

(12) UK Patent Application

(19) GB

(11) 2 217 084 (13) A

(43) Date of A publication 18.10.1989

(21) Application No 8905121.3

(22) Date of filing 07.03.1989

(71) Applicants

Mark Sillett
10 Juniper Close, Honiton, Devon, EX14 8XL,
United Kingdom

Michael Huggins
c/o The Pound, Whitestone, Exeter, Devon, EX4 2HB,
United Kingdom

(72) Inventors

Mark Sillett
Michael Huggins

(74) Agent and/or Address for Service

Mark Sillett
The Pound, Whitestone, Exeter, Devon, EX4 2HB,
United Kingdom

(51) INT CL⁴

G08B 13/22

(52) UK CL (Edition J)

G4N NPL N2A2 N6F
U1S S2188

(56) Documents cited

GB 2198865 A **GB 2182183 A** **GB 2112600 A**
GB 2071956 A **GB 1520196 A** **EP 0093463 A1**
WO 84/03975 A1 **US 4260982 A**

(58) Field of search

UK CL (Edition J) **G4N NPL**
INT CL⁴ **G08B**

(54) Personal security device

(57) The two part personal security device comprises a transmitter and receiver, the former being attached to an object or person to be protected, the latter being carried by a person, or set close to the object to be protected.

When the two parts of the device are separated by more than a predetermined amount the receiver emits an audio warning tone. The receiver also emits a warning tone when the batteries are below the minimum required capacity.

GB 2 217 084 A

2217084

Fig1 1/2

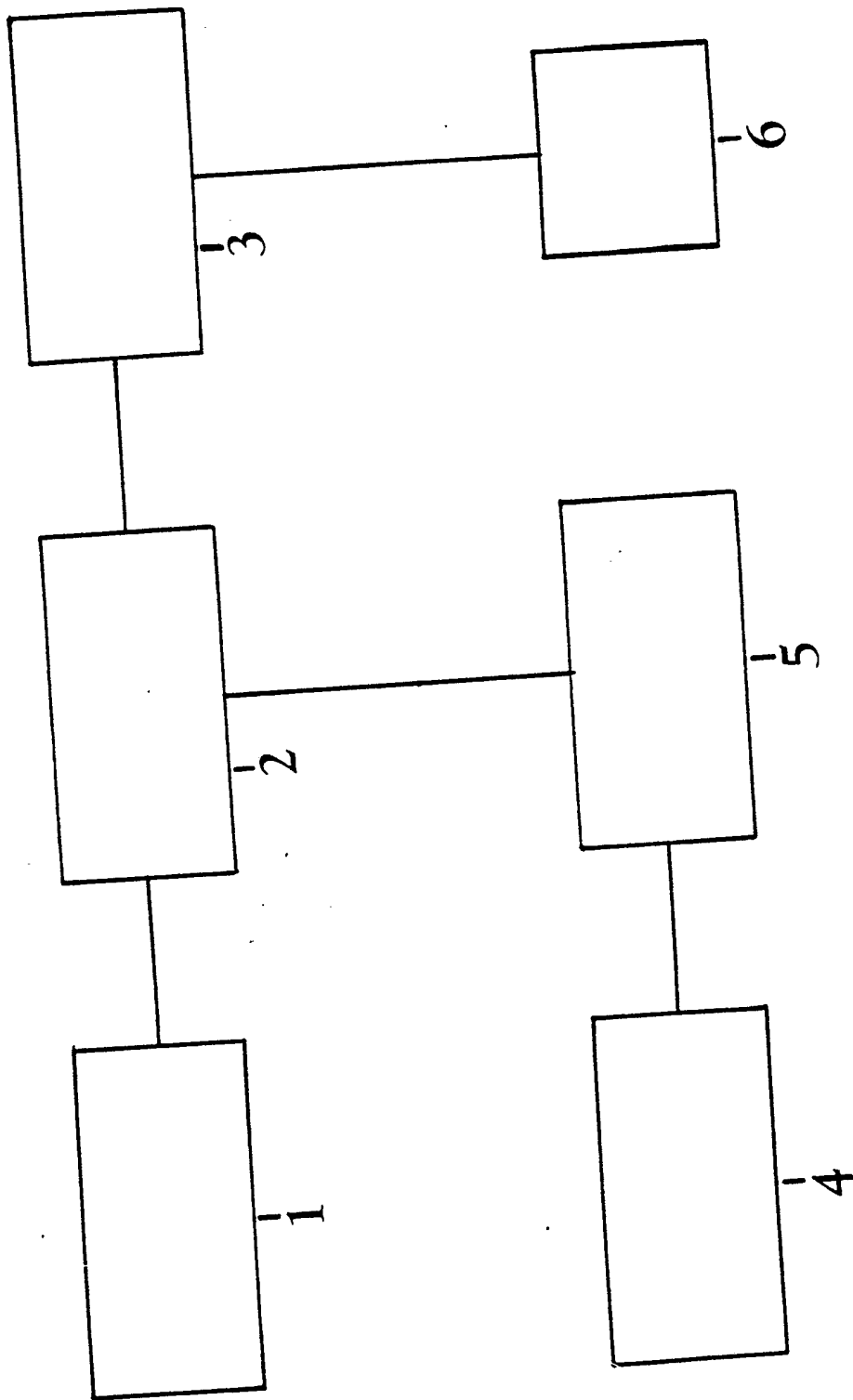
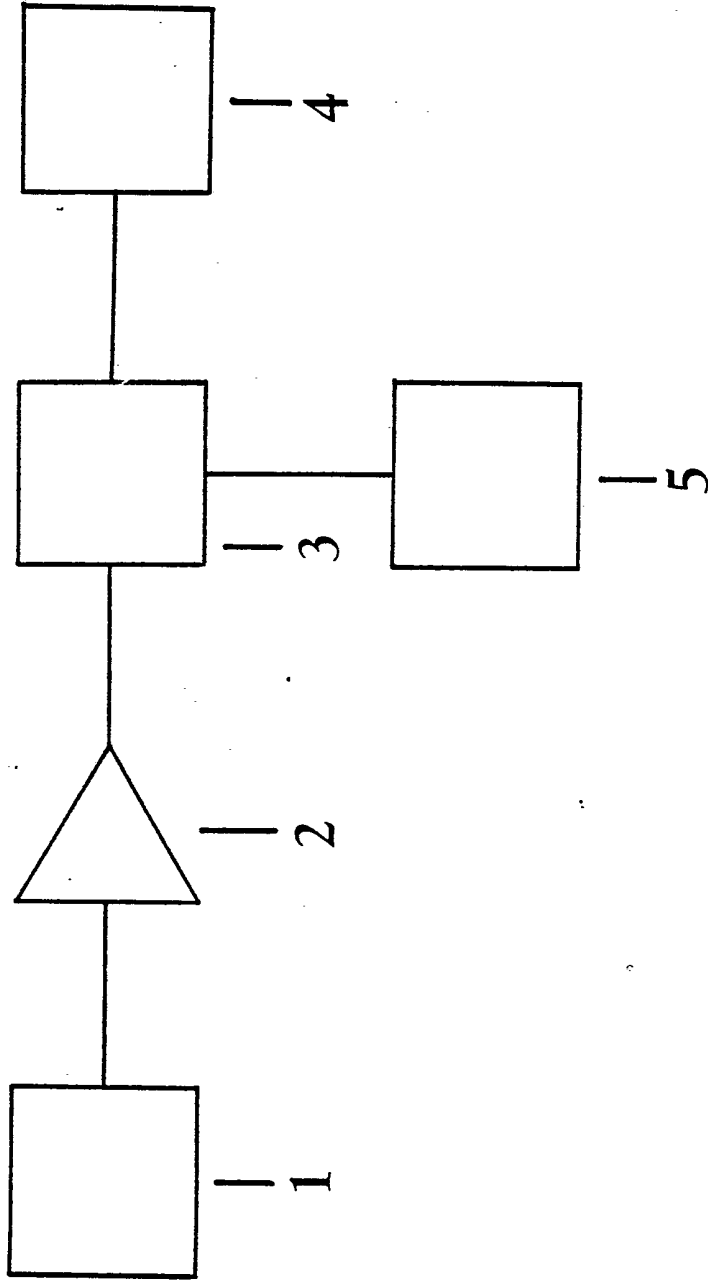


