March 9, 1926. 1,576,125

S. P. YEO

NIGHT DEPOSITORY ENTRANCE

Original Filed Feb. 2, 1925 2 Sheets-Sheet 1

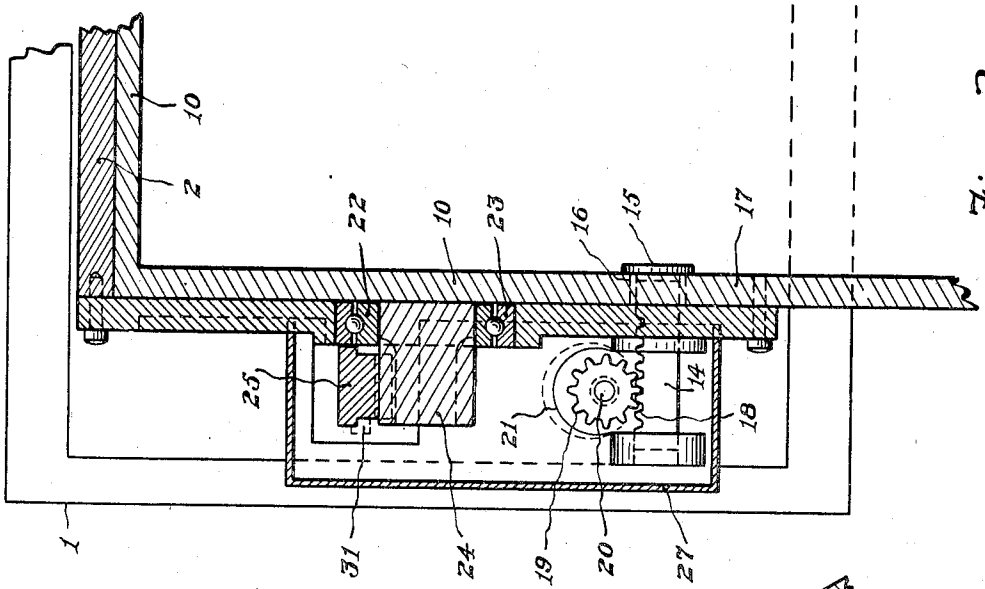


Fig. 2.

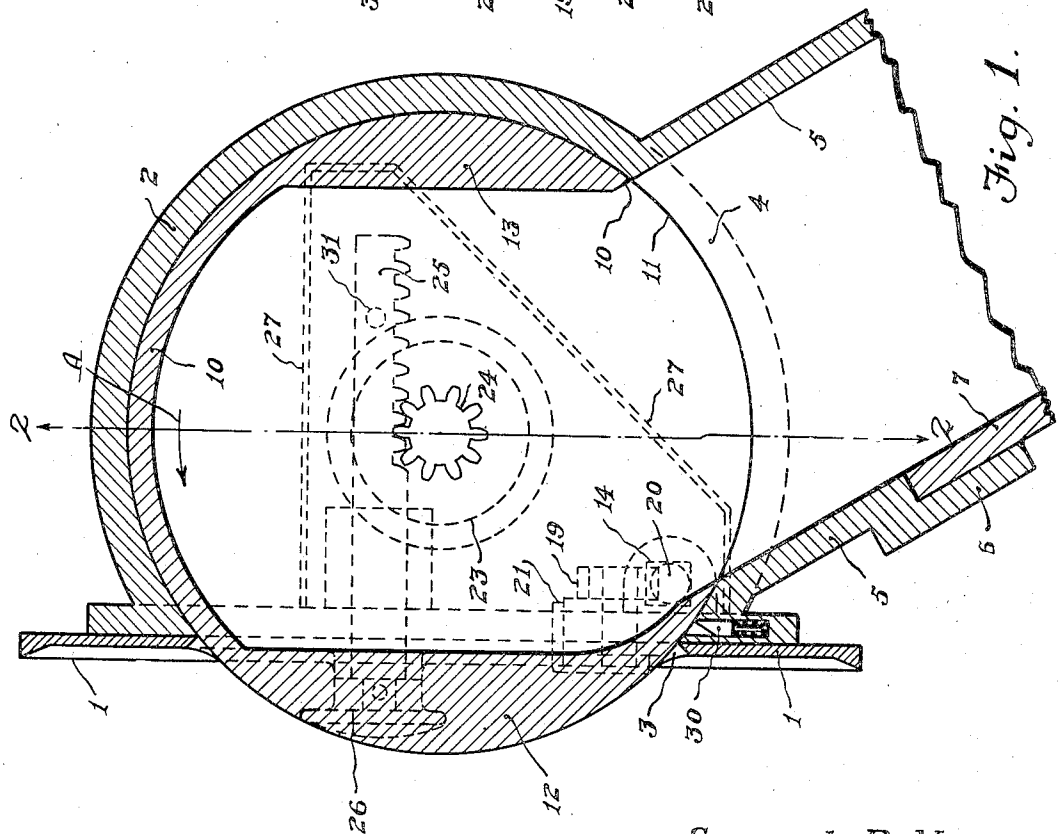


Fig. 1.

