

No. 843,272.

PATENTED FEB. 5, 1907.

W. C. HATTERSLEY.  
SAFE.

APPLICATION FILED NOV. 2, 1906.

Fig. 1.

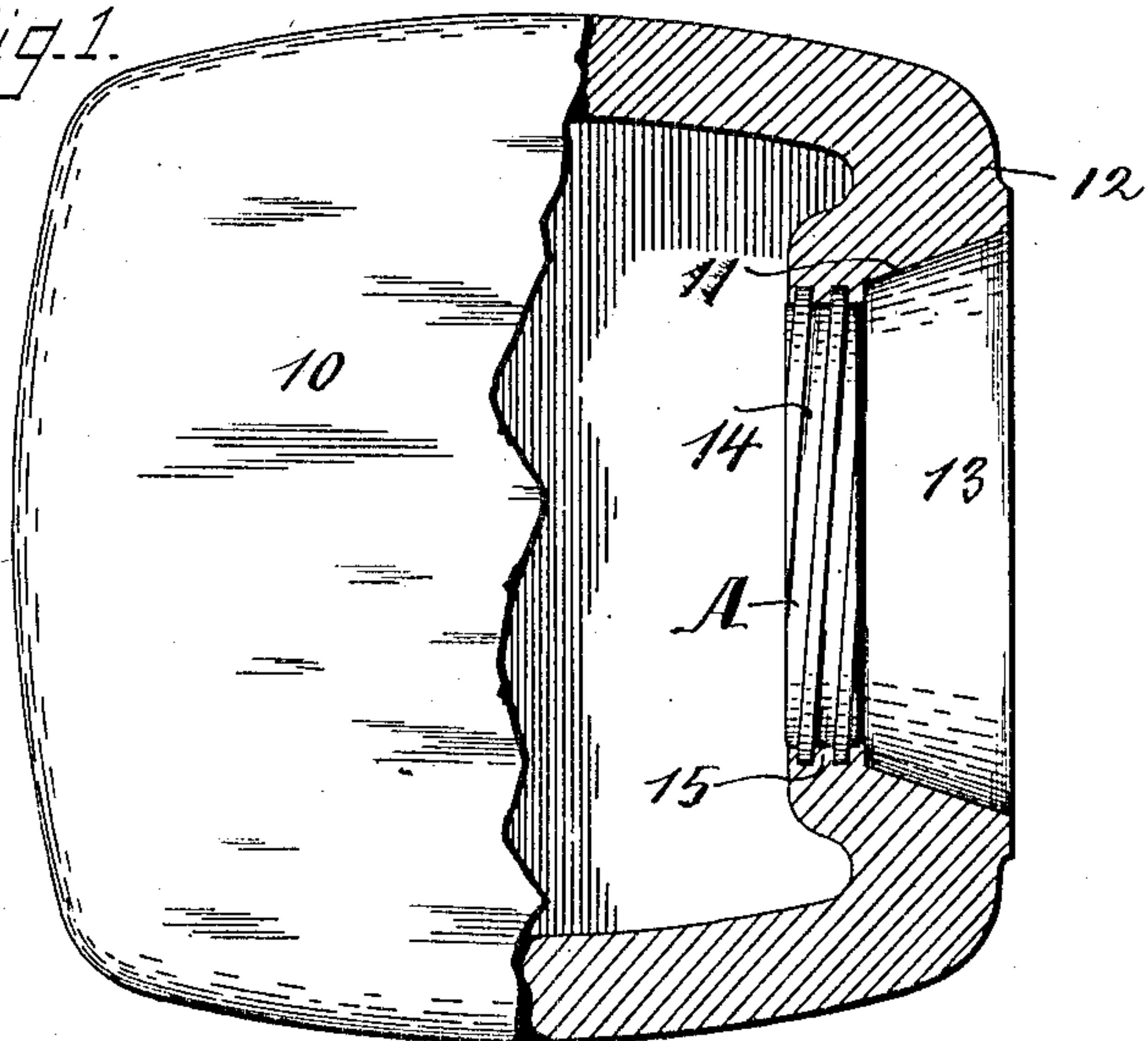


Fig. 2.

