No. 872,581. PATENTED DEC. 3, 1907.

L. W. PENNINGTON.

ALARM APPARATUS.

APPLICATION FILED DEC. 15, 1905.

Fig.1.

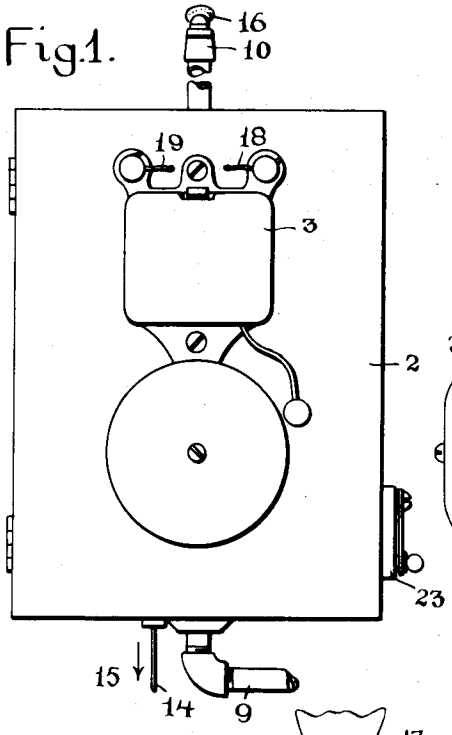


Fig.2.

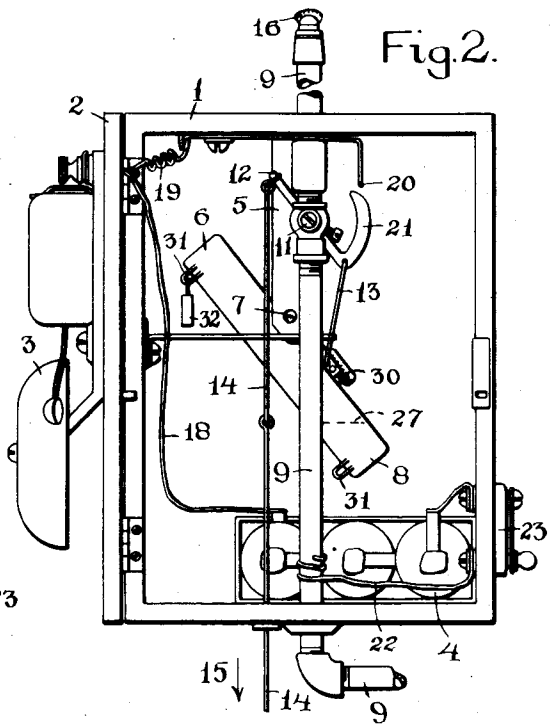
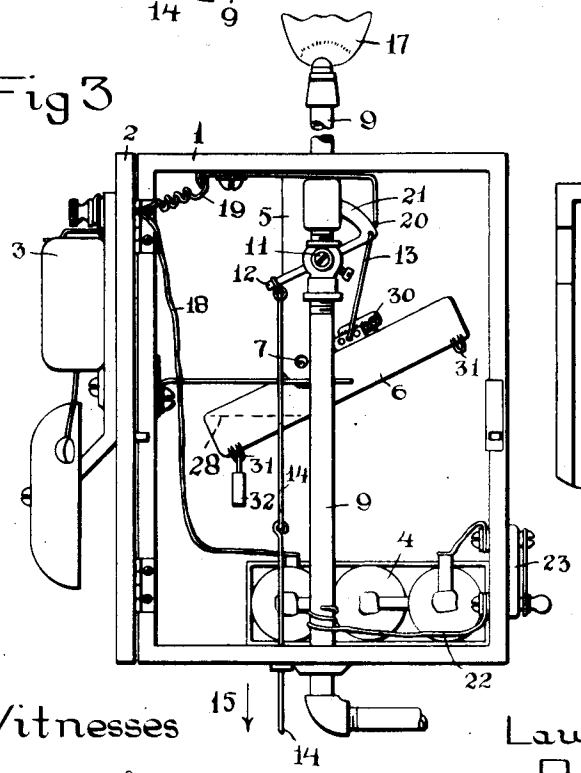


Fig 3



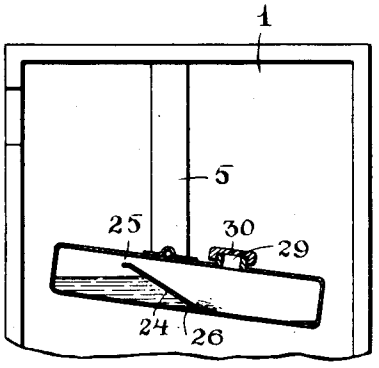


Fig.4.

Witnesses

Roy D. Tolman.

Penelope Bomberbach.

Inventor

Lawrence W Pennington

By Rufus B Fowler

Attorney

UNITED STATES PATENT OFFICE.

LAWRENCE W. PENNINGTON, OF WORCESTER, MASSACHUSETTS.

ALARM APPARATUS.

No. 872,581. Specification of Letters Patent. Patented Dec. 3, 1907.

Application filed December 15, 1906. Serial No. 291,940.

To all whom it may concern:

Be it known that I, LAWRENCE W. PENNINGTON, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in an Alarm Apparatus, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 represents a front view of my improved alarm apparatus. Fig. 2 represents a front view with the door open to disclose the interior mechanism, and showing the gravity pan in its normal position. Fig. 3 represents a front view with the door open, but with the gravity pan raised to set the alarm in action, and Fig. 4 is a detached view of a portion of the framework supporting the gravity pan and showing the gravity pan in a position between those shown in Figs. 2 and 3 and at the beginning of the retarded movement of the gravity pan.

