.

Removal of the shoes S from the supports 82 and 83 permits leaf springs 98, FIG. 5, which supported the bottom of the heel portion of the shoe, to spring upwardly and through contact operating wires 99 cause the operation of contacts 100, FIG. 3, on a contact block 101 secured to the rear inclined wall 84 of the locker. Only one of the contacts 100, FIG. 3, is shown.

The removing of the shoes S from the supports 82 causes the closing of the contacts 100 which prepare a lighting circuit for the indicator lamp 95 to indicate that the locker is rented; and causes completion of an operating circuit for a door lock-preventing electromagnet 105, FIG. 5, secured to the upper side wall 106 adjacent the operating panel 60. Electromagnet 105 has an armature 107 pivotally mounted on a frame member 108 and attraction of the armature 107 upwardly to the position shown in FIG. 5, moves downwardly extending finger element 108 against the lug 110 on an interference member 111 to pivot the interference member 111 counterclockwise as viewed in FIG. 5 against the bias of a spring 112. The spring 112 is connected to the frame member or panel 60 and the member 111 is normally pivoted by its spring 112 so as to be out of an interference position with the first finger 16 of the door latch. However, when the interference member 111 is pivoted by the electromagnet 105 to the position shown in FIG. 5, the member 111 positions a lug 115 immediately below the door latch member 16 so as to prevent the counterclockwise rotation of the door latch member 16 to within the slot 79. The lug 115 thus blocks inserting the latch member 16 in the slot 79 and the turning of key 20 to the lock position. Thus, interference member 111 permits only clockwise rotation of the door latch to bring the lower latch member 72 to within the slot 79, in the wall 60. This is the close position of the door. In this position, the barrel of the lock permits removal of the key 20. Thus, the person renting the bowling shoes will have removed the shoes from the locker, turned the key to the close position, and taken the key from the lock. The indicator lamp 95 will be lit to indicate that the locker is rented.

Since a coin is being held in escrow within the coin holder 35 as an inducement to return the shoes, the bowler will return the shoes to the locker and insert the key 20 into the barrel of the door lock, turn the key to the open position, wherein the latch members 16 and 72 are disposed at approximately 45 degrees to the panel 60 and neither protrude through the opening 79. The opening of the door 14 permits the spring-biased door sensing rod 88 to permit contacts 93 to open to break the circuit to prevent accidental flashing of the germicidal lamps and to break the circuit to the indicator lamp 95.

The person renting the shoes will then, if he desires to receive his coin, place the shoes over the supports 82 with the rear heels depressing the release spring 98 to pull the contact actuating wire 99 to operate contacts 100 which complete an enabling circuit for energization of solenoid 40 to return the coin being held in escrow. The return of the shoes also causes the electromagnet 105 to de-energize and thereby remove its finger 108 and permit

interference member 111 to pivot out of position in which it was preventing movement of the door latch to the lock position.

To receive his coin, the operator, after returning the shoes, need only turn the key 20 to the lock position wherein the key cannot be removed from the door, and wherein the door will be locked against opening until the deposit of the next two coins. More specifically, the turning of the key 20, which was in the open position, to the lock position, causes the pivoting of the upper latch finger 16 through to the horizontal position wherein a pin 120 on the latch member 16 cams against contacts 121 on a contact block 122 secured to the rear surface of the panel 17. The closing of the contacts 121 causes energization of electromagnet 40 for the return of the coin being held in escrow and also causes the energization and excitation of the germicidal lamps G for a predetermined amount of time to sterilize the shoes that have just recently been returned to the locker 10.

The closing of contacts 121 upon turning of the key to the locked position completes the energizing circuit for a stepping electromagnet 125, FIG. 5, which attracts its armature 126 against the bias of a spring 127 to cause a pivotally mounted pawl 128 to engage a ratchet 130 to turn a contact operating member 132. The electromagnet 125 is secured to the panel 60 and the actuating pawl 128, which is pivoted on the arm 126, is biased by a spring 132 secured by a pin 133 to the panel 60 to be in engagement with the teeth of the ratchet 130 at all times. The member 132 has a series of alternating peaks 134 and depressions which, for each step of the ratchet 130, causes the momentary transfer of the stepping switch contacts 135 which are mounted on the contact blocks 136, to the wall panel 60.

