

Aug. 4, 1925.

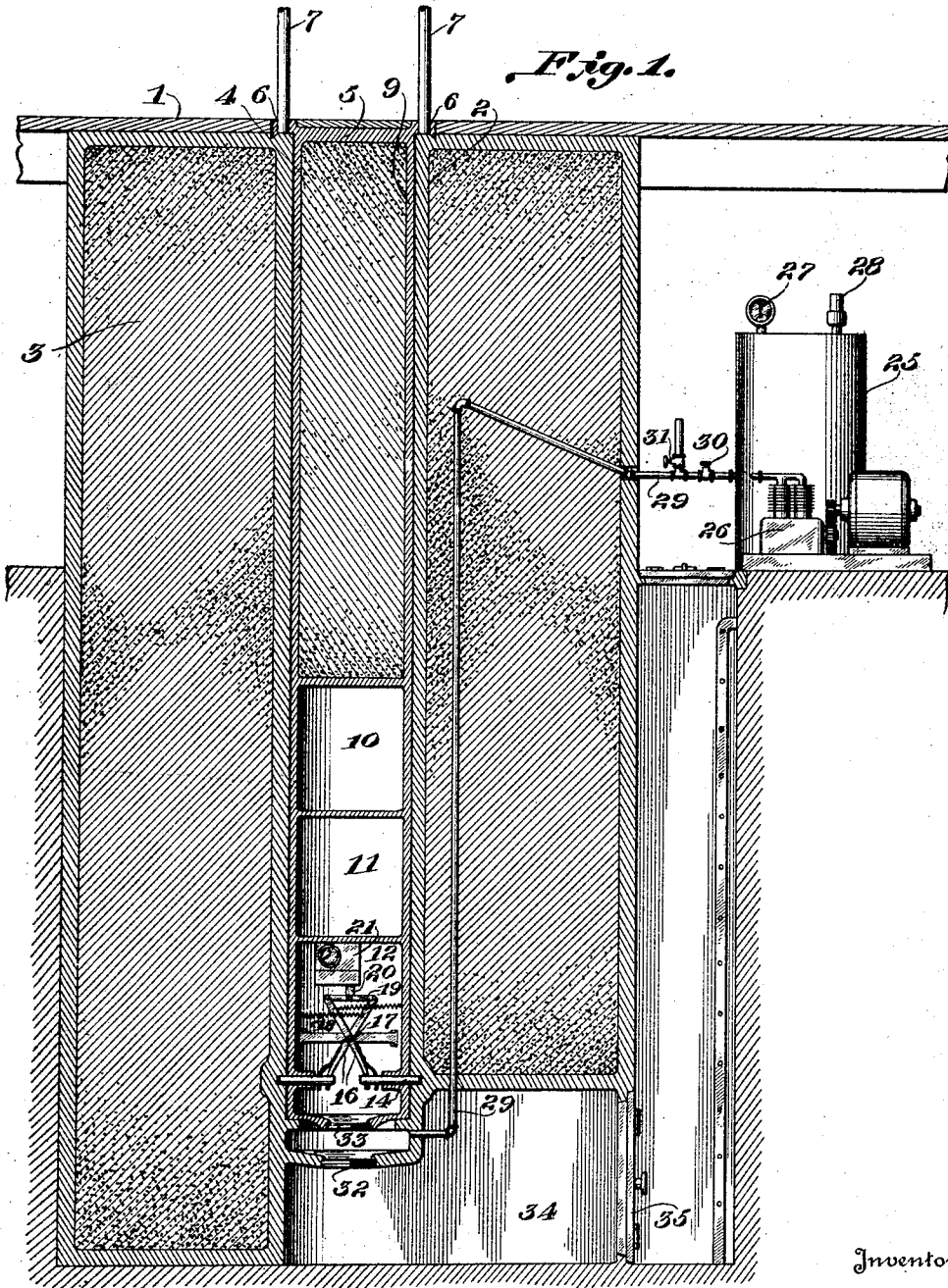
1,548,282

A. REINHART ET AL

DISAPPEARING SAFE

Filed June 27, 1924

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 2.

