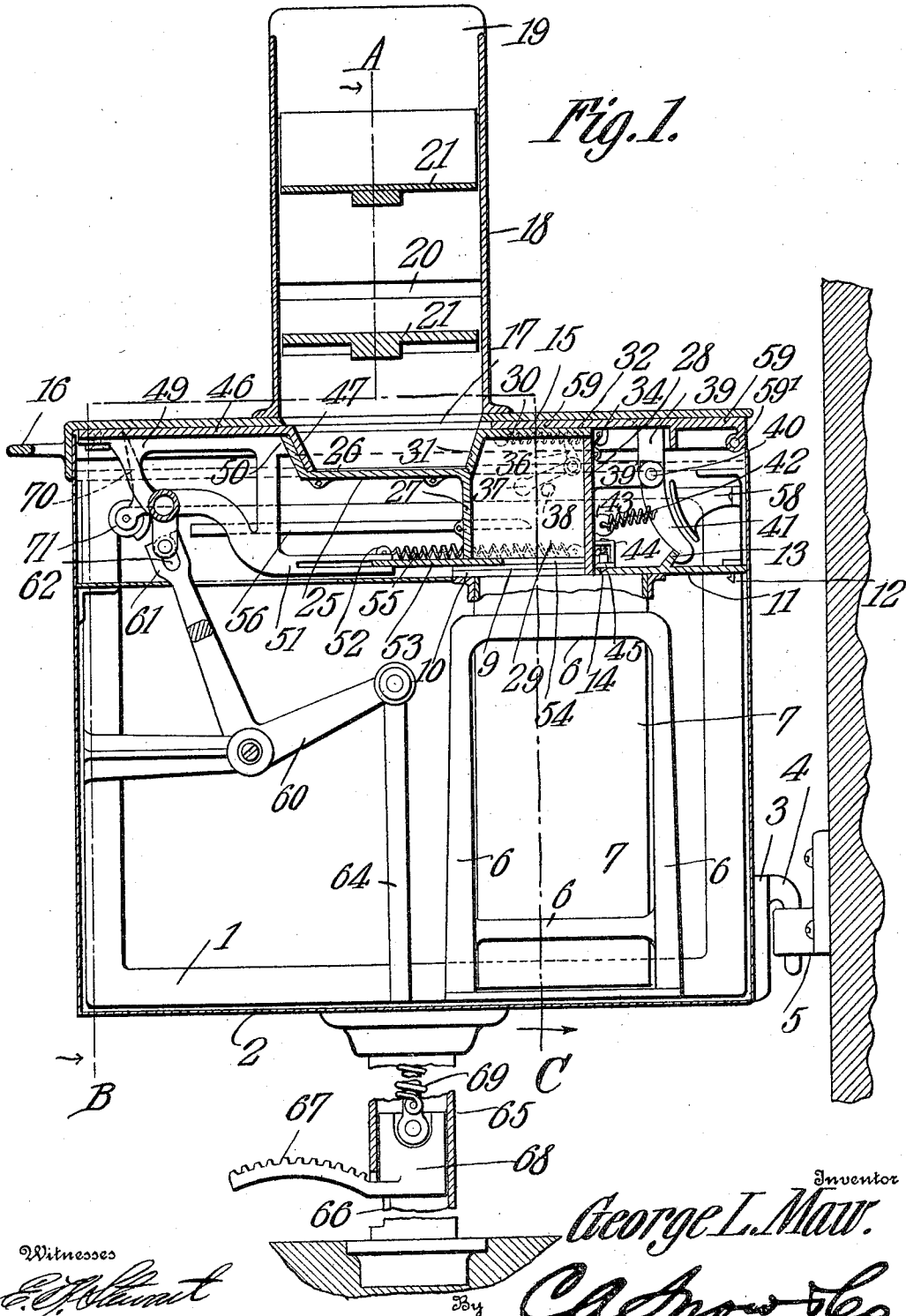


944,198.

Patented Dec. 21, 1909.
3 SHEETS—SHEET 1.



