(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 943 538 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
22.09.1999 Bulletin 1999/38

(51) Int. Cl.[6]: **B63C 9/04**
// B63B7/08

(21) Application number: **99302048.6**

(22) Date of filing: **17.03.1999**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **17.03.1998 GB 9805542**

(71) Applicant: **Hayward, Terence**
Wirral, Merseyside L63 0JA (GB)

(72) Inventor: **Hayward, Terence**
Wirral, Merseyside L63 0JA (GB)

(74) Representative:
Thomson, Paul Anthony et al
Potts, Kerr & Co.
15, Hamilton Square
Birkenhead Merseyside L41 6BR (GB)

(54) Liferaft

(57) The present invention provides a life raft (10) comprising a base (11) attached to at least one inflatable buoyant tubular member (12a,12b,12c,12d) the buoyant tubular member forming the sides and/or ends of the raft (10) characterised in that the life raft (10) is substantially trapezoid in shape with one end being greater in volume and buoyancy than the other end.

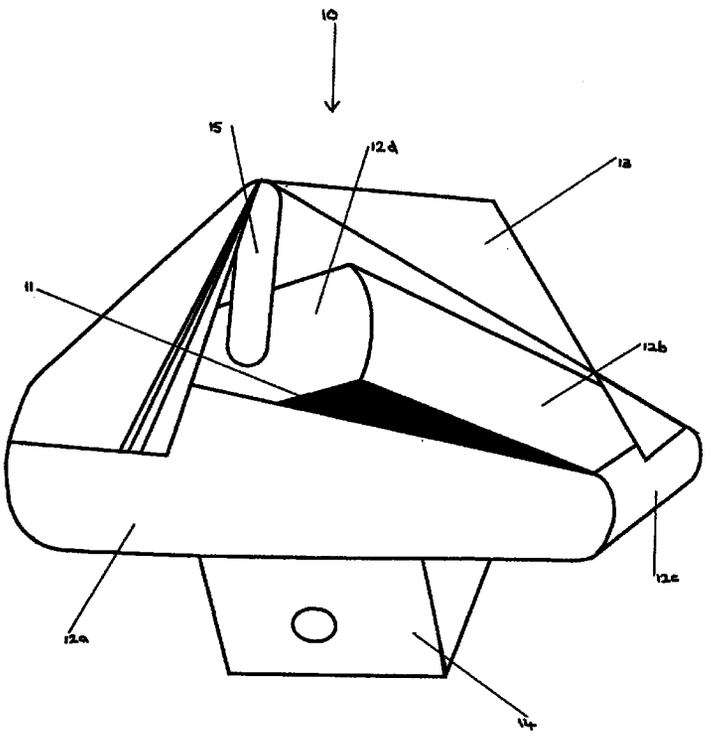

Fig. 1

EP 0 943 538 A2

Description

[0001] The present invention relates to improvements in or relating to water borne vessels. In particular, the present invention relates to improvements in or relating to life rafts.

[0002] Generally, life rafts are designed to seat people facing one another. The size and shape of such life rafts are generally dependent on the amount of people to be accommodated by the life raft in use. Up until now, there have been no life rafts specifically designed for side by side seating. In this connection, the skilled person will realise that such side by side seating is particularly desirable for thermal and/or ergonomic and/ or volumetric reasons.

[0003] According to the present invention there is provided a life raft comprising a base attached to at least one inflatable buoyant tubular member, the buoyant tubular member forming the sides and/or ends of the raft, characterised in that one end of the life raft is greater in volume and buoyancy than the other end and the sides of the life raft taper from said one end of the life raft to said other end.

[0004] According to the present invention there is provided a life raft comprising a base attached to at least one inflatable buoyant tubular member, the buoyant tubular member forming the sides and/or ends of the raft, characterised in that the life raft is substantially trapezoid in shape with one end being greater in volume and buoyancy than the other end.

