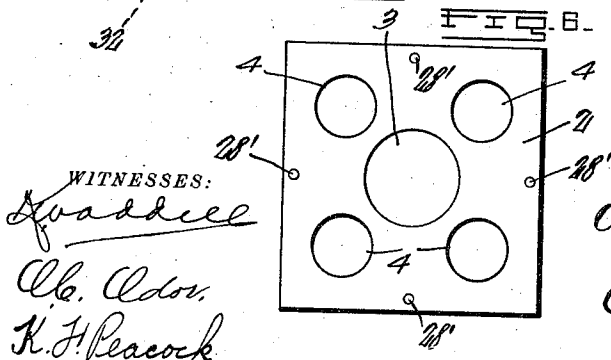
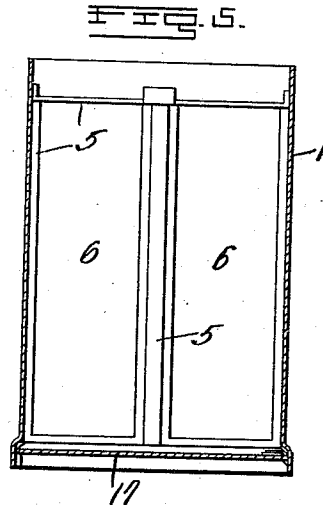
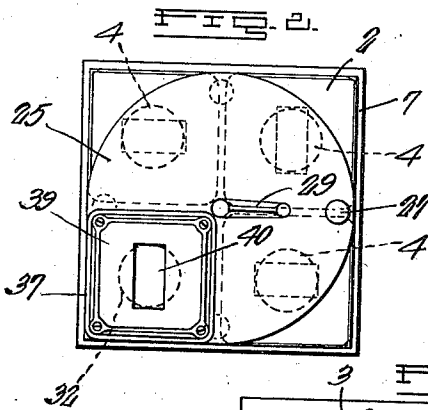
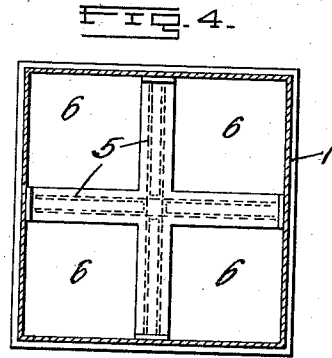
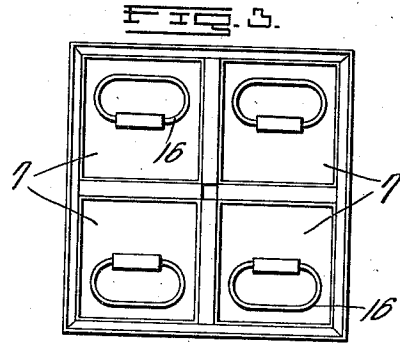
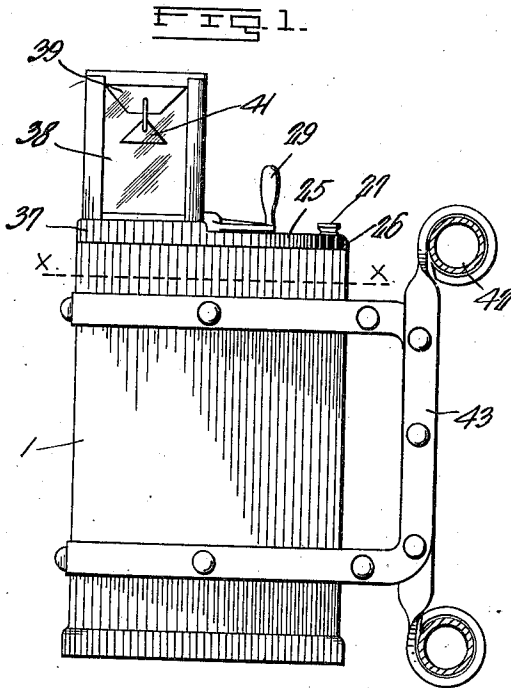


C. H. WOODS.
FARE COLLECTING APPARATUS.
APPLICATION FILED JULY 20, 1912.

1,062,134.

