

FORM 1

COMMONWEALTH OF AUSTRALIA

PATENTS ACT 1952

614401

APPLICATION FOR A STANDARD PATENT

I\We,

Ming-Long HER

of

NO. 24, ALLEY 3, LANE 42,  
SEC. 2, HSIANG SHANG ROAD  
TAICHUNG  
TAIWAN  
REPUBLIC OF CHINA

hereby apply for the grant of a standard patent for an invention entitled:

DIVING CASE MASAGER.

which is described in the accompanying complete specification

Details of basic application(s):

Number of basic application	Name of Convention country in which basic application was filed	Date of basic application

My/our address for service is care of GRIFFITH HACK & CO., Patent Attorneys, 601 St. Kilda Road, Melbourne 3004, Victoria, Australia.

DATED this 24th day of July 1989

Ming-Long HER

GRIFFITH HACK & CO.

TO: The Commissioner of Patents.

M 0 10966 240789

AUSTRALIA

Patents Act 1952

**DECLARATION IN SUPPORT OF A CONVENTION OR NON-CONVENTION  
APPLICATION FOR A PATENT OR PATENT OF ADDITION**

Name(s) of  
Applicant(s)

In support of the application made by Ming-Long Her

Title

for a patent for an invention entitled Diving Case Massager

Name(s) and  
address(es)  
of person(s)  
making  
declaration

I/We, Ming-Long Her

Residing at No. 24, Alley 3, Lane 42, Sec. 2, Hsiang  
Shang Road, Taichung City, Taiwan, R.O.C.

do solemnly and sincerely declare as follows:—

1. I am/we are the applicant(s) for the patent, or authorised by the abovementioned applicant to make this declaration on its behalf.
2. The basic application(s) as defined by Section 141 of the Act was/were made in the following country or countries on the following date(s) by the following applicant(s) namely:-

Country, filing  
date and name  
of Applicant  
for the or  
each basic  
application

in \_\_\_\_\_ on \_\_\_\_\_ 19 \_\_\_\_\_  
by \_\_\_\_\_  
in \_\_\_\_\_ on \_\_\_\_\_ 19 \_\_\_\_\_  
by \_\_\_\_\_

3. The said basic application(s) was/were the first application(s) made in a Convention country in respect of the invention the subject of the application.
4. The actual inventor(s) of the said invention is/are

Name(s) and  
address(es)  
of the or each  
actual inventor

Ming-Long Her  
Residing at: No. 24, Alley 3, Lane 42, Sec. 2,  
Hsiang Shang Road, Taichung City, Taiwan, R.O.C.

5. The facts upon which the applicant(s) is/are entitled to make this application are as follows:-

See reverse  
side of this  
form for  
guidance in  
completing  
this part

DECLARED at Taiwan this 10th day of July 1989

MING LONG HER

This form may be completed and filed after the filing of a patent application but the form must not be signed until after it has been completely filled in as indicated by the marginal notes. The place and date of signing must be filled in. Company stamps or seals should not be used. No legalisation is necessary.

(12) PATENT ABRIDGMENT (11) Document No. AU-B-38886/89  
(19) AUSTRALIAN PATENT OFFICE (10) Acceptance No. 614401

(54) Title  
DIVING CASE MASAGER

International Patent Classification(s)  
(51)<sup>d</sup> A61H 023/02 A61H 037/00 B63C 011/02

