

S. W. FISH.
SAFE OR VAULT DOOR.
APPLICATION FILED NOV. 10, 1909.

997,776.

Patented July 11, 1911.

FIG. 2.

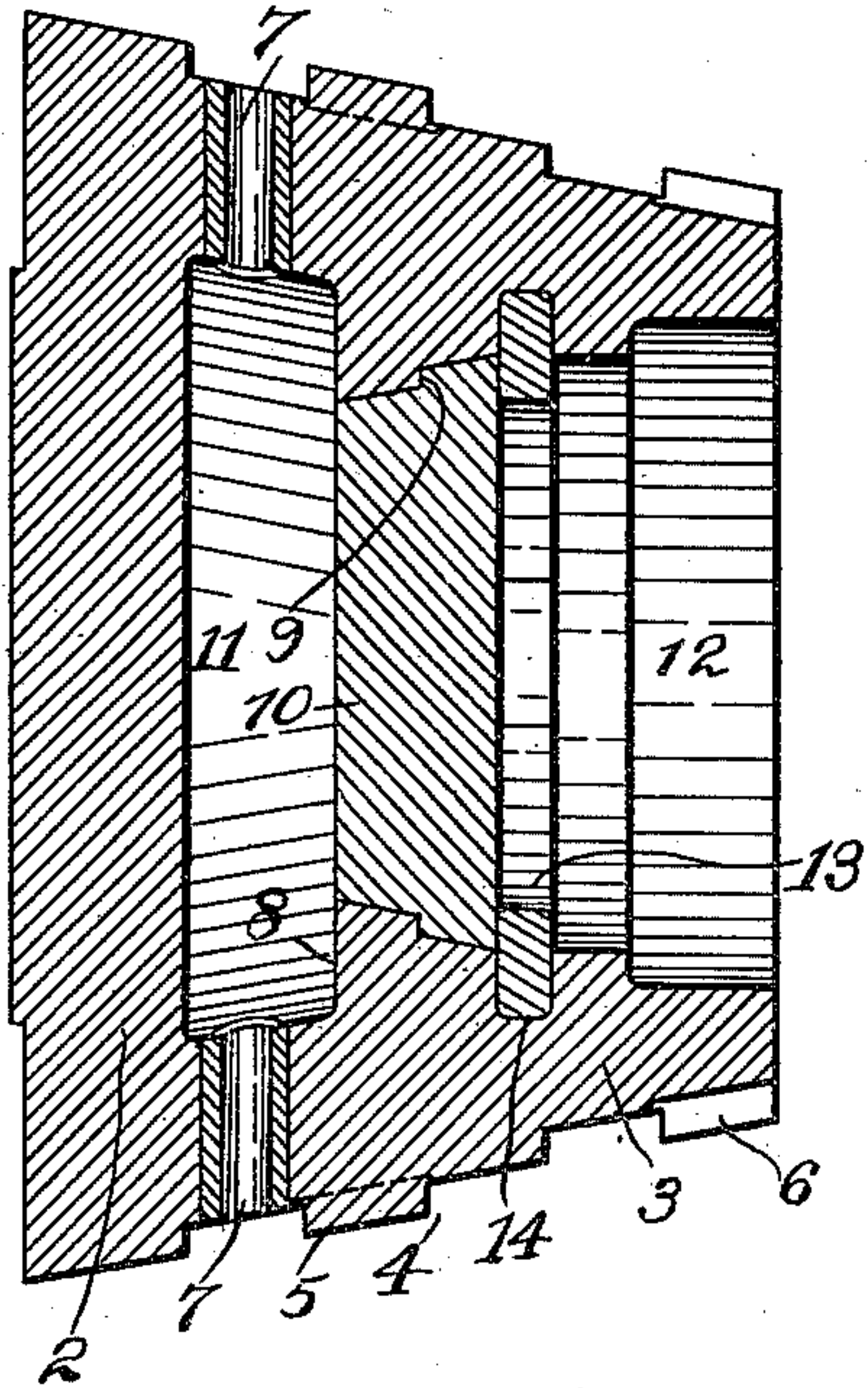


FIG. 1.

