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GB 2405309 A **GB 2377172 A**
WO 2005/044385 A1 **US 4909189 A**
US 3935443 A

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(54) Abstract Title: **Illuminated collar for a fire extinguisher**

(57) A collar for a fire extinguishing device which has a visual indicator to allow the location fire extinguisher and its pin to be easily assessed in an emergency situation. The collar is shaped and dimensioned to fit, at least partially, around the circumference of the fire extinguisher, and includes retention means to secure a light transmitting tube to the collar. The tube is glued in the recess and has a flattened side which lies against a wall of the recess. The retention means preferably comprises a transparent sleeve and a plurality of eyelets through which the tube is threaded. Each eyelet is positioned to define a path, for the tube, to the location of the pin of the extinguisher. The path of the tube may define an arrow pointing to the pin. The colour of the tube may vary in accordance with the contents of the fire extinguisher.

The claims were filed later than the filing date but within the period prescribed by Rule 25(1) of the Patents Rules 1995.

This print takes account of replacement documents submitted after the date of filing to enable the application to comply with the formal requirements of the Patents Rules 1995

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A COLLAR

The present invention relates to a collar. More especially the invention relates to a collar for a fire extinguishing device such as a common fire extinguisher or fire hose.

A particular problem with fire extinguishers on the market relates to the ability to locate the fire extinguisher in the event of a fire. Although every person in the building should be aware of the location of the fire extinguisher on a day-to-day basis, thick smoke produced by a fire prevents the location to be found easily and quickly. Moreover, the ensuing panic of a person not trained in fire situations, commonly results in severe disorientation to the extent that the person is unable to work out where they are in the building in relation to the fire extinguisher.

Furthermore, even when the fire extinguisher is located, the pin of the fire extinguisher often cannot be easily located due to the extreme visibility problems caused by the thick smoke. In such a situation, it is usually the case that everything, including the fire extinguisher cylinder, the pin and indeed the hands of the person trying to use the extinguisher, are quickly covered in a dense black residue. Consequently, specific parts of extinguisher are not easy to find in a few seconds. Vital seconds, and even minutes are therefore lost in trying to activate the fire extinguisher, at least to help in being able to reach the fire exit, or contain the fire until help arrives.

The present invention seeks to alleviate the problem described above by providing a collar for a fire extinguishing device which has a visual indicator to allow the location fire extinguisher and its pin to be easily assessed in an emergency situation. Furthermore, as, by law, fire extinguishers must be located in the vicinity of a fire exit of a building, locating the position of the fire extinguishers will also aid the location of the fire exit.

In one aspect, the invention provides a collar for *inter alia* a fire extinguishing apparatus, the collar being shaped and dimensioned to fit at least partially around a circumference of the apparatus, the collar including retention means to secure a tube capable of transmitting light to the collar.

Preferably the collar is formed with a recess within which the tube is retained. Preferably still, the tube is retained within the recess using adhesive.

Preferably, the light tube has a flattened side, which, in use, lies against a wall of the recess of the collar.

In an alternative embodiment the retention means comprises a plurality of eyelets through which the tube is threaded. Alternatively, the retention means comprises a sleeve which is wholly or partially transparent.

Preferably, the each eyelet is positioned to define a path for the tube, the path providing a recognisable indicator to a user of the location of the initiating means of a fire extinguishing apparatus on which the collar is located in use.

Preferably the initiating means comprises the pin of a fire extinguisher.

Preferably, the path of the tube defines an arrow.

Preferably, the collar is made from a plastics material.

In a second aspect there is provided, a collar for *inter alia* a fire extinguishing apparatus, the collar being shaped and dimensioned to fit at least partially around a circumference of the apparatus, the collar having

at least one light transmitting means located thereon, the light transmitting means defining a path that provides an indication of the location of the initiating means of the fire extinguishing apparatus.

In a third aspect there is provided a fire extinguishing device having a collar according to the invention located thereon.

Preferably the collar is located around the neck of the fire extinguishing device. Preferably still the collar is located entirely around the neck.

One embodiment of the present invention will now be described by way of example.

A collar constructed in accordance with the present invention comprises a strip made of plastics material. Each end of the strip are attached together to form a generally circular collar which, in use fits over or around a neck of a fire extinguisher. In an alternative arrangement the strip is moulded as a circular collar.

The strip has a plurality of spaced eyelets formed along its length.

A tube or cable capable of transmitting light such as one, for example, marketed by Line Lite B.V. International under the name "LEDLINE" is threaded through the eyelets of the collar. The light tube extends entirely around the circumference of the neck of the fire extinguishing device. In an alternative embodiment the tube only extends partly around the circumference.

