

J. M. BAKER.

TOLL BOX.

APPLICATION FILED APR. 25, 1908.

912,776.

Patented Feb. 16, 1909.

3 SHEETS—SHEET 1.

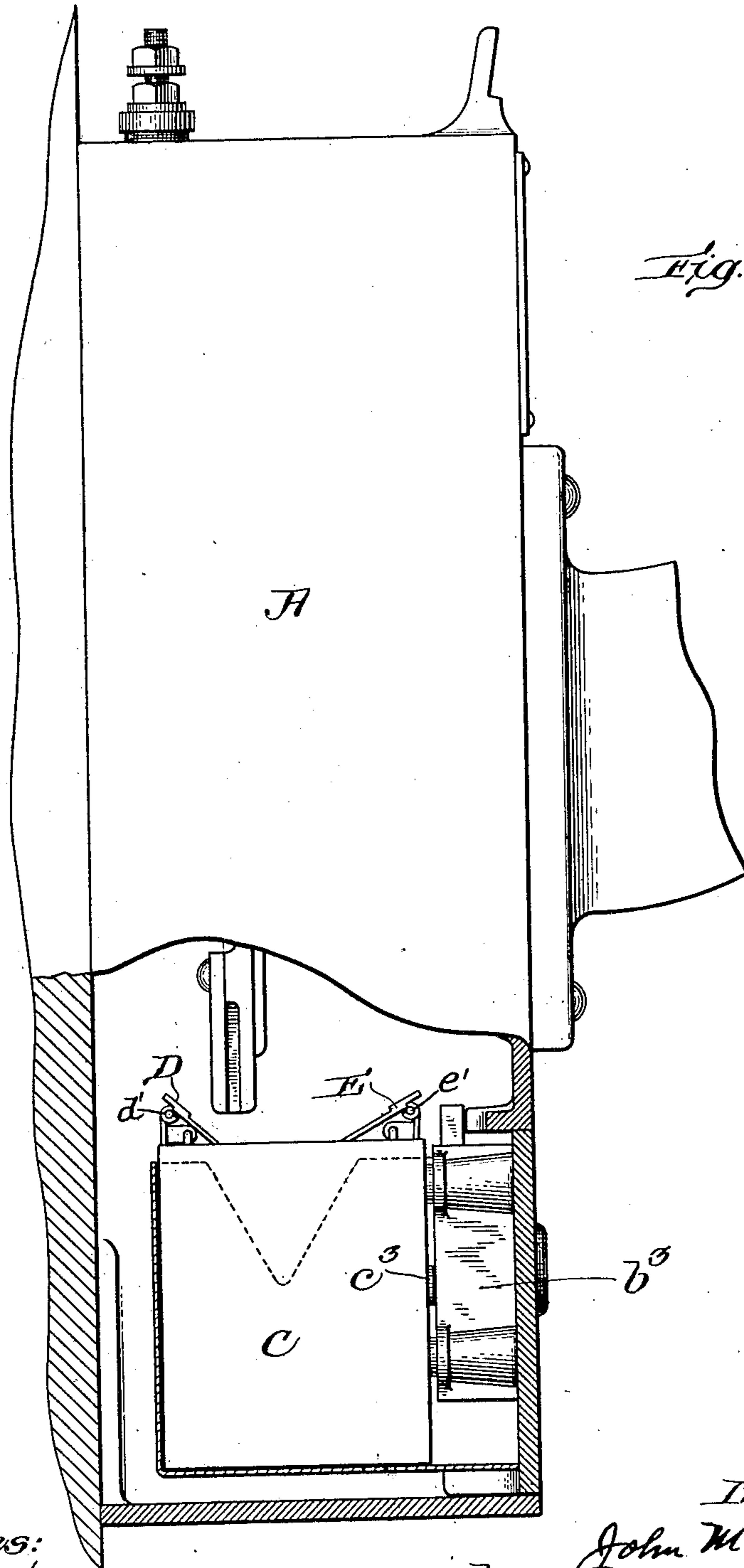


Fig. 1.

