March 29, 1932. C. F. SIOBERG 1,851,546

REVOLVING DOOR DEPOSITORY

Filed June 13, 1930 6 Sheets-Sheet 1

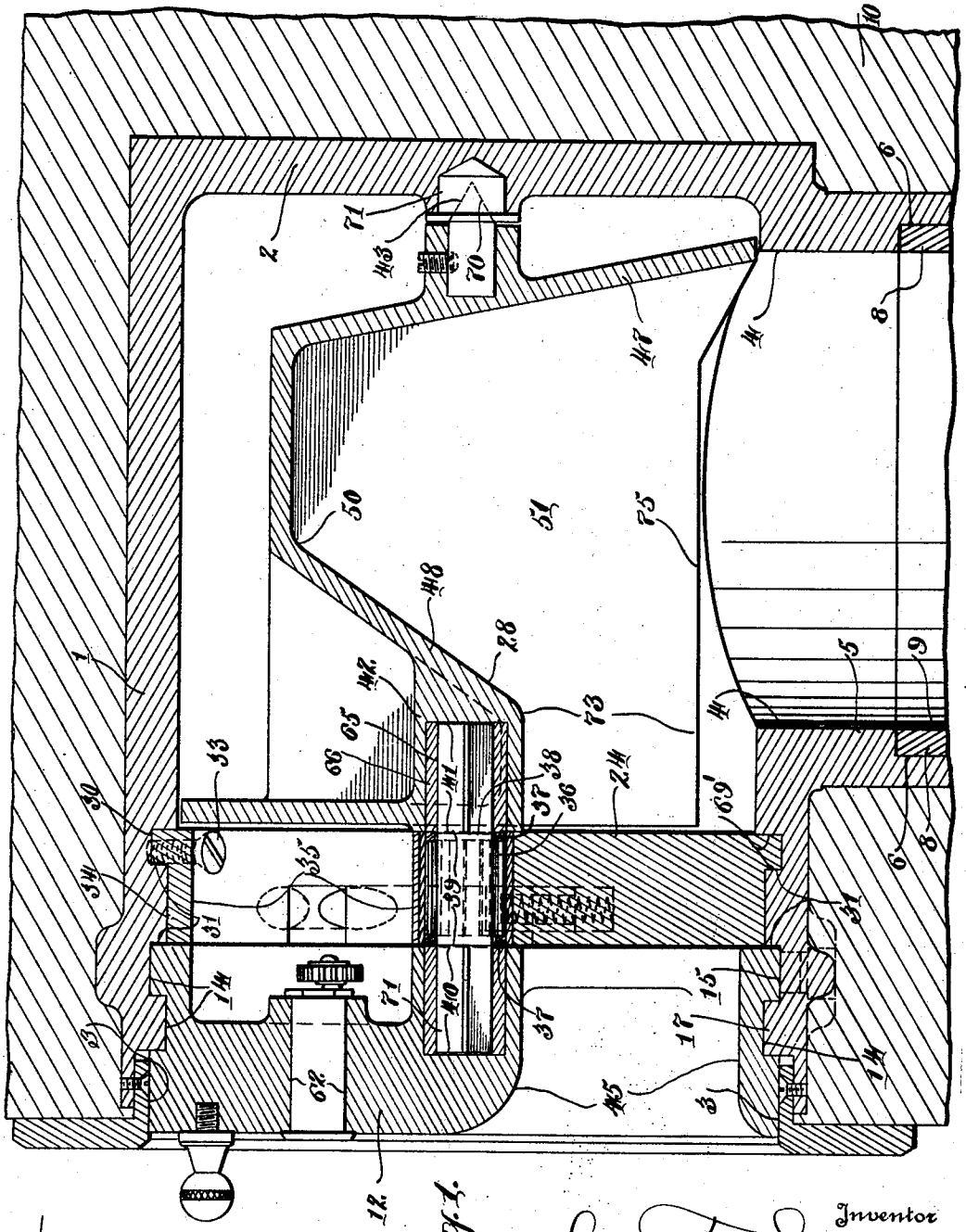

Fig. 1.

