

No. 698,380.

Patented Apr. 22, 1902.

O. FRANCKE.

DOUBLE DOOR.

(Application filed May 24, 1901.)

(No Model.)

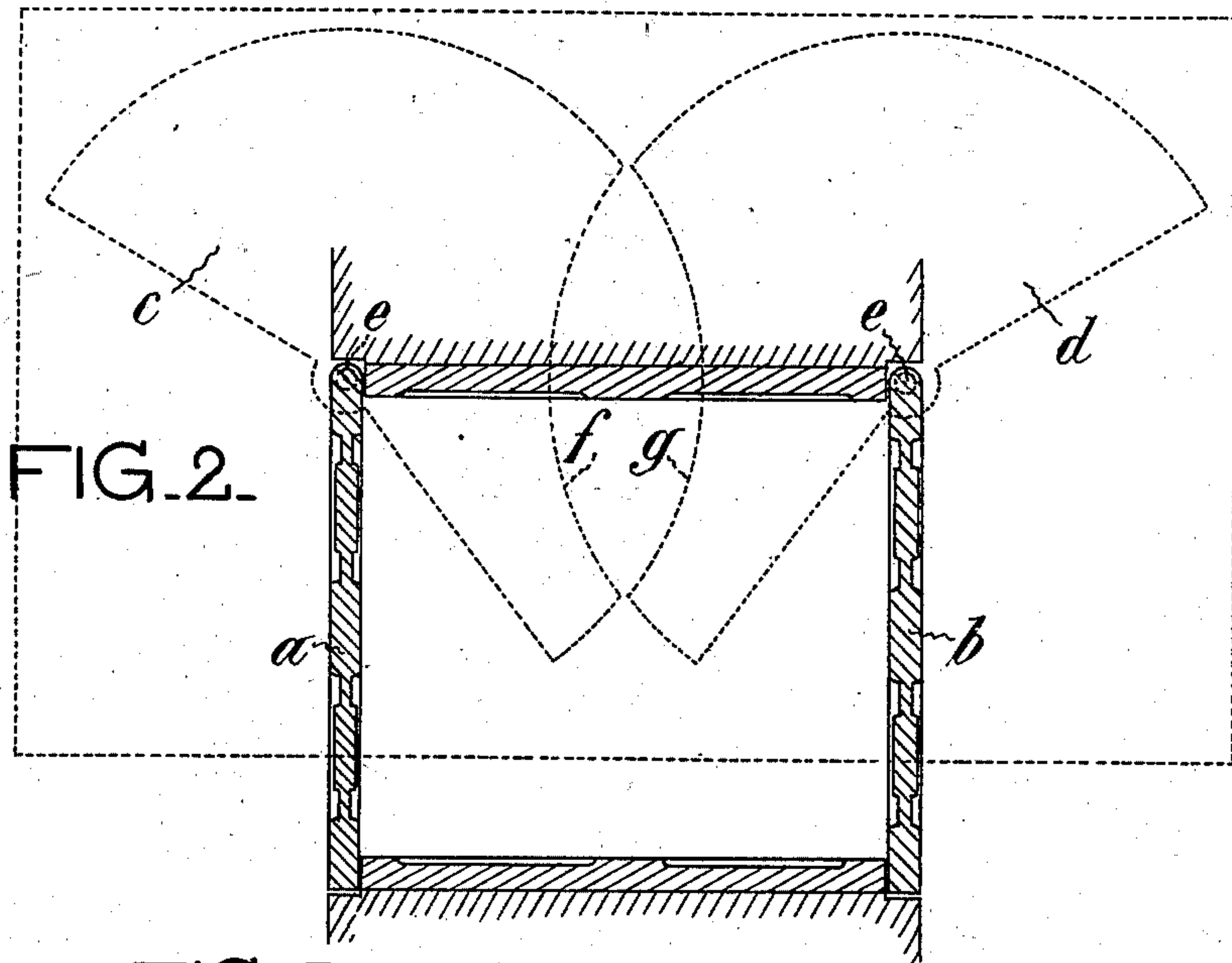
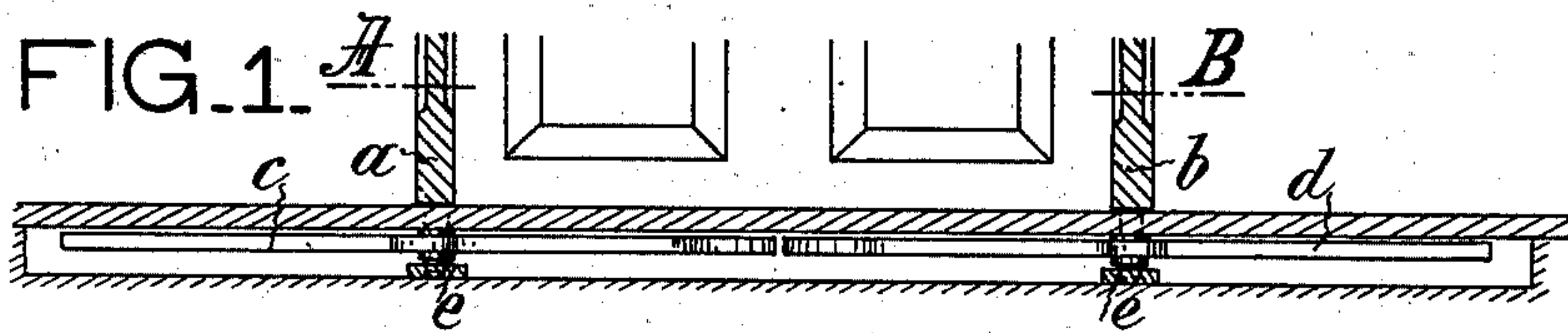