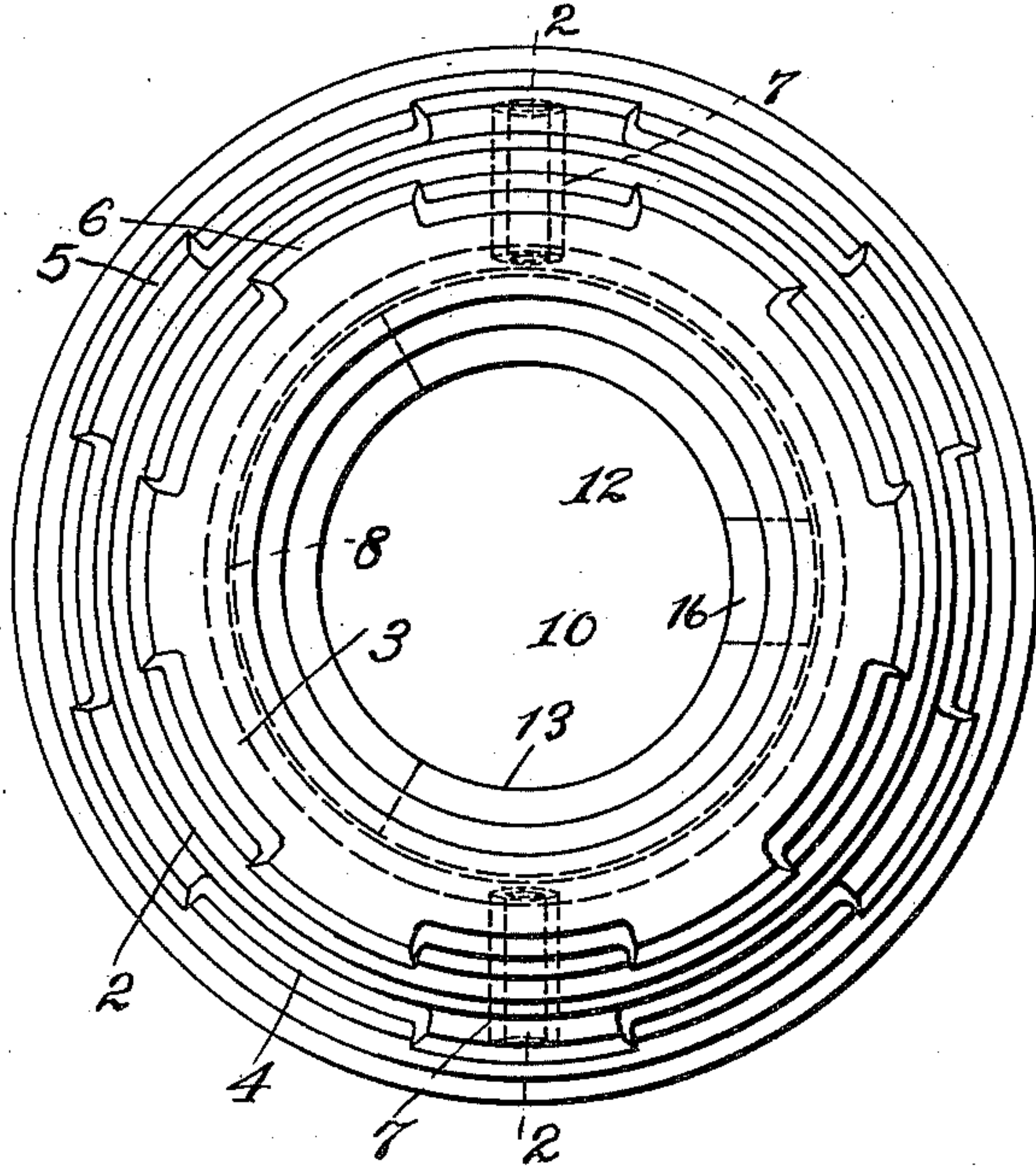


FIG. 3.