(21) Application No. : 38886/89 (22) Application Date : 24.07.89

(43) Publication Date : 31.01.91

(44) Publication Date of Accepted Application : 29.08.91

(71) Applicant(s)  
MING-LONG HER

(72) Inventor(s)  
MING-LONG HER

(74) Attorney or Agent  
GRIFFITH HACK & CO , GPO Box 1285K, MELBOURNE VIC 3001

(57) Claim

1. A diving case massager comprising a vibrator having a housing with an outer wall surface and a slide way therein and a top edge and grooves bilaterally made in said outer wall surface thereof, a casing having an upper cover pivoted thereto to define an inner chamber adapted to receive therein said vibrator and comprising an adjustable strap with both ends adjustably connected to said casing for strapping said casing to a user, wherein said casing comprises internally and bilaterally a plurality of tenons for respectively insertion into said grooves so as to firmly retain said vibrator therein, and wherein said vibrator is comprised of said housing, a cover plate having two swing plates each having a stub tenon, and front snap means, an eccentric motor, a holder plate, a battery set and a resilient washer, said eccentric motor and said battery set being mounted on said holder plate respectively at both sides thereof, said holder plate being further set in said slide way of said housing, said housing having an axle seat on said top edge and comprising an axial hole for insertion therein from both ends of said two stub tenons of the two swing plates of said cover plate, so as to let said cover plate be pivoted to said housing, said housing also comprising a circular scoop channel at the top around its periphery and a projecting portion beneath said scoop channel, said scoop channel having said resilient washer set therein to provide a water-tight effect when said cover plate is connected to said housing and said front snap means are engaged with said projecting portion of said housing.

AUSTRALIA  
PATENTS ACT 1952

614401

Form 10

COMPLETE SPECIFICATION

(ORIGINAL)

FOR OFFICE USE

Short Title:

Int. Cl:

Application Number:  
Lodged:

Complete Specification-Lodged:  
Accepted:  
Lapsed:  
Published:

Priority:

Related Art:

---

TO BE COMPLETED BY APPLICANT

Name of Applicant:

Ming-Long HER

Address of Applicant: NO. 24, ALLEY 3, LANE 42,  
SEC. 2, HSIANG SHANG ROAD  
TAICHUNG  
TAIWAN  
REPUBLIC OF CHINA

Actual Inventor:

Address for Service: GRIFFITH HACK & CO.,  
601 St. Kilda Road,  
Melbourne, Victoria 3004,  
Australia.

Complete Specification for the invention entitled:  
DIVING CASE MASAGER.

The following statement is a full description of this invention  
including the best method of performing it known to me:-

TITLE

Diving case massager

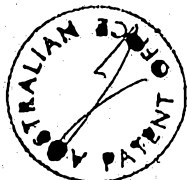
BACKGROUND OF THE INVENTION

The present invention relates to diving cases, and particularly to a diving case which is able to provide a massaging effect.

When a person goes swimming or diving, a safe place must be found to store his or her clothes and valuables. If a safe place cannot be found, the swimmer may worry unnecessarily about the safety of the clothes and valuables, such as watches, gold necklaces, money, personal identifications and other personal articles.

Another problem experienced by swimmers and divers is the problem of muscle cramps or spasms. In order to prevent such spasms or cramps, warm-up exercises may be performed before entering the water. However, the swimmer may still suffer muscle cramps in the abdomen region if the warm-up was insufficient.

According to the present invention there is provided a diving case massager comprising a vibrator having a housing with an outer wall surface and a slide way therein and a top edge and grooves bilaterally made in said outer wall surface thereof, a casing having an upper cover pivoted thereto to define an inner chamber adapted to receive therein said vibrator and comprising an adjustable strap with both ends adjustably connected to said casing for strapping said casing to a user, wherein said casing comprises internally and bilaterally a plurality of tenons for respectively insertion into said grooves so as to firmly retain said vibrator therein, and wherein said vibrator is comprised of said housing, a cover plate having two swing plates each having a stub tenon, and front snap means, an eccentric motor, a holder plate, a battery set and a resilient washer, said eccentric motor and said battery set being mounted on said holder plate respectively at both sides thereof, said holder plate being further set



in said slide way of said housing, said housing having an axle seat on said top edge and comprising an axial hole for insertion therein from both ends of said two stub tenons of the two swing plates of said cover plate, so as to let said cover plate be pivoted to said housing, said housing also comprising a circular scoop channel at the top around its periphery and a projecting portion beneath said scoop channel, said scoop channel having said resilient washer set therein to provide a water-tight effect when said cover plate is connected to said housing and said front snap means are engaged with said projecting portion of said housing.

It is preferred that said casing has a smoothly contoured outer topography adapted to complement human body curves, and comprising hanger means to enable said diving case massager to be hung on a user's belt.