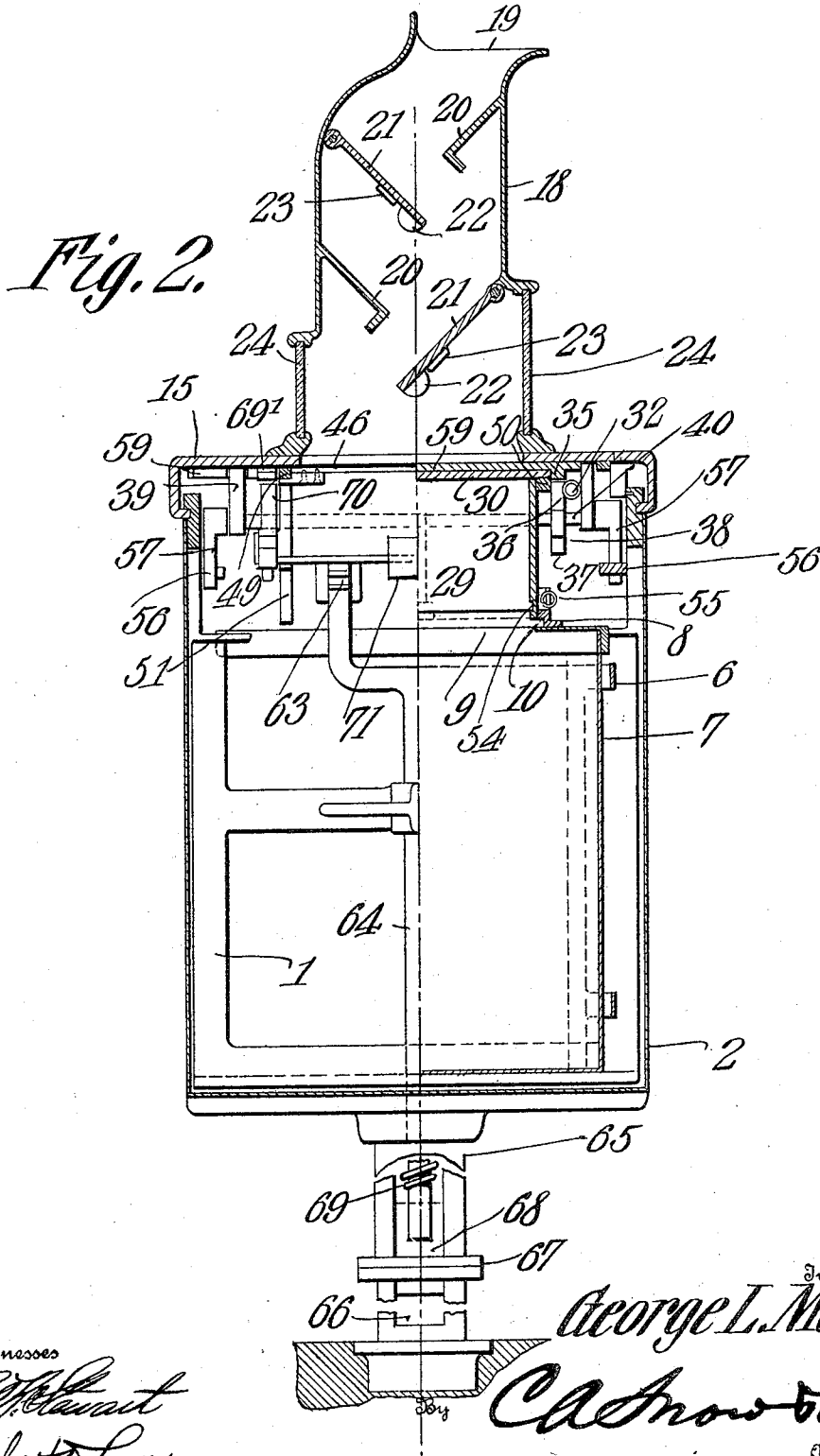
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COLLECTION SAFE.
APPLICATION FILED MAY 18, 1908.

944,198.