The stepping switch contacts 135 are shown in the schematic electrical circuit of FIG. 7 as being in the position in which they are normally disposed when the locker 14 is not rented. The contacts 135 and 175 are transferred upon energization of stepping switch magnet 125 to positions opposite that shown in FIG. 7, the follower 142 being held on the peak 134 of cam 132 to hold the contacts 135 and 175 transferred from the illustrated positions.

The power source for the circuitry of FIG. 7 is from 115 volt A.C. entering through leads 140 and 141 to the contacts 135 of the stepping relay. Actuation of the cam finger 142 leftwardly, as viewed in FIG. 7, opens the normally closed contacts 144 and thereby breaks the circuit to the coil of a rejecting solenoid 145. This will not allow the renting of the machine, which has been previously rented, as indicated by the transfer contacts 135 having been transferred.

The coin reject electromagnet 145 has an armature 149 with a pin 150. The electromagnet 145 is supported on the panel 60 with its pin 150 adapted to be inserted into the coin rejector 26 when not energized so as to return all coins entering the coin acceptor 26 from the coin chute 25 to coin slot 24. This prevents the insertion of coins into the escrow device while the shoes have been rented and the locker 14 is empty. In case of accidental power failure, solenoid 145 is de-energized and prevents acceptance of any coins.

Referring again to FIG. 7, the stepping switch contacts 136 also open contact pairs 151 and 152 to break the path from the A.C. voltage leads 140 and 141 through these contacts to the capacitors 154 and 155. Capacitor 155 then discharges and energizes lamp control relay 160 for the germicidal lamps G, which relay closes its contacts 161 to complete the exciting paths for the germicidal lamps G from the A.C. source. The exciting path for the germicidal lamps G from the 115 volt A.C. source line 140 is through now-closed door switch contacts 93, lead 163, lead 165 (now closed), contacts 161, lamps G, lead 148, lead 168, lead 169 and lead 170

to the A.C. line 141. The path for the energization of the germicidal lamps G is held complete as long as the controlling relay 160 is energized to make contacts 161. The period of time that the relay 160 is held up is controlled by the capacitor 155 and a variable resistance 170, which resistance 170 is adjusted so that the relay 160 is held up, in the present instance, for approximately 30 seconds, which has been found to be sufficient to cause the sterilization of the shoes by the lamps G.

While the capacitor 155 was discharging, capacitor 154 was also discharging to cause energization of coin return electromagnet 40, which attracts its armature 39 to remove the pin 38 on the armature 39 from the holding position for the coin C, which then rolls down the chute 36 and into the coin return chute 34 for removal by the renter. Concurrently with the energization of the germicidal lamps G and the release of the coin C held in escrow, the door 14 and latch key 20 are again locked in the lock position by movement of door locking bellcrank 68 downwardly from its latched position by the spring latch 75. The stepping relay 136 transferred contacts 175 to complete an energizing path for the door locking solenoid 78 from A.C. line 140, now-closed contacts 93, now-closed contacts 121, normally open, now-closed transfer contacts 175, lead 177, coil relay 78, lead 178 to A.C. line 141. Solenoid 178 pulls its solenoid downwardly and through its spring 176 and rotates the door lock bellcrank 68 in a counterclockwise direction to bring arm 69 into the lock position immediately above the latch member 16 to prevent the clockwise rotation of the latch member 16 to the door-open position.

A brief description of operation of the locker for the purposes of aiding understanding of the invention is provided hereinafter. The person desiring to rent a pair of bowling shoes from one of the individual lockers 10 selects the locker having the size and type of bowling shoes, that is, men's or women's, and deposits two coins or tokens in the coin slot 11. The first coin C travels down the inclined coin chute 25 into a coin acceptor 26 wherein the coin is tested and, if valid, proceeds downwardly into the open space 30 and into the coin holder 35 between the side walls 32 and 33 thereof. The coin C will engage the inclined toe 47 of the coin deflector lever 44 and pivot the lever 44 so as to bring the coin deflecting finger 50 from a position outside the opening 30 into and across the opening 30 to extend thereacross and above the walls 32 and 33 of the coin holder 25.