Samuel P. Yeo.
INVENTOR

BY Victor J. Evans
ATTORNEY

J. Bahi. Jr.
WITNESS:

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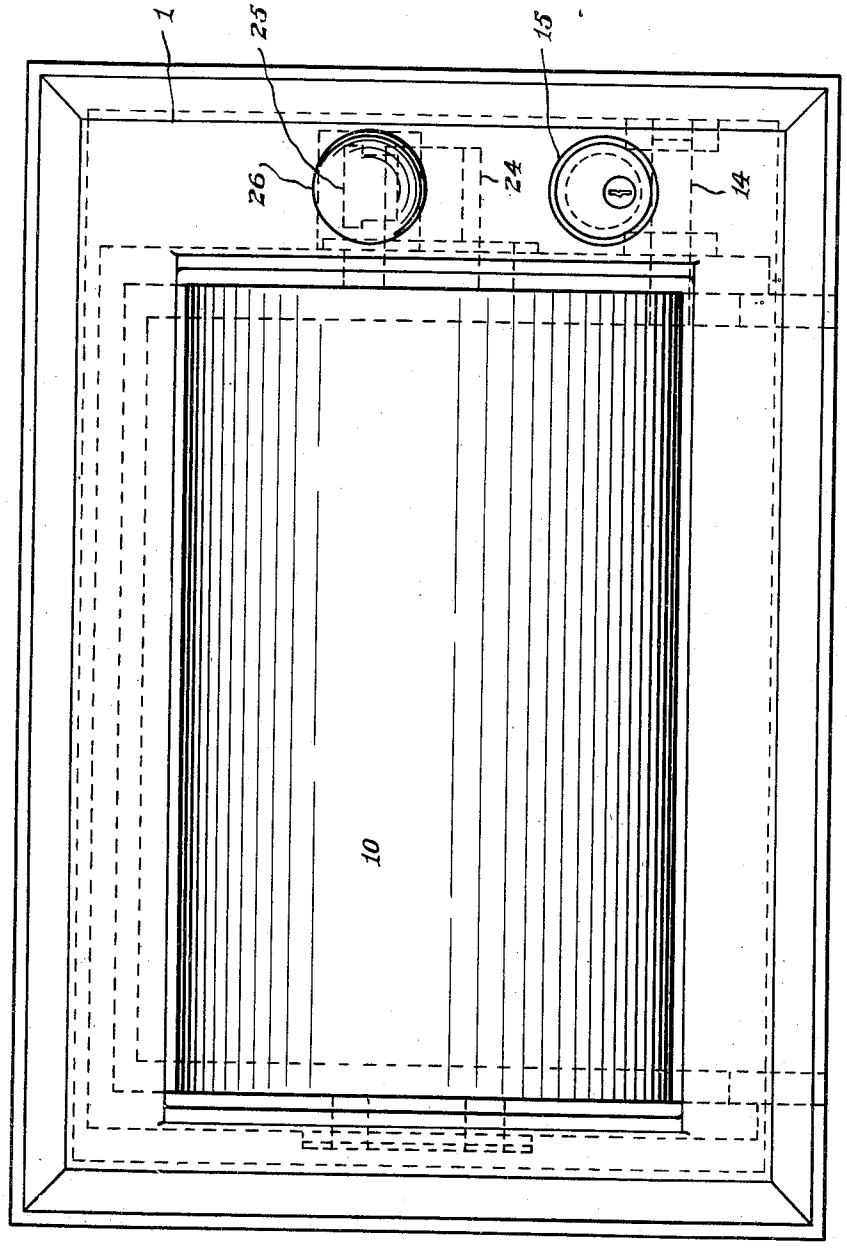


Fig. 3.

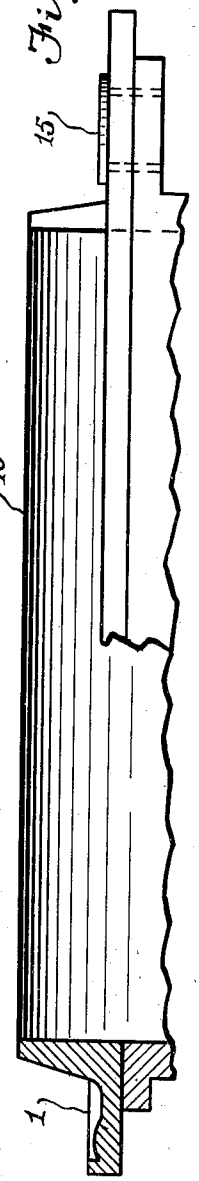


Fig. 4.