The eyelets of the collar are spaced and positioned along the collar such that the light tube threaded therethrough defines a path that provides a recognisable indication of the location of the pin of the fire extinguisher. For example, the eyelets could be spaced and positioned

such that the tube forms an upwardly pointing arrow, the point of which lies directly below the pin.

The plastics collar may also be shaped to provide a recognisable indication of the location of the pin.

The colour emitted by the tube may vary in accordance with the contents of the fire extinguishing material within the fire extinguishing device. Alternatively or in addition, the collar itself may be coloured in accordance with the material.

One end of the tube is connected to a power source, for example, a battery or the mains.

An additional collar and tube may be located around the circumference of the base or another part of the fire extinguishing device.

In a further embodiment the collar has a longitudinally extending recess in which the light tube can be located. The light tube is formed with a flattened side which abuts an inner wall of the recess allowing the tube to fit snugly within and along the recess. The light tube is secured within the recess using adhesive. Alternatively some other form of securement means is provided to retain the tube within the recess of the collar.

In a further embodiment, the light is transmitted from a series of LEDs of similar light emitting means which are spaced so to define a path that provides a recognisable indication of the location of the pin of the fire extinguisher. The LEDs could, for example, define an arrow pointing towards the pin.

In a further embodiment the collar with light transmitting is dimensioned to fit over or around a housing or stand which holds the fire extinguishing device.

The above described embodiment has been given by way of example only, and the skilled reader will naturally appreciate that many variations could be made thereto without departing from the scope of the present invention.

CLAIMS

1. A collar for *inter alia* a fire extinguishing apparatus, the collar being shaped and dimensioned to fit at least partially around a circumference of the apparatus, the collar including retention means to secure a tube capable of transmitting light to the collar.
2. A collar according to claim 1, wherein the collar is formed with a recess within which the tube is retained.
3. A collar according to claim 2, wherein the tube is retained within the recess using adhesive.
4. A collar according to any one of claims 1 to 3, wherein the light tube has a flattened side, which, in use, lies against a wall of the recess of the collar.
5. A collar according to any one of claims 1 to 5, wherein the retention means comprises a sleeve which is wholly or partially transparent.
6. A collar according to any one of claims 1 to 4, wherein the retention means comprises a plurality of eyelets through which the tube is threaded.
7. A collar according to claim 6, wherein each eyelet is positioned to define a path for the tube, the path providing a recognisable indicator to a user of the location of an initiating means of a fire extinguishing apparatus on which the collar is located in use.
8. A collar according to claim 7, wherein the initiating means comprises the pin of a fire extinguisher.

9. A collar according to claim 7 or claim 8, wherein the path of the tube defines an arrow.
10. A collar according to any preceding claim, wherein the collar is made from a plastics material.
11. A collar for *inter alia* a fire extinguishing apparatus, the collar being shaped and dimensioned to fit at least partially around a circumference of the apparatus, the collar having at least one light transmitting means located thereon, the light transmitting means defining a path that provides an indication of the location of the initiating means of the fire extinguishing apparatus.
12. A fire extinguishing device having a collar according to the invention located thereon.
13. A fire extinguishing device according to claim 12, wherein the collar is located around the neck of the fire extinguishing device.
14. A fire extinguishing device according to claim 13, wherein the collar is located entirely around the neck.
15. A collar substantially as hereinbefore described.
16. A fire extinguishing device as substantially as hereinbefore described.



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Application No: GB0509842.1 **Examiner:** Mr Stuart Purdy
Claims searched: 1-10 & 12-16 (when related to **Date of search:** 14 September 2006
the first invention)

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X,Y	X: 1 Y: 12-14	GB 2405309 A (BAYCOM-ELECTRONICS) See whole document;
X,Y	X: 1, 6, 10 Y: 12-14	US 4909189 A (MINOTTI) See whole document and in particular note figure 3 and lines 39-52;
X,Y	X: 1 Y: 12-14	US 3935443 A (SIMMONS) see whole document and note in particular column 2 lines 44-58;
Y	12-14	GB 2377172 A (CAWKWELL) See whole document and note in particular page 3 lines 10-13 and page 4 line 29 to page 5 line 3;
A	-	WO 2005/044385 A1 (BAHORUN)

Categories:

X Document indicating lack of novelty or inventive step	A Document indicating technological background and/or state of the art.
Y Document indicating lack of inventive step if combined with one or more other documents of same category.	P Document published on or after the declared priority date but before the filing date of this invention.
& Member of the same patent family	E Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^X :

A1M; A3V; A5A

Worldwide search of patent documents classified in the following areas of the IPC

A01K; A21B; F21V

The following online and other databases have been used in the preparation of this search report

WPI & EPODOC