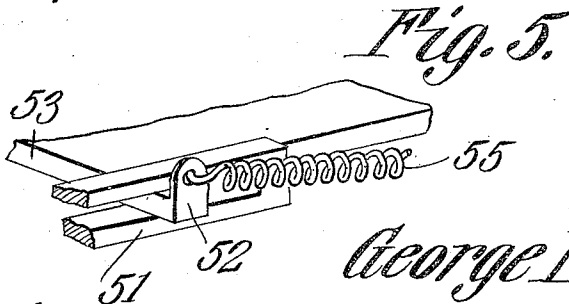
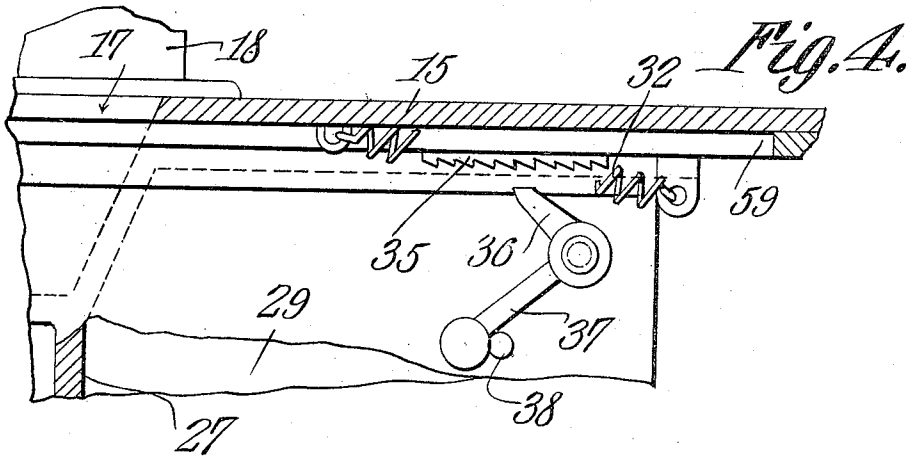
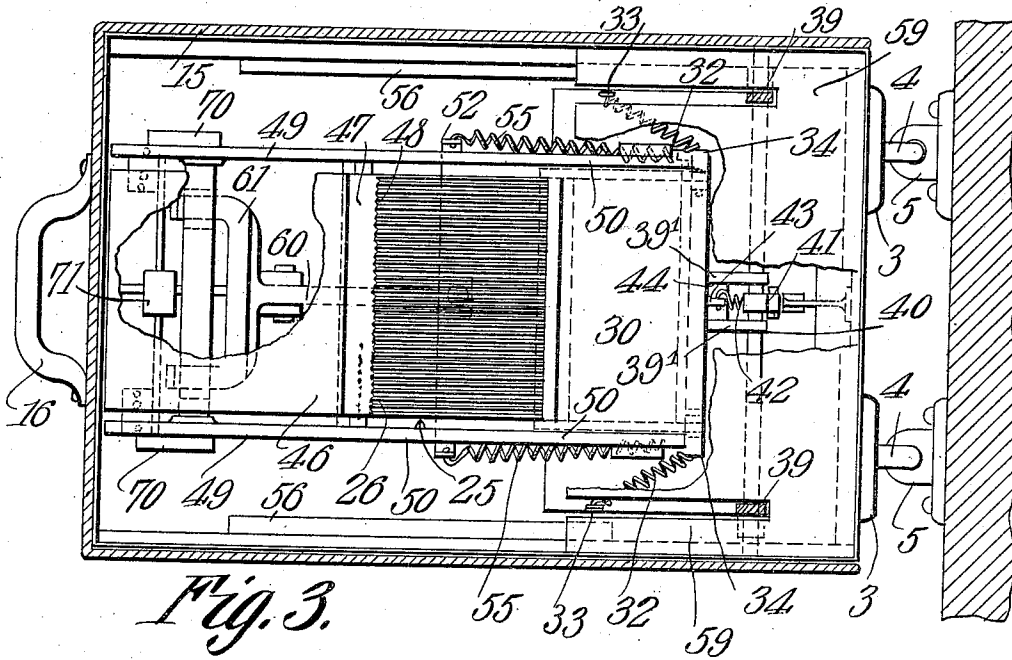
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

GEORGE LAWRENCE MAW, OF BUFFALO, NEW YORK.

COLLECTION-SAFE.

944,198.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed May 18, 1908. Serial No. 433,544.

To all whom it may concern:

Be it known that I, GEORGE L. MAW, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Collection-Safe, of which the following is a specification.

