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(52) UK CL (Edition W):
H2H HBCH H20P

(56) Documents Cited:
GB 2158094 A **GB 1292582 A**
BE 001012569 A **JP 630213427 A**
JP 080007602 A **JP 2002313117 A**
US 4563727 A

(58) Field of Search:
UK CL (Edition W) **F4R, H2H**
INT CL⁷ **F21L, H02J**
Other: **Online: WPI, PAJ, EPODOC**

(54) Abstract Title: **Self charging torch**

(57) A torch that uses a solar panel housed around the bulb to both reflect the light to generate a beam and to recharge it's batteries. The batteries (3) which are rechargeable, there are two ways to recharge the batteries. The primary charging of the batteries comes from an AC mains charger. When the batteries are charged and then the torch is in use, (1) the bulb is powered and the light emitted bounces off (2) the reflective surface to produce a beam of light. This reflective surface (2) is also a solar panel, which recharges the batteries while the torch is in use. The batteries power the bulb which in turn power the batteries. The light generated by the bulb (1) is captured by the solar panel (2) and stores this power in the batteries (3) via the connecting wires (4).

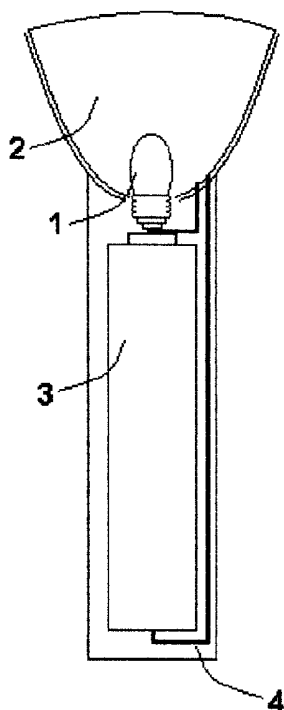


FIGURE 1

FIGURE 1

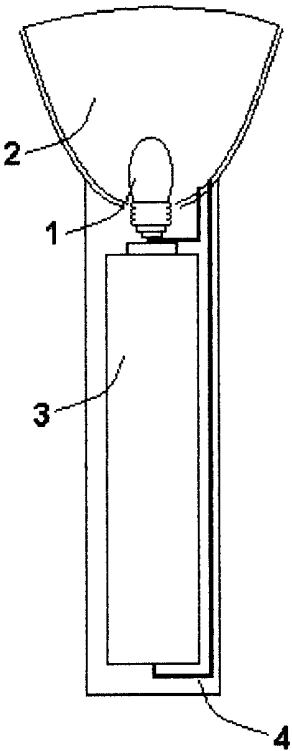


FIGURE 2

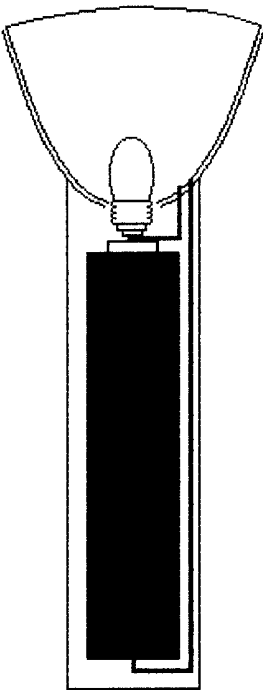


FIGURE 3

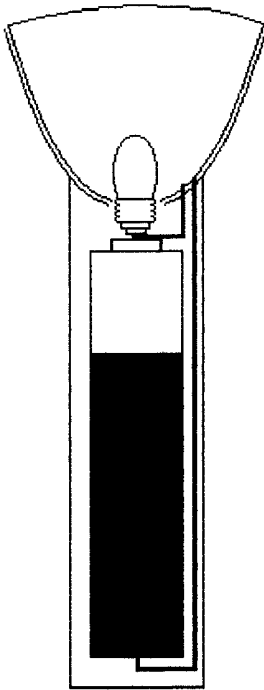
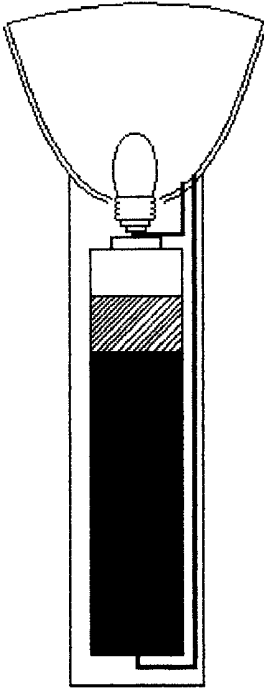


FIGURE 4



SELF CHARGING TORCH

The invention relates to a torch that uses the light generated by its bulb to recharge its own batteries.

Torches that use solar panels to charge the batteries use external light such as, the sun or room light. Unless the external light is very bright and remains so for a long period of time the batteries will only charge partly.

An object of this invention is to harness the light generated by the torches bulb and recharge its own batteries.

Accordingly, this invention provides a rechargeable torch, with a solar panel housed around the bulb. The solar panel uses the light from the bulb to recharge the batteries, also reflect the light to generate a beam

Preferably the solar panel will be made from a material that can reflect light as well as harness light to power the batteries

A preferred embodiment of the invention will now be described with reference to the accompanying drawing in which:

FIGURE 1 shows a side on cut away view of the torch.

FIGURE 2 shows the batteries fully charged

FIGURE 3 shows the batteries while in use

FIGURE 4 shows the batteries being recharged while in use, via the solar panel

The torch (figure 1) is made from three main components. The batteries (3) which is rechargeable, there are two ways to recharge the batteries. The primary charging of the batteries comes from an AC mains charger. When the batteries are charged and then the torch is in use, (1) the bulb is powered and the light emitted bounces off (2) the reflective surface to produce a beam of light. This reflective surface (2) is also a solar panel, which recharges the batteries while the torch is in use. The (3) batteries power the (1) bulb which in turn power the (3) batteries. The light generated by the bulb (1) is captured by the solar panel (2) and stores this power in the batteries (3) via the connecting wires (4).

CLAIMS

1. A torch including rechargeable batteries, solar panel and a bulb
2. A torch as claimed in claim 1 where a solar panel is housed around the bulb, the light emitted from the bulb charges the torches batteries via the solar panel
3. A torch as claimed in claim 2 where a solar panel has two functions, first to reflect the light emitted from the bulb to produce and beam of light and secondly, a solar panel to recharge the torches batteries.



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Application No: GB 0311636.5
Claims searched: 1-3

Examiner: Peter Keefe
Date of search: 22 March 2004

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	1-3	JP 63 213427 A	TAKEGASA see figure and abstract
X, Y	X: 1 Y: 2, 3	GB 1292582 A	BRAUN figures 9, 12; p1 lines 31-75; p3 lines 27-54
Y	2, 3	GB 2158094 A	CLARK whole document
X	1	JP 2002 313117 A	KAWAMURA figure 1; abstracts
X	1	JP 8 7602 A	KONDO figures; abstracts
X	1	BE 1012569 A	SCHEEMAECKER figure 1; abstracts
X	1	US 4563727 A	CURIEL whole document

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^w:

H2H, F4R

Worldwide search of patent documents classified in the following areas of the IPC⁷ :

H02J, F21L

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

WPI, PAJ, EPODOC