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COIN OPERATED LOCKER

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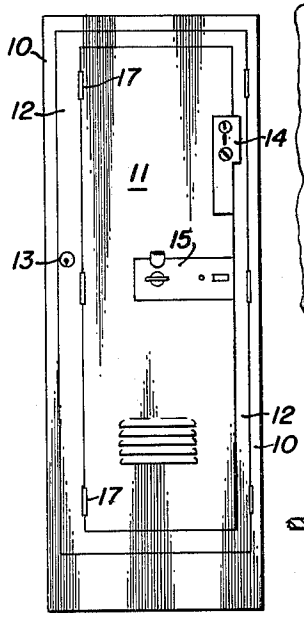



FIG. 1.

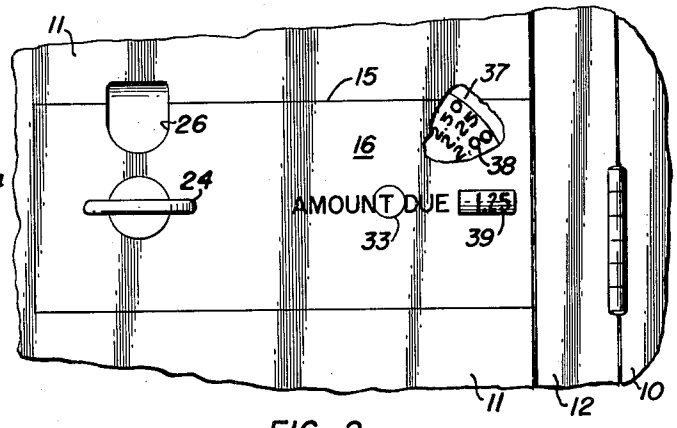



FIG. 2.

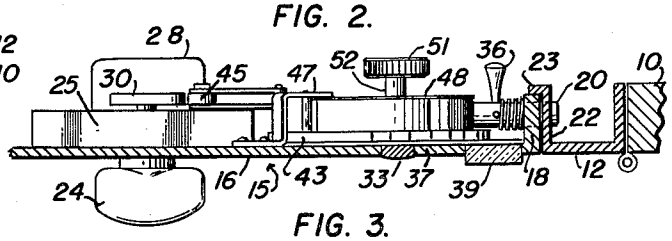



FIG. 3.

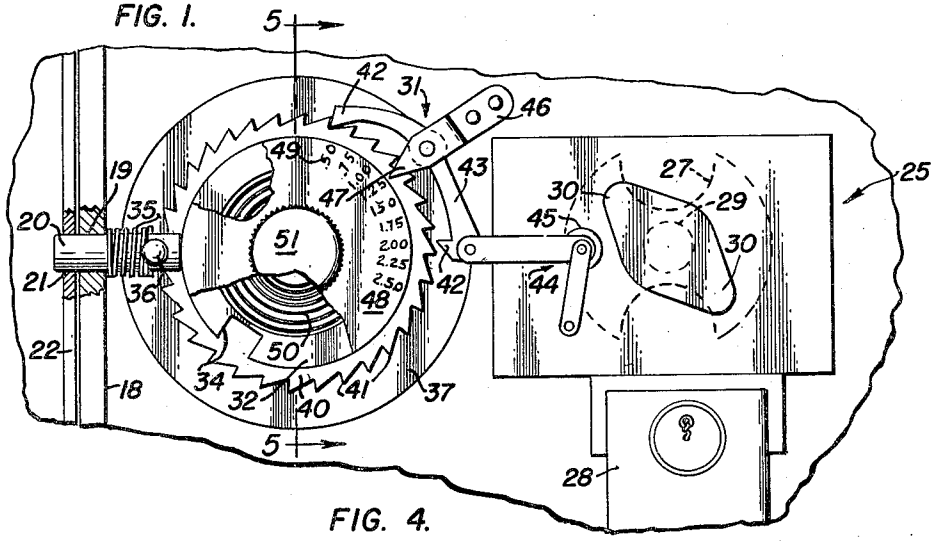



FIG. 4.