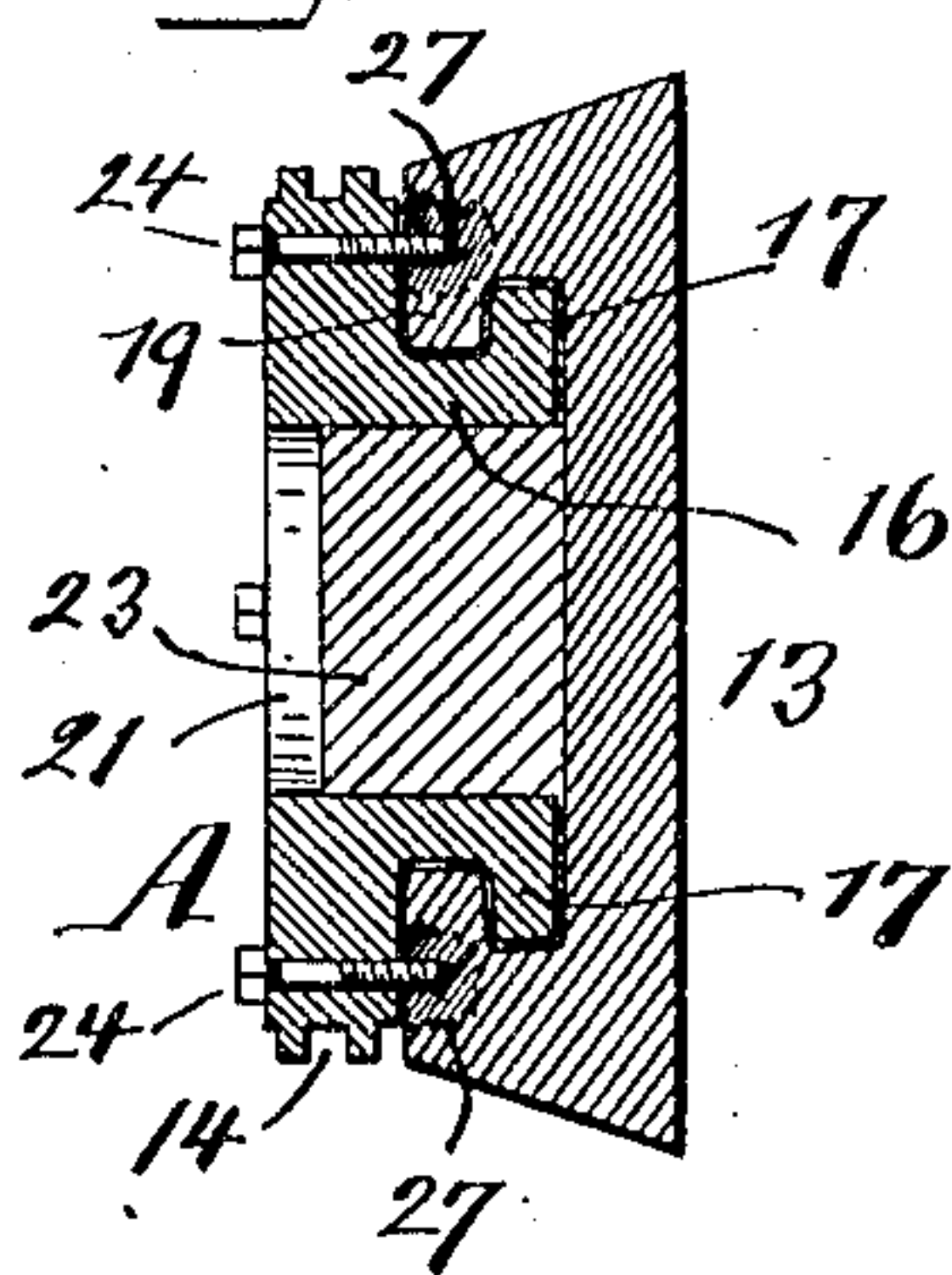


Fig. 3.