Witness

Inventor

Charles F. Sioberg

By Edwin Hammels

Attorney

March 29, 1932. C. F. SIOBERG 1,851,546

REVOLVING DOOR DEPOSITORY

Filed June 13, 1930 6 Sheets-Sheet 2

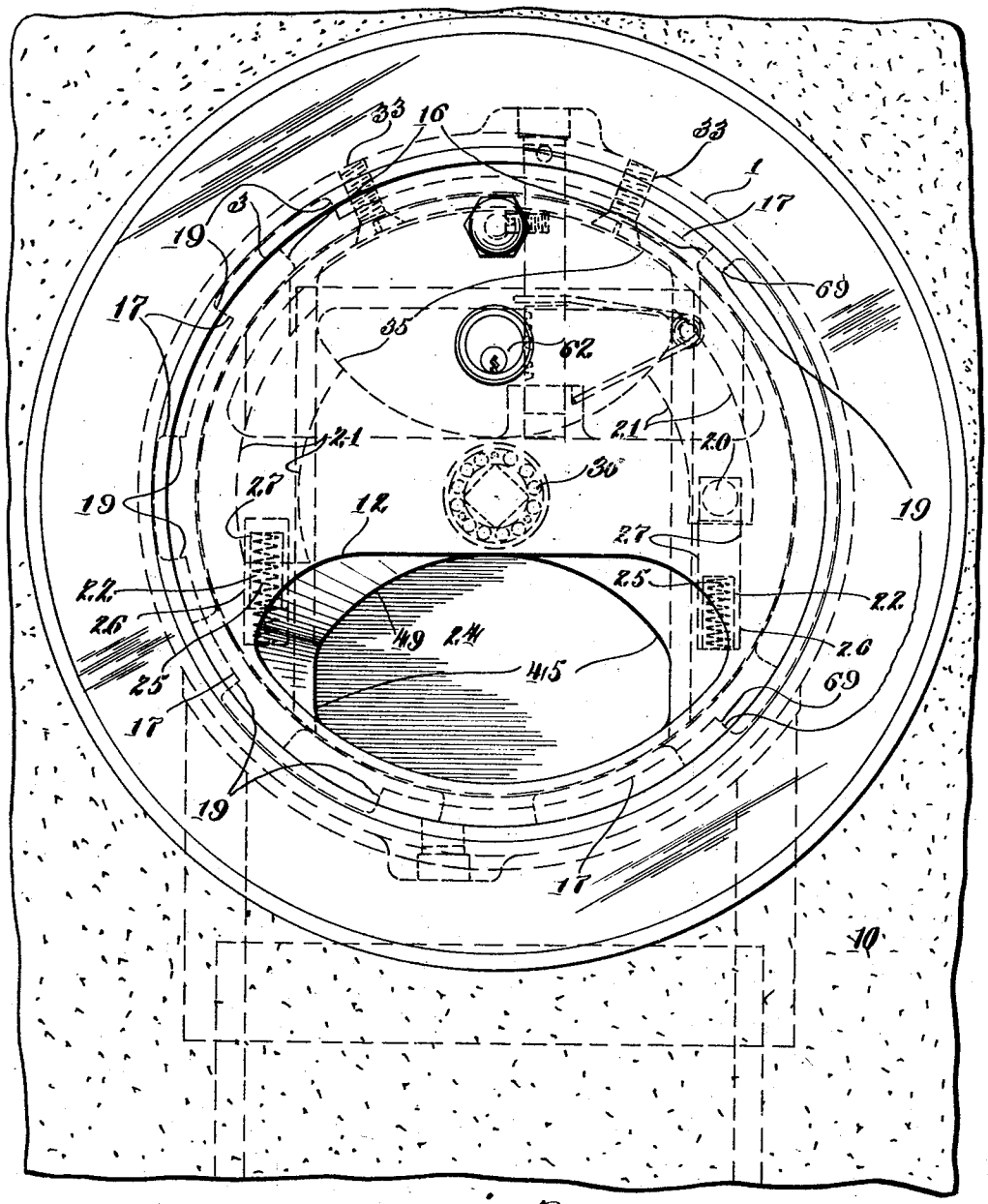

Fig. 2.

Witness:

Inventor

Charles F. Sioberg

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Attorney

March 29, 1932. C. F. SIOBERG 1,851,546

REVOLVING DOOR DEPOSITORY

Filed June 13, 1930 6 Sheets-Sheet 3

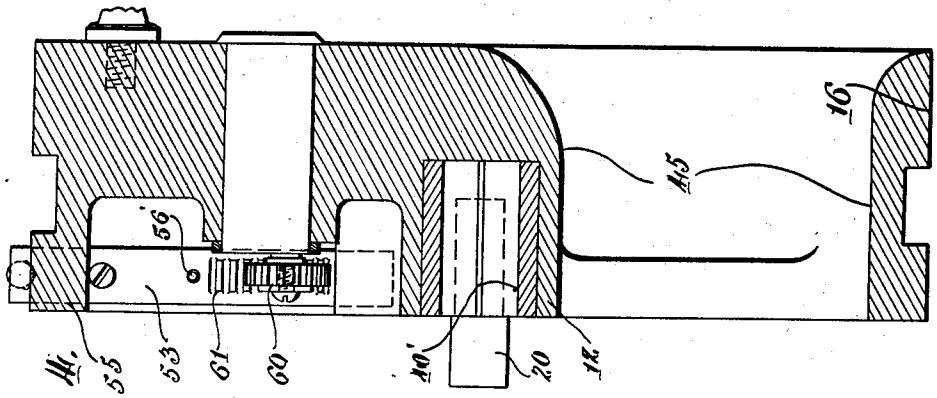

Fig. 4.