Patented May 20, 1913.

2 SHEETS-SHEET 1.



WITNESSES:
W. H. Wood
Ch. C. C. C.
K. H. Peacock

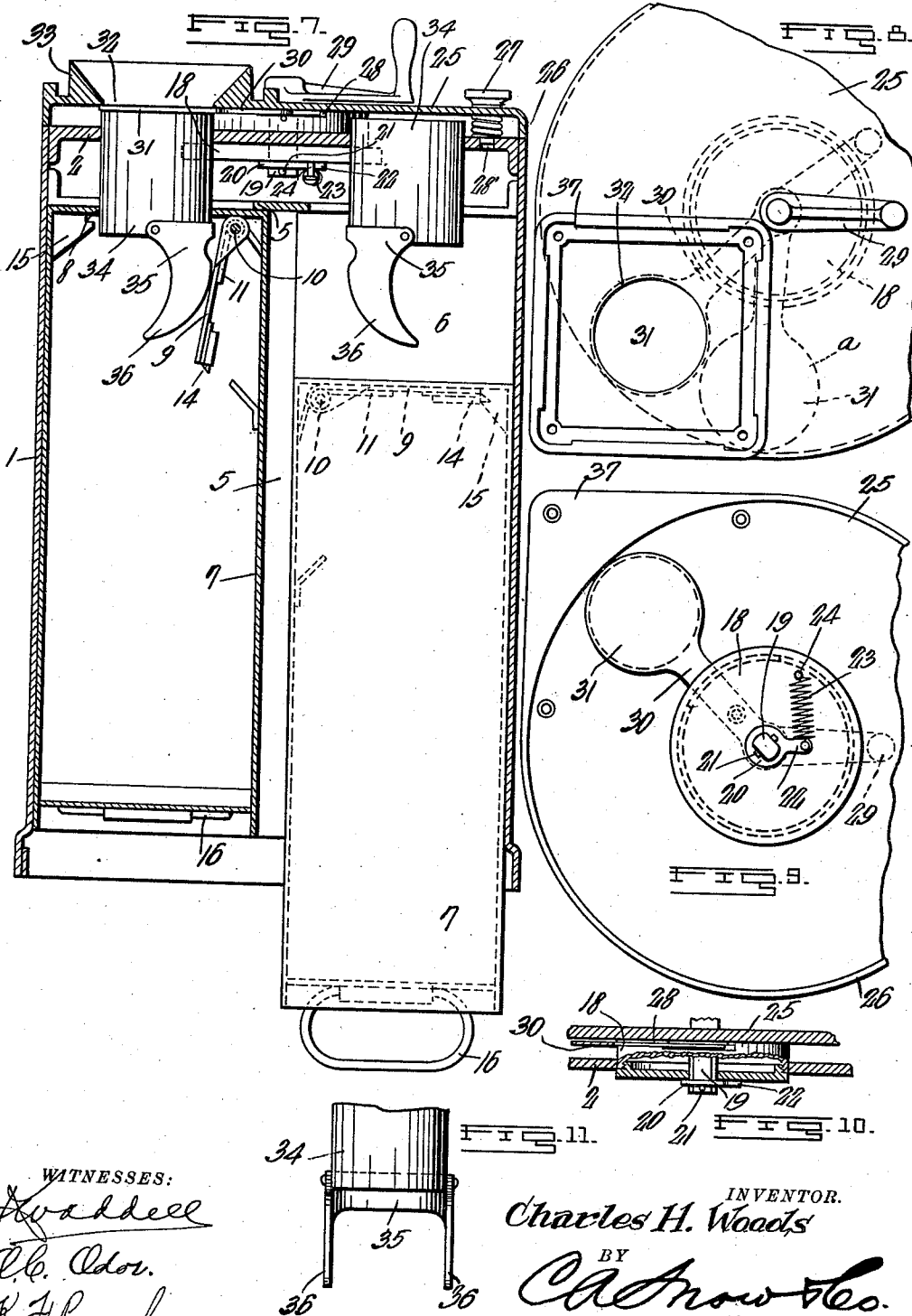
INVENTOR.
Charles H. Woods
BY
Ch. H. Wood
ATTORNEY.

