March 17, 1925. 1,529,686

L. F. BOHRER

BANDIT TRAP FOR REVOLVING DOORS

Filed Feb. 4, 1924 2 Sheets-Sheet 1

Fig. 1.

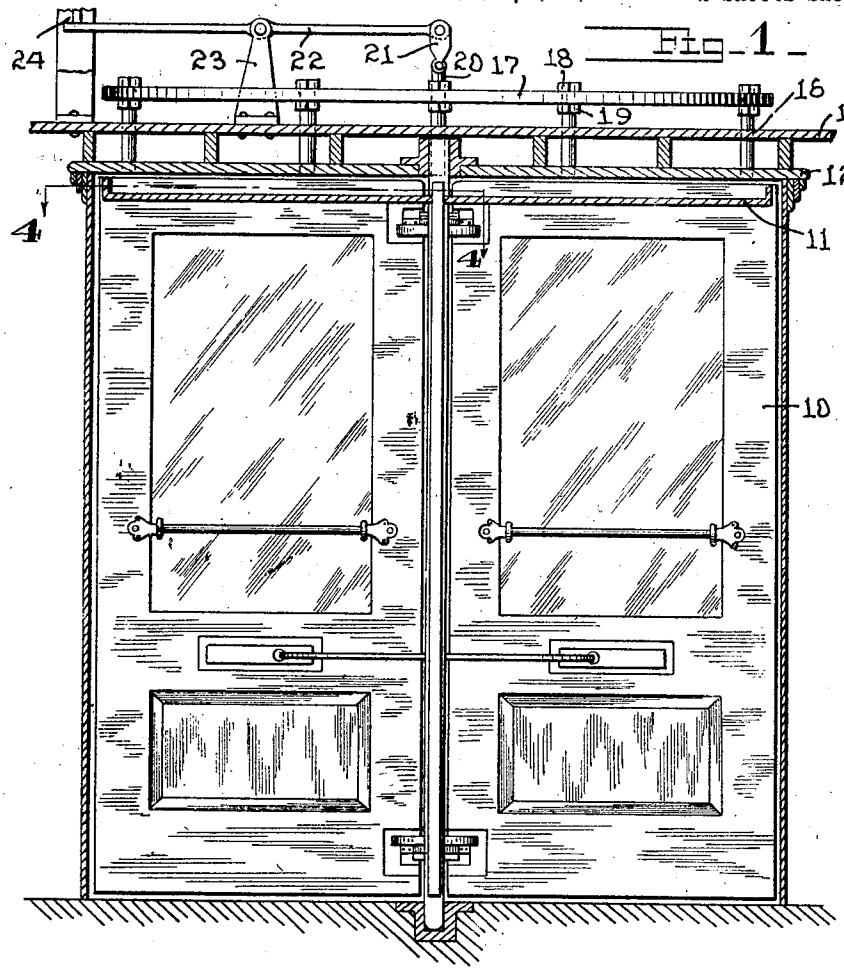
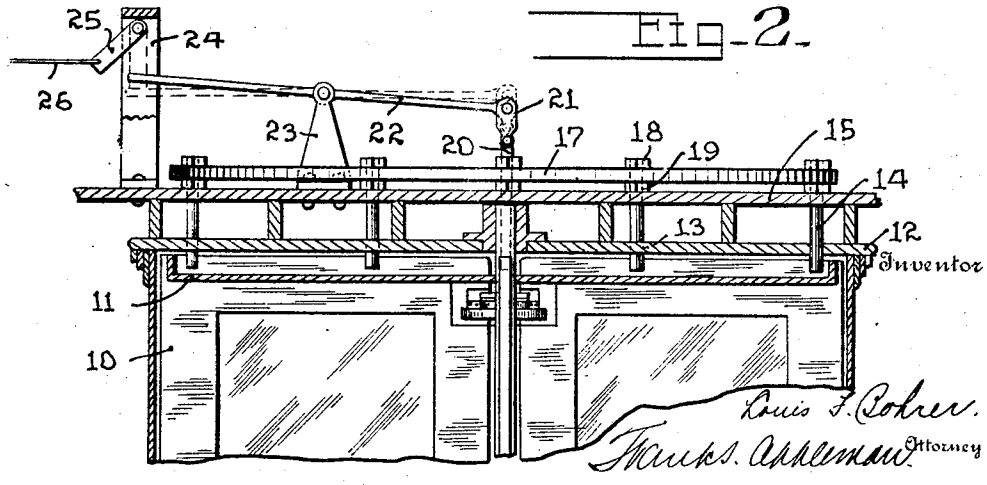


Fig. 2.



Inventor

Louis F. Bohrer.

Attorney

Frank S. Adelman.

