July 22, 1924. 1,502,537

A. E. ANAKIN

HOLDUP PREVENTING DEVICE

Filed April 18, 1922 2 Sheets-Sheet 1

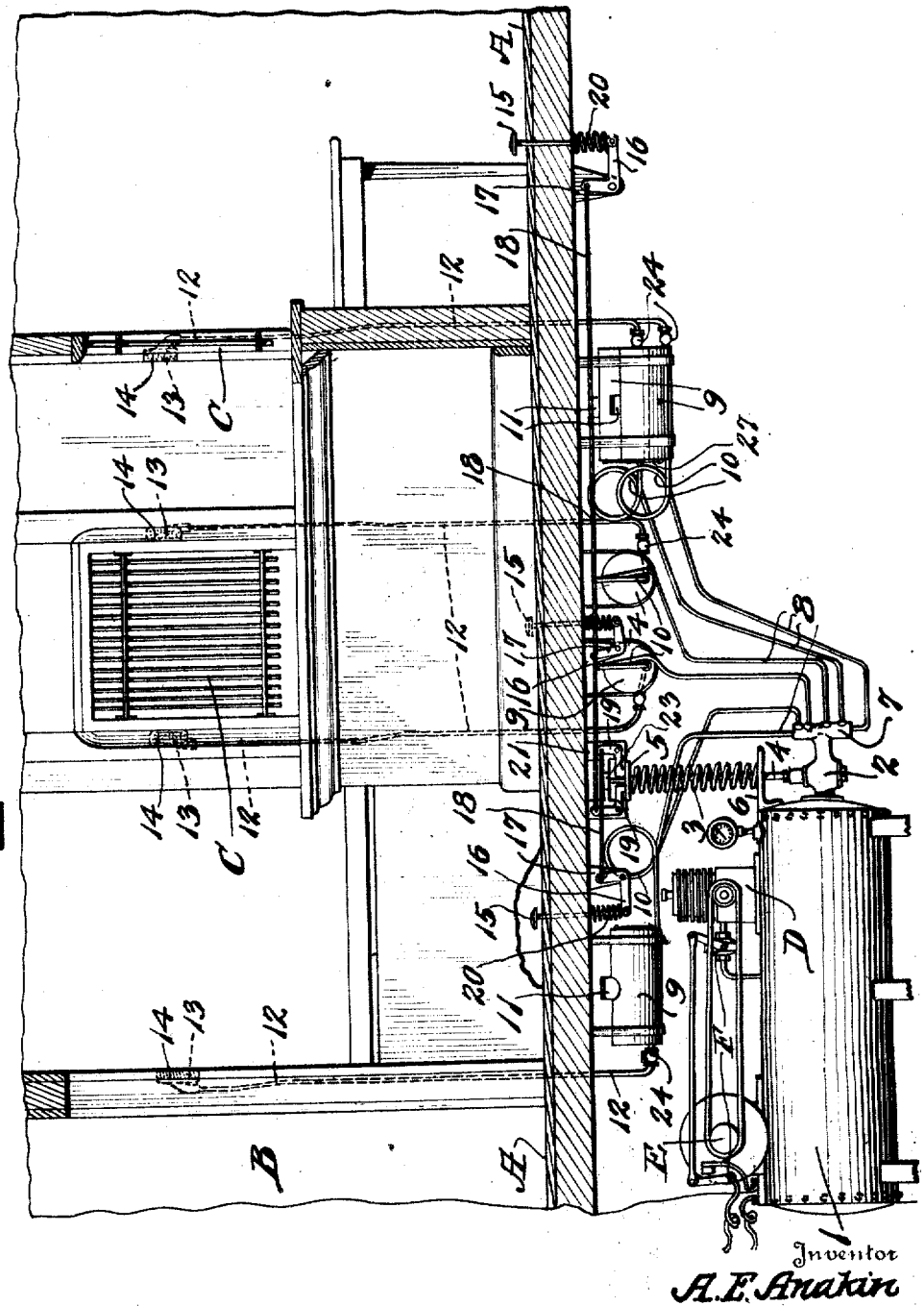



Fig. 1.

Witness:
C. W. Wagner.

Inventor
A. E. Anakin

By Robb, Robb & Hill
Attorneys.

July 22, 1924. 1,502,537

A. E. ANAKIN

HOLDUP PREVENTING DEVICE

Filed April 18, 1922 2 Sheets-Sheet 2

Fig. 2.