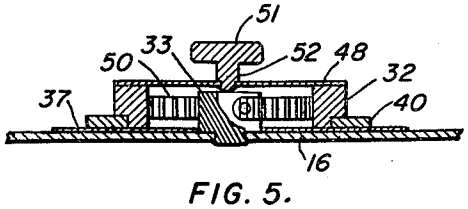



FIG. 5.

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# COIN OPERATED LOCKER

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This invention relates to coin operated lockers and has reference to a lock requiring a selected number of coins for the operation thereof.

Coin operated lockers are extensively used at airports, railways stations and bus terminals, and which lockers require the deposit of a coin for operating a lock and releasing a key for subsequent use when articles deposited in the locker are to be reclaimed. Such lockers are herein referred to since the same lock and key arrangement for use by a customer comprises a part of the present construction. A primary use of the invention is the depositing of clothes to be cleaned and the return thereof to the depositor after cleaning or pressing. However, it is to be understood that the invention may have other uses for example, articles may be deposited for gift wrapping, repairs as in the case of small household appliances or when other services are to be performed. If necessary, written instructions may be left with the deposited articles. In accordance with the invention, and after the articles are redelivered to the locker, the service man will set a dial requiring the deposit of a selected number of coins totaling a specified amount of money before the locker may be reopened. The deposit of coins for unlocking the locker is in addition to the use of the above referred to conventional key arrangement. Depending on the service to be rendered, the present lockers may be installed, for example, in the lobbies of hotels for dry cleaning, in front of dry cleaning establishments for after hours use, or at convenient locations for other types of services.

An object of the invention is to provide a self service locker which requires the deposit of a selected number of coins by a customer before he can reopen the locker, the number of coins required being determined by the vendor of services between the time articles are placed in the locker and the time the articles are reclaimed.

Another object is to provide a unique and relatively simple lock for the described purpose.

A further object is to provide a locker of the described class which is simple and convenient in its operation.

These and other objects will become apparent from the following description and accompanying drawings, wherein:

FIGURE 1 is a front elevational view of a locker embodying the features of the invention.

FIGURE 2 is an enlarged broken elevational view of a portion of the locker illustrated in FIGURE 1 and showing the coin actuating knob and a portion of the face of the amount due dial.

FIGURE 3 is a horizontal sectional view of FIGURE 2.

FIGURE 4 is an enlarged rear view of FIGURE 2.

FIGURE 5 is a broken sectional view taken on line 5—5 of FIGURE 4.

In the drawing, the numeral **10** generally designates a cabinet having inner and outer doors **11** and **12**, one hingedly mounted within the other. The outer door **12** is provided with a lock **13** for use by the service man and the inner door **11** is provided with a key retaining lock **14** such as used in conventional self service coin operated lockers.

The lock **15** comprising a primary feature of the invention includes an insert panel **16** in the inner door **11** on the side thereof opposite its hinges **17**, and which panel has an inwardly directed flange **18** at its outer edge



and a hole **19** therein for slidably receiving a locking bolt **20**. The extending end of the bolt **20** engages a corresponding hole **21** in an inwardly directed flange **22** in the outer door **12**. The inner edge of the last referred to flange **22** has an inward projection **23** which serves as a stop for the inner door.

A coin actuating knob **24** projects from the outer surface of the panel **16** at the end thereof remote from the described panel flange **18**, and which knob is operatively connected with a commercially available coin actuated lock **25** of the type which receives a coin in its slot **26** before the knob **24** can be turned. Since such coin operated locks are standard equipment in various vending machines, the same will not be described in detail, be it sufficient to say that the same includes a circular carrier plate **27** which deposits the coin in a locked coin box **28** after the knob is turned. The shaft **29** on which the knob **24** is mounted extends through the lock **25** where the same is provided with a double rise cam **30** for actuating an escapement **31**.