[0005] The present invention provides a life raft where side by side seating is desirable for thermal and/or ergonomic and/or volumetric reasons. Additionally, by providing a substantially trapezoid-shaped life raft, one end of which is greater in volume and buoyancy than the other, provides a life raft which overcomes the problems of uneven distribution of body weight caused by side to side seating, and a life raft which is easier to board, as well as being more stable during high speed winds.

[0006] In a preferred embodiment, the life raft in accordance with the present invention further comprises a canopy and a water pocket.

[0007] Further preferably, and as regards the difference in volume of one end from the other, one end of the life raft will be 50% greater in volume than the other end.

[0008] A number of embodiments of the present invention will now be described by way of reference to the accompanying drawings in which:

Figure 1 is a side perspective view of a life raft in accordance with the present invention;

Figure 2A is a side view of a life raft in accordance with the present invention with persons located therein;

Figure 2B is a rear view of the life raft of Fig. 2A; and

Figure 2C is a front view of the life raft of Fig. 2A.

[0009] As illustrated in Figure 1, a life raft 10 in accordance with the present invention comprises a base 11, attached to four buoyancy tubes 12a, 12b, 12c, 12d, such buoyancy tubes, making up the sides and ends of the life raft 10.

[0010] The buoyancy tubes 12a, 12b, 12c, 12d are inflatable via valve means (not illustrated). As the manner in which such buoyancy tubes 12a, 12b, 12c, 12d of life rafts and other like buoyancy aids may be inflatable is well known, it shall not be described further in the present application.

[0011] The life raft 10 further comprises a canopy 13 and a large water pocket 14. The canopy 13 is supported by a support member 15. Such support member 15 may be an inflatable thwart tube extending from the buoyancy tube 12d. Alternatively, the canopy 13 may be a self righting canopy or a self supporting inflatable canopy. It is to be understood that any other known means for supporting the canopy 13 may be used.

[0012] The buoyancy tubes 12a, 12b, 12c, 12d, base 11, canopy 13 and thwart tube 15 may be made from a suitable polyurethane coated, and/or any suitable natural or synthetic rubber compound fabric. High frequency welding, sewing techniques and cold cured adhesive bonding techniques may be used for the construction of the buoyancy tubes 12a, 12b, 12c, 12d, base 11, canopy 13, and thwart tube 15.

[0013] As illustrated in Fig.1, the life raft 10 is substantially trapezoid in shape with one end being of greater volume and buoyancy than the other end.

[0014] As illustrated in Figures 2A-C, in use, persons are seated with their backs against the end having the greater volume and hence, buoyancy, with their feet pointing towards the end having a lesser volume and buoyancy. Such an arrangement makes it easier to board the life raft 10 from the seaway, and provides greater buoyancy at the end which is intended to support the greater body weight. Moreover, and as the life raft 10 in Figs. 2A-C has no canopy or water pocket, same has particular application as a man-overboard survival platform.

[0015] The life raft 10 of the present invention may also be provided with an emergency pack in accordance with RORC recommendations. Additionally, the life raft 10 of the present application may be stowed in a purpose built container.

[0016] Although the present invention has been described by way of example to a life raft, it is to be understood that same can be applied to any water borne vessel where side by side seating is desirable for thermal and/or ergonomic and/or volumetric reasons. Moreover, it is to be understood that the sides of a life raft in accordance with the present invention may comprise a plurality of buoyancy tubes securely mounted on

top of one another to accommodate extra payload, or mandatory requirements for multiple independent buoyancy.

Claims

1. A life raft (10) comprising a base (11) attached to at least one inflatable buoyant tubular member (12a,12b,12c,12d), the buoyant tubular member (12a,12b,12c,12d) forming the sides and/or ends of the raft (10), characterised in that one end of the life raft (10) is greater in volume and buoyancy than the other end and the sides of the life raft (10) taper from said one end of the life raft (10) to said other end.

