

No. 651,947.

Patented June 19, 1900.

C. E. JOHNSON.
LOCK.

(Application filed May 12, 1899.)

(No Model.)

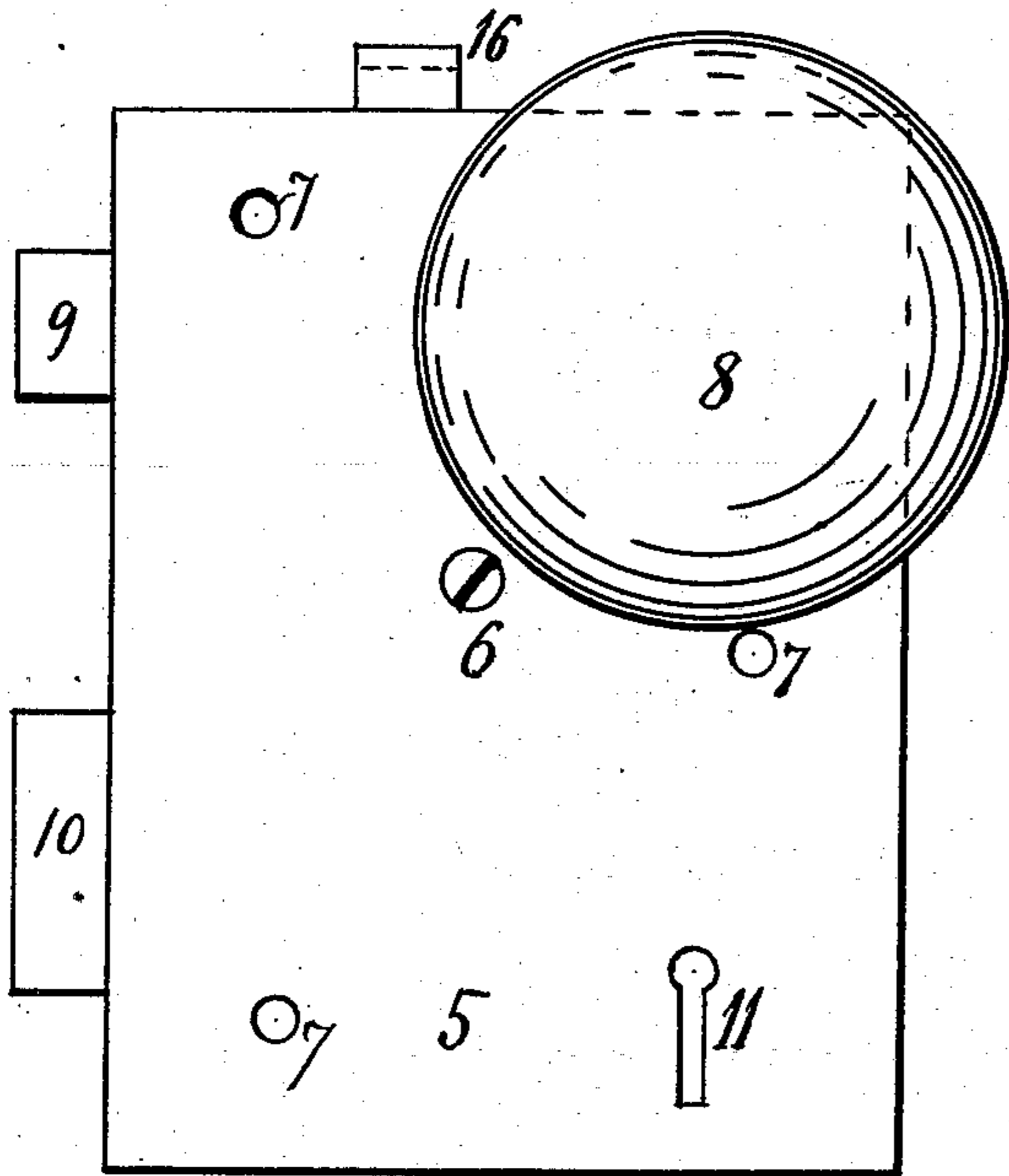


FIG. 1.

