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(54) Title: A water tank jacket

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"A water tank jacket"

Introduction

The invention relates to a water tank jacket.

My published British Patent Specification No. GB2342682B describes a water tank jacket which can fit to a variety of sized tanks in a convenient manner. However, there is a need to simplify the jacket while still achieving the advantages of convenience and versatility.

The invention is therefore directed towards providing a water tank jacket of simpler construction.

Statements of Invention

According to the invention, there is provided a water tank jacket comprising:-

a skirt comprising an elongate panel and a fastener for supporting the skirt in place when wrapped around the periphery of a tank;

a cover section comprising a top portion and a skirt portion, and a tie rope extending around and engaging with the skirt portion; and

a cover support comprising means for extending across the top of a tank to prevent sagging of the cover section.

In one embodiment, the jacket comprises two cover sections, each comprising means for overlapping the other to cover the full top of a tank.

In another embodiment, the tie rope is elasticated.

In a further embodiment, the skirt comprises a series of eyelets adjacent one end edge.

In one embodiment, the material of the skirt is of sufficient strength to allow it to be slit to form openings for ties.

In another embodiment, the skirt comprises a strengthening line running alongside its edges.

In a further embodiment, the skirt comprises two protective skins and an internal insulation sheet, the strengthening line interconnecting the skins.

In one embodiment, the strengthening line is a thermal weld line.

In a further embodiment, the strengthening line is a stitch line.

In a further embodiment, the cover support is of flexible material.

In one embodiment, the cover support comprises a pair of legs at each end, one being for engagement with a tank wall at an inner surface, and the other for overlying a tank rim.

In another embodiment, the support is formed from a strip of flexible plastics material having a longitudinal slit at each end.

Detailed Description of the Invention

The invention will be more clearly understood from the following description of some embodiments thereof, given by way of example only with reference to the accompanying drawings in which:-

Fig. 1 is a perspective view from above of a skirt of a water tank jacket skirt of the invention in place around a tank;

Fig. 2 is a perspective view of a cover of the jacket;

Fig. 3 is a perspective view of a jacket fully fitted to a tank;

Fig. 4 is a perspective view showing an alternative skirt connection arrangement; and

Fig. 5 is a perspective view from above of an alternative water tank jacket.

Referring to Figs. 1 and 2, a water tank jacket of the invention comprises a skirt 1 and two cover sections 20 (only one of which is shown in Fig. 2).

The skirt 1 is of very simple construction, comprising an elongate rectangular panel of an inner insulation sheet between outer protective sheets of plastics material. The only fastener components are eyelets 3 close to one end of the panel. For application to a tank 2, the skirt is simply wrapped around the walls of the tank 2 and the eyelets 3 are used to tie the ends together. In Fig. 1 the ends meet exactly, and the installer simply makes small cuts 4 in the opposing end and trains a short length of wire or string through each eyelet 3 and corresponding cut 4.

As shown in Fig. 3, if the tank size is such that there is excess skirt 30, the excess overlaps on the inside and the end with the eyelets 3 is tied to the other end at the corner with use of slits 31 at the corner. Because the opposed end is fastened with

use of slits 31 there is effectively infinite versatility within the circumference permitted by the length of the skirt 1.

Fig. 4 also shows a weld 32 running approximately 25 mm inside the skirt 1 edges. This secures the internal insulation to the outer protective sheets in a very effective manner. Also, it provides strength for the ties between the eyelets 3 and the slits 4 by preventing the material from tearing where the ties are tightened.

Referring again to Fig. 2, each cover section 20 comprises a top portion 21, and side portions 22 extending downwardly on three of the sides. A tie rope 24 runs around the outside of the side portions 22, being trained through eyelets at the ends and at corners. In use, the side portions 22 extend downwardly outside the skirt 1.

The material of the cover section 20 is a pair of layers of plastics sheeting skins and an internal insulation layer between them.