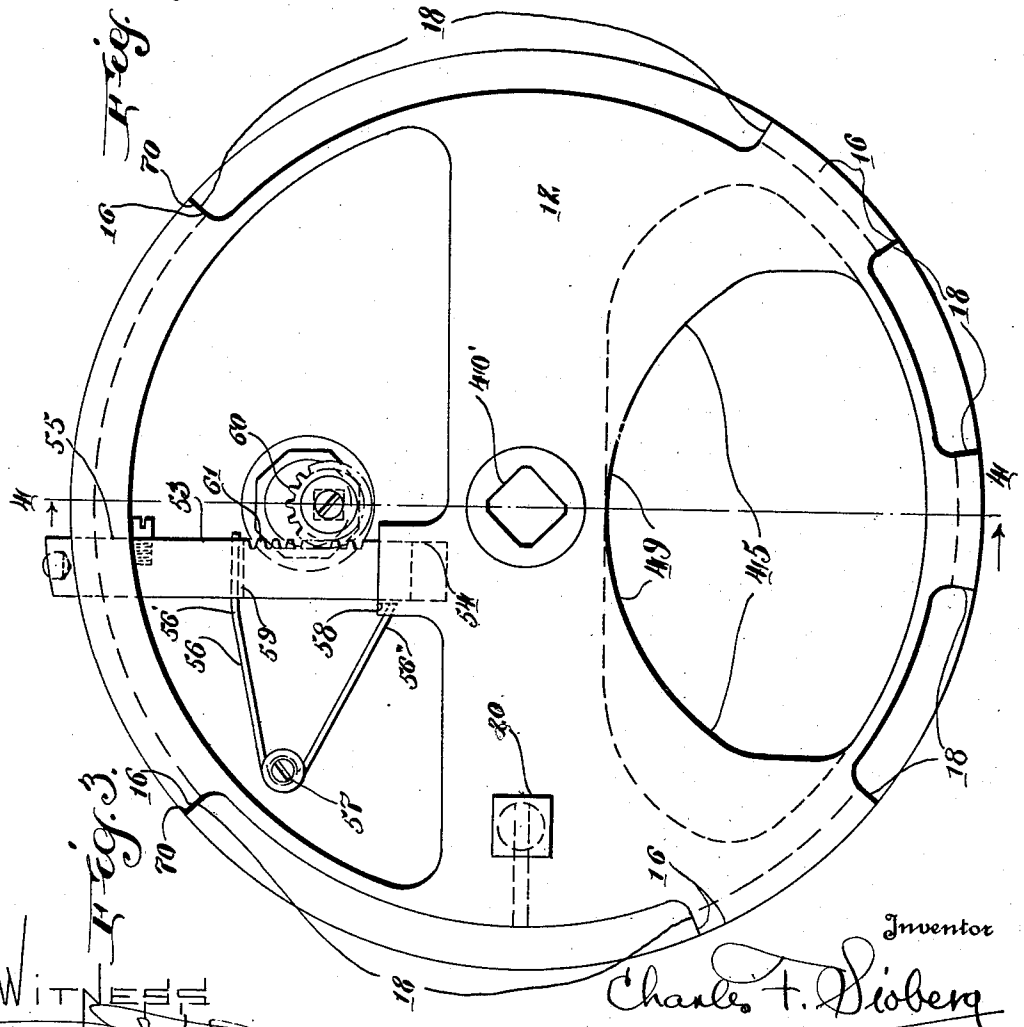

Fig. 3.

Witness:

Inventor
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March 29 1932. C. F. SIOBERG 1,851,546

REVOLVING DOOR DEPOSITORY

Filed June 13, 1930 6 Sheets-Sheet 4

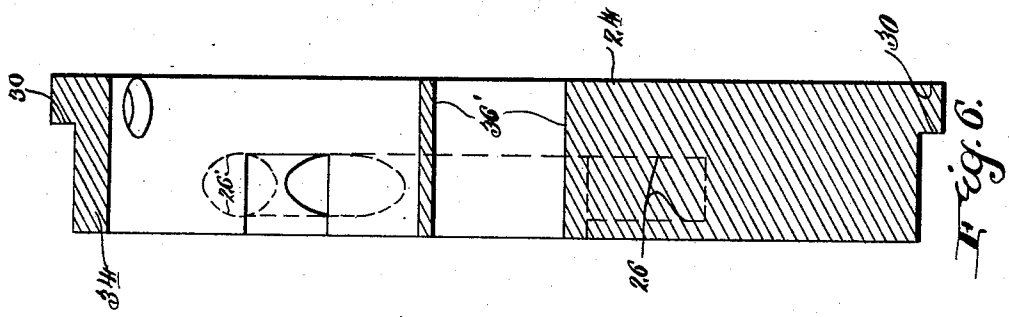

Fig. 6.

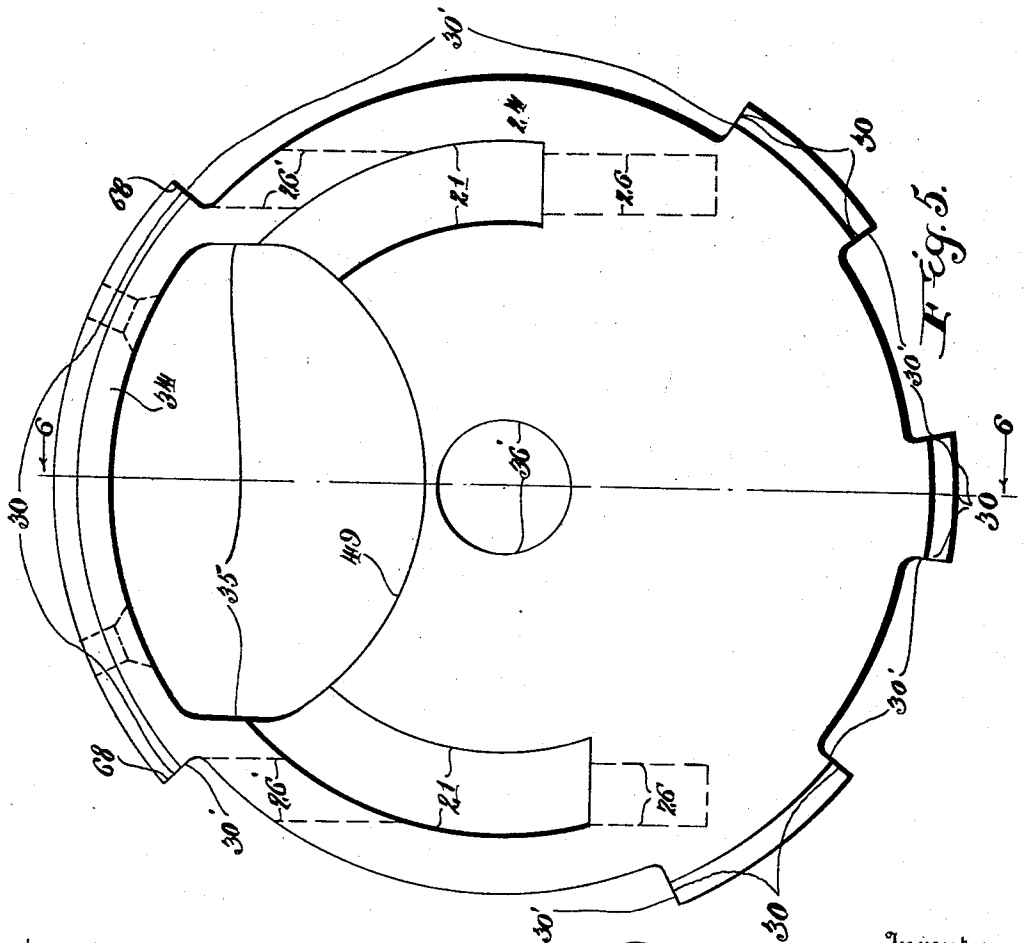

Fig. 5.