Fig2 2/2



PERSONAL SECURITY DEVICE

This invention relates to an electronic alarm device.

These days owners are frequently separated from their property hence the need for an alarm device to alert of such events.

- 1 - Parents from children.
- 2 - Owners from pets.
- 3 - Businessmen from briefcases.
- 4 - Ladies from handbags.
- 5 - Etc

By either forgetfulness or theft.

This device consists of a receiver and transmitter. If the two items are separated from each other by more than the specified distance the receiver emits an audio warning tone.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:-

Figure 1 shows the block diagram of the transmitter circuitry;

Figure 2 shows the block diagram of the receiver circuitry.

Referring to figure 1 the transmitter circuitry consists of; two clock circuits, the first clock (1) giving a square waveform, for example running at about 10KHz, the second clock (4) giving a short pulse every second or so, for example 20 ms every second. A voltage pump circuit (5) to provide larger voltages than the battery voltage, for example with a battery voltage of 9 volts the circuit will give 48 volts, driven by the clock circuit (1).

A sine wave oscillator, for example of frequency 25KHz, (3) providing the drive for the transmitting ultrasonic transducer (6).

A power switch (2) operated by the second clock circuit (4) to provide short bursts of power for the oscillator (3).

Referring to figure 2 the receiver circuitry consists of;

A receiving ultrasonic transducer (1) feeding the amplifier circuit (2), with a gain of for example 50,000, which in turn feeds the detector circuit (3).

A low battery level detector (5) feeding the detector (3).

The detector (3) drives an audio transducer (4) when either, the receiver cannot detect a signal, or the battery voltage is below the desired level, for example 4.5volts.

2217084

CLAIMS

- 1 The device consists of two independent parts in communication one with the other.
When the communication between the two parts is broken one of the parts emits a warning.
- 2 The device as claimed in claim 1 the two parts communicating by means of ultrasonic sound waves.
- 3 The device as claimed in claim 1 the two parts communication by means of radio waves.
- 4 The device as claimed in claim 1 the warning shall be by means of an audible tone.
- 5 The device as claimed in claim 1 the warning shall be by means of a visual signal.
- 6 The device as claimed in claim 1 the warning shall be by means of electromagnetic waves.
- 7 A personal security device substantially as described herein with reference to the figures 1 and 2 of the accompanying drawings.

Amendments to the claims have been filed as follows

1 The device consists of two independent parts in communication one with the other.
When the communication between the two parts is broken one of the parts emits a warning.

2 The device as claimed in claim 1 the two parts communicating by means of ultrasonic sound waves, at nominally 25KHz.

3 The device as claimed in claim 1 the warning shall be by means of an audible tone.

4 The device as claimed in claim 1 the warning shall be by means of a visual signal.

5 The device as claimed in claim 1 the warning shall be by means of electromagnetic waves.

6 A personal security device substantially as described herein with reference to the figures 1 and 2 of the accompanying drawings.