May 3, 1966 J. A. SMITH ET AL 3,249,197

COIN TRANSFER LOCK

Filed May 28, 1964 5 Sheets-Sheet 1

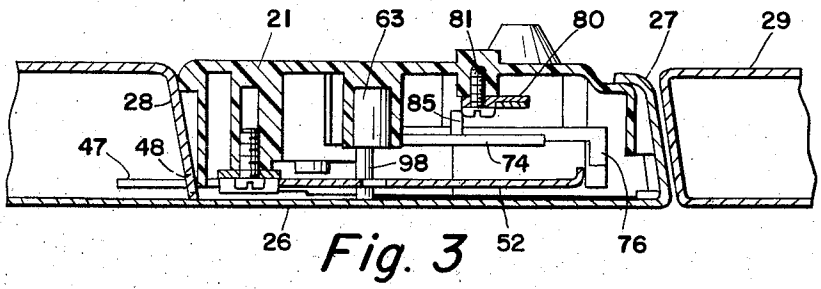


Fig. 3

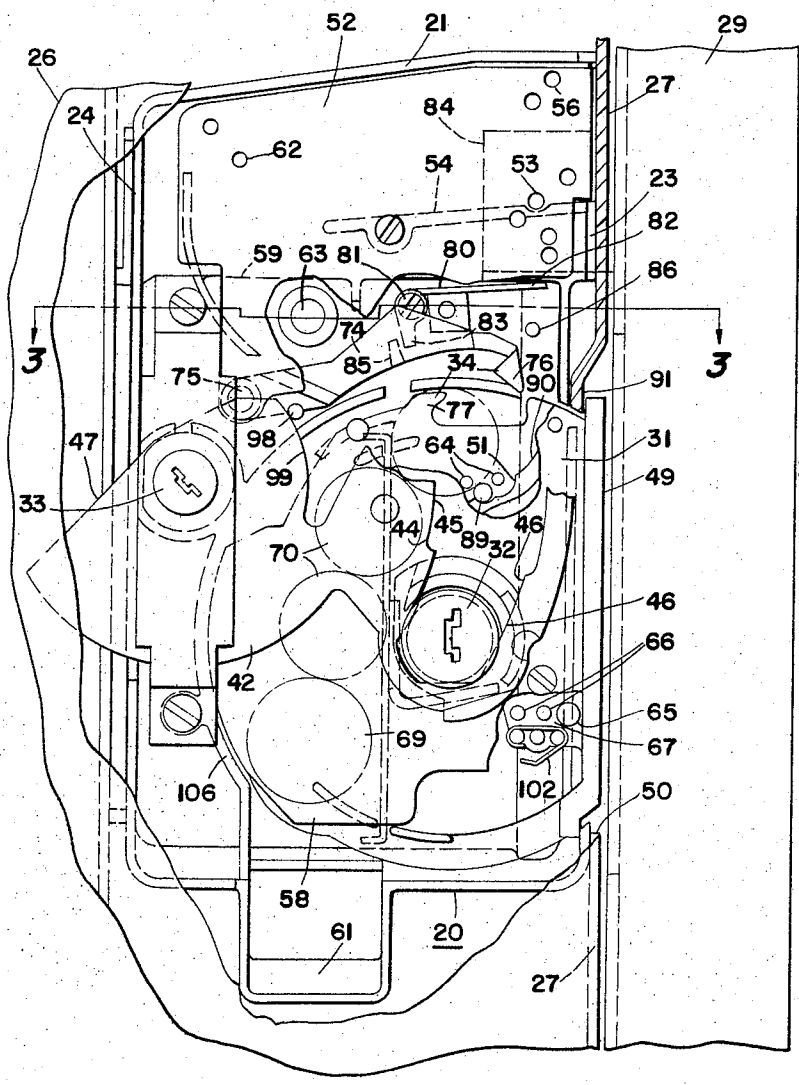


Fig. 1

Fig. 2

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COIN TRANSFER LOCK

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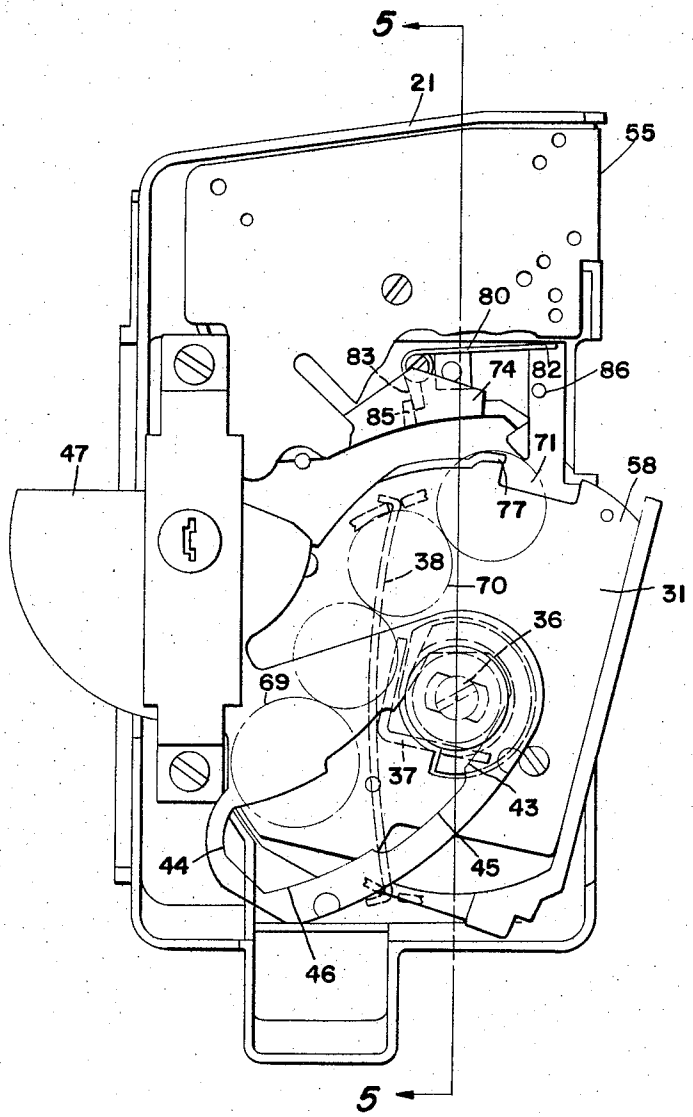


Fig. 4

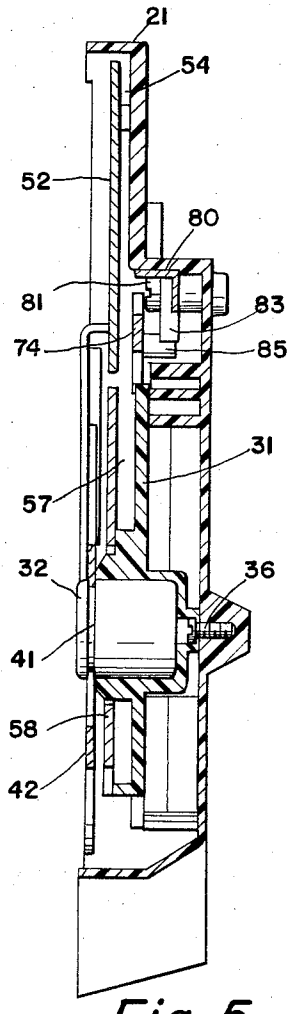


Fig. 5

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May 3, 1966 J. A. SMITH ET AL 3,249,197

