

SAFE DOOR.

APPLICATION FILED APR. 28, 1909.

968,781.

Patented Aug. 30, 1910.

2 SHEETS—SHEET 1.

Fig.1.

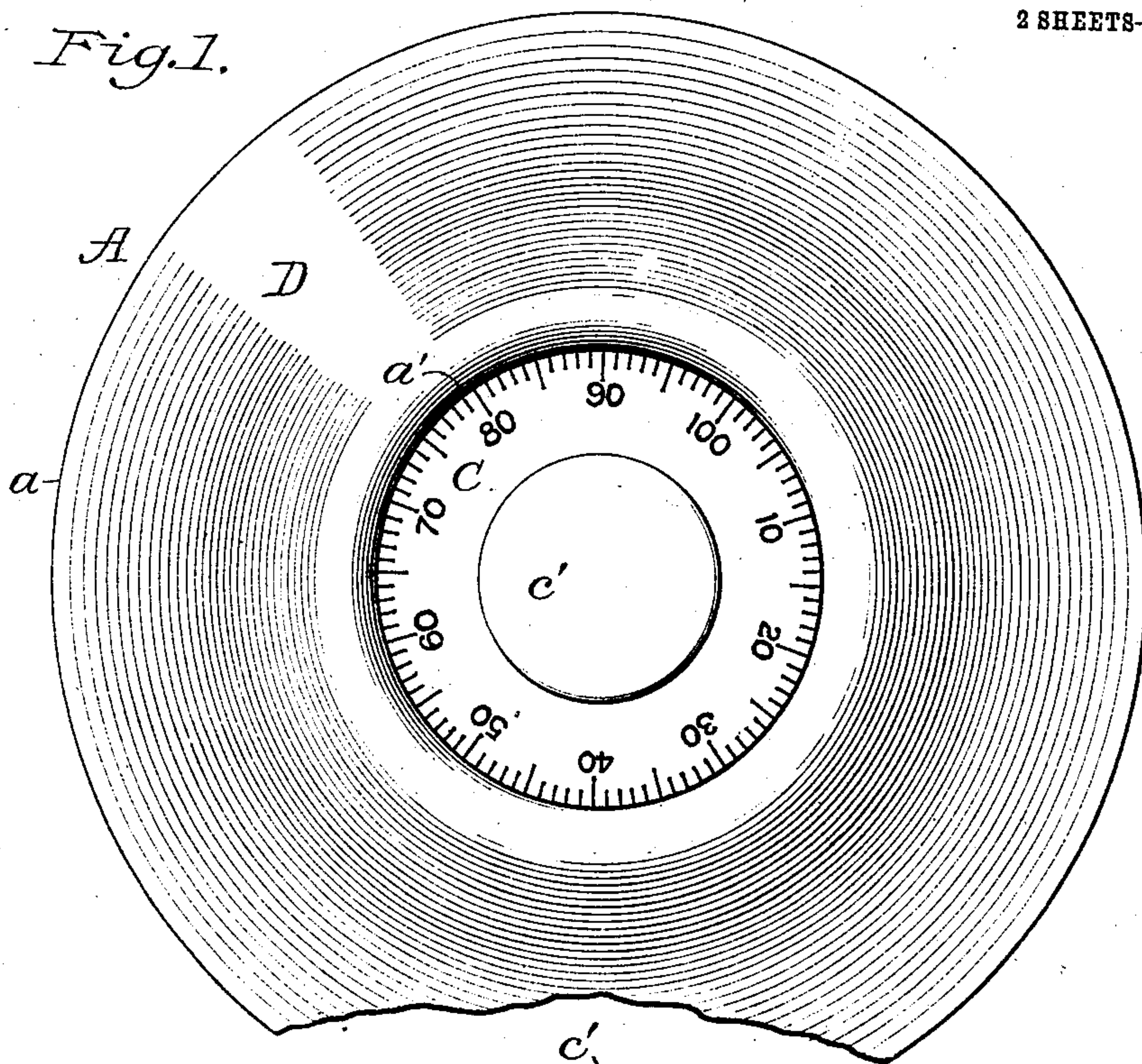


Fig. 2.

