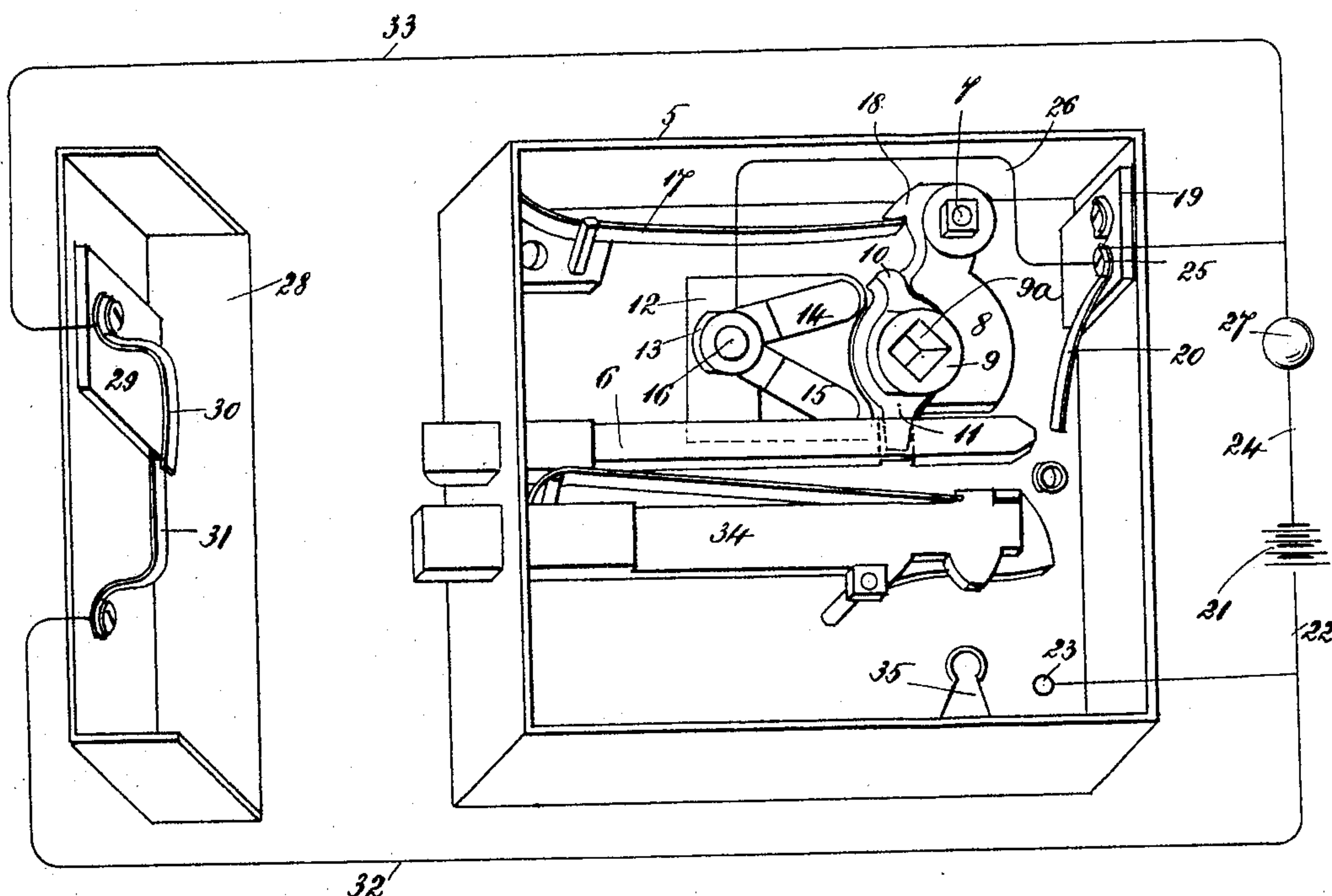


(No Model.)

P. V. VANDEVELDE.
ELECTRICAL ALARM FOR DOOR LOCKS.

No. 585,138.

Patented June 22, 1897.



WITNESSES

D. Gustafson
C. Gerst

INVENTOR

Paul Victor Vandeveldt.
BY
Edgar Tate & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

PAUL VICTOR VANDEVELDE, OF CORONA, NEW YORK.

ELECTRICAL ALARM FOR DOOR-LOCKS.

SPECIFICATION forming part of Letters Patent No. 585,138, dated June 22, 1897.

Application filed April 6, 1897. Serial No. 630,931. (No model.)

To all whom it may concern:

Be it known that I, PAUL VICTOR VANDEVELDE, a citizen of the United States, residing at Corona, in the county of Queens and State of New York, have invented certain new and useful Improvements in Electrical Alarms for Door-Locks, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to electrical alarms for door-locks; and the object thereof is to provide an improved electric alarm for ordinary door-locks which is adapted to be operated by the latch-bolt when said bolt is moved in either direction or by an attempt to move said bolt by means of ordinary door-knobs.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, said drawing being a perspective view of the casing of an ordinary door-lock and of a latch or latch-bolt catch which is adapted to be secured to the frame of the door and in connection with which the latch-bolt operates, one side of the casing of said door-lock being removed and the latch-catch being turned so as to show the inner side thereof.

In the practice of my invention I provide a lock or lock-casing 5, which is of the usual form and in which is mounted a latch-bolt 6. Pivotaly connected with the back of the lock-casing at 7 is a dog 8, which projects transversely in the direction of the inner end of the latch-bolt 6, and the back of said dog is circular or convex in form, while the front thereof is concave, and arranged in the concave side of the dog 8 is a tumbler 9, which is provided with an angular opening 9^a, through which in practice the shaft on which the door-knobs are mounted is passed, said shaft being not shown.