#### BRIEF DESCRIPTION OF THE DRAWINGS

In order that the present invention might be more fully understood, embodiments of the invention will be described by way of example only with reference to the accompanying drawings in which:

Fig. 1 is a perspective view of an embodiment of the present invention when it is in a closed condition;

Fig. 1A is a perspective assembly view of the embodiment when it is in an opened condition;

Fig. 2 is a perspective fragmentary view of the present embodiment;

Fig. 3 is a perspective fragmentary view of the vibrator according to an embodiment of the present invention; and

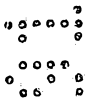
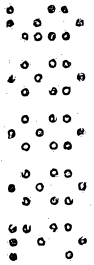
Fig. 4 is a sectional view of a second embodiment constructed according to the present invention.

#### DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to Figs. 1 and 2 of the drawings, a diving case 2 is including a casing 21 having an upper



cover 22 pivoted thereto. A fastener means 23 is mounted on the upper cover 22 to control water-tight connection of the upper cover 22



to the casing 21 when the upper cover 22 is covered over the casing 21. An adjustable <sup>Strap</sup> ~~strip~~ 24 is adjustably connected to the casing 21 at both ends. With reference to Fig. 3, the casing 21 is comprising a plurality of tenons 21A respectively made on both inner side walls. A vibrator 3, which is comprising a plurality of grooves 3A respectively made on both outer side walls is received in the casing 21. When the vibrator 3 is set in the casing 21, the tenons 21A are respectively seated in the grooves 3A to let the vibrator 3 be firmly positioned thereto.

Please refer to Fig. 3 again. The vibrator 3 is mainly comprised of a housing 38, a cover plate 31, an eccentric motor 32, a holder plate 34 and a battery set 33. The eccentric motor 32 and the battery set 33 are mounted on the holder plate 34 at both sides respectively. The holder plate 34 is further set in the slide way 37 of the housing 38. The housing 38 is having an axle seat 39 made on the top edge, comprising an axial hole 40 for insertion therein from both ends of two stub tenons 43 of the two swing plates 42 of the cover plate 31 respectively so as to let the cover plate 31 be pivoted to the housing 38. The housing 38 also comprises a circular scoop channel 41 at the top around its periphery for setting therein of a resilient washer 36. When the cover plate 31 is connected to the housing 38 by means of inserting the stub tenons 43 into the axial hole 40 of the axle seat 39, the front snap means 44 of the cover





plate 31 is engaged with the projecting portion 45 of the housing 38 beneath the scoop channel 41, such that, through the effect of the resilient washer 36, the whole structure of the vibrator 3 becomes water-tightly enclosed.

5

When the vibrator 3 is set in the casing 21 and is having its grooves 3A respectively engaged with the tenons 21A of the casing 21, both the vibrator 3 and the casing 21 become coupled into one unit. When the vibrator 3 is switched on, the eccentric vibrating force produced from the eccentric motor 32 will be transmitted through the casing 21 to apply on the body of the user so as to massage the muscles of the user where the device is attached and to help the user get relaxed. In addition to the space for receiving the vibrator 3, the inner space of the casing 21 is provided for receiving personal articles of the user for easy carriage with the oneself. Because the vibrator 3 is detachable, when no massage is required, it may be removed from the casing 21 to make more space for storage.

10  
15  
20

20

In order to provide better massaging effect, the casing 21 and the upper cover 22 are arranged to have a smoothly curved side wall surface H1, that is, the both ends are respectively arranged in a spherical configuration, so as to be closely attached to user's body. Please refer to Fig. 4, as an alternate form, the adjustable <sup>Strap</sup> ~~strip~~ 24 may be replaced by a hanger means 4 for hanging of the whole assembly on user's belt.

25



The diving case is able to be hung conveniently on a user's belt for easy carriage, and includes a water-tight casing having an inner chamber for setting a vibrator therein. The vibrator produces a vibrating effect to massage the user's muscles, and the diving case is able to receive therein personal articles while the user is taking a swim or diving.

The diving case massager may produce a massaging effect on the user's abdomen region when the user is swimming or diving, so as to help the user get rid of spasms and have the muscles relaxed. The diving case massager also has a water-tight chamber for receiving, for example, personal and precious articles while the user is swimming or diving. The diving case massager may include an adjusting strip for strapping the diving case massager to a body portion of the user.

