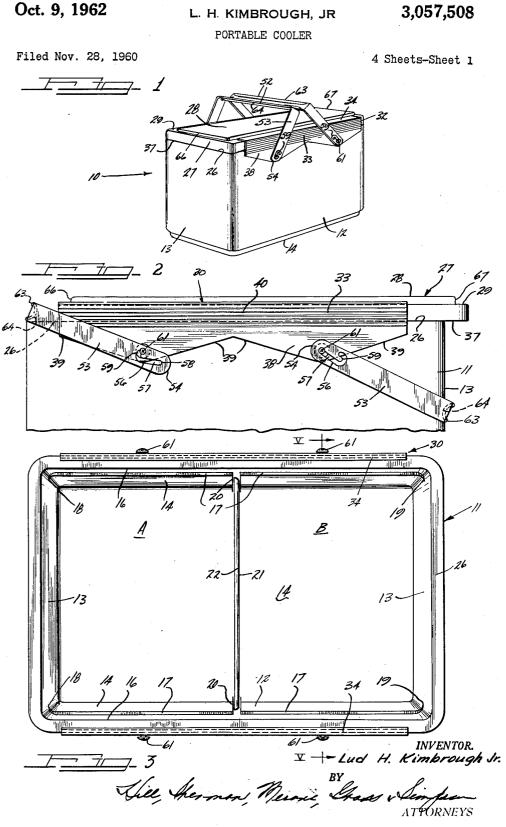
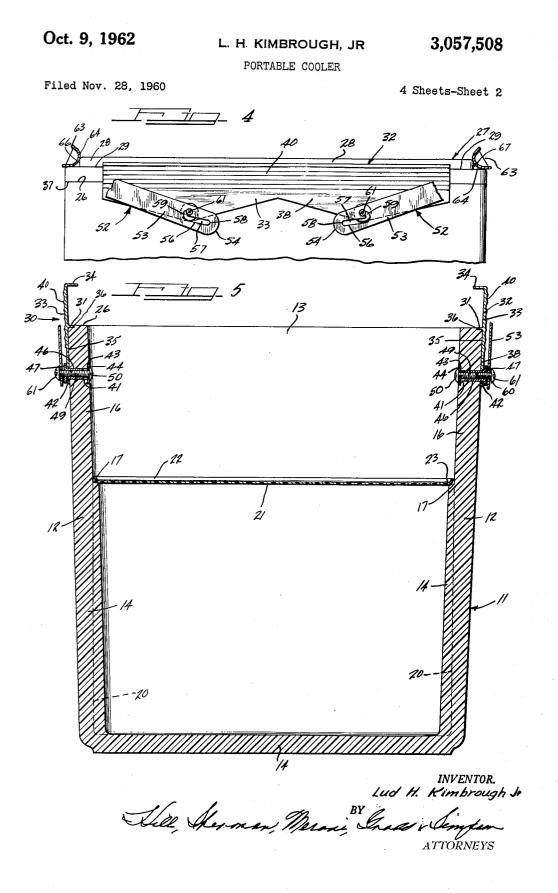
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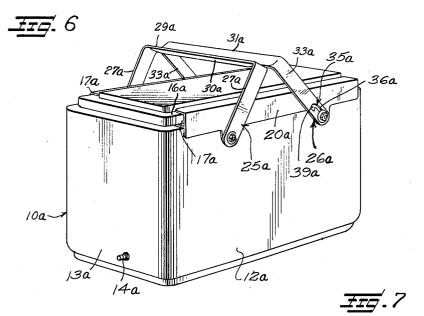
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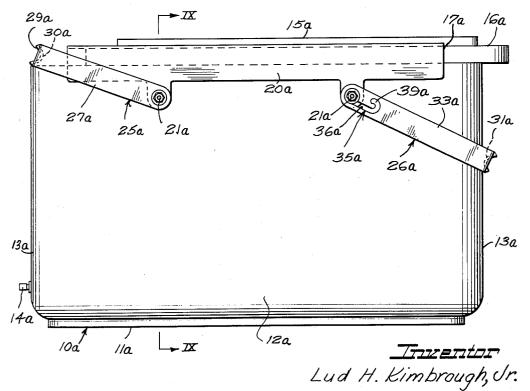
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PORTABLE COOLER

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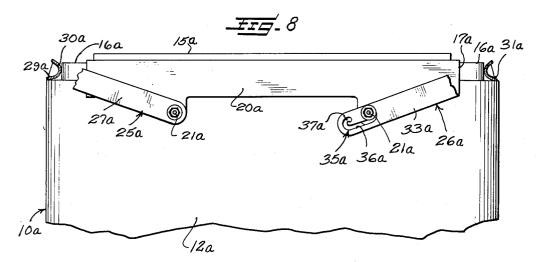
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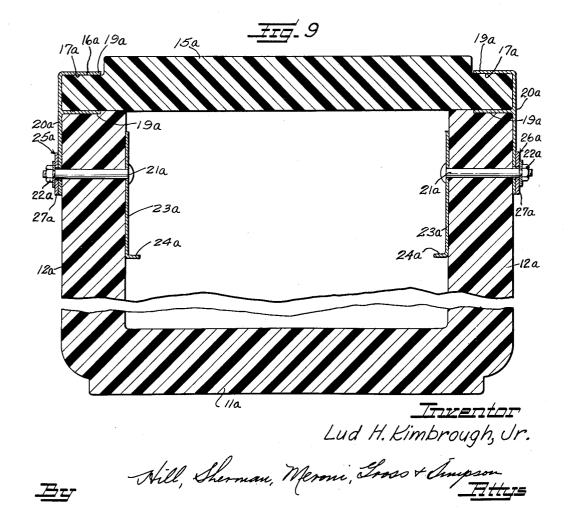
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United States Patent Office