The second coin, C-1, after acceptance by the coin acceptor 26 strikes the coin deflecting finger 50 and falls sidewardly, as shown in FIG. 6, against a coin sensing lever 55 in the coin receiving container 42. The weight of the coin rotates the bellcrank 56 about its pivot point 57 to momentarily close a pair of contacts 58 to complete an obvious circuit from the 115 volt A.C. source of FIG. 7 to the solenoid coil 65, as shown in FIG. 7. The energization of the door and lock magnet solenoid 65 rotates the door lock bellcrank 68 in a clockwise direction, as viewed in FIG. 2 to bring the arm 74 of the bellcrank 68 above a latch member 75. Whereupon the opening of the momentarily closed contacts 58 does not affect return of the arm 74, as the latch 75 retains the bellcrank 68 with the locking arm 69 out of the path of the upper latch arms 16 of the door latch.

The person then turns the key 20 in a clockwise direction, and therewith the upper latch member 16 is rotated from its position within the slot 79 in the panel 16 so that the door 14 can be swung open about its hinge 15. The person reaches in the locker, grasps the shoes S and removes the shoes S from their respective support members 82. The opening of the door 14 permits door follower rod 88 to move rightwardly, as viewed in FIG. 5, to open contacts 93, which, as seen in FIG. 7, open the path leading to the germicidal lamps G to assure that the lamp G is not operated and which also open the

circuit for the door lock-preventing electromagnet 105, which has contacts 100 in its energizing path. When the door 14 is closed, the rod 88 is forced leftwardly as viewed in FIG. 5, to close the contacts 93.

When the person has removed the shoes, relief springs 98 move upwardly and through contact wires 99 closing the contacts 100 to prepare the circuit above described leading to the door lock-preventing solenoid 105. Thus, when the door is closed after the person has taken the shoes from the locker, the rod 88 is moved leftwardly to close contacts 93 which complete the circuit for energization of the door lock-preventing solenoid 105 through the previously closed contacts 100. Energization of the door lock-preventing solenoid 105 through the previously closed contacts 100 causes its armature 107 to move upwardly, as viewed in FIG. 5, to bring finger 108 against lug 110 to pivot the interference member 111 and its lug 115 into interfering position beneath the upper latch member 16. Thus, the person may only turn the key 20 in a clockwise direction, since an attempt to turn the key in a counterclockwise direction brings the upper latch member 16 into contact with the interference lug 115.

After turning the key 20 clockwise to the close position, the key 20 can be removed from the barrel of a lock and taken with the person who has rented the shoes. When the door lock-preventing solenoid 105 is energized, an indicator lamp 95 is also lighted to indicate that the locker is in use.

After the person has used the bowling shoes, he will return the key 20 to the barrel of the lock and turn the lock to the open position and pull the door 14 open, whereupon the door following rod 88 again opens the contacts 93 to break the energizing circuits for the door lock-preventing solenoid 105, lamp 95 and germicidal lamps G. The person who is desirous of receiving the coin C being held in escrow will then place shoes S in the position shown on the support members 82 so that the germicidal lamps are disposed upwardly in the toes of the shoes. Leaf springs 98 operate contact operating wires 99 to open contacts 100 to de-energize electromagnet 105 for the door lock-interference member 111. Prior to this return of the shoes and opening of contacts 100, the key 20 could not be turned to lock position to refund the coin C. However, after return of the shoes S, the key 20 can be turned to the lock position and the key 20 rotates the upper latch member 16 into the opening 79 in the panel 60 and closes contacts 121 to complete an obvious circuit for the stepping switch electromagnet 125. Stepping switch magnet 125 attracts its armature 126 to cause the pawl 128 to step the ratchet 130. A cam point 134 on the cam member 132 of the stepping switch cam transfers contacts 144, 150, 151, 152 and 175 from their transferred position to their normal position shown in FIGS. 5 and 7. It will be remembered that the second coin C-1 had previously closed contacts 58 to cause energization of stepping switch 125 and transfer of contacts 135 and 175 from the position shown in FIGS. 5 and 7. With opening of transfer contacts 144, the A.C. power source is removed and the condensers 154 and 155 now discharge. Condenser 155 discharges through a path including transfer contacts 152 to energize coin return solenoid 40 which attracts its armature 39 to remove its pin 38 from its position within the coin holder so that the coin C held in escrow rolls down the bottom of the coin holder and drops into the coin return chute 24.