This invention relates to collection safes for use upon "pay-as-you-enter" cars and for similar purposes.

The principal object of the invention is to provide a device of this character designed to be placed at the point of entrance to a car or other structure and having means whereby coins, tickets, or the like can be readily dropped therinto and after once being deposited can not be removed except by a duly authorized person.

Another object is to provide means whereby the coin or ticket upon being deposited can be conveniently viewed by the conductor or other attendant to determine whether or not the same is of proper value.

Another object is to provide means operated by the conductor for shifting the coin or ticket from the point where it is deposited by the passenger so that it will drop into a receiving box provided therefor.

Another object is to provide means whereby the receiving box can only be removed from the apparatus after the same has been closed and locked.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a longitudinal section through the collection safe. Fig. 2 is a vertical transverse section, one half of said figure being taken on the line A—B, and the other half upon the line A—C, Fig. 1. Fig. 3 is a horizontal section through the top portion of the safe, portions of the apparatus being broken away. Fig. 4 is a side elevation of one of the locking pawls and the rack engaged thereby. Fig. 5 is a perspective view of a portion of the bottom slide of the intermediate compartment and one of its springs.

Referring to the figures by characters of reference, 1 designates the metal frame of the body or housing of the device, said frame being provided with a box-like metal cover-

ing 2 having brackets 3 thereon provided with tongues 4 designed to detachably engage supporting brackets 5 secured to a suitable supporting structure.

Arranged within the body is a combined guide and holding frame 6 in which is mounted a money box 7 preferably formed of metal and which is removable from said frame 1 in an upward direction. This money box 7 has guide cleats 8 arranged upon the top thereof at opposite sides of the inlet opening 9 and these cleats have their inner or adjoining faces grooved longitudinally as shown at 10 to receive a slidable closure 11. A spring lock 12 of any preferred construction is carried by this closure so that when the closure is drawn shut the lock will operate to automatically secure the same in closed position. A lug or ear 13 is arranged upon the closure 11 for the purpose hereinafter set forth, and a notch 14 is also formed in the upper face of the closure.

The top of the body is closed by means of a movable top section 15 having a handle 16 at its front end whereby it can be drawn longitudinally along the upper portions of the sides of the frame, said portions projecting above the cover 2 as indicated in Fig. 2. This top section has an opening 17 in the top thereof surrounded by a hopper 18 which is secured to the top section 15 and extends upwardly therefrom. This hopper has a reduced inlet opening 19 at the upper end thereof and extending inwardly from opposite walls of the hopper are upper and lower fixed baffle plates 20 and upper and lower hingedly mounted baffle plates 21. These hingedly mounted plates are so positioned that should the hopper be inverted the plates 21 will swing against the plates 20 and thus prevent any of the contents of the safe from passing outward through the inlet opening. Weights 22 are secured to the movable baffle plates to facilitate their operation when the device is inverted. Stops 23 are arranged beneath the baffles 21 for holding them normally at predetermined angles. Opposite walls of the hopper 18 are provided below the lower baffle plates with diaphanous plates 24 whereby the contents of the lower portion of the hopper can be readily viewed by the attendant.

Secured within the movable top portion 15 and directly below the opening 17 is a trough-like receiver 25 having walls at three sides thereof extending upwardly to the

walls of the opening 17. The bottom of this receiver is preferably grooved longitudinally as indicated at 26 and is so positioned that a coin or ticket resting thereon
5 can be easily seen through the plates 24.

A partition 27 extends downwardly from the rear or open end of the receiver 25 and is spaced from another parallel partition 28 arranged beyond the receiver 25, the two
10 partitions 27 and 28 forming therebetween an intermediate compartment 29 closed at the sides by continuations of the side walls of the receiver 25.

Slidably mounted upon the walls of the intermediate compartment 29 is a plate 30 having an inclined flange 31 at one edge thereof and positioned between the side walls of compartment 29, said flange being held normally pressed against the open end
20 of the receiver 25 by means of springs 32 fastened at opposite ends to ears 33 extending downwardly from the top section 15, and to ears 34 extending from the plate 30. Said flange when in its normal position constitutes a closure for the open end of the receiver 25, thus shutting off communication between said receiver and the intermediate
25 compartment 29.

