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(54) **Portable electronic pocket alarm for objects**

(57) The purpose of the invention is to provide a portable alarm device for the protection of handbags, purses or any other object needing a protection system bound to the distance of the owner from the object to protect.

The invention is made in two separate parts: the first part is to be held by the owner of the object to protect, the second is to be placed inside the object to protect. For practical reasons we will here call the first part TRANSMITTER (figure 1) and the second part RECEIVER, but the systems of the two parts are actually composed by two battery supplied wireless signal transceivers. In detail, the transmitter's characteristic is the activation of a visual and acoustic alarm that it contains whenever it is drawn out of the receiver's established metrical action range. This action range is set directly on

the transmitter by the owner.

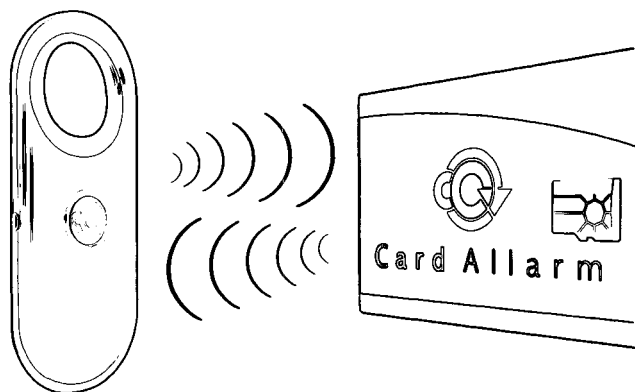
Practically, the transmitter sends periodic coded calling signal towards its receiver and awaits an answering signal. The transmitter and receiver dialogue with a wireless signal in a 128 bit electronic key, this allows the realization of a system which can in no way be affected by the presence of any other identical alarm device that may be present in the same action range.

Although this system may present various forms, for a practical and easy use the transmitter can be built in the form of a key ring and the receiver in that of a common credit card in order to carry it easily in a wallet.

The transmitter's alarm siren can only be inactivated manually or by bringing the transmitter and receiver back in the established action range.

**TRANSMITTER**  
**(TRASMETTITORE)**

**RECEIVER**  
**(RICEVITORE)**



**Fig. n°1/n°1**

## Description

### APPLICATION FIELD

**[0001]** Object form of the present invention: a portable alarm with wireless technology and a personal random code composed by to parts here after called "TRANSMITTER" and "RECEIVER".

**[0002]** The transmitter, in the form of a little box powered by a battery, containing the code/decoding electronics, the action range controls and the alarm siren. The receiver has the form of a credit card (badge) or other forms suitable for the use and is composed of a micro-controlling code system composed of a battery, antenna and control electronics.

**[0003]** In particular, the transmitter has the characteristic of activating an alarm siren that it contains and lighting an indicator whenever it is separated from the receiver over a previously established distance.

### TECHNICAL CONDITIONS

**[0004]** The problems concerning personal security and in particular theft of personal effects as handbags, purses, wallets, backpacks, etc. are all well known. This device solves the problem of portability of an alarm system with a fixed location.

**[0005]** For example, it allows one to be warned when an object, containing the receiver, is drawn away for a distance which is established during the fabrication or adjustable according to need directly on the transmitter, activating an alarm which thwarts the eventual theft of that object. The device has security characteristics deriving from the data coding. Further, it has a low cost given the limited use of electronic components, it is therefore suitable for generalized use.

### DESCRIPTION OF THE INVENTION

**[0006]** The present invention is expressed and characterized in the claims.

**[0007]** The purpose of the invention is to provide a portable alarm device-for the protection of handbags, purses or any other object needing a protection system bound to the distance of the owner from the object to protect.