Witnesses:  
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Josephine H. Ryan

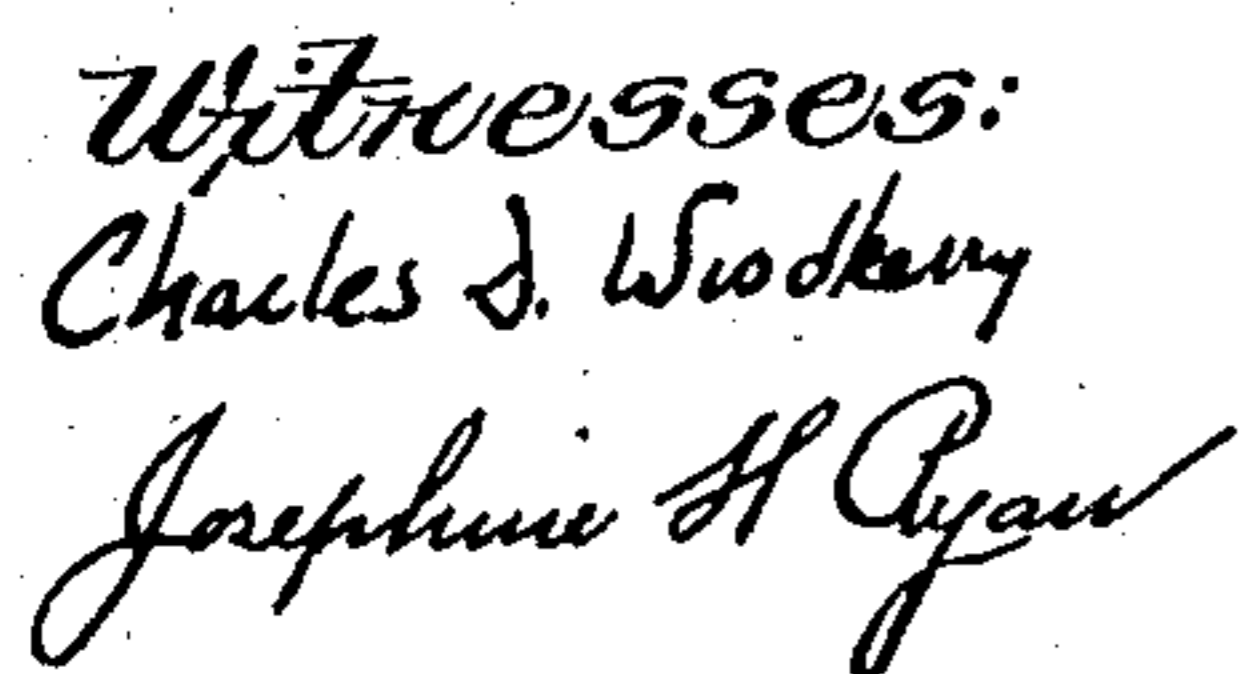
Inventor:  
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Attys

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3 SHEETS—SHEET 2.

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3 SHEETS—SHEET 3.