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3,057,508 PORTABLE COOLER

Lud H. Kimbrough, Jr., Richmond, Va., assignor to Ideal Fishing Float Company, Inc., Richmond, Va., a corporation of Virginia Filed Nov. 28, 1960, Ser. No. 72,129 19 Claims. (Cl. 220-55.7)

This disclosure constitutes a continuation-in-part of my copending application, Serial No. 57,249, filed September 10 20, 1960, now merged with this disclosure.

It is an object of the present invention to provide an improved portable cooler made of a foamed thermoplastic resin such as expandable polystyrene wherein the material is shaped to form a container having an integral 15 wall construction prescribing shoulders and recesses for accommodating a separator tray member, thereby to selectively partition the interior of the container into separate compartments or to support the separator tray mem-20 ber to form a shelf in the container.

Another object of the present invention is to provide an improved handle construction for a container made of a foamed thermoplastic resin such as expandable polystyrene and wherein the lifting forces are diffused over a large surface area.

Another object of the present invention is to provide a portable cooler made of an expanded polystyrene material wherein a bracket made of an F-shaped extrusion is adhesively secured to the side walls of the container, thereby to simultaneously form a sliding trackway at the top of the container and forming a lifting bracket which spreads lifting forces over a wide area provided by the bonded joint.

Another object of the present invention is to provide 35an improved bushing joint for a lifting handle on a portable cooler.

Yet another object of the present invention is to provide a portable cooler having a slide top which can be locked in place by the handles to form a convenient table top

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A still further object of the present invention is to provide a handle construction for a slide top cooler wherein the handles are conveniently located for two people to carry the cooler is desired.

Many other features, advantages and additional objects of the present invention will become manifest to those versed in the art upon making reference to the detailed description which follows and the accompanying sheets of drawings in which a preferred structural embodiment 50 of a portable cooler incorporating the principles of the present invention is shown by way of illustrative example. On the drawings:

FIGURE 1 is a reduced perspective view illustrating a portable cooler embodying the principles of the present invention;

FIGURE 2 is a fragmentary side elevational view of the portable cooler shown in FIGURE 1;

FIGURE 3 is a plan elevational view of the portable cooler of FIGURE 1 but with the sliding top removed to reveal additional details of construction of the interior of the cooler:

FIGURE 4 is a view similar to FIGURE 2 but showing the sliding top in closed position and with the handle construction in locking position, part of the handles being 65 broken for additional clarity in understanding the principles of the invention;

FIGURE 5 is a cross-sectional view taken generally on line V-V of FIGURE 3.

FIGURE 6 is a perspective view of a form of portable cooler constructed in accordance with the invention;

FIGURE 7 is a view in side elevation of the cooler

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shown in FIGURE 6, with one handle in a released position and with the lid of the cooler shown in a partly open position;

FIGURE 8 is a fragmentary view in side elevation of the cooler shown in FIGURE 6, with the two handles in locking positions and certain parts of the handles broken away and shown in section; and

FIGURE 9 is a fragmentary sectional view taken substantially along IX-IX of FIGURE 6.

As shown on the drawings:

While the principles of the present invention are of general applicability, a particularly useful utilization of the inventive principles is made in a portable cooler illustrated generally at 10 in FIGURE 1.

The cooler 10 is preferably made of a light but rugged insulating material such as a foamed thermplastic resin. One material which has been advantageously used in accordance with the principles of the present invention is expandable polystyrene. Expandable polystyrene is produced as free-flowing beads containing an integral expanding agent. When exposed to heat, the beads expand to over sixty times their original volume, for example, to as low as one pound per cubic foot.

The foam-like material thus produced exhibits unique properties. Thus, there is a closed cell structure having controllable density and low thermal conductivity (K factor). Furthermore, the material has low water absorption, low water vapor permeability and displays the requisite degree of toughness and all around adaptability which makes it suitable for use as a cooler. Further, expandable polystyrene is dimensionally stable at ambient temperatures up to 175° F. and resists acids, alkalies and the lower alcohols.

The foamed material does not embrittle at low temperatures and demonstrates no loss in impact resistance even at extremely low temperatures.

The water absorption of the foamed material is extremely low because of the non-interconnecting cell structure. The water absorption in a typical sample, after 48 hours of immersion under hydrostatic pressure equivalent to 10 feet of water is less than 0.9% by volume

The foamed material also exhibits a very low water vapor transmission rate in the order of about 1.0 to 1.7 grains per hour per square foot per inch of thickness per inch of HG vapor pressure difference (by A.S.T.M. method C 355-54 T).