The tie rope 24 is cut to length and knotted to fit tightly around the tank. It may alternatively be elasticated.

As shown in Fig. 2, a cover section 20 is placed over part of the top of a tank, with the tie rope 24 extending around the full circumference and the side portions 22 outside the skirt 1. The second section 20 is then placed over the exposed top part of the tank and an overlapping part of the first cover section 20. Fig. 3 illustrates how the cover sections 20 overlap. This drawing shows the sections 20 placed over the tank and the side portions 22 overlapping the skirt 1 on the outside.

Again, because the cover sections 20 can overlap to any desired extent, there is effectively versatility to the extent of double the length of a cover section 20. Also, installation is very easy because it is only necessary to wrap the tie rope 24 fully around the circumference.

Referring again to Fig. 1, before the cover sections 20 are applied, a support strip 10 is placed across the top of the tank if the tank does not have a lid. The strip 10 is split into legs 11 and 12 at each end. One leg (11) of each end is pressed down to press outwardly against the inside surface tank wall. The other (12) overlies the tank rim to prevent the support strip 10 from dropping down.

Because the strip 11 is retained in a convex shape under compression, it acts to prevent the cover sections 20 from sagging. This is very important as it prevents degradation of the cover which would otherwise arise in some circumstances upon contact with water in the tank either directly or by splashing.

Referring now to Fig. 5, an additional jacket 50 is illustrated. The jacket 50 comprises an integral cover 51 and skirt 52. The skirt 52 is slit at 53 at opposed ends to accommodate pipes as illustrated. The jacket 50 is smaller than the jacket described above, and is suitable for an expansion tank. It may thus be supplied together with the other jacket as a set. The cover 21 comprises transverse weld lines 55 which act as ribs to give strength to the cover as well as securing the insulation to the outer skins.

The set or kit may also include a length of flexible hose and a jubilee clip for attachment to an existing expansion pipe where this is required. This extension piece will extend down into the tank.

It will be appreciated that the invention provides very effective thermal protection against condensation and frost. It allows the householder to maintain a water supply to the tank in an environment free from dust, dirt, flies, vermin, or other contaminants. It also protects overall plumbing and heating systems by protecting the tanks. The invention eliminates the need for a powered frost-protection devices using a thermostat, and so the expense of installation and maintenance of such

systems is avoided. Also, the jacket is very clean to handle as there are no shed fibres. Also, the material may be recycled.

The invention is not limited to the embodiments described but may be varied in construction and detail. For example, the expansion tank jacket may comprise a support strip of the type set out above. Also, the weld lines 55 and 32 may alternatively be stitch lines.

Claims

1. A water tank jacket comprising:-

a skirt comprising an elongate panel and a fastener for supporting the skirt in place when wrapped around the periphery of a tank;

a cover section comprising a top portion and a skirt portion, and a tie rope extending around and engaging with the skirt portion; and

a cover support comprising means for extending across the top of a tank to prevent sagging of the cover section.

2. A water tank jacket as claimed in claim 1, wherein the jacket comprises two cover sections, each comprising means for overlapping the other to cover the full top of a tank.

3. A water tank jacket as claimed in claim 1 or 2, wherein the tie rope is elasticated.

4. A water tank jacket as claimed in any preceding claim, wherein the skirt comprises a series of eyelets adjacent one end edge.

5. A water tank jacket as claimed in any preceding claim, wherein the material of the skirt is of sufficient strength to allow it to be slit to form openings for ties.

6. A water tank jacket as claimed in claim 5, wherein the skirt comprises a strengthening line running alongside its edges.

7. A water tank jacket as claimed in claim 6, wherein the skirt comprises two protective skins and an internal insulation sheet, the strengthening line interconnecting the skins.