The diving case massager produces vibrations. It may be used to stir up water when it is placed in a bath-tub, so as to generate water waves to soothe the bather.

The casing may receive therein a detachable vibrator, such that the vibrator may be removed from the casing to make more room for storage of personal articles in the casing.

The embodiments have been advanced by way of example only and modifications are possible within the spirit and scope of the invention as defined by the appended claims.



THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS

1. A diving case massager comprising a vibrator having a housing with an outer wall surface and a slide way therein and a top edge and grooves bilaterally made in said outer wall surface thereof, a casing having an upper cover pivoted thereto to define an inner chamber adapted to receive therein said vibrator and comprising an adjustable strap with both ends adjustably connected to said casing for strapping said casing to a user, wherein said casing comprises internally and bilaterally a plurality of tenons for respectively insertion into said grooves so as to firmly retain said vibrator therein, and wherein said vibrator is comprised of said housing, a cover plate having two swing plates each having a stub tenon, and front snap means, an eccentric motor, a holder plate, a battery set and a resilient washer, said eccentric motor and said battery set being mounted on said holder plate respectively at both sides thereof, said holder plate being further set in said slide way of said housing, said housing having an axle seat on said top edge and comprising an axial hole for insertion therein from both ends of said two stub tenons of the two swing plates of said cover plate, so as to let said cover plate be pivoted to said housing, said housing also comprising a circular scoop channel at the top around its periphery and a projecting portion beneath said scoop channel, said scoop channel having said resilient washer set therein to provide a water-tight effect when said cover plate is connected to said housing and said front snap means are engaged with said projecting portion of said housing.

2. The diving case massager according to claim 1, wherein said casing has a smoothly contoured outer topography adapted to complement human body curves, and comprising hanger means for enabling said diving case massager to be hung on a user's belt.



3. A diving case massager substantially as hereinbefore described and illustrated with reference to the accompanying drawings.

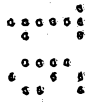
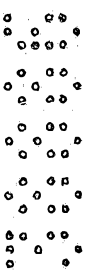
DATED THIS 3RD DAY OF JUNE, 1991.

MING-LONG HER

By His Patent Attorneys:

GRIFFITH HACK & CO.

Fellows Institute of Patent Attorneys of Australia.



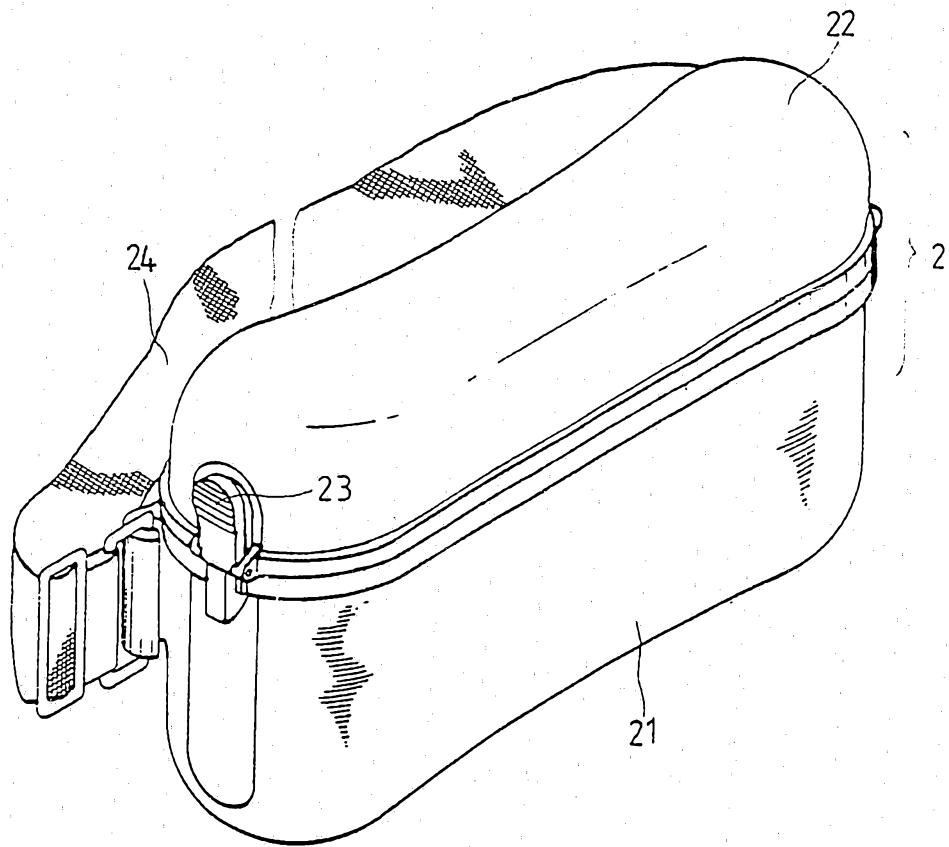
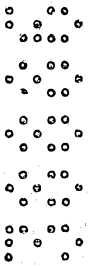


