

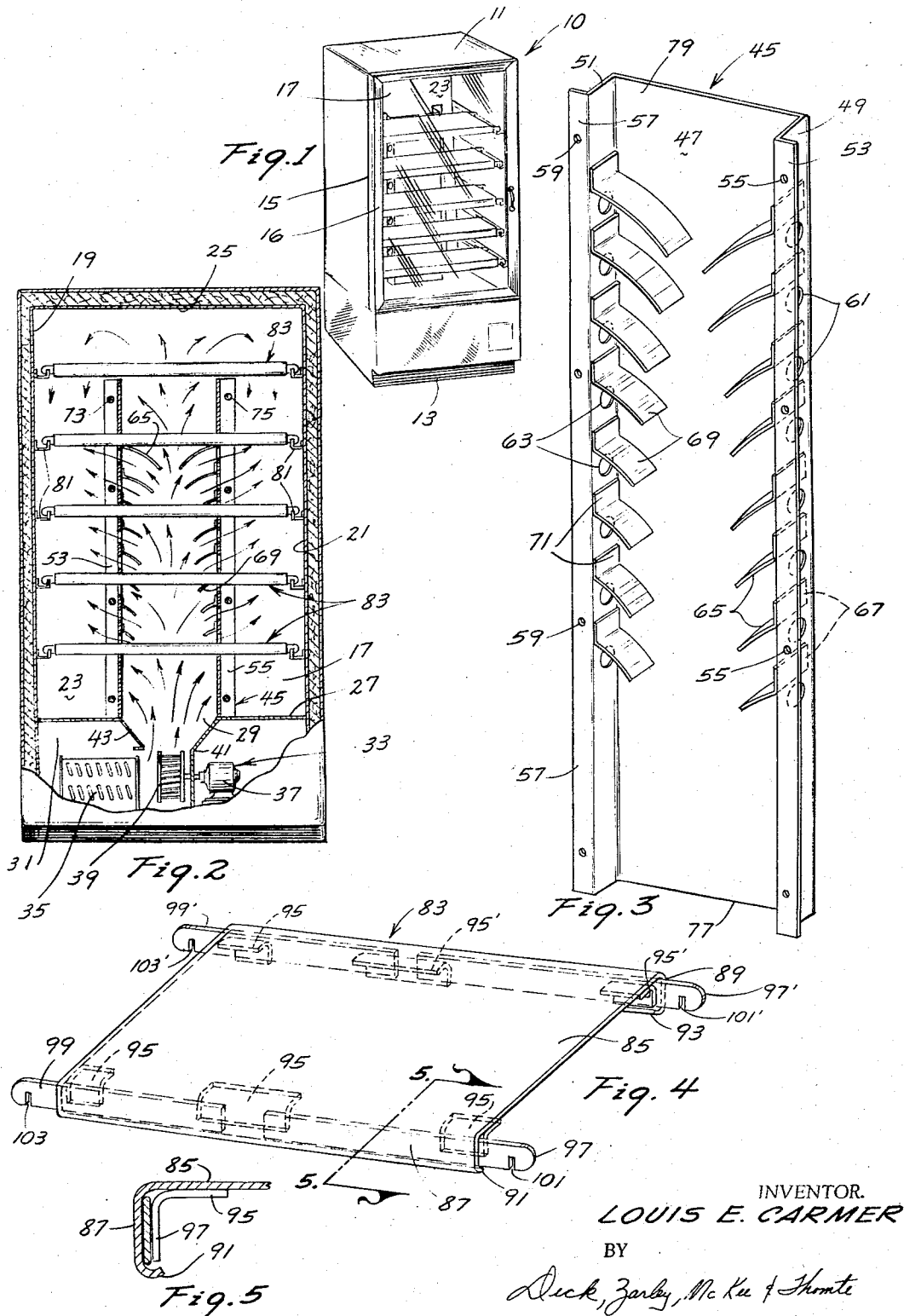
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COOLER DEVICE

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COOLER DEVICE

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This invention relates to a cooler device and more particularly to a cooler device for beverages and the like.

The conventional coolers are unsatisfactory for two reasons. First, the conventional coolers are not provided with storage shelves which can be utilized for more than one particular size of cooler. Secondly, the conventional coolers do not have adequate means provided therein for properly circulating the cold air within the cooler which results in zones of different air temperature within the cooler cabinet.

Therefore, a principal object of this invention is to provide an adjustable shelf means for a cooler which can be used in a variety of different cooler cabinets.

Another principal object of this invention is to provide an air conduit means for a cooler device which insures uniform air temperature throughout the cooler cabinet.

A still further object of this invention is to provide a cooler device which is economical of manufacture, durable in use and refined in appearance.

These and other objects will be apparent to those skilled in the art.

This invention consists in the construction, arrangements, and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, specifically pointed out in the claims, and illustrated in the accompanying drawings in which:

FIG. 1 is a front perspective view of the cooler device;

FIG. 2 is a front view of the cooler device with a portion of the front thereof cut away and with a portion of the air conduit cut away to more fully illustrate the invention;

FIG. 3 is a rear perspective view of the air conduit;

FIG. 4 is a perspective view of the shelf assembly with the broken lines indicating the slide assembly structure; and

FIG. 5 is a sectional view of the shelf assembly as seen on line 5-5 of FIG. 4 at an enlarged scale.