FIG. 3.

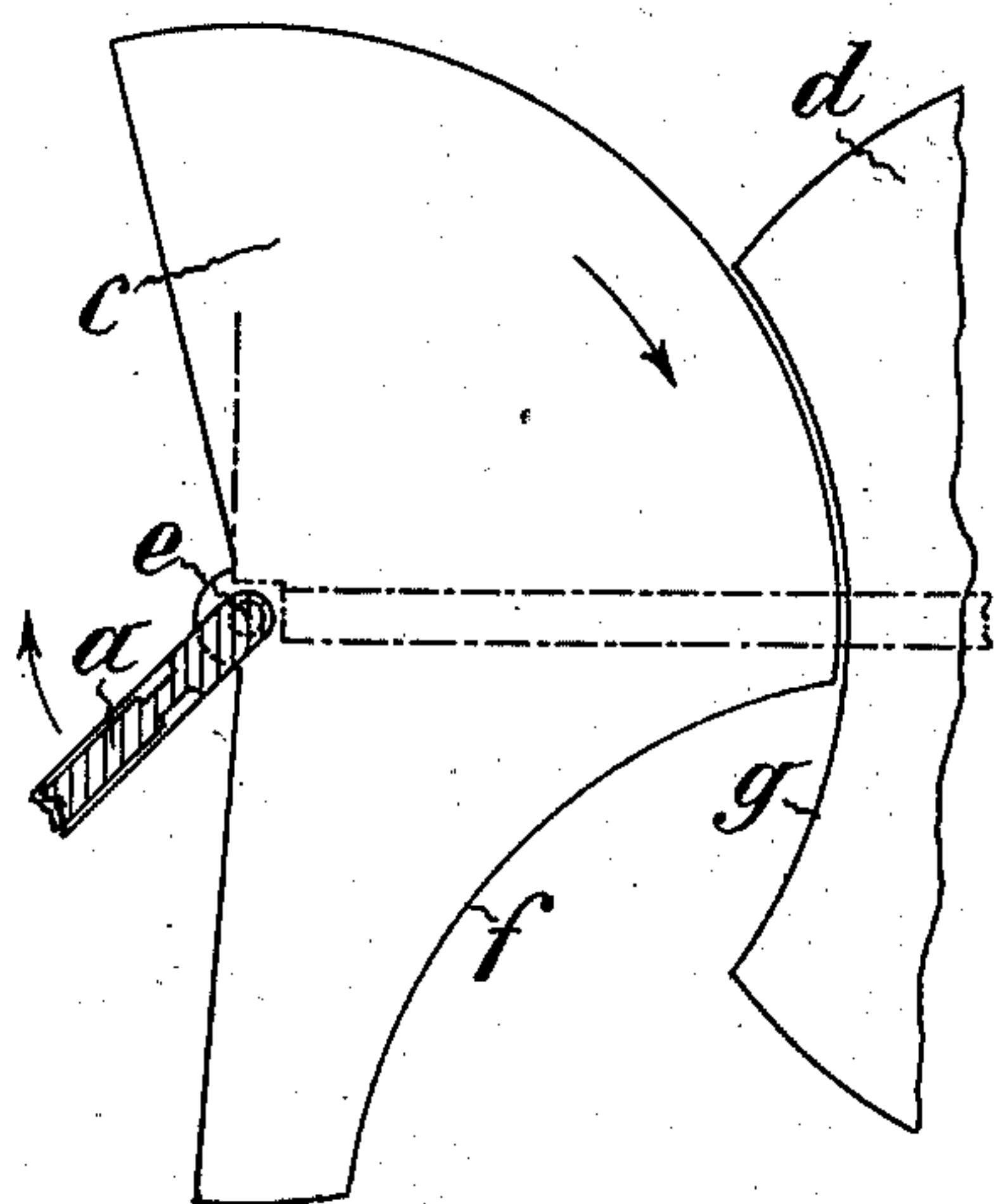