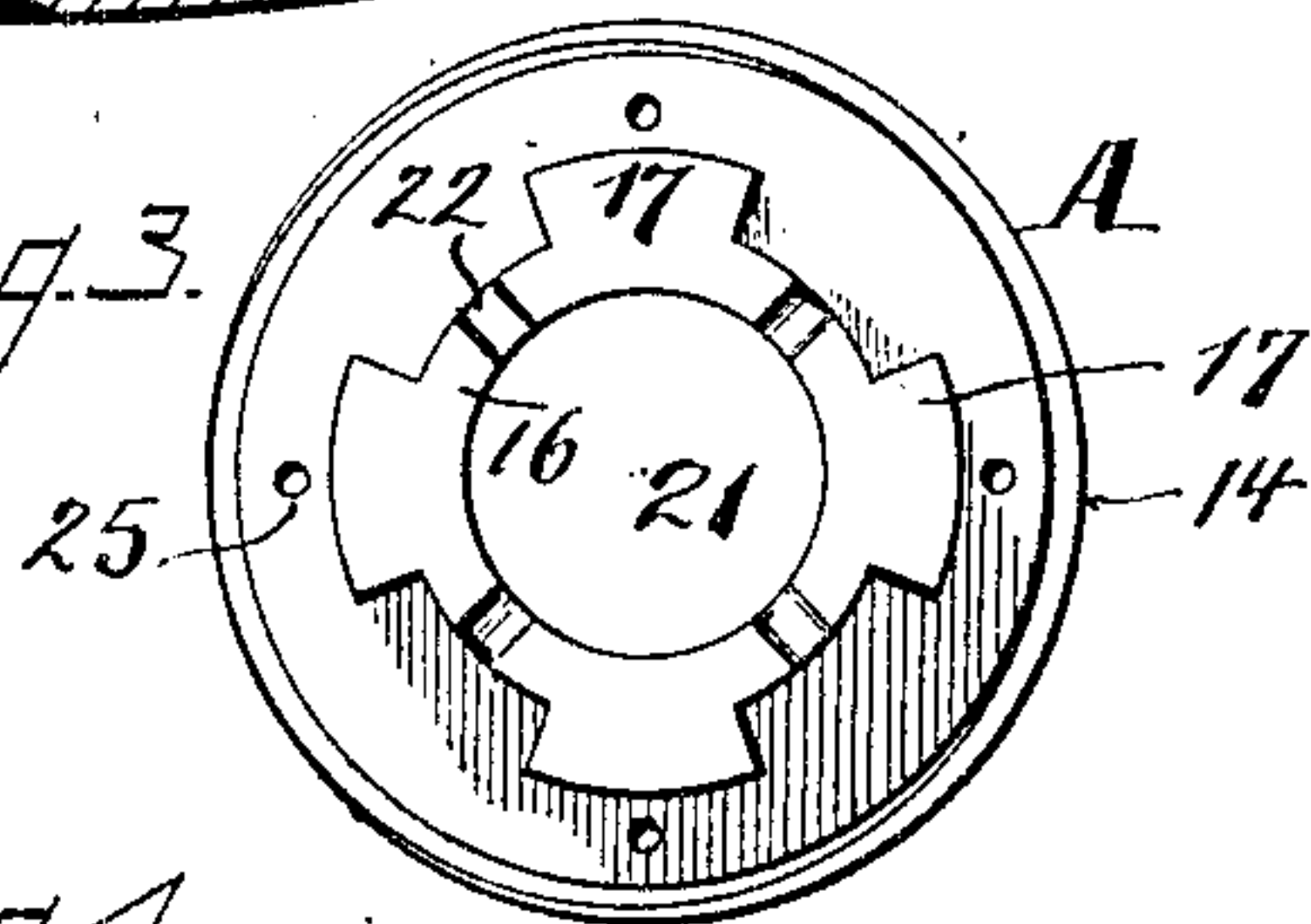


Fig. 4.

