July 21, 1959 H. GERBER 2,896,038

SWIMMING POOL ALARM

Filed Jan. 18, 1957

FIG. 1.

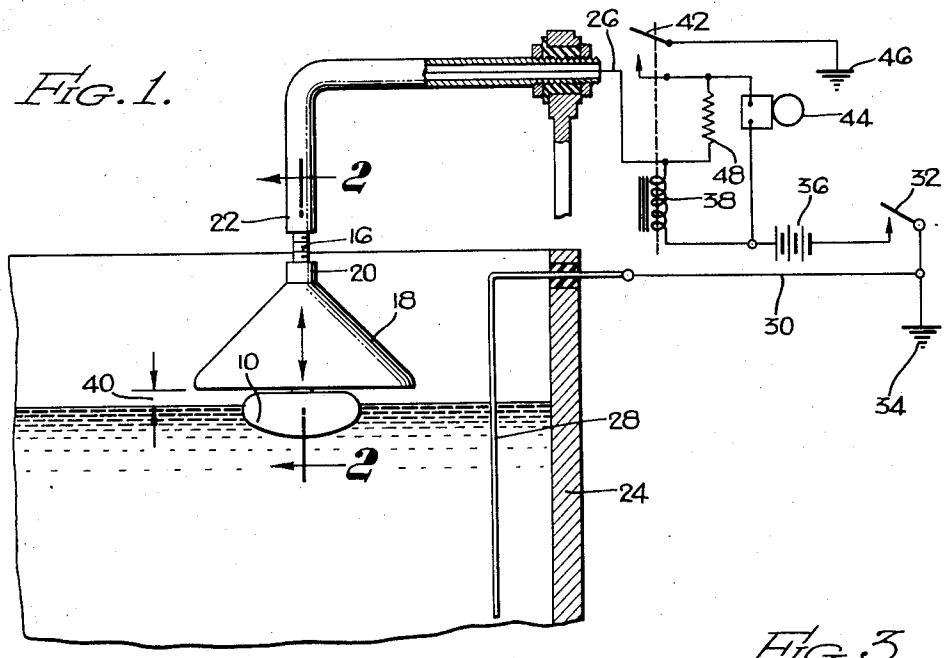


FIG. 3.

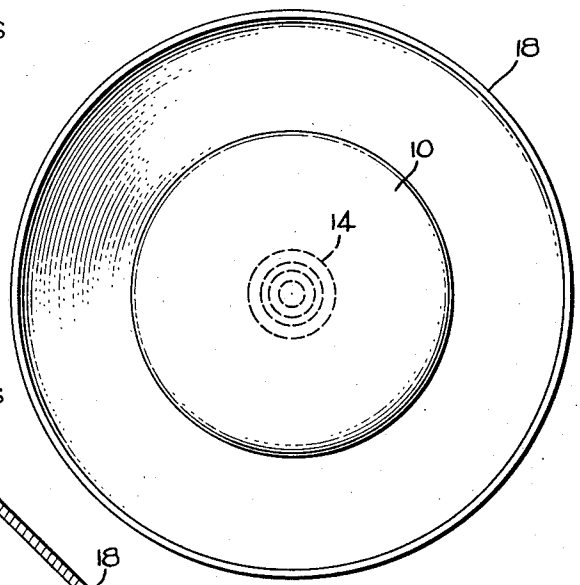


FIG. 2.

INVENTOR,
HARRY GERBER
BY Lyon & Lyon
ATTORNEYS

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SWIMMING POOL ALARM

Harry Gerber, Glendale, Calif.

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4 Claims. (Cl. 200—61.2)

This invention relates to an improved swimming pool alarm.

It is an object of this invention to provide a device which will give an alarm when a person or object falls into an unattended swimming pool.

It is a further object of this invention to provide a device which will not operate under slight surface disturbances such as caused by wind currents.

It is still a further object of this invention to provide a warning device which, when actuated, will continue to give an alarm until reset.

Other objects and advantages will be readily apparent from the following description.

In the drawings:

Figure 1 is a side elevation partially in section;

Figure 2 is a view taken along line 2—2 of Figure 1;

Figure 3 is a bottom view of the float.

A float **10** is supported at the bottom end **12** of a rod **14** by screwing into same. At a point above the end **12** of the rod a threaded section **16** is provided. A funnel shaped device **18** has a collar **20** which is internally threaded to permit adjustment of the funnel on rod **14**.

The upper extremity **21** of rod **14** fits into a pipe **22** permitting the float **10** to rise and fall with the water level in swimming pool **24**. A wire **26** is electrically connected to rod **14** and forms a portion of the signalling circuit. The pipe **22** may be supported in any suitable manner and wire **26** projects therefrom.

An electrode **28** also is immersed in the pool in this embodiment same passes through the pool above the water level and is bent downwardly projecting beneath the surface of water in the pool. This electrode **28** is connected by wire **30** to switch **32** which is grounded at **34** and connected to an electrical source such as battery **36**. The other side of the battery is connected through relay **38** to wire **26**.

Thus, if a person or object should fall in the pool while switch **32** is closed the wave set up in the pool will contact funnel shaped device **18** and complete the circuit. Float **10** is, of course, made of a suitable insulating material such as rubber. The distance **40** between the funnel shaped device and the normal water level can be controlled by adjusting the height of the funnel on rod **14**. When the circuit is closed relay **38** is energized to close switch **42** completing the alarm circuit which includes a suitable signalling device such as bell **44**, the switch **42** being grounded at **46**.

A resistor **48** connects this circuit to relay **38** to lock the relay in the switch closing position. This resistor is suffcient so that the impedence of relay **38** is not significantly affected.

Thus, when a wave caused by an object falling in the pool strikes funnel shaped device **18** it completes the electrical circuit to energize relay **38** to close switch **42** and ring bell **44**. The relay is held in this position irrespective of the opening of the first mentioned circuit and the bell continues to ring. By opening switch **32** the bell ringing circuit is opened and relay **38** is released to reopen switch **42**. Thus, switch **32** may be left open when the pool is in use and closed when the pool is unattended.

While what hereinbefore has been described is the preferred embodiment of this invention it is readily apparent that alterations and modifications can be resorted to without departing from the scope of this invention and such alterations and modifications are intended to be included within the scope of the appended claims.

I claim:

1. A swimming pool warning system comprising: an electrical conductor immersed in said pool, a second conductor positioned immediately above the surface of said pool and a signalling device connected to said conductors, a float supporting said second conductor above the surface of the pool.

2. A swimming pool warning system comprising: an electrical conductor immersed in said pool, a second conductor positioned immediately above the surface of said pool and a signalling device connected to said conductors, a float supporting said second conductor above the surface of the pool, and a circuit including said signalling device to continue energization of said signalling device once same is actuated.

3. A swimming pool warning device comprising, a float, a funnel shaped device supported upon said float and positioned above the surface of the pool, an electrical circuit connected to said funnel and having a signalling device therein said circuit being completed upon contact of said funnel with water in the pool.

4. A swimming pool warning device comprising, a float, a funnel shaped device supported upon said float and positioned above the surface of the pool, means confining laterally movement of said float while permitting vertical movement thereof, an electrical circuit connected to said funnel and having a signalling device therein said circuit being completed upon contact of said funnel with water in the pool.

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