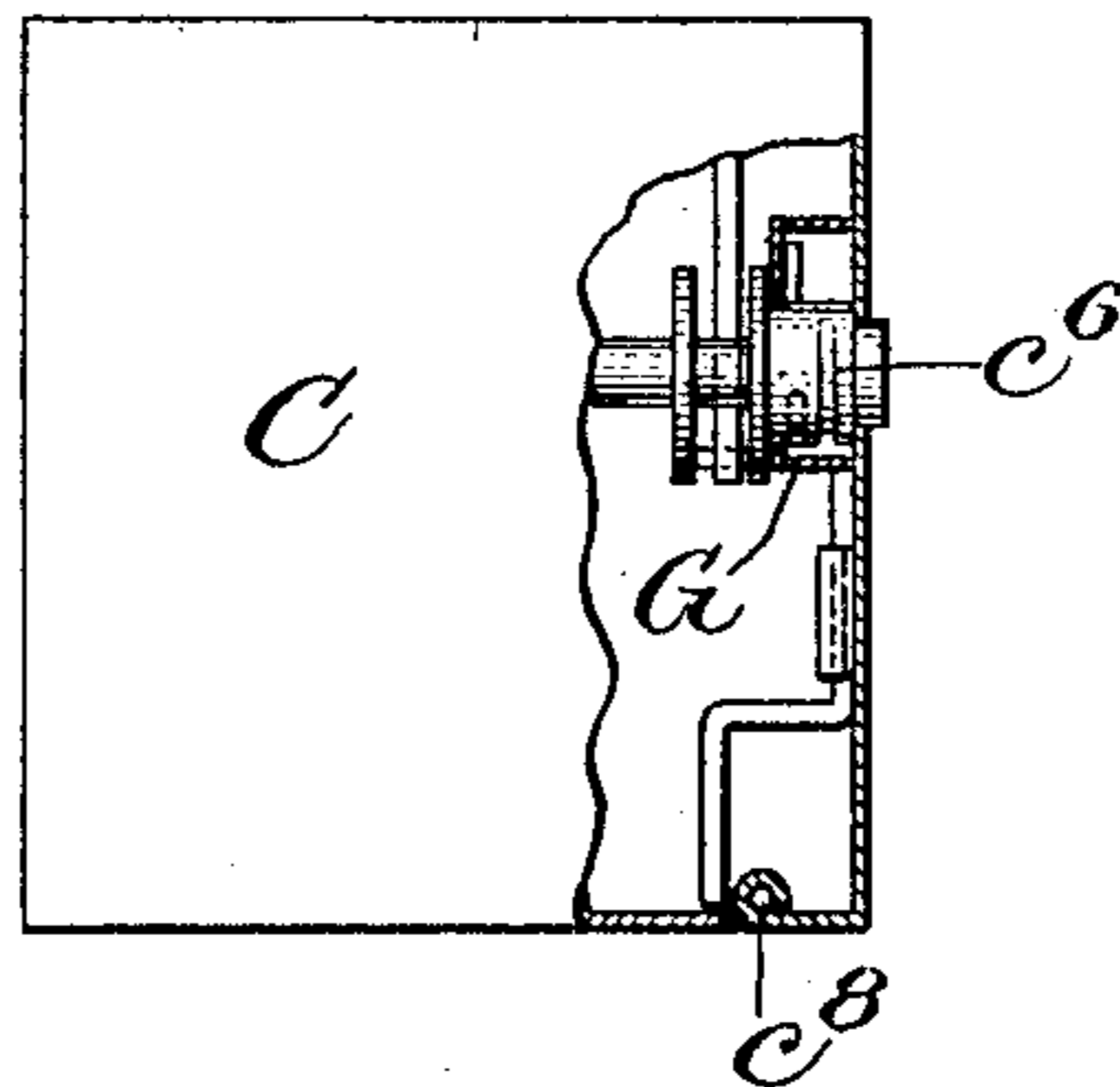
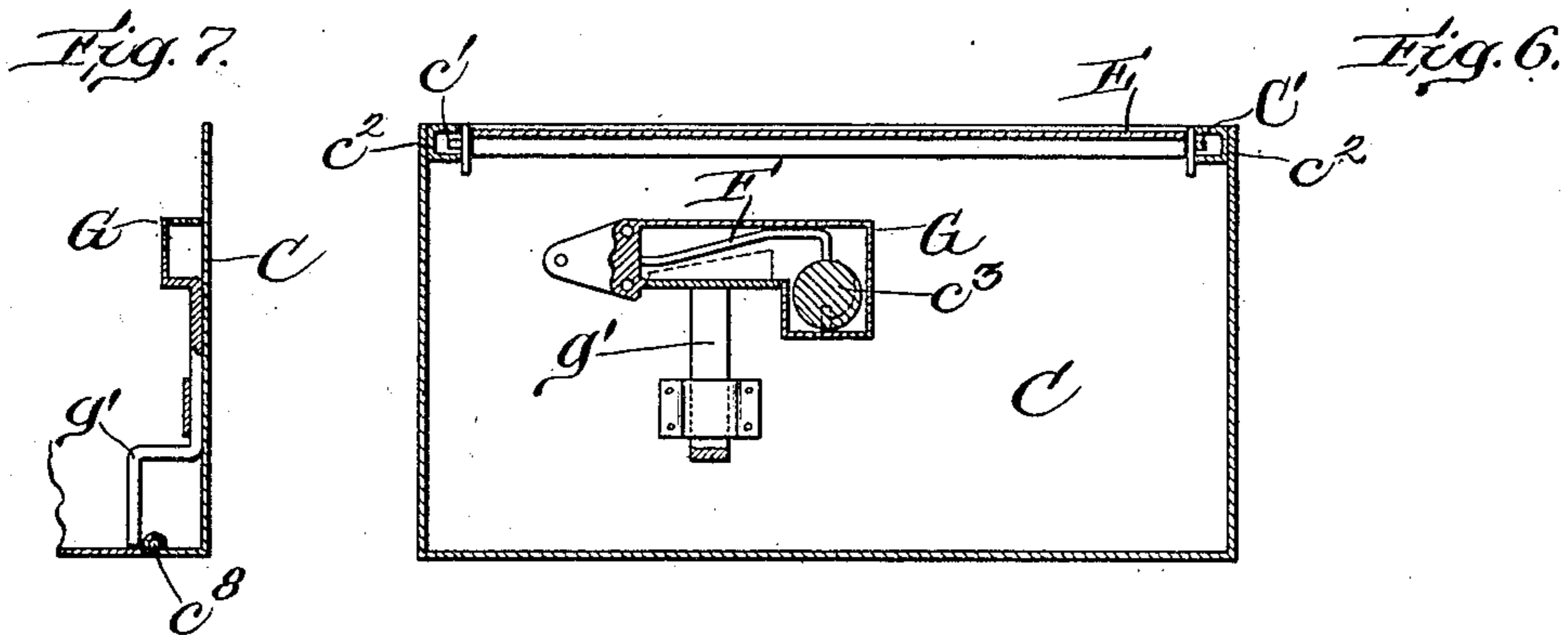