Foaming the expandable polystryrene beads ordinarily comprises two discrete steps, namely (1) heat pre-expanding the unconfined virgin beads, whereupon the translucent beads assume a spherical shape and become white in color and (2) further heat expansion of the pre-expanded beads within the shaping confines of a mold to produce a smooth-skinned, closed-cell foam of controlled density registering every detail of the mold.

In the cooler 10 of the present invention, the expandable polystyrene material is heat expanded within the shaping confines of a mold to produce a container 11 having side walls shown at 12, end walls shown at 13 and a bottom wall 14.

Since the material is capable of registering every detail of the mold, such characteristic has been exploited in accordance with the principles of the present invention to form each of the side walls 12 with a thickened lower portion 14 and a relatively thinner upper portion 16, thus forming at a medial portion of each respective side wall 12 an intermediate horizontal shoulder 17 which extends from one end 18 (FIGURE 3) adjoining one of the end walls 13 to the other end, as shown at 19 adjacent the other end wall 13. 70

The shaping characteristics of the material are further exploited in accordance with the principles of the

present invention by forming within the thickened lower wall portion 14 of each respective side wall 12 a vertically extending slot or recess 20 which has a depth, in the thickened portion 14, essentially equal to the difference in thickness between the thinner upper portion 16 and the 5 thicker lower portion 14 and which vertically extending slot or recess 20 extends from the bottom wall 14 upwardly through the lower thicker portion 14 of the side wall 12 and intersects the shoulder 17. It will be noted upon reference to FIGURE 3 that the slot or recess 20 10 is positioned approximately midway between the end walls 13, 13.

In accordance with the principles of the present invention, a separator tray 21 is provided which may be conveniently made of a plastic sheet form material and con- 15 stituting a generally rectangular plate having offset peripheral flanges 22 to lend rigidity to the plate. The dimensions of the separator tray 12 are such as to provide sliding engagement as at 23 with the spaced shoulders 17, 17, thereby permitting the separator tray 21 to be 20 slidably positioned anywhere along the length of the shoulders 17, 17 between the opposite end walls 13, 13. For example, the separator tray 21 may be positioned on the shoulders 17, 17 adjacent one end wall 13, thereby to form a shelf, while the opposite end of the container re- 25 mains unobstructed. That position of the separator tray 21 is illustrated in FIGURE 5 wherein the separator tray 21 is slidably positioned on the shoulders 17, 17.

The tray 21 can also be positioned vertically and is slidably received and confined within the slots or recesses 30 39 in retaining the parts in firm assembly with one an-20, 20 on opposite side walls 12, 12, whereupon the interior of the container between the thickened side wall portions 14, 14 is divided into two separate compartments including a compartment A and a compartment B, as shown in FIGURE 3.

The top of the side and end walls 12 and 13 forms an upper flat surface shown at 26 and on which is received a cover member 27. The cover member comprises a flat generally rectangular member conforming in configuration to the container 11 and includes an upstanding cen-tral boss portion 28. Thus, there is provided on the cover 27 a peripheral ledge 29 which surrounds the central boss 28.

In order to confine and guide the cover 27 in slidable relation on the top surface 26 of the container 11, there 45 is formed a guide means on each respective side wall 12 which guide means is indicated generally at 30.

More specifically, to accommodate the guide means, each side wall 12 is notched along its upper margin in a longitudinally extending direction as at 31. A generally 50 F-shaped bracket member is provided which conveniently comprises an extruded part made of a lightweight metal such as aluminum or the like and which bracket member is indicated at 32. The bracket 32 has a major leg portion 33 and two offset minor leg portions, including an 55 upper minor leg 34 and an intermediate minor leg 36. The intermediate minor leg 36 fits into the longitudinally extending notch 31 and the upper minor leg 34 is spaced therefrom so that the upper surface of the intermediate minor leg 36, together with the surface 26 on the side 60 walls 12, 12 and the lower surface of the upper minor leg 34 form a guideway for sliding, guiding and confining the cover 27. The upper minor leg 34 overlies the ledge 29, while the lower face 37 of the cover 27 slidably engages against the surface 26 and the upper surface of 65 of the bushing 49. the intermediate minor leg 36.

The major leg 33 has a lower portion 38 which extends below the intermediate minor leg 36 and lies adjacent the outer surface of each respective side wall 12. An adhesive is introduced between such portion of the bracket 70 33 and the adjoining side wall surface of the walls 12, as at 35, thereby to form a bonded joint between the bracket 33 and the corresponding side wall 12.

For aesthetic purposes, the lower portion 38 of the bracket 33 may be notched as at 39, thereby leaving a 75 handle and to form a manually graspable lifting portion,

pair of triangular-shaped hinge portions which are spaced longitudinally of the backet 33.

To further enhance the aesthetic appearance of the bracket 33, the outer upper face of the bracket may be scalloped as at 40.

An opening is formed at each respective side wall 12 at the triangular portions of the major leg 33 of the bracket 32 and a registering opening is also formed in the depending portion 38 of the bracket 32. Thus, the opening is shown in each respective side wall at 41 and in the bracket 32 the opening is shown at 42.