COIN TRANSFER LOCK

Filed May 28, 1964 5 Sheets-Sheet 3

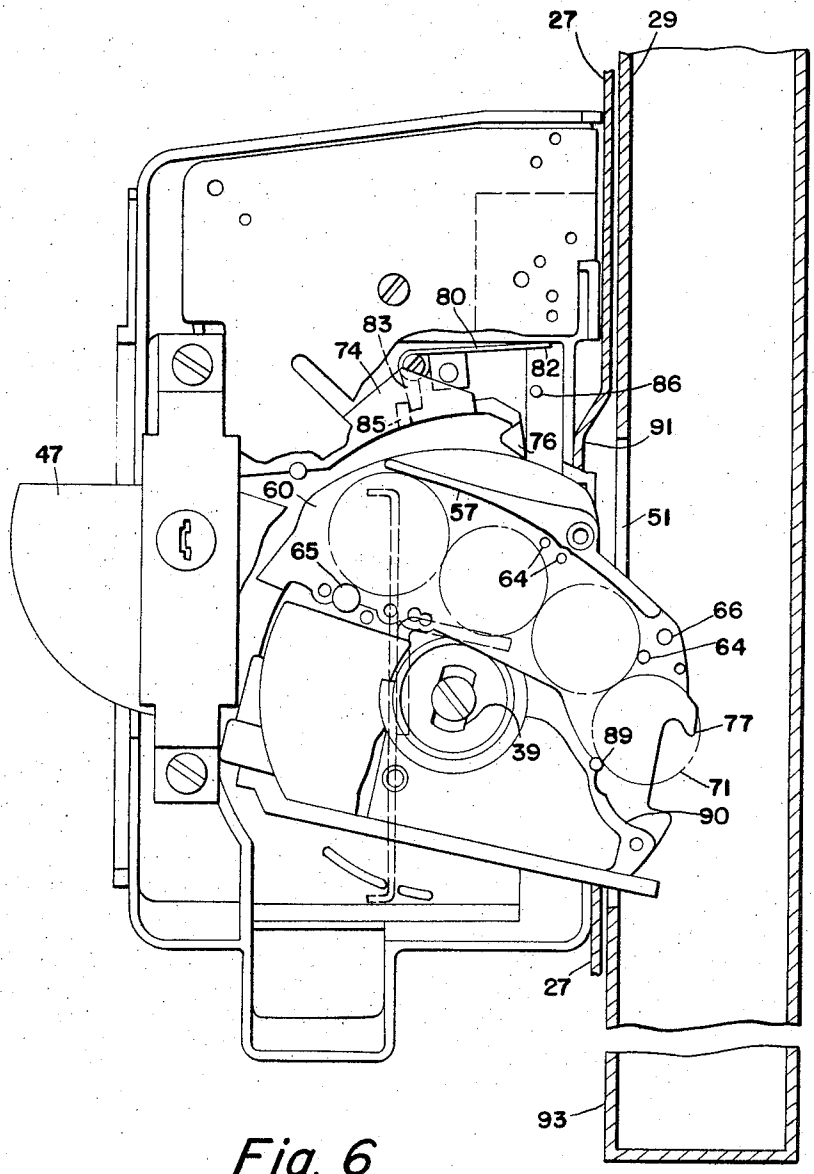


Fig. 6

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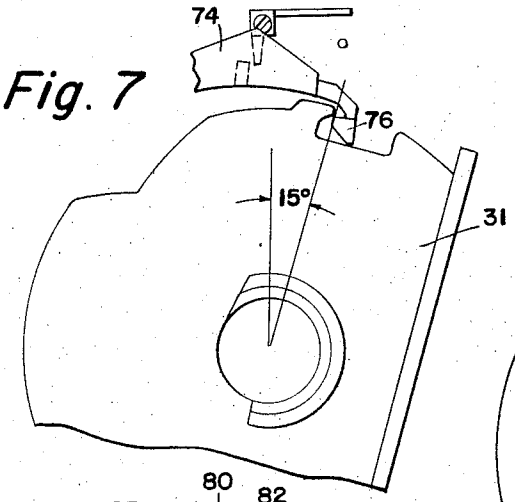
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May 3, 1966 J. A. SMITH ET AL 3,249,197