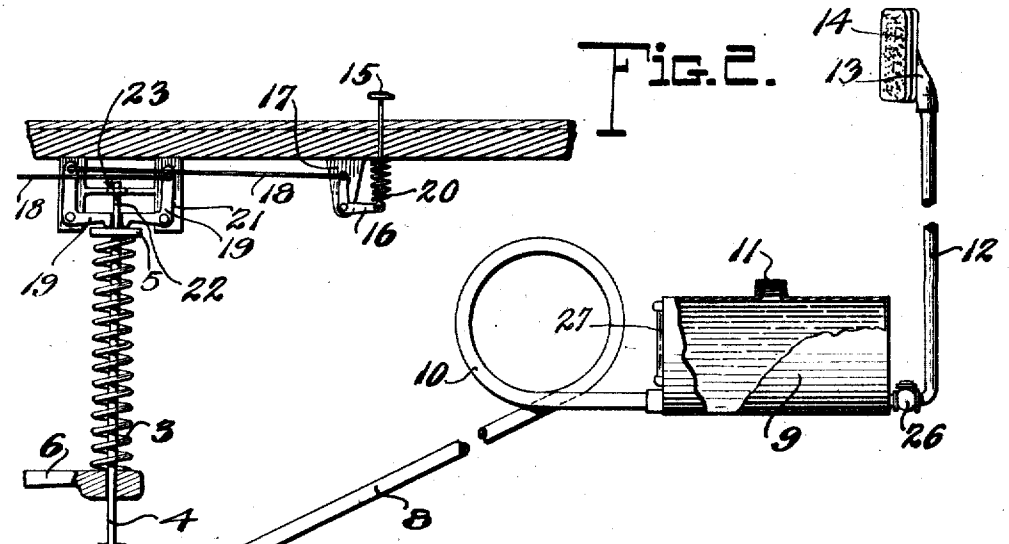



Fig. 3.

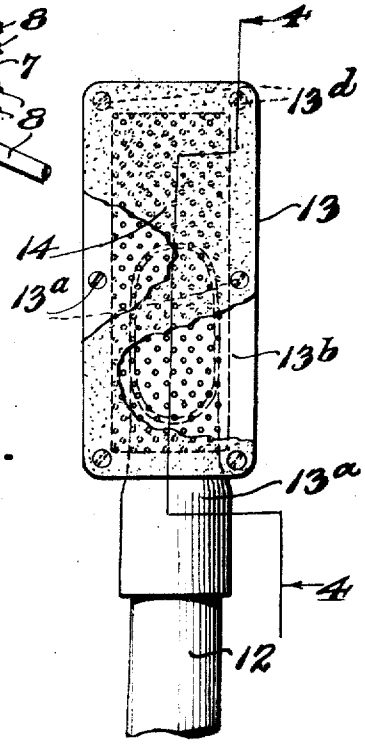
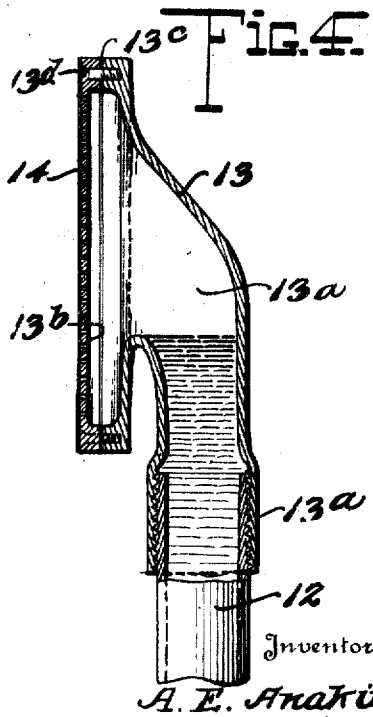



Fig. 4.




Witness:
C. H. Wagner.

Inventor
A. E. Anakin

By Robb, Robb & Hill
Attorneys

Patented July 22, 1924. 1,502,537

# UNITED STATES PATENT OFFICE.

ARTHUR E. ANAKIN, OF LONG BEACH, CALIFORNIA, ASSIGNOR TO ANAKIN SPECIALTY MANUFACTURING COMPANY, OF LONG BEACH, CALIFORNIA, A CORPORATION OF DELAWARE.

## HOLDUP-PREVENTING DEVICE.

Application filed April 18, 1922. Serial No. 555,521.

*To all whom it may concern:*

Be it known that I, ARTHUR E. ANAKIN, a citizen of the United States, residing at Long Beach, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Holdup-Preventing Devices, of which the following is a specification.

My invention relates to new and useful improvements in bank protectors and has for its principal object to provide an apparatus which can be easily installed in any bank or building where large amounts of money are handled and which will effectively prevent successful holdups and bank robberies.

Another object of my invention is to provide an apparatus which is entirely concealed from view and which may be operated from different advantageous positions within the building and when operated will discharge a chemical into the face of the robber, blinding or rendering him helpless until overpowered.