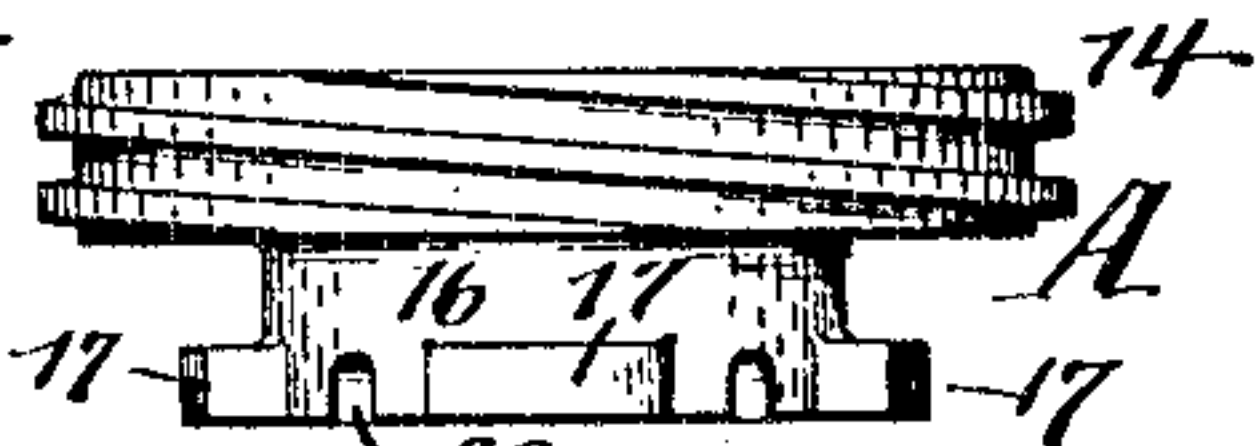


Fig. 5.

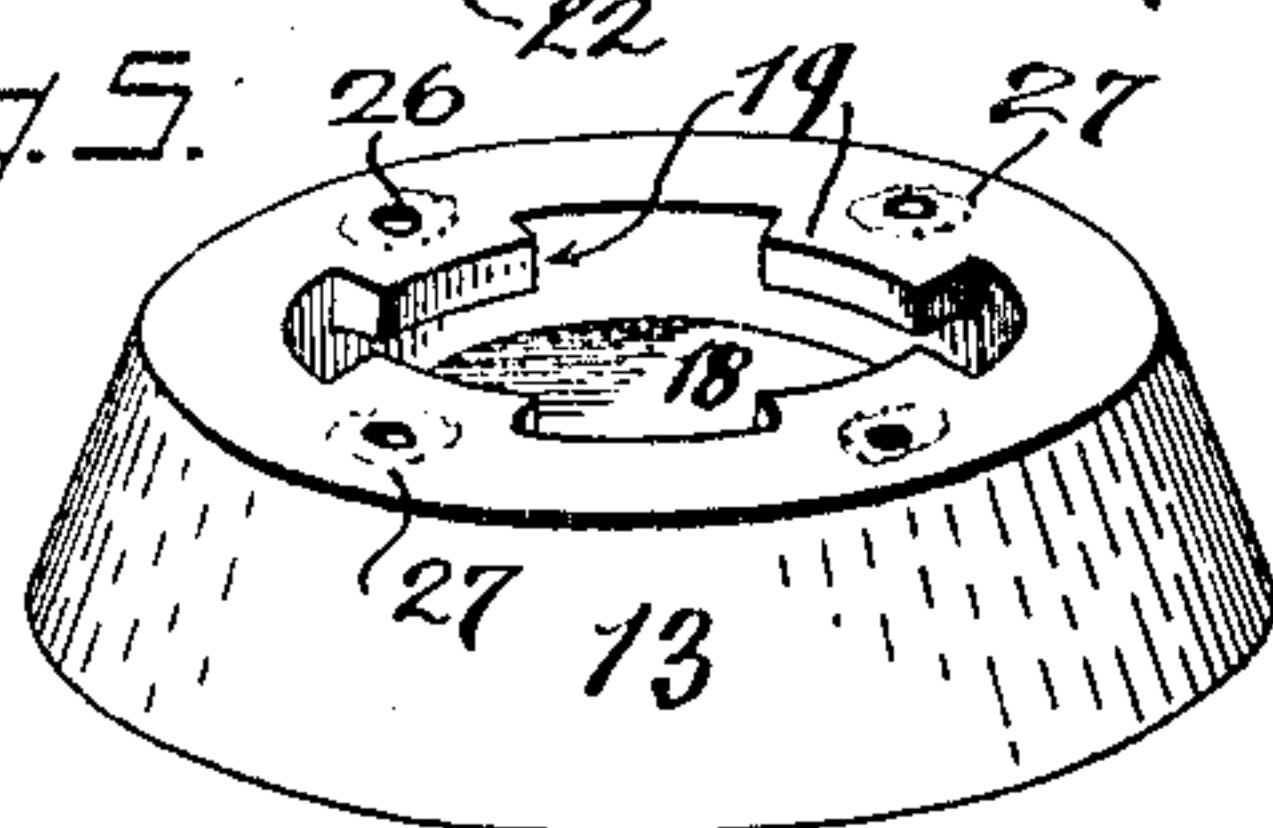


Fig. 6.