On the inside surface of each side wall, there is provided a shallow counterbore 43, thereby to receive and seat a washer 44.

Extending into the other end of the opening, there is provided an internally threaded bushing 46 which has an outer diameter substantially the same as the openings 41 Thus each bushing 46 is pressed into place and 42. through the openings 42 and 41 and a flange 47 formed on each bushing 46 overlies the edges of the opening 42 in the depending portion 38 of the bracket 32.

A fastening screw 49 is screw-threaded into each bushing 46 from the inside of the corresponding side wall 12 and each fastening screw 49 has a head 50 which overlies the edges of the opening formed in the washer 44. The washer 44 together with the fastening screw 49 and the bushing 46 when drawn together serve to further clamp each bracket 32 into firm assembly with a corresponding side wall 12, thereby assisting the adhesive bonded joint

other. In accordance with the principles of the present invention, the bushings 46 may also comprise a part of an improved handle assembly since the bushings snugly 35 fit the openings 42 in the bracket members 32 and lifting forces may be transmitted through the bushings 46 and into the bracket 32, whereupon such lifting forces will be dissipated or diffused through the extensive area provided by the bonded joint 35. This is particularly advantageous in connection with the use of an expanded thermoplastic resin since the unit pressures will be minimized.

More specifically, the handle construction includes two separate handle members, both of which are identical in structural and functional features and common reference numerals will be used to describe both handles.

Generally, each handle comprises a bail-like member so that the handle is indicated in the drawings generally at 52 and comprises an arm portion 53 which lies adjacent a corresponding side wall 12 and terminates in a rounded end portion 54.

Adjacent the rounded end portion 54, each arm portion 53 is formed with a bayonet-type slot indicated generally at 56. The bayonet-type slot 56 includes a portion 57 which extends substantially longitudinally of the arm portion 53 having an end portion 58 which is outermost of the arm portion 53, or, in other words, nearest the rounded end portion 54 and extending inwardly into the arm portion 53 to terminate in a transverse portion for a part of its length as at 59.

To provide a stud for entering the slot 56, there is provided a screw-threaded fastening member 60 having a head 61 which overlies the edges of the slot 56, the screw fastener 60 being screw-threaded into the threaded bore

The inner end of the screw fastener 60 engages and abuts against the inner end of the screw fastener 49. thereby affording a stop abutment which spaces the head 61 outwardly of the flange 47, thereby permitting the arm 53 of each corresponding handle 52 to have a good pivotal connection with the lifting assembly, the fastening member 60 in each instance forming a pivot pin.

Each bail-type handle member 52 has a transversely extending portion shown at 63. To impart rigidity to the the transverse portion 63 is curved as at 64, but otherwise extends straight across between the opposite arm portions 53, 53 of the corresponding handle to be disposed in generally parallel relation to an end wall 13.

When a corresponding stud provided by a screw fast-5 ener 60 is located in the longitudinally extending portion 57 of a slot 56, as in the right-hand portion of FIGURE 2, the handle 52 is free to swing from a lowermost position, as shown in FIGURE 2 wherein the portion 63 engages against the end wall 13 at an intermediate portion 10 thereof, to an elevated position, as shown in FIGURE 1. When both handles 52, 52 are swung upwardly to the position of FIGURE 1, it will be readily apparent the person can easily grasp both handles simultaneously. Further, the separate handles 52, 52 can be readily used 15 portions thereof form pivot pins for spaced handles 25a by two people if desired.

In this position, the pin provided by the screw fastener 60 engages against the end 58 of the slot and the effective length of the handle 52 is such as to swing the portion 63 past the corner provided by the end wall 13 20 adjacent the top surface 26.

By moving the handles 52 adjustably so that the stud provided by each corresponding screw fastener 60 enters the transverse portion 59 of each slot 56, the spacing dimension between the pin 60 and the innermost curve 25portion 64 of the handle 52 is such that the handle 52 cannot swing past the corner provided by the end wall 13. Moreover, the respective handles pivot into a blocking relation with the upstanding boss 23 and engage against the end abutment surfaces shown at 66 and 67, respectively.

In locking position, therefore, both handles 52 are positioned with the cross pieces 63 resting on the ledge 29 and engaging against the respective abutment sur-faces 66 and 67. In this locking position, the slidable 35 ably mounted on the bolts 21a, to accommodate movecover 27 is securely confined in closed relation on top of the cooler 10 and the cooler can be transported, for example, in the trunk of an automobile with minimum risk of spilling the contents thereof.

When it is desired to gain access to the interior of the 40 to an open position along the top of the cooler. cooler, one or the other of the handles 52 may quickly and conveniently be adjusted to swing the cross piece 63 to the down position, as shown in the right-hand part of the FIGURE 2 and the cover 27 may be slidably removed.

In FIGURES 6-9 the cooler 10a includes a bottom 11a parallel spaced side walls 12a extending upwardly therefrom, and end walls 13a connecting said side walls together. As shown in FIGURES 6 and 9, the bottom, side and end walls are integrally formed and are of sufficient thickness to efficiently insulate the cooler and to provide the required rigidity to accommodate the cooler and to provide the required rigidity to accommodate the cooler to readily be carried from place to place when full. A drain 14a is shown as leading from one of the end walls 13a to drain water therefrom, as where the cooler may contain ice.

