







# UNITED STATES PATENT OFFICE.

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## BURIAL-VAULT.

995,519.

Specification of Letters Patent. Patented June 20, 1911.

Application filed January 7, 1911. Serial No. 601,352.

*To all whom it may concern:*

Be it known that I, GEORGE W. BELLIS, citizen of the United States, residing at Galion, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Burial-Vaults, of which the following is a specification.

This invention relates to improvements in burial vaults of the class wherein provision is made for preventing surreptitious access thereto, or what is known as burglar proof vaults, and has for one of its objects to provide a simply constructed device wherein provision is made for locking the entrance or closure against any attempt by unauthorized persons to open the same.

Another object of the invention is to provide a device which may be locked without the use of keys or like instruments.

With these and other objects in view the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims.

The improved device is designed more particularly for use in connection with metal burial vaults, preferably steel, and may be adapted without material structural changes to vaults of different sizes and shapes or to combination steel and cement vaults, or to vaults having a steel lining and cement outer structure, but is designed more particularly for use in connection with the steel vaults, and for the purpose of illustration is shown thus employed, and in the drawings employed to illustrate the preferred embodiment of the invention, Figure 1 is a perspective view of the end portion of a vault with the improved closure applied thereto, and viewed from the outside; Fig. 2 is an enlarged section on the line 2—2 of Fig. 1, showing the inner side of the door or closure; Fig. 3 is a section on the line 3—3 of Fig. 2; Fig. 4 is a sectional detail, enlarged, on the line 4—4 of Fig. 2; Fig. 5 is an enlarged perspective view from the rear of the bolt operating disk. Fig. 6 is a view similar to Fig. 1, showing the bolts in withdrawn position.

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

The vault portion of the improved device embraces a casing or shell 10 having end

frames, one of which is shown at 11, the end frame comprising an angle iron formed to conform to the inner surface of the shell 10 and designed to be set slightly within the open end thereof and against which the door 12 is adapted to be seated, said frame being secured to the said shell by rivets. Vaults of this character are generally constructed with one end permanently closed and with the other end removable, and the removable end is generally a sheet of plate steel, represented as a whole at 12, and conforming in outline to the vault shell and bearing against the outer portion of the end frame 11, so that the edges of the closure conform to the outer end edges of the shell. In the improved construction the end frame 11 is provided with a plurality of slots 13 to receive staples 14 connected rigidly to the closure 12. Any required number of the staples may be employed, but will be located at sufficiently frequent intervals to insure the rigid connection of the closure to the shell. The staples extend through the frame member 11 a sufficient distance to receive bolts of the locking mechanism, as hereafter explained.

Mounted for rotation through the closure 12, preferably centrally thereof, is a bolt 15 having an enlarged head 16 externally of the plate 12 and provided with a wrench receiving terminal 17 and with its inner end threaded into the disk 19.

Engaging upon the threaded portion of the bolt 15 is a disk 19 with one face oblique to the door 12 and provided with a lateral stop 20 at one point. Slidably disposed adjacent to the inner side of the plate 12 are a plurality of locking bolts of novel form, preferably four in number and designated respectively by the characters 21, 22, 23 and 24. The bolt member 21 is formed with a segmental portion 25 which corresponds substantially to the curvature of the upper side of the frame 11 and is provided with projections 26 for engaging in the staples 14 which extend through the upper member of the frame when the bolt member is disposed in one position and withdrawn from the staples when the bolt member is disposed in its other position. The bolt member 21 is provided with guide slots 27 through which guide pins 28 are passed and connected to the plate 12. By this means the bolt member 21 when moved will



be retained in parallel relations to the sides of the frame and to the sides of the closure 12. The bolt 22 is provided with similar projections 29 and guide slots 30 through which pins 31 are passed and connected to the closure 12. By this means when the bolt 22 is moved outwardly the projections 29 pass through the staples 14 which are connected to the adjacent side of the frame 11, and will be withdrawn therefrom when the bolt member is disposed in its inner position. The bolt member 23 is precisely like the bolt 22 except that it is reversed in position and is provided with projections 32, guide slots 33 and guide pins 34, and operates in the same manner in connection with the staples which project through the opposite side of the frame 11. The bolt 24 is provided with projections 35, guide slots 36 and guide pins 37, and operates in connection with the staples 14 which project through the lower member of the frame 11.

