

CONTAINER APPARATUS FOR THE STORAGE AND
TRANSPORTATION OF FLUID MATERIAL

This invention relates to container apparatus for the storage and transportation of fluid material such for example as liquids, powders and granular materials.

There are many known types of container for use in transporting fluid materials. Most of the known containers are non-returnable and the non-returnability of these containers adds significantly to the delivery price of the contents. Some of the known containers are however returnable and, of the returnable containers, those that are most cost effective are those that can be collapsed, since this generally reduces the transport costs of returning them. However, if the returnable collapsible containers are to yield significant economic advantages, then they must also be durable, resilient against weather during outside storage, and resilient against repeated erection and collapsing. They must also be light in weight.

One known returnable container which attempts to yield significant economic advantages is known from German patent specification No.1835831. This known collapsible container has elongate support members which are movable from a first position in which they extend between a rigid

top portion and a rigid base of the container to hold the rigid top portion firm with respect to the rigid base, to a second position in which they allow collapsible sides of the container to collapse. In the second position of the support members in which the collapsible sides have collapsed, the support members are actually taken off the rigid base and they are stored underneath the rigid base. The use of such elongate support members which are removable from the rigid base can lead to loss of the elongate support members, which then renders the container useless.

The container known from the German patent specification is such that the collapsible sides are in contact with the fluid material to be transported and, especially with liquid fluid materials, care has to be taken that leaks do not occur. The need for positively sealing the collapsible sides can lead to complicated sealing constructions and can also lead to difficulties in subsequently cleaning the container.

The container known from the German patent specification may also be such that the collapsible sides tend to bow when the container is full. This can cause excess wear of the sides, apart from causing problems in transport when full containers should be placed as close together as possible in a side by side manner.

It is an aim of the present invention to provide container apparatus which is returnable and which obviates or reduces the disadvantages mentioned above in connection with the German patent specification.

5 Accordingly, this invention provides container apparatus for the storage and transportation of fluid material, the container apparatus comprising a support container for supporting a liner bag containing fluid material, and the support container comprising four
10 collapsible sides which are made to form a continuous piece of flexible material, a rigid top portion which is attached to the collapsible sides, a rigid base, an access opening in the rigid top portion, constraint members which extend parallel to the base and which are for constraining
15 the collapsible sides when the support container is in use and contains the liner bag with the fluid material, and elongate support members which are positioned on the outside of the collapsible sides such that the elongate support members are adjacent the collapsible sides, the
20 elongate support members being such that they are movable about hinge means from a first position in which they extend between the rigid top portion and the rigid base to hold the rigid top portion firm with respect to the rigid base, to a second position in which they allow the
25 collapsible sides to collapse by folding between the

constraint members, the hinge means being such as to secure the elongate support members to the rigid base, and the collapsible sides being such that they are not attached to the rigid base.

5 The container apparatus may be used for transporting and storing fluid materials such for example as liquids, powders, particulate materials and small food products such for example as peas and peanuts. Generally, the collapsible container may be used for transporting and storing any
10 material that is able to flow. The rigid base facilitates the handling of the container apparatus for example on pallets by forklift trucks. Because the elongate support members are secured by the hinge means to the rigid base, it will be apparent that the elongate support members cannot
15 be removed from the rigid base and lost. The elongate support members also allow the container apparatus to be stacked. During transportation of the stacked container apparatus, sideways forces may be encountered, for example in lorries travelling around corners and the elongate
20 support members will then be effective to hold the rigid top portion firm with respect to the rigid base and thus stop any tendency for the collapsible sides to adopt the shape of a parallelogram. The use of the liner bag avoids the need

to have the collapsible sides leakproof, and the presence of the constraint members ensures that the collapsible sides do not bulge excessively when the support container is full with fluid material.

5 The collapsible sides may define a square or a rectangle in plan view. Generally, the collapsible sides may be of any suitable width and height.

10 Preferably, the container apparatus is one in which the collapsible sides are curved inwardly at their lower ends to define convex portions adjacent the rigid base. The convex portions enable the liner bag easily to follow the contour of the collapsible sides and this is advantageous because the liner bags can split if they do not closely follow the contour of the collapsible sides, 15 the collapsible sides being effective to support the liner bags.

20 Advantageously, the collapsible sides extend inwardly over the rigid base to define a drainage aperture. The drainage aperture is of use in allowing cleaning water to drain from the support container after it has been cleaned, for example hosed down.