COIN TRANSFER LOCK

Filed May 28, 1964 5 Sheets-Sheet 4

Fig. 7



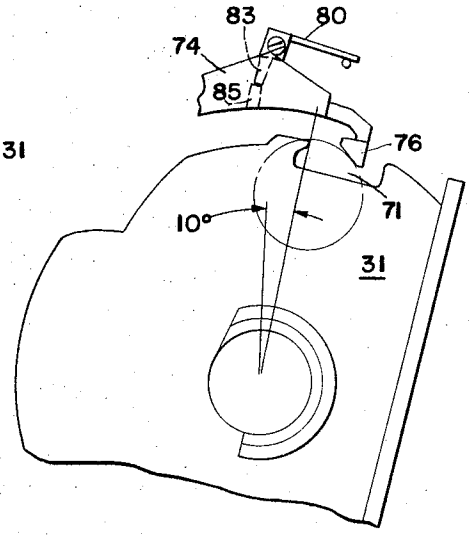


Fig. 8

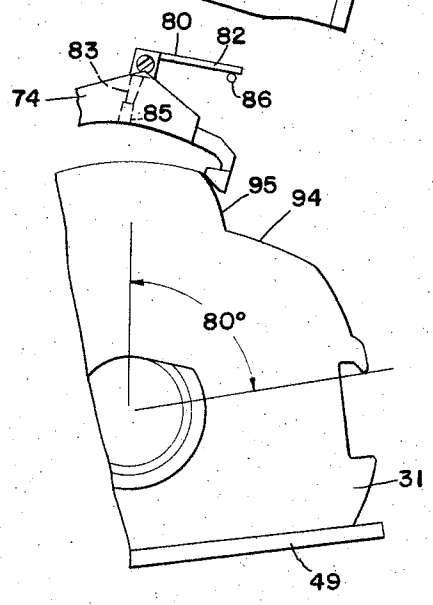


Fig. 9

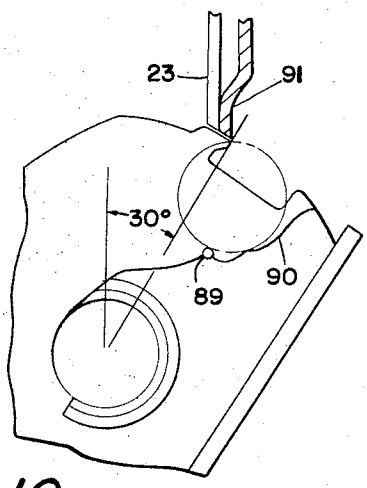


Fig. 10

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COIN TRANSFER LOCK

Filed May 28, 1964 5 Sheets-Sheet 5

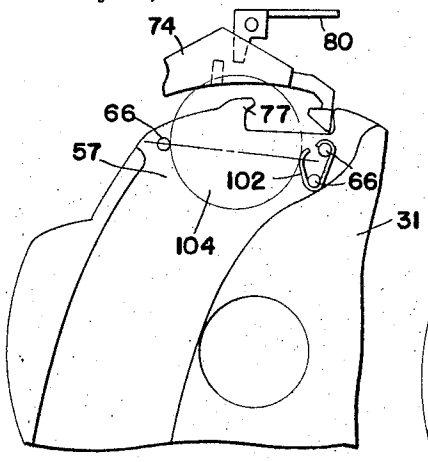


Fig. 11

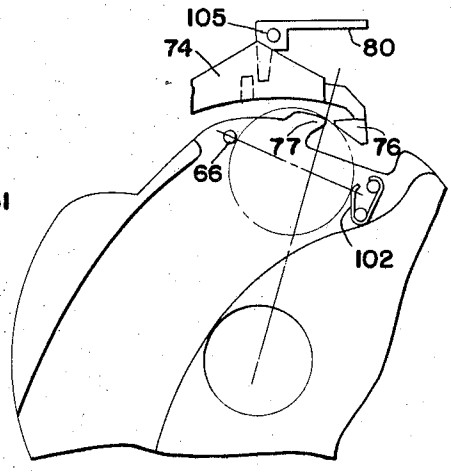


Fig. 12

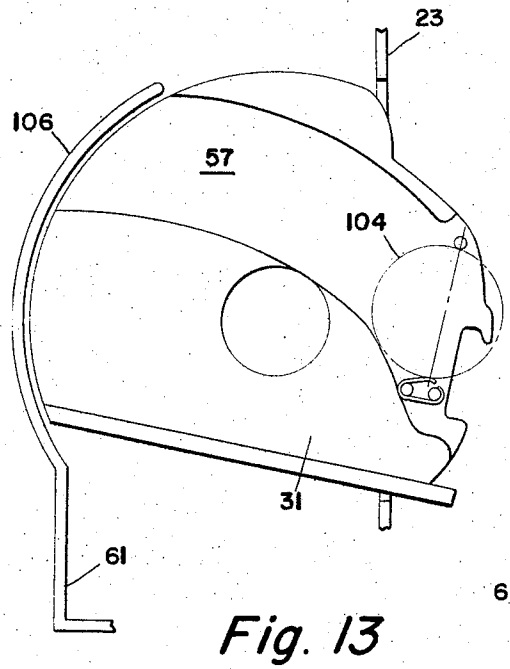


Fig. 13

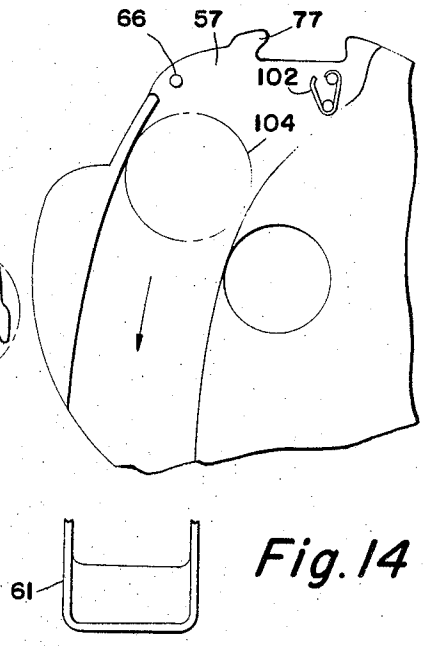


Fig. 14

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United States Patent Office 3,249,197 Patented May 3, 1966

3,249,197

COIN TRANSFER LOCK

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Filed May 28, 1964, Ser. No. 370,816
19 Claims. (Cl. 194—65)

The invention relates in general to coin operated locks and more particularly to coin and key operated locks which employ a feature of transferring the coin out of the lock housing.

The invention has particular adaptability to coin operated locks for lockers which have a door cooperating with a door frame. Such lockers may be used in transportation terminals or in recreation and park facilities for locked storage of valuables for a fee. Prior coin operated lockers have had locks exposedly mounted on the face of the door which are an invitation to pry out of the lock and associated coin box by vandals. Other prior art coin operated locks have had the locks exposed mounted on the front of the door post, again inviting pry out by vandals. Those prior art locks which have had the locks and associated coin boxes mounted on the door have necessitated a high labor cost in a person to collect the fees individually from the individual coin boxes on each door. Also, with continued inflation, it has been found necessary in many cases to increase the charge or fee charged for use of the storage locker and this, in many cases, has been impossible without rebuilding the locks to accept a coin of a larger denomination. Thus, this has made such locks obsolete.

Accordingly, an object of the invention is to provide a coin operative lock which obviates the above disadvantages.

Another object of the invention is to provide a coin operated lock which transfers a coin from a lock housing in the door into the door frame or a cash box.

Another object of the invention is to provide a lock which may be mounted on the door but in a hidden position so as to not reveal from the front of the locker that it is a coin operated lock.

Another object of the invention is to provide a coin operated lock which may be mounted on the inside of a door in a non-exposed position and with a coin opening in a non-exposed position together with means to transfer the coin from the door into the door frame and from there to a coin receptacle at the bottom of the door frame, which frame may accommodate a plurality of lockers.

Another object of the invention is to provide a coin and key operated lock wherein the lock mechanism may be readily adjusted to accept many different pluralities of equal or different sized coins or tokens.

Another object of the invention is to provide a lock mechanism which may be mounted on the inside of a door of a locker and wherein the key cylinder may be removed from the front of the door by manipulation of an owner's key lock accessible from the front of the door.

Another object of the invention is to provide a lock which may be mounted on the inside of a door of a locker and wherein the entire lock housing may be removed by an owner's key lock accessible from the front of the door.

Another object of the invention is to provide a coin and key operated lock which may be readily changed from a free charge position to a position requiring use of one or more coins.

Another object of the invention is to provide a coin and key operated lock which may be readily changed from a condition requiring use of one or more coins

before the lock may be operated to a condition wherein a coin is required to operate the lock but this coin is returned after the key is returned to the lock.

Another object of the invention is to provide a lock wherein after a first set of coins are inserted to actuate the lock, a second set of coins may be mistakenly inserted and this will still not jam the lock so that it is inoperative.

Another object of the invention is to provide a lock for a locker having a door cooperating with the door frame wherein the lock housing may be mounted on the inside of the door and yet the entire lock is easily removable by an owner's key should the lock become jammed and inoperable for any reason.

Other objects and a fuller understanding of the invention may be had by referring to the following description and claims, taken in conjunction with the accompanying drawings, in which:

FIGURE 1 is a front elevational view of a lock incorporating the invention and mounted in a door of a locker, with the door broken away to show the lock;

FIGURE 2 is a side elevational view of a lock in the door;

FIGURE 3 is a sectional view on line 3—3 of FIGURE 1;

FIGURE 4 is a front elevational view of the lock of FIGURE 1 partially actuated;

FIGURE 5 is a sectional view on line 5—5 of FIGURE 4;

FIGURE 6 is another front elevational view of the lock in the actuated position;

FIGURES 7, 8, 9 and 10 are partial front elevational views of the lock in different actuated positions; and,

FIGURES 11, 12, 13 and 14 are partial front elevational views of the lock changed to be a coin return lock with these views showing the lock in different actuated positions.

The figures of the drawing illustrate a coin operated lock which may incorporate the invention and is a preferred embodiment of the invention but the invention may take other forms within the scope of the invention as hereinafter claimed. The coin and key operated lock **20** shown in the drawings may be mounted in a lock housing **21** having a first side **23** and a second side **24**. The lock housing **21** may be mounted on the inside of a door **26** having an in-turned edge **27** and having a vertical stiffening rib **28**. The door **26** may be the door to a locker and this door may cooperate with a door post **29** which is a part of the door frame to which the door may be hinged.

The lock housing **21** may be made from a one-piece molding of a tough rigid plastic material. Included generally in the lock housing is a movable latch bolt **31**, a key cylinder **32** to rotate this latch bolt **31**, an owner's lock **33** and arresting means **34** for the latch bolt **31**.

The movable latch bolt **31** is illustrated as being a rotatable latch bolt and this also may be made from a one-piece molding of a tough rigid plastic material which is journalled on a screw **36**, shown in FIGURES 4 and 5 threaded into a boss on the housing **21**. A wear plate **37** may be fixed to the latch bolt **31** and cooperates with a leaf spring **38** to establish first and second detent positions as shown in FIGURES 1 and 6, respectively. The key cylinder **32** shown in FIGURE 1 has a protruding lug on the inner end thereof to engage a slot **39** shown in FIGURE 6. The key cylinder **32** extends through an opening in the door **26**, as shown in FIGURE 2. A key **40** may be used to rotate the tumbler in the key cylinder **32** to thus rotate the rotatable latch bolt **31**. The key **40** may be removed from the key cylinder **32** in the second position of the latch bolt **31**, as shown in FIGURE 6, but the key **40** is captive in this key cylinder **32** for the first and all intermediate positions.

The owner's lock 33 also is one which extends through an opening in the front of the door 26 to be operable by an owner's key, not shown. An owner lock cam 42 is fixed to the key cylinder 33 to turn therewith and this owner lock cam 42, and owner lock cylinder 33, has four different operative positions. FIGURES 4 and 6 show this owner lock cam 42 in the first position whereat a narrow portion 43 in a slot 44 engages an annular groove 41 in the key cylinder 32 to retain this key cylinder in place. The slot 44 has a wider portion 45, and with the owner's lock 33 turned about 22 degrees counterclockwise from the first position shown in FIGURE 4 to a second position, this wider portion 45 of the slot 44 will cooperate with the key cylinder 32 so that this key cylinder may be removed, with or without the key 40 in the lock 32. The owner lock cam 42 has a third position, shown in FIGURE 1, whereat the owner's lock 33 will be turned about 45 degrees counterclockwise, at this third position a narrow portion 46 of the slot 44 will cooperate with the groove 41 in the key cylinder 32 to retain this key cylinder in place. The key cylinder 32 must be removed, as with the owner lock cam 42 in the second position as described above, in order for this owner lock cam 42 to be moved into the fourth position thereof. In this fourth position, the owner's lock cylinder 33 has been rotated 90 degrees counterclockwise at which position a lock finger 47 on the owner lock cam will be withdrawn to a generally vertical position. In the first, second and third positions of this owner lock cam 42, this lock finger 47 engages a slot 48 in the vertical stiffening rib 28 of the door 26. This this retains the lock housing 21 on the inside of the door 26. This is because a front plate 49 on the latch bolt 31 extends out through an aperture 50 in the in-turned edge 27 of the door 26. With the owner lock cam 42 turned to the fourth position, then the lock finger 47 no longer engages this slot 28, and the entire lock housing 21 may be removed from the door 26, even though the latch bolt 31 may be extended as in FIGURE 6.

