No. 871,633. PATENTED NOV. 19, 1907.

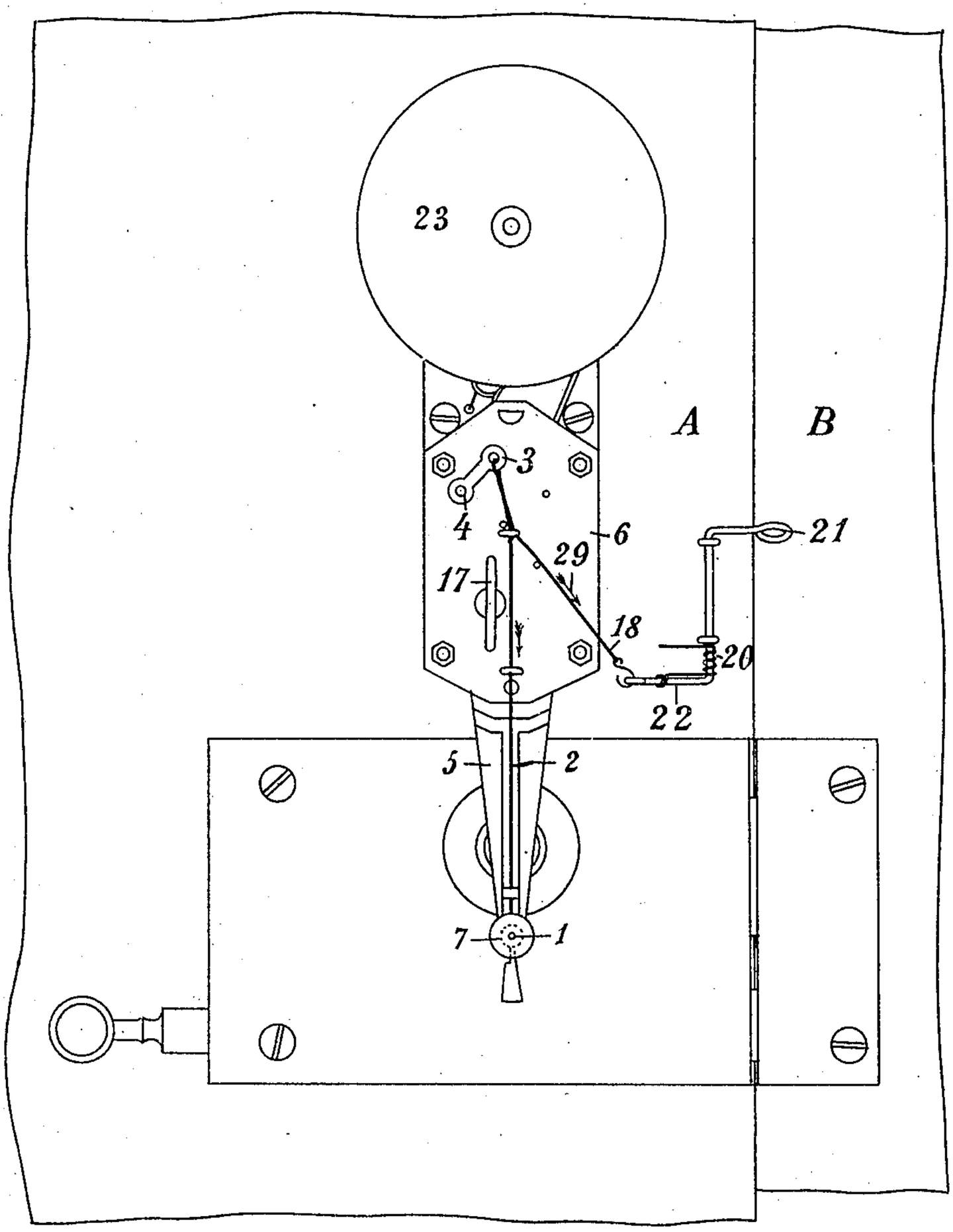
G. ROSSI.

AUTOMATIC ALARM.

APPLICATION FILED MAR. 14, 1905.

2 SHEETS—SHEET 1.

Fig. 1



Witnesses
H. M. Kuehl
John A. Percival.

Inventor
Giorgio Rossi
By Richards & R
Attorneys

No. 871,633. PATENTED NOV. 19, 1907.

G. ROSSI.

AUTOMATIC ALARM.

APPLICATION FILED MAR. 14, 1905.

