

H. P. CHRISTIANSON.
ALARM BELL.
APPLICATION FILED DEC. 27, 1911.

1,040,974.

Patented Oct. 8, 1912.

Fig. 1

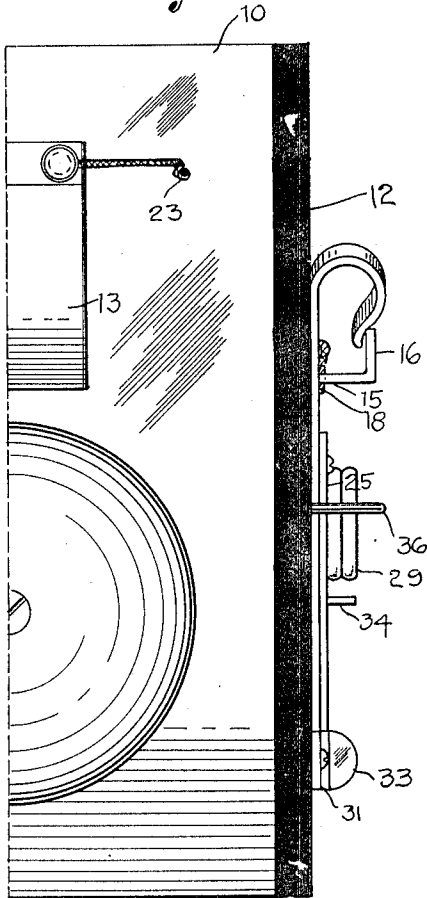


Fig. 2

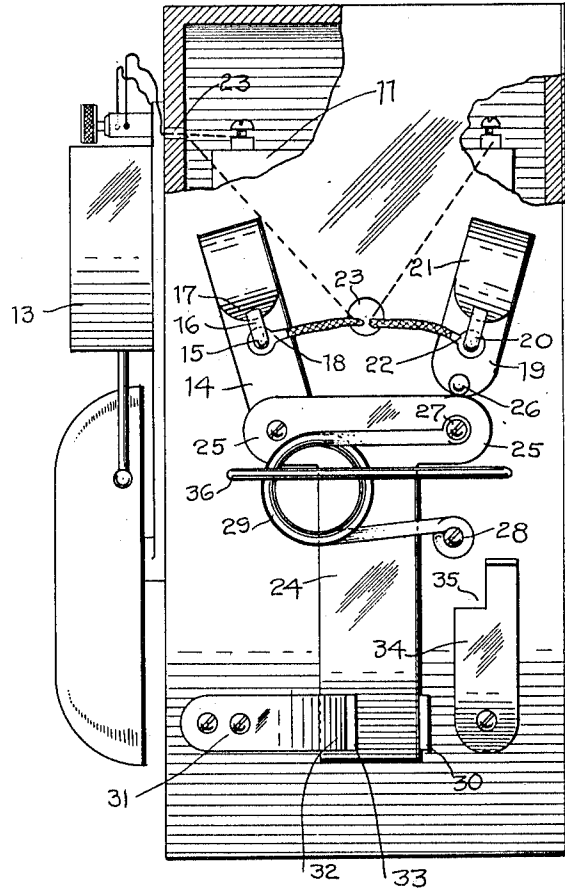
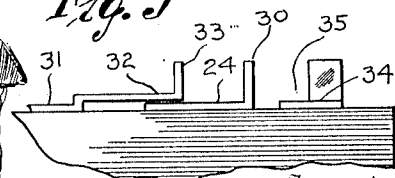


Fig. 4



Fig. 3



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UNITED STATES PATENT OFFICE.

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ALARM-BELL.

1,040,974.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HANS P. CHRISTIANSON, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Alarm-Bells, of which the following is a specification.

This invention relates to electrical devices and has special reference to a device for opening and closing the circuit of an alarm system.

The principal object of the invention is to provide a compact portable device which will contain a battery, alarm, and be provided on its exterior with a circuit closer adapted for manual operation the circuit being arranged to open by pressing the thumb and fore-finger of a person's hand and to close when said thumb and forefinger relax as when under the influence of sleep, the device being intended for use by telegraph operators, night watchmen, nurses, and the like.

