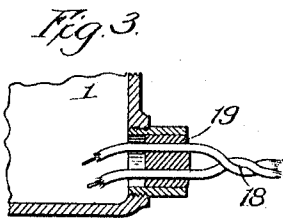
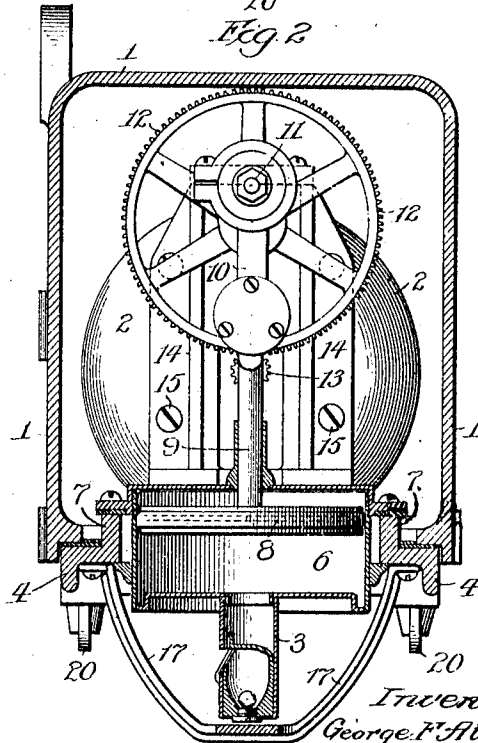
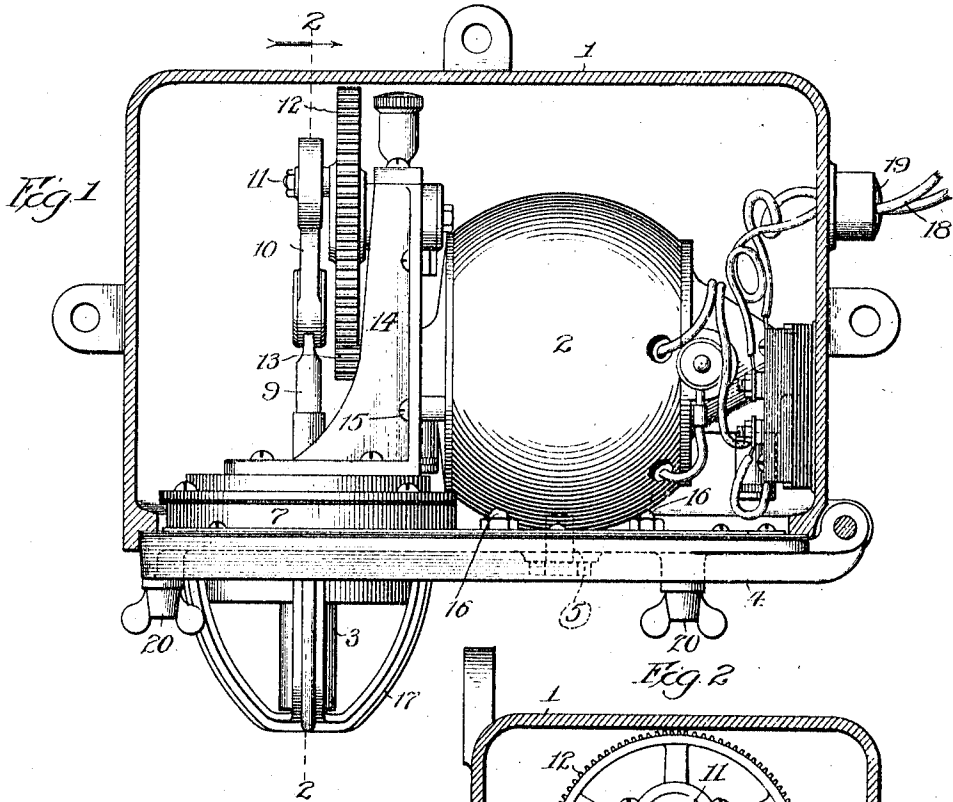


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MOTOR DRIVEN WHISTLE.
APPLICATION FILED OCT. 25, 1907.

1,004,337.

Patented Sept. 26, 1911.



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UNITED STATES PATENT OFFICE.

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MOTOR-DRIVEN WHISTLE.

1,004,337.

