W. G. NORRIS.

SAFE OR VAULT.

APPLICATION FILED APR. 8, 1908.

940,268.

Patented Nov. 16, 1909.

Fig. 1

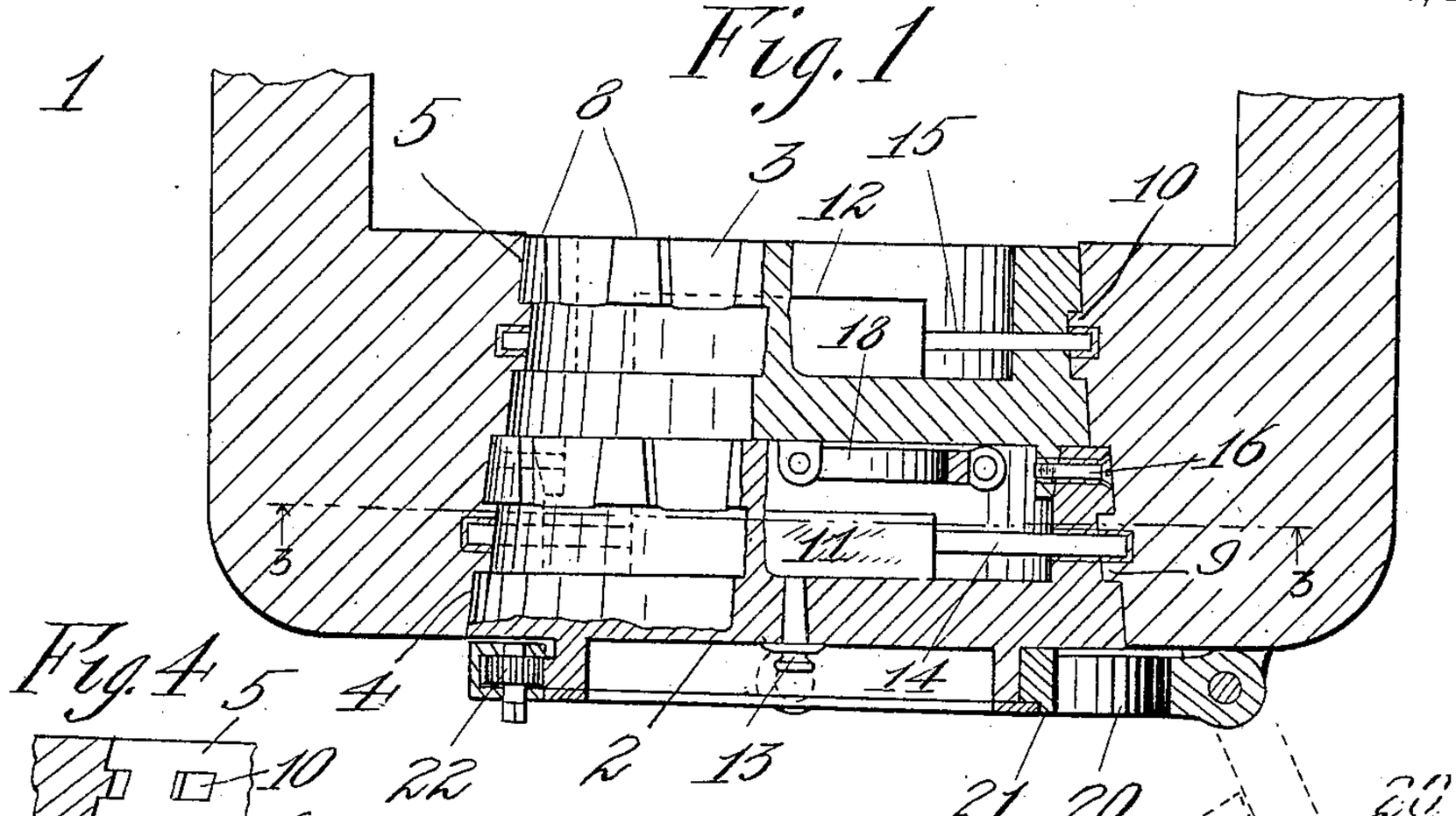
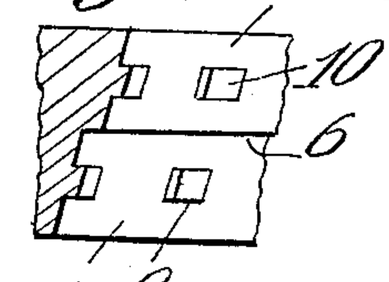
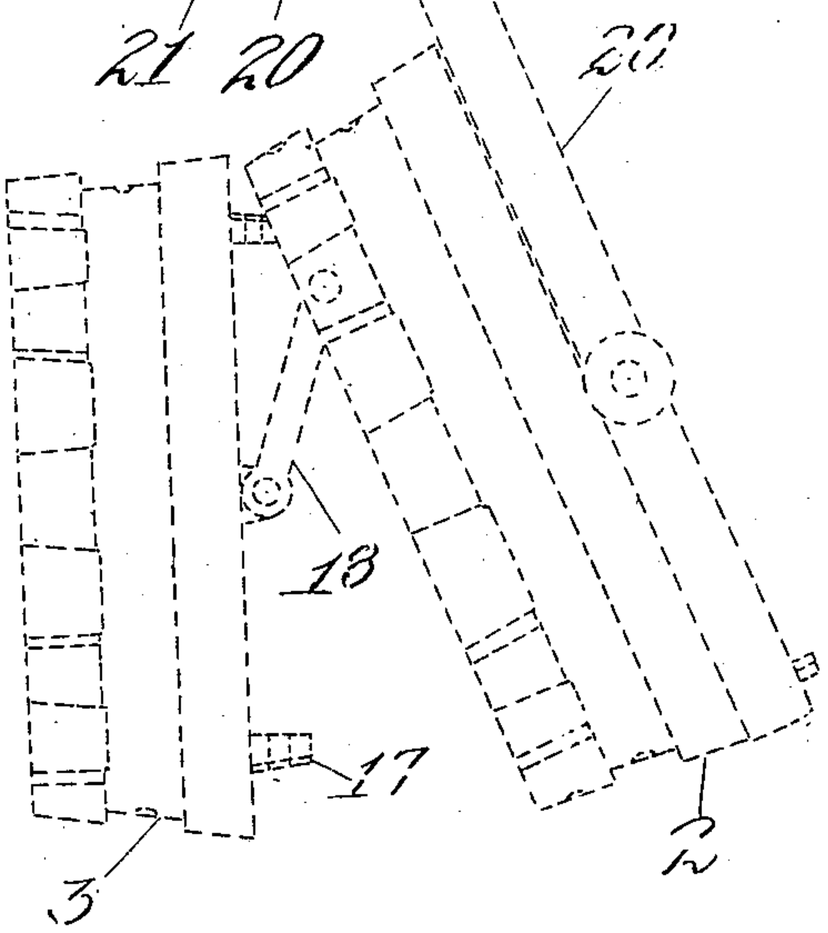