FIG. 1



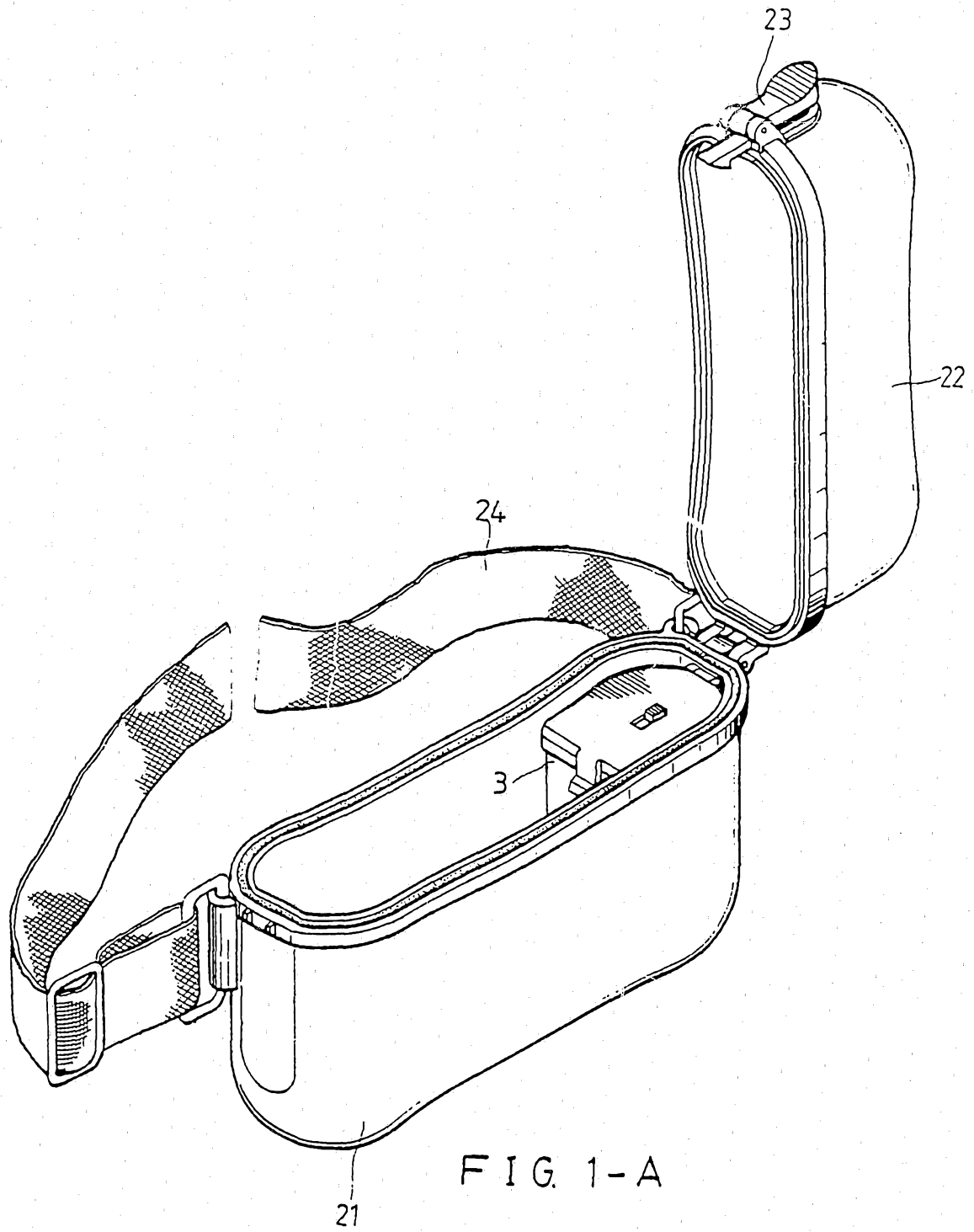


FIG. 1-A