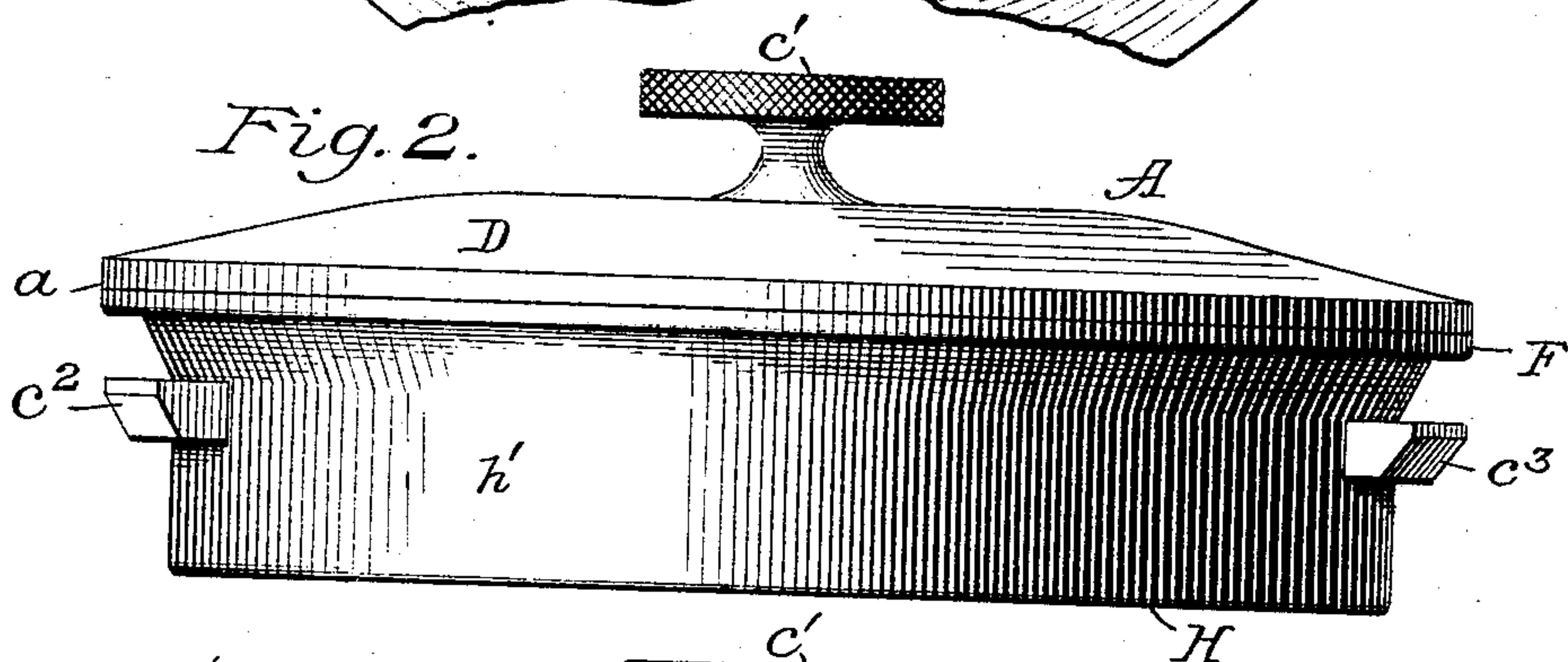
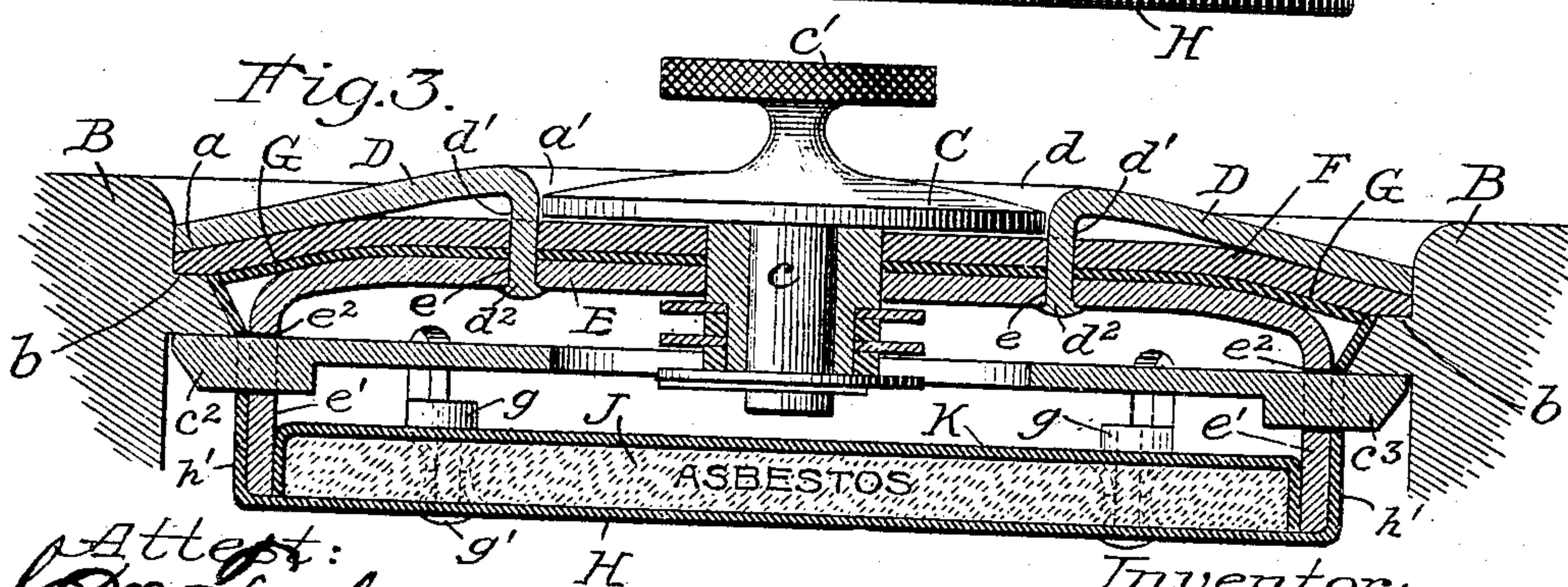