Fig. 8.

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# UNITED STATES PATENT OFFICE.

JOHN M. BAKER, OF SAUGUS, MASSACHUSETTS.

## TOLL-BOX.

No. 912,776.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed April 25, 1908. Serial No. 429,176.

*To all whom it may concern:*

Be it known that I, JOHN M. BAKER, a citizen of the United States, and resident of Saugus, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Toll-Boxes, of which the following is a specification.

My invention relates to toll boxes, such for example, as are used at telephone pay stations and similar places and which ordinarily comprise a box or casing provided with a removable coin-receiving receptacle or till, locked within the casing.

In practice, it is usual for an employee to remove at regular intervals the money deposited in the tills in use at toll stations in a given district, and replace the tills. It is the further duty of this employee to deliver the tolls thus collected to an official whose duty it is to receive the money.

It is the object of this invention to obviate or lessen the opportunity for speculation and to this end to provide in a toll box of the class described a removable till the contents of which cannot be tampered with unless the till is wholly or partially destroyed; and more specifically, to provide a till, the lid of which is unlocked by the act of locking it within the toll box, locked by the act of unlocking the toll box preparatory to removing the till, and which cannot be removed from the toll box without total or partial destruction, unless and until its lid is securely locked.

Referring to the drawings which illustrate an embodiment of my invention: Figure 1 shows, partly in section and partly in elevation, my improved till within a toll box; Fig. 2 is a perspective view of a toll box drawer; Fig. 3 is a perspective view; and Figs. 4, 5, 6, 7 and 8 are sectional views, of my improved till; Figs. 9 and 10 show details of construction; Fig. 11 is a view of a sealing tack; and Fig. 12 shows a key.