Witnesses

Inventor

Charles F. Sioberg

By Edmund Rammels

Attorney

March 29, 1932. C. F. SIOBERG 1,851,546

REVOLVING DOOR DEPOSITORY

Filed June 13, 1930 6 Sheets-Sheet 5

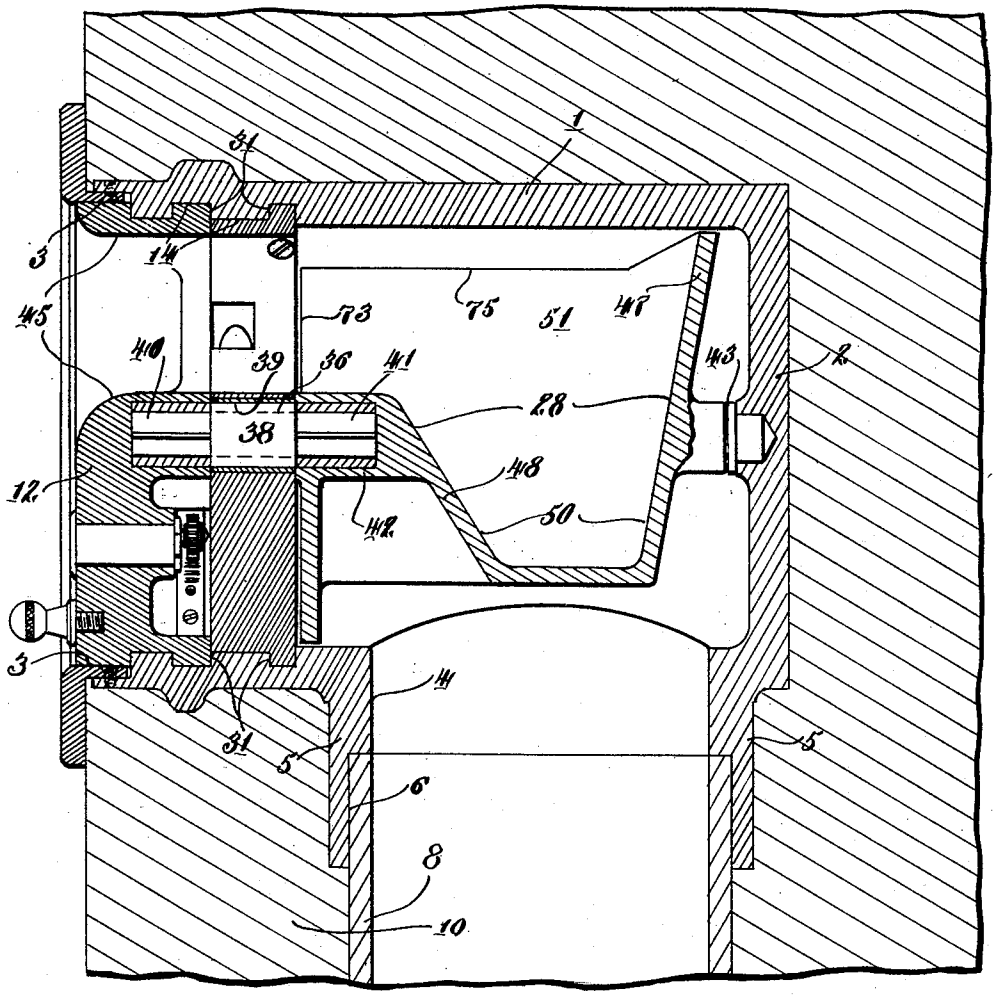

Fig. 7.

Witnesse

Inventor

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Attorney

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REVOLVING DOOR DEPOSITORY

Filed June 13, 1930 6 Sheets-Sheet 6

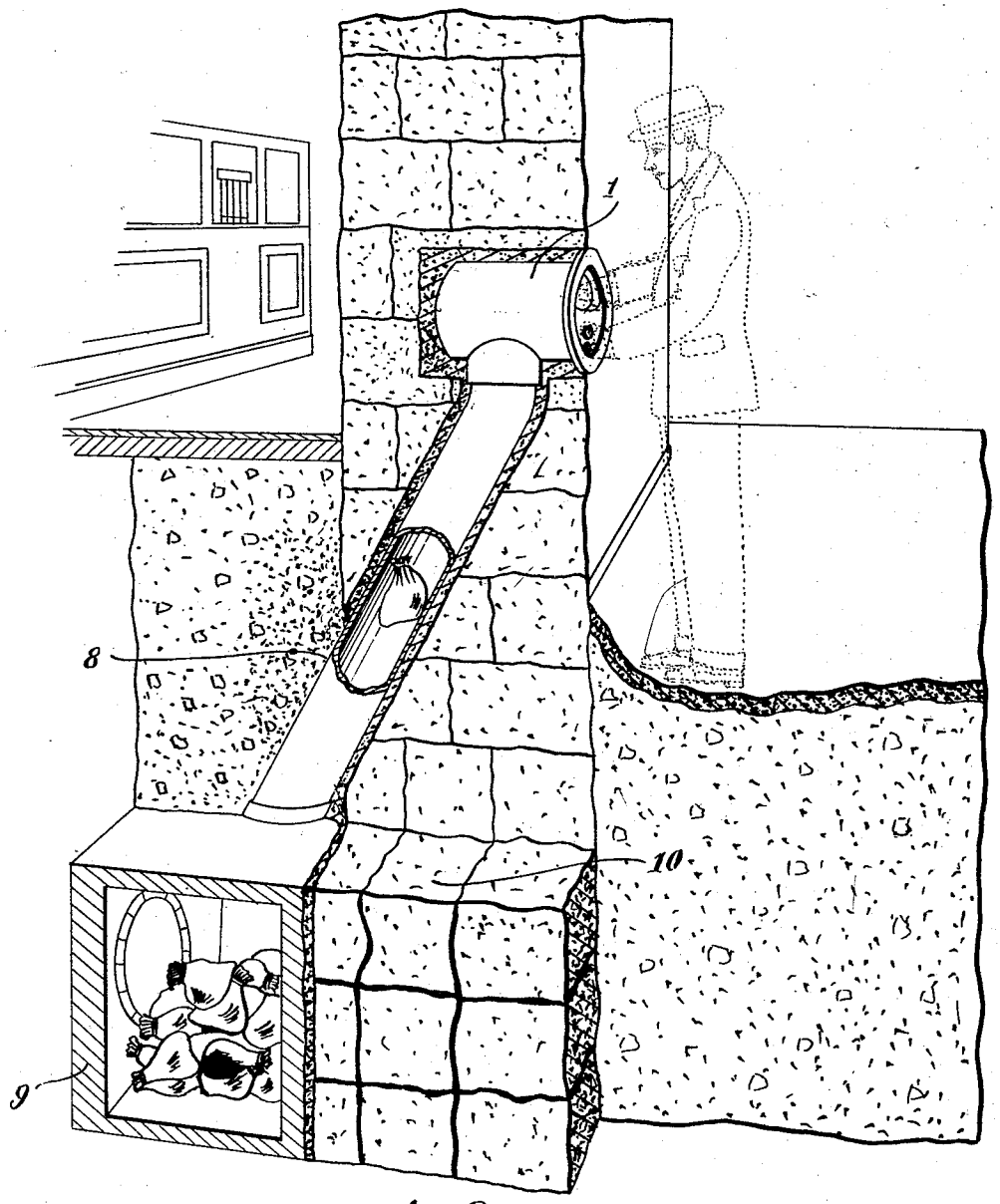

Fig. 8.