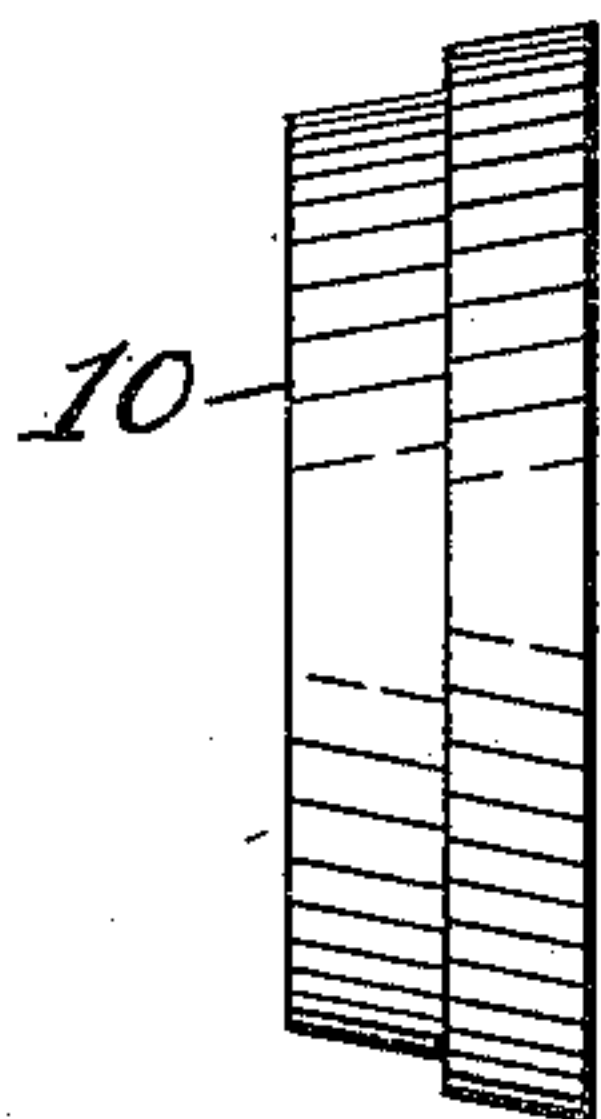
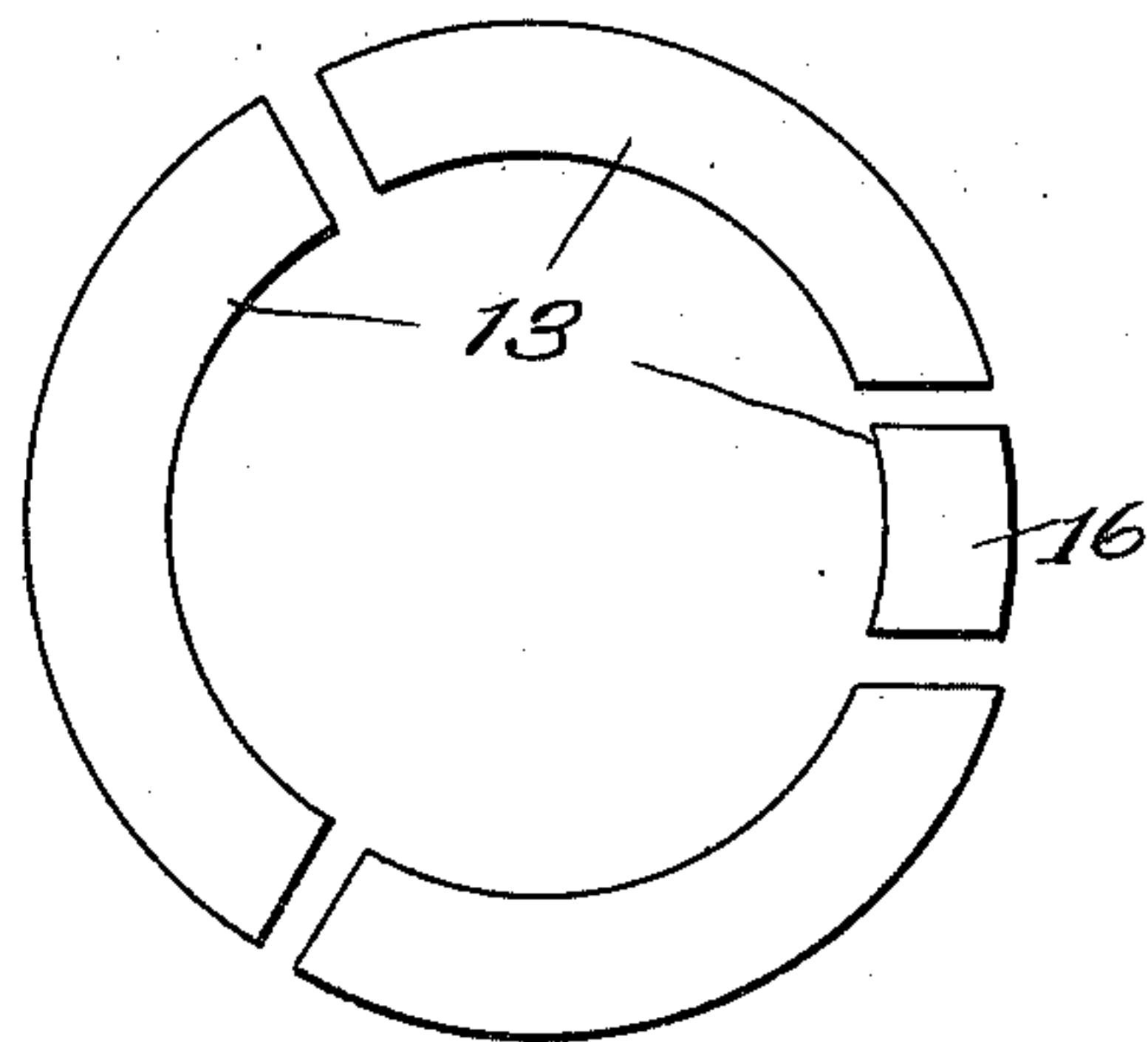


FIG. 4.