The tumbler 9 is provided with an upwardly-directed arm 10 and with a downwardly-directed arm 11, which passes back of the inner end of the latch-bolt 6 and into a transverse slot or groove formed therein, and secured to the back of the casing 5, in front of the tumbler 9, is an insulating-plate 12, to which is secured a fork 13, one side of which projects backwardly and terminates in

front of the arm 10 of the tumbler 9, as shown at 14, and the other side of which projects backwardly and downwardly and terminates in front of the arm 11 of the tumbler 9, as shown at 15, and said fork is held on the said insulating-plate 12 by a screw or other device, as shown at 16.

Secured to the upper part of the casing of the lock is a spring 17, which operates in connection with a shoulder or projection 18, formed on the head of the dog 8, and secured to one of the sides of the casing adjacent to the head of the dog 8 is an insulating-plate 19, to which is secured a spring-arm 20, which projects along the side of the casing, with which the insulating-plate 19 is connected, and the other end of the said spring is adapted to be struck by the inner end of the latch-bolt 6 when the latter is moved inwardly.

Arranged at any suitable point is a battery 21, and a wire 22, which leads from said battery, is connected with the casing of the lock at 23 in any desired manner, and another wire 24 leads from the battery and is connected with the spring 20 at 25, and the spring 20 is also connected with the fork 13 by means of a wire 26, and at any suitable point in the circuit thus formed is an electric bell or other alarm 27, and by means of this construction it will be seen that if the latch-bolt 6 be forced inwardly by any means whatever the inner end thereof will strike the spring 20 and complete the circuit through the casing of the lock, and the alarm 27 will be sounded; and if the tumbler 9 be turned by means of one of the knobs of the door the circuit will be complete by one of the arms thereof striking one of the sides 15 of the fork 13 and the alarm again be sounded. I have also shown at 28 the latch-casing, which is adapted to be connected with the frame of the door and in connection with which the latch-bolt 6 operates, and to the inner side of the face-plate of said latch-casing is secured an insulating-plate 29, to which is secured a spring-arm 30, and a similar spring-arm 31 is secured to said latch-casing, and these spring-arms overlap each other in their normal position, and when the door is opened they come in contact, but when the door is closed they are separated by the latch-bolt 6, and one of

these spring-arms is in connection with the wire 22 by a supplemental wire 32, and the other spring-arm is in connection with the wire 24 by a supplemental wire 33, and when-
 5 ever the door is opened or the latch-bolt 6 thrown backwardly in order to open the door the circuit will be completed by means of the spring-arms 30 and 31, and the alarm 27 will be operated, and said alarm will continue to
 10 operate as long as the door is open.

It will thus be seen that I provide an electrical alarm for use in connection with ordinary door-locks and which is adapted to be operated by the latch-bolt when moved in either
 15 direction and which is also adapted to operate as long as the door is open.

It will also be seen that the backward movement of the dog 8 when the door-knobs are operated in one direction will cause said dog
 20 to strike the spring 20 and close the circuit, and thus sound the alarm.

I have also shown at 34 the ordinary lock-bolt, which is adapted to operate by a key inserted through a keyhole 35, but these parts
 25 form no part of my invention, and they, together with their connected parts, are therefore not described in detail.

My improved alarm is simple in construction and operation and well adapted to accomplish the result for which it is intended,
 30 and it will be apparent that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its
 35 advantages.

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

1. An electrical alarm for doors comprising
 40 a lock or latch casing, a longitudinally-movable latch-bolt mounted therein, an insulated spring connected with said casing adjacent to the rear end of the latch-bolt, and adapted to be struck thereby, and an electric alarm
 45 in circuit with said spring and said casing, said casing being also provided with a tumbler by means of which the latch-bolt is operated, said tumbler being provided with arms which operate in opposite direction, and
 50 an insulated fork mounted in said casing, the sides of which are adapted to make contact with the arms of said tumbler said fork being

also in said circuit, substantially as shown and described.

2. An electrical alarm for doors comprising 55 a lock or latch casing, a longitudinally-movable latch-bolt mounted therein, an insulated spring connected with said casing adjacent to the rear end of the latch-bolt, and adapted to be struck thereby, and an electric alarm, 60 in circuit with said spring and said casing, said casing being also provided with a tumbler by means of which the latch-bolt is operated, said tumbler being provided with arms which project in opposite directions, 65 and an insulated fork mounted in said casing, the sides of which are adapted to make contact with the arms of said tumbler said fork being also in said circuit, and a latch-casing which is adapted to be secured to the 70 frame of the door and which is provided with spring-arms which are also in circuit with said alarm, and which are normally in connection and adapted to be separated by the latch-bolt when the door is closed, substan- 75 tially as shown and described.

3. An electrical alarm for doors comprising a lock or latch casing, a longitudinally-movable latch-bolt mounted therein, an insulated spring connected with said casing adjacent 80 to the rear end of the latch-bolt, and adapted to be struck thereby, and an electric alarm in circuit with said spring and said casing, said casing being also provided with a tumbler by means of which the latch-bolt is op- 85 erated, said tumbler being provided with arms which operate in opposite direction, and an insulated fork mounted in said casing, the sides of which are adapted to make contact with the arms of said tumbler said fork being 90 also in said circuit, and a dog which is adapted to be operated by said tumbler and which is also adapted to close the circuit and operate the alarm, substantially as shown and de- 95 scribed.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 3d day of April, 1897.

PAUL VICTOR VANDEVELDE.

Witnesses:

ALFRED J. TOOKER,
 JOHN P. VAN WICKEL.