WITNESSE

Inventor

Charles F. Sioberg.

By Edwin C. Hammond

Attorney

Patented Mar. 29, 1932 1,851,546

UNITED STATES PATENT OFFICE

CHARLES F. SIOBERG, OF YORK, PENNSYLVANIA, ASSIGNOR TO YORK SAFE & LOCK COMPANY, OF YORK, PENNSYLVANIA, A CORPORATION OF DELAWARE

REVOLVING DOOR DEPOSITORY

Application filed June 13, 1930. Serial No. 460,844.

The invention relates to a rotating night depository which is intended to be located in a ticket office, bank or store, or convenient to any point where considerable sums of cash or the equivalent are received in the form of numerous relatively small and frequent payments. The device of the invention is utilized in connection with a chest or other burglarproof enclosure which is preferably beneath the ticket office, bank or store, or other points of collection where the rotating depository is located, being in accordance with the regular practice embedded in a setting or body of concrete. The device of the invention includes a receptacle or pocket which receives the articles deposited.

The pocket or receptacle in the preferred form is carried on and rotates with the revolving door, which closes the depository. In the preferred form there is a wall between the door and the receptacle, the door and wall being registering openings, the opening in the wall being at the top and the open top of the receptacle being disposed toward the door opening. From the depository a passage leads downwardly into the chest. The entrance to this passage is inside the depository at the bottom and the pocket or receptacle within the depository immediately overlies the entrance to said passage, closing it when the door is open. The said receptacle or pocket is inverted when the revolving door is closed, whereby the articles deposited in the receptacle which are usually money or other valuables, are dropped into the chest or other burglarproof storage space. In this way, the depository may be made accessible to one employee or class of employees who are permitted to deposit valuables in the receptacle and remove them therefrom during business hours, the accumulation of valuables in the receptacle when finally dropped into the chest being accessible by way of the chest door only and to whomever may be trusted with the key or combination which is separate and distinct from that to the revolving door which gives access to the depository.

In the accompanying drawings I have illustrated my revolving door depository embodying the features of the invention, including the receptacle rotating with the door, the product being known commercially as a rotating night depository or rotating depository.

In the drawings:

Figure 1 is a vertical longitudinal section through the revolving depository taken on the line of the longitudinal axis which is the axis of the rotating door. It shows the revolving door closed and the receptacle in discharging position in which the articles therein are dropped into the chest.

Figure 2 is a front elevation of the depository, the door being closed and certain underlying parts being shown in broken lines.

Figure 3 is a rear elevation of the door removed, the door being still shown in closed position with the opening at the bottom.

Figure 4 is an axial section through the same on the line 4, 4, Figure 3.

Figure 5 is a front elevation of the removable partition immediately in the rear of the door.

Figure 6 is a section through the same on the line 6—6, Figure 5.

Figure 7 is a figure corresponding to Figure 1 showing the revolving door open and the receptacle in upright position closing the passage to the chest and ready to receive deposits.

Figure 8 is a sectional view through the concrete base showing the depository and chest suitably connected.

Referring to the drawings by numerals, each of which is used to indicate the same or similar parts in the different figures, the construction shown comprises a depository casing 1. This may be of any preferred shape, being shown as cylindrical and of heavy metal. This depository casing is closed at the rear by a circular rear wall 2 and has a circular opening at 3 at the front and a downwardly disposed opening 4 at the bottom, which is shown as almost as large as the horizontal cross section of the inside of the depository casing. This opening is surrounded by a suitable depending boss 5, which is shown as chambered at 6 to receive and enclose a corresponding upwardly disposed tube 8, leading downwardly into a chest 9 or other suitable burglarproof container. The depository

is fastened to the tube in any suitable manner as by welding or other fastening means not shown and the depository is preferably embedded in concrete or other material 10 which also surrounds the chest.

The circular opening 3 at the front is closed by means of a revolving door 12 similar to the revolving door illustrated and described in my copending application No. 340,934 filed Feb. 18, 1929.

This door is mounted in a circular jamb 14 comprising a circular groove 15 and a circular rib 17 on the outside of the groove and forming its side wall on the side toward the outer opening 3. The door is formed like the revolving chest door in my copending application No. 340,934, filed Feb. 18, 1929, as to its peripheral edge with a circular or peripheral rib 16, which is cut away at intervals forming spaces as indicated at 18. The rib 17 on the depository body or safe proper surrounding the door opening and forming part of the door jamb is also cut away forming spaces or intervals 19, Figure 2, corresponding to the sections of rib 16, each space 19 being slightly longer than the corresponding section of rib 16, so that in one position of the door it may be freely inserted and removed. The sections of the rib 16 on the door in this position of entry and removal pass through the intervals 19 between the sections of the rib 17 on the door jamb, the spaces 18 between the rib sections on the door being long enough, i. e., slightly longer than the corresponding sections of ribs 17 on the jamb, to pass the sections of the rib 17 on the door jamb. This arrangement of interlocking rib sections on the door and jamb is fully explained in the copending application referred to and it is further explained that the rib sections and spaces are so arranged that the door being thus entered, as soon as it is rotated away from the position of entry, it is held in position by the interengagement of the ribs and is not thereafter releasable in any other position to which it may be turned freely without compressing the stop springs. The stop pin 20 and stop springs to be further described prevent the door from being returned accidentally to the removable position.