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

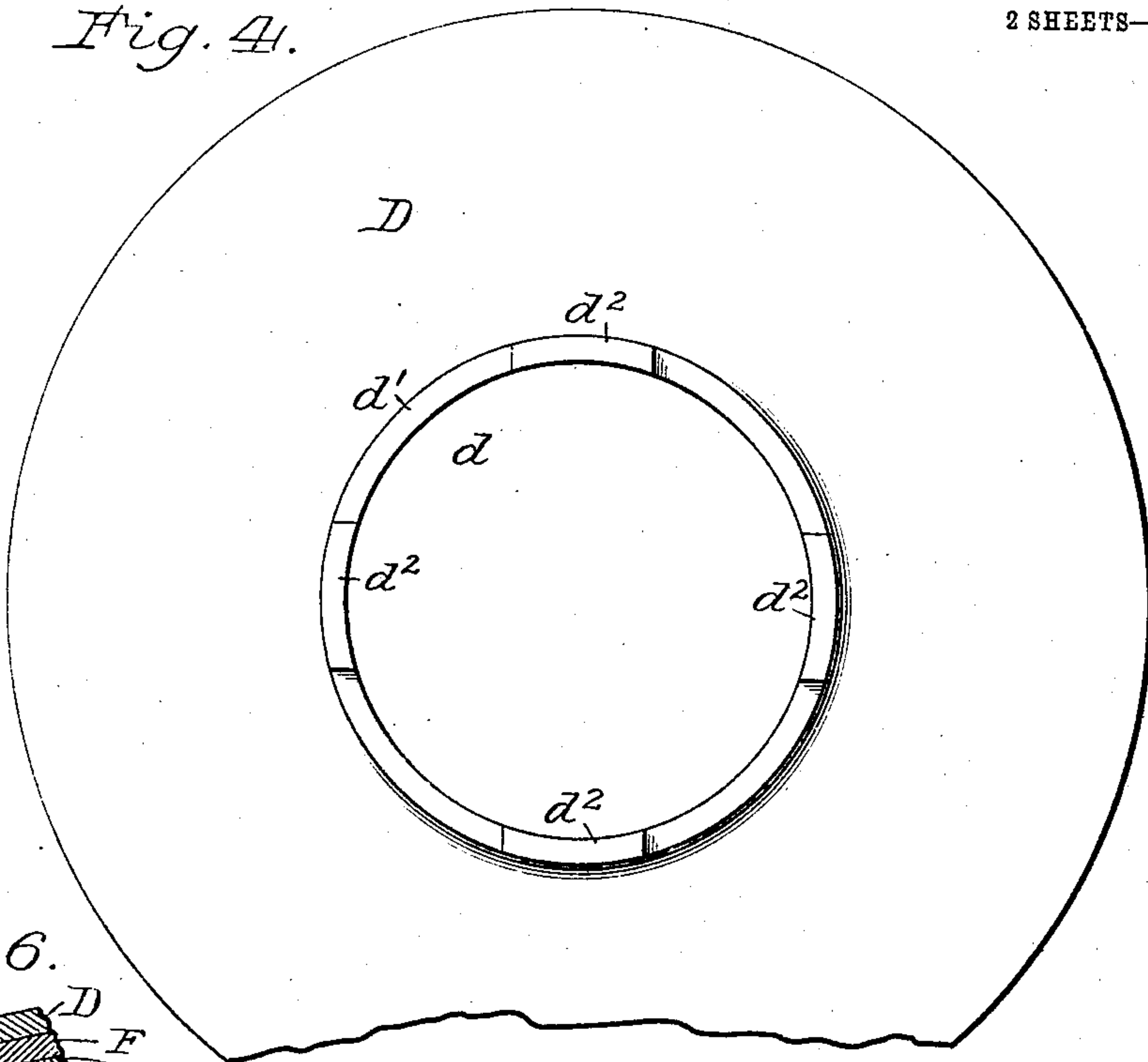


Fig. 6.