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2 SHEETS—SHEET 2.



WITNESSES:
Waddeell
C. C. Odor.
H. J. Peacock

INVENTOR.
Charles H. Woods
BY
C. A. Snow & Co.
ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES H. WOODS, OF DECATUR, ILLINOIS.

FARE-COLLECTING APPARATUS.

1,062,134.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed July 20, 1912. Serial No. 710,674.

To all whom it may concern:

Be it known that I, CHARLES H. WOODS, citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Fare-Collecting Apparatus, of which the following is a specification.

The invention relates to fare collecting apparatus primarily designed for use upon pay-within and pay-as-you-enter cars; although the same can also be employed at any other places where coins or tickets are to be collected.

One of the objects of the invention is to provide a durable and compact apparatus of this character utilizing separate tills or fare boxes whereby separate ones can be used by different persons having charge of the apparatus and the method of checking the conductors or other attendants and of auditing the receipts, being, as a result, greatly simplified.

A further object is to provide tills or fare boxes which can be separately removed and which will automatically close and lock while being withdrawn from their housing.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of the apparatus and showing the means employed for mounting it upon a supporting structure. Fig. 2 is a plan view of the apparatus, the supporting bracket being removed. Fig. 3 is a bottom plan view of the apparatus with the bottom closure removed to show the lower ends of the respective tills or fare boxes. Fig. 4 is a section on line X—X Fig. 1. Fig. 5 is a view of the main housing of the apparatus with the near side cut-away and the tills or fare boxes removed. Fig. 6 is a plan view of the fixed top member of the housing. Fig. 7 is a transverse section through the apparatus, one of the tills being shown in

section and open to receive fares and another till being shown in elevation and partly removed, the fare receiver being removed from the top of the housing and the bottom closure of said housing being removed. Fig. 8 is a plan view of a portion of the revoluble top member of the apparatus, the positions of the shutter being indicated by dotted lines. Fig. 9 is a bottom plan view of the structure shown in Fig. 8. Fig. 10 is a view partly in section and partly in elevation through a portion of the structure shown in Fig. 9 and showing the means employed for mounting the revoluble top upon the fixed top. Fig. 11 is an elevation of one of the conveying tubes and the fingers connected thereto.

Referring to the figures by characters of reference 1 designates the main housing or casing preferably rectangular although it is to be understood that the same may be of any other desired contour. The upper end of this housing is closed by a plate 2 which, in the present instance, has a large central circular opening 3 and four smaller openings 4 equidistant from the opening 3 and interposed between said opening and the corners of the plate 2. A frame 5 made up of crossed members is located in the housing 1 and serves to divide it into four separate compartments 6, each of which is adapted to receive a till or fare box 7, the top of which is formed with an opening 8. A closure 9 is arranged within the till and is hingedly connected thereto close to the top as shown at 10 and has a spring 11 whereby the closure is held normally shut. This closure is provided with a spring lock 14 adapted to engage a keeper 15 located in the till. Thus it will be seen that the till is normally closed and, if the closure is in open position, the spring 11 tends to shift it back to closed position so as to cause the lock 14 to automatically engage the keeper 15. The bottom of the till or fare box 7 is provided with a bail-like handle 16 adapted to swing thereagainst and when the till or farebox is in its normal or innermost position within the housing 1, it is adapted to be retained within the housing by means of a removable closure 17 such as shown in Fig. 5.

The large central opening 3 in the plate 2 is adapted to receive a circular boss or extension 18 through which extends a shaft

19 preferably provided with one or more flattened faces and which is adapted to rotate within the boss. A washer 20 is mounted upon the lower end portion of the shaft 19 and is adapted to rotate therewith, said washer being held in position preferably by means of a pin 21 extending transversely through the shaft. An arm 22 extends radially from the washer and is connected, by means of a coiled spring 23, to a pin 24 extending from the boss 18.

