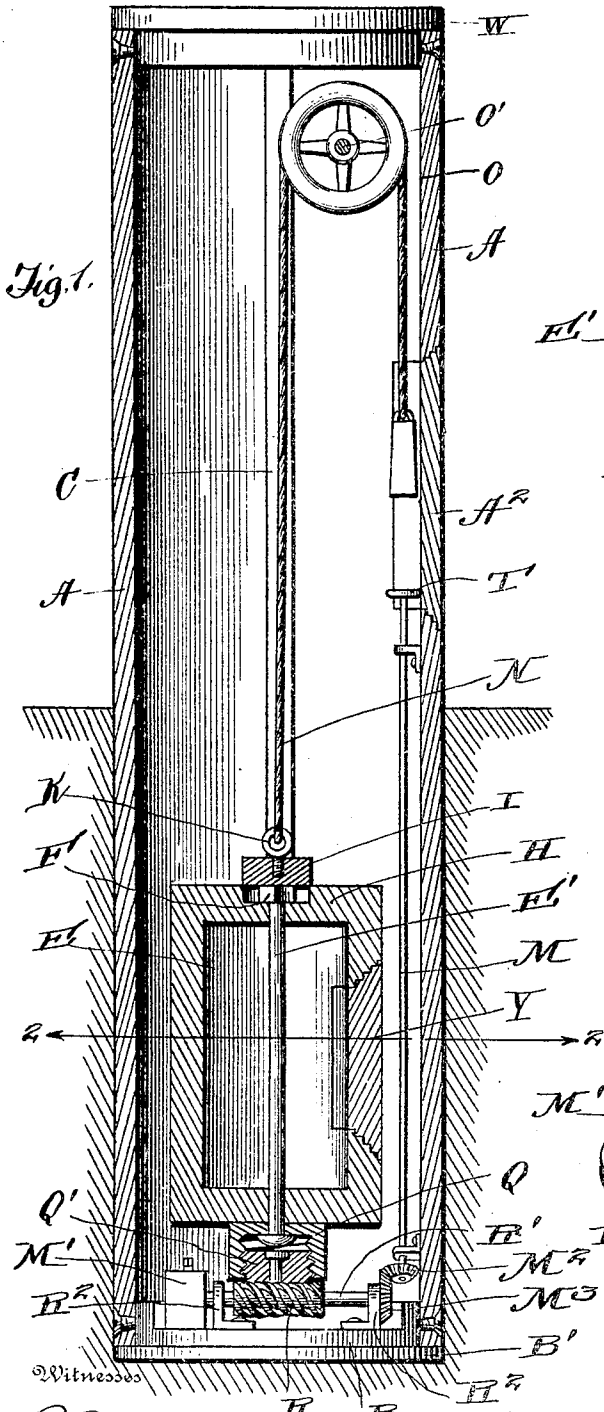
No. 801,100. PATENTED OCT. 3, 1905.

J. McFARLAND.

SUBTERRANEOUS FIRE AND BURGLAR PROOF SAFE.

APPLICATION FILED FEB. 14, 1905.

Fig. 1.



Witnesses:

R. A. Boswell.

Clara S. Davenport

Fig. 2.