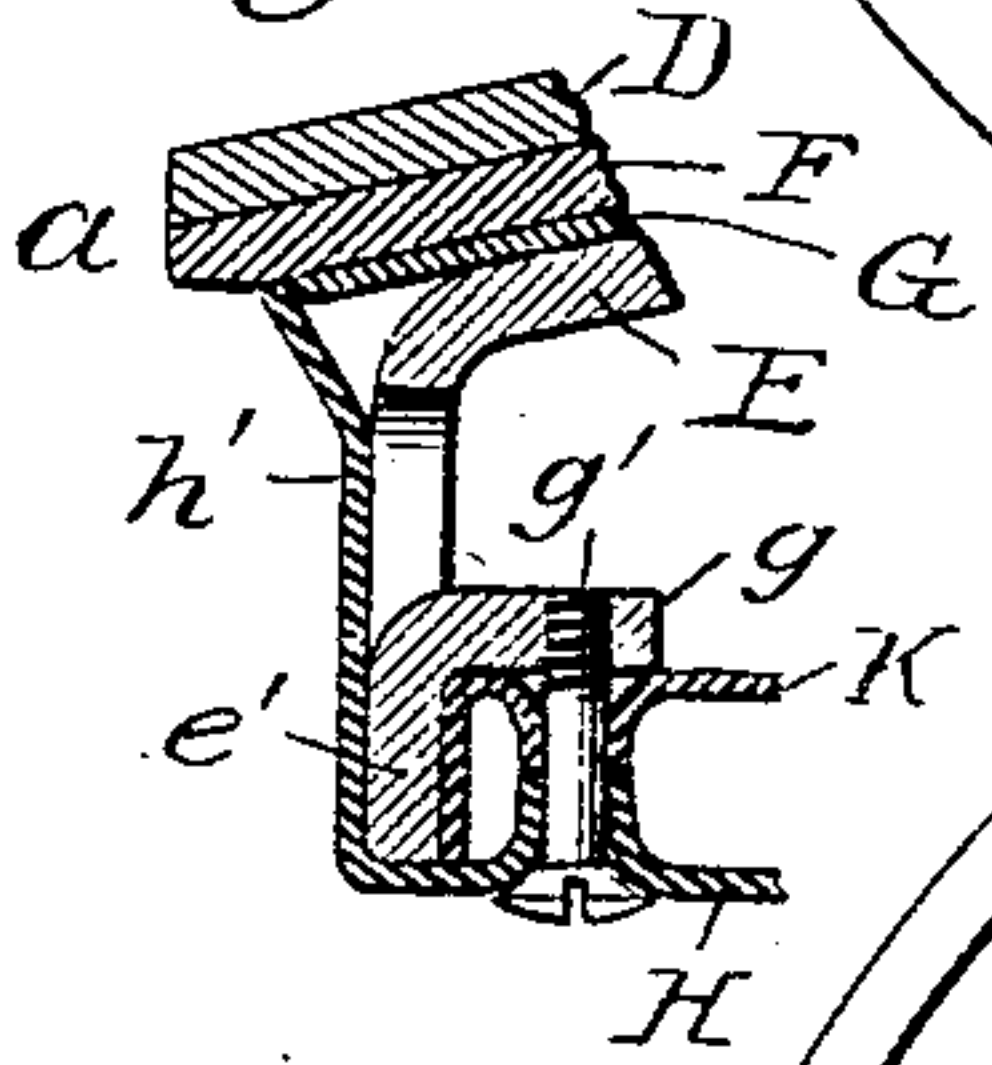