The top surfaces of the side walls 12a and end walls 13a are flat to provide an uninterrupted flat surface along which a cover or lid 15a may slide to close the cooler and to afford access thereto.

The lid 15a has a recessed marginal or edge portion 16a extending thereabout. Opposite sides of the recessed marginal portion 16a slidably extend within facing channeled guides 17a, extending along opposite sides 12aof the cooler 10a. As shown in FIGURE 9, the channeled guides 17a include vertically spaced inwardly extending parallel leg portions 19a, extending inwardly from an outer plate portion 20a, extending downwardly from the leg portions 19a along the outer sides of the 70 side walls 12a. The lower leg portion 19a of each channel guide 17a is recessed within the top portion of the respective side wall 12a, a distance equal to a thickness of said leg portion to provide an uninterrupted top surface along which the lid 15a may slide, and to thereby 75 the slots 35a in opposite legs 33a thereof, to engage the

accommodate the undersurface of the lid 15a to be flush with the top surfaces of the side and end walls 12aand 13a.

The channelled guides 17a are secured to the side walls 12 as by longitudinally spaced bolts 21*a* extending through the side walls 12a from the inner sides thereof and having nuts 22a threaded on the outer ends thereof. As shown in FIGURE 9, the bolts 21*a* extend through inner reinforcing plates 23a, extending along the insides of the side walls 12a and having inwardly extending lower flanged portions 24a, forming supports for a shelf or the like, within the cooler. The bolts 21a extend through the plates 23a, the side walls 12a and the plate portions 20a of the channelled guides 17a, and the outer end and 26a.

The handle 25a is in the general form of a bail, generally U-shaped in form having parallel spaced legs 27a connected together by a transversely extending crosspiece or gripping portion 29a recessed inwardly from the top thereof to provide an inner rounded gripping surface 30a, forming a continuation of a rounded gripping surface 31a of the handle 26a when the handles 25a and 26a are together in the position shown in FIGURE 6, to enable the two handles to be readily grasped by the hand.

The handle 25a is movable downwardly about a fixed pivot from the carrying position shown in FIGURE 6, into a locking position into engagement with the top 30 surface of the associated end wall 13a, and when in this position may abut an end of the cover 15a, to retain said cover from slidable movement beyond said handle.

The handle 26a is also in the general form of a bail ment of the handle 21a beneath the top surface of the end wall 22a into the position shown in FIGURE 8, to provide an uninterrupted surface along the top of the cooler and accommodate the lid 15a to be slidably moved

As shown in FIGURES 6, 7 and 8, the handle 26a has parallel spaced legs 33a having a bayonet-like slot 35a extending along each leg. The slot 35a has a rectilinear portion 36a extending along each leg 33a and terminating into inturned outer and inner end portions 37a and 39a respectively. The terminal margins of the respective inturned end portions 37a and 39a form bearing surfaces about which the handle 26*a* may pivot about the bolts 21*a*, in either an extended or retracted position with respect to the end wall 13a, and be locked for pivotal movement into the downwardly extended release position when the terminal margins of the inturned end portions 37a are in pivotal engagement with the bolts 21a, and into the locking position shown in FIGURE 8 when 55 the terminal margins 39a of the inturned end portions 39a are in pivotal engagement with the bolts 21a, and upwardly into the carrying position shown in FIGURE 6, when the terminal margins 39a of the inturned end portions 37a are in engagement with the bolts 21a.

It may be seen with reference to FIGURES 7 and 8, 60 that the handle 25a, being movable about a fixed pivot is of such a length that its cross or gripping portion 29ais always in engagement with the top surface of the associated end wall 13a, when the handle 25a is pivoted to a down position, and that this gripping portion forms an abutment for one end of the cover 15a. The handle 26a may, however, be locked in position to rest on the top surface of the opposite side wall 13a and engage the opposite end of the lid 15a when the bolts 21a are in the terminal margins of the inturned end portions 39a of the slots 35a, to securely lock the lid 15a in position on top of the cooler. When, however, it is desired to open the cooler, it is merely necessary to grasp the handle 26a and slightly raise the handle and move the handle along

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terminal margins of the inturned end portions 37a with the bolts 21a, at which time the handle may be moved about the bolts 21a downwardly into the position shown in FIGURE 7, to release the cover for opening, or may be moved upwardly about said bolts into the position shown in FIGURES 6, to accommodate the carrying of the cooler from place to place.

Although minor modifications might be suggested by those versed in the art, it should be understood that I wish to embody within the scope of the patent warranted 10 hereon, all such modifications as reasonably and properly come within the scope of my contribution to the art.

I claim as my invention:

1. A portable cooler comprising expanded polystyrene shaped to form a container having upstanding side walls, 15 said side walls having an upper horizontal surface, each said side wall being notched at the outer margin of said upper horizontal surface to form a longitudinally extending recess, and an F-shaped bracket for each side wall and having a major leg and two spaced minor legs offset 20 from the major leg at the upper portion thereof and at a medial portion thereof, respectively, the medial minor leg of each said bracket being received in a corresponding notched recess and forming with said upper horizontal confining a container cover, and fastening means between said side walls and said major leg of said bracket.

