

A. BRANDT.
KEYLESS LOCK.
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1,199,237.

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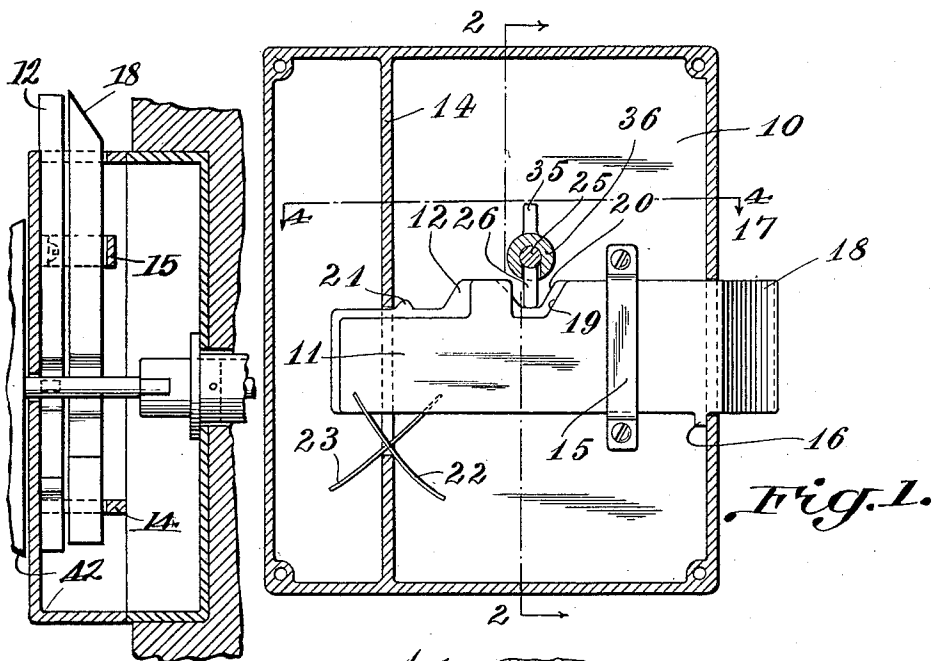


Fig. 4.

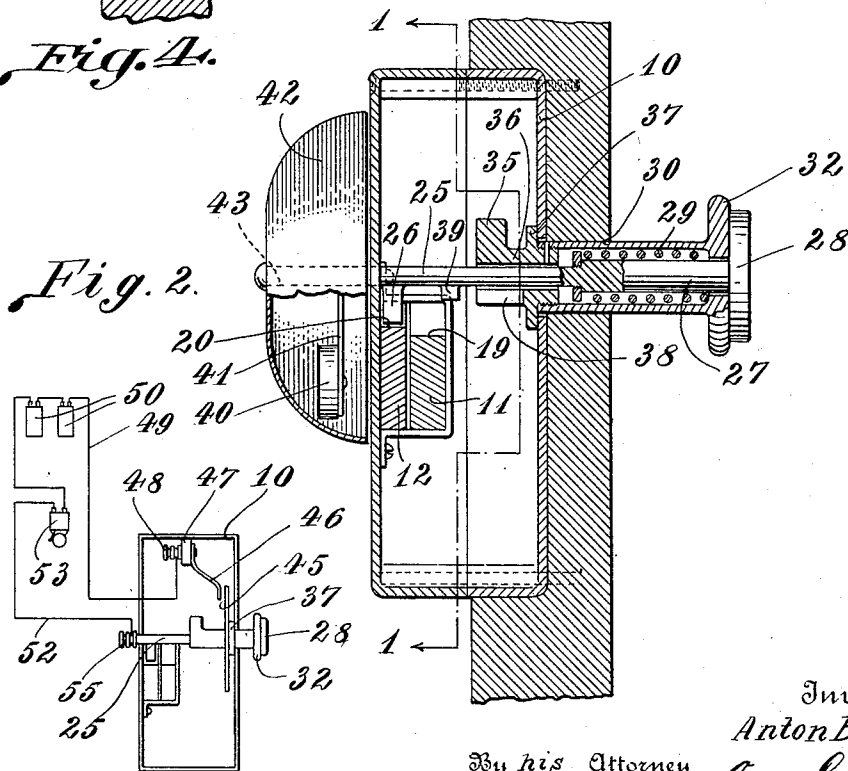


Fig. 3.

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KEYLESS LOCK.

1,199,237.

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To all whom it may concern:

Be it known that I, ANTON BRANDT, a subject of the Emperor of Austria-Hungary, and resident of New York, in the county of Bronx and State of New York, have invented a certain new and useful Keyless Lock, of which the following is a specification.

This invention relates to improvements in locks and particularly to types used on doors in dwellings and office buildings, and has as its principal object to provide a lock which can be opened without a key through the operation of a knob in a definite manner known only by those familiar with it.

Another object is to provide means for audibly announcing such actuation, and finally to provide a lock having few parts, and those of simple construction, practical in operation and cheap to manufacture.