Another object is to provide discharge ports located preferably against the doorway and tellers' windows, which have coverings rendering them invisible and also preventing evaporation or deterioration of the chemical.

The invention provides a pressure tank which is automatically maintained at a maximum pressure and having a discharge valve of relatively large area, which can be operated from various positions within the bank. The valve has a plurality of conduits leading to chemical tanks which communicate with discharge ports located at each side of the tellers' windows and entrances. These discharge ports are covered by a colored wax which conceals them and prevents the evaporation or deterioration of the chemical.

With the above and other objects in view the invention consists in certain arrangements and constructions of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims. For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a longitudinal vertical section through a bank having my invention installed therein.

Figure 2 is a fragmentary detail view partly in section, disclosing the discharge valve and actuating means therefor; also one of the chemical discharging units.

Figure 3 is a front elevation of one of the chemical discharge ports.

Figure 4 is a sectional view taken on the plane indicated by line 4—4 of Figure 3.

Corresponding and like parts are referred to in the following description and indicated on all of the views of the drawings by like reference characters.

Referring to the drawings, A designates the floor of a bank, B the entrance and C the tellers' windows or cages.

The invention comprises an air pressure tank 1 which is automatically kept at a predetermined pressure by any conventional means, such as a compressor pump D operated by an electric motor E under control of an automatic switch F. The tank 1 has a discharge valve 2 located at one side thereof and normally held closed by the spring 3 positioned between the head or collar 5 on the valve stem 4 and the bracket 6 located on the tank 1. The valve 2 has a discharge passage leading to a distributor or header 7 from which several pipes or conduits 8 lead to chemical storage tanks 9. These conduits are looped or coiled adjacent the chemical tanks 9, as indicated at 10, to provide traps, thus preventing the flow of the liquid or chemical back to the valve 2 and corroding the same. Each of the chemical tanks 9 is provided with a conventional filler cap 11. A conduit 12 leads from the lower portion of said tank 9 upwardly behind the wall or partition to a point adjacent the side of the teller's window, or an entrance, and has screwed thereon a discharge head 13. This discharge head 13 comprises a body portion $13^a$ and a removable aperture face or discharge spray nozzle $13^b$ provided with a suitable gasket $13^c$ and held in position by fastenings $13^d$.

One of these discharge heads is prefer-

ably mounted at each side of a teller's window or entrance, at a height about on a plane with the face of a person of average stature. In positioning the device in the frames of the window, it is preferable to incline the faces $13^b$ slightly toward each other. The faces should be made flush or slightly below the face of the window frame in order that a protective covering 14 may be placed over the perforated plate $13^b$.

This covering 14 may be of paraffin, wax or the like and may be dyed or colored to suit the window frame, thus rendering the plate invisible and preventing deterioration of the chemical standing in the conduit 12 and the tank 11. Upon operation of the device said coating 14 will be readily displaced.

In order to actuate the discharge valve 2 numerous push rods or foot buttons 15 are located at different advantageous positions throughout the bank. These push rods extend downwardly through apertures in the floor and are fastened to bell-cranks 16 pivotally supported by brackets 17 depending from the floor A and are connected by cables 18 to valve actuating bell-cranks 19. A spring 20 is provided on the push rod 15 to keep the cables 18 taut. The bell-cranks 19 are pivotally secured to a bracket 21 depending from the floor A and so positioned as to actuate the discharge valve 2 upon movement thereof.

The valve stem 4 of the valve 2 has projecting upwardly therefrom a guide rod 22 operating in a guide aperture 23 located on the bracket 21. This maintains the head 5 in proper register to be actuated by the bell-cranks 19.

In the operation of the device it is assumed that pressure contained within the tank 2 is approximately 100 lbs. per square inch.

The chemical tanks 9 have been filled with any suitable liquid chemical, such as ammonia, and this liquid stands in the conduit 12 to approximately the height of the discharge head 13, being supported therein by a check valve 26.

Upon entering the bank the robber will naturally stand in front of the teller's window and demand the money. He will then be directly in line with the two discharge ports, one on each side of the window frame, on a plane with his face.

The teller or some other bank official will then depress the push rod 15 which will actuate the bell-crank 16 causing a pull on the cable 18 thus rocking the bell-crank 19, which will in turn depress the valve stem 4, thus opening the valve 2. Pressure such as compressed air will now become effective through the conduits 8 upon the chemical, preferable in liquid state, contained in the tank 9 and the conduit 12, causing the same to displace or blow away the thin wax seal or covering of the ports 14, and be ejected in the form of a powerful spray or mist through the discharge openings 13, directly into the face of the robber, thus blinding or rendering him helpless or unconscious, depending upon the kind of chemical used.