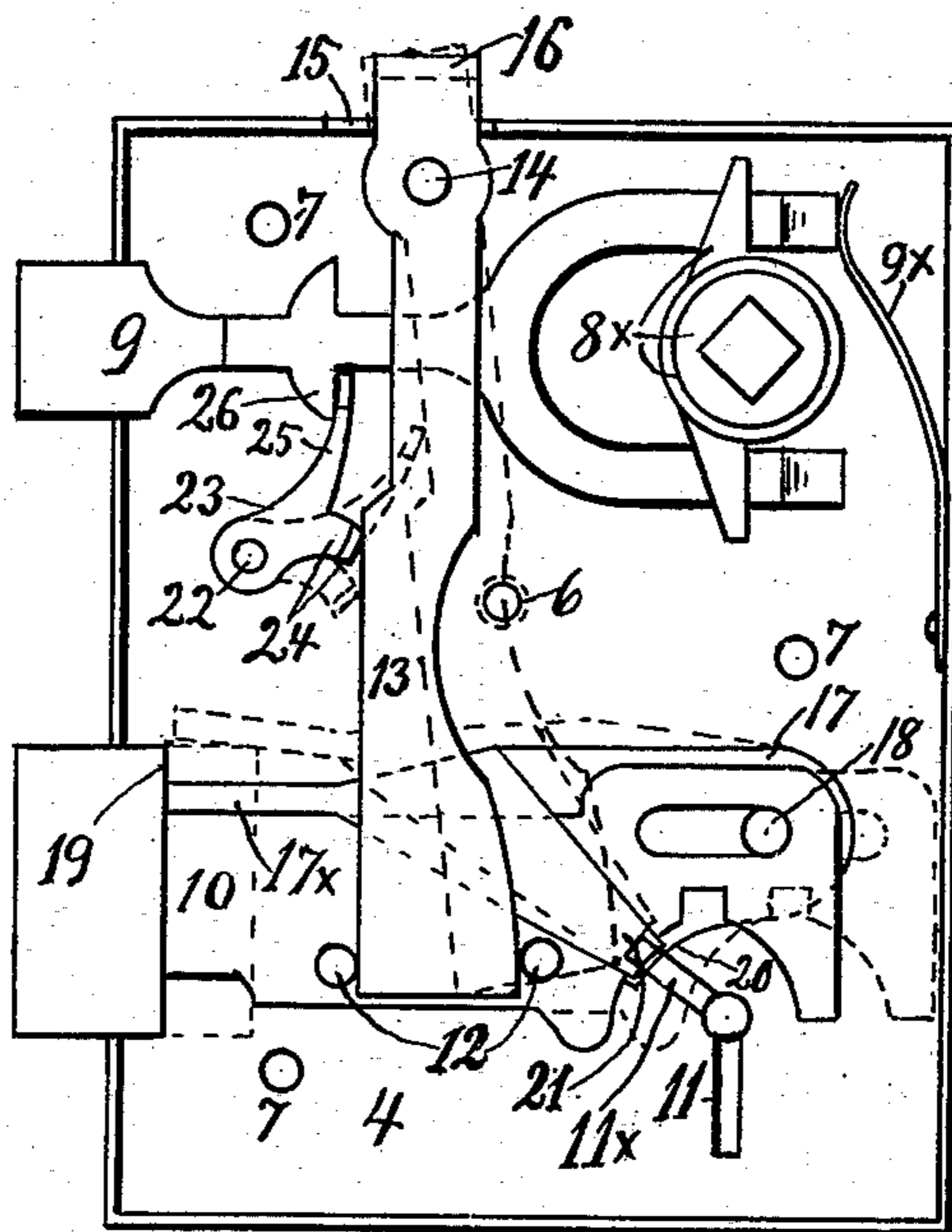


FIG. 2.