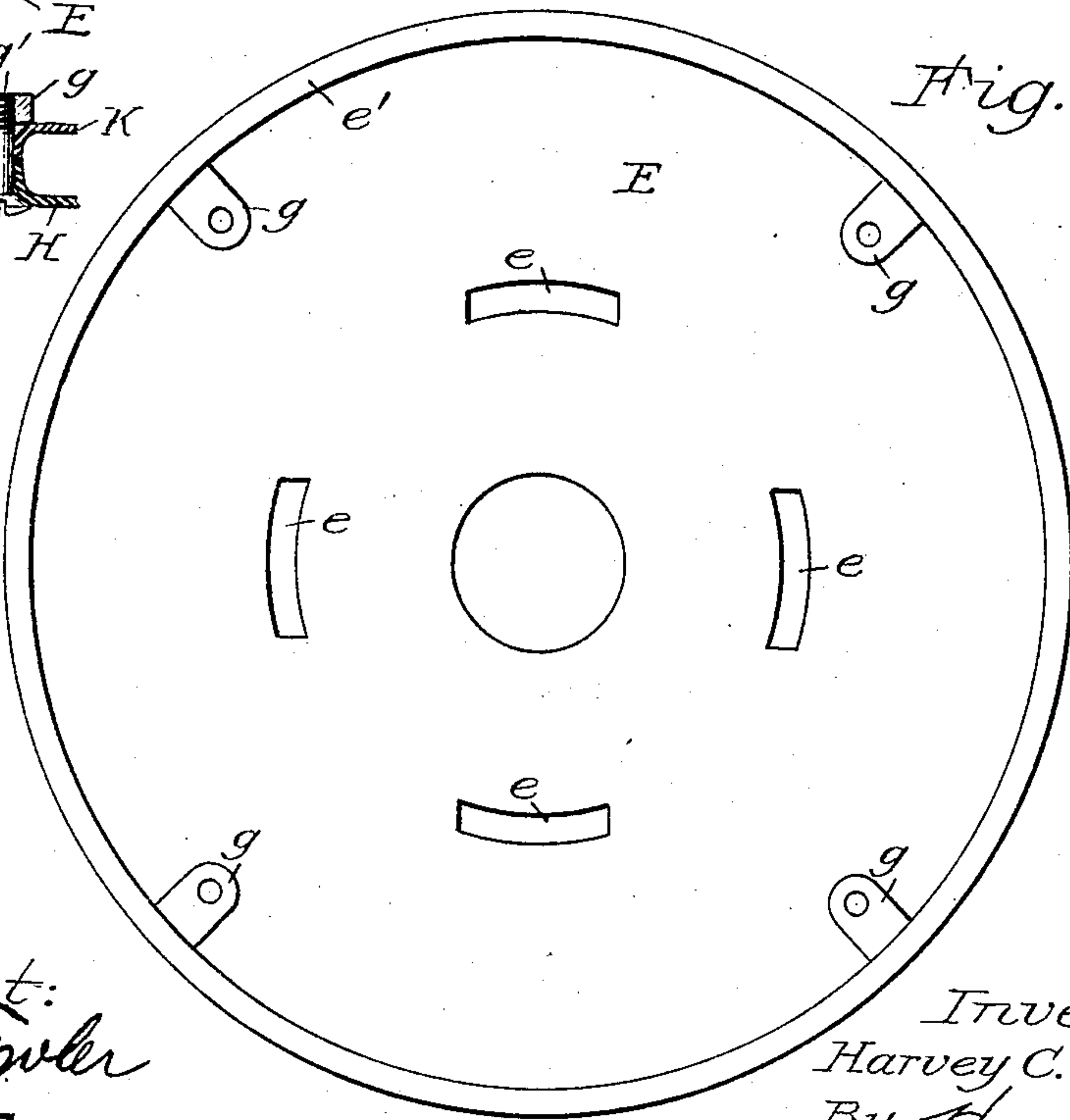