A first coin chute 54 is provided by a cover 52 at the top of the housing 21 and has an entrance 55 in the edge 27 of the door. A second coin chute 57, see FIGURE 6, which may be considered a coin pocket, is recessed into the surface of the rotatable latch bolt 31, and a cover 58, see FIGURES 4 and 5, on this latch bolt 31 forms with this recess the coin chute or coin pocket 57. The second coin chute 57 has an entrance at the top thereof which cooperates with the exit 59 of the first coin chute 54. The second coin chute 57 also has a lower end which is an exit end 60 to a coin return receptacle 61 fixed in and is a part of the housing 21. The entrance to the second coin chute 57 cooperates with the exit 59 of the first coin chute 54 with this rotatable latch bolt 31 in the first position thereof, as shown in FIGURE 1.

A slug magnet 63 may be mounted in the lock housing 21 in the plane of the first coin chute 54 and may be positioned near the exit 59 of this first coin chute 54 in order to block entrance of ferrous slugs into the coin pocket 57.

Pins 53 may selectively be disposed between apertures 56 in the housing 21 and in the coin chute cover 52 to select the maximum size of coins which will be admitted into the first coin chute 54. For example, a pin in the lowermost aperture 56 will admit nothing larger than a quarter to the coin chute 54. A pin in the uppermost aperture 56 will admit nothing larger than a nickel, etc. Also, a pin 53 may be inserted in an aperture 62 at the rear of the coin chute as well as a pin in the lower of the two upper apertures 56 in case a dime is to be used with the lock. The will prevent use of pennies, which are only fractionally larger than dimes. If a penny is forced or driven past the forward pin 53, it will be stopped by the rear pin 53 in the aperture 62, to thus prevent operation of the lock by a penny.

A plurality of pin apertures 64 (FIGURE 6) are formed in the rotatable latch bolt 31 in the second coin chute 57. These pin apertures are adapted to interchangeably receive a plurality of large headed pins 65 or small head pins 66 which may be stored when not in use in storage apertures in a storage area 67 in the lower portion of the latch bolt 31. These large and small head pins 65 and 66 may be placed in any one of the pin apertures 64 and determine the extent to which a pre-selected coin will drop into the coin pocket 57. A large number of sets of coins may be pre-selected for use in this coin lock 20 and merely as an illustration, a quarter and three nickels have been shown as being in the coin pocket 57 to establish an operative condition of the coin lock 20. A large head pin 65 is shown in one of the lower apertures 64 to stop a quarter 69 near the lower end of this coin pocket 57. Three nickels 70 are piled one atop the other in this coin pocket 57 and this selection of pins in the pin aperture 64 establishes the topmost nickel 70 in an operative position or topmost camming position 71. The lock is designed to use coins or checks or tokens and the word check is used to denote either a coin or a token or a mixture of both.

The arresting means 34 includes a first lever 74 which is pivoted on a pin 75 fixed in the housing 21. The lever 74 is disposed generally horizontally in the housing 21 and the outer end of this lever 74 is a hook end 76. A hook 77 is provided on the rotatable latch bolt 31 for cooperation with the hook end 76. The hook 77 may be considered a first abutment and the hook end 76 may be considered a second abutment for mutual cooperation. The first abutment 77 or hook 77 has a path of movement which is arcuate since the rotatable latch bolt 31 is rotatable. The rotatable latch bolt 31 may rotate partway from the first position shown in FIGURE 1 toward the second position shown in FIGURE 6. However, the first and second abutments 77 and 76 will engage after a short arc of movement, in this case shown as being about a 15 degree arc, see FIGURE 7. Thus, the engagement of these two abutments 76 and 77 form a part of the arresting means 43 to arrest movement of the rotatable latch bolt 31. In the normal vertical position of the lock housing 21, the outer end or hook end 76 of this lever 74 is urged downwardly by gravity toward a position to have the hook end 76 engage the hook 77 upon initial rotation of this latch bolt 31 to thus prevent rotation of the latch bolt 31 to the latched or second position.

With the presence of the proper combination of one or more coins or checks in the coin pocket 57, this establishes one of the coins in the topmost unhooking position or operative position 71. As shown in FIGURE 4, this coin in the topmost position 71 effectively covers the hook 77 and the width of the hook end 76 is wide enough to ride on such topmost coin, hence this coin cams the lever 74 upwardly to raise same over the latch bolt hook 77 upon rotation of the latch bolt toward the second position. Because of this camming or unhooking movement, the latch bolt may be permitted to move completely to the second position as shown in FIGURE 6.

The lever 74 may be considered as having first and second positions so that the hook end 76 has a first position where it will engage the hook 77 and has a second position raised above this hook where such hook end 76 will not engage the hook 77. The lever 74 is a part of the arresting means 34 and with the hook end 76 in its downward position, it will be in the actuated position to arrest movement of the latch bolt. In the upper position of this lever 74, this arresting means is disabled or in a disabled condition so that the latch bolt 31 is able to be rotated completely to the second position thereof.

A bell crank second lever 80 is pivoted on a screw 81 fastened in the housing 21. This bell crank lever has

first and second ends 82 and 83 with the first end being magnetically permeable. A permanent magnet 84 is mounted in the door frame in a position to be a physical stop for the door in its closed position and in such position, the permanent magnet 84 is positioned directly above the permeable first end 82 of the bell crank lever 80. Since the magnetic field acts through the rigid plastic material of the lock housing 21, this will draw the lever first end 82 upwardly toward the permanent magnet 84 whenever the door 26 is closed. The first lever 74 is in front of the second lever 80 but the first lever 74 carries an abutment 85 on the rear side thereof which is disposed to engage the second end 83 of the lever 80 when the first end 82 of the lever 80 has dropped down into engagement with a pin 86 fixed on the housing 21. However, when this first end 82 with the lever 80 is moved upwardly as by the magnetic attraction of the magnet 84, then the second end 83 of this lever 80 is out of the path of movement of the abutment 85 on the first lever 74. Accordingly, this permits the lever 74 to be raised up so that the hook end 76 is out of the path of movement of the hook 77 on the latch bolt 31. When the door 26 is in the open position, then the bell crank lever 80 will fall to engage the pin 86 and thus the first lever 74 cannot be moved upwardly enough to permit the latch bolt 31 to be rotated to the second position. Thus, even with a coin in the camming position 71, the latch bolt 31 may not be moved to the second position if the door 26 is open, see FIGURE 8.

The coin pocket 57 may include a permanent pin or wear pin 89 at the position where coins drop into this coin pocket 57 from the first coin chute 54. Also, the coin pocket 57 may have a curved forward edge or forward stop 90. The in-turned edge 27 of the door 26 has a down hanging ledge 91 which is adjacent the latch bolt opening 50 in this in-turned edge 27. Rotation of the latch bolt 31 from the first position toward the second position, with a coin in the camming position 71, and with the door 26 closed, will cam the lever 74 upwardly to permit the latch bolt 31 to go past the position of FIGURE 4. However, additional arcuate movement of the latch bolt 31 will move this latch bolt 31 to a position whereat the topmost coin will roll off the wear pin 89, or a pin in one of the other apertures 64 near the top of the coin pocket 57, if such pins are present, and have this topmost coin roll into engagement with the forward stop 90. This will be after the topmost coin has passed underneath the ledge 91, and the forward stop 90 will establish this topmost coin in a position where it sticks beyond the peripheral edge of the latch bolt 31, see FIGURE 10. A coin in engagement with this forward stop 90 will prevent the reverse rotation of the latch bolt 31 toward the unlatched position because of engagement of this coin with the down hanging ledge 91. Thus, this is another part of the arresting means 34 to arrest movement of the latch bolt 31.