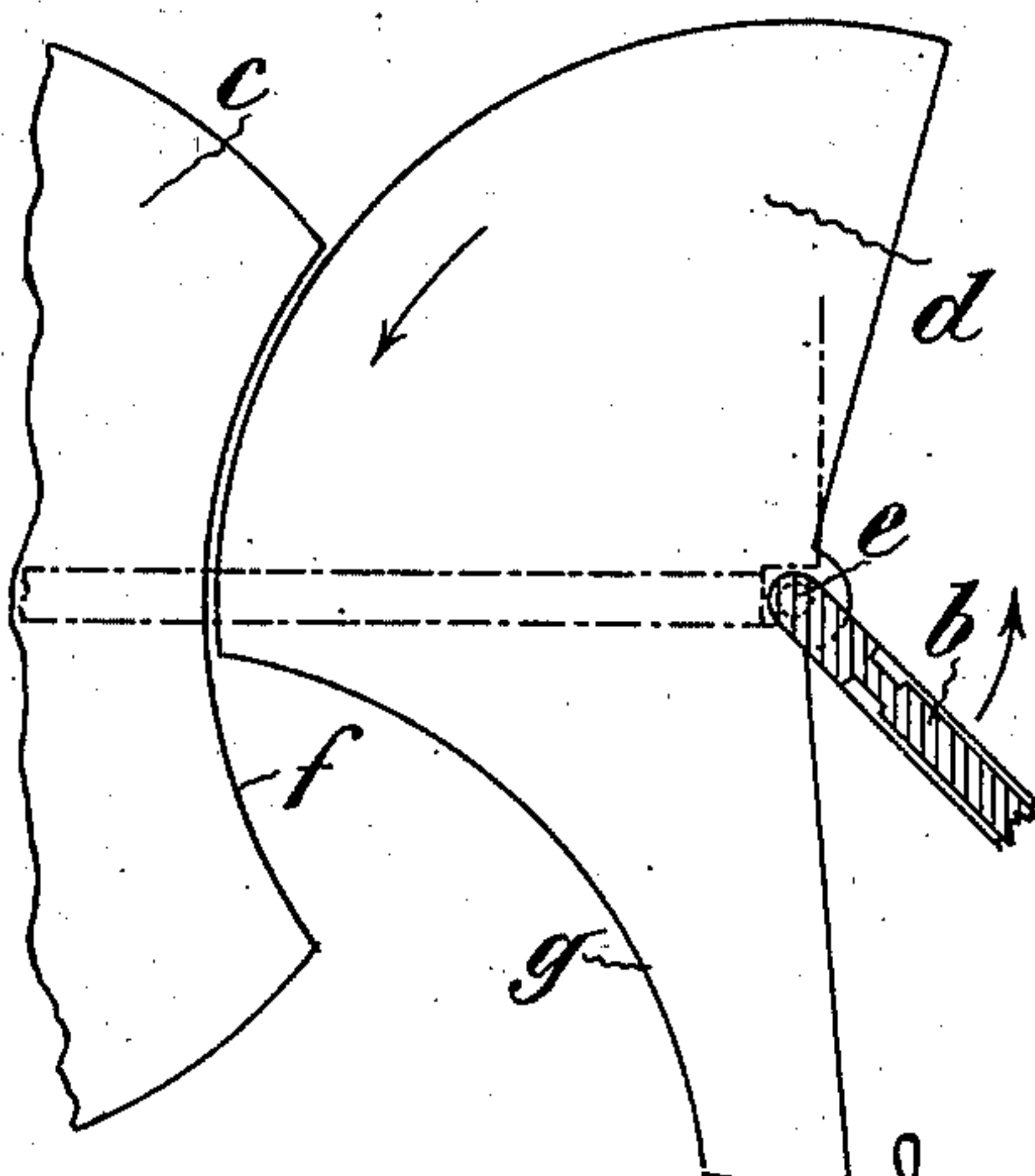