A is a toll box having a removable drawer B which constitutes the till receptacle and is provided with a suitable front  $b^2$  which serves as a cover for the aperture in the toll-box. Secured to the drawer and front  $b^2$  is a lock  $b^3$  having a key-way  $b^4$  extending through it. C is a till adapted to fit into said drawer, and having a lid made in two sections D and E provided with projecting pins  $c'$  fitting within the guides  $c^2$ . The lid D is hinged at  $d'$  and  $d^2$  and the lid E is hinged at  $e'$ ,  $e^2$  and said lids are respectively provided with arms  $d^3$ ,

$e^3$ , extending at right angles to said lids. Within said till is a shaft  $c^3$  having an end extending through a side of said till and provided with a key recess  $c^4$  adapted to register with the key-way  $b^4$  in the lock  $b^3$ . Near each end of said shaft  $c^3$ , is a pair of disks  $c^5$ , a disk of one pair being connected by the crank  $d^4$  with the arm  $d^3$ , and a disk of the other pair being connected by the crank  $e^4$  with the arm  $e^3$ . Upon the shaft  $c^3$  near that end which contains the key recess  $c^4$ , there is provided a circumferential groove  $c^6$  extending part way around said shaft adjacent to which there is a hole  $c^7$  (best shown in Fig. 10.). Within said till there is a spring or catch F having one end secured to a wall of said till and the other adapted to rest in said groove  $c^6$ , or to engage with the hole  $c^7$ , according to the circumstances presently to be described. The bottom of said till C is provided with a door hinged at  $c^8$  which is held in closed position by a sealing device such, for example, as is shown in Figs. 4 and 5. This device comprises a soft headed tack (Fig. 11) having three prongs and adapted to be passed through an opening in the outer wall of the till, the outer prongs being upset against the wall,  $c^9$  and the central prong passing through an opening in the said wall and an opening registering therewith in the wall  $c^{10}$ .

The catch F and that portion of the shaft  $c^3$  which is provided with the groove  $c^6$ , are inclosed in a casing G. This casing is provided upon its under side with a cover which is held in position by a rod  $g'$  having one end resting against said cover and the other against the drawer at the bottom of the till. When said drawer is swung open on the hinge  $c^8$ , the rod  $g'$  may be drawn down, thus removing said cover and permitting access from below to the catch F, by means of any suitable slender instrument.

In operation the official in charge of the tills opens the drawer at the bottom of the till, the lids D and E being closed. The rod  $g'$  is drawn down, thus removing the cover in the bottom of the casing G and giving access to the catch F, which, by a suitable instrument, is forced into the groove  $c^6$  as shown in Fig. 4: The drawer at the bottom of the till is then closed upon its hinge  $c^8$  which forces the rod  $g'$  upward and closes the cover in the bottom of the casing G. The till is then sealed in the manner already described or by any suitable means. It will be clear that the

catch F cannot now be removed from the groove  $c^6$  without unsealing the till or opening the lids D and E; and in this condition the till is given to the employee whose sole duty it is to remove the full tills from the toll boxes and replace them with empty ones. In placing the till in the toll box, the empty till in the condition described is inserted in the drawer B, the key recess  $c^4$  registering with the key-way  $b^4$  and the drawer is pushed into place in the toll box A. (Fig. 1.) The key for locking the drawer B in the toll box is provided with a projection K (Fig. 12) which passes through the key-way  $b^4$  into the recess  $c^4$ , and when it is turned to throw the bolt of the lock  $b^3$ , a half turn is given to the shaft  $a^3$ . This motion of the shaft is transmitted by the intermediate mechanism to the lids D and E causing them to open, as shown in Fig. 5, and at the same time the catch F moves out of the groove  $c^6$  and snaps over to the position shown in said Fig. 5. Thus, by the turn of the key necessary to lock the till within the toll box, the till lids are opened and retained in position to receive the tolls and the catch F is in the same plane with the hole  $c^7$ , into which it must inevitably fall whenever the lids D and E are closed. When the till is to be removed from the toll box, the key is inserted into the key-way  $b^4$  and the projection K passes into the recess  $c^4$ . The turn of the key necessary to throw back the bolt of the lock  $b^3$  again gives a half turn to the shaft  $a^3$  which draws down the cranks  $d^4$  and  $e^4$  causing the lids D and E to close. At the same time the catch F moves over the surface of the shaft  $a^3$  until it drops into the hole  $c^7$  as the lids close, thus preventing any further movement of the shaft and securely locking the lids in their closed position. The drawer B is then withdrawn and the till removed therefrom and replaced by an empty one. Thus, by the act of unlocking the toll box, the lids of the till are securely locked, and the drawer cannot be moved until the lids D and E are closed and the till locked. The full till is then delivered by the collector to the official in charge of the tills who unseals and opens it in the manner already described. After the money has been removed the catch F is forced out of the hole  $c^7$  by a suitable instrument and again placed in position in the groove as shown in Fig. 4. The till is then closed and sealed in the manner described above and is again ready for use.

