

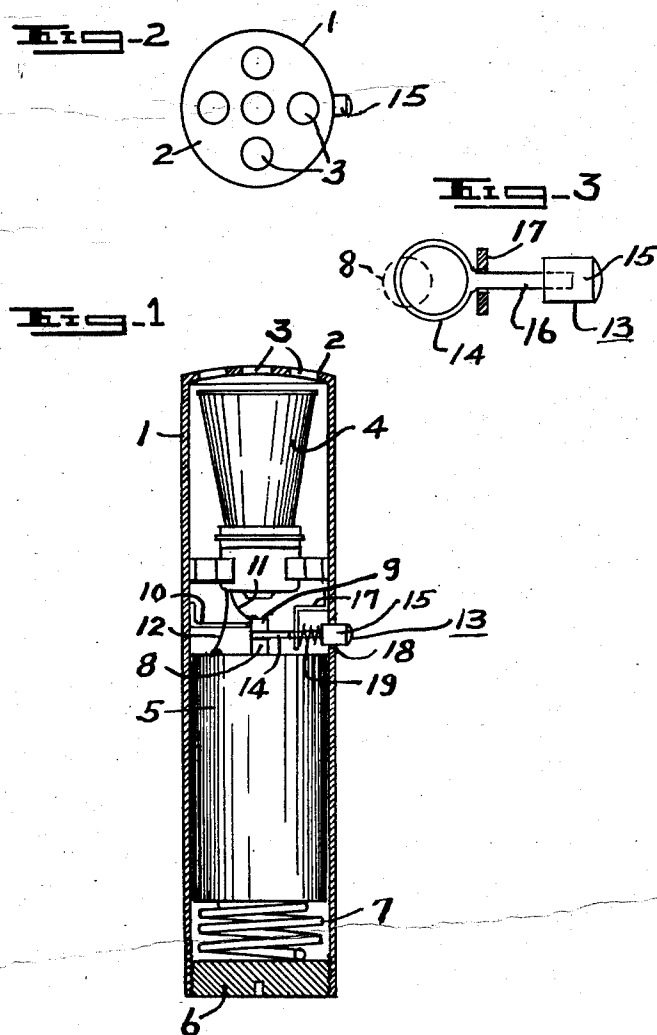
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BATTERY-OPERATED SOUND SIGNAL

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BATTERY-OPERATED SOUND SIGNAL

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1 Claim. (Cl. 177-7)

1

This invention relates to an improved audible signalling device, and the primary object thereof is to provide a signal of the character described, which is designed and intended for use by a person in an emergency for putting to flight and for discouraging a prowler or intruder from carrying out his nefarious intent, and thus protect the user from bodily harm, robbery, and the like.

Further objects and advantages of the invention are to provide a device of the class stated, which will function to emit a continuous, shrill, piercing tone or sound for a comparatively short period of time, which is operated by an electric battery and cannot be manipulated to suspend the sound action until the operating battery is completely deenergized, which can be quickly and conveniently manipulated to set off the sound action, which is simple in its construction and arrangement, durable and efficient in its use, compact, positive in its action, and comparatively economical in its manufacture.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the novel construction, combination, and arrangement of parts herein specifically described and illustrated in the accompanying drawing, but it is to be understood that changes in the form, proportions and details of construction may be resorted to that come within the scope of the claim hereunto appended.

In the drawing wherein like numerals of reference designate corresponding parts throughout the several views:

Figure 1 is a side elevational view of the improved signalling device in the inoperative position, with the casing being shown in cross section.

Figure 2 is a top plan view of the device.

Figure 3 is an enlarged top plan view of the release element embodied in the present invention.

Referring in detail to the drawing, the improved signalling device comprises a cylindrical casing 1 having a closed top 2, which is provided with a plurality of comparatively large apertures 3 for permitting the escape of sound from the casing during the operation of the device.

A sound producing element, in the form of a motor-operated siren 4, is fixed in position in the upper end of the casing 1, and an electric battery 5 is removably mounted in the casing below and in spaced relation to the siren 4.