25 The collapsible sides may be directly attached to the rigid top portion, for example by means of screws, rivets, bolts or other fastening means. Alternatively, the collapsible sides may be indirectly attached to the rigid top portion via an intermediate member.

The access opening in the rigid top portion will usually be circular but it may be of other shapes if desired.

The rigid base may be in the form of a pallet.

5 There may be any desired number of the constraint members, for example three, four or more of the constraint members.

10 The constraint members may be arranged closer together nearer the rigid base, in order to offer increasing constraint where the collapsible sides are likely to be subject to the most pressure in use of the container apparatus.

15 The constraint members may have any desired cross sectional shape. The constraint members will usually be such that four separate elongate members are joined together, for example by welding or crimping, to form a single square or rectangular constraint member.

20 Preferably, the constraint members are attached to the collapsible sides by being located in covers. The covers may terminate short of corners formed by the collapsible sides. The covers may be in the form of elongate patches which are welded to the collapsible sides.

Preferably, the container apparatus is such that there is one of the support members adjacent each corner formed by the collapsible sides.

25 Each elongate support member may comprise first and second parts which are separable from each other.

The first part may be pivotable about the rigid base, such that in its pivoted position it lies along an edge of an

upper surface of the rigid base.

The second part may be smaller than the first part and it may be rigidly fixed to the rigid top portion, the second part being of a length which allows the collapsible sides to collapse and which forms a support leg extending between the rigid top portion and the rigid base in the collapsed condition of the collapsible sides, whereby the container apparatus can be stacked with the second parts forming support legs which take the weight of the stacked container apparatus.

The first and the second parts may abut against each other and they may be held in position by a sliding member positioned inside the first and the second parts.

The sliding member positioned inside the first and the second parts may have an arm which extends through a slot in the second part and which is for being moved by hand to cause the required movement of the sliding member.

The container apparatus may be one in which the first part is hinged about the upper surface of the rigid base, and in which the rigid base is provided with a female member beneath the upper surface, the first part being held in its upstanding position by a sliding member positioned inside the first part and the female member.

The female member is preferably of the same cross sectional shape as the first part.

The sliding member in the first part and the female part may have an arm which extends through a slot in the first

part and which is for being moved by hand to cause the required movement of the sliding member.

5 The sliding member in the first and the second parts in the upstanding position of the first part may extend into the female part when the collapsible sides are in their collapsed condition.

10 The rigid top portion may be in the form of a frame. The frame may have side members which extend parallel to the base and to which the collapsible sides are attached, and leg members which connect to the elongate support members.

 The leg members preferably connect to the elongate support members by slotting in open top portions of the elongate support members.

15 The rigid top portion may include a lid for opening and closing the access opening.

 Preferably, the lid is a hinged lid but other types of lid may be employed if desired. The lid may be hinged to one of the side members or the lid may be hinged to a part of the rigid top portion.

20 The lid may be a flexible or a non-flexible lid. If the lid is a flexible lid, it may just be made of a material such for example as canvass or a plastics material. If the lid is a non-flexible lid, then it may be made from sheet metal if desired.

The access opening is for inserting and removing the liner bag, usually when the liner bag is in its empty condition. The access opening also enables the fluid material to be removed from the liner bag when desired.

5 The fluid material from the liner bag can also be removed from the bottom of the liner bag and, to this end, one of the collapsible sides of the container apparatus may be provided with an outlet aperture, the outlet aperture being positioned in the side adjacent the upper surface of the rigid base.

10 There may be one outlet aperture or there may be more than one outlet aperture if desired. For example, two outlet apertures may be employed for receiving pipes for connecting two units of the container apparatus together.

15 Advantageously, the container apparatus includes locating members for use when the container apparatus is to be stacked.

20 —There may be a locating member positioned on the rigid top portion above each elongate support member, and there may be a complementary locating member on the rigid base below each elongate support member.

The container apparatus may be such that each locating member on the rigid top portion is a stud having an upper portion of a first size and a lower portion of a second and larger size, and in which the complementary locating member on the rigid base has a recess for receiving the upper portion of the stud.

The stud may have flat or circular sides.

The container apparatus of the invention may include the liner bag. It is to be appreciated that the container apparatus of the invention may be manufactured and sold with or without the liner bag.