2. A portable cooler as defined in claim 1, said fastening means comprising an adhesive forming a bonded joint between said bracket and said side walls.

3. A portable cooler as defined in claim 1, said fastening means comprising an opening formed in said major leg of said bracket, an internally threaded bushing extending through said opening and through an adjoining side wall in said side wall and in register with said bushing at the inside of said side wall, and a screw fastener having a head overlying said washer and threaded into said bushing.

4. A portable cooler as defined in claim 3, said fastening means further comprising an adhesive forming a 40 bonded joint between said bracket and said side walls, and lifting means connected to said bushing outwardly of said flange, whereby lifting forces are transmitted through said bushing and into said side wall over the extended area of said bonded joint.

5. A portable cooler as defined in claim 1, said fastening means comprising an opening formed in said major leg of said bracket, an internally threaded bushing extending through said opening and into the adjoining side wall and having a flange overlying said major leg, and lifting means 50connected to said bushing for transmitting lifting forces through said bushing and into said bracket for diffusion over the extended area of said bonded joint.

6. A portable cooler made of a foamed thermoplastic resin such as expandable polystyrene and shaped to form a container having upstanding side walls, a metal platelike bracket having a flat face abutting against the outside surface of said side wall and extending substantially between opposite ends of the container below the top edge of the side wall, an adhesive forming a bonded joint between said face and the outside surface of said side wall and being coextensive in area with said face, and a lifting bushing having a flange overlying said plate-like bracket, said bracket having an opening through which said bushing extends into the adjoining side wall, whereby lifting forces applied to said bushing are transmitted to the side walls throughout the area of said bonded joint.

7. A portable cooler made of a foamed thermoplastic resin such as expandable polystyrene and shaped to form a container having upstanding side walls, a metal plate-like bracket having a flat face abutting against the outside surface of said side wall and extending substantially between opposite ends of the container below the top edge of the side wall, an adhesive forming a bonded joint between said face and the outside surface of said side wall 75 8

and being coextensive in area with said face, and lifting means connected to said bracket including a bushing, said bracket having an opening through which said bushing extends into the adjoining side wall, whereby lifting forces are transmitted to said side wall throughout the area of said bonded joint.

8. A portable cooler comprising a container having side walls, track means at the top edge of said side walls for confining and guiding a sliding cover, and a pair of bails, each having an arm on opposite sides of said container, a slot formed in each arm extending longitudinally of said arm for a part of its length and transversely of said arm the remainder of its length, said side walls having a stud connected thereto entering each corresponding slot, each said bail having a body portion positioned in a locking position relative to an adjoining end of the sliding cover when each said corresponding stud is seated in said transverse portion of said slot, and said body portion being pivotally movable downwardly out of locking position when said studs are positioned in the longitudinally extending portions of the slots, thereby permitting the cover to be removed from either end or selectively locked in place.

9. A handle and cover assembly comprising means surface and the upper minor leg a guideway for slidably 25 forming side and end walls of a container, a cover on said side and end walls, guide rails on said side walls confining and guiding said cover for removal from either end of said container, a bail-type handle on each end of said container including an arm lying adjacent each side wall and a por-30 tion swingable from a first position against the adjoining end wall to a second carrying position above the container, and each said arm having formed therein a bayonet slot, each said side wall having a stud for each arm entering a corresponding bayonet slot and normally pivotand having a flange overlying said major leg, a washer 35 ally supporting the handles for swinging movement between said first and second positions, each said bayonet slot having a transversely offset portion, said handles being relatively movable to locate said studs in the correspond-

> ing offset portions of the bayonet slots, whereupon the handle is positioned in a third blocking position engaging the end of the cover and locking the cover against sliding movement and removal from the guide rails.

10. A portable cooler comprising expanded polystyrene shaped to form a container having upstanding side walls, 45 said side walls having an upper horizontal surface, each

side wall being notched at the outer margain thereof to form a longitudinally extending recess in said upper horizontal surface, an F-shaped bracket for each said side wall and having a major leg and two spaced minor legs offset from the major leg at the upper portion thereof

and at a medial portion thereof, the medial minor leg of each said bracket being recessed in a corresponding notched recess and forming with said upper surface and the upper minor leg a guideway for slidably confining 55

a container cover, and a handle and cover assembly comprising a cover confined and guided on said upper horizontal surface in said guideway, a bail-type handle on each end of said container including an arm lying adjacent each side wall and a cross piece extending between said

60 arms, said cross piece being swingable from a first position engaging against an adjoining end wall to a second carrying position spaced above the container, each said arm having formed therein a bayonet slot, each said side wall having a stud for each arm, said stud entering a cor-

65 responding bayonet slot and normally pivotally supporting the handles for swinging movement between said first and second positions, each said bayonet slot having a transversely offset portion wherein said handles are relatively movable with said studs entering the corre-