To provide for the motion of the pin 20 with the revolving door 12, the removable wall or partition 24, to be more fully described, is grooved at 21 on each side below the door opening and on circular arcs of a radius corresponding to the position of the pin and concentric with the axis of the door 12. At the bottom of each groove 21, to limit the rotation of the door and to prevent it from rotating freely to released position and to prevent an undue noise and shock to the parts when the door reaches the end of its swing in either direction, spring stops 22 are provided. These consist of springs 25 seated in holes 26, formed in the partition for this purpose and extending downwardly from the lower end of each groove 21. To receive the blows of the stop pin 20, each said spring is enclosed at the upper end in a partially hollow plunger 27, the solid end of which is turned upwardly toward the stop pin 20. The lower end of the spring rests on the bottom of the hole 26. Holes 26′ provide for the entrance of the drill in making holes 26.

As already suggested, the opening 3 in the cylindrical depository casing 1, is closed by a removable wall or partition 24 immediately back of the door 12, and therefore between the revolving door 12 and the depository receptacle 28.

This partition 24, which is of thick and highly resistive metal, is circular in outline like the door 12 and jamb 14, and similarly to the door is provided with a projecting peripheral rib 30 cut away to provide intermediate spaces 30′ preferably in exact correspondence with the spaces 18 between the sections of the rib 16 on the door 12 or otherwise so that this partition can be conveniently inserted through the door jamb 14.

To further contribute to the desired result, the depository casing 1 is provided in the rear of groove 15 in the jamb 14 with an inwardly projecting arcuate rib 31 formed in sections and spaced similarly to the spacing of the sections of the rib 16 on the door jamb or otherwise so that the length and spacing of the sections of the rib 31 surrounding the circular opening in the depository or casing 1 provides that the wall or partition 24 may be passed through the door jamb 14 and seated immediately behind the door as shown in Figure 1, said sections of the rib 30 on the removable wall being seated in groove 69′ in the depository casing and intermeshing with the sections of the rib 31 on the casing to prevent the wall 24 from being removed, holding it rigidly in the position shown in Figures 1 and 2 to which it has been rotated from the position in which it was inserted, throwing the rib sections out of registration with the spaces and causing them to thus interengage or mesh. In this position to which the removable wall is rotated from the position in which it is inserted, it is held against further rotation by means of screws 33 which extend through the marginal portion 34 of the removable wall or partition 24, which marginal portion borders the handhole or door opening 35 in the removable wall to be further described.

The removable wall or partition 24 is provided at its axial center, which in operative position of the parts registers with the axial center of the revolving door 12, with a bearing 36 seated in a hole 36′ in the wall 24. This bearing is shown as in the form of a roller bearing, the rollers or pins being held in position by suitable spring detent rings 37, and in this bearing the depository shaft

38 is rotatably mounted. This shaft has its middle portion 39 within said bearing of circular cross section and cylindrical form, the ends 40, 41 being of square or any convenient angular cross section. The end 40 of this depository shaft is seated in the socket 40′ in the center of the revolving door 12, the end of the shaft being shown as suitably bushed therein and the other end 41 is shown as seated in a suitable boss or hub 42 formed on the depository receptacle 28, in which it is shown as likewise suitably bushed so that the depository receptacle rotates with the revolving door 12. In the construction shown the other end of the depository receptacle at the axis thereof is supported by a suitable bearing 43, one element of which is seated in or otherwise secured to or supported on the rear wall 2 of the depository casing 1 at the center.

Like the door of the revolving door chest described in my copending application above cited, the door 12 is provided with a suitable handhole or door opening 45 preferably on one side of the center and shown as occupying somewhat less than one half the area of the door. The removable wall or partition 24 is provided with a handhole or door opening 35 already referred to, which is preferably of exactly similar outline and similarly placed relatively to the common axis of the door 12, and the partition or wall 24. It will be understood that in the open position of the door as in the structure described in the copending application, the opening in the door registers with the opening in the wall or partition 24, and it is likewise important that the depository receptacle 28 which is open at the top be so placed in relation to the handhole or opening 45 in the revolving door 12, that when the revolving door is turned to the position described in which the opening 45 therein registers with the handhole opening 35 in the wall 34, the depository receptacle 28 is located in convenient receiving relation to and preferably beneath said registering openings, the rear wall 47 of said receptacle preferably extending somewhat above the handhole opening with its upper edges near the wall of the depository closing the depository at the rear to prevent passage of the deposits beyond the receptacle in this direction. The front of the receptacle is preferably open and curved as to its top edge or opening 73 to conform to and register with the handhole openings or door openings, 35, 45, which are shown as of somewhat flat curvature at 49 on the side of said openings toward the center, which side is downward in open position, i. e., registering with the corresponding edge 73 of the receptacle 28. In this position the receptacle 28 is not only in receiving position in which the articles which it is desired to deposit can be conveniently inserted therein by the hand of the operator, but in this position it closes the passage 4, 9, leading into the chest.

The revolving door 12 being rotated to throw the handhole opening 45 therein out of registration with the handhole opening 35 in the partition 24, the receptacle 28 rotates with the door, and the closed position of the door and receptacle being at 180 degrees from the open position, the latter is inverted directly over the opening 4, leading into the chest so that the cash or money and other articles deposited in the receptacle are thus discharged into the chest, the opening into which is at the same time further closed by the receptacle.

In this connection it will be noted that the receptacle 28 is so formed that its deepest area at 50, to which the articles deposited are led by the inclined sides 47, 48, 51 is directly in vertical alignment with the opening 4, leading into the vault so that it can be no failure of the articles deposited in the receptacle to pass through the opening 4 into the vault when the receptacle is inverted.

The disclosure also includes a bolt 53, Figure 3, mounted in suitable slots 54, 55 in the door and normally advanced by a spring 56, which is coiled about the screw 57 in the door and has ends 56′, 56″, about 30° apart projecting radially therefrom, one end being seated in a suitable notch 58 in the door and the other end in a slot 59 in the bolt. The bolt is withdrawn by means of a toothed pinion 60, which engages rack teeth 61 on the bolt, the pinion being in turn operated by any suitable key or other type locking mechanism indicated at 62 in Figure 2. The spring holds the bolt normally engaged when the door is closed.