The capacitor 154 discharges through a path including transfer contacts 151 to energize lamp control relay 160, which closes its contacts 161 to complete an energizing path for the lamps G. The germicidal lamps G operate and cause the elimination of odors and the sterilization of shoes by killing bacteria in the shoes. The length of operation of the relay 160 is determined by the setting of the variable resistance 170 and the amount charge on the

capacitor 155. Normally, the discharge of capacitor 154 will be effective to hold the relay 160 energized for approximately 30 seconds. The cycle has now been completed and the bowling shoe locker is again available for rental.

From the foregoing, it will be seen that the present invention is not restricted to merely bowling shoes, but is readily applicable to other types of articles which are to be leased or rented from a plurality of individual lockers, each assigned to an article. Also, the present invention induces the return of articles by holding a coin or token in escrow until the article is returned and the locker is locked, whereupon the coin or token held in escrow is returned. Furthermore, the present invention provides individual germicidal means such as germicidal lamps for each of the lockers, which is operative to sterilize the article that has been returned upon the returning of the article and after the locking of the locker.

Hence, while preferred embodiments of the invention have been described and illustrated, it is to be understood that these are capable of variation and modification.

I claim:

1. An individual storage locker for an article to be rented on the deposit of appropriate coins or the like, support means within the interior of said locker for said article, a door on said locker adapted to be opened to afford access to said article and to be locked to prevent access to the interior of said locker, locking means for said door adapted to be released upon the deposit of said coins to permit said door to be opened and to permit said article to be removed from said supporting means, coin receiving means adapted to receive said coin or coins and to cause operation of said locking means to release said door for access to said article within the interior of said article, control means operable upon return of said articles to said support means and upon the closing of said door, and the locking of said door by said locking means to cause said coin means to return a coin, and sanitizing means in said locker for said article to sanitize said article after return of said article to said support means, said sanitizing means being operated by said control means after return of said article and the locking of said door.

2. In a locker adapted to facilitate the renting of articles therefrom upon the payment of a plurality of coins or the like, a door on said locker adapted to be opened to gain access to the interior of said locker and to said article, a support in said locker for said article, detecting means for the detection of said article being on said support, a key-operable latch means for said door, said key-operable latch means having a first position wherein said door is locked against opening and said key is prevented from turning, said key-operable latch means having a second position wherein said door can be opened, and said key-operable latch having a third position in which said door is locked and said key can be removed to be taken with the person who has had access to said locker, a coin refunding mechanism adapted to store at least one of the plurality of coins for later return to the person renting said article, after said article is returned to said support and said key-operated latch is turned to said first position, means operable upon the insertion of the correct quantity of coins to permit said key-operable latch means to move from said first position to said second position at which said door can be opened and said article removed from said support, means operable in response to removal of said article from said support and operable said detecting means to block movement of said key latch means to said first position, and control means being operable in response to detection of return of said article to said support and the turning of said key to the first position to operate said coin refunding mechanism to release the coin therein to the person who returned the article.

3. The locker of claim 2 wherein there is provided a sanitizing means which is selectively operable by said con-

trol means to cause sanitizing of said article with the movement of said key to said first position.

4. The locker of claim 2 wherein said coin refunding mechanism includes a coin holder adapted to receive the first coin deposited in said coin holder, a deflecting means for deflecting said second coin from said coin holder, and blocking means in said coin holder to block the release of said first deposited coin until said key operable latch means is returned to its first position for locking the door after the return of the rented article.

5. The locker of claim 3 wherein said means operable in response to movement of said key to said first position includes a stepping switch operable in response to moving said key operable latch means to said first position to cause the stepping of a stepping switch to energize said sanitizing means for said article.

6. The coin refunding mechanism of claim 4 wherein said blocking means is an electromagnet having an armature means adapted to be inserted into said coin holder to block the release of said first coin under the force of gravity.