The container apparatus may be made of any desired materials. For example, the collapsible sides may be made of a fabric material. Presently preferred fabric materials are non-elastic woven fabric materials. The rigid top may be made of a metal. The rigid base may be made of wood or it may alternatively be made of a metal. Generally, the rigid base when it is in the form of a pallet can be of any design known for pallets.

The constraint members may be made of a metal. The covers for the constraint members may be made of a plastics material such for example as polyvinyl chloride.

The liner bags may be made of plastics materials, for example polyethylene, depending upon products to be carried.

Any number of units of the container apparatus may be linked together to form a desired bulk storage facility.

Embodiments of the invention will now be described solely by way of example and with reference to the accompanying drawings in which:

Figure 1 is a perspective view of container apparatus for the storage and transportation of fluid materials;

Figure 2 is a cross section through the support container shown in Figure 1;

Figure 3 is a side view of the support container shown in Figure 1;

Figure 4 shows in more detail part of the support container shown in Figure 3;

Figure 5 is a side view of the support container in a collapsed condition;

Figure 6 shows two of the support containers in a stacked and erect condition;

Figure 7 shows five of the support containers in a stacked but collapsed condition; and

Figure 8 is a perspective view of alternative container apparatus.

Referring to Figures 1 to 7, there is shown container apparatus 2 for the storage and transportation of fluid material. For ease of illustration, some parts of the container apparatus 2 have been omitted from some of the drawings.

The container apparatus 2 comprises a support container 4 for supporting a liner bag 6 containing the fluid material.

The liner bag 6 has side gussets 8 and an opening 10, and it may be any known type of liner bag.

The support container 4 comprises four collapsible sides 12, a rigid top portion in the form of a rigid top 14, a rigid base 16 which is in the form of a pallet, and an access opening 18 in the rigid top 14.

The support container 4 also comprises constraint members in the form of three ribs 20 for constraining the sides 12 of the support container 4 when the support container 4 is in use and contains the liner bag 6 with the fluid material. The container apparatus 2 also comprises four elongate support members 22 which are positioned on the outside of the four collapsible sides 12 such that one of the elongate support members 22 is provided adjacent each corner 24 formed by the collapsible sides 12. The elongate support members 22 are such that they are movable from a first position as illustrated in Figure 1 in which they extend between the rigid top 14 and the rigid base 16 to hold the rigid top 14 firm with respect to the rigid base 16, to a second position as shown in Figure 5 in which they allow the four collapsible sides 12 to collapse.

As shown in the drawings, the four collapsible sides 12 define a square but they may define a rectangle if desired. The four collapsible sides 12 may be of any desired height, so that generally, the support container 4 may be of any desired size. Obviously, the liner bag 6 will be of a size appropriate to the size of the support container 4. The liner bag 6 will usually be slightly larger than the support container 4 to ensure that the liner bag 6 is always supported by the support container 4.

As best seen from Figure 2, the four collapsible sides 12 are curved inwardly at their lower ends to define convex portions 26 adjacent the rigid base 16. The four collapsible sides 12 extend inwardly over the rigid base 26 as shown in Figure 2 to define a drainage aperture 28. Thus, if the inside of the support container 4 is hosed down or otherwise washed, the water can drain out through the drainage aperture 28.

The ends 30 of the collapsible sides 12 are not secured to the rigid base 16 and, if desired, a batten 32 may be provided adjacent the convex portions 26 to stop the ends 30 from sliding off the pallet during transport. The battens have only been shown in Figure 2 since they are not necessary and merely represent an optional feature.

The upper ends 34 of the collapsible sides 12 are turned back to define a pocket 36 through which a fixing bar 38 passes. The fixing bar 38 is fixed by means of screws clips or other fastener means (not shown) to the rigid top 14 so that the collapsible sides 12 are attached to the rigid top 14.

As can be seen from Figure 1, the access opening 18 in the rigid top 14 is circular.

The ribs 20 extend horizontally as shown. Three horizontally extending ribs are shown provided along each

collapsible side 12. More ribs may be employed if desired, for example four ribs. As shown in Figure 2, the two lowermost ribs 20 are closest together, in order to offer increasing constraint where the four collapsible sides 12 are likely to be subject to the most pressure in use of the container apparatus 2. The ribs 20 are made of metal rods of circular cross section.

The ribs 20 are located in elongate covers 40 which are made of a plastics materials such for example as polyvinyl chloride and which are welded to the fabric material of the collapsible sides 12. As an alternative to welding, stitching or other fastener means may be employed.