Brackets 39 extend from relatively fixed parts of the movable top section 15 and additional brackets 39' extend from the partition 28; these brackets support a shaft 40 provided adjacent its center with a hooked finger 41 normally held in engagement with
35 the lug 13 by means of a spring 42 which is secured at its ends to the finger 41 and to an ear 43 extending from the partition 28. A bracket 44 is also carried by partition 28 and has a spring pressed locking bolt 45 therein normally bearing on the closure 11 and designed, when the closure is open, to be seated in the notch or recess 14 as shown in Fig. 1.

Slidably mounted within the movable top portion 15 and above the front end wall of the receiver 25 is a push plate 46 having an inclined flange 47 at one edge and disposed within the receiver 25, the lower edge of said flange being toothed or serrated so as to
50 fit snugly upon the longitudinally grooved bottom of the receiver 25. These teeth or serrations have been indicated at 48 in Fig. 3. Side frames 49 are secured to the side or longitudinal edges of the plate 46 and extend at opposite sides of and below the receiver 25, each side frame having an arm 50 extending rearwardly and normally bearing against one of the ears 34 of the plate 30. Longitudinally slotted lower arms 51
60 also extend rearwardly from these side frames and moving within the slots are ears 52 extending laterally from the sides of a bottom plate 53 which is mounted in grooves 54 in the side walls of the compartment 29. Springs 55 are fastened to the ears 52 and

also to the sides of the compartment 29 and these springs serve to automatically move the plate 53 to closed position when the plate 46 and the side arms 49 are moved rearwardly in the manner hereinafter set forth. Suitably supported within the movable top portion 15 and at the sides of the sliding members 46 and 49 are guide cleats 56 arranged in the path of tripping fingers 57 which are secured to the shaft 40. A stop plate or buffer 58 is secured to the rear portion of the covering 2 and in the path of the hooked finger 41, and constitutes means for positively swinging said finger downwardly when the top portion 15 is slid into normal or closed position. A plate 59 is hingedly connected to the rear wall of the body of the device and extends under the movable top portion 15, said plate 59 being utilized for the purpose hereinafter set forth. A rack 35 is secured to the lower surface of the plate 59 and is designed to be engaged by a pawl 36 having an integral weighted arm 37 normally supported by means of a stop lug 38 so as to maintain the pawl 36 normally out of engagement with the rack bar thereabove. The pawl is designed, should the device be inverted or upset, to automatically move into engagement with the rack and thus lock the movable top portion 15 against longitudinal movement relative to the plate 59.

A bell crank lever 60 is mounted within the body portion of the device and has a forked end 61 slotted longitudinally as at 62 to movably engage ears 63 extending downwardly from the slidable frame formed by the members 49 and the plate 46. The other end of the bell crank lever has a rod 64 extending downwardly therefrom and into a tubular pedestal 65 extending downward from the body portion of the device and having its lower end mounted within a suitable fixed structure such as the floor of a car. The lower portion of this pedestal is slotted longitudinally as indicated at 66 to receive a treadle or foot plate 67 extending from a slide 68 mounted within the pedestal. This slide is pivotally connected to the rod 64 and a spring 69 is arranged within the pedestal and designed to yieldingly support the rod 64 and the foot plate.

Rack bars 69' are secured to the movable top portion 15 and move therewith and arranged below each of these rack bars is a pawl 70 having a weighted arm 71 which serves to hold the pawl normally out of engagement with the rack thereabove. If, however, the apparatus should be upset or inverted in any other way these pawls will operate to automatically lock the slide 49 against movement.

It is to be understood that the movable top section 15 can be slid forward after the manner of a drawer and as this forward

movement continues the finger 41 will draw the slidable closure 11 into position over the top of the money box 7, whereupon said closure will be automatically fastened by the lock 12. As soon as this fastening operation occurs the top of the movable section 15 passes off of the guard plate 59 and said plate can be swung upward on its hinge 59' so that access can thus be readily had to the mechanism in the rear portion of the top. As soon as the closure has been locked by the outward movement of the top section 15 the fingers 57 will ride onto the cleats 56 so as to cause finger 41 to swing outward out of engagement with the lug 13. The operator can then reach into the body portion of the device and lift the money box therefrom. Inasmuch, however, as the closure of this box is securely locked it will be apparent that the operator can not obtain access to the interior of the box unless provided with the necessary key or combination.