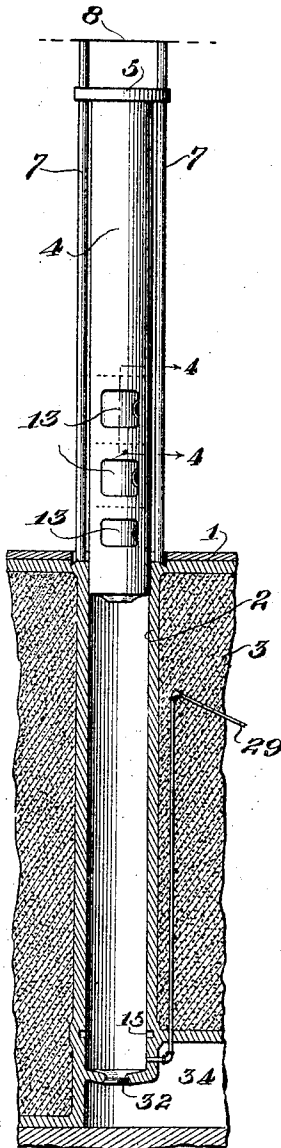


Fig. 3.

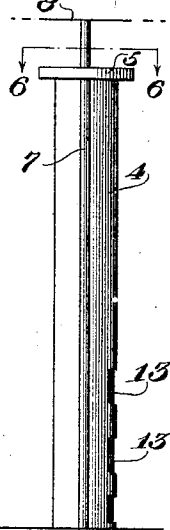


Fig. 4.

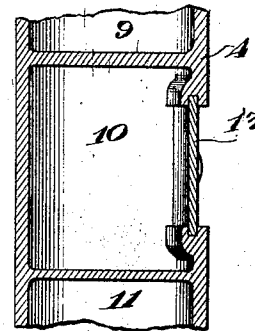


Fig. 5.

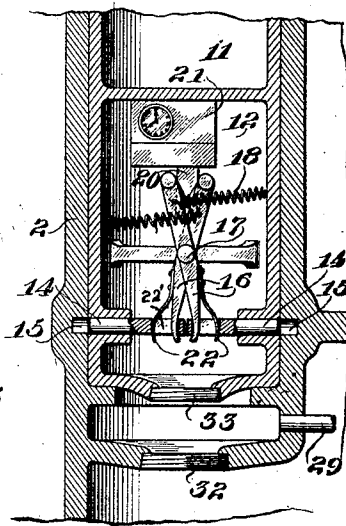
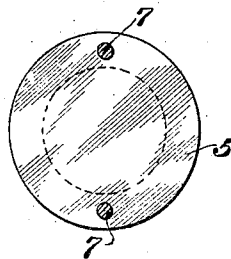


Fig. 6.



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UNITED STATES PATENT OFFICE.

ALEX REINHART AND NICHOLAS REINHART, OF COURTLAND, MINNESOTA.

DISAPPEARING SAFE.

Application filed June 27, 1924. Serial No. 722,835.

To all whom it may concern:

Be it known that we, ALEX REINHART and NICHOLAS REINHART, citizens of the United States, residing at Courtland, in the county of Nicollet and State of Minnesota, have invented certain new and useful Improvements in Disappearing Safes, of which the following is a full, clear, and exact description.

This invention relates to safes to be installed in banking houses and the like for the storage of currency, bonds, etc., and has for its purpose to provide such a device which may be lowered to a position below the floor of the bank and concealed.

Another object of the invention resides in the provision of a system of compressed air by means of which the safe may be raised or lowered and a time lock which may be set so as to release the safe at the time desired.

Other objects and advantages of the invention will be apparent from the following description when taken in connection with the accompanying drawings, in which,

Figure 1 is a longitudinal section through the device.

Figure 2 is a fragmentary section showing the safe in raised position.

Figure 3 is a side elevation of the safe per se.

Figure 4 is an enlarged fragmentary section on line 4—4 of Figure 2.

Figure 5 is an enlarged fragmentary section through the locking mechanism, and,

Figure 6 is a section taken on line 6—6 of Figure 3.

Referring to the drawings more in detail the numeral 1 indicates the floor of a bank or the like below which is situated a tank 2 surrounded or embedded in concrete 3. Slidably mounted within the tank 2 is the receptacle 4 which is permanently closed at its upper end as indicated by numeral 5. This upper end 5 of the receptacle lies flush with the floor 1 when in lowered position and is apertured at diametrically opposed points 6 so as to slidably engage the guide rods 7 which are secured to the upper part of tank 2 and extend vertically to the ceiling 8 to which they are also secured. By this means it will be obvious that the receptacle 4 is always maintained in vertical alignment with the tank 2.