7. The locker of claim 5 including a timing means operable by said stepping switches to operate said sanitizing means for a period of time determined by said timing means.

8. A coin holding device for holding a first of a plurality of coins in a position for later return to the customer while retaining the coins following said first coin, said holding device comprising a pair of side walls spaced apart from each other and having an opening therebetween to neatly receive said first coin therebetween, deflecting means operable by said first coin to at least partially cover said opening to deflect following coin or coins from entering said opening, a coin collecting means for collecting said following coin or coins deflected after receipt of said first coin, between said side walls blocking means for blocking movement of said first coin under the force of gravity from between said pair of side walls to return to the customer, and actuating means for actuating said blocking means after fulfilling of predetermined requirements to cause said blocking means to release said first coin to the customer, said deflecting means including a pivotally mounted lever having a first arm disposed between said pair of side walls to be engaged by the entrance of said first coin between said side walls, said lever having a second arm spaced from said opening between pair of side walls until said first coin engages said first arm and pivots said second arm into said opening to deflect said following coin or coins.

9. A coin holding device for holding a first of a plurality of coins in a position for later return to the customer while retaining the coins following said first coin, said holding device comprising a pair of side walls spaced apart from each other and having an opening therebetween to neatly receive said first coin therebetween, deflecting means operable by said first coin to at least partially cover said opening to deflect following coin or coins from entering said opening, a coin collecting means for collecting said following coin or coins deflected after receipt of said first coin, between said side walls blocking means for blocking movement of said first coin under the force of gravity from between said pair of side walls to return to the customer, and actuating means for actuating said blocking means after fulfilling of predetermined requirements to cause said blocking means to release said first coin to the customer, and a bottom, inclined wall spanning said pair of side walls and providing a surface for said first coin to roll across, said blocking means having a portion insertable into the space between said side walls and above said bottom wall to block rolling of said coin down said bottom wall.

10. In a coin escrow device for a dispenser or the like adapted to receive two or more coins at least one of which is to be returned upon the return of an article to the dispenser, a coin acceptance device for testing said coins, a

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coin holding device for holding the first one of said coins received from said coin acceptance device, the second of said coins from said coin accepter movable to said coin holder means and being deflected because of the presence of said first coin to a permanent collector for said coins, an electrically controlled coin release means selectively operable in response to the return of an article to cause the return of said coin from said coin holding means.

11. In a locker adapted to facilitate the renting of articles therefrom, a door on said locker adapted to be open to gain access to the interior of said locker and of said article, sanitizing means in said locker for sanitizing said article, a key operable latch means for latching said door, coin operated means for enabling said key operable latch means to move to a position to release said door for opening to afford access to said article within the interior of said locker, detecting means in said locker for detecting removal of said article from said locker for detecting replacement of said article in said locker, and control circuit means to operate said sanitizing means, conditioning means operable by said key latch means to condition said control circuit means for operation, said detecting means including contacts to complete said control circuit means to operate said sanitizing means upon return of the article and operation of said latch means to latch said door, said control circuit means including timing means for timing the operation of said sanitizing means upon return of said article.

12. The locker of claim 11 including sensing means for sensing the opening of said door, said sensing means connected to said control circuit means to disable operation thereof while said door is open to prevent operation of said sanitizing means.

13. In a locker adapted to facilitate the renting of

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articles therefrom, a door on said locker adapted to be open to gain access to the interior of said locker and of said article, sanitizing means in said locker for sanitizing said article, a key operable latch means for latching said door, coin operated means for enabling said key operable latch means to move to a position to release said door for opening to afford access to said article within the interior of said locker, detecting means in said locker for detecting removal of said article from said locker and for detecting replacement of said article in said locker, and control circuit means to operate said sanitizing means, conditioning means operable by said key latch means to condition said control circuit means for operation, said detecting means including contacts to complete said control circuit means to operate said sanitizing means upon return of the article and operation of said latch means to latch said door, said control circuit means including timing means for timing the operation of said sanitizing means upon return of said article, and coin release means operable by said control circuit means to release the second coin upon detection of a return of said article and the latching of said door to operate said conditioning means.

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