With the above and other objects in view, the invention consists in certain novel constructions, arrangements and combinations of parts as will be hereinafter fully described, illustrated in the accompanying drawings, and specifically claimed.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and: Figure 1 is a partial side elevation of a device constructed in accordance with this invention. Fig. 2 is a plan view of the device. Fig. 3 is a detail end view of a portion of the device, the remainder of the parts being omitted. Fig. 4 is a view showing the manner of using the invention.

In the embodiment of the invention herein disclosed there is provided a box or casing 10 wherein is contained a battery as indicated at 11. The top of this box or casing is formed of some insulating material such as hard rubber or the like as indicated at 12, and fixed upon one side of the box is an ordinary electric bell 13 from which a certain wire runs to the battery and to a certain circuit closer located on top. This circuit closer comprises a metallic plate 14 having an upwardly projecting pin 15 located thereon, said pin terminating in an angled portion 16. The metallic plate has one end bent upward to rest beneath the end

16 of the pin as indicated at 17 so that when an eye which is formed on one of the conductor wires is slid on to the pin 15 the upturned end 17 will prevent accidental displacement therefrom. A similar but shorter plate is spaced from the plate 14 as indicated at 19 and this plate is also provided with the angular pin 20 and upturned end 21 for the same purpose, the eye 22 of the second wire being connected thereto. The wire from one of these plates leads to the bell and the other wire leads to a battery connection the main wire from the bell being likewise connected to the battery, these wires passing through openings 23 in the casing for this purpose. Pivoted to the plate 14 is a T-shaped member having a stem 24 and arms 25, one of said arms being pivoted to the member 14 and the other arm being arranged to contact with an upstanding pin 26 extending from the plate 19. On the free arm of the T-shaped member is a screw pin 27 and a similar pin 28 is located opposite the stem 24, said pins being for the reception of the ends of a coil spring 29 which normally urges the free arm 25 into contact with the pin 26. At the end of the stem of the T there is provided an upturned portion 30 which serves as a finger grip. Fixed to the top 12 is a second finger grip 31 which has an opposite portion 32 terminating in an upturned end 33 normally parallel to the portion 30 of the stem. When in use these two portions 30 and 33 are grasped between the thumb and side of the fore-finger and the stem of the T moved to the left of Fig. 2, thus breaking the contact between the free arm 25 and pin 26. The notch prevents the end of the stem from moving to the right after it has been moved to the left so that the circuit cannot be closed.

It will be obvious that if the user of this device grasps the members 30 and 33 between his thumb and side of his fore-finger and breaks the circuit the bell will not ring. However, if his muscles relax as in sleep the spring will move the member 24 to the right and close the circuit thus causing the bell to ring and rousing the sleeper. A guard is provided for the spring 29.

There has thus been provided a simple and efficient device of the kind described, and for the purpose specified.

It is obvious that many minor changes

may be made in the form and construction thereof without departing from the material principles of the invention, and it is therefore not wished to confine the invention to
5 the exact form herein shown and described, but it is wished to include all such as properly come within the scope claimed.

Having thus described the invention, what is claimed is:

10 In a device of the kind described, a casing, a plate mounted on said casing and provided with wire terminal engaging means, a second plate similarly mounted and provided in spaced relation to the first plate, a T
15 shaped member having one of its arms connected pivotally to the first mentioned plate, a pin on the second plate adapted for contact by the remaining arm of the T-shaped

member, a spring normally urging the last mentioned arm against said pin, an upturned 20 flange on the end of the stem of the T, a thumb piece secured adjacent the end of the stem of the T and provided with an offset portion overlapping a part of the end of said stem to hold the stem against the 25 casing, said thumb piece terminating in an up-turned flange, and a keeper pivoted adjacent the upturned flange of the T and provided with a notch at its end to engage said upturned flange of the T. 30

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

HANS P. CHRISTIANSON.

Witnesses:

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