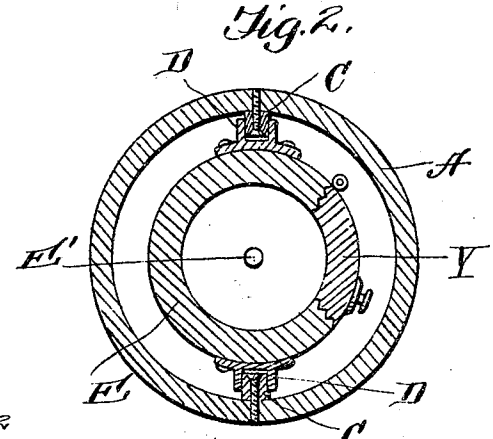
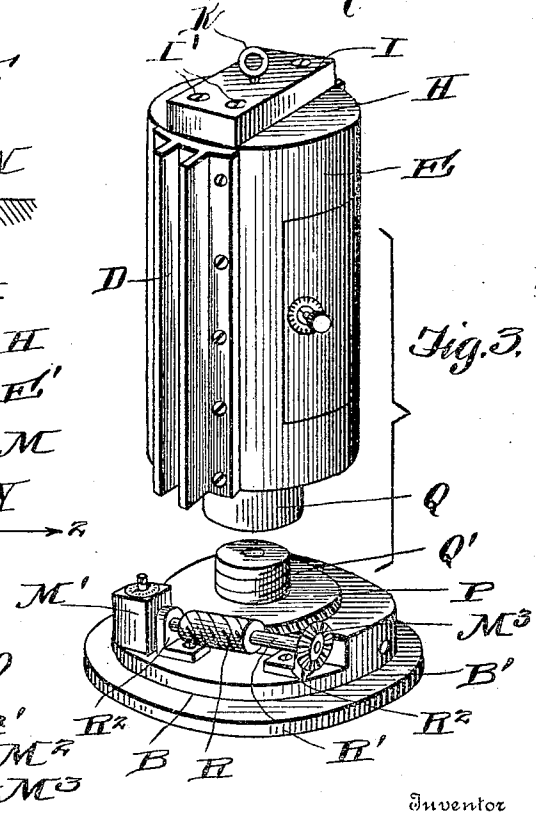


Fig. 3.



Inventor

John McFarland.

By Franklin H. Hough

Attorney

ANDREW B. GRAHAM CO. PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN McFARLAND, OF CENTERVILLE, IOWA.

SUBTERRANEOUS FIRE AND BURGLAR PROOF SAFE.

No. 801,100. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed February 14, 1905. Serial No. 245,569.

To all whom it may concern:

Be it known that I, JOHN MCFARLAND, a citizen of the United States, residing at Centerville, in the county of Appanoose and State of Iowa, have invented certain new and useful Improvements in Subterraneous Fire and Burglar Proof Safes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in subterraneous fire and burglar proof safes; and the object of the invention is to produce an apparatus of this nature in which the safe may be when not in use lowered into a portion of the casing which is adapted to be placed below the surface of the ground and held in such position by means of a time-lock.

The invention consists, further, in various details of construction and in combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings—

Figure 1 is a central vertical sectional view through my improved safe, the casing being shown. Fig. 2 is a cross-sectional view on line 2 2 of Fig. 1, and Fig. 3 is a perspective view of the bottom of the casing and the safe removed.

Reference now being had to the details of the drawings by letter, A designates the casing in which the safe is held, and said casing is made, preferably, of heavy steel or iron of any shape, either cylindrical or angular in cross-section, and the lower portion of said casing is provided with a removable bottom B, which has a flange B′, upon which the lower end of the casing rests, and a raised part, over which the casing telescopes. Fastening-bolts or other means are passed through the wall of the casing and engage said raised portion of the bottom, whereby the same may be securely held in place. Mounted upon the inner surface of said casing at positions diametrically opposite are strips C, which form guides for the grooves D, which are formed longitudinally upon the outer circumference of the safe E. Said grooves are of such a size and shape that they will receive the guide-strips and form means whereby the safe may be guided as it is raised and lowered within the casing. Said safe, which is made, preferably, of a shape to correspond to the shape and size of the casing, is provided with a central bar or rod E′, the head of which passes through the bottom of the safe, and the upper end of said rod is threaded and is adapted to receive a nut F, which is countersunken in the top H of the safe.

I is a cross-bar which is fastened at I′ to the top of the safe and covers the nut and end of said rod. An eye K is fixed to said cross-bar and to which a cable N is fastened, which cable passes over the pulley O, mounted upon the shaft O′, which is journaled in suitable bearings in the upper portion of said casing. A counterbalanced weight is attached to one end of said cable, whereby the safe may be conveniently raised and lowered.