The boss 18 extends downwardly from the lower face of a revoluble top plate 25 having a marginal flange 26 which bears downwardly on the upper end of the housing 1. A spring pressed holding pin 27 is slidably mounted in the plate 25 and is adapted to be seated in any one of a series of openings 28' formed in the fixed plate 2. A slot 28 extends into the boss and the shaft 19 extends across this slot and upwardly through the plate 25, the upper end of the shaft being preferably provided with a crank arm 29 whereby the shaft can be rotated readily. Arranged within the slot 28 and secured to the shaft 19 is the arm 30 of a shutter 31, said shutter and its arm being preferably formed of a thin sheet of metal and the shutter being substantially circular and being normally held by spring 23 in position under an inlet opening 32 which is formed in the plate 25 and is surrounded by an upstanding flange 33 the surfaces of which converge downwardly toward the opening as shown particularly in Fig. 7.

From the foregoing description it will be apparent that the revoluble top plate 25 can be adjusted angularly about the central axis of the boss 18 so as to bring the opening 32 above any one of the openings 4 and, as each of these openings 4 is located above one of the compartments 6, it will thus be seen that opening 32 can be brought into position above any one of the compartments 6 and any one of the tills located in the compartments. Furthermore the spring pressed pin 27, by projecting into the adjacent opening 28' will hold the revoluble plate 25 against movement after it has been properly adjusted. As the shutter 31 is connected to the top plate 25 it will be adjusted therewith and will maintain the opening 32 normally closed. When, however, it is desired to shift the shutter away from the opening, it is merely necessary to rotate the shaft 19 by means of crank 29 and thus cause arm 22 to pull on the spring 23. At the same time the shutter will be shifted away from under the opening 32, as indicated by dotted lines at *a* in Fig. 8. Secured within each of the openings 4 and projecting upwardly therefrom so as to lie close to the plane of movement of the shutter 31 are conveying tubes 34, these tubes extending downwardly into the upper portions of the compart-

ments 6 and having yokes 35 embracing and secured to the lower ends thereof and provided with depending curved fingers 36.

The revoluble top plate 25 has an arcuate periphery extending through approximately 270 degrees and merging into a rectangular extension 37 in which the opening 32 is formed. The fare receiver is adapted to be secured upon this angular extension and is made up of walls including transparent portions 38 preferably of glass, said walls supporting a trough-like top member 39 in which an angular opening 40 is formed. A deflector 41 is suspended below the opening 40 and constitutes a guard to prevent the removal of coins or tickets upwardly through the opening 40. This deflector also prevents the contents of the receiver from escaping through the opening 40 should the receiver be inverted.

The apparatus may be connected to rails 42 or any other supporting structure by means of angular brackets 43 or the like riveted or otherwise secured to the housing as shown in Fig. 1. If the fare collecting apparatus is to be used upon a car to be placed in charge of four different conductors successively, a structure such as has been illustrated and which utilizes four tills or fare boxes is employed. The closures 9 of the tills are unlocked and said tills are inserted longitudinally into the compartments 6 so that the unlocked closures will be brought against the depending fingers 36 and pushed downwardly to open position where they will be held back from under the conveying tubes 34. The tills are then secured within the housing by means of the bottom closure 17. One of these tills is assigned to each conductor and, after the receiver has been mounted on the top plate 25, the pin 27 is lifted out of engagement with the fixed plate 2 and the plate 25 is adjusted angularly until the opening 32 is brought into position above the till to be used. During this adjustment the shutter 31 is of course held in closed position by means of the spring 23. When a fare is deposited in the receiver it will gravitate to the opening 32 and onto the shutter 31 and when the shaft 19 is rotated by means of the crank arm 29, the shutter will be swung from under the opening 32 and the deposited fare will thus be caused to gravitate through the conveying tube thereunder and into the till to which said tube leads. As soon as the crank arm 29 is released, the spring 23 returns the shutter to its normal or closed position. When the first conductor completes his work, he can open the bottom of the housing 1 and pull downwardly on the till in which the fares have been collected. As the till is withdrawn the closure 9 is swung to closed position by its spring 11 until lock 14 auto-