The release of the bolt **20** is carried out by means of a cylindrical body **32** mounted on a shaft **33** secured on the panel **16**, and which cylindrical body includes a notch **34** for receiving the inner end of said bolt. The bolt **20** is normally urged inwardly by means of a spring **35** therearound, one end of which spring bears against the inner door flange **18** and the other end against a projecting hand grip **36**. A dial **37** is secured to the inner face of the cylindrical body **32** and has indicia **38** thereon in amounts of money, and which indicia registers with a glass covered slot **39** in the face of the panel **16**. An escapement wheel **40** having ratchet teeth **41** therearound is concentric with and secured to the body **32**, and which teeth coact with detents **42** on each end of an escapement lever **43**. A hinged arm **44** is pivotally connected at one end with the escapement lever **43** and the other end of the arm is pivotally mounted on the lock **25**. A roller **45** is provided at the intermediate joint of the hinged arm **44** and which roller is positioned to be contacted and moved by the double rise cam **30**. The escapement lever **43** is pivotally mounted intermediate its ends on a bracket **46** on the rear face of the panel **16** and which bracket includes a pointed end **47** directed to the periphery of a rear cylindrical body cover plate **48** having indicia **49** in amounts of money required to open the lock.

A clock spring **50** is mounted in the cylindrical body **32**, one end of which is secured thereto and the other end to the stationary shaft **33**. The body **32**, dial **37**, escapement **40** and body plate **48**, which are secured together, are rotated by a knob **51** connected therewith by means of a shaft **52**.

In operation, the customer opens the inner door **11** by means of the lock **14**, places the articles to be serviced in cabinet **10**, closes the door and takes the key with him. Later, the service man removes the articles by unlocking the outer door **12**. After the service has been performed, the articles are returned through the outer door **12**, at which time the body **32** is rotated to require the deposit of a number of coins, the amount of which totals the cost of the service. It is to be understood that the setting takes place while the outer door is open and the inner door is closed. For example, if the coin actuated lock **25** requires the use of twenty-five cent pieces, and the cost of the service amounts to one dollar and twenty-five cents, the teeth **41** of the escapement are set, against the action of the spring **50**, to allow escapement of five teeth before the notch **34** becomes aligned with the bolt **20**, after which the inner door **11** may be opened. The escapement action is carried out by reason of the cam **30** on the escapement **31**.

The invention is not limited to the exemplary con-

struction herein shown and described, but may be varied within the scope of the appended claims.

What is claimed is:

1. In combination with a locker having a key operated lock in the door thereof, a coin actuated lock mechanism on said door in addition to said key operated lock, said coin actuated lock mechanism including a shaft extending outwardly of said door and having a knob thereon, means receiving a coin and providing limited rotation of said shaft, a cam on said shaft inwardly of said door, a bolt in said door, a spring connected with said bolt normally urging the same to an unlocked position, a cylindrical body rotatably mounted on the inner surface of said door adjacent said bolt, a notch in said body positioned to receive the inner end of said bolt, an escapement wheel concentric with and secured to said body, an escapement lever pivotally mounted on the inner surface of said door and located for coaction with said escapement wheel, arm means connected at one end thereof with said escapement lever with an intermediate portion being positioned for coaction with said cam, and clock spring means within said body arranged to rotate said escapement wheel in a direction for coaction with said escapement lever.

2. The construction defined in claim 1 and wherein said arm means is comprised of a jointed hinged arm pivotally connected at one end with the escapement lever



and the other end of said arm means is pivotally connected to the inner surface of said door, the joint of said hinged arm being positioned to be contacted by said cam.

3. In a coin actuated lock mechanism wherein the latter includes a shaft extending outwardly thereof, means receiving coin and thereby providing limited rotation of said shaft, a cam on said shaft and projecting laterally thereof, a cylindrical body rotatably mounted about an axis parallel with said shaft, a notch in said body, a bolt coplanar with said body and means urging said bolt toward said notch, an escapement wheel concentric with and secured to said body, an escapement lever pivotally mounted for coaction with said escapement wheel, arm means connected at one end thereof with said escapement lever with an intermediate portion thereof being positioned for coaction with said cam, and clock spring means within said body arranged to rotate said escapement wheel in a direction for coaction with said escapement lever.

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