When it is desired to reset the apparatus an empty box with an elongated closure is placed in the body portion and the plate 59 is swung into a horizontal position. The top portion 15 is then slid backward carrying the hopper 18 therewith and the partition 28 will strike against the closure 11 and push it backward. Shortly after this backward movement of the parts begins the fingers 57 leave the cleats 56 and the finger 41 is thus swung downward by spring 42 into position back of the lug 13. If for any reason the spring should not properly work the plate 58 will operate to positively force the finger 41 downwardly. It is of course to be understood that when the top portion 15 is moving forward or backward as during the foregoing operations the forked end of the bell crank lever 60 will become disengaged from or engaged with the ears on the slidable members 49. After the movable top portion has been pushed backward as far as it will go the apparatus is in condition for use, all of the parts being positioned as indicated in Fig. 1.

When a coin or ticket is deposited in the inlet opening 19 of the hopper it will fall downward by gravity onto the various baffle plates and will finally drop onto the grooved bottom of the receiver 25. The attendant, by glancing through either of the plates 24 can quickly determine whether or not a coin or ticket of the proper value has been deposited, and if the same is satisfactory the foot plate 67 is depressed, thus pulling on the bell crank lever 60 and causing the forked end thereof to shift the slidable members 49 longitudinally within the top portion 15. The arms 50 will thus abut against the ears 34 and push the plate 30 rearwardly against the stress of its springs 33, thus forcing the flange 31 away from the

outlet end of the receiver 25. At the same time the tensioned springs 55 will operate to slide the bottom plate 53 so as to close the bottom of compartment 29, this being permissible in view of the fact that the arm 50 is slotted and moves with the members 49. During the foregoing operation the flange 47 of the push plate 46 slides over the bottom of the receiver 25 and pushes the coin or ticket into the compartment 29 onto the bottom plate 53. As soon as this operation has been effected the attendant releases the plate 67, whereupon the tensioned spring 69 will return all of the parts to their initial positions. In other words, the flange 31 will close the open end of the receiver 25 and the plate 53 will be withdrawn from under the compartment 29. The return of the plate 30 is effected by the springs 32. It will be apparent that when the bottom of the intermediate compartment 29 is open, the coin or ticket therein will drop through the open top of the box 7 and into said box. Should the safe be upset while the parts are in this position the pawls 36 and 70 will operate to automatically lock the plates 30 and 46 so that there will be no danger of any of the working parts operating so as to release the contents of the box 7.

When it is desired to remove the box 7 and its contents the operation heretofore described is repeated. The bolt 45 is utilized as an auxiliary means for shifting the closure 11 if for any reason the finger 41 should not properly engage the ear 13.

It is of course to be understood that any suitable lock may be provided for securing the movable top portion 15 in normal position. The key or combination of this lock will be in the possession of the attendant.

It will be obvious that a device of this character constitutes an efficient means for receiving fares, etc., and the same is particularly desirable in view of the fact that although the attendant can remove the filled money boxes and replace them with empty ones he can not open the boxes after they have once been placed in the machine.

Importance is attached to the provision of the grooves 26 in the bottom of the receiver 25 and the toothed flange 47 cooperating therewith because it thus becomes impossible for the pushing flange 47 to ride over a ticket or coin deposited within the receiver.

What is claimed is:

1. A collection safe comprising a relatively fixed housing, a slidable closure movably mounted thereon, a money box within the housing, a closure therefor, said closures being movable in parallel planes, and means operated by the opening of the housing and separate from said closure for automatically closing and locking the money box.

2. A collection safe comprising a relatively

fixed housing, a slidable closure therefor, a money box removably mounted within the housing and separate from said closure, and means operated by the opening of the closure for closing and locking the money box.

3. A collection safe comprising a relatively fixed housing, a slidable closure therefor, a money box removably mounted within the housing and separate from the closure, a closure operated by the opening of the first mentioned closure for closing and locking the money box, and means for preventing access to the money box prior to the closing thereof.