2. A life raft (10) comprising a base (11) attached to at least one inflatable buoyant tubular member (12a,12b,12c,12d), the buoyant tubular member (12a,12b,12c,12d) forming the sides and/or ends of the raft (10), characterised in that the life raft (10) is substantially trapezoid in shape with one end being greater in volume and buoyancy than the other end.

3. A life raft (10) as claimed in claim 1 or 2, further characterised in that the life raft (10) further comprises a canopy (13) and a water pocket (14).

4. A life raft as claimed in claim 1, 2 or 3, further characterised in the one end of the life raft (10) will be 50% greater in volume than the other end.

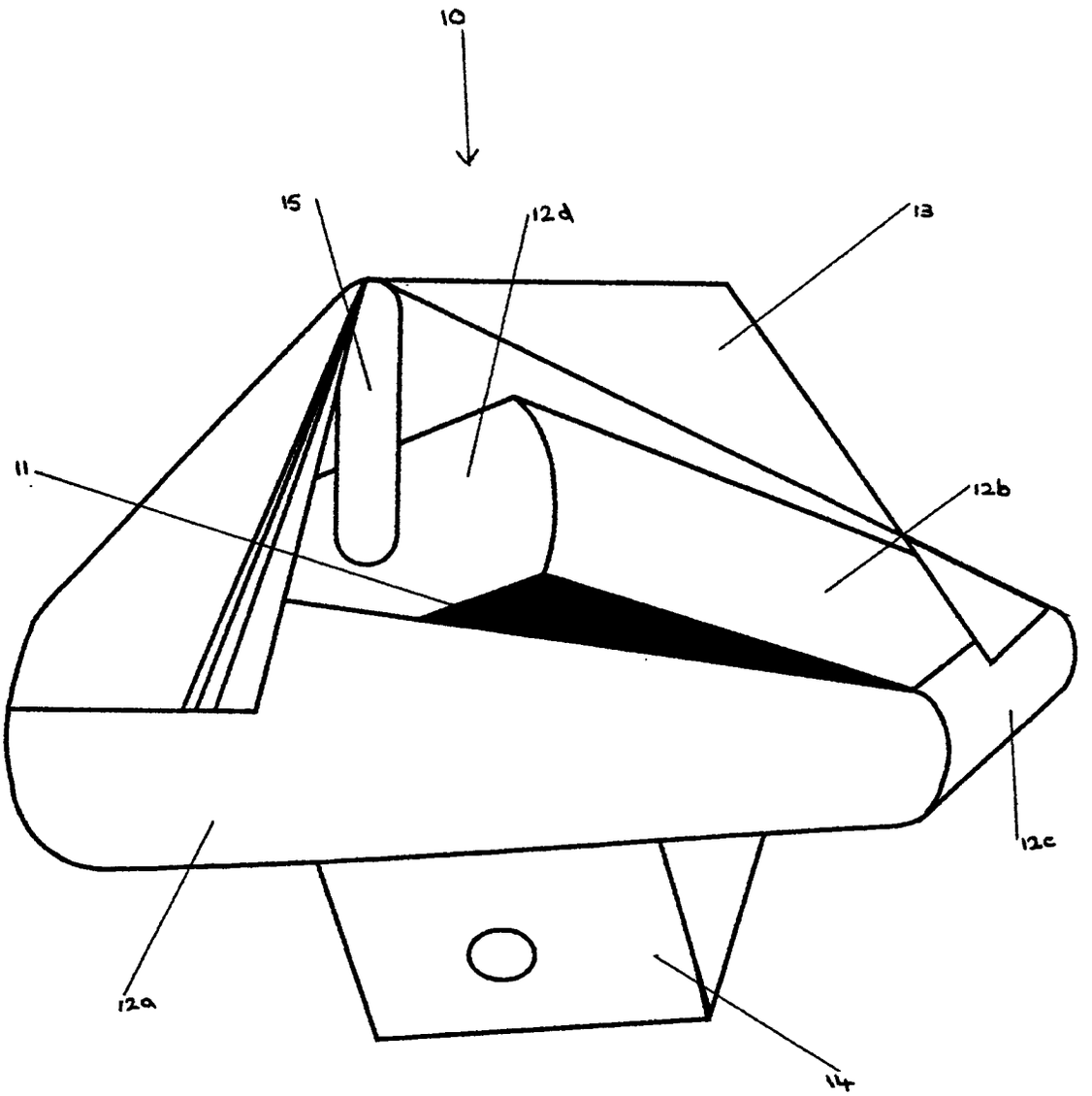

Fig. 1

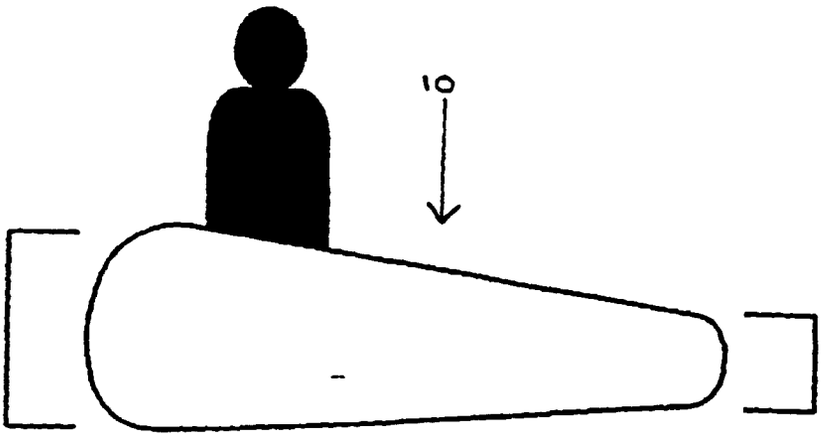

Fig. 2A

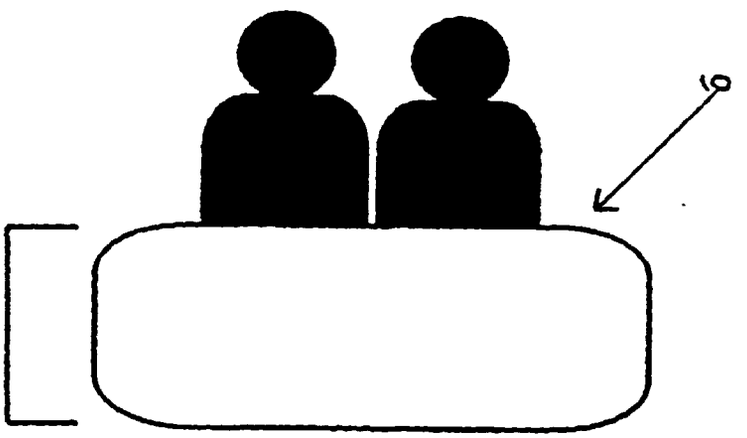

Fig. 2B

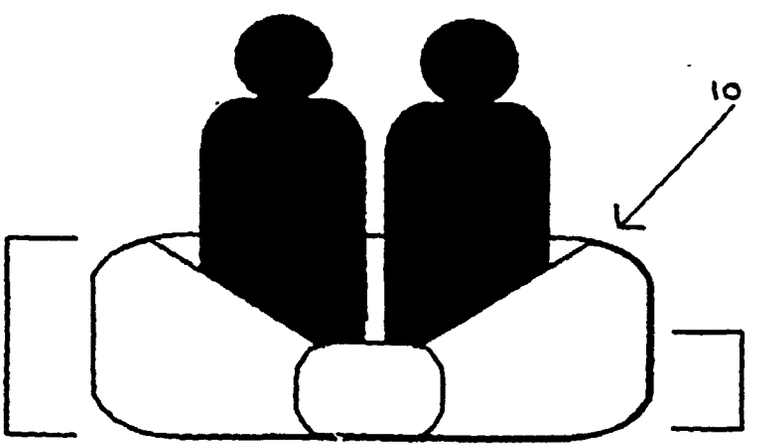

Fig. 2C