Similar reference letters and figures refer to similar parts in the different views.

My present invention relates to an apparatus, for producing either an audible or visual alarm upon the movement of one of its members which may be produced by the turning of a door-knob, the opening of a window or door, or other desired means.

The operation of my apparatus is designed to produce either a visual or audible alarm, or both, in the present instance by lighting a gas jet and by sounding a bell, with the light and the sound of the bell continued through a predetermined period, and my invention consists in the construction and arrangement of parts as hereinafter described and pointed out in the annexed claims.

The operative parts of my improved alarm apparatus are preferably inclosed within a box or case 1, having a door 2 hinged to one side. Upon the outside of the door 2 may be conveniently located an ordinary electric bell 3. Within the box or case I place a battery 4, and upon a supporting framework 5 I mount a rocking gravity pan 6 arranged to swing freely upon a rod or pintle 7, said pan 6 being attached to and suspended beneath the rod 7, with the center of the pan slightly to one side of the rod 7, so that the pan will normally be tipped and supported in the inclined position shown in Fig. 2, with the end 8 of the pan the lowest.

Passing upward through the box 1 is a gas pipe 9 connected at its lower end with the source of gas supply, and having mounted upon its upper end a burner 10. The gas pipe 9 is provided with a key 11 to which is attached a lever 12, having one end connected by a link 13 with the gravity pan 6, and having the opposite end connected to a pull rod or cord 14. The pull rod or cord 14 is connected at its opposite end with the rotating knob of a door, with a door itself or with a window, so that in case the door-knob is turned, the door is opened, or the window is raised, the rod 14 will be pulled downward in the direction of the arrow 15, thereby rocking the lever 12 from the position shown in Fig. 2 to that shown in Fig. 3. This movement of the lever 12 opens the key 11 and admits a supply of gas to the burner 10. If, in the normal position of the key 11 and lever 12, as shown in Fig. 2, the key be left partially open so as to maintain a small flame 16, the rocking movement of the key consequent upon pulling the rod 14 will at once produce a large flame 17, Fig. 3, thereby giving a visual alarm.

The magnets of the electric bell 3 are connected in the usual manner with a wire 18 leading to one pole of the battery and with a wire 19 whose terminal 20 is arranged in the path of a curved arm 21 carried by the lever 12. The curved arm 21 is connected with the other pole of the battery through the gas pipe 9 and wire 22, said connection comprising a switch 23, preferably placed upon the outer side of the box or case 1. By rocking the lever 12 from the position in Fig. 2 to that shown in Fig. 3, the curved arm 21 is brought into contact with the terminal 20, thereby completing the circuit and bringing the bell 3 into action, thereby giving an audible alarm.

In order to prevent the pan 6 from at once rocking from the position shown in Fig. 3 back to its normal position shown in Fig. 2 whenever the rod 14 is released, which would terminate both the visual and audible alarms, I provide the pan with an oblique partition 24, as shown in sectional view in Fig 4, said partition being united to the sides and bottom of the pan and extending the entire width of the pan, with a narrow space 25 between the top of the pan and the upper end of the partition. The partition 24 is also provided at its lower end with a small opening 26. I place within the pan a small quantity of liquid, preferably alcohol,

which in the normal position of the pan, as shown in Fig. 2, rests in the lower end 8 of the pan, the line of alcohol being indicated by the broken line 27.

When the pan is rocked into the position shown in Fig. 3, the alcohol flows over the top of the partition 24, through the space 25 into the opposite end of the pan, as indicated by the broken line 28. When the rod 14 is released a partially reverse movement of the pan takes place, bringing the end 8 slightly the lowest, as shown in Fig. 4, due to the pan being pivoted at one side of its center. This movement of the pan from the position shown in Fig. 3 to that shown in Fig. 4, causes the alcohol to flow toward the end 8 of the pan and beneath the partition 24. A slow movement of the alcohol through the small opening 26 now takes place allowing the alcohol to flow through the partition toward the end 8, thereby slowly changing its center of gravity and causing a gradual rocking motion of the pan to take place, until it is finally brought to its normal position as shown in Fig. 2. During this slow reverse movement of the pan 6 the flame of the gas jet is gradually reduced in size and the terminal 20 sliding over the curved edge of the arm 21 continues the action of the electric bell until the pan 6 approaches the limit of its downward movement, when the contact between the arm 21 and the terminal is broken.

The pan 6 is provided with an opening 29 for supplying with alcohol, closed by a cap 30, and the opposite ends of the pan are preferably provided with loops 31 to allow weights to be attached to one or the other end of the pan which may be adjusted to vary the center of gravity and control the rocking movement of the pan, such a weight being shown at 32.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In an alarm apparatus, the combination with means for producing an audible alarm forming part of an electric circuit, of a swinging lever, an arm carried by one end of said lever and curved concentrically with its axis of rotation, a contact point arranged in the path of said curved arm, said contact point and said arm forming the terminals of said electric circuit, a rocking pan connected with said arm and containing liquid, said pan provided with a partition having openings of different sizes through the larger of which the liquid passes when said lever is swung to complete the contact and through the smaller of which the liquid passes to rock the pan, thereby reversing the movement of said pan and its connecting swinging arm.

2. In an alarm apparatus, the combination with a gas burner, a key for controlling the admission of gas to said burner, a lever connected with said key, means for swinging said lever to open said key, and a rocking pan connected with said lever and containing liquid, said pan provided with a partition having openings of different sizes through the larger of which the liquid passes when the lever is swung to open the key, and through the smaller of which the liquid passes to rock the pan, thereby reversing the movement of said lever and closing the key.

LAWRENCE W. PENNINGTON.

Witnesses:

RUFUS B. FOWLER,

PENELOPE COMBERBACH.