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(54) **Bath tub**

(57) A bath tub comprising an outer skin (12) and an inner skin (14) with a space (16) therebetween. Apertures (20) connect the space (16) to the interior of the tub and a mixer tap (22) supplies water directly to the

space (16) to fill the latter first, and water then flows through the apertures (20) into the interior of the tub. Thus, the inner skin (14) heated by water in the space (16) remains warm to the touch.

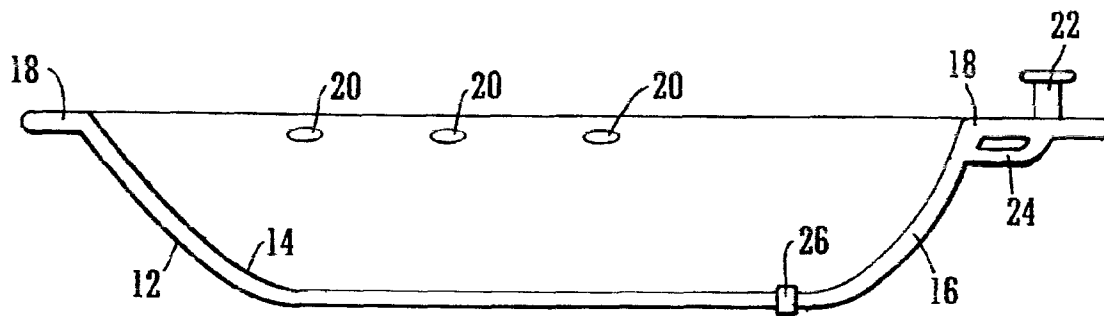


FIG. 1

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Description

[0001] This invention concerns a bath tub.

[0002] Bath tubs are conventionally fabricated of cast iron, or of ceramic material or of plastics material incorporating glass fibre and are formed with a rim, a plug hole for discharge of water and an opening near the rim which serves as an overflow in the event of overfilling.

[0003] Particularly when the tub is filled with hot water only to a relatively low level, the sides of the tub interior with which a bather comes in contact are relatively cold.

[0004] An object of the invention is to enable the automatic warming of the sides of the tub interior when the tub is to be used for bathing.

[0005] The invention provides a bath tub comprising an outer skin and an inner skin with a space therebetween, and a passage and/or inlet means connecting a tap or taps for the supply of water to the interior of the tub and to the space between the skins, further passage means being provided near the rim of the tub whereby the space communicates with the interior of the tub.

[0006] Preferably, said passage and/or inlet means connects a tap or taps for the supply of water to the tub directly to the space between the skins so that in order to fill the tub with water the space is filled first and water then flows through the apertures into the interior of the tub.

[0007] Thus, even if the interior of the tub is filled only to a low level, the space will be filled to the level of the further passage means, which are close to the rim.

[0008] On a practical note, the conventional overflow opening leading from the interior of the tub should be at a lower position in the tub than the further passage means in the inner skin so that there is little likelihood of soap/dirty water from the tub interior passing into the space between the inner and outer skins. This minimises the risk of corrosion or of sludge or slime formation within the space.

[0009] In preferred embodiments of the tub of the invention, the inner and outer skins have plug holes in alignment with each other and a common plug. In this respect, the common plug is preferably configured so as to allow separate discharge of water from the interior of the tub and from the space between the skins. This again minimises the likelihood of soap/dirty water from the tub interior entering the space between the inner and outer skins.

[0010] However, in other embodiments it is possible that separate plug holes at separate locations will be provided in the inner and outer skins.

[0011] The invention will be described further, by way of example, with reference to the accompanying drawing, in which:

Fig. 1 is a schematic sectional view of a practical embodiment of a bath tub in accordance with the invention;

Fig. 2 is a plan view of the tub of Fig. 1;

Fig. 3 is an enlarged cross-sectional detail of one version of a common plug used in the tub of Fig. 1; and

Fig. 4 is a view, similar to Fig. 3, of another version of a common plug.

[0012] With reference to Figs. 1 and 2, a preferred practical embodiment of the bath tub of the invention comprises an outer skin (12) and an inner skin (14), with a space (16) therebetween. Both skins (12, 14) are contoured to provide a rim (18) around the top of the tub. Along each side of the tub, the inner skin (14) has a series of apertures (20) (three shown) close to the rim (18) whereby the space (16) communicates with the interior of the tub. Taps, or preferably a mixer tap (22), for supply of water to the tub are fitted directly to inlet means leading into the space (18). Thus, water (generally warm or hot) will be supplied to the space (18) first, up to the level of the apertures (20) and will then flow through these apertures (20) into the tub itself. This means that the sides of the tub will always be pre-warmed for the bather.

[0013] As shown in Fig. 1, an additional passageway (24), may be provided to facilitate rapid and trouble free filling of the space (18).

[0014] In the illustrated embodiment, the inner and outer skins (14, 12) have aligned plug holes and a common plug (26), a basic form of which is shown in Fig. 3.

[0015] Owing to the desirability of preventing ingress of soapy/dirty water to the space (18), so as to minimise the risk of a build up of slime, of corrosion, or of unpleasant odours, the plug may be advantageously configured to provide for separate discharge from the tub interior and the space (18), for example by having separate channels (30, 32) through the plug (28), as shown in Fig. 4.

[0016] To prevent the water in the space (18) from cooling, an insulation jacket (not shown) of, for example, a formed polymeric material, may be placed on the outer surface of outer skin (12).