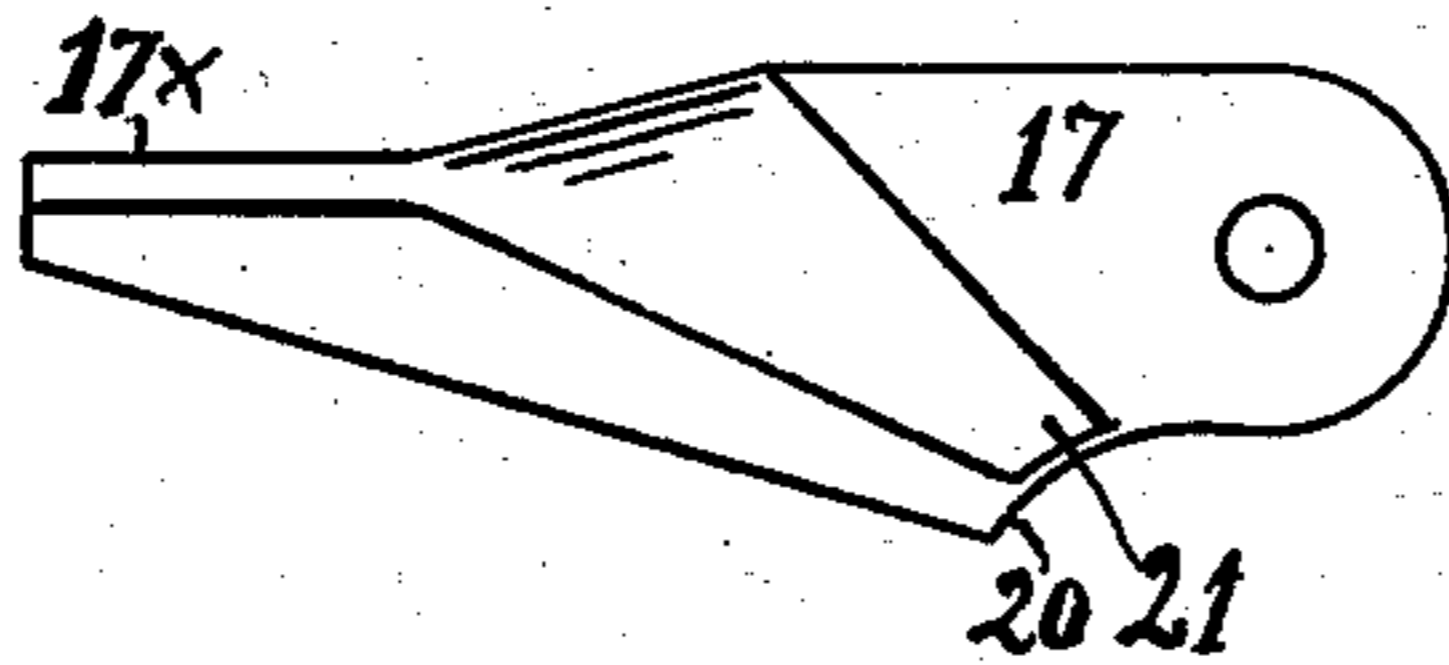


FIG. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES E. JOHNSON, OF EAST LAKE, MICHIGAN.

LOCK.

SPECIFICATION forming part of Letters Patent No. 651,947, dated June 19, 1900.

Application filed May 12, 1899. Serial No. 716,612. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. JOHNSON, a subject of the King of Sweden and Norway, (but having declared my intention to become a citizen of the United States,) residing at East Lake, in the county of Manistee and State of Michigan, have invented certain new and useful Improvements in Door-Locks; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in door-locks; and the objects of my invention are, first, to provide a door-lock which may have both its knob-bolt and its key-bolt locked by touching a single point or part; second, to provide a door-lock of such construction that if a thief enters the house and locks the knob-bolt, in order to prevent people from entering the house or room while he is in it, he cannot again open the door without using the key, which the inmates of the house keep concealed, except while opening the door after being away from the house or after the night is over. These objects I attain by the novel construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a common door-lock with my improvements applied to it. Fig. 2 is a side elevation the same as Fig. 1, but with the knob, knob-spindle, and covering-plate of the lock removed. Fig. 3 is a detail view of the latch or lever for locking the key-bolt.