To assemble the machine, the receptacle 28 is first combined with the removable wall or partition 24, and both are combined with the door 12, the door 12 and partition 24 being placed with their similar rib sections and spaces in registration and in the relative positons shown in Figures 3 and 5, the openings 35, 45 being 180° apart or opposite. In this position stop pin 20 bears on stop 22 at the left in Figure 2, and compresses the spring 25. At this time the square end 41 of the depository shaft 38 occupies the square hole 65 in the bushing 66 in the hub 42 of said receptacle, the said shaft being at the same time mounted in the roller bearing 36 in the wall 24, and the other square end 40 is seated in socket 41′ in the door 12. The door and the removable wall 24 carrying the receptacle 28 are then presented to the jamb 14 in a position in which the long section 68 of the rib 30 on the wall enters the space 69 between the sections of the rib 17 forming part of the jamb 14. Wall 24 carrying the receptacle 28 is then pushed directly backward through the jamb 14, it being understood that the sections of the rib 30 on the wall member 24

mesh exactly not only with the openings between the sections of the rib 17, forming part of the jamb, but also with the spaces between the sections of the rib 31 just beyond the door jamb, which serve to hold the wall 24 in its final position. In other words, as previously pointed out, the sections of the rib 17 exactly register with the sections of the rib 31, so that the wall 24 may be thrust directly backward into position with its rib 30, occupying the groove 69′ on the inside of the depository or casing 1. The door 12 follows the wall into its position in the jamb, as hereinafter described.

As the parts approach final position, the cone 70 of the bearing 43 enters the socket 71 at the center of the rear wall 2 of the cylinder, the wall member 24 being later rotated to the left or contra clockwise through an arc of about 90 degrees, attains its final position in which it is shown, and when the door is opened the screws 33 may be driven through the marginal portion 34 or partition 24 into the cylindrical wall of the depository casing 1. The wall 24 is thus held in position by the intermeshing of the sections of the rib 30 on the wall with the sections of the rib 31 on the inside of the casing 1. The screws 33 being inaccessible except when the revolving door to be described is open, present a sufficient obstacle to the rotation and removal of this wall member by any unauthorized person.

The door enters the jamb in the same angular position as that in which the partition was inserted so that the section 70 of the rib 16 on the door passes through the long space 69 between the sections of the rib 17 of the door jamb. In this position the door may be thrust forwardly, i. e., to the right in Figure 1, causing it to advance to a position in which the sections of the rib 16 on the door enter the groove 15 in the jamb when the door may be turned to full open position in which the opening 45 in the door registers with the opening 35 in the wall 24, in which position screws 33 are inserted as just described. The stop pin 20 serves to prevent the rotation of the door into a position in which it might be accidentally released from the jamb, it being understood that the pin 20, as already described, engages the spring stops 22 in the extreme positions of the door, which spring stops not only limit the rotary motion of the door, but serve as a cushioning means at the ends of the traverse of the pin.

As already pointed out in the operation of the safe the depository receptacle 28 rotates with the revolving door 12, having its opening directly beneath the opening 45 in the door, so that the front edge 73 of the mouth of the receptacle at 75 is opposite, adjacent and immediately in alignment with the hand or door opening 35 in the wall 24, i. e., in the open position of the door. At this time the receptacle 28 is in upright position with its front top opening 73 directly in the rear of the registering handhole openings 35, 45. In this position the receptacle closes the opening 4 leading downwardly into the chest 9.

In this position of the parts, any articles as packages of money or loose money or the like being collected in the office or bank in which the depository is located, can be instantaneously deposited in the receptacle 28 to which as many employees as desire may have access, and after each deposit or at the close of the day's work or in the event of an alarm, the door 12 may be instantaneously closed, which closure of the door 12 serves to deposit the contents of the receptacle 28 in the chest where they are accessible only to the one having the key or combination to the chest, and it is further of interest that while the receptacle 28 is accessible whenever the door 12 is open for the deposit of valuables, the receptacle serves as a closure to the opening 4, leading to the chest, which is therefore inaccessible even to those depositing valuables in this way except as to such individuals as may have the key or combination to the chest as distinguished from the key or combination to the revolving door 12 through which articles thus deposited are introduced.

I have thus described specifically and in detail a revolving door depository embodying the features of my invention in the preferred form, in order that the nature and the manner of constructing and operating, applying and using the same may be fully understood, however, the specific terms herein are used descriptively rather than in a limiting sense, the scope of the invention being defined in the claims.

What I claim as new and desire to secure by Letters Patent is:

1. The combination in a depository structure of a revolving door having a handhole, a wall of said structure being covered by the door and having a corresponding opening with which the handhole registers in the open position of the door, the handhole being swung into and out of registration, as the door revolves, a receptacle within the structure on the opposite side of the wall from said door, the receptacle being connected to the door to rotate therewith and being accessible through said handhole from the outside in the open position of the door, the structure including an opening beneath said receptacle leading to a storage space, the receptacle being inverted over said opening in the closed position of the door.

2. The combination in a depository construction having a door opening of a door revolving in a plane transverse to the door opening from open to closed position, a receptacle behind the door and connected to the door to be operated thereby, the receptacle being accessible through the door opening to

receive deposits in the open position of the door, the construction including a discharge opening beneath said receptacle leading downwardly therefrom to a storage space, the receptacle being movably mounted to be operated by the door from receiving position when the door is open, to discharge position whereby it is dumped into said passage when the door is closed.

3. The combination in a depository of a circular revolving door, the depository having a door jamb, the door having projecting portions spaced apart to form recesses, and the door jamb having corresponding recesses and projecting portions which admit the door in one position and adapted to interlock with the projecting portion on the door when the door is rotated from said position, and a removable wall back of said door adapted to pass through the door jamb, said wall and chest having corresponding projecting portions and recesses which admit the wall in one position and interlock when the wall is rotated from said position, the door and wall having handhole openings which register in one position of said door and a receptacle within the depository operated by the door and located on the opposite side of the wall from the door, the opening into the receptacle being in the radial plane of the handhole in the door and outwardly disposed, said depository having an opening beneath said receptacle adapted to register with a passage leading downwardly to a closed space.