Fig. 5.



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UNITED STATES PATENT OFFICE.

HARVEY C. LOWRIE, OF NEW YORK, N. Y.

SAFE-DOOR.

968,781.

Specification of Letters Patent. Patented Aug. 30, 1910.

Application filed April 28, 1909. Serial No. 492,727.

To all whom it may concern:

Be it known that I, HARVEY C. LOWRIE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Safe-Doors, of which the following is a specification.

My invention relates to doors such as are usually employed in connection with wall safes, jewel boxes, or other receptacles designed for the storage of articles of value.

The object of the invention is to provide a door of sheet-metal construction that will meet requirements as to strength, weight and durability, that may be cheaply made from sheet-metal stampings, and that will have its parts secured together by means located more or less remote from the face of the door so as to be practically concealed and inaccessible from the outside of the door.

The invention consists in the features of construction hereinafter described and particularly pointed out in the appended claims.

Referring to the drawings furnished and forming a part of this specification, Figure 1 is a front or face view of a circular door embodying my invention. Fig. 2 is an edge view thereof. Fig. 3 is a central cross section of the door and a portion of the door casing. Fig. 4 is a rear view of the face plate detached from the door. Fig. 5 is a rear view of the plate which forms the rear portion of the door, and Fig. 6 is a detail showing the means for securing a cover plate to the rear of the door.

My invention is specially applicable to a circular door having a central dial which is rotated for operating a combination lock, and I have selected for illustration a door of this character which is designed for a wall safe; but it is to be understood that my invention is not limited to the precise construction shown, and that variations in the shape of the door and in the details of construction may be made without departure from the invention as set forth in the claims appended to this specification.

Referring to the drawings, the door A is provided with a peripheral flange a designed to occupy a seat b in a door-casing B. The face of the door is provided with a central cavity or depression a' which is occupied by a dial C, the latter being secured to a spindle c extending through the door to the lock mechanism. The dial and spindle are ro-

tated by means of a knob c' , and by revolving the spindle first in one direction and then in the other, the locking bolts c^2 and c^3 may be retracted, but as the locking mechanism forms no part of my present invention, a detail description thereof is deemed unnecessary.