As shown most clearly in Figures 3 and 4, each elongate support member 22 comprises a first part 42 which is separable from a second part 44. The first part 42 is hinged to the rigid base 16 by hinge means in the form of a hinge 46 so that the first part 42 is pivotable about the rigid base 16 such that in its pivoted position it lies along an edge of an upper surface 48 of the rigid base 16. Each first part 42 has a base plate 49 to which one half of the hinge 46 is attached, the other half of the hinge 46 being attached to the upper surface 48.

The second part 44 is smaller than the first part 42 and it is rigidly fixed by welding to the rigid top 14 which is made of metal. The second part 44 is of a length which allows the four collapsible sides 12 to collapse to the position shown in Figure 5. It will be seen from Figure 5

that in the collapsed condition, the second part 44 forms a support leg extending between the rigid top 14 and the rigid base 16, whereby the container apparatus 2 and more specifically the support container 4 can be stacked as shown in Figure 7 with the second parts 44 forming support legs which take the weight of the stacked container apparatus 2.

In the erect condition of the support container 4, the first and the second parts 42,44 of the elongate support members 22, abut against each other and they are held in position by a sliding member in the form of a sliding bolt 50, see Figure 4. The sliding bolt 50 is positioned inside the first and the second parts 42,44. The sliding bolt has an arm 52 which extends through a pair of slots 54 in the second part 44. The arm 52 is for being moved by hand to cause the required movement of the sliding bolt 50. When the arm 52 is moved upwardly in its slots 54 from the position shown in Figure 1, the sliding bolt 50 slides clear of the top of the first part 42 and then the first part 42 can pivot about its hinge 46 as shown in Figure 3.

The rigid base 16 is provided with a female member in the form of a short tube 56 which is positioned between the top and bottom 58,60 respectively of the rigid base 16. The first part 42 is held in its upstanding position by a sliding member in the form of a sliding bolt 62 positioned inside the first part 42 and the tube 56. The tube 56 is of the same cross sectional shape as the first part 42.

The sliding bolt 62 has an arm 64 which extends through a pair of slots 66 in the first part 42.

5 The arm 64 is for being moved by hand to cause the required movement of the sliding bolt 62. When the sliding bolt 62 is moved to the top of the slots 66 as shown in Figure 1, the sliding bolt 62 clears the top of the tube 56 and then the first part 42 can pivot downwardly as shown in Figure 3. It will be seen from the position of the arms 64 and the slots 66 that the first parts 42 all pivot downwardly to follow one another around the periphery of the rigid base 16 so that 10 no two of the first parts 42 can pivot in the same direction and hit each other.

In the collapsed condition of the support container 4 as shown in Figure 5, the sliding bolt 50 enters the tube 56 15 so that the support container 4 is very stable in its collapsed condition in addition to being very stable in its erect condition.

The rigid top 14 is provided with a circular lid 68 which is hinged to the rigid top 14 by means of a hinge 70. 20 The lid 68 is for opening and closing the access opening 18.

As shown in Figures 1 and 3, one of the collapsible sides 12 is provided with a rectangular outlet aperture 72. The outlet aperture 72 is for enabling the fluid material in the liner bag 6 to be removed from the bottom of the support 25 container 4. If it is desired to remove the fluid material from the liner bag 6 through the access opening 18 and the

opening 10 in the neck portion 8 of the liner bag 6, then the outlet aperture 72 may be dispensed with. The outlet aperture 72 may also be advantageous in linking two or more units of the container apparatus 2 together by hoses (not shown) in order to provide a large bulk storage facility.

The support container 4 advantageously includes locating members for use when the container apparatus is to be stacked. More specifically, the support container 4 may be one in which a locating member 74 is positioned on the rigid top 14 above each elongate support member 22, and in which there is a complementary locating member 76 on the rigid base 16 below each elongate support member 22. As shown in Figures 1 and 3, the locating members 74 are in the form of studs having an upper square sided portion 78 which is of a first size, and a lower square sided portion 80 which is of a second and larger size. In the stacked condition of the support containers 4, as shown in Figures 6 and 7, the locating member 74 is received in a complementary recess (not shown) in the complementary locating member 76. Especially in the erect and stacked condition shown in Figure 6, the locating members 74, 76 are especially useful in preventing relative motion between different units of the container apparatus 2. With the container apparatus 2 stacked two or three units high in, for example, a lorry travelling around a bend, it will be appreciated that considerable force can be exerted on the containers and it is desirable to have them

as securely connected together as possible. The illustrated design of the elongate support members 22 is also advantageous in this connection in helping to avoid relative movement between the rigid top portion 14 and the rigid base 16 which might cause the support container 4 to assume the shape of a parallelogram.