8. A water tank jacket as claimed in claim 7, wherein the strengthening line is a thermal weld line.

9. A water tank jacket as claimed in claim 7, wherein the strengthening line is a stitch line.

10. A water tank jacket as claimed in any preceding claim, wherein the cover support is of flexible material.

11. A water tank jacket as claimed in any preceding claim, wherein the cover support comprises a pair of legs at each end, one being for engagement with a tank wall at an inner surface, and the other for overlying a tank rim.

12. A water tank jacket as claimed in claim 11, wherein the support is formed from a strip of flexible plastics material having a longitudinal slit at each end.

13. A water tank jacket substantially as described with reference to Figs. 1 to 4.

14. A water tank jacket set comprising a jacket as claimed in any preceding claim and an expansion tank jacket comprising an integral cover and side walls.

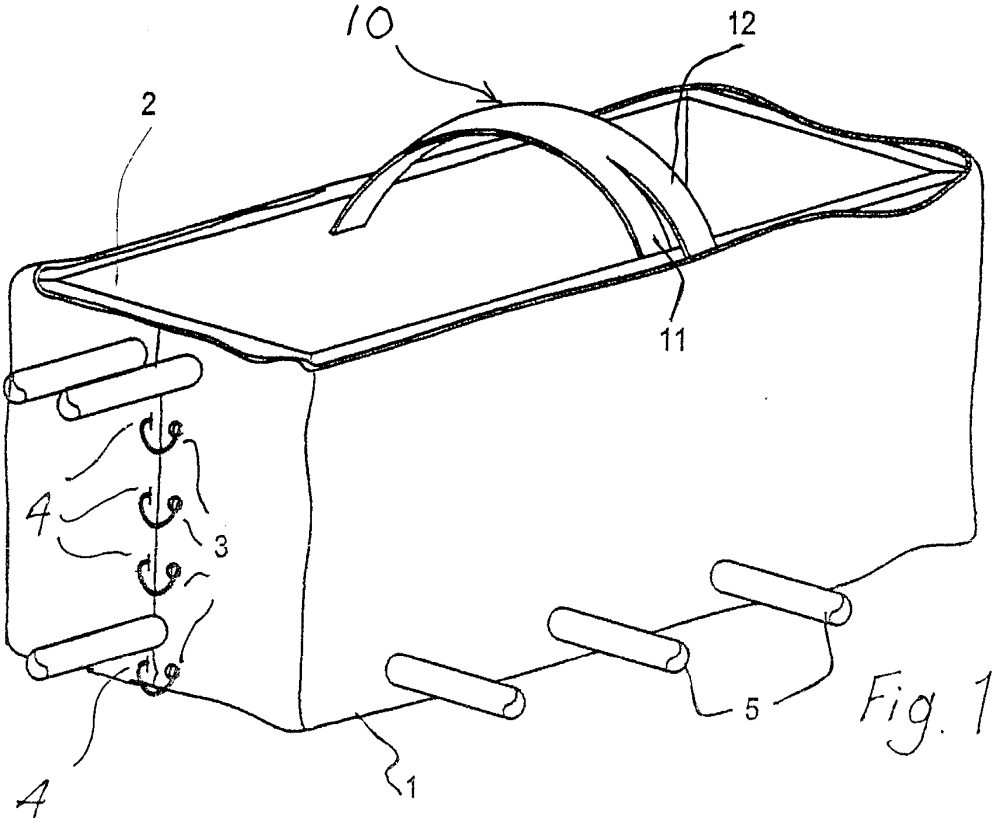

Fig. 1

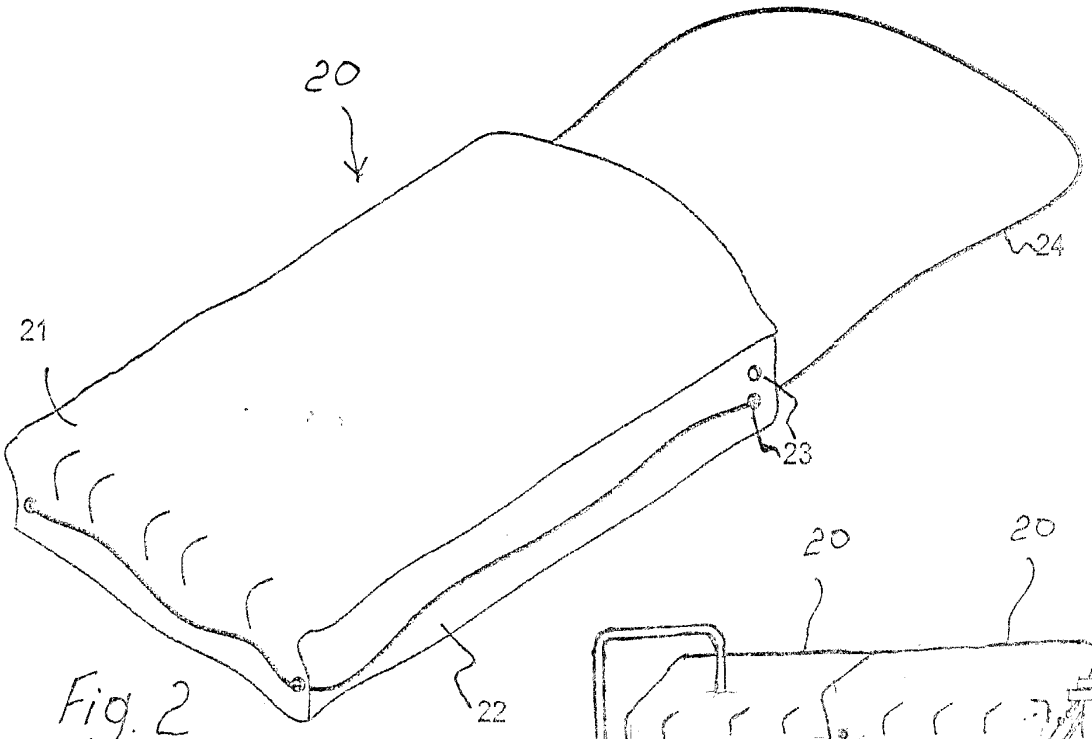

Fig. 2

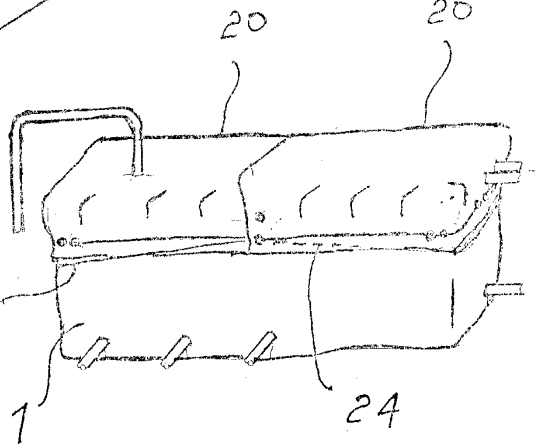

Fig. 3

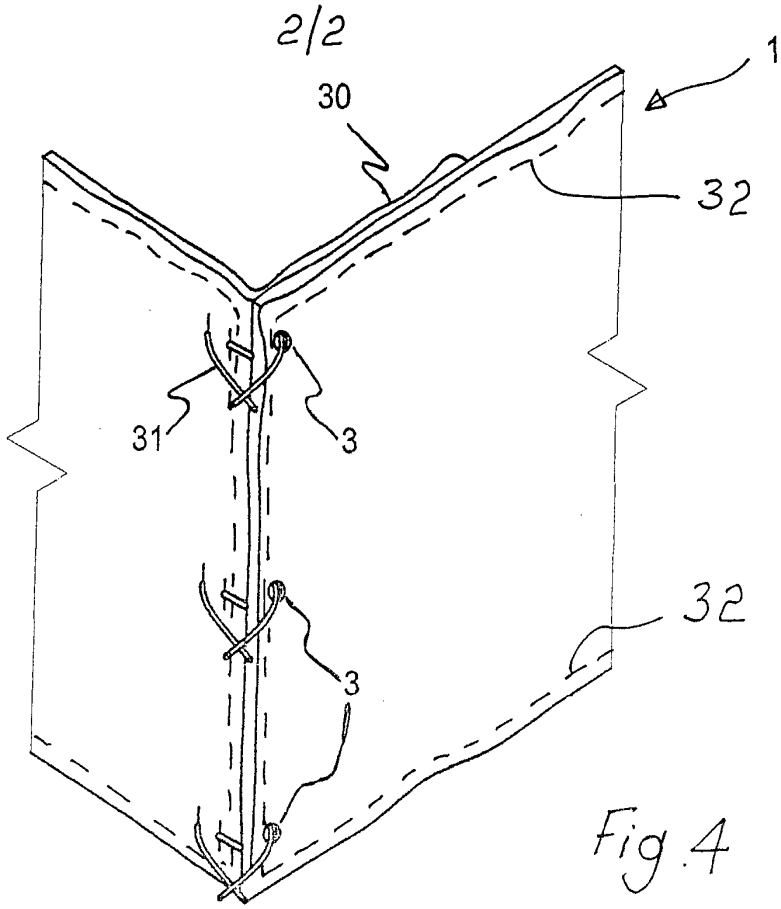

Fig. 4

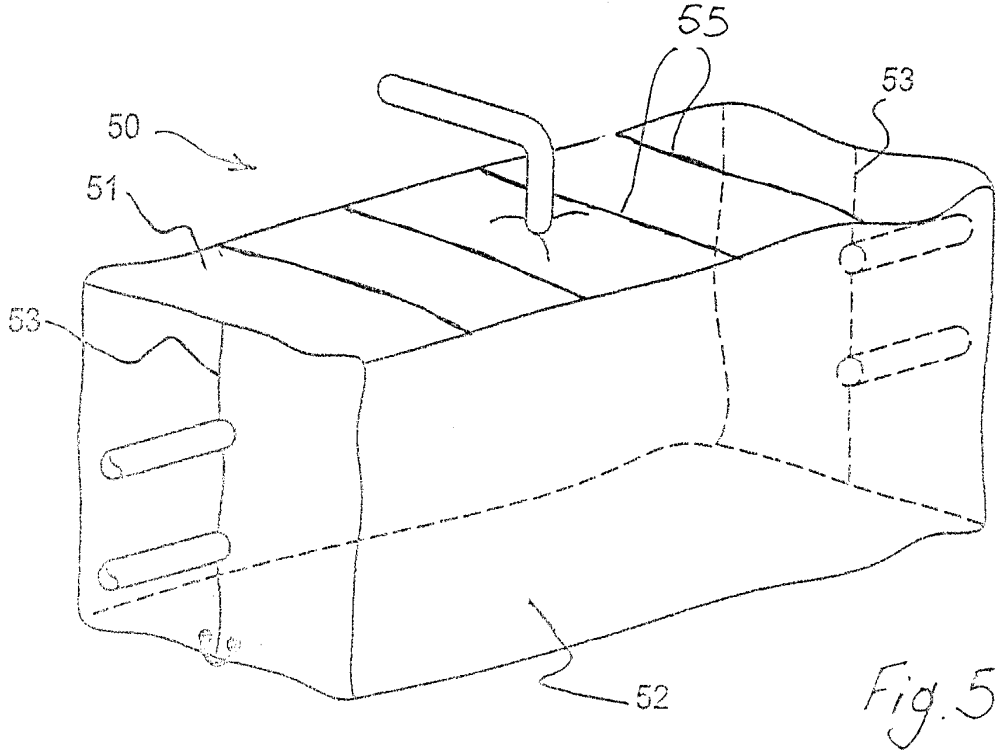

Fig. 5