Referring to the parts in the drawings by reference-numerals, 4 is the lock case or frame, and 5 is the covering-plate of same, secured by the screw 6 and provided with the holes 7 7 7 for screws by which the lock is secured on the door, all in the usual manner. The knob-tumbler 8^x, knob 8, knob-bolt 9, spring 9^x, key-bolt 10, keyhole 11, and key 11^x are also of old and well-known construction, excepting that the key-bolt is provided with the lugs or projections 12, between which is loosely placed the lower end of the lever 13, which is pivoted at 14 and projects up through and

above the slot 15 in the lock-case, where it forms the thumb-catch 16.

17 is a pivoted tumbler or latch pivotally secured on the round stud 18, which guides the rear end of the key-bolt. The free end 17^x of this tumbler drops behind the shoulder 19 of the key-bolt and prevents its accidental retraction, and when the pivoted tumbler 17 is lifted by the bridge of the key, which touches the arms 20 21, the end 17^x gets above and rests upon the head of the key-bolt, as shown in dotted lines in Fig. 2.

It will be observed that the main plate of the pivoted tumbler 17 is located between the body-plate of the lock and the key-bolt, and the arm 21 hangs down in front of the key-bolt.

To the lock-frame 4 is further pivoted at 22 a locking-lever 23, having the short arm 24 engaged by the lever 13 and the long arm 25 engaging the projection 26 of the knob-bolt 9.

In operation the knob 8 and bolt 9, actuated by the spring 9^x and the tumbler 8^x, are used the same as on other door-locks for all ordinary purposes; but if it be desired to lock the door then the thumb-catch 16 is thrown rearward, so that the lever 13 swings forward and projects the key-bolt, which is then automatically locked by the dropping down of the end 17^x of the tumbler 17 back of the shoulder 19. This forward swinging of the lever 13 causes it to press against the short arm 24 of the latch or lever 23, so that the other arm 25 locks the knob-bolt 9 in its locked position. Thus the two bolts are locked against retraction, the key-bolt by the tumbler end 17^x and the knob-bolt by the levers 23 and 13 and the rear peg 12 of the key-bolt, as long as the latter bolt is locked. When the door is to be opened, the key is put in the keyhole and turned, so that it lifts the tumbler 17 and retracts the key-bolt. The lever 13 is thereby brought away from the lever 23, so that the latter falls down into the position shown in dotted lines, leaving the knob-bolt free to be operated by the knob. This done the key is again removed to its place of safekeeping in the house.

Should a thief succeed in opening the door with a false key and shut the door and latch the knob-bolt by the thumb-catch 16, which

in ordinary locks would give him an advantage, he will be unable to open the door from within until he has looked for the key which he thinks he has pushed in on the floor with his false keys, and failing to find the proper key he must proceed to open the lock with his wire keys, which all takes much time, and thus gives great advantage to those who are trying to capture the thief.

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

1. In a door-lock, the combination with the knob-bolt 9, and the key-bolt 10, of the lever 15 or tumbler 13, swinging on the pivot 14 near the upper edge of the lock, crossing the knob-bolt, and having its swinging end connected loosely with the key-bolt so as to follow the motion of the latter; the tumbler 23, having 20 a long arm engaging the knob-bolt in a lock-

ing manner, and a short arm for the lever or tumbler 13 to engage, and the pivoted tumbler 17 adapted to lock the key-bolt, so that the latter will arrest motion of the lever 13, tumbler 23 and the knob-bolt, substantially 25 as and for the purpose set forth.

2. In a door-lock, the combination with the knob-bolt 9 and key-bolt 10, of the pivoted lever or tumbler 13, moving with the key-bolt and having the external thumb-catch 16, and 30 an intermediate tumbler adapted to lock the knob-bolt by receiving pressure from the lever 13 whenever the key-bolt is projected.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES E. JOHNSON.

Witnesses:

W. A. SEAMAN,

H. H. HITCHCOCK.