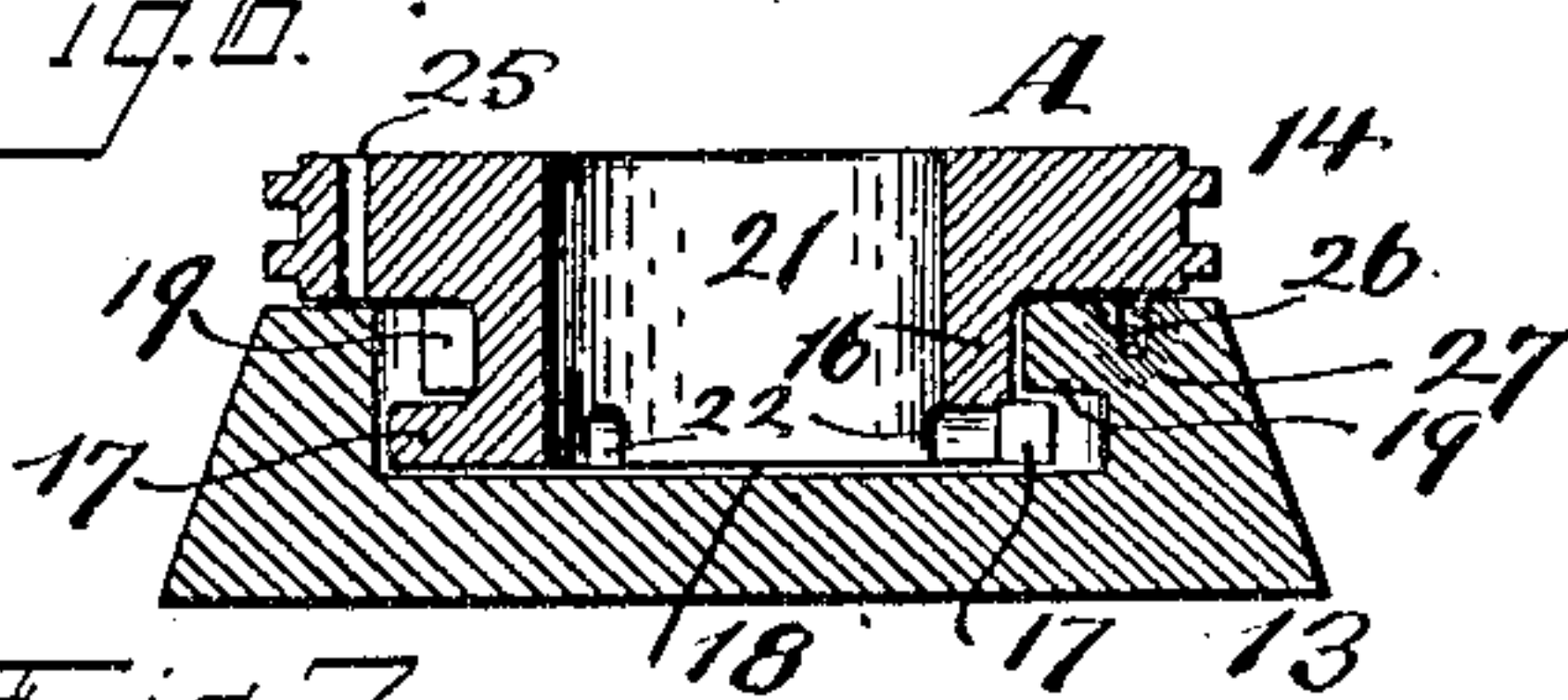
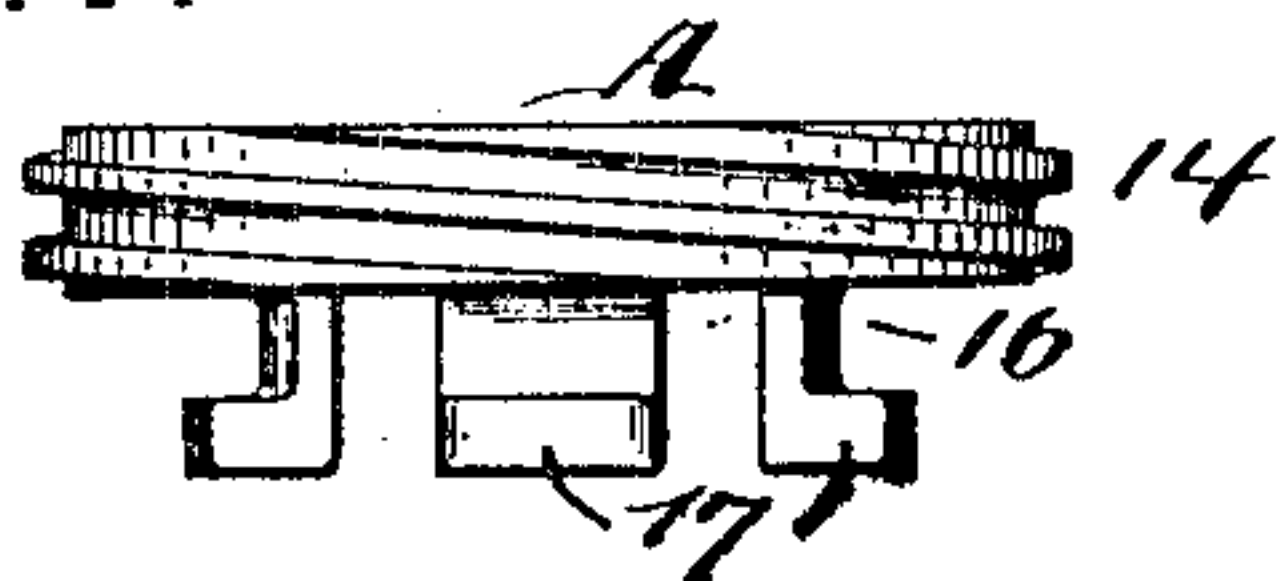