5 matically engages the keeper 15. Thus the
till becomes automatically closed and its
contents cannot be reached except by a per-
son having the necessary key. The second
conductor to use the apparatus then ad-
justs the top plate 25 angularly so as to
bring the opening 32 into register with an-
other one of the conveying tubes so that all
fares collected while he is in charge of the
car will be deposited in another till. Thus,
obviously, this operation can be continued
until all of the tills have been filled. The
successive positions assumed by the revol-
uble plate 25 with reference to the openings 4
have been indicated by dotted lines in Fig. 2.

15 It will be apparent that by providing a
fare collecting apparatus utilizing a plu-
rality of tills or fare boxes adapted to be
used successively so that the several con-
ductors or attendants can have individual
boxes, an efficient check can be kept upon the
conductors and the receipts can be more
easily audited than otherwise.

25 While as hereinbefore stated, the device is
primarily designed for use upon street cars,
it will be obvious that the same can be used
wherever it is desired to collect fares, admis-
sion tickets and the like.

30 While the apparatus has been shown pro-
vided with four compartments and a till for
each compartment, it is to be understood that
the number of compartments and tills used
can be increased or diminished as desired.

What is claimed is:—

35 1. The combination with a main housing,
of a plurality of tills within the housing,
each till having a closure at its upper end,
fixed fare conveying members projecting
and discharging into the respective tills and
constituting means for holding the till clo-
sures open and extended downwardly into
the tills, said tills being removable down-
wardly from the housing to withdraw from
the conveying means therein, means for au-
tomatically shutting the closures when the
tills are removed, and means for automati-
cally locking the closures when shut.

50 2. The combination with a main housing,
of a plurality of tills within the housing,
each till having a closure at its upper end,
fixed fare conveying members projecting
and discharging into the respective tills and
constituting means for holding the till closures
open and extended downwardly into the
tills, said tills being removable downwardly
from the housing to withdraw them from
the conveying means therein, means for au-

tomatically shutting the closures when the
tills are removed, means for automatically
locking the closures when shut, and a re-
ceiver adjustable angularly on the housing
for directing fares into any one of the con-
veying members.

3. The combination with a housing, and
conveyers fixedly mounted therein, of tills
mounted in the housing for receiving in the
upper ends thereof the respective conveyers,
fingers extending from the conveyers, clo-
sures upon the tills and adapted to be held
open by the fingers, said closures, when
open, projecting downwardly into the tills,
a top plate mounted for rotation on the hous-
ing and having an aperture adapted to reg-
ister with any one of the conveyers, a re-
ceiver movable with the top plate for direct-
ing fares into the aperture, and cooperating
means upon the top plate and the housing
for holding said plate in adjusted position.

4. The combination with a housing having
separate compartments therein and a till
removably mounted in each compartment, of
a fixed top plate having a central opening,
there being additional openings in said plate
and above the respective compartments, a
revoluble top plate, a boss thereon mounted
for rotation within the central opening,
there being an aperture in the top plate, a
shutter normally closing the aperture, means
mounted within the boss for shifting the
shutter out of normal position, means for
automatically returning the shutter to nor-
mal position.

5. The combination with a housing hav-
ing separate compartments therein and a till
removably mounted in each compartment, of
a plate having a central opening, there
being additional openings in said plate and
above the respective compartments, a rev-
oluble plate, a boss on the revoluble plate
and mounted for rotation in said central
opening, there being an aperture in the rev-
oluble plate, a shutter normally closing the
aperture in the revoluble plate, and cooper-
ating means upon the two plates for holding
the revoluble plate in adjusted position, the
aperture in the revoluble plate being adapt-
ed to register with any one of the openings
above the compartments.

In testimony whereof I affix my signature
in presence of two witnesses.

CHARLES H. WOODS.

Witnesses:

LEOLA PETTUS,
GEO. C. FERRIS.