The liner bag 6 may be of any appropriate type and shape. It may contain any desired fluid material from liquids to particulate materials and as diverse from drilling mud to foods.

Referring now to Figure 8, similar parts as in Figures 1 to 7 have been given the same reference numerals for ease of description. In Figure 8, it will be seen that the rigid top portion 14 shown in Figures 1 to 7 has been replaced by a rigid top portion in the form of a frame 88. The frame 88 has four horizontally extending side members 90 to which the collapsible sides 12 are attached by bolts or rivets 92. As can be seen from Figure 8, the collapsible sides are attached to the inside surfaces of the horizontally extending side members 90.

The frame 88 also has leg members 94 which are positioned at the four corners of the frame 88. The leg members 94 connect as shown to the elongate support members 22 by slotting in open top portions 96 of the elongate support members 22. The leg members 94 are provided with increased diameter sleeve portions 98 which rest on the tops of the elongate support members 22 to stop the leg members 94 sliding too far down the inside of the open top portions 96 of the elongate support members 22.

The frame 88 may be formed by welding or otherwise connecting the horizontally extending side members 90 and the leg members 94 together. As shown in Figure 8, one horizontally extending side member 90 is provided with a hinge 100 to which is attached a lid 102. The lid 102 can be a flexible or a non-flexible lid.

By comparing Figure 1 with Figure 8, it will be seen that the frame 88 connects to the elongate support members 22 without the use of the top sliding bolts 50 which are shown in detail in Figure 4. It is to be understood that the top sliding bolts 50 may be employed in the arrangement shown in Figure 8,

and the frame 88 with its leg members 94 may be employed in the support containers shown in Figures 1 to 7.

It is to be appreciated that the embodiments of the invention described above with reference to the accompanying drawings have been given by way of example only and that modifications may be effected. Thus, for example, the support container 4 could be generally rectangular instead of being square in shape as shown. Also, instead of being substantially cuboid as shown, the collapsible sides 12 could be made taller.

As shown, the first and the second parts 42, 44 are made of metal tubing which is square in cross section, but this can be circular in cross section. The illustrated shape of the pallet can be varied to any desired shape for giving ease of handling, for example by a fork lift truck and to this end any size, number and shape of openings 82 may be employed. In addition to giving good location, the locating members 74, 76 also provide a clearance space 84 for receiving the lid 68 in the stacked condition of the containers in their non-collapsed and their collapsed condition as shown in Figures

6 and 7. Also, the rigid base 16 could be in the form of a flat platform which could then be placed on a separate pallet. Further, in order to make the support containers 4 lockable together in their erect condition, for being stacked together during transport, the support containers 4 may be provided with locking means (not shown) such for example as locking catches. The flexible material for the collapsible sides can be a composite material such for example as a woven thread sandwiched between two layers of a plastics material. The woven thread may be nylon and the two layers of plastics material may be, for example, polyvinyl chloride. If desired, especially for larger support containers, the two layers of plastics materials may be replaced by a rubber material such for example as butyl rubber.

If desired, two liner bags 6 may be employed instead of one liner bag. The use of two liner bags 6 is in case one of them splits. During emptying of the contents of a liner bag 6 through its access opening 18, the liner bag 6 may be impaled on studs 86 which are positioned around the access opening 18 as shown and which extend at 45° to the rigid top 14. Other fastener devices for the liner bags 6 may be employed if desired. The liner bag 6 may be closed by string or by a draw fastener.



CLAIMS

1. Container apparatus for the storage and transportation of fluid material, the container apparatus comprising a support container for supporting a liner bag containing fluid material, and the support container comprising four collapsible sides which are made to form a continuous piece of flexible material, a rigid top portion which is attached to the collapsible sides, a rigid base, an access opening in the rigid top portion, constraint members which extend parallel to the base and which are for constraining the collapsible sides when the support container is in use and contains the liner bag with the fluid material, and elongate support members which are positioned on the outside of the collapsible sides such that the elongate support members are adjacent the collapsible sides, the elongate support members being such that they are movable about hinge means from a first position in which they extend between the rigid top portion and the rigid base to hold the rigid top portion firm with respect to the rigid base, to a second position in which they allow the collapsible sides to collapse by folding between the constraint members, the hinge means being such as to secure the elongate support members to the rigid base, and the collapsible sides being such that they are not attached to the rigid base.