March 17, 1925. 1,529,686

L. F. BOHRER

BANDIT TRAP FOR REVOLVING DOORS

Filed Feb. 4, 1924 2 Sheets-Sheet 2

Fig. 3.

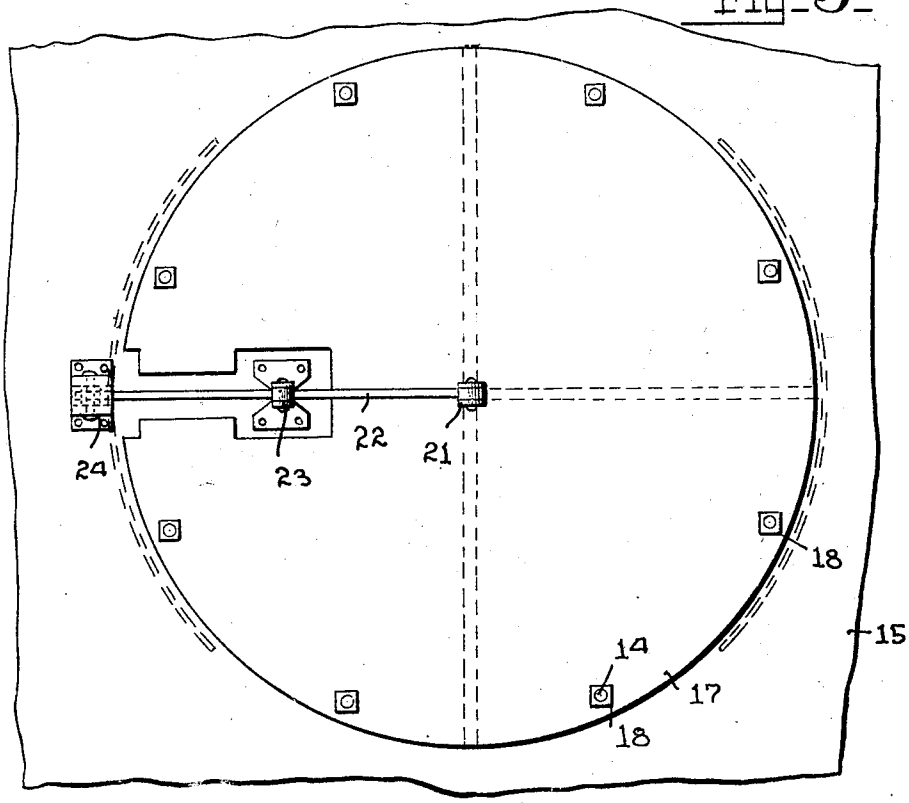


Fig. 4.

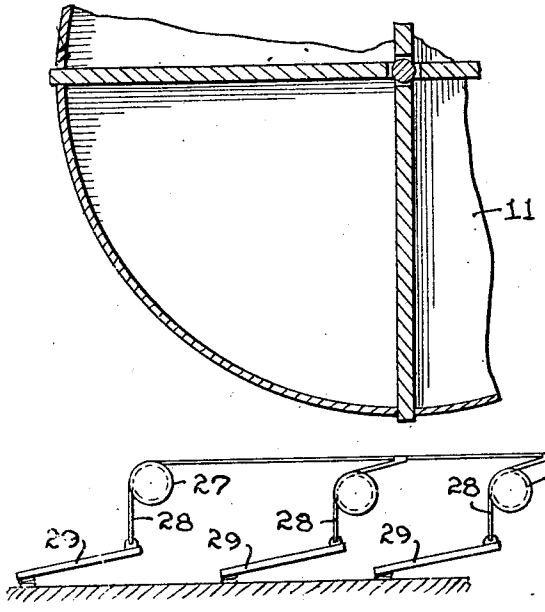
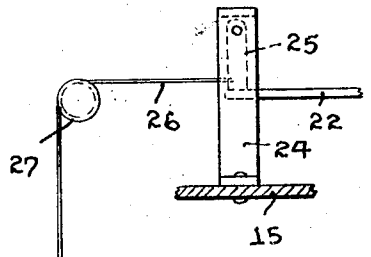


Fig. 5.



Inventor

Louis F. Bohrer

Frank S. Ackerman

Attorney

Patented Mar. 17, 1925. 1,529,686

UNITED STATES PATENT OFFICE.

LOUIS F. BOHRER, OF NORMAL, ILLINOIS.

BANDIT TRAP FOR REVOLVING DOORS.

Application filed February 4, 1924. Serial No. 690,553.

To all whom it may concern:

Be it known that I, LOUIS F. BOHRER, a citizen of the United States of America, and resident of Normal, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Bandit Traps for Revolving Doors, of which the following is a specification.

This invention relates to building structures, and particularly to inventions known as burglar traps, in which provision is made for preventing the escape of burglars who attempt to rob banking institutions or the like.