2 SHEETS—SHEET 2.

Fig. 2

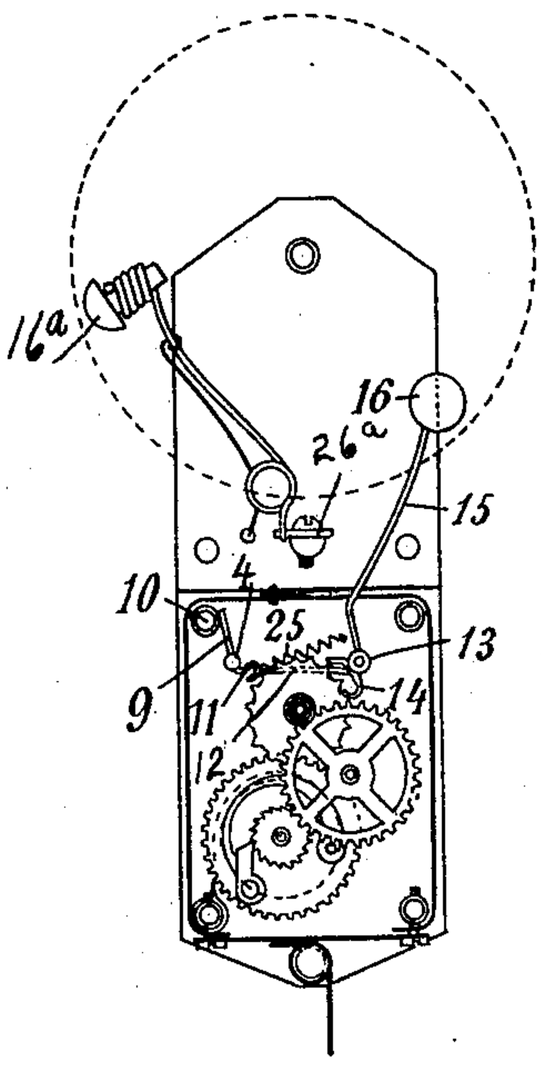
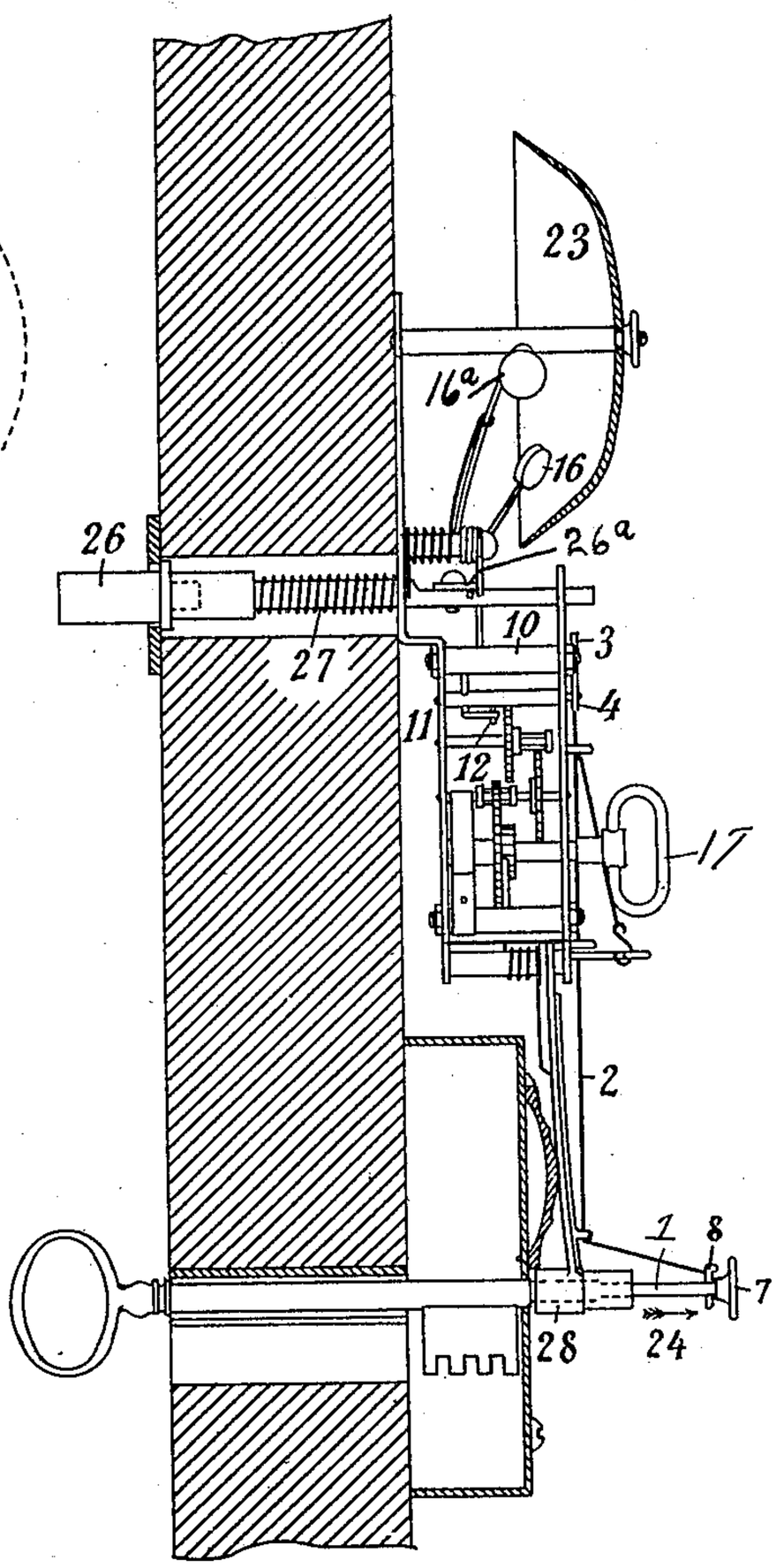


Fig. 3



Witnesses
Wm. Tuckwe
John A. Percival

Inventor
Giorgio Rossi
By Richardson & R
Attorneys

UNITED STATES PATENT OFFICE.

