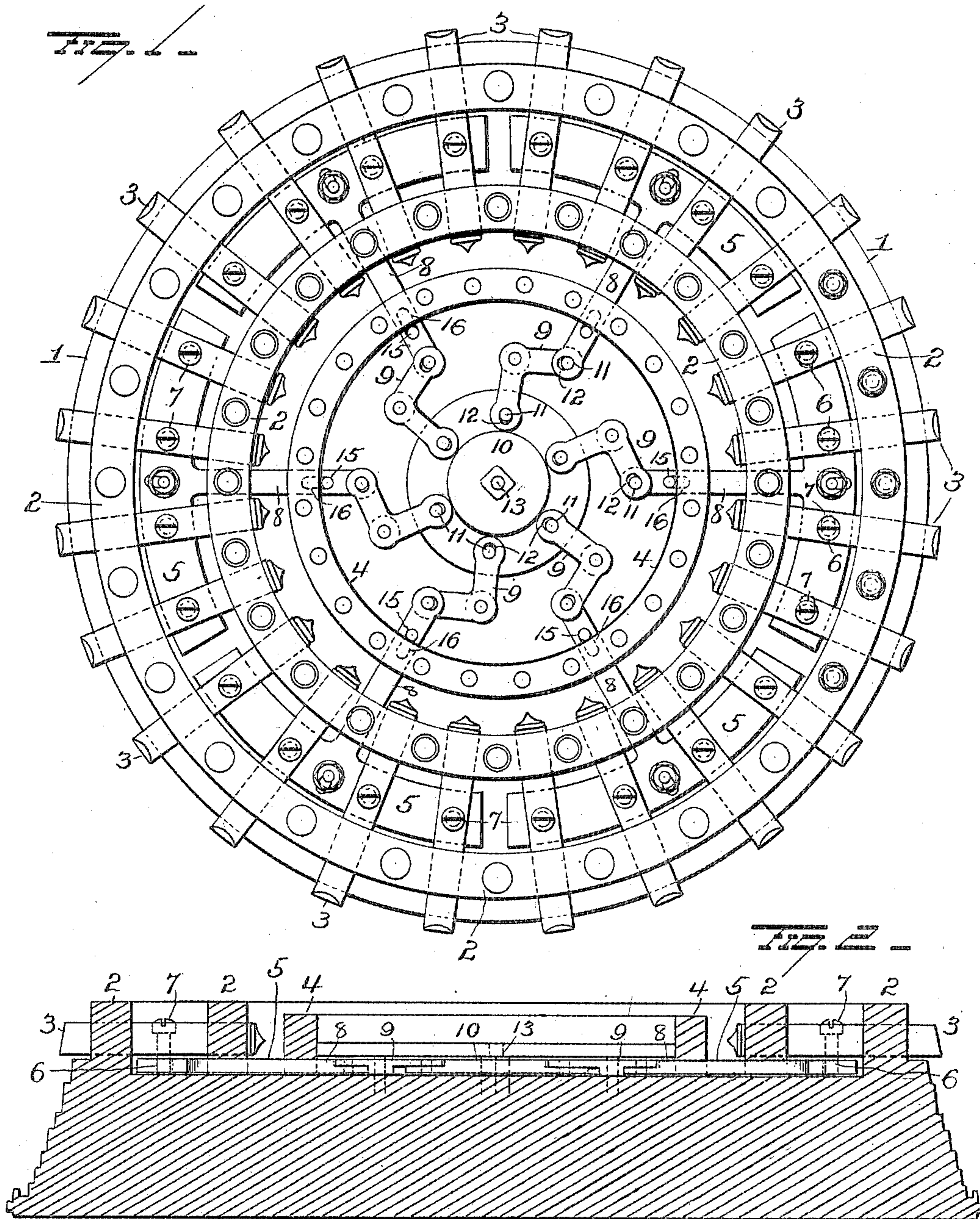


No. 811,695.

PATENTED FEB. 6, 1906.

J. E. CASSERLY.
BOLTWORK FOR CIRCULAR DOORS.
APPLICATION FILED APR. 8, 1905.



WITNESSES
E. D. Nottingham
G. F. Downing

INVENTOR
J. E. Casserly
By H. A. Seymour
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH E. CASSERLY, OF NEW YORK, N. Y., ASSIGNOR TO REMINGTON
AND SHERMAN COMPANY, OF PHILADELPHIA, PENNSYLVANIA.

BOLTWORK FOR CIRCULAR DOORS.

No. 811,695.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed April 8, 1905. Serial No. 254,545.

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 means for simultaneously operating a series of radially-disposed bolts around the door; and 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 the circular door, provided on its inner face with parallel rings 2, secured to the door, and having alined openings forming bearings for radially-disposed bolts 3, arranged in a complete series all around the door. A smaller ring 4 is also secured to the door and is made with notches or recesses to guide the movements of my improved bolt-operating segments 5. The main portions of the segments are located below their series of bolts 3 and are provided with somewhat-elongated openings 6 to receive the ends of pins or screws 7, carried by bolts 3, and move all of the bolts simultaneously when the segments are moved. The openings 6 are elongated to compensate for the radial movement of the bolts, as the pins or screws 7 necessarily become closer together as the bolts move inward and separate as the bolts move outward. Each segment is provided with a radially-disposed arm 8, movable in alined notches in the inner ring 2 and in ring 4, and pins 15 on the door are located in slots 16 in the arms to limit the movement of the segments. The inner ends of these arms 8 are connected by bell-crank levers 9 with a central disk or ring 10, the connecting of the bell-cranks with the arms and disk being by pin 11 and slot 12 to compensate for varying positions of the pins.

Any suitable means may be employed for

turning spindle 13 or other approved means connected with the disk 10, and it will be seen that when said disk 10 is turned in one direction all of the bolts will be withdrawn, and when the disk is turned in the opposite direction the bolts will be projected outward.

A great many other 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 series of segments each being movably connected with a plurality of bolts, and means for simultaneously moving all the segments.

2. The combination with a circular door, and a series of radially-disposed bolts thereon, of a series of segments, each being movably connected with a plurality of bolts, and means at the center of the door for simultaneously moving said segments.

3. The combination with a circular door, of parallel rings thereon having alined openings, radially-disposed bolts in said openings, a series of segments around the door each segment movably connected with a plurality of bolts, arms on the segments, and means at the center of the door for simultaneously moving said arms.

4. The combination with a circular door, and a series of radially-disposed bolts around the same, of a series of segments around the door and each segment movably connected with a plurality of bolts, arms on the segments, a rotary device at the center of the door, and bell-crank levers connecting the arms with said rotary device.

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.