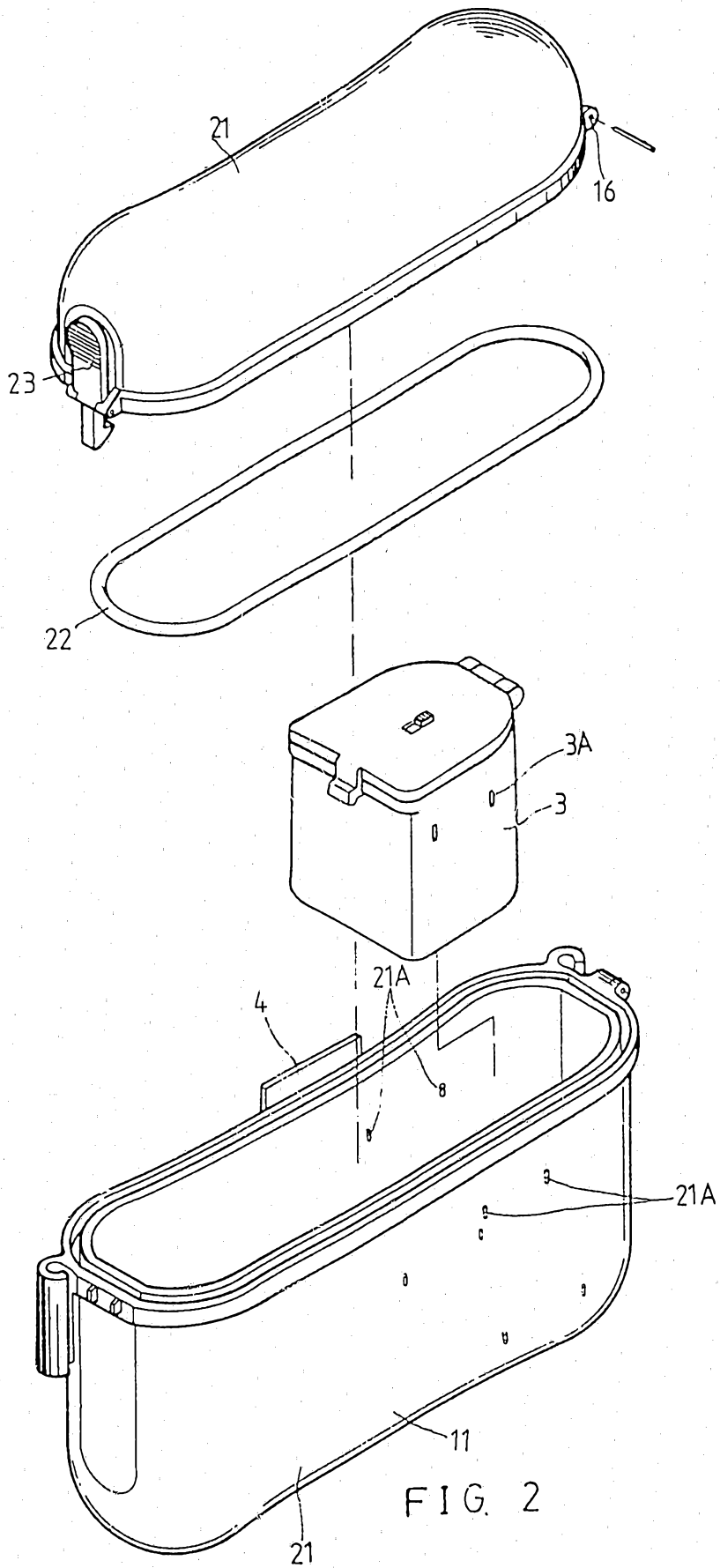


FIG. 2

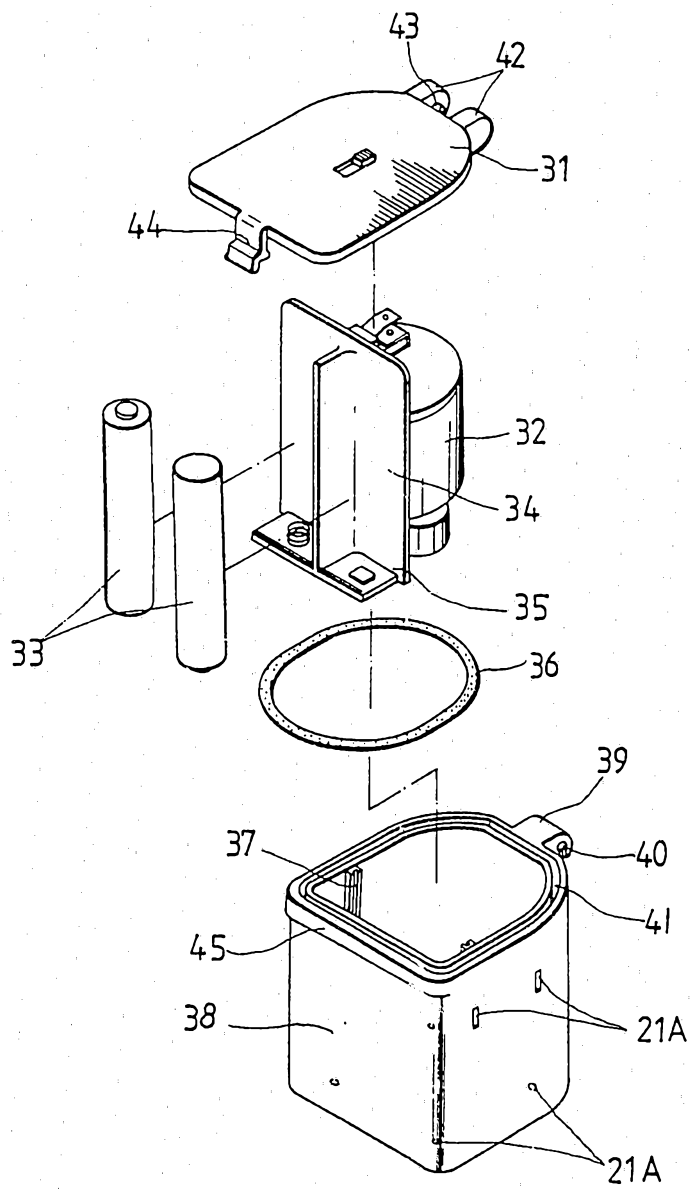


FIG. 3



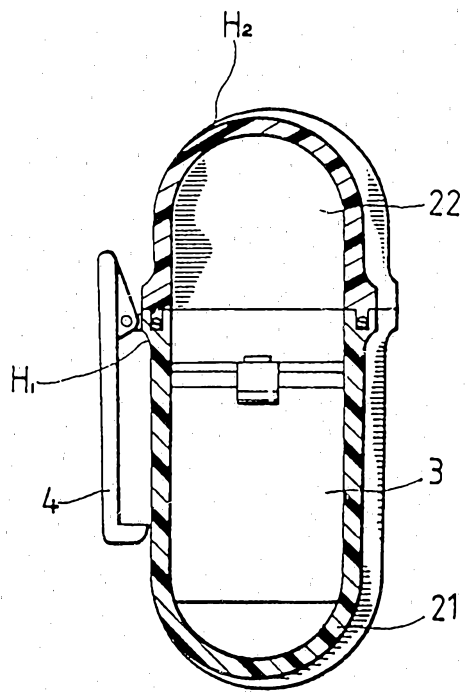


FIG 4