These and other allied objects are attained by the novel construction and combination of parts hereafter described and shown in the accompanying drawing, forming part of this specification, and in which:

Figure 1 is a sectional view of a lock showing the invention, the section being taken on line 1—1 of Fig. 2. Fig. 2 is another sectional view, taken in a different plane on line 2—2 of Fig. 1. Fig. 3 shows an interior diagrammatic view of the lock adapted to sound the bell electrically, and, Fig. 4 is a horizontal sectional view taken on line 4—4 of Fig. 1.

The frame or casing 10 of the lock is secured to the door in the usual manner, and contains two sliding elements respectively 11 and 12, that together form the bolt. These bolt elements are guided and supported in the frame, partially by the outer wall thereof through which the bolt extends to engage with its keeper, and partially in the partition plate 14; a strap 15 also holds the sliding elements in intimate relation and against the inner wall of the casing. The extending ends of the bolt elements are provided with lugs 16 contacting against the inner wall of the casing, preventing the beveled ends 17 and 18 from projecting too far outward. The bolt elements have notches 19 and 20 in their upper sides and are of reduced width at their rear ends, the inner element 12 having a raised lug 21 engageable on either side of the partition 14 which is slotted below the sliding element so as to be movable vertically to a limited extent therein. Flat leaf

springs 22 and 23, attached respectively to the elements 11 and 12, are arranged to hold the upper edge of the elements toward the partition 14 and also exert a tendency to move them longitudinally as shown in Fig. 1.

Passing through the lock transversely of the bolt elements is a stem 25 having a rigid ward 26 in normal operative engagement with the notch 20 of the element 12 and extending toward the front where it is increased in diameter, as at 27, and having a head 28 extending out at the front of the lock, through the door.

Encircling the stem 27 is a helical push spring 29 exerting pressure between the collar 30 fixed on the stem 25 and the inside of a knob 32, formed with the sleeve, surrounding the spring 29 and stem 27, its inner end being attached to a ward 35 formed with the sleeve 36 and having a fixed collar 37 limiting its outward action. The sleeve 36 has a slot 38 adapted, when the knob 32 is pushed in and properly positioned, to receive an extension 39 formed with the ward 26 on the stem 25. The stem 25 also carries hammers 40 supported by arms 41 adapted to make contact with the inside of the bell 42 supported on the staff 43 at the inside of the door so that when the wards are turned a signal may be audibly given.

In operation, the knob 32 is pushed in and turned to bring the slot 38 into register with the lug 39 and then forced farther in so that the wards 26 and 35 operate in the notches 19 and 20, moving the bolt elements in either direction to lock or unlock the door by rotating either knob 28 or 32; turning the knobs unless they are engaged has no effect upon the bolt element. Thus it will be seen that without a knowledge of the manner of manipulating the knobs that the bolts will remain in the condition in which they were last placed and that no key of any kind is required.

In Fig. 3 is shown the electrical details in which the disk 45, attached to the collar 37 operated by the knobs 32 or 28, so that as they are pushed inwardly, the disk makes contact with the spring frame 46, held in the case 10 by projection 47 upon which is the binding post 48; to this is connected the wire 49, from the batteries 50, the return wire 52 having in circuit the bell 53 and engaging with the binding post 55 which is a continuation of the rod 25 as before de-

scribed. The operation of making and breaking the contact and arrangement of the electrical circuit will be obvious from an inspection of the drawing.

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

1. In a lock of the class described, the combination with a casing, of a two-part
10 bolt operable in said casing a knob for actuating one part of said bolt, a second knob slidably and rotatably mounted on the stem of the first named knob, and means combined with said second knob engageable with
15 the other part of said bolt.

2. In a lock of the class described, the combination with a casing, of a two-part bolt operable therein, a stem rotatable in said casing transverse to said bolt, means
20 for actuating one of said bolt parts rigid with said stem, an operating knob for said stem, a second knob slidable and rotatable on said stem, and means combined with said second knob engageable with said actuating
25 means adapted to actuate the other part of said bolt.

3. In a lock of the class described, the

combination with a casing, a bolt slidable therein, said bolt being in two longitudinal sections, of a revoluble stem, an actuating
30 means combined therewith for one of the sections of said bolt, a knob slidable and revoluble on said stem, a second knob engaged with the first named knob, and wards combined with said second knob for actu-
35 ating the other section of the bolt.

4. In a lock of the class described, the combination with a casing, a bolt slidable therein, said bolt being in two longitudinal sections, of a stem revolubly mounted in
40 said casing, wards combined with said stem engaging one of said bolt sections, an operating means for said stem, a knob slidable on said stem, and means for engaging the other element of said bolt at a predeter-
45 mined point operated by said knob.

Signed at New York, in the county of New York, and State of New York, this 13th day of December, A. D. 1915.

ANTON BRANDT.

Witnesses:

FRANCIS J. NEKARDA,
O. P. GEIER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."