The bottom of the safe is provided with a lock comprising two interlocking members Q and Q′, the former of which has internal threads engaging the threads on the circumference of the member Q′ and is rigidly mounted upon the lower end of the rod E′, and a milled wheel P is fixed to said locking member Q′, whereby the latter may be rotated upon its axis for the purpose of locking the same within the threaded portion of the locking member Q or causing said member Q′ to turn in a reverse direction for unlocking the same, it being observed that the threads upon the member Q′ are adapted to engage the threads upon the member Q. A worm-wheel R is fixed to a shaft R′, mounted in suitable bearings R^2 upon the bottom of the casing, and said worm-wheel is in engagement with the teeth of said pinion-wheel, which is fixed to rotate with the locking member Q′. The shaft of said worm-wheel is provided with any well-known time locking mechanism M′, which may be set to unlock the shaft at a predetermined moment, so as to allow said shaft to be rotated by means of a hand-wheel T, mounted upon the shaft M, which is accessible through the door A^2 of the casing. Mounted upon the shaft M is a bevel-gear M^2, which in turn is in mesh with the bevel-gear M^3, through the medium of which the worm-wheel is operated. The top of the casing is provided with a cover W, which may be locked

to the casing in any suitable manner as may be desired.

In adjusting my apparatus it is my purpose to lower the casing into an excavation to such an extent that the door in the circumference thereof will be at a convenient location a short distance above the floor of a room and whereby access may be had to a safe after the latter is raised opposite the door. The safe is provided with a door Y, which has the usual combination-lock upon the same. When it is desired to lower the safe and lock the same in the lower portion of the casing, the safe, after it reaches the locking member Q', a rotary movement is imparted to the latter whereby one locking member will screw within the other, thus securely holding the same down. The clockwork mechanism of any kind may be set in operation, whereby at the hour desired the locking members may be disconnected and the safe may be raised by the cable mechanism, so that access may be had to the same from the door in said casing.

In the event of the time mechanism not working for any reason and it is desired to release the safe from its locked position within the casing an operator may remove the cross-bar I of the safe, after which access may be had to the nut upon the bolt or rod which passes through the safe. Said nut being removed, the bottom may be easily disconnected, which bottom has secured thereto one of the locking members Q, after which the safe may be raised and lowered at the will of the operator.

While I have shown a particular form of apparatus illustrating my invention, it will be understood that I may vary the details of the same, if desired, without in any way departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A subterraneous fire and burglar proof safe, comprising a metallic casing, a portion of which is adapted to be secured or located in an excavation, a rotatable locking member secured to the bottom of the casing, a safe mounted within said casing and means for raising and lowering the same, a locking member fixed to the bottom of said safe and adapted to be interlocked with said locking member upon the bottom of said casing, and means for rotating the locking member upon the bottom, whereby the safe may be unlocked, as set forth.

2. A subterraneous fire and burglar proof safe comprising a metallic casing having longitudinal guide-strips upon the inner surface thereof, a removable bottom to said casing, a rotatable locking member mounted upon said bottom and having threads about its circumference, a safe having grooves formed longitudinally therein at positions diametrically opposite adapted to receive the guide-strips upon said casing, an internally-screw-threaded locking member rigidly fixed to the bottom of the safe and adapted to receive the threads of said locking member carried by the bottom of the casing, and means for rotating the locking members, and cable mechanism for raising and lowering the safe, as set forth.

3. A subterraneous fire and burglar proof safe comprising a metallic casing having a flanged bottom with a raised portion thereon, over which raised portion said casing is adapted to telescope, a rotatable locking member mounted upon said bottom and provided with a threaded circumference, a pinion-wheel fixed to said locking member, a rotatably-mounted worm-wheel in engagement with the teeth of said pinion-wheel, a safe having grooves formed longitudinally in the circumference thereof, strips upon the inner circumference of the casing adapted to be guided in said grooves, a pulley, and a cable passing about the same and secured to said safe, as set forth.

4. A subterraneous fire and burglar proof safe comprising a metallic casing, a bottom secured thereto, a safe, means for locking the latter to the bottom of the casing longitudinal grooves upon the circumference of said safe formed at positions diametrically opposite, strips upon the inner surface of said casing and engaging said grooves, said safe having a rod passing centrally through the top thereof, a nut fitted to the threaded end of said rod and countersunken in said top, a cross-bar fitted to the top and an eye carried by the cross-bar, a rope secured at one end to said eye, and a pulley over which said rope passes, as set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

JOHN McFARLAND.

Witnesses:

G. W. WHITSELL,

H. E. VALENTINE.