J. Bobis. Jr.
WITNESS:

Samuel P. Yeo.
INVENTOR

BY Victor J. Evans
ATTORNEY

Patented Mar. 9, 1926. 1,576,125

UNITED STATES PATENT OFFICE.

SAMUEL P. YEO, OF PHILADELPHIA, PENNSYLVANIA.

NIGHT-DEPOSITORY ENTRANCE.

Application filed February 2, 1925, Serial No. 6,441. Renewed January 15, 1926.

To all whom it may concern:

Be it known that I, SAMUEL P. YEO, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Night-Depository Entrances, of which the following is a specification.

This invention relates to a device particularly adapted for use by banks, trust companies, or the like, to permit depositors to deposit sums of money, valuables or the like, after the closing of the bank or trust company.

It is a well known fact that the majority of banks, trust companies, or the like, in which funds are deposited close before the closing of various types of mercantile shops or the like, making it inconvenient for the merchant or business man to deposit his day's receipts.

Certain types of depository structures are used at present, however, they are relatively frail and are of such construction that they may be broken open with comparative ease by persons of malicious intent, and it is an object of the present invention to provide a depository entrance which is of novel construction, and is designed so as to render it practically impossible to maliciously open the entrance, and which entrance is also of construction that it may be easily operated by a legitimate person to permit the depositing of valuables therethrough into the bank or other suitable depository.

More specifically, the invention comprehends the provision of a rotary receiving cylinder which is thickened at its front and back portions and is rotatable in a suitable shell, its rotation being controlled by a suitable lock structure so as to permit a legitimate person to open it and rotate it into receiving position at which time the valuables may be passed therein, and the cylinder moved into locked position which prevents access from the outside until it is again unlocked and at the same time permits the valuables to pass out of the cylinder into any suitable depository.

Other objects of the invention will appear in the following detail description and in the accompanying drawings wherein:

Figure 1—is a cross section through the improved depository entrance.

Figure 2—is a vertical section through the depository entrance taken on the line 2—2 of Figure 1.

Figure 3—is a front elevation of the depository entrance.

Figure 4—is a detail view partly in section of a part of the depository entrance structure.

Referring more particularly to the drawings, the improved night depository entrance includes a metal frame 1 of any desired construction which is suitably attached to the outer surface of the wall of the building in which the depository is located, and the frame 1 has a cylindrical shell 2 attached in any suitable approved manner, to its inner surface. The shell 2 is substantially cylindrical in shape, and has a portion thereof cut away as shown at 3, which cut away portion communicates with the entrance opening in the frame 1. The cylinder 2 is provided with an outlet opening 4 which opens out through a suitable guiding chute 5 which may have an offset flange 6 on its inner end adapted to fit over the receiving end of a chute 7 of any approved construction which may lead to the depository from the entrance structure which comprises the present invention.

A cylinder 10 is rotatably mounted within the cylindrical shell 2 and the cylinder 10 is formed of any suitable metal, such as that ordinarily used in the construction of bank vaults, or analogous structures, and the cylinder 10 is provided with an opening 11, and outer thickened portion 12 and an inner or back thickened portion 13. The thickened portion 12 is provided to eliminate possibility of breaking the cylinder 10 by hammering also to greatly increase the work necessary to drill or cut through the end particularly to prevent cracking or breaking of the cylinder by striking heavy blows therein, while the curved surface of the cylinder 2 is presented through the opening 3 presents a surface which is difficult to be engaged by chisel or the like, for wedging for the purpose of endeavoring to loosen the lock or rotate the cylinder and any wedging action against the cylinder or hammering, and will have a tendency to lock it tighter in the shell 2.

The cylinder 10 is locked against rotation by a locking bolt 14 which is slidably supported by suitable bearings and which has

one end adapted to project into a ferrule 15 inserted in a suitable opening 16 in the outer end 17 of the cylinder for locking the cylinder against rotation. The bolt 14 has rack teeth 18 thereon which mesh with the teeth of a pinion 19. The pinion 19 is mounted upon the shaft or central core 20 of a lock structure 21, which may be of any approved type but is preferably a paracentric key lock. The cylinder 10 has trunnions 22 on its ends at its axis, and suitable bearing rollers or balls 23 may be provided for the purpose of decreasing friction to permit the cylinder 10 to be easily rotated when it is unlocked. A gear 24 is also formed on the end 17 of the cylinder 10 and it projects out from the trunnion 22. A rack 25 meshes with the gear 24 and has a knob 26 connected to its outer end which is positioned outwardly of the lock and gear enclosing casing 27.