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To all whom it may concern:

Be it known that I, GEORGE F. ATWOOD, citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Motor-Driven Whistles, of which the following is a full, clear, concise, and exact description.

My invention relates to a motor-driven whistle, and is more particularly designed for use on war ships for giving warning signals before the closing of the watertight bulkhead doors. With a view to such use, it is desirable to provide a compact structure protected by a waterproof inclosure or casing, and to mount the mechanism in such manner that ready access may be had thereto for inspection.

I will describe my invention by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of the motor and the mechanism operated thereby, the casing being shown in section; Fig. 2 is a section on the line 2—2 of Fig. 1; and Fig. 3 is a detail sectional view showing the manner in which the conducting wires are led into the casing.

Similar letters of reference are used to designate similar parts wherever they are shown.

The casing 1 in which the motor and the mechanism driven thereby is inclosed is made watertight. The motor 2, the whistle 3 and the mechanism driven by said motor for operating said whistle are all mounted on the door 4 of said casing. The door 4 is pivoted to swing downwardly, thereby conveniently exposing the entire mechanism for inspection or repair.

The motor 2 is mounted in any suitable manner upon the inner wall of the door 4, and a screw 5 passes through the door into the motor frame. The piston cylinder or casing 6 of an air pump 7 is secured within an opening within the door 4 at the forward end of the motor 2. The whistle 3 which projects beneath the door 4 forms the air outlet from the piston casing of the air pump. The piston 8 of the air pump has a piston-rod 9 which is pivoted to a crank-lever 10. The other end of said crank-lever 10 is eccentrically pivoted as at 11, in a well known manner, to the gear wheel 12. The teeth upon said gear wheel mesh with a pin-

ion 13 upon the end of the motor shaft. The gear wheel 12 is journaled in a bracket or standard 14 to which the frame of the motor is also secured by bolts 15. The bracket 14 is mounted above the piston casing 6, as shown. The motor frame rests upon set screws 16 in the door 4, and is also secured to said door, as before stated, by a screw 5.

It will be observed that my invention provides in a watertight casing a simple and compact structure by which the rotation of the motor armature reciprocates the piston 8, and thus blows the whistle 3.

It will be further observed that the arrangement of the whistle, motor and casing as shown provides a structure wherein the only opening in the casing, when the same is set up for use, is a piston cylinder, which opening is effectively closed and rendered water tight by the piston. In this way the casing is maintained entirely weather and moisture-proof and at the same time the operation and effectiveness of the device are in no way lessened.

A guard frame 17 is preferably provided about the whistle 3 to protect the same from injury.

As hereinbefore stated, it is desirable that moisture shall not have access to the mechanism within the casing 1. The conducting wires 18 leading to the motor are, therefore, led through a stopper 19 of rubber or other suitable material, which fits tightly in an opening in said casing. As shown in the drawings, the meeting edges of the door 4 are provided with packing to make said door watertight. Said door is held closed in any suitable manner, as for example by bolts and nuts 20.

I claim:

1. In a motor-driven whistle, the combination with a waterproof casing having an opening therein, of an air pump mounted in said opening, an outwardly projecting whistle forming the outlet of said air pump, a rotary motor mounted within said casing, and a gear connection between said motor and said air pump.

2. The combination with a casing provided with a door pivoted to swing outwardly, of an air pump mounted in an opening in said door, a whistle providing an outlet from said air pump, said whistle projecting outside said casing, a motor, and a

gear connection between said motor and said air pump, said motor and gear connection being mounted upon said door on the inside of said casing, the said air pump and its piston effectively closing the opening for said pump.

3. The combination with a weatherproof inclosure having an aperture therein, of a pump casing within said aperture and closing the same, a whistle extending outside of said inclosure and communicating with said casing, a piston in said casing, a motor mounted within said inclosure and connecting means between said motor and said piston, said piston effectively closing the opening in said inclosure through said casing.

4. The combination with a weatherproof casing, of a motor mounted inside the casing, a whistle mounted outside the casing, a piston cylinder extending through and closing an aperture in the casing, a piston in said cylinder operated by the motor and operating the whistle, the said cylinder and its piston effectively rendering the said aperture weatherproof.

In witness whereof, I, hereunto subscribe my name this 21st day of October A. D., 1907.

GEORGE F. ATWOOD.

Witnesses:

ROBERT F. ATWOOD,
C. BROKAW.