A coin receptacle 93 may be provided in the bottom of the lock post or door post 29 and thus when the latch bolt 31 is moved to the second position as shown in FIGURE 6, the one or more coins in the coin pocket 57 will fall by gravity from this latch bolt into the door post and then into the coin receptacle 93. Since as many as six lockers or even more may be stacked one on top of the other in a vertical column, this means that one coin receptacle, which may be lockable, will serve as many as six lockers and thus this minimizes the amount of labor required in collecting coins from these coin operated lockers. The attempted reverse rotation of the latch bolt 31 with a coin engaging the forward stop 90 is shown in FIGURE 10 and shows that this coin, since it protrudes beyond the peripheral edge of the latch bolt 31, will engage this downhanging ledge 91. In this embodiment, this may occur at an angle of about 30 degrees from the first position shown in FIGURE 1.

If a coin is used in the camming position 71 and the door is initially closed so that the permanent magnet 84 moves the lever 80 upwardly, a vandal cannot obtain the key and also the return of his coin because the key is captive in the lock until the latch bolt 31 has been rotated to the second position. If such a vandal were to try to hold the door closed initially so that the lever 80 would be held upwardly by the magnet 84, and then with a coin in the camming position 71, the person would start to rotate the latch bolt 31 and then quickly open the door before the latch bolt front plate 49 could enter the aperture 51 in the lockpost 29, it then might be possible for the vandal to recover his coin but he would not be able to obtain the key 40, as shown in FIGURE 9. Since the lever 80 would now be dropped down to engage the pin 86, the first lever 74 would drop down on a cutaway portion 94 of the periphery of the latch bolt 31. This cutaway portion 94 has a rise 95 for cooperation with the lever 74 to raise this lever 74 and with the lever 80 now in its lower position, the abutment 85 would engage the lever second end 83 to prevent upward movement of the lever 74, hence this will be another form of the arresting means 34 to prevent movement of the latch bolt 31. In this embodiment, this is shown as being at about an 80 degree position from the first position of the latch bolt 31.

The latch bolt 31 is jammed because there is no coin in place and because the latch bolt 31 is partly moved toward its second position. If now the latch bolt 31 is attempted to be moved inwardly to the first position, the hook end 76 will engage the other side of this cutaway portion 94 and will again be moved upwardly so that the abutment 85 engages the lever second end 83. Thus the locker is jammed with the latch bolt partly moved toward the latched or second position but with the door open. This signifies that vandals have been at work which discourages the vandals from any more attempts at obtaining both coins and keys. The maintenance personnel for the lockers may then easily return the locker to service by using the owner key in the owner lock 33 and rotating it to the second position whereat the key cylinder 32 may be removed from the front of the locker, and then the owner lock cam may be rotated to the fourth position whereat the lock finger 47 no longer engages the slot 48 and thus the entire lock housing 21 may be slid out of the inside of the door 26. In this position, the lock housing may be turned upsidedown so that the lever 80 will fall away from the pin 86 and then the latch bolt 31 may be swung back by hand to the first position. This lock housing 21 may then be remounted in the door 26 and the lock finger 47 moved to engage the slot 48 so that the lock 20 is again mounted on the inside of the door and the locker is again ready for service, after replacement of the key cylinder 32. Another way is to use a separate magnet held against the top rear of the lock housing 21 to urge the lever 80 upwardly and then the latch bolt 31 may be rotated to the first position as shown in FIGURE 1.

The lock 20 may be used on lockers where an attendant might be always available, for example in country clubs or golf clubs where fear of vandalism is not present. In such case, it may be desirable to provide free service with the person using the locker merely taking the key after locking his possessions in the locker and when he returns the key may be used to open the door to recover his possessions. The third position of the owner's lock and owner lock cam 42, as shown in FIGURE 1, establishes the conditions for this free service. The lever 74 has a pin 98 which will engage an arcuate periphery 99 on the owner lock cam 42 when the owner lock cam 42 is in the third and fourth positions. In this third position, this causes the pin 98 to hold up the lever 74 to an intermediate position and in this intermediate position the hook end 76 on the lever 74 will not engage the hook 77. This permits the latch bolt 31 to be freely moved by means of the key 40. This is the condition shown in FIGURE 1.

The FIGURES 11 through 14 show still another way in which the lock **20** may be quickly changed to provide still another feature. This feature is with coin and key operation but with a coin return feature. In many cases such as in department stores, it is desired to provide easy facilities for people to check their parcels to encourage them to return to make additional purchases. However, the department store may not wish to actually make a charge for this checking service but merely wish to avoid the expense and responsibility of having to have a person on a checking desk or check room. In such case, the lock **20** may be modified to provide operation by a coin such as a quarter for example, and then a person may check his parcels, lock the door and take the key with him. Upon return, the key **40** may be used to unlock the door so that the person may recover the articles stored in the locker and also this person will be able to recover the quarter or other coin in the coin return receptacle **61**.

A coin return spring **102** may be used for this purpose and normally may be stored on some of the pins in the storage area **67**. This coin return spring **62** may be mounted on two of the small head pins **66** near the entrance to the coin pocket **57**. A small pin **66** may also be mounted in one of the pin apertures at the other side of this entrance of the coin pocket **57**. FIGURE 11 illustrates that a coin **104** may be dropped into the entrance of the coin pocket **57** and be engaged between the pin **66** and the coin return spring **102**. Initially, this position of the coin **104** will be such that more than half of the coin **104** is above the line between the pin **66** and the coin return spring **102**. This holds the coin **104** in a camming position which covers the hook **77**. The screw **81** is replaced by a shoulder screw **105** having an extension to lie in the path of movement of the lever **74**. Thus, this restricts the upward movement of the lever **74** and when the latch bolt **31** is rotated toward the second position, the coin **104** will cam the lever **74** upwardly until the lever **74** engages this shoulder screw **105**. At this point, the lever **74** cannot rise further and this pushes the coin **104** farther down to a position where it is yieldingly retained between the pin **66** and the coin return spring **102**. In this yieldably retained position, more than half of the coin is below the line joining the pin **66** and the coin return spring **102**. Then when the latch bolt **31** is rotated completely to the second position, the coin **104** will not fly out of the coin pocket **57** because it is yieldably retained by the coin return spring **102**. In this position, the key **40** is removable and the locker is locked. When the person returns to the locker, the key **40** may again be inserted, the key cylinder **32** rotated back counterclockwise to return the latch bolt **31** to the first position and thus the locker is unlocked. The person may then recover his possessions in the locker. As the latch bolt **31** is rotated back to the first position, this is the condition shown in FIGURE 14 and the coin **104** is dislodged from its yielding retention by the coin return spring **102** and thus drops down the coin pocket **57**. In this condition of the coin return, there are no other pins in the lower portion of the coin pocket **57**, hence, it is a coin chute directing the coin such as a quarter into the coin return receptacle **61**. Thus, the person using the locker may recover his quarter which he used as a deposit to assure the safe return of the key **40**.

Alternatively, the coin **104** may not be yieldingly retained between the coin return spring **102** and the pin **66** after being cammed beyond the position of FIGURE 12. This may depend upon a number of factors such as the weight of the particular coin, the way it falls into engagement with the spring **102** and whether it is a new coin having serrations on the edge or whether the serrations are worn off. Especially, with older coins having no serrations, it is possible that the action of the lever **74**, in abutting the shoulder screw **105**, may push the coin **104** completely beyond engagement with the coin return spring **104** into the second coin chute **57**. This will not occur until after the latch bolt **31** has rotated beyond the position shown in FIGURE 12, and thus the hook end **76** will be cammed upwardly by the coin beyond the hook **77** to permit the latch bolt **31** to be rotated completely to the second position of FIGURE 13. In the intermediate position between the positions shown in FIGURE 12 and 13, the coin **104** may fall into the second coin chute **57** but will not be able to fall out of this coin chute because it will be retained therein at the upper end by the spacing between the pin **66** and the spring **102** and retained at the lower end by abutting engagement with a closely spaced peripheral wall **106** fixed as a part of the housing **21**. This wall **106** terminates at the coin return receptacle **61** and thus when the latch bolt **31** is returned to the first position as shown in FIGURE 14, the coin will drop into the coin return receptacle **61**.