In operation, when it is desired to rotate the cylinder 10 to deposit in the cylinder, valuables or any suitable articles, the lock structure 21 is first operated to swing the locking bolt 14 out of the end of the cylinder and the knob 26 is then pulled outwardly which will rotate the cylinder 10 in the direction indicated by the arrow A in Figure 1 of the drawings which moves the opening 11 in registration with the door opening 3, and permits depositing into the cylinder. After the valuables or the like have been placed in the cylinder 10 the knob 26 and rack 25 are forced inwardly which rotates the cylinder 10 in the direction oppositely to that indicated by the arrow A and brings the opening 10 in registration with the chute 5 permitting the valuables which were deposited in the cylinder 10 to pass through the chute into the depository.

A safety catch or pin 30 is carried by the frame of the cylindrical shell 2 and enters the cylinder 10 to prevent reverse rotation of the cylinder.

It is, of course, to be understood, that the invention may be constructed in various other manners and the parts associated in different relations, and therefore, I do not desire to be limited in any manner, except as set forth in the claims hereunto appended.

What I claim is:

1. In a night depository entrance structure, a rotary object receiving member, a lock for locking said member against rotation, a rack and pinion operable independently of the lock for rotating the cylinder upon release of the cylinder from the lock.

2. In a night depository entrance, a rotatable cylinder provided with a receiving and a depositing opening, a lock structure for locking said cylinder against rotation and with said opening in a depositing position, a pinion on said cylinder, a horizontally movable rack engaging said pinion for rotating said cylinder upon the release of the cylinder from said locking means.

3. In a night depository entrance, a rotatable cylinder provided with a receiving and depositing opening, a lock structure for locking said cylinder against rotation and with said opening in a depositing position, a rack and pinion for rotating said cylinder, said cylinder provided with thickened wall portions at predetermined points.

4. In a night depository entrance, a rotatable cylinder provided with a receiving and a depositing opening, a lock structure for locking said cylinder against rotation and with said opening in a depositing position, a pinion on said cylinder, a horizontally movable rack engaging said pinion for rotating said cylinder upon the release of the cylinder from said locking means, and a chute adapted to have communication with said opening when in a depositing position.

5. In a night depository entrance, a carrying shell, a cylinder rotatable in said shell, said shell provided with an opening, said cylinder provided with a receiving and a depositing opening adapted to be moved into registration with the opening in the shell to permit the placing of articles in the cylinder, a lock for locking said cylinder against rotation with its opening out of registration with the receiving opening of the shell, a pinion connected to said cylinder, and a rack engaging said pinion for rotating the cylinder upon release of the cylinder from the lock.

6. In a night depository entrance, a carrying shell, a cylinder rotatable in said shell, said shell provided with an opening, said cylinder provided with a receiving and depositing opening adapted to be movable into registration with the opening in the shell to permit the placing of articles in the cylinder, a pinion connected to said cylinder, and a rack engaging said pinion for rotating the cylinder.

7. In a night depository entrance, a carrying shell, a cylinder rotatable in said shell, said shell provided with an opening, said cylinder provided with a receiving and a depositing opening adapted to be moved into registration with the opening in the shell to permit the placing of articles in the cylinder, a lock for locking said cylinder against rotation with its opening out of registration with the receiving opening of the shell, said cylinder being increased in thickness at the portion which normally is in alignment with the opening in said shell, said shell provided with an outlet opening, and the chute communicating with the outlet opening.

8. In a night depository entrance, a carrying shell, a cylinder rotatable in said shell,

said shell provided with an opening, said cylinder provided with a receiving and a depositing opening adapted to be moved into registration with the opening in the shell to permit the placing of articles in the cylinder, a lock for locking said cylinder against rotation with its opening out of registration with the receiving opening of the shell, a pinion connected to said cylinder, and a rack engaging said pinion for rotating the cylinder upon release of the cylinder from the lock, said cylinder being increased in thickness at the portion which normally is in alignment with the opening in said shell.

9. In a night depository entrance, a carrying shell, a cylinder rotatable in said shell, said shell provided with an opening, said cylinder provided with a receiving and a depositing opening adapted to be moved into registration with the opening in the shell to permit the placing of articles in the cylinder, a lock for locking said cylinder against rotation with its opening out of registration with the receiving opening of the shell, a pinion connected to said cylinder, and a rack engaging said pinion for rotating the cylinder upon release of the cylinder from the lock, said shell provided with an outlet opening, and a chute communicating with the outlet opening.

In testimony whereof I affix my signature.

SAMUEL P. YEO.