Witnesses:
P. W. Whitman
F. E. Boyce

Inventor:
Samuel W. Fish.
By his Attorney
C. A. Reed.

UNITED STATES PATENT OFFICE.

SAMUEL W. FISH, OF PLAINFIELD, NEW JERSEY, ASSIGNOR TO TAYLOR IRON & STEEL COMPANY, OF HIGH BRIDGE, NEW JERSEY, A CORPORATION OF NEW JERSEY.

SAFE OR VAULT DOOR.

997,776.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL W. FISH, a citizen of the United States, and a resident of Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Safe or Vault Doors, of which the following is a specification.

This improvement relates to safe or vault doors, the object of the invention being to provide an improved form of door which, although made as an integral structure, will still have the resisting qualities of a compound or double door.

In the drawings accompanying and forming part of this specification, Figure 1 is a rear view of this improved door; Fig. 2 is a cross-sectional view thereof taken on line 2—2, Fig. 1; Fig. 3 is a detail view of the chamber-closing door; and Fig. 4 is a detail view of the means for holding said chamber-closing door in position.

Similar characters of reference indicate corresponding parts throughout the figures of the drawings.

This improved door comprises a body 2 having a rearwardly extending flange 3 provided with a tapered joint surface 4 carrying locking lugs. In the present instance these locking lugs are arranged in two sets 5 and 6, the lugs of one set, as 5, alternating with the lugs of the other set, as 6. By providing the door with alternating sets of lugs a uniform holding of the door in its seat or jamb is obtained all around the door, as the space between the lugs of the front set is backed up by the lugs of the rear set, so that, as stated, the holding power of the lugs is equally distributed entirely around the door and its jamb. The door may be suitably supported by any desired form of hinge on the body. The rearwardly extending flange 3 is provided with bolt openings 7 for the passage of bolts which may be used for locking the door against rotation when the door is made in the form of a rotary door. This flange is provided on its interior with an inwardly extending ring portion 8 having a shoulder or step 9, which ring portion forms a seat or jamb for an inner door 10 dividing the main door into a pair of compartments or chambers 11 and 12, so that this inner door thus constitutes a chamber-closing door for the inner chamber 12. This inner door is rigidly secured

in position by suitable means, which in the present instance is shown as a sectional ring 13 located in an annular recess 14 formed in the inner face of the flange in the rear of the inner door.

By reason of this improvement should a spindle be used through the body 2 of the door and the same in any way be forced out, or should under a burglarious attack the body 2 of the door be separated from the other portion of the door, it will be observed that, owing to this inner door, the safe body is still closed and protected against entrance by burglarious attack. Thus, by means of the present improvement I am able to provide a compound or double door in which one door is entirely within the other, while the outer door is made as a single casting comprising a body and a rearwardly extending flange adapted to engage the seat or jamb throughout its entire depth, and at the same time to provide a chambered door having alternately disposed locking lugs, so that there is a uniform holding of the door in the jamb all around the door.

Of course, it will be understood that various means might be used for securing the inner door in position instead of the sectional ring shown. In the present instance this ring is shown as made up of several members having a keystone member 16 for wedging the ring in position and thereby securely fastening the inner door against displacement. In the present instance the seat for the inner door is shown as tapered.

I claim as my invention:

1. An integral safe or vault door having a tapered joint surface and comprising a body having a rearwardly extending flange and provided with two independent sets of alternately disposed door holding lugs.

2. An integral safe or vault door comprising a body having a rearwardly extending flange provided with two independent sets of alternately disposed door holding lugs and with an interiorly located door seat for the reception of an inner door.

3. An integral safe or vault door comprising a body having a rearwardly extending flange and provided with alternately disposed door holding lugs, and means dividing the same interiorly thereof into a pair of chambers.

4. A safe or vault door comprising a

body and a rearwardly extending flange carrying locking means and an inner door jamb and an inner door located within said flange and fitting said jamb and dividing
5 said door into a pair of chambers or compartments.

5. A safe or vault door comprising a double chambered door having a stepped door jamb and an inner door located within said
10 double chambered door and fitting said jamb and separating said chambers, and means for rigidly securing said last mentioned door in position.

6. A safe or vault door comprising a double chambered door having a door jamb and an inner door located within said double chambered door and fitting said jamb and separating said chambers, and means for rigidly securing said last mentioned door
15 in position, said means comprising a sectional ring.