Although this invention has been described in its preferred form with a certain degree of particularity, it is understood that the present disclosure of the preferred form has been made only by way of example and that numerous changes in the details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and the scope of the invention as hereinafter claimed.

What is claimed is:

1. A lock comprising, a housing,
means to mount said housing on a first member cooperable with a second member,
a latch bolt movable in said housing,
means to actuate said latch bolt between first and second positions, with one of said positions cooperating with said second member to lock said first and second members together,
means to arrest movement of said latch bolt and having first and second positions with said first position arresting movement of said latch bolt from said first to said second position,
means urging said arresting means into said first position to render said latch bolt immovable into said second position,
means to retain a coin in said latch bolt in an operative position,
means including a coin in said operative position establishing movement of said arresting means from said first to said second position thereof as said latch bolt is moved from said first toward said second position thereof to permit complete movement of said latch bolt to said second position,
a coin receptacle in said second member,
and transfer means effective upon movement of said latch bolt to said second position to transfer the coin in said operative position in said latch bolt into said coin receptacle in said second member.

2. A lock comprising, a housing,
means to mount said housing on a door cooperable with a door frame,
a latch bolt movable in said housing,
means to actuate said latch bolt between first and second positions with said second position cooperating with said door frame,
means to arrest movement of said latch bolt from said first to said second position,
said arresting means having first and second positions with said first position arresting movement of said latch bolt from said first to said second position,
means urging said arresting means into said first position to render said latch bolt immovable into said second position,
means to retain a coin in said latch bolt in an operative position,
camming means including a coin in said operative position establishing camming movement of said arresting means from said first to said second position thereof as said actuating means and said latch bolt are moved from said first toward said second posi-

tion thereof to permit complete movement of said latch bolt to said second position,
a coin receptacle in said door frame,
and transfer means effective upon movement of said latch bolt to said second position to transfer the coin in said operative position in said latch bolt into said coin receptacle.

3. A lock comprising, a housing,
means to mount said housing on a first member cooperable with a second member,
a latch bolt movable in said housing,
means to actuate said latch bolt between first and second positions with one of said positions being a latched position extending under a ledge fixed relative to said housing and cooperating with said second member,
means to arrest movement of said latch bolt,
said arresting means having actuated and disabled conditions with said actuated condition arresting movement of said latch bolt,
means urging said arresting means in said actuated condition to render said latch bolt immovable into said second position,
means to retain a coin in said latch bolt in an operative position,
camming means including a coin in said operative position establishing camming movement of said arresting means from said actuated to said disabled condition thereof as said actuating means and said latch bolt are moved from said first toward said second position thereof,
magnet means on said door frame cooperable with said arresting means upon the door being closed to establish said arresting means in said disabled condition to permit said latch bolt to be moved to said second position,
said arresting means including means to move a coin from said operative position to a stop position for cooperation with said ledge to establish said arresting means in said actuated condition to prevent movement of said latch bolt to said first position,
a coin receptacle,
and transfer means effective upon movement of said latch bolt to said latched position to transfer the coin from said operative position in said latch bolt into said coin receptacle.

4. A check operated lock for a lockable door in a door frame,
said lock comprising in combination, a lock housing,
means to mount said lock housing on said door,
a latch bolt movably carried in said lock housing and having first and second positions with one of said positions being an unlatched position permitting opening of said door and the other being a latched position preventing opening of the door,
means to actuate said latch bolt between said positions,
abutment means acting between said housing and said actuating means upon initial movement of said actuating means in attempting to move said latch bolt from said first toward said second position to prevent movement of said latch bolt to said second position,
a check pocket in said lock housing,
the presence of a check in said check pocket acting to invalidate said abutment means to permit movement of said latch bolt to said second position,
and means effecting transfer of the check in said check pocket into said door frame upon movement of said latch bolt to said second position.

5. A check operated lock for a lockable door in a door frame,
said lock comprising in combination, a lock housing,
means to mount said lock housing on said door,
a latch bolt movably carried in said lock housing and having first and second positions with one of said positions being an unlatched position permitting opening of said door and the other being a latched position preventing opening of the door,
abutment means acting between said latch bolt and said lock housing,
said abutment means lying in the path of movement thereof of said latch bolt to engage same upon movement of said latch bolt from said first toward said second position thereof to prevent movement of said latch bolt to said second position,
a check pocket in said latch bolt and having an entrance for a check at least with said latch bolt in said first position,
means controlled by the presence of a check in said check pocket acting to remove said abutment means from said path of movement to permit movement of said latch bolt to said second position,
and means effecting transfer of the check in said check pocket into said door frame upon movement of said latch bolt to said second position.

6. A lock mechanism for cooperation with a lock post having a coin receptacle and comprising in combination,
a lock housing,
a latch bolt,
a coin chute in said latch bolt having first and second ends,
said latch bolt being movable between first and second positions with one of said positions being an extended position for cooperation with an aperture in the lock post to lock said lock mechanism, and said extended position establishing said coin chute sloping downwardly from said second to said first end thereof,
means in said coin chute cooperating with any coin therein to establish a selected number of proper denomination of coins to establish the upper edge of the topmost coin in a predetermined position in said first end of said coin chute,
arresting means cooperating between said latch bolt and said housing,
said arresting means having an engaged and a released position with said engaged position engaging an abutment on said latch bolt to prevent attempted movement of said latch bolt from said first to said second position,
the presence of a coin in said predetermined position covering said abutment on said latch bolt to permit said coin to act as a cam and thus cam said arresting means to said released position as said latch bolt is moved through first and second consecutive ranges of movement to move said latch bolt from said first to said second position,
and movements of said latch bolt toward said second position moving said latch bolt into said lock post and establishing said coin chute at an angular position sloping downwardly from the second end to the first end thereof to transfer coins in said coin chute by gravity into the coin receptacle in the lock post.

7. A check operated lock for a lockable door in a door frame,
said lock comprising in combination, a lock housing,
means to mount said lock housing on said door,
a latch bolt movably carried in said lock housing and having first and second positions with one of said positions being an unlatched position permitting opening of said door and the other being a latched position preventing opening of the door,
a first abutment on said latch bolt and having a path of movement upon movement of said latch bolt from said first to said second position,
a movable second abutment having first and second positions with said first position thereof facing said first abutment on said latch bolt and lying in said path of movement thereof to engage same upon movement of said latch bolt from said first toward

said second position thereof to prevent movement of said latch bolt to said second position,

a check pocket in said latch bolt and having an entrance for a check at least with said latch bolt in said first position,

means establishing a camming position for a check in said check pocket,

the presence of a check in said camming position camming said second abutment to said second position upon movement of said latch bolt toward said second position thereof to permit movement of said latch bolt to said second position,

and means effecting transfer of the check in said check pocket into said door frame upon movement of said latch bolt to said second position.

8. A check operated lock for a lockable door in a door frame,

said lock comprising in combination, a lock housing,

means to mount said lock housing on said door,

a rotatable latch bolt journalled in said lock housing and having first and second positions with one of said positions being an unlatched position permitting opening of said door and the other being a latched position preventing opening of the door,

a first abutment on said latch bolt,

a movable second abutment having first and second positions with said first position thereof facing said first abutment on said latch bolt and lying in the path of movement thereof to engage same upon initial rotation of said latch bolt from said first toward said second position thereof to prevent rotation of said latch bolt to said second position,

a check pocket in said latch bolt and having an entrance for a check at least with said latch bolt in said first position,

means establishing a camming position for a check in said check pocket,

the presence of a check in said camming position camming said second abutment to said second position upon rotation of said latch bolt toward said second position thereof to permit complete rotation of said latch bolt to said second position,

and rotation of said latch bolt to said second position permitting the check in said camming position in said check pocket to be transferred by gravity out of said check pocket into said door frame.