It will be clear that if through accident or design the lock  $b^3$  should be broken, the drawer B cannot be withdrawn with the till unlocked; for so long as the lids remain open, the drawer B cannot be withdrawn, and if continued pulling on the drawer forced the lids to close, their downward movement would cause the shaft to turn

and the catch F would drop into the hole  $c^7$  as the lids closed, thus locking the till.

By this construction a till is provided, the lid of which is unlocked by the act of locking it within the toll box, locked by the act of unlocking the toll box and which cannot be removed from the toll box without whole or partial destruction, unless and until its lid is securely locked.

I claim:

1. In a toll box, an outer casing provided with a removable till, said till provided with a lid, interior operating means for said lid, a lock having a key-way extending through it, said key way registering with the till lid operating means and the latter provided with a key recess whereby the key inserted to lock the till lifts the till lid. 75
2. In a toll box, an outer casing provided with a removable till, said till provided with a lid, interior operating means for said lid, and a catch to retain said lid in closed position, a lock having a key way extending through it, said key way registering with the till lid operating means, and the latter provided with a key recess whereby the key inserted to unlock the till closes the till lid. 80
3. In a toll box, an outer casing provided with a removable till, said till provided with a lid, an interior shaft and connections from said shaft to said lid to operate the latter, said shaft provided with a key recess registering with the key way of a lock, and said lock, and a catch in the till to engage the lid operating shaft when the lid is closed. 85
4. In a toll box, an outer casing provided with a removable till, said till provided with a two part lid, interior operating means for said lid, a lock having a key way extending through it, said key way registering with the till lid operating means and the latter provided with a key recess whereby the key inserted to lock the till lifts the till lid. 90
5. In a toll box, an outer casing provided with a removable till, said till provided with a two part lid, interior operating means for said lid, and a catch to retain said lid in closed position, a lock having a key way extending through it, said key way registering with the till lid operating means and the latter provided with a key recess whereby the key inserted to unlock the till closes the till lid. 95
6. In a toll box, an outer casing provided with a removable till, said till provided with a two part lid, an interior shaft and connections from said shaft to said lid to operate the latter, said shaft provided with a key recess registering with the key way of a lock, and said lock, and a catch in the till to engage the lid operating shaft when the lid is closed. 100
7. In a toll box, an outer casing provided with a removable till, said till provided with a lid, an interior shaft, positive engagement 105

between said shaft and said lid to operate the latter, a lock having a key way extending through it, and said shaft provided with a key recess registering with said key way  
5 whereby the key inserted to lock the till lifts the till lid.

8. In a toll box, an outer casing provided with a removable till, said till provided with a lid, an interior shaft, positive engagement  
10 between said shaft and said lid to operate the latter, a catch to retain said lid in closed position, a lock having a key way extending through it, and said shaft provided with a key recess registering with said key way  
15 whereby the key inserted to unlock the till closes the lid.

9. In a toll box, an outer casing provided with a removable till, said till provided with a lid, an interior shaft, positive engagement  
20 between said shaft and said lid to operate the latter, and said shaft provided with a key recess registering with the key way of a lock and said lock, and a catch in the till to engage said lid operating shaft when the lid is  
25 closed.

10. In a toll box, an outer casing provided with a removable till, said till provided with a lid, an interior shaft, connections from said shaft to said lid to operate the latter, said  
30 shaft provided with a key recess registering with the key way of a lock, and said lock, a catch, a circumferential detaining groove in said shaft to hold said catch temporarily, and means on said shaft whereby said catch en-  
35 gages the lid operating shaft when the lid is closed.