The receptacle 4 is divided into a relatively large upper compartment 9 and three lower compartments 10, 11 and 12. The upper compartment is filled with concrete or

other similar material to give weight to the receptacle, while the lowest compartment 12 contains a time lock for controlling the movements of the receptacle. Compartments 10 and 11 are adapted for the storage of important papers, money and other valuables. Each of the smaller compartments 10, 11 and 12 is provided with a sliding door 13 by which access is had thereto.

The time lock comprises a pair of sliding bolts 14 adapted to seat in recesses 15 formed on the inner wall of the tank. These bolts are operated through the medium of levers 16 pivoted at 17 and to which are attached the coil springs 18 which draw the bolts to retracted position. Links 19 are pivoted to the upper ends of the levers 16 and are also pivoted to a plunger 20 which is operated by the timing mechanism 21. Levers 16 are operatively connected to bolts 14 by means of a pair of leaf springs 22 and slots 22' formed in the bolts by means of which the levers 16 may be set to project the bolts while the bolts remain in retracted position. In the operation of this part of the mechanism the device being in the locked position shown in Figure 1, the plunger 20 will be projected downwardly at the proper time and will swing the levers 16 on their pivot 17 as shown in Figure 5 to withdraw the bolts 14 from the sockets 15. When it is desired to return the receptacle 4 to its depressed position the levers 16 are again set in the position shown in Figure 1, but the bolts are not fully projected since they will engage the inner surface of the tank 2. As the receptacle reaches its lower position however the leaf springs 22 will project the bolts into the sockets 15 and thereby lock the receptacle until the timing mechanism is again operated.

In order to raise and lower the receptacle 4 we have provided a compressed air system comprising a tank 25 in which the air is compressed by means of the motor-operated pump 26. The tank 25 is provided with a pressure gauge 27, a safety valve 28, and pipe 29 which opens into the base of the tank 2. This pipe is provided with valves 30 and 31, the former being provided to let air into tank 2 to raise receptacle 4 and the latter permitting the escape of air from tank 2 so as to allow the receptacle to descend to its retracted position.

In order that access may be gained to the time-lock for repairs and the like, the tank

2 and receptacle 4 are provided with bolted hand holes 32 and 33 respectively, and a passageway 34 provided with locked doors 35 gives access to the lower portion of the tank 5 and receptacle.

From the foregoing description it will be apparent that we have provided an exceedingly simple and reliable means by which valuables may be safely stored and which 10 when not in use may be easily and quickly lowered to a place of concealment.

In accordance with the patent statutes we have described what we now believe to be the best embodiment of the invention, but 15 we do not wish to be understood thereby as limiting ourselves or the scope of the invention, as many changes and modifications may be made without departing from the spirit of the invention; all such we aim to 20 include in the scope of the appended claims.

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

1. A disappearing safe including a cylindrical tank situated beneath the floor of a 25 building, a tubular receptacle mounted within said tank, pneumatic means cooperating with the lower end of the receptacle for raising said receptacle, a time lock carried by said receptacle, and a pair of guide rods 30 extending upwardly from the floor of the building and cooperating with said receptacle.

2. A disappearing safe including a tank

embedded in concrete below the floor of a building, said tank being formed with an 35 open end substantially flush with the floor, a pair of vertically-extending guide rods adjacent the top of the tank, a receptacle slidably mounted in said tank and of substantially the same length; lateral projections 40 on said receptacle engaging said guide rods, and means cooperating with the lower end of the receptacle for raising and lowering the receptacle.

3. In combination with a disappearing 45 safe comprising a tank and a receptacle slidably mounted therein, a pair of sliding bolts carried by the receptacle and adapted to engage recesses in the tank wall, a pair of 50 pivoted levers, a timing device for operating said levers, and resilient means connecting the ends of said levers with said bolts.

4. In combination with a disappearing 55 safe comprising a tank and a receptacle slidably mounted therein, a pair of sliding bolts carried by the receptacle and adapted to engage recesses in the tank wall, said bolts being formed with elongated slots in their adjacent ends, a pair of pivoted levers, a spring 60 on one end of each lever, said spring and the corresponding lever and being positioned in the slot of its sliding bolt, and a timing device for controlling said levers.

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