7. A safe or vault door having a rearwardly extending flange constructed with a part projecting toward the axis of the door
20 to form a door seat, an inner door fitting said seat and separating the flanged door into a pair of chambers, and means for rigidly securing said door in position.

8. A safe or vault door having a rearwardly extending flange constructed with a part projecting toward the axis of the door and having a door seat, an inner door fitting said seat and separating said flanged door
25 into a pair of chambers, and means for rigidly securing said door in position, said means comprising an annular recess in the flange and a sectional ring located in said recess.

9. A safe or vault door having a rearwardly extending flange having on its interior a shouldered door seat, an inner door fitting said seat and separating said flanged door into a pair of chambers, and means for rigidly securing said door in position, said
35 flange having on its exterior locking means located one back of the other for securing the door in the jamb of the body.

10. A safe or vault door having a rearwardly extending flange having on its interior a door seat, an inner door fitting said seat and separating the flanged door into a pair of chambers, and means for rigidly securing said door in position, the flange of said first door having locking means for securing the door in the jamb of the body,
40 said locking means comprising two sets of lugs.

11. A safe or vault door having a rearwardly extending flange having on its interior a door seat, an inner door fitting said seat and separating the flanged door into a pair of chambers, and independent means for rigidly securing said door in position, the flange of said first door having locking
45 means for securing the door in the jamb of

the body, said locking means comprising two sets of lugs, the lugs of one set alternately disposed with the lugs of the other.

12. A safe or vault door having a rearwardly extending flange having on its interior a door seat, an inner door fitting said seat and separating the flanged door into a pair of chambers, and means for rigidly securing said door in position, the flange of said first door having locking means for
50 securing the door in the jamb of the body, said locking means comprising two sets of lugs, the lugs of one set alternately disposed with the lugs of the other, said flange also having one or more bolt openings there-
55 through for the reception of bolts.

13. A safe or vault door having a rearwardly extending flange having on its interior a door seat, an inner door fitting said seat and separating the flanged door into a pair of chambers, and means for rigidly securing said door in position, the flange of said first door having locking means for securing the door in the jamb of the body, said locking means comprising two sets of
60 lugs, the lugs of one set alternately disposed with the lugs of the other, said flange also having one or more bolt openings there-through for the reception of bolts, said bolt openings communicating with the forward
65 chamber of the door.

14. A rotary safe or vault door comprising a body and a rearwardly extending flange, an inner door located within said flange and separating said flanged door into a pair of chambers, bolt openings extending through the flange and communicating with one of said chambers, means for securing the chamber-forming door rigidly in position, and locking lugs carried by said flange.
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15. A rotary safe or vault door comprising a body and a rearwardly extending flange, an inner door located within said flange and separating said flanged door into a pair of chambers, bolt openings extending through the flange and communicating with one of said chambers, means for securing the chamber-forming door rigidly in position, and locking lugs carried by said flange, said lugs being disposed in two sets, the lugs
75 of one set alternately disposed with the lugs of the other.

16. A safe or vault door comprising a body and a rearwardly extending flange having lugs on its exterior and a door seat on its interior and provided with a shoulder or off-set, and an inner door rigidly secured in said seat.
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17. A safe or vault door comprising a body and a rearwardly extending flange having lugs on its exterior and a door seat on its interior and provided with a shoulder or off-set, and an inner door rigidly secured in said seat, the lugs on the exterior of said flange being located in sets with the lugs
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of one set alternately disposed with those of the other.

18. A safe or vault door comprising a body and a rearwardly extending flange having lugs on its exterior and a door seat on its interior and provided with a shoulder or off-set, an inner door rigidly secured in said seat, the lugs on the exterior of said flange being located in sets with the lugs of one set alternately disposed with those of the other, and bolt openings extending through said flange for the reception of bolts.

19. A safe or vault door comprising a body having a rearwardly extending flange provided with locking lugs on its exterior and a door jamb on its interior, and an inner door fitting said jamb.

20. A safe or vault door comprising a body having a rearwardly extending flange

provided with two sets of lugs on its exterior, the lugs of one set alternately disposed with the lugs of the other and having a door jamb on its interior, and an inner door fitting said jamb.

21. An integral safe or vault door having a tapered joint surface and comprising a body having a rearwardly extending flange provided with two independent sets of alternately disposed door holding lugs, the said sets of lugs being spaced apart depthwise of the door an appreciable distance so that one set will be between the front and rear ends of the flange and the other set adjacent to the inner end of the flange.

SAMUEL W. FISH.

Witnesses:

H. L. STAPLES,

H. W. WYCKOFF.