4. The combination in a depository of a circular revolving door, the depository having a door jamb, the door having projections and spaces between said projections, and the door jamb having corresponding projections and spaces which admit the door in one position and are adapted to interlock when the door is rotated from said position, and a circular removable wall back of said door and adapted to pass through the door jamb, said wall and depository having spaces and projecting portions corresponding to those on the door and jamb, which admit the wall in one position and interlock when the wall is rotated from said position, means for securing the wall in said latter position, the door and wall having handhole openings which register in one position of said door, and a receptacle within the depository and connected through said removable wall to said door to rotate with the door, the receptacle being open toward said handhole, and the construction including an opening beneath said receptacle adapted to register with a passageway leading downward to a storage space into which the receptacle is dumped in the closed position of the door.

5. The combination in a depository of a circular revolving door, the depository having a circular door jamb, the door having peripheral projecting portions spaced apart and the door jamb having corresponding spaces and projecting portions which admit the door in one position and are adapted to interlock with the projecting portions on the door when the door is rotated from said position, and a circular removable wall back of said door and adapted to pass through the door jamb, said door and depository having corresponding projecting portions and spaces which admit the wall in one position and interlock when the wall is rotated from said position, means for securing the wall in interlocked position, the door and wall having handhole openings which register in one position of said door, in which position the handhole in the door is above the axis of rotation, and a receptacle within the depository beyond said wall connected through said removable wall to said door to rotate with the door, the receptacle being open at the top and located immediately below said handhole opening in the open position of the door, the structure including a passage leading downward to a storage space over which the receptacle is inverted in the closed position of the door.

6. The combination in a depository of the type described of a casing having a rotary door with a handhole therein, a wall covered by the door and having a handhole near the top with which the handhole in the door is adapted to register in a predetermined position of the door, a shaft extending through the wall and connected at one end to the door to rotate therewith, a receptacle within the depository on the opposite side of said wall from said door and connected to the shaft to rotate therewith, the receptacle having an opening for the admission of articles to be stored, said receptacle being arranged with said opening in convenient relation to the handhole opening in the door to make said receptacle accessible for the admission of articles to be stored when said handhole opening in the door is in alignment with the handhole opening in the wall, said depository having an opening immediately beneath the receptacle which opening leads downward into a storage space so that the contents of the receptacle is deposited in the storage space by the inversion of the receptacle as the door is rotated to closed position.

7. The combination with a depository having a circular revolving door and a circular jamb for the door, the door and jamb having peripheral interlocking rib sections holding the door in position, which rib sections release in one angular position of the door, the ribs in the door and jamb being correspondingly spaced to permit the door to be inserted and removed, a circular removable wall back of the door, the wall and depository being provided with interlocking rib sections adapted to release in one angular position of the door, the rib sections on the wall being arranged to pass

through the spaces in the door jamb and the wall being otherwise adapted to pass through the jamb, permitting the partition to be inserted and rotated to locked position, means for holding the partition against rotation from said locked position, said partition and door having handhole openings, which register in one position of the door, a receptacle within the depository on the opposite side of said partition from the door and connected to the door to rotate therewith, said receptacle having a receiving opening opposite the handhole opening in the door, the depository having a passageway leading downward and adapted to provide access to a burglarproof enclosure, said passageway being closed by said receptacle whereby the receptacle cooperates with the door to receive articles inserted through the handhole in the open position of the door and discharged into the down passage when the door is closed, the receptacle being inverted over said passage in the closed position of the door.

8. The combination in a depository of the type described of a depository casing having a rotary door with a handhole therein, a removable wall covered by the door and having a handhole with which the handhole in the door is adapted to register in a predetermined position of the door, a shaft extending through the wall and connected at one end to the door to rotate therewith, a receptacle within the chest on the opposite side of said wall from said door and connected to the shaft to rotate therewith, the receptacle having an opening for the admission of articles to be stored, said receptacle being arranged with said opening in convenient alignment with the handhole opening in the door to make said receptacle accessible for the admission of articles to be stored when said handhole opening in the door is in alignment with the handhole opening in the wall, said depository casing having a passage immediately beneath the receptacle which passage leads downward into a burglarproof storage space so that the contents of the receptacle is deposited in the storage space when the door is closed with the receptacle over said passage, the receptacle serving to close the passage in the open position of the door.

9. The combination in a depository construction having a door opening of a door revolving in the direction of the plane of the door opening, a receptacle behind the door and connected to the door to be operated thereby, a wall between the door and the receptacle, the door and wall having handholes registering in the open position of the door, the receptacle being accessible to receive deposits in the open position of the door, the construction including an opening beneath said receptacle leading downwardly to a storage space, the receptacle being mounted to move from receiving position when the door is open, to discharge position whereby it is dumped into said opening when the door is closed, said receptacle serving to close said opening in the receiving position.

10. The combination in a depository construction having a door opening of a door revolving in a plane transverse to the door opening, a receptacle behind the door and connected to the door to be rotated therewith, the receptacle being accessible through the door opening to receive deposits in the open position of the door, the construction including a discharge opening beneath said receptacle leading downwardly to a storage space, the receptacle being mounted to move from receiving position when the door is open, to discharge position whereby it is dumped through said opening when the door is closed, said receptacle serving to close said passage in the receiving position and in discharge position.

11. The combination in a depository construction having a door opening of a door revolving in a plane transverse to the door opening, a receptacle behind the door and connected to the door to be rotated therewith, the receptacle being accesible through the door opening to receive deposits in the open position of the door, the construction including a discharge opening beneath said receptacle leading downwardly to a storage space, the receptacle being mounted to move from receiving position when the door is open, to discharge position whereby it is dumped through said opening when the door is closed.

Signed by me at York, Pennsylvania, this 31st day of May, 1930.

CHARLES F. SIOBERG.