Fig. 4





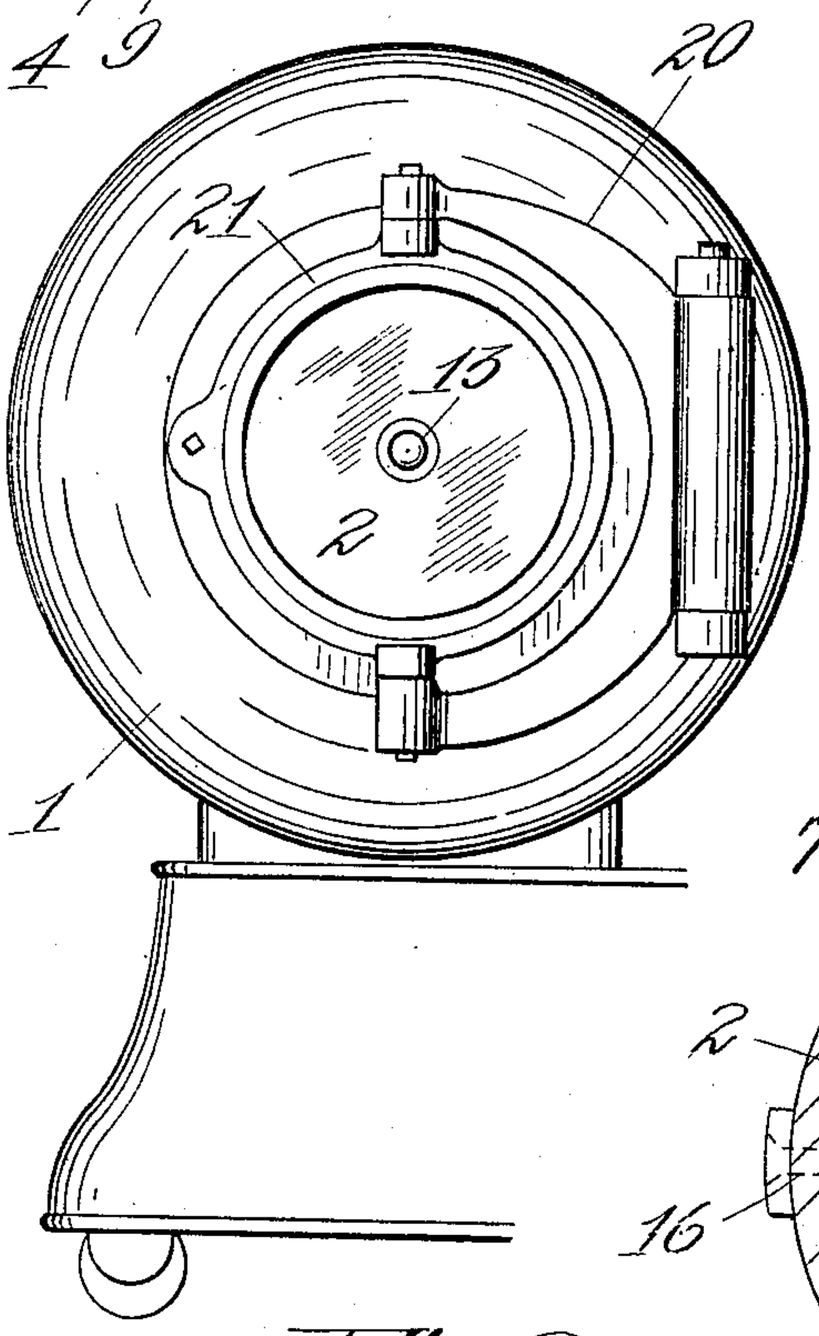


Fig. 2

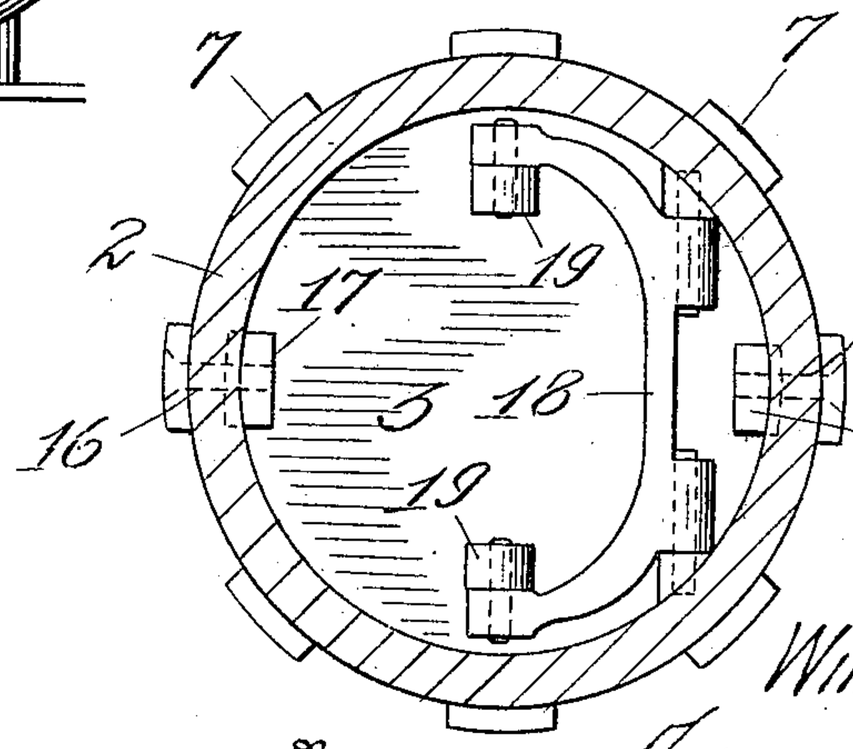


Fig. 3

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM G. NORRIS, OF SEATTLE, WASHINGTON.

SAFE OR VAULT.

940,268. Specification of Letters Patent. Patented Nov. 16, 1909.

Application filed April 8, 1908. Serial No. 425,928.

To all whom it may concern:

Be it known that I, WILLIAM G. NORRIS, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Safes or Vaults, of which the following is a specification.

My invention has particular reference to structures of the above type which are known as "burglar proof" safes and vaults.

The invention has for its primary object to provide an improved structure for closing the entrances to a safe or vault, and which structure will, in effect, be proof against burglarious attacks by explosives or mechanical means.

With the above and other objects referred to hereinafter in view, my invention resides in the construction, combination and arrangement of parts as set forth in the following description and succinctly defined in the appended claims.