It is an object of this invention to provide means associated with the ordinary door of the ingress and egress of a counting room or banking room whereby at the will of the occupants of the building or room, the door may be rendered inoperative and held rigid and immovable so that the burglar cannot escape.

It is a further object of this invention to produce mechanism associated with a revolving door guarding such banking room whereby means for holding the door may be made operative by the manipulation of tripping mechanism or the like, stationed at a distance from the door as, for instance, by the officers of the institution stationed back of the counters or windows so that if a burglar attempts to "hold up" the attendants, the door locking mechanism may be released to effect the securing of the door in order that the bandit may not escape.

It is a further object of this invention to produce a rotary door locking mechanism which can be installed in association with revolving doors now in common use, or which may be employed in connection with new revolving door installations.

It is a further object of this invention to produce a door retaining device, the mechanism of which is concealed and so located as to be inaccessible to those who might want to tamper with the mechanism to render it inoperative.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in elevation of a door and the locking mechanism partly in section;

Figure 2 illustrates an enlarged detail view of the upper part of the structure shown in Fig. 1;

Figure 3 illustrates a top plan view of the door locking mechanism;

Figure 4 illustrates a sectional view on the line 4—4 of Fig. 1; and

Figure 5 illustrates a view in elevation of trip operating mechanism.

In these drawings, 10 denotes a revolving door of any conventional type, in which the spaces between the wings of the door at their upper ends are provided with guards 11 in order to render the structure thereabove invisible from the doorway so that persons passing through the doorway will not observe the door locking mechanism, or gain access to it for the purpose of tampering with it to render it inoperative.

In the present embodiment of the invention, an apertured plate 12 is supported above the door, the apertures 13 of which are intended to receive bolts or rods 14 which are slidable in the apertures, and the plate 12 acts as a guide and a retaining device for the bolts when they are in position to engage the sides of the wings of the door above the shield 11.

The structure above the plate 12 may be provided to suit the requirements, but if there is a floor such as 15 above the plate, it can be provided with apertures such as 16, through which the bolts will reciprocate as they move up and down, as will presently appear.

The bolts have their upper ends anchored to a head 17, and in the present embodiment of the invention, the head is apertured to receive threaded portions of the bolts, and nuts 18 and 19 are threaded on the bolts above and below the head, respectively whereby the bolts are secured to the head so that as the head is moved up and down, the bolts will rise or fall and when they descend they are intended to pass below the upper edges of the wings of the door and retain the wings against movement.

As a means for operating the head, the central post 20 thereof has a link 21 pivotally connected to it, and the upper end of the link is pivoted to a lever 22 that is ful-

crumed on a bracket 23 supported on the floor 15. The lever extends radially of the head and operates in a guide 24 that is stationed at one edge of the head. A detent or dog 25 has one end pivoted in the guide and the opposite end extends into engagement with the lever 22 to hold it depressed at the outer end; a condition which results in suspending the head and the bolts in order that the bolts will be free of the upper edges of the wings of the door during the normal operation of the door.

A flexible element 26 such as a cable may be connected to the lower end of the detent and it may operate over suitable pulleys or guides 27 to distant points where branch cables or elements 28 may be connected to it, leading to different stations in order that different operators may release the door locking mechanism, should occasion require, by pressing on pedals 29, one of which is secured to each of the branch cables 28. The pedals 29 shown here are of conventional type, although any appropriate pedals or trip actuating devices may be employed in these locations.

From an inspection of the drawing and from the foregoing description, it will be apparent that if bandits should enter a bank through the freely revolving door and attempt a "hold up", any one of the occupants of the bank might press on a pedal to release the lever 22 in order that the head will fall by gravity to project the bolts into the path of travel of the wings of the door to arrest the said wings and prevent them from moving so that the door cannot be revolved. When this occurs, the doors will be held to prevent the escape of the bandits and the device will therefore act as a trap.

I claim:

1. In a bandit trap, a door section pivoted on a vertical axis and having wings in spaced relation to each other, shields between the wings near their upper ends, an apertured plate covering the area occupied by the door when in normal position, a guiding element thereabove having apertures alining with the apertures of the plate, a head superimposed above the guiding element and having downwardly projecting bolts guided in the apertures of the guiding element and the said plate, means for holding the head suspended, and means for tripping the means for holding the head suspended, substantially as described.

2. In a bandit trap, a door section pivoted on a vertical axis, an apertured plate above the area occupied by the door when in position to guard a passage, a guiding element above the apertured plate in spaced relation thereto having apertures alining with the apertures of the plate, a head superimposed above the guiding element and having downwardly projecting bolts guided in the apertures of the guiding element and the said plate and adapted to project into the path of travel of the door section, means for holding the head suspended, and means for tripping the means for holding the head suspended, substantially as described.

LOUIS F. BOHRER.