- sponding offset portions of the bayonet slot to position 70 the cross piece in a third blocking position engaged against the end of said cover and locking said cover against sliding movement and removal from the guideway.
- 11. A portable cooler made of a foamed thermoplas-

tic resin such as expandable polystyrene shaped to form a container having upstanding side walls, a metal platelike bracket having a flat face abutting against the outside surface of said side wall and extending substantially between opposite ends of the container below the top $\mathbf{5}$ edge of the side walls, an adhesive forming a bonded joint between said face and the outside surface of the side wall and being coextensive with the area of said face and lifting means connected to said bracket comprising a pair of bails, each having an arm on opposite 10 to limit slidable movement of said lid with respect to sides of said container, a slot formed in each arm extending longitudinally of said arm for a part of its length and transversely of said arm for the remainder of its length, said bracket having a stud connected thereto for each arm, each stud entering a corresponding slot, said 15 plate-like bracket forming a guideway at the top of the container, a sliding cover confined in said guideway and slidable endwise of the container for removal therefrom, each said bail having a cross piece in a locking position relative to an adjoining end of the sliding cover 20 when each corresponding stud is seated in said transverse portion of said slot, said cross pieces being pivotally movable downwardly out of locking position when said studs are positioned in the longitudinally extending portions of the slots, thereby permitting the cover to be 25 removed from either end of the container.

12. In a handle assembly for a portable cooler, an internally threaded flanged bushing extending into a side wall of the cooler, a washer positioned on the inside surface of the cooler wall, a headed fastening screw-30 threaded into said bushing through said washer, said flange being positioned on the outside of the container wall, and a fastening screw threaded into said threaded bushing from the outside of the container, the inner ends of said fastening screws forming an abutment stop whereby the second mentioned fastening screw extends outwardly of the flange and forms a lifting means for the container.

13. A portable cooler comprising a container having a lower wall, side and end walls, a cover on said con- 40 tainer comprising a flat lower surface engaging the top of the side and end walls and including an upstanding centrally disposed boss surrounded by a ledge, thereby forming abutment surfaces at opposite ends of said boss, and a pair of bail-type handles each including a cross piece and two arm portions, said arm portions extending adjacent said side walls and having formed therein a slot near the free end of each arm portion extending longitudinally of said arm portion for a portion of its length and transversely of said arm portion the remainder of its length, means forming a guide confining said cover for sliding movement endwise of said container, and stud means on said side walls for each arm portion to provide a stud for entering said slot, each cross piece of each handle being positioned on said ledge and in blocking position relative to an abutment surface on said boss of said cover when a corresponding stud is seated in said transverse portion of said slot, said cross piece being pivotally movable downwardly out of locking position and against an adjoining end wall when the studs are positioned in the longitudinally extending portions of the slots, thereby permitting the cover to be slidably removed from either end of the container.

14. In a portable receptacle, a box-like molded container molded from a light insulating material and having a bottom, parallel spaced side walls extending upwardly therefrom, end walls connecting said side walls together and an open top, metallic slides extending along the top of said side walls and having channel-like slidable guides opening toward each other, said slides having plate portions extending downwardly along the outsides of said side walls, reinforcing plates extending along the inner sides of said side walls, longitudinally spaced laterally extending bolts, extending through said reinforcing plates, said side walls and said plate portions, and securing said 75 tending therefrom, a first handle being pivotally mounted

guides to said container certain of said bolts in opposed side walls of said container being in alignment along lines perpendicular to said side walls, a lid slidably movable along said guides for closing said container and affording access thereinto, two handles generally U-shaped in form having transverse gripping portions and parallel legs extending therefrom, a first handle being pivotally mounted on one aligned pair of said bolts for movement into engagement with the top surface of said end wall said end wall, a second handle being slidably and pivotally mounted on another aligned pair of said bolts for extensible and retractable movement with respect to said bolts, and being movable into engagement with the top surface of an associated end wall when in a retracted position, to lock said lid to said container, and being movable beneath the top surface of said end wall when in an extended position, to accommodate slidable movement of said lid along said container to afford free access thereto.

15. In a portable receptacle, a box-like molded container molded from a light insulating material and having a bottom, parallel spaced side walls extending upwardly therefrom, end walls connecting said side walls together and an open top, metallic slides extending along the top of said side walls and having channel-like slidable guides opening toward each other, said slides having plate portions extending downwardly along the outsides of said side walls, reinforcing plates extending along the inner sides of said side walls, longitudinally spaced laterally extending bolts, extending through said reinforcing plates, said side walls and said plate portions, and securing said guides to said container certain of said bolts in opposed side walls of said container being in alignment along lines 35 perpendicular to said side walls, a lid slidably movable along said guides for closing said container and affording access thereinto, two handles generally U-shaped in form having transverse gripping portions and parallel legs extending therefrom, a first handle being pivotally mounted on another aligned pair of said bolts for movement into engagement with the top surface of said end wall to limit slidable movement of said lid with respect to said end wall, a second handle being slidably and pivotally mounted on aligned bolts of said bolts for extensible and retractable movement with respect to said bolts, and being movable into engagement with the top surface of an associated end wall when in a retracted position, to lock said lid to said container, and being movable beneath the top surface of said end wall when in an extended position, to accommodate slidable movement of said lid along said container to afford free access thereto, the slidable and pivotal connection between said second mentioned handle and said bolts comprising slots extending along the legs of said handle and having locking portions at 55 opposite ends thereof, accommodating pivotal movement of said handle about either of said locking portions.