Fig. 7.



Witnesses.  
Homer Bradford.  
T. Le Beau.

Inventor.  
Will C. Hattersley.  
by C. Spengel atty.



# UNITED STATES PATENT OFFICE.

WILL C. HATTERSLEY, OF NORWOOD, OHIO, ASSIGNOR TO VICTOR SAFE & LOCK CO., OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

SAFE.

No. 843,272.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed November 2, 1906. Serial No. 341,697.

*To all whom it may concern:*

Be it known that I, WILL C. HATTERSLEY, a citizen of the United States, and residing at Norwood, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Safes; and I do declare the following to be a clear, full, and exact description of the invention, attention being called to the accompanying drawings, with the reference characters marked thereon, which form also a part of this specification.

This invention relates to improvements in safes of the kind where a circular rotary door is held in place within the corresponding opening for it in the safe-body by closing means constituting a screw connection, and of the two complementary parts, of which latter one is provided within this opening, while the other is on the door.

It relates, further, to such doors where the body of this latter is of a metal different from the metal of the closing means, meaning thereby the screw connection provided thereon—as, for instance, in safes where such body is of non-machineable metal—while these connecting and closing means thereon in order to permit their construction and formation are necessarily of a metal workable by tools.

The invention consists of the construction of such a door, and particularly of the means and manner whereby the closing means provided for it are connected to the body of the same.

The invention is illustrated in connection with a safe having a circular door which is made of non-machineable metal—like manganese cast-steel, for instance—and which is provided with the complementary part of a screw connection, which part is of workable metal.

In the following specification, and particularly pointed out in the claims at the end thereof, is found a full description of my invention, together with its parts and manner of construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a safe-body, partly in section, the line of which is taken through the door-opening therein. The door, appearing in edge view, is shown in position within this opening, in which it is held by

means of a screw connection. Fig. 2 shows a central vertical section of the detached door. Fig. 3 shows the side nearest the door-body of that part of the screw connection which after attached to the door forms a constituent part of the same. Fig. 4 is a side view of this part shown in the preceding figure. Fig. 5 is a perspective view of the door-body, showing that side of it which receives the screw part shown in Figs. 3 and 4. Fig. 6 shows in a central section both these parts placed together for final connection. Fig. 7 is a view similar to Fig. 4 and shows a modified form of the part shown in said figure.