4. A collection safe comprising a relatively fixed housing, a slidable closure therefor having an inlet opening, said closure constituting the top of the housing, a money box removably mounted within the housing and below the inlet, a slidable closure therefor, the closure being movable along parallel lines, means operated by the opening of the housing for closing and automatically locking the closure of the money box, and means for preventing access to the money box prior to the locking of its closure.

5. A collection safe comprising a relatively fixed housing, a money box removably mounted therein, a slidable closure for the housing and constituting the top of the housing, means carried by the closure for directing an object through the closure and into the money box, and a slidable closure operated by the movement of the first mentioned closure for closing and locking the money box, the two closures being movable along straight parallel lines.

6. A collection safe comprising a relatively fixed housing, a slidable closure therefor and constituting the top of the housing, said closure having an inlet opening therein, a money box removably mounted within the housing and below said opening, a slidable closure for the money box, mechanism operated by the opening of the housing closure for closing the closure of the money box, and means for automatically releasing said mechanism from the closure of the money box at a predetermined point during the movement of the parts.

7. A collection safe comprising a housing, a slidable closure therefor, a money box, a slidable closure thereon, means for automatically locking said closure in closed position, a finger carried by the closure of the housing and normally engaging the closure of the money box, said engaging means operating to shift the closure of the money box into closed position during the opening of the housing, and means for disengaging the finger from the closure engaged thereby at a predetermined point during the movement of the parts.

8. A collection safe comprising a housing,

a money box therein, a closure for the money box, means for automatically locking the closure when moved to one position, a shiftable closure engaging finger movably mounted relatively to the housing, a tripping finger movable therewith, and means in the path of the finger for actuating the same to disengage the closure, when locked, from its actuating means.

9. A collection safe comprising a housing, a money box removably mounted therein, a closure slidably mounted upon said box, means for automatically locking the closure when shut, means movable relatively to the housing for detachably engaging and actuating said closure, a tripping finger movable with said means, and means in the path of the finger for actuating the same to release the closure simultaneously with the locking thereof.

10. A collection safe comprising a housing, a money box therein, a slidable closure for the money box, means for automatically locking said closure when shut, a closure engaging finger shiftable relatively to the housing, yieldable means for holding said finger normally in engagement with the closure, a tripping device movable with said finger, and means in the path of said device for actuating the same to disengage the finger from the closure.

11. A collection safe comprising a housing, a money box therein, a slidable closure upon the money box, means for automatically locking said closure when shut, a slidable top portion upon the housing, spring controlled closure engaging means carried by said portion, and means for automatically disengaging said means from the closure when the closure is shut.

12. A collection safe comprising a housing, a money box therein, a slidable closure upon the money box, means for automatically locking the closure when shut, a slidable top portion upon the housing, spring controlled means carried thereby for engaging and shutting the closure, a tripping device carried by said means, fixed means in the path of said device for releasing the closure when shut.

13. A collection safe comprising a housing, a money box therein, a closure upon the money box, means for automatically locking the closure when shut, a movable top portion upon the housing, means carried thereby for engaging and shutting the closure, and means for disengaging the closure from its shutting means when locked.

14. A collection safe comprising a housing, a money box movably mounted therein, a closure upon the money box, means for automatically locking the closure when shut, a top portion upon the housing movable a predetermined distance to expose and per-

mit the removal of the money box, and means operated by the movement of said portion to such position to shut the closure.

5 15. A collection safe comprising a housing, a money box removably mounted therein, a closure therefor, means for automatically locking the closure when shut, a top portion upon the housing disposed to be moved into position to expose and permit
10 the removal of the money box, spring controlled means carried by said movable portion for engaging and shutting the closure, and means hingedly connected to the housing for guarding the money box prior to
15 the locking of the closure.

16. A collection safe comprising a hous-

ing, a movable top portion thereon, a money box within the housing, a closure therefor, said movable top portion being shiftable against the closure to open the same, means
20 carried by the movable portion for engaging the closure to shut the same, when said portion is moved in one direction, and means for automatically locking the closure when shut.

25 In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE LAWRENCE MAW.

Witnesses:

ALFRED C. MAW,

JOHN J. COTTRILL.