The door proper includes a face plate D and an underlying plate E, the latter forming the main or body portion of the door which affords support for the bolts c^2 and c^3 and their controlling mechanism. The face plate D is provided with a central opening d which forms the depression or cavity a' for the reception of the dial C. Said opening is surrounded by a rearwardly projecting flange d' , and at the edge of said flange there is a series of tongues or projections d^2 which pass through correspondingly shaped holes or openings e in the plate E, said tongues or projections serving as rivets which are clenched at the rear of the plate E for securely holding the plates together. The flange d' serves to stiffen the face plate D and also serves to practically conceal the location of the tongues or projections d^2 and render them difficult of access. The face of the door is thus entirely free from any appearance of rivets or other fastening devices, and as the face plates and the plate E are both stamped from metal of substantial thickness, ample security is afforded against removal of the face plate to gain access to the interior of the safe or receptacle. To give further strength, the face plate of the door is made conical, *i. e.*, it inclines from the central opening to its outer edge, so that should pressure be applied to force the door in, the metal of the face plate will tend to spread outwardly against the door casing to resist the pressure and thus become firmly wedged therein.

To give both weight and strength to the door, I interpose a second plate F between the plates D and E; and it is sometimes desirable to also interpose a thin plate G of hard steel to resist a drill or other tool that might be used to gain access to the safe. These additional plates F and G are perforated to receive the tongues or projections d^2 of the face plate D, and are firmly held thereby between the plates D and E, as clearly shown. The plates D and F project beyond the plate E to form the peripheral flange a ; and to provide a support and housing for the locking mechanism, the

plate E is provided with a rearwardly projecting flange e' at its outer edge. Said flange is perforated at e^2 for the locking bolts c^2 and c^3 , and at intervals, lugs g are
 5 formed thereon by cutting out and bending down a portion of the metal, as clearly shown in Fig. 6. These lugs g are each provided with a screw-threaded hole for a screw g' which secures a cover plate H to
 10 the rear of the door for completely housing and protecting the locking mechanism. The cover plate H has a flange h' which fits over the flange e' of the plate E, thus providing for a neat finish to the rear of the
 15 door.

Asbestos or other heat insulating material J may be mounted against the interior surface of the cover plate H, and for this purpose I provide an additional plate K, between which and the plate H the asbestos is placed. The plate K fits within the flange of the rear plate E with its inner face against the lugs g , and said plate is provided with holes for the screws g' the metal
 20 around the holes being drawn down to form abutments for the metal which is similarly formed around the holes in the cover plate H. The two plates are thus properly held apart, and a firm bearing provided for the
 25 rear cover plate.
 30

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

1. A door comprising in its construction
 35 a plurality of superimposed plates, the outer or face plate having a central opening and integral rearwardly extending tongues or projections adjacent said opening, said tongues or projections passing through the underlying
 40 ing plate or plates and being clenched for securing the plates together.

2. A door comprising in its construction a plurality of superimposed plates, the outer or face plate being provided with a central
 45 opening and with integral rearwardly ex-

tending tongues or projections, said face plate being conical in form, and said tongues or projections extending through the underlying plate or plates and being clenched for securing the plates together. 50

3. A door comprising in its construction a plurality of superimposed plates, the outer or face plate having a central opening and a rearwardly extending flange surrounding said opening, tongues or projections at the
 55 edge of said flange, said tongues or projections passing through perforations in the underlying plate or plates and being clenched for securing the plates together, locking mechanism at the rear of the door, a spindle
 60 passing centrally through the door for controlling the locking mechanism, and a dial secured to said spindle, said dial being mounted in the recess formed by the opening in the face plate of the door. 65

4. A door comprising in its construction a plurality of superimposed plates, an outer or face plate having a central opening and integral rearwardly extending tongues or
 70 projections, an underlying plate of smaller diameter having a rearwardly extending peripheral flange, the tongues or projections on the face plate extending through perforations in the inner plate and being clenched for securing said plates together. 75

5. A door comprising in its construction a plurality of superimposed plates, the outer or face plate being formed to provide a depression in the face of the door for the reception of a dial, a rotating dial mounted
 80 in said depression, and means concealed by said dial for securing said face plate to the underlying plate or plates.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 85

HARVEY C. LOWRIE.

Witnesses:

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