2. Container apparatus according to claim 1 in which the collapsible sides define a square or a rectangle in plan view.

5 3. Container apparatus according to claim 1 or claim 2 in which the collapsible sides are curved inwardly at their lower ends to define convex portions adjacent the rigid base.

10 4. Container apparatus according to any one of the preceding claims in which the collapsible sides extend inwardly over the rigid base to define a drainage aperture.

5. Container apparatus according to any one of the preceding claims in which the access opening in the rigid top is circular.

15 6. Container apparatus according to any one of the preceding claims in which the rigid base is in the form of a pallet

20 7. Container apparatus according to any one of the preceding claims in which the constraint members are closer together nearer the rigid base, in order to offer increasing constraint where the collapsible sides are likely to be subject to the most pressure in use of the container apparatus.



8. Container apparatus according to any one of the preceding claims in which the constraint members are attached to the collapsible sides by being located in covers.

5 9. Container apparatus according to claim 8 in which the covers terminate short of corners formed by the collapsible sides.

10 10. Container apparatus according to any one of the preceding claims in which there is one of the elongate support members adjacent each corner formed by the collapsible sides.

15 11. Container apparatus according to any one of the preceding claims in which each elongate support member comprises first and second parts which are separable from each other.

12. Container apparatus according to claim 11 in which the first part is pivotable about the rigid base such that in its pivoted position it lies along an edge of an upper surface of the rigid base.



13. Container apparatus according to claim 11
or claim 12 in which the second part is smaller than
the first part and is rigidly fixed to the rigid top portion,
the second part being of a length which allows the collapsible
5 sides to collapse and which forms a support leg extending
between the rigid top portion and the rigid base in the
collapsed condition of the collapsible sides,
whereby the container apparatus can be stacked with the
second part forming support legs which take the weight
10 of the stacked container apparatus.

14. Container apparatus according to any one of
claims 11 to 13 in which the first and the second parts
abut against each other and are held in position by a
sliding member positioned inside the first and the second
15 parts.



15. Container apparatus according to claim 14 in which the sliding member positioned inside the first and the second parts has an arm which extends through a slot in the second part and which is for being moved by hand to cause the required movement of the sliding member.

16. Container apparatus according to any one of claims 11 to 15 in which the first part is hinged about the upper surface of the rigid base, and in which the rigid base is provided with a female member beneath the upper surface, the first part being held in its upstanding position by a sliding member positioned inside the first part and the female member.

17. Container apparatus according to claim 16 in which the female member is of the same cross sectional shape as the first part.

18. Container apparatus according to claim 16 or claim 17 in which the sliding member in the first part and the female



part has an arm which extends through a slot in the first part and which is for being moved by hand to cause the required movement of the sliding member.

5 19. Container apparatus according to claim 17 or claim 18 in which the sliding member inside the first and the second parts in the upstanding position of the first part extends into the female part when the collapsible sides are in their collapsed condition.

10 20. Container apparatus according to any one of the preceding claims in which the rigid top portion includes a lid for opening and closing the access opening.

21. Container apparatus according to claim 20 in which the lid is a hinged lid.

15 22. Container apparatus according to any one of the preceding claims in which one of the collapsible sides is provided with an outlet aperture, the outlet aperture being positioned in the side adjacent the upper surface of the rigid base.

20 23. Container apparatus according to any one of the preceding claims and including locating members for use when



the container apparatus is to be stacked.

24. Container apparatus according to claim 23 in which there is a locating member positioned on the rigid top portion above each elongate support member, and in which there is a complementary locating member on the rigid base below each elongate support member.

25. Container apparatus according to claim 23 or claim 24 in which each locating member on the rigid top portion is a stud having an upper portion of a first size and a lower portion of a second and larger size, and in which the complementary locating member on the rigid base has a recess for receiving the upper portion of the stud.

26. Container apparatus according to claim 25 in which the stud has flat sides.

27. Container apparatus according to any one of the preceding claims and including the liner bag.

28. Container apparatus for the storage and transportation of fluid material, substantially as herein described with reference to the accompanying drawings.