With reference to the accompanying drawing, wherein like reference numerals designate corresponding parts throughout: Figure 1 is a horizontal sectional view through the front part of a safe body illustrating my invention, the doors being shown closed and in partial section in full lines and their positions when opened and moved apart indicated by dotted lines. Fig. 2 is a front elevation of the safe with the doors closed. Fig. 3 is an elevation of the doors removed, the outer door being shown in section taken on line 3—3 of Fig. 1, and Fig. 4 is a fragmentary sectional view, on reduced scale, of the safe body.

Referring now to the drawing, reference numeral 1 designates the body of a safe or vault, and 2, 3 indicate companion doors for closing the entrance thereto. These doors and the body are in practice preferably formed of unmachineable metal, such for example, as manganese steel, each of an integral structure. In the present instance I have shown the doors 2, 3 as rotary doors, and the body 1 provided with inwardly tapering, circular jamb surfaces 4 and 5 for the doors 2 and 3 respectively, and an annular shoulder 6 intermediate said surfaces.

The doors 2 and 3 as shown, are provided with lugs 7 and 8 respectively which are adapted to coöperate with complementary lugs as 9 and 10, provided on the jamb surfaces to secure the doors against outward movement after they have been properly seated. For each door I preferably provide a suitable lock for locking such door to its seat. These locks may be of such form as now in general use on safe doors and therefore require no particular illustration in the present application. I prefer however to provide for the outer door 2 a permutation lock, and for the inner door 3 an automatic and time lock. These locks I have indicated at 11 and 12 mounted in the rear portion of their respective doors.

Reference numeral 13 indicates the usual spindle mounted in the front wall of door 2 for operating lock 11, and 14 and 15 designate the locking bolts controlled by the locks 11 and 12 respectively. These bolts are slidable in the side walls of respective doors for engagement in suitable recesses provided in the jamb surfaces to receive the outer end portions of said bolts when the doors have been inserted and rotated to engage their locking lugs with the complementary body lugs. While each door constitutes an independent structure I provide suitable means for supporting one door on the other so that both doors may be moved in unison when desired to open or close the safe, and for this purpose screws 16 seated in the outer door 2 and having screw threaded connection with lugs 17 on the inner door 3 may be provided. By this construction door 3 may be released for movement relatively to door 2 by manipulating the screws 16 to disengage them from the lugs 17. In the present embodiment I have shown a hinge 18 swingably mounted on door 2 and connected by suitable pivots with lugs 19 provided on door 3, whereby the said doors may be moved apart in supporting relations, as will be later understood.

Reference numeral 20 indicates a crane hinge swingably mounted on body 1, and 21 designates a head or carrier pivotally connected with door 2 to rotatably support the same. The door 2 is provided with a suitable rack engaging a pinion 22, carried by head 21 and squared for the reception of a crank by means of which the pinion is operated to rotate the doors 2 and 3. When the doors are open, access may be readily had to lock 11 by removing the screws 16 and moving door 3 from the rear face of door 2, as indicated by dotted lines in Fig. 1, the door 3 receiving its support on hinge 18 during such movement.

From the foregoing it will be observed that the doors 2 and 3 operate in unison on a common support or hinge. Therefore the operation of closing or opening such doors is limited to that of a single door of a similar type. Furthermore I gain the advantage of a solid, integral door-wall intermediate the locking mechanisms.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is:

1. A safe or vault comprising a body, a plurality of doors for closing the entrance to such body, and a connecting device between said doors whereby said doors are adapted to be held in releasable engagement one with the other for bodily movement of one door directly from the opposing face of the other entirely in an outward direction.

2. A safe or vault comprising a body having circular jamb surfaces, doors rotatably fitting each in its respective jamb surface, locking means for securing said doors in their jambs arranged for operation by rotation of said doors, means for releasably connecting said doors for simultaneous movement, and a connecting device for supporting one door on the other for bodily movement directly from the opposing face thereof.

3. A safe or vault comprising a body having jamb surfaces, a plurality of doors fitting each in its respective jamb surface, a connecting means pivotally engaged with each of said doors for supporting one door for bodily movement on the other, and releasable means for normally securing said doors in relative position.

4. A safe or vault comprising a body and a swingingly supported rotary door, said body and door having complementary locking parts arranged to be engaged in locking relation by rotation of said door, a second door, a connecting device arranged between said doors for supporting said second door for bodily movement from said first named door, and means for securing said doors against independent movement.

Signed at Seattle, Washington this 31st day of March 1908.

WILLIAM G. NORRIS.

Witnesses:
ARLITA ADAMS,
EDWARD W. CRESSMAN.