Pivoted respectively at 38, 39, 40 and 41 to the disk 19 are four radius bars 42, 43, 44 and 45, and the outer ends of the radius bars are pivoted respectively at 46, 47, 48 and 49 to the bolt members 21, 22, 23 and 24. The outer faces of the various lugs 26, 29, 32 and 35 are inclined or beveled, while the inner ends of the bolt members 21, 22, 23 and 24 are also inclined or beveled, as shown. By this means the beveled faces of the projections of the bolt members bear against the adjacent edges of the frame members 11 when the bolt members are projected and produce a wedging effect against the staples to draw the door 12 closely against the outer face of the frame, while the inner beveled ends of the bolt members bear against the beveled or inclined face of the disk 19 and produce a similar wedging effect between the parts, as hereafter explained. By this arrangement of the parts it will be obvious that when the disk 19 is rotated in one direction by a wrench or other implement applied to the squared head 17 of the bolt 15, the radius bars 42, 43, 44 and 45 will force the bolt members outwardly and insert the various projections thereof beneath the staples and not only draw the door 12 closely against the frame 11, but also lock the plate firmly against the frame and shell. The rotary motion of the disk 19 is continued until the stop 20 engages with one of the bolt members, and the parts will be so arranged that when this contact takes place the bolts will have been moved to the outer end of their path of movement, and the disk 19 firmly clamped by the action of the threaded portion of the bolt, against a yieldable gasket 18 which surrounds the pin 15, and compresses the gasket against the closure 12, and thus produces an effectual air and water tight joint around the pin.

It will be noted that a jam nut 52 en-

gages the threaded portion of the pin 15 and bears against the disk or plate 19, and when the closure 12 is to be attached to the shell 10 the disk 19 is rotated by a wrench or other implement applied to the head 17 and the movement continued after the bolts 21, 22, 23 and 24 have been completely withdrawn to apply a strain between the members 19 and 52 and thus lock the member 19 to the pin, so that the bolts will be actuated when the pin is rotated, as above described. To release the closure it is only necessary to reverse the movement of the pin 15, as will be understood.

After the pin 15 has been rotated to dis- tend the bolts into engagement with the staples the movement of the wrench or other implement by which the pin has been actuated is continued to the right, which movement will loosen the disk 19 from the jam nut and enable the disk to be drawn tightly against the gasket 18 and press the latter firmly against the closure 12, and thus render the joints between the pin and closure air and water tight. This is an important feature of applicant's device and materially increases its efficiency and utility.

One of the bolt members, for instance the bolt member 22, is provided with an additional slot 50 to receive the inner end of a screw plug 51 which is inserted through the radius bar 43. It will be noted that when the disk 19 is disposed in position to withdraw the bolt members the radius bars will each be disposed respectively at an angle to its adjacent bolt member, so that when the bolts are in withdrawn position the screw pin 51 which is inserted into the radius bar 43 will not be disposed opposite the slot 50 and by adjusting the screw pin inwardly a few turns before the locking action is produced, when the various radius bars are moved into parallel relations with their respective lock members, the screw pin will engage against the adjacent lock member and forcibly separate these parts and slide over the lock member and spring into the slot 50. By this means a positive lock is produced which cannot be released by any implement applied to the pin 15. By this means after the vault has been once closed it cannot be opened by any power applied from the outside. The parts will be constructed of sufficient strength to resist any attempt to open the same from the outside. An efficient and effectual burglar proof vault is thus produced, in which the body is protected from surreptitious access.

Having thus described my invention, what I claim as new is:

1. In a burial vault, an inclosing shell having a plurality of slots spaced apart, a closure for said shell and having a plurality of staples extending through said slots, a pin mounted for rotation in said closure, a



disk carried by said pin and having an outer beveled face, a plurality of movable bolt members having beveled inner ends bearing on said disk and having beveled lugs for engaging through said staples when in outward position, coupling members pivotally connected respectively to said disk and bolt members, and means whereby one of said bolt members is locked to one of said coupling members when the disk is disposed in one position.

2. In a burial vault, a shell, a closure for said shell, a disk mounted for rotation upon said closure having an outer beveled face, a plurality of movable bolt members and having beveled ends bearing against said disk and engaging the shell when in outward position, one of said bolt members having an intermediate slot, coupling members pivotally connected respectively to said disk and bolt members, and a pin adjustable in one of said coupling members and adapted to spring into said bolt member slot when the disk is disposed in one position and locking the bolts from releasing movement.

3. In a burial vault, a shell, a closure for said shell, a pin mounted for rotation in said closure with a portion thereof threaded, a beveled faced disk having a threaded aperture engaging the threaded portion of said pin, a jam nut engaging said pin and bearing against said disk, a plurality of movable

bolt members bearing at their inner ends against said beveled faced disk and engaging the shell when in outward position, and coupling members pivotally connected respectively to said disk and bolt members whereby said disk is caused to bear firmly against the closure after the bolts have been distended.

4. In a burial vault, an inclosing shell having a plurality of slots spaced apart, a closure for said shell and having a plurality of staples extending through said slots, a pin mounted for rotation in said closure and with a portion thereof threaded, a disk having a threaded aperture engaging the threaded portion of the pin and with one face beveled, a jam nut engaging said pin and bearing against said disk, a plurality of movable bolt members having tapered terminals and bearing at their inner tapered ends against the beveled face of the disk and engaging through said staples at their outer tapered ends when in outward position, and coupling members pivotally connected respectively between said disk and bolt members.

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

GEORGE W. BELLIS. [L.S.]

Witnesses:

O. P. BECK,  
L. E. BECK.