No. 811,699. PATENTED FEB. 6, 1906.

J. E. CASSERLY.

BOLTWORK FOR CIRCULAR DOORS.

APPLICATION FILED APR. 12, 1905.

Fig. 1.

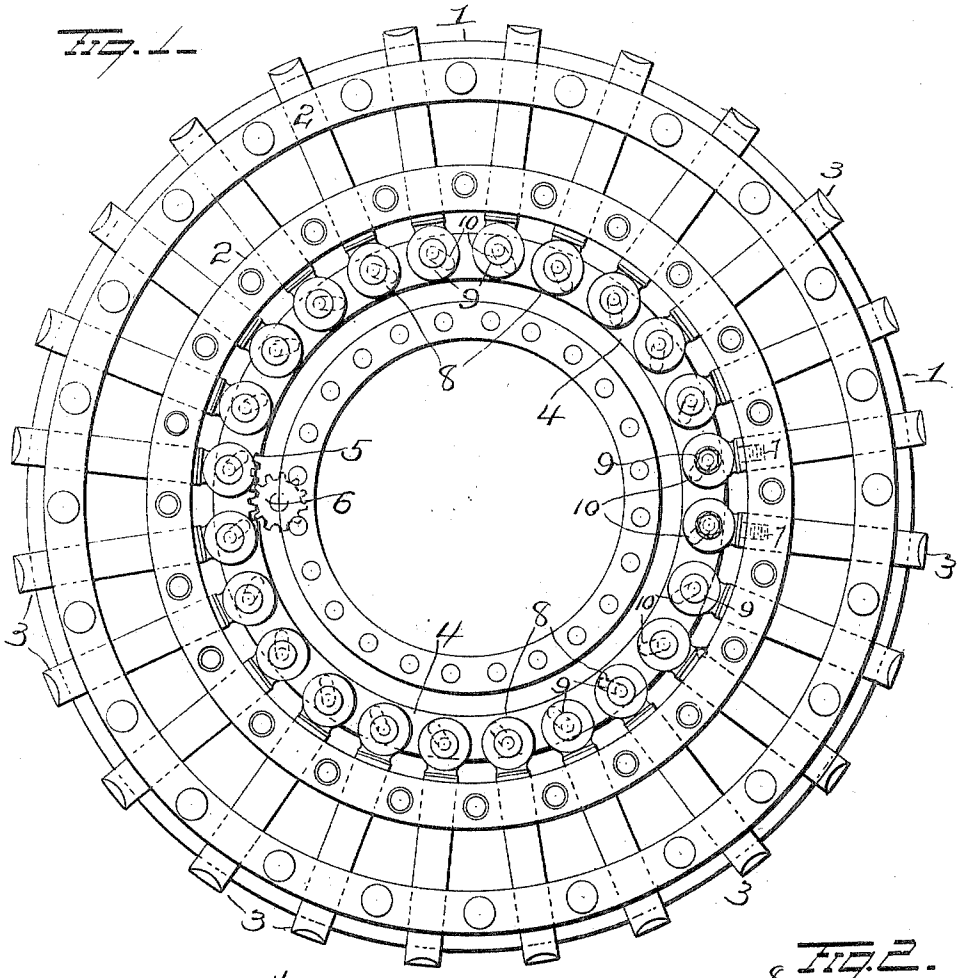
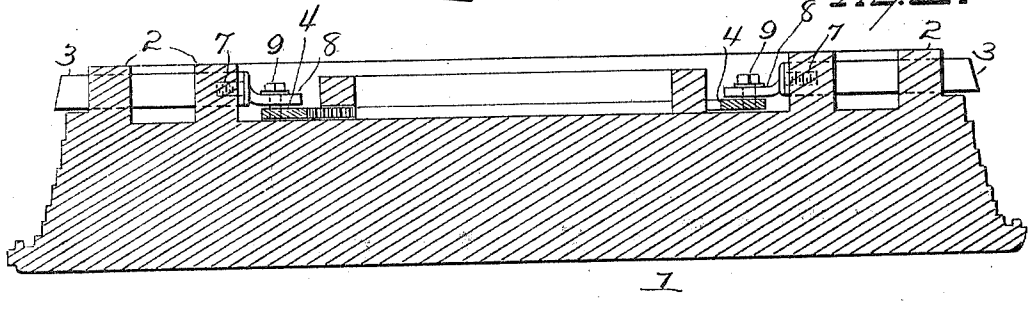


Fig. 2.



WITNESSES

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BOLTWORK FOR CIRCULAR DOORS.

No. 811,699. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed April 12, 1905. Serial No. 255,115.

To all whom it may concern:

Be it known that I, JOSEPH E. CASSERLY, a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Boltwork for Circular Doors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in boltwork for circular doors, the object of the invention being to provide improved mechanism for simultaneously operating the series of radially-disposed bolts around the door; and with this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation illustrating my improvements, and Fig. 2 is a view in section thereof.

1 represents a door of circular form, to the inner face of which parallel fixed rings 2 are located and provided with alined openings forming bearings for a series of radially-disposed bolts 3. Inside the inner fixed ring 2 a movable ring 4 is located and provided with gear-teeth, forming a rack 5, in mesh with an operating-pinion 6, controlled by any desired means to move ring 4.

The inner end of each bolt 3, which projects inside inner fixed ring 2, is made with a threaded socket to receive a screw 7, securing a disk-like head 8 to the end of the bolt. By making the heads 8 separate and removable from the bolts the parts can be readily assembled, and the bolts may easily be provided with new heads when necessary. These heads 8 lie above the movable ring 4, and each head carries a pin or screw 9, which projects into a cam-slot 10 in the ring 4, a cam-slot 10 being provided for each and every bolt.

The operation is as follows: When ring 4 is moved by pinion 6, the engagement of the walls of cam-slots 10 with the pins or screws 9 will cause all of the bolts to move either inward or outward, as the case may be, and the length of such movement is controlled by the length of the cam-slots 10.

Slight changes might be made in the general form and arrangement of the parts described without departing from my invention, and hence I would have it understood that I do not restrict myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. The combination with a circular door, and a series of radially-disposed bolts thereon, of a movable ring on the door, removable heads secured to the inner ends of the bolts, and means connecting said heads and movable ring and operating to compel the movement of the bolts when the ring is moved.

2. The combination with a circular door, and a series of radially-disposed bolts thereon, of a movable ring on the door having cam-slots therein, heads removably secured to the inner ends of the bolts, and pins carried by said heads and projecting into the cam-slots of the movable ring.

3. The combination with a circular door, parallel fixed rings thereon, and radially-disposed bolts mounted in said rings, of a movable ring located inside the inner fixed ring and having cam-slots therein, removable heads on the inner ends of the bolts, pins carried by said heads and projecting into the cam-slots of the movable ring, gear-teeth on said movable ring, and an operating-pinion engaging said gear-teeth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOSEPH E. CASSERLY.

Witnesses:

FRANK O. HERRING,

RUTHERFORD S. FOWLER.