FIG. 4.



Witnesses  
Thomas K. H. Patent  
H. van Heeren Brinck

Inventor  
Otto Francke  
by Alexander & Co  
Attorneys

# UNITED STATES PATENT OFFICE.

OTTO FRANCKE, OF FREIBURG, GERMANY.

## DOUBLE DOOR.

SPECIFICATION forming part of Letters Patent No. 698,380, dated April 22, 1902.

Application filed May 24, 1901. Serial No. 61,745. (No model.)

*To all whom it may concern:*

Be it known that I, OTTO FRANCKE, a subject of the King of Prussia, Emperor of Germany, residing at 39 A. p., Zähringerstrasse, Freiburg, Breisgau, in the Grand Duchy of Baden, and Empire of Germany, have invented new and useful Improvements in Double Doors, of which the following is a specification.

My invention relates to double doors, and comprises apparatus by which one door is kept closed on the other being opened. Such an arrangement is designed to be used for entrances to dark chambers, passages through the bulkheads of ships, and the like.

The apparatus which I employ consists, substantially, of disks provided at the upper or lower end of the doors or at both ends of the same and situated in the same plane, the radius of these disks being greater than half the distance between the two doors, so that the face of one disk enters the face of the other. For this purpose each of the two disks is furnished with a recess. When both doors are closed, the recesses are opposite each other; but on one door being opened its disk enters the recess in the other disk, which is thus locked together with the door to which it is fixed.

In the accompanying drawings I have represented a constructional form of the double door forming the subject of my said invention.

Figure 1 is a vertical section through the lower part of the double door with the apparatus attached. Fig. 2 is a section on the line A B of Fig. 1. Figs. 3 and 4 are plans showing the disks in different positions.

To the doors *a* and *b*, which together con-

stitute a double door, are fixed, at their lower ends, disks or parts of disks *c d* by means of pivots *e*, situated in the axes of rotation of the doors. The radius of the disks is greater than half the distance between the two doors. Accordingly as the disks are situated in the same plane the face of one disk must enter the face of the other. This is rendered possible by the disks being furnished with recesses *f g*. The position of these two recesses is such that they are opposite each other when the doors are closed. On one door—for instance, the door *a*, Fig. 3—being opened its disk *c* enters the recess *g* of the disk *d*. In this manner the disk *d* and the door *b*, to which it is secured, are locked, inasmuch as one end of the recess *g*, on an attempt being made to open the door *b*, will bear against the periphery of the disk *c*. In the position represented in Fig. 4 the reverse action takes place, the opening of the door *b* serving to lock the door *a*.

What I claim as my invention, and desire to secure by Letters Patent, is—

A pair of doors having a pair of disks one secured to each door which are situated in the same plane and whose radii are greater than half the distance between the two doors, the face of each disk being provided with a recess for the passage of the face of the other disk, substantially as set forth.

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

OTTO FRANCKE.

Witnesses:

CHRISTIAN WEILBRENNER,  
BENJAMIN F. LIEFELD.