11. In a toll box, an outer casing provided with a removable till, said till provided with a lid, an interior shaft, positive engagement  
40 between said shaft and said lid to operate the latter, said shaft provided with a key recess registering with the key way of a lock, and said lock, a catch, a circumferential detaining groove in said shaft to hold said catch tem-  
45 porarily, and means on said shaft whereby said catch engages the lid operating shaft when the lid is closed.

12. In a toll box, an outer casing provided with a removable till, said till provided with  
50 a lid, an interior shaft, connections from said shaft to said lid to operate the latter, said shaft provided with a key recess registering with the key way of a lock, and said lock, a catch, a circumferential detaining groove in said shaft to hold said catch tem-  
55 porarily, means on said shaft whereby said catch engages the lid operating shaft when the lid is closed, a casing inclosing said catch and that portion of said shaft containing said groove, a cover for said casing, a door in said till and connection between said cover  
60 and said door.

13. In a toll box, an outer casing provided with a removable till, said till provided with a  
65 lid, an interior shaft, positive engagement be-

tween said shaft and said lid to operate the latter, said shaft provided with a key recess registering with the key way of a lock, a catch, a circumferential detaining groove in said shaft to hold said catch temporarily, 70 means on said shaft whereby said catch engages the lid operating shaft when the lid is closed, a casing inclosing said catch and that portion of the shaft containing said groove, a cover for said casing, a door in said till, and 75 connection between said cover and said door.

14. In a toll box, an outer casing provided with a removable till, said till provided with a lid, an interior shaft, connections from said shaft to said lid to operate the latter, said 80 shaft provided with a key recess registering with the key way of a lock, and said lock, a catch, a circumferential detaining groove in said shaft to hold said catch temporarily, means on said shaft whereby said catch en- 85 gages the operating shaft when the lid is closed, a casing inclosing said catch and the portion of the shaft containing said groove, a cover for said casing, a door in said till and connection between said cover and said door, 90 and means to seal said door in closed position.

15. In a toll box, an outer casing provided with a removable till, said till provided with a lid, an interior shaft, positive engagement 95 between said shaft and said lid to operate the latter, said shaft provided with a key recess registering with the key way of a lock, a catch, a circumferential detaining groove in said shaft to hold said catch temporarily, 100 means on said shaft whereby said catch engages the lid operating shaft when the lid is closed, a casing inclosing said catch and that portion of the shaft containing said groove, a cover for said casing, a door in said till, con- 105 nection between said cover and said door, and means to seal said door in closed position.

16. In a toll box, an outer casing provided with a removable till, said till provided with 110 a lid made in two parts, a hinged connection between said parts, one of said parts hinged at its outer end to said till and the other part provided with pins, a guide for said pins, an interior shaft, positive engagement between 115 said shaft and said lid to operate the latter, said shaft provided with a key recess registering with the key way of a lock, and said lock, a catch, a circumferential detaining groove in said shaft, means on said shaft whereby 120 said catch engages the lid operating shaft when the lid is closed, a casing inclosing said catch and the portion of the shaft containing said groove, a cover for said casing, a door in said till, connection between said 125 cover and said door and means to seal said door in closed position.

17. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, interior 130

operating means for said lid, a lock in the drawer having a key way extending through it, said key way registering with the till lid operating means and the latter provided with a key recess whereby the key inserted to unlock the drawer, opens the till lid.

18. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, interior operating means for said lid and a catch to retain said lid in closed position, a lock in the drawer having a key way extending through it, said key way registering with the till lid operating means and the latter provided with a key recess whereby the key inserted to unlock the drawer closes the till lid.

19. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, an interior shaft, connections from said shaft to said lid to operate the latter, said shaft extending through one side of the till and provided with a key recess registering with the key way of a lock in the drawer, and said lock, and a catch in the till to engage the lid operating shaft when the lid is closed.

20. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a two part lid, interior operating means for said lid, a lock in the drawer having a key way extending through it, said key way registering with the till lid operating means and the latter provided with a key recess whereby the key inserted to unlock the drawer, opens the till lid.

21. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a two part lid, interior operating means for said lid and a catch to retain said lid in closed position, a lock in the drawer having a key way extending through it, said key way registering with the till lid operating means and the latter provided with a key recess whereby the key inserted to unlock the drawer closes the till lid.

22. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a two part lid, an interior shaft, and connections from said shaft to said lid to operate the latter, said shaft extending through one side of the till and provided with a key recess registering with the key way of a lock in the drawer, and said lock, and a catch in the till to engage the lid operating shaft when the lid is closed.

23. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, an interior shaft, positive engagement between said shaft and said lid to operate the latter, said shaft extending through one side of the till

and provided with a key recess registering with the key way of a lock in the drawer, and said lock, and a catch in the till to engage the lid operating shaft when the lid is closed.

24. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, an interior shaft, and connections from said shaft to said lid to operate the latter, said shaft extending through one side of the till and provided with a key recess registering with the key way of a lock in the drawer, and said lock, a catch, a circumferential detaining groove to hold said catch temporarily and means on said shaft whereby said catch engages said shaft when the lid is closed.

25. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, an interior shaft, positive engagement between said shaft and said lid to operate the latter, said shaft extending through one side of the till and provided with a key recess registering with the key way of a lock in the drawer, and said lock, a catch, a circumferential detaining groove to hold said catch temporarily, and means on said shaft whereby said catch engages said shaft when the lid is closed.

26. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, an interior shaft, connections from said shaft to said lid to operate the latter, said shaft extending through one side of the till and provided with a key recess registering with the key way of a lock in the drawer, and said lock, a catch, a circumferential detaining groove to hold said catch temporarily, and means on said shaft whereby said catch engages said shaft when the lid is closed, a casing inclosing said catch and the portion of the shaft containing said groove, a cover for said casing, a door in said till, and connection between said cover and said door.

27. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, an interior shaft, positive engagement between said shaft and said lid to operate the latter, said shaft extending through one side of the till and provided with a key recess registering with the key way of a lock in the drawer, and said lock, a catch, a circumferential detaining groove to hold said catch temporarily, and means on said shaft whereby said catch engages said shaft when the lid is closed, a casing inclosing said catch and the portion of the shaft containing said groove, a cover for said casing, a door in said till, and connection between said cover and said door.

28. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid,

an interior shaft, connections from said shaft to said lid to operate the latter, said shaft extending through one side of the till and provided with a key recess registering with the  
 5 key way of a lock in the drawer, and said lock, a catch, a circumferential detaining groove to hold said catch temporarily, and means on said shaft whereby said catch engages said  
 10 shaft when the lid is closed, a casing inclosing said catch and the portion of the shaft containing said groove, a cover for said casing, a door in said till, connections between said cover and said door, and means to seal said door in closed position.

15 29. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid, an interior shaft, positive engagement between said shaft and said lid to operate the latter,  
 20 said shaft extending through one side of the till and provided with a key recess registering with the key way of a lock in the drawer, and said lock, a catch, a circumferential detaining groove to hold said catch temporarily, and means on said shaft whereby said  
 25 catch engages said shaft when the lid is closed, a casing inclosing said catch and the portion of the catch containing said groove, a cover for said casing, a door in said till, connection between said cover and said door,  
 30 connection between said cover and said door,

and means to seal said door in closed position.

30. In a toll box, an outer casing provided with a drawer, a removable till in said drawer, said till provided with a lid 35 made in two parts, a hinged connection between said parts, one of said parts hinged at its outer end to said till and the other provided with pins, a guide for said pins, an interior shaft, positive engagement between 40 said shaft and said lid to operate the latter, said shaft extending through one side of the till and provided with a key recess registering with the key way of a lock in the drawer, and said lock, a catch, a circumferential 45 detaining groove in said shaft, means on said shaft whereby said catch engages the shaft when the lid is closed, a casing inclosing said catch and the portion of said shaft containing said groove, a cover for said casing, a 50 door in said till, connection between said cover and said door and means to seal said door in closed position.

Signed by me at Boston, Massachusetts, this twenty-first day of April 1908.

JOHN M. BAKER.

Witnesses:

CHARLES D. WOODBERRY,  
 JOSEPHINE H. RYAN.