Upon release of the push rod 15 the valve 2 will be closed by its spring 3, thus stopping the chemical discharge, it then being only necessary to recoat the discharge openings with the colored sealing medium and the device is again ready for use. The chemical tanks are of sufficient size, or comparatively so, that the device can be operated a number of times before it is necessary to refill it. When refilling is required, it is only necessary in addition to the above, to remove the filling plug and fill the tank to the desired level, as indicated by the gauge 27, and then replace the filling plug. The apparatus is then ready for further use.

The pressure in the tank 1 is maintained through an automatic pressure actuated electric switch of the type that will break the circuit when a predetermined pressure is reached and upon reduction of the said pressure the circuit will again be closed. This circuit operates the electric motor E which in turn actuates the compressor or pump D.

While the drawings show only one controlling valve 2 which, when depressed, will cause the discharge of the chemical through all of the ports or discharge heads 13, it may be desirable, however, to discharge the chemical through only several of the ports, in which case I provide a plurality of control valves 2 which may be actuated either by a single foot pedal or by a series of foot pedals located at different positions throughout the building each of which controls one of the valves 2. This is clearly a mechanical expedient and within the purview of my invention.

It is also within the purview of my invention to install this apparatus in places such as railway mail cars, express cars and the like, where a pressure medium such as steam, compressed air or the like is already available, in which case the pressure tank, motor and air compressor are omitted and the device is connected directly to the available source of supply.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

1. A holdup preventing device for commercial institutions having a structural opening, said device including chemical discharge openings located at each side of said opening and inclined toward each other to effect converging streams meeting at a point in alignment with the opening when the device is operated, chemical supply means

for said discharge openings, and release means under control of an operator for the chemical supply means.

2. A holdup preventing device comprising a receptacle containing a chemical, a discharge port for said chemical, a conduit communicating between said receptacle and port, a check valve located in the conduit to support a column of the chemical therein between the check valve and said discharge port, a fluid pressure reservoir connected for discharging said chemical receptacle, and actuating means under the control of an operator for effecting said discharge.

3. A holdup preventing device for institutions having windows and an entrance, conduits leading to each side of said windows and entrance, breakable seals for said conduits, chemical discharge means under pressure and associated with the conduits, means for releasing said pressure to break said seal.

4. In a holdup preventing device for institutions having a window, a conduit leading to said window, a breakable seal for the mouth of said conduit, chemical discharge means for the conduit, and fluid pressure means for discharging a chemical through the conduit and causing the displacement of said seal.

5. In a holdup preventing device for institutions having windows and an entrance, conduits leading to each side of said windows and entrance, breakable seals for the mouth of said conduits, chemical discharge means for the conduit, and fluid pressure means for discharging a chemical through the conduit and causing the displacement of said seal.

6. A holdup preventing device for commercial institutions having a window and an entrance, said device including chemical discharge openings associated with said window and entrance, said discharge openings having breakable seals associated therewith, chemical supply means for said discharge openings, and release means under control of an operator for the chemical supply means.

7. A holdup preventing device for commercial institutions having a window and an entrance, said device including chemical discharge openings associated with the said window and entrance, said discharge openings having breakable seals associated therewith, chemical supply means for said discharge openings, fluid pressure means to cause the discharge of said chemical supply means, and trip means under control of the operator to render the fluid pressure means effective.

8. A holdup preventing device for commercial institutions having a window, a casing therefor, an entrance, said device including chemical discharge openings associated with said window and entrance, said discharge openings having breakable seals of colored material to match the window casing and render the same invisible associated therewith, chemical supply means for said discharge openings, and release means for the chemical supply means.

9. A holdup preventing device comprising a receptacle, a chemical contained within said receptacle, discharge ports for said chemical, displaceable seals for said discharge ports being readily displaced incident to the discharge of the chemical, conduits communicating between said receptacle and said discharge ports, pressure means for causing the discharge of the chemical from said receptacle through said discharge ports, release means associated with said pressure means, and actuating means for said release means.

10. In a holdup preventing device for institutions having cashiers' windows and an entrance, said device comprising chemical outlets associated with said windows and entrance so as to discharge a chemical directly into the face of the person attempting the holdup, chemical receptacles, a chemical contained in said receptacles, conduits leading from said receptacles to said discharge outlets, a check valve located in each of said conduits adapted to support a column of the chemical in said conduits between said check valve and said discharge ports, a reservoir, fluid pressure contained within said reservoir for discharging the contents of the chemical receptacles through the discharge outlets, conduits leading from said reservoir to said chemical receptacles, a valve intermediate said reservoir and said last named conduits, said valve being adapted upon actuation thereof to render said fluid pressure effective to cause a discharge of the chemical and actuating means for said valve said tuating means being operative from different locations within the institution.

In testimony whereof I affix my signature.

ARTHUR E. ANAKIN