[0017] In a further embodiment, separate hot water supplies to the interior of the tub and to the space (18) may be provided, thus obviating the need for the apertures (20) which may be replaced by (one-way) air vent apertures to enable filling and draining of the space (18).

Claims

1. A bath tub comprising an outer skin and an inner skin with a space therebetween, and a passage and/or inlet means connecting a tap or taps for the supply of water to the interior of the tub and to the space between the skins, further passage means being provided near the rim of the tub whereby the

space communicates with the interior of the tub.

2. A bath tub according to Claim 1, wherein said passage and/or inlet means connects a tap or taps for the supply of water to the tub directly to the space between the skins so that in order to fill the tub with water the space is filled first and water then flows through the further passage means into the interior of the tub. 5
3. A bath tub according to Claim 1 or Claim 2, wherein the inner and outer skins have plug holes in alignment with each other and a common plug. 10
4. A bath tub according to Claim 3, wherein the common plug is configured so as to allow separate discharge of water from the interior of the tub and from the space between the skins. 15
5. A bath tub substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings. 20

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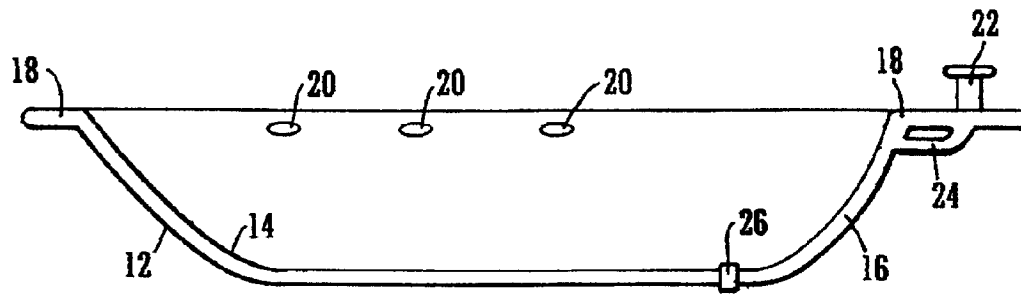


FIG. 1

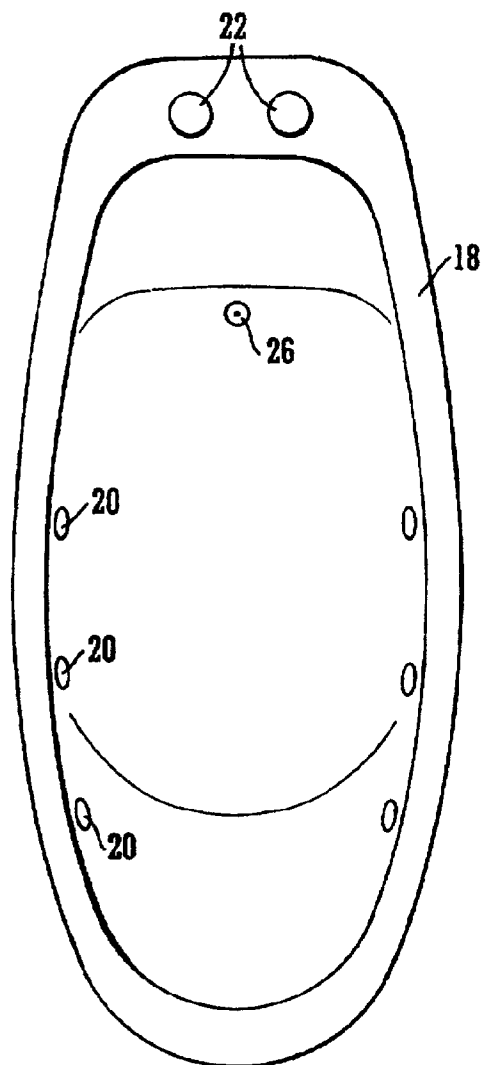


FIG. 2

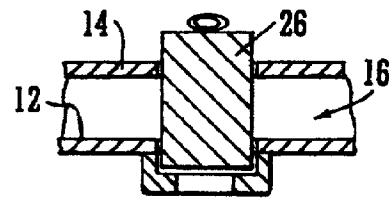


FIG. 3

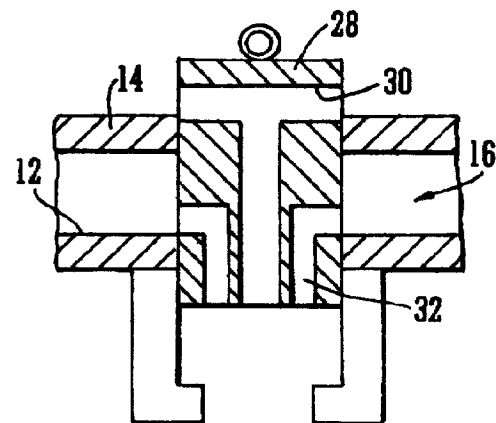


FIG. 4



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EUROPEAN SEARCH REPORT

Application Number
EP 99 30 0095

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	DE 35 08 713 A (BERNHARDT HEINZ) 10 October 1985 * page 9, line 13 - line 27 * * page 13, line 15 - page 15, line 22 * * figures 1-7 * ---	1,2,5	A47K3/02
A	DE 25 53 810 A (NORRA WOLF DIETER) 2 June 1977 * page 5, paragraph 3 - page 6, paragraph 1; figure 1 * -----	1,3,5	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			A47K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 March 1999	Examiner Vrugt, S
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 99 30 0095

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The members are as contained in the European Patent Office EDP file on
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23-03-1999

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