GIORGIO ROSSI, OF GENOA, ITALY.

AUTOMATIC ALARM.

No. 871,633. Specification of Letters Patent. Patented Nov. 19, 1907.

Application filed March 14, 1905. Serial No. 250,104.

To all whom it may concern:

Be it known that I, GIORGIO ROSSI, a subject of the King of Italy, residing in Genoa, Italy, have invented certain new and useful Improvements in Automatic Alarms for Doors, of which the following is a specification.

This invention relates to an alarm for doors and door locks comprising a cord which is operated on the introduction of the key and releases the pawl of an ordinary clock work operated bell.

The alarm device is also made to operate on the opening of the door without the introduction of the key, this is effected by means of a second cord which, at one end also is connected to the pawl of the bell, and at the other end to an angle or bracket shaped spring operated device the end of which resting against the other door half or the door jamb, loses that support when the door is opened and is thereupon turned by the spring thus pulling the cord and releasing the pawl of the bell device.

A construction according to this invention is illustrated by way of example, in the accompanying drawing in which:

Figure 1 is an elevation of the lock with the alarm device. Fig. 2 a view of the bell mechanism. Fig. 3 a side sectional elevation of the lock with the bell device, the key being in operative position.

The bell or alarm device 6 is connected to the lock by means of a plate 5 provided at the end with a sleeve 28 Fig. 3 in which a pin 1 provided with a knob 7 is adapted to slide. The center of the sleeve 28 corresponds to the center of the key hole, so that when the key is introduced, it pushes the pin 1 outwards. Near the knob 7 the pin is provided with a pin or lug 8 to which is secured a cord 2 connected at the other end to a crank 3 mounted on a spindle or pivot 4. Through the latter passes the end 9 of a helical spring 25 the other end of which is secured to one of the supporting plates to the clockwork. When the spring is not set, this end rests against a securing stud of the frame 10. The spring is adjoined at the end 9 by a hook shaped projection 11 which locks a bar 12 mounted on a spindle 13. This spindle 13 also carries an anchor 14 as well as the stem 15 of the hammer 16 for the bell 23. This spindle is driven by means of a clock work operated by a spring wound by a key 17. This clock work becomes operative only when, owing to the cord 2 being pulled by the introduction of the key, or the cord 18 being pulled by the opening of the door, the crank 3 is lowered and the spindle 4 turned.

The end of the cord 18 is connected by a hook 19 to a Z-shaped bracket 22 the spring 20 of which presses its free end 21 against the other door half or against the door jamb B so that, when the half A is opened the bracket 22 under the action of its spring turns outwards from the door A and thus exerts a pull on the cord 18 in the direction of the arrow 29. In this way the crank 3 is lowered and the bell ringing device released.

When the key is inserted into the key hole Fig. 3 the pin 1 is moved in the direction of the arrow 24 and therefore pulls the cord 2 attached at 8 whereby the crank 3 is lowered and its spindle 4 turned from left to right. The result is a pull on the helical spring 25 and a turning away of the pawl 11 and releases the bar 12 (of which the end only is seen in Fig. 3). This bar 12 is secured to the spindle 13 of the escapement and consequently the clock work, and therefore also the hammer 16 which are mounted on the spindle 13 are operated and the bell 23 is caused to ring.

When the door half A is opened the free end 21 of the bracket 22 loses its support B and under the action of its spring pulls the cord 18 in the direction of the arrow 29. This results in the crank 3 being lowered and the bell caused to ring as before.

The bell 23 can also be used as an ordinary door bell by arranging on the door a knob or press button 26 provided with a spring 27 Fig. 3, which operates the hammer 16^a of the bell in the ordinary way, by means of a triangular cam 26^a which engages with the shank of the hammer 16^a.

I claim as my invention:

The combination with a door and its lock, of an alarm comprising a bell ringing device, a clock work for actuating the same, a pawl for normally keeping the said device out of action, a cord connected with said pawl, means connected with the cord and adapted to be operated by the introduction of a key

in the lock to cause the cord to operate the pawl to release the bell ringing device, a second cord also connected with the pawl and a spring bracket connected with the said second cord and adapted to be operated by the opening of the door to cause the said second cord to actuate the pawl.

In testimony whereof he affixes his signature in presence of two witnesses.

GIORGIO ROSSI.

Witnesses:
H. HILIOPHIAPPA,
GIOVANNI MARCHELLI.