9. A check operated lock for a lockable door in a door frame,

said lock comprising in combination, a lock housing,

means to mount said lock housing on said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt cooperating with said door frame to latch the door closed,

a first abutment on said latch bolt,

a movable second abutment having first and second positions with said first position thereof facing said first abutment on said latch bolt and lying in the path of movement thereof to engage same upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

a check pocket in said latch bolt and having an entrance for a check at least with said latch bolt in the unlatched position,

means establishing a camming position for a check in said check pocket,

the presence of a check in said camming position camming said second abutment to said second position upon rotation of said latch bolt toward said latched position to permit complete rotation of said latch bolt to said latched position,

and rotation of said latch bolt to said latched position permitting the check in said camming position in said check pocket to be transferred by gravity out of said check pocket into said door frame.

10. A check operated lock for a lockable door in a door frame,

said lock comprising in combination, a lock housing,

means to mount said lock housing on said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt cooperating with said door frame to latch the door closed,

a first abutment on said latch bolt,

a movable second abutment facing said first abutment on said latch bolt to engage same upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

a check pocket in said latch bolt and having an entrance for a check at least with said latch bolt in the unlatched position,

means establishing a camming position for a check in said check pocket,

the presence of a check in said camming position camming said second abutment upwardly over said latch bolt first abutment upon rotation of said latch bolt toward said latched position,

and rotation of said latch bolt to said latched position permitting the check in said camming position in said check pocket to be transferred by gravity out of said check pocket into said door frame.

11. A lock mechanism for cooperation with a lock post comprising in combination, a lock housing,

a first coin chute in said lock housing,

a latch bolt,

a second coin chute in said latch bolt cooperating with said first coin chute in said first position of said latch bolt,

said latch bolt being movable in a path between first and second positions with said second position being an extended position into an aperture into said lock post to lock said lock mechanism and said extended position establishing said second coin chute sloping downwardly from said second to said first end thereof,

means in said second coin chute cooperating with any coin therein to establish a selected number of proper denomination of coins to establish the upper edge of the topmost coin in a predetermined position in said first end of said second coin chute,

arresting means cooperating between said latch bolt and said housing,

said arresting means having an engaged and a released position with said engaged position engaging an abutment on said latch bolt to prevent attempted movement of said latch bolt from said first to said second position,

the presence of a coin in said predetermined position covering said abutment on said latch bolt to permit said coin to act as a cam and thus cam upwardly said arresting means to said released position as said latch bolt is moved in said path through first and second consecutive ranges of movement to move said latch bolt from said first to said second position,

a barrel in said lock housing,

a key cylinder rotatable in said barrel by a key,

said key being retained in said key cylinder in said first position of said latch bolt and being removable from said key cylinder in said second position of said latch bolt,

means to move said latch bolt from said first toward said second position upon arcuate movement of said key cylinder,

movement of said latch bolt in said path to said second position moving said latch bolt into the lock post and establishing said second coin chute at an angular position sloping downwardly from the second end

to the first end thereof to transfer coins in said second coin chute by gravity into the lock post,

and return arcuate movement of said key and key cylinder moving said latch bolt from said second position to said first position to re-establish said first coin chute in alignment with said second coin chute and re-establishing said arresting means in said engaged position to engage said abutment on said latch bolt.

12. A check operated lock for a lockable door in a door frame having a lock post,

said lock comprising in combination, a lock housing,

means to mount said lock housing on the inside of said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt rotated to extend into an opening in the lock post to latch the door closed,

a check chute in said lock housing having an entrance in said door and having an exit,

a check pocket in said latch bolt and having an entrance communicating with the exit of said check chute with said latch bolt in the unlatched position,

means establishing a camming position for a check in said check pocket,

a first abutment on said latch bolt,

a movable second abutment facing said first abutment on said latch bolt to engage same upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

the presence of a check in said camming position camming said second abutment upwardly over said latch bolt first abutment upon rotation of said latch bolt toward said latched position,

a check receptacle in said lock post,

and rotation of said latch bolt to said latched position permitting the check in said camming position in said check pocket to be transferred by gravity out of said check pocket into said lock post to fall into said check receptacle.

13. A check and key operated lock for a lockable door in a door frame having a lock post,

said lock comprising in combination, a lock housing,

means to mount said lock housing on the inside of said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt rotated to extend into an opening in the lock post to latch the door closed,

a key operated lock cylinder mounted non-rotatively in said rotatable latch bolt and rotatable with a key to rotate said latch bolt,

a check chute in said lock housing having an entrance in said door and having an exit,

a check pocket in said latch bolt and having an entrance communicating with the exit of said check chute with said latch bolt in the unlatched position,

means establishing a camming position for a check in said check pocket,

a first abutment on said latch bolt,

a lever pivoted on said lock housing,

a second abutment on said lever and facing said first abutment on said latch bolt to engage same upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

the presence of a check in said camming position camming said second abutment of said lever upwardly over said latch bolt first abutment upon rotation of said latch bolt toward said latched position,

a check receptacle in said lock post,

and rotation of said latch bolt to said latched position permitting the check in said camming position in said check pocket to be transferred by gravity out of said check pocket into said lock post to fall into said check receptacle.

14. A check and key operated lock for a lockable door in a door frame having a lock post,

said lock comprising in combination, a lock housing,

means to mount said lock housing on the inside of said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt rotated to extend into an opening in the lock post to latch the door closed,

a key operated lock cylinder mounted non-rotatively in said rotatable latch bolt and rotatable with a key to rotate said latch bolt,

a check chute in said lock housing having an entrance in said door and having an exit,

a check pocket in said latch bolt and having an entrance communicating with the exit of said check chute with said latch bolt in the unlatched position,

stop means in said check pocket,

said stop means determining the extent to which one or more checks will fall by gravity into said check pocket into abutting engagement with said stop means to establish a topmost camming position for a check,

a first abutment on said latch bolt,

a lever pivoted on said lock housing,

a second abutment on said lever and facing said first abutment on said latch bolt to engage same upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

the presence of a proper combination of one or more checks in said check pocket establishing one of said checks in said topmost camming position to cam upwardly said second abutment of said lever to raise same over said latch bolt first abutment upon rotation of said latch bolt toward said latched position,

a check receptacle in said lock post,

and rotation of said latch bolt to said latched position permitting said combination of one or more checks to be transferred by gravity out of said check pocket into said lock post to fall into said check receptacle.

15. A check and key operated lock for a lockable door in a door frame having a lock post,

said lock comprising in combination, a lock housing,

means to mount said lock housing on the inside of said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt rotated to extend into an opening in the lock post to latch the door closed,

a key operated lock cylinder mounted non-rotatively in said rotatable latch bolt and rotatable with a key to rotate said latch bolt,

a check chute in said lock housing having an entrance in said door and having an exit,

a check pocket in said latch bolt and having an entrance communicating with the exit of said check chute with said latch bolt in the unlatched position,

a plurality of stop apertures in said latch bolt,

stop means in said plurality of stop apertures extending into said check pocket,

said stop means determining the extent to which one or more checks will fall by gravity into said check pocket into abutting engagement with said stop means,

said stop means being removable and positionable in different combinations of stop apertures in order to change the combinations of checks required to operate said lock,

a first abutment on said latch bolt,

a lever pivoted on said lock housing,

a second abutment on said lever and facing said first abutment on said latch bolt to engage same upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

the presence of a proper combination of one or more checks in said check pocket establishing one of said checks in a topmost camming position to cam upwardly said second abutment of said lever to raise same over said latch bolt first abutment upon rotation of said latch bolt toward said latched position,

a check receptacle in said lock post.

and rotation of said latch bolt to said latched position permitting said combination of one or more checks to be transferred by gravity out of said check pocket into said lock post to fall into said check receptacle.

16. A coin and key operated lock for a lockable door in a door frame having a lock post, said door being hinged to said frame on the side opposite said lock post,

said lock comprising in combination, a lock housing,

means to mount said lock housing on the inside of said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt rotated to extend through a latch bolt opening in the edge of the door into an opening in the lock post to latch the door closed,

a key operated lock cylinder mounted non-rotatively in said rotatable latch bolt and rotatable with a key to rotate said latch bolt,

a coin chute in said lock housing having an entrance in said door and having an exit,

a coin pocket in said latch bolt and having an entrance communicating with the exit of said coin chute with said latch bolt in the unlatched position,

a plurality of pin apertures in said latch bolt,

a plurality of pins in at least some of said pin apertures and extending into said coin pocket,

said pins determining the extent to which one or more coins will fall by gravity into said coin pocket,

said pins being removable and positionable in different combinations of pin apertures in order to change the combinations of coins of equal or different size required to operate said lock,

a hook on said latch bolt,

a lever pivoted on said lock housing,

a hook end on said lever and facing said hook on said latch bolt to be gravitationally urged toward engagement with said hook upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

the presence of a proper combination of one or more coins in said coin pocket establishing one of said coins in a topmost unhooking position to cam upwardly said hook end of said lever to raise same over said latch bolt hook upon rotation of said latch bolt toward said latched position,

a coin receptacle in the bottom of said lock post,

and rotation of said latch bolt to said latched position permitting said combination of one or more coins to be transferred into said lock post to fall by gravity out of said coin pocket into said coin receptacle.