The lower end of the casing 1 is formed with interiorly disposed screw threads to engage a

2

bottom closure plug 6. The closure plug cannot be removed from the casing without the aid of a screw driver or the like. A spiral spring 7 is mounted in the casing between the plug 6 and the lower end of the battery 5. The normal action of the spring tends to force the battery upwardly in the casing toward the siren 4.

The top of the battery 5 is provided with the usual battery contact 8, and an insulated motor contact 9 is suitably supported in the casing 1, by a bracket 10, above and in alignment with said battery contact. One lead 11 of the motor siren 4 is connected with the motor contact 9, and the other lead 12 thereof is grounded in the battery case. The action of the spring 7 will normally force the battery contact 8 into contacting engagement with the motor contact 9, whereby the sound producing siren will be operated until the battery 5 is deenergized.

A switch mechanism 13, comprising an annular head 14 connected with a push button 15 by a stem 16, is shiftably supported in the horizontal position in the casing 1 by a guide bracket 17, which latter engages the stem 16 and is fixed to the wall of the casing 1. The push button 15 projects through an aperture 18 provided therefor in the casing, and a small spiral spring 19 is mounted on the stem 16 between the guide bracket 17 and the push button 15.

When the switch mechanism 13 is in the maximum retracted outward position allowed by the abutment of the annular head 14 against the bracket 17, as shown in Figures 1 and 3, the device is in the inoperative position. The annular head is constructed of insulating material and the inner end thereof is disposed between the battery contact 8 and the motor contact 9, thereby separating said contacts 8 and 9 and preventing contacting engagement between the latter.

The action of the spring 7, in elevating the battery 5 in the casing 1, will tend to clamp the engaged end of the annular head 14 between the contacts 8 and 9. Such action of the spring 7 in conjunction with the normal action of the spring 19 on the stem 16 will serve adequately to hold the switch mechanism 13 in the inoperative or open position, until the latter is manually forced to the closing or releasing position by a push against the projecting push button 15.

Sufficient pressure against the push button 15 will shift the switch mechanism 13 inwardly to force the engaged inner end of the annular head 14 from between the contacts 8 and 9, thereby allowing the latter to meet in contacting engage-

3

ment with each other, due to the action of the spring 7, within the opening of the annular head. When the contacts are so engaged, the siren 4 will be operated continuously to emit sound until the battery 5 is deenergized, as the annular head cannot be replaced between the contacts 8 and 9 without withdrawing the battery from the casing because the engaging contacts are engaged within the opening in the annular head.

The improved signalling device may be constructed in any suitable size to adapt same for being carried in the hand or hand bag, or in an automobile, or for being conveniently stored at a readily accessible place in the home.

The invention aims to provide an emergency device for the protection of the user that will emit a continuous, shrill sound which cannot be suspended until the battery is deenergized, unless the device is taken apart, and wherein such separation of the parts would take considerably longer than the effective sound operation of the device, as tools are required to effect the separation of the parts.

From the foregoing description, taken in connection with the accompanying drawing, the construction and the method of operation of the invention will be readily apparent to those skilled in the art to which the invention will be readily apparent to those skilled in the art to which the invention appertains; and it will be understood that variations in the contour of the device and in the mechanical movements of the latter may be resorted to without departing from the principle or sacrificing any advantages of the invention as defined in the appended claim.

What I claim is:

A signalling device comprising a casing pro-

4

vided with an apertured top, a closure member engaged in the lower end of said casing, an electrically-operated sound producing element secured in said casing, an electric battery shiftably mounted in said casing, a pair of aligned electric contacts respectively connected with said element and with said battery, a spring mounted in said casing for shifting said battery for normally holding said contacts in contacting engagement with each other, an annular head constructed of insulating material shiftably mounted in said casing and having the inner end thereof disposed between said pair of contacts to prevent the operation of said element, and a push button projecting from said casing and being connected with said head operable for shifting said head from its engagement between said pair of contacts to allow the contacting of the latter to operate said element, said head surrounding said pair of contacts when disengaged from between the latter to prevent the suspension of the operation of said element.

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