In the drawings, 10 indicates the body of the safe of conventional shape. 11 is the door opening in the front 12 of the same. 13 is the body of the door, of non-machineable metal-like manganese steel, for instance. The door is held in place within this opening 11 for it by means of a screw connection, which consists of two complementary parts, of which part 14 forms a constituent part of the door, it being substantially the male screw, and is fitted to be received by the other complementary part 15, constituting the female thread, which is provided within the door-opening of the safe-body. The particular manner of forming this female thread is immaterial for present purposes and does not concern this invention. The manipulation and treatment for construction and formation of each of these two constituent parts 13 and 14 of the door being different in each case, it is necessary that each be produced separately, after which they are firmly and permanently connected to each other to form the door complete. This final connection of these two parts constitutes the substance of my invention. One of these parts consists of a circular member or ring A, around the edge of which part 14 of the screw is formed and which on one side is axially extended, as best shown in Fig. 4, forming a neck 16. This neck is provided at its outer edge with laterally-projecting spaced lugs 17, which may be radially arranged as shown. Door-body 13 has a recess 18 on its inner side of a size sufficient to receive this neck, together with the lugs projecting therefrom. From the wall of this recess there project inwardly—that is, into



it—lugs 19, arranged and spaced similar to lugs 17. Threads 14 being cut into the edge of part A and the spaces between these lugs on one part being so arranged that the lugs of the other part may be passed in between them, the two parts of the door are now placed in a position, as shown in Figs. 4 and 5, and then brought together, as shown in Fig. 6, so that the lugs on one pass in between the spaces of the other, after which part A is given a limited rotary shift sufficient to cause lugs 17 on it to pass under lugs 19, as shown in Fig. 2, whereby the two parts of the door become firmly interlocked. It is now only necessary to provide means to hold them in such position—that is, to prevent them from turning one on the other in a manner which might cause the interlocked lugs to become disengaged. One way of doing this is shown in Fig. 2, where, member A being in form of a ring or provided with a central perforation 21, as shown in Figs. 3 and 6, molten metal, iron, or lead, for instance, is poured into this central space, from which, passing through lateral outlets 22, it also passes in between the lugs, thus filling all spaces and interstices between the two parts of the door, thereby transforming this latter practically into one integral solidly metallic structure. This molten-metal filling is shown at 23 in Fig. 2. Bolts 24 may be used in addition to this filling, passing through openings 25 in the screw-ring and entering tap-holes 26 in the door-body. The drilling and tapping of these holes is made possible by inserts 27 of soft—that is, machineable—metal provided for during the casting of part 13. Either of these two means (23 and 24) may be used alone or both together.

The construction shown in Fig. 7 is modified to the extent that the metal of neck 16 and between lugs 17 is omitted. This manner of connecting that part of the closing means of a safe which is provided on the door, while illustrated as applied to a round safe-door and to one which is held closed by means of a screw connection, is of course also applicable to doors held closed by other means—as, for instance, by a mutilated

thread or by interlocking complementary lugs similar to those illustrated.

Having described my invention, I claim as new—

1. A door for a screw-door safe provided on its under side with a recess, a screw-ring having on its side a laterally-projecting neck adapted to occupy this recess, spaced lugs projecting from this neck, lugs projecting into the recess on the door, and arranged complementary to the spaces between the lugs on the neck, so that these lugs may also enter the recess mentioned, and thereafter engage the lugs within the recess by being passed under the same, and means to hold these lugs in such engagement.

2. A door for a screw-door safe provided on its inner side with a recess, a screw-ring having on its side a laterally-projecting neck adapted to occupy this recess, complementary spaced lugs on the neck of the screw-ring and within the recess of the door which lugs are adapted to engage each other, and a filling of metal applied in molten state to fill all spaces between the door and the part of the screw-ring occupying the recess therein and between the engaged lugs to hold these latter in position.

3. A door for a screw-door safe provided on its inner side with a recess, a screw-ring having on its side a laterally-projecting neck adapted to occupy this recess, complementary-spaced lugs on the neck of the screw-ring and within the recess of the door which lugs are adapted to engage each other, a filling of metal applied in molten state to fill all spaces between the door and the part of the screw-ring occupying the recess therein and between the engaged lugs to hold these latter in position, and bolts seated in the screw-ring and the door-body to prevent disengagement of the interlocked lugs.

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

WILL C. HATTERSLEY.

Witnesses:

C. SPENGEL,  
T. LE BEAU.