16. In a portable receptacle, a box-like molded container molded from a light insulating material and having a bottom, parallel spaced side walls extending upwardly 60 therefrom, end walls connecting said side walls together and an open top, metallic slides extending along the top of said side walls and having channel-like slidable guides opening toward each other, said slides having plate portions extending downwardly along the outsides of said 65 side walls, reinforcing plates extending along the inner sides of said side walls, longitudinally spaced laterally extending bolts, extending through said reinforcing plates, said side walls and said plate portions, and securing said guides to said container certain of said bolts in opposed 70 side walls of said container being in alignment along lines perpendicular to said side walls, a lid slidably movable along said guides for closing said container and affording access thereinto, two handles generally U-shaped in form having transverse gripping portions and parallel legs ex-

on one aligned pair of said bolts for movement into engagement with the top surface of said end wall to limit slidable movement of said lid with respect to said end wall, a second handle being slidably and pivotally mounted on another aligned pair of said bolts for extensible 5 and retractable movement with respect to said bolts, and being movable into engagement with the top surface of an associated end wall when in a retracted position, to lock said lid to said container, and being movable beneath the top surface of said end wall when in an ex- 10 tended position, to accommodate slidable movement of said lid along said container to afford free access thereto, the slidable and pivotal connection between said second mentioned handle and said bolts comprising slots extending along the legs of said handle and having inturned end 15 portions extending inwardly from opposite ends of said slots, and having terminal end portions having bearing engagement with said bolts, to lock said handle for pivotal movement about said bolts about either of said terminal end portions. 20

17. In a portable receptacle, a container having parallel side walls and end walls having aligned horizontal top surfaces, a lid guided for slidable movement along said horizontal top surfaces, two handles in the forms of bails having parallel legs extending along the outer sides 25 of said side walls and cross pieces connecting the outer ends of said legs together, pivot pins mounted on said side walls and pivotally mounting said legs on said side walls for movement about longitudinally spaced parallel axes extending perpendicular to said side walls, said cross 30 ated side wall, the lower legs of said parallel legs being pieces of said handles being movable into engagement with the top surfaces of said end walls to lock said lid to said container, and one of said handles having slots extending along the legs thereof, and pivotally and slidably engaging the pivot pins therefor, to accommodate movement of said cross piece beyond the associated end wall and downwardly therealong, to accommodate sliding movement of said lid along said container to an open position, and said slots having locking extremities at at least one end thereof, locking said cross piece from move- 40 forming a support for a shelf and the like. ment beyond its associated end wall.

18. In a portable receptacle, a box-like container having a bottom, parallel spaced side walls, end walls connecting said side walls together and having aligned horizontal top surfaces, a lid shorter in length than the length 45 of said container slidable along said aligned horizontal top surfaces, two handles in the general forms of bails having parallel legs and cross pieces connecting said legs together, said legs extending downwardly along the outer sides of said side walls, and pivot pins pivotally mount- 50

ing said legs on said side walls for movement about axes extending perpendicular to said side walls, at least one handle being slidable along its pivot pins and having aligned slots extending along the legs of said handle and having slidable engagement with said pivot pins, said slots terminating at at least one end thereof into aligned terminal end portions extending angularly with respect to said slots, locking said handle in retracted relation with respect to said pins and said side walls into engagement with the top surface of an associated end wall, to lock said lid to said container, and accommodating the positioning of said handle beyond the associated end wall and beneath the top surface of said end wall downwardly along said end wall, to accommodate slidable movement of said lid into an open position.

19. A portable receptacle comprising a box-like molded container molded from a light weight insulating material and having a bottom, side walls extending upwardly therefrom, end walls connecting said side walls together, said side and end walls having aligned upper horizontal surfaces, and said side walls being notched along the outer marginal portion of said upper horizontal surfaces to form outwardly opening recesses extending for the length of said side walls, metallic channelled guides for said lid extending along said side walls, each channelled guide having two spaced legs extending parallel to the upper surface of the associated side wall and having a leg portion extending perpendicularly to said parallel legs and depending therefrom along the outer side of the associrecessed in said outwardly opening recesses extending along the marginal portions of said side walls with their

upper surfaces flush with the horizontal upper surfaces of said side walls, and fastening means between said side 35 walls and said depending legs including reinforcing plates extending along the inner sides of said side walls and bolts extending through said reinforcing plates, said side walls and said depending legs, said reinforcing plates having inwardly extending facing lower flanged portions

References Cited in the file of this patent UNITED STATES PATENTS

621,711	Richardson Mar. 21, 1899
1,379,519	Bjornson May 24, 1921
1,698,929	Wentorf Jan. 15, 1929
1,958,737	Best May 15, 1934
2,632,580	Biddlecombe Mar. 24, 1953
2,942,301	Price June 28, 1960