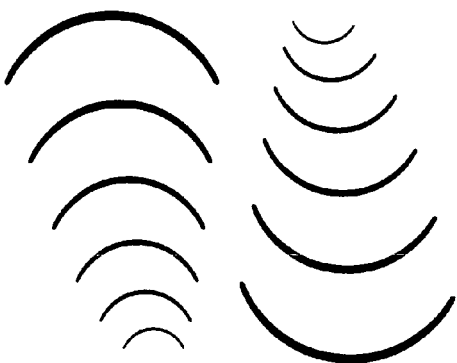
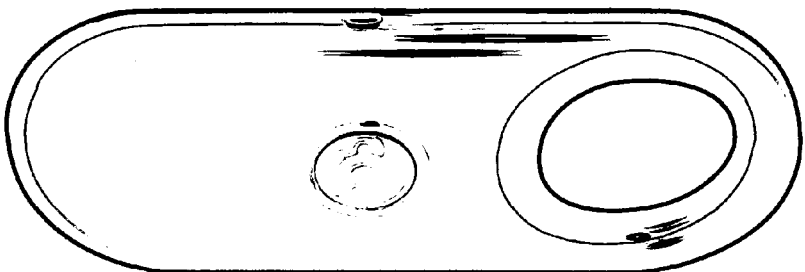
**[0008]** The invention is made in two separate parts: the first, the TRANSMITTER, held by the owner of the object to protect. The second, the RECEIVER, to place inside the object to protect. The receiver has the characteristic of being univocally coded with the transmitter by a wireless signal in a 128 bit electronic key. This allows the realization of a system which can in no way be affected by the presence of any other identical device that may be present in the invention's action range. The receiver contains all the necessary electronics to enable it to answer a periodic coded calling signal emitted by the transmitter. The transmitter that calls the receiver expects its answer. If the receiver is unable to answer, be-

cause it is out of the established action range, both an acoustic and visual alarm activate on the transmitter, so to warn the owner that the receiver has been drawn away from the transmitter for a distance longer than the security distance set.

### Claims

1. CLAIM 1: portable electronic alarm with wireless technology, composed by two separate small sized parts, each containing a supply battery and having shapes and forms suitable for the use of keeping control of objects or people within a limited and established distance range, **characterized by** a random code/decoding signal system such that every transmitter is univocally traceable for its own receiver even in presence of other identical device in the range.
2. Portable electronic alarm, as in claim 1, **characterized by** a transmitter of a periodic wireless signal univocally coded with a 128 byte electronic key which calls (interrogates) its own signal receiver periodically.
3. Portable electronic alarm, as in claims above, **characterized by** a signal receiver, coded to its own transmitter, which has the function to answer the periodic coded signal within an established range of action.
4. Portable electronic alarm, as in claims above, **characterized by** the fact that the action range can be set directly on the transmitter.
5. Portable electronic alarm, as in claims above, **characterized by** the fact that an acoustic and visual alarm are activated in the transmitter in the case in which the receiver, drawn out of the established action range, does not answer the periodic coded signal.
6. Portable electronic alarm, as in claims above, **characterized by** the fact that the transmitter's alarm siren can be manually inactivated.
7. Portable electronic alarm, as in claims above, **characterized by** the fact that the transmitter's alarm siren inactivates automatically in the case in which the transmitter and receiver return back in the set action range.
8. Portable electronic alarm, as in claims above, **characterized by** the fact that a transmitter can temporarily control the separation distance range between one or more receivers having the same coding code.

# TRANSMITTER (TRASMETTITORE)



# RECEIVER (RICEVITORE)

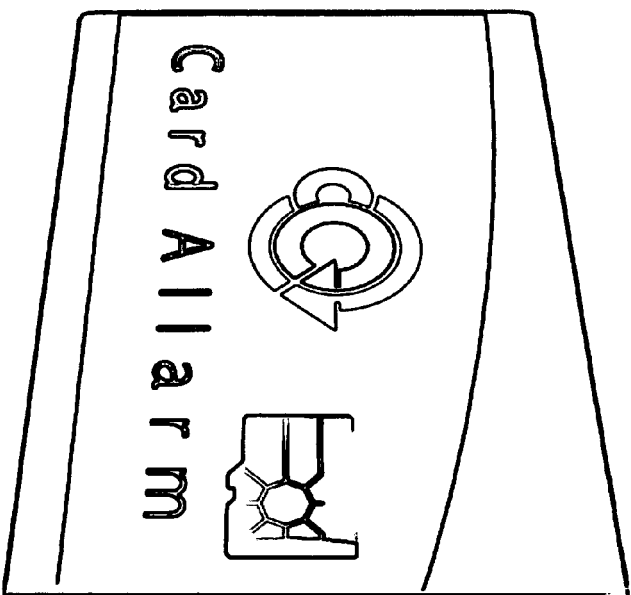


Fig. n°1/n°1