17. A coin and key operated lock for a lockable door in a door frame having a lock post, said door being hinged to said frame on the side opposite said lock post,

said lock comprising in combination, a lock housing,

means to mount said lock housing on the inside of said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt rotated to extend through a latch bolt opening in the edge of the door into an opening in the lock post to latch the door closed,

a key operated lock cylinder mounted non-rotatively in said rotatable latch bolt and rotatable with a key to rotate said latch bolt,

a coin chute in said lock housing having an entrance in said door and having an exit,

a coin pocket in said latch bolt and having an entrance communicating with the exit of said coin chute with said latch bolt in the unlatched position,

a plurality of pin apertures in said latch bolt,

a plurality of pins in at least some of said pin apertures and extending into said coin pocket,

said pins determining the extent to which one or more coins will fall by gravity into said coin pocket,

said pins being removable and positionable in different combinations of pin apertures in order to change the combinations of coins of equal or different size required to operate said lock,

a hook on said latch bolt,

a lever pivoted on said lock housing,

a hook end on said lever and facing said hook on said latch bolt to be gravitationally urged toward engagement with said hook upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

the presence of a proper combination of one or more coins in said coin pocket establishing one of said coins in a topmost unhooking position to cam upwardly said hook end of said lever to raise same over said latch bolt hook upon rotation of said latch bolt toward said latched position,

a stop pin and a forward stop on said coin pocket,

a downhanging ledge on said door adjacent said latch bolt opening in the edge of said door,

rotation of said latch bolt through a first angle from said unlatched position toward said latched position causing the coin in said topmost position to roll on one of said pins and under said ledge into abutting engagement with one of said pins and said forward stop on said coin pocket,

said latch bolt having a peripheral edge which will rotationally pass under said ledge,

a coin in engagement with said last named pin and said forward stop extending beyond said peripheral edge of said latch bolt to prevent reverse rotation of said latch bolt toward said unlatched position because of engagement of said coin with said ledge,

a coin receptacle in the bottom of said lock post,

and rotation of said latch bolt to said latched position permitting said combination of one or more coins to be transferred into said lock post to fall by gravity out of said coin pocket into said coin receptacle.

18. A coin return lock for a lockable door in a locker having a door frame with a lock post, said door being hinged to said frame on the side opposite said lock post,

said lock comprising in combination, a lock housing,

means to mount said lock housing on the inside of said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt rotated about 100 degrees to extend through a latch bolt opening in the edge of the door into an opening in the lock post to latch the door closed,

a key operated lock cylinder mounted non-rotatively in said rotatable latch bolt and rotatable about 100 degrees with a key to latch and unlatch said latch bolt,

a first coin chute in said housing having an entrance in the edge of said door and having an exit,

a second coin chute in said latch bolt and having an exit and having an entrance communicating with the exit of said first coin chute with said latch bolt in the unlatched position,

a plurality of pin apertures in said latch bolt,

a plurality of removable pins in at least some of said

pin apertures and extending into said second coin chute,

said pins determining the extent to which one or more coins will fall by gravity into said second coin chute into abutting engagement with said pins,

a hook on said latch bolt,

a lever pivoted on said lock housing and generally horizontally disposed,

a hook end on said lever and facing said hook on said latch bolt with said lever urged by gravity toward a position to have said hook end engage said hook upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

a leaf spring mounted on two of said pins,

a coin entering said second coin chute falling into abutment with said spring and one of said plurality of pins to be in a camming position,

an upward abutment for said lever,

said coin in said camming position covering said hook on said latch bolt to cam upwardly said lever into engagement with said upward abutment to raise said lever over said latch bolt hook upon rotation through a first angle of said latch bolt toward said latched position,

engagement of said lever with said upward abutment causing said coin to be cammed downwardly beyond a diametrical position of engagement substantially diametrically between said leaf spring and said last named pin,

a coin return receptable carried in said lock housing below said exit of second coin chute in said unlatched position of said latch bolt,

a stationary coin retaining wall transposed peripherally and in close spaced relationship to the lower end of said rotatable latch bolt and terminating at said coin return receptacle,

said coin being held captive within said second coin chute between said leaf spring and said pin on one end and said stationary coin retaining wall on the other end while said latch bolt is turned into said latched position,

and subsequent return rotation of said latch bolt and stopping at said unlatched position will permit release of said coin from said stationary coin retaining wall to have said coin drop by gravity out of said second coin chute exit into said coin return receptacle.

19. A coin and key operated lock for a lockable door in a locker having a door frame with a lock post, said door being hinged to said frame on the side opposite said lock post,

said lock comprising in combination, a lock housing,

means to mount said lock housing on the inside of said door,

a rotatable latch bolt journalled in said lock housing and having an unlatched position permitting opening of said door and having a latched position with the latch bolt rotated about 100 degrees to extend through a latch bolt opening in the edge of the door into an opening in the lock post to latch the door closed,

a key operated lock cylinder mounted non-rotatively in said rotatable latch bolt and rotatable about 100 degrees with a key to latch and unlatch said latch bolt,

a coin chute in said housing having an entrance in the edge of said door and having an exit,

a coin pocket in said latch bolt and having an entrance communicating with the exit of said coin chute with said latch bolt in the unlatched position,

a plurality of pin apertures in said latch bolt,

a plurality of pins in at least some of said pin apertures and extending into said coin pocket,

said pins determining the extent to which one or more coins will fall by gravity into said coin pocket into abutting engagement with said pins,

said pins being removable and positionable in different combinations of pin apertures in order to change the combinations of coins required to operate said lock,

a hook on said latch bolt,

a first lever pivoted on said lock housing and generally horizontally disposed,

a hook end on said first lever and facing said hook on said latch bolt with said lever urged by gravity toward a position to have said hook end engage said hook upon initial rotation of said latch bolt to prevent rotation of said latch bolt to the latched position,

the presence of a proper combination of one or more coins in said coin pocket establishing one of said coins in a topmost unhooking position to cam upwardly said hook end of said first lever to raise same over said latch bolt hook upon rotation of said latch bolt toward said latched position,

a permanent pin and a forward stop on said coin pocket,

a downhanging ledge on said door adjacent said latch bolt opening in the edge of said door,

rotation of said latch bolt from said unlatched position toward said latched position through an angle of about 30 degrees causing the coin in said topmost position to roll on one of said pins and under said ledge into abutting engagement with one of said pins and said forward stop on said coin pocket,

said latch bolt having a peripheral edge which will rotationally pass under said ledge,

a coin in engagement with said last named pin and forward stop extending beyond said peripheral edge of said latch bolt to prevent reverse rotation of said latch bolt toward said unlatched position because of engagement of said coin with said ledge,

a coin receptacle in the bottom of said lock post,

rotation of said latch bolt about 100 degrees to said latched position permitting said combination of one or more coins to be transferred into said lock post to fall by gravity out of said coin pocket into said coin receptacle,

a bell crank second lever pivoted on said lock housing,

said bell crank lever having first and second ends,

said bell crank lever first end being magnetically permeable,

an abutment on said first lever and having a path of movement as said first lever is cammed upwardly by said coin in said topmost position,

a permanent magnet mounted on said lock post in a position to be closely adjacent and above said bell crank lever first end in the closed position of said door to magnetically attract said bell crank lever first end upwardly to a first position whereat said bell crank lever second end is out of the path of movement of said abutment on said first lever,

said door in the open position separating said permanent magnet and said bell crank lever to permit said bell crank lever first end to fall by gravity to a second position whereat said bell crank lever second end is in the path of movement of said first lever to thus preclude turning said latch bolt to the latched position with said door open.

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