The numeral 10 generally refers to a cooler cabinet having an upper end 11, lower end 13 and a front 15. Cabinet 10 is provided with a storage compartment 17 which is defined by opposite sidewalls 19 and 21, rear wall 23, top wall 25 and a bottom wall 27 having a rectangular opening 29 formed in its central rear portion. Cabinet 10 is also provided with a compartment 31 below bottom wall 27 wherein is located conventional cooling equipment generally referred to by the reference numeral 33. Cooling equipment 33 includes a refrigeration unit 35 and a motor 37 having a fan 39 operatively secured thereto. A partition 41 separates fan 39 from motor 37 and extends upwardly to bottom wall 27 adjacent opening 29. As best seen in FIG. 2, a partition 43 extends downwardly and inwardly from bottom wall 27 adjacent opening 29. A door 16 is hingedly secured to one side of front 15.

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The air conduit portion of this invention is generally indicated by the reference numeral 45 and includes a vertical front wall portion 47, and vertical sidewall portions 49 and 51 extending transversely rearwardly from the opposite sides of front wall portion 47 respectively. A flange 53 extends transversely outwardly from the rearward end of sidewall portion 49 and is provided with a plurality of openings 55 formed therein. A flange 57 extends transversely outwardly from the rearward end of sidewall portion 51 and is provided with a plurality of openings 59 formed therein.

As best seen in FIG. 3, sidewall portions 49 and 51 are provided with a plurality of vertically spaced holes 61 and 63 extending therethrough respectively. A plurality of baffles 65 are secured by their base portion 67 to the inside surface of sidewall portion 49 by any convenient means and extend downwardly and inwardly with respect thereto. As best seen in FIGS. 2 and 3, the length of the baffle 65 increases from the lower end to the upper end of the conduit. As also best seen in FIGS. 2 and 3, the base portion 67 of each of the baffles 65 is positioned above an opening 61. A plurality of baffles 69 are secured by their base portions 71 to the inside surface of sidewall portion 51 by any convenient means and extend downwardly and inwardly with respect thereto. As best seen in FIGS. 2 and 3, the length of baffles 69 increases from the lower end to the upper end of the conduit. Each of the base portions 71 of baffle 69 are positioned above an opening 63.

Each of the baffles 65 and 69 are positioned on sidewall portions 49 and 51 respectively so that their respective rearward edge is in the same plane as the rearward surface of flanges 53 and 57. It should be noted that the forward edges of baffles 65 and 69 do not abut against front wall portion 47 but are spaced slightly to the rear thereof.

Conduit 45 is secured to backwall 23 of cabinet 10 by means of a plurality of bolt members 73 and 75 extending through openings 55 and 59 respectively. As shown in FIG. 2, air conduit 45 is mounted on backwall 23 so that its lower open end 77 is in communication with opening 29 in bottom wall 27 and so that its open upper end 79 terminates at a point below top wall 25.

A plurality of vertically spaced, substantially U-shaped brackets 81 are secured to sidewalls 19 and 21 by any convenient means. A plurality of adjustable shelf assemblies 83 are detachably secured to and extend between oppositely disposed brackets 81 (FIG. 2). Each of the shelf assemblies 83 are comprised of an upper flat portion 85 having downwardly extending side edges 87 and 89. Side edges 87 and 89 are provided with an inwardly extending flange 91 and 93 extending along the length thereof respectively. A plurality of L-shaped retainers 95 are welded to the bottom surface of flat portion 85 so that the flange 97 thereof is in a spaced relation to the inside surface of side 87. As illustrated in FIG. 4, three retainers 95 are secured to flat portion 85 adjacent side 87. It can be seen in FIG. 4 that the center retainer 95 is longer than the retainers 95 at the opposite ends thereof. Elongated slides 97 and 99 are slidably mounted in the space between side 87 and the flanges 97 of retainers 95 in the manner best illustrated in FIGS. 4 and 5. Slides 97 and 99 are provided with a notch 101 and 103 in their

lower outer ends respectively which are adapted to receive brackets 81.

As also illustrated in FIG. 4, three retainers 95' are secured to flat portion 85 adjacent side 89. It can be seen in FIG. 4 that the center retainer 95' is longer than the retainers 95' at the opposite ends thereof. Elongated slides 97' and 99' are slidably mounted in the space between side 89' and the flanges 97' of retainers 95' in the manner best illustrated in FIGS. 4 and 5. Slides 97' and 99' are provided with a notch 101' and 103' in their lower outer ends respectively which are adapted to receive brackets 81.

Slides 97, 97', 99 and 99' can be slidably extended or retracted with respect to the shelf to accommodate cabinets or machines having various lateral widths. This is especially important when a cooler is being remodeled to provide a more attractive and efficient cooler.

The structure of the air conduit 45 insures that the air temperature within the storage compartment will be uniform throughout and will not contain zones of air having different temperatures. In operation, fan 39 forces cold air upwardly through the interior of air conduit 45. The upwardly moving cold air is deflected by the various baffles 65 and 69 and forced outwardly through openings 61 and 63. The fact that the length of the baffles is increased from the lower end to the upper end of the air conduit 45 insures that the cold air will be discharged through the openings 61 and 63 uniformly along the length of the air conduit 45. Any air which is not deflected by baffles 65 and 69 is discharged through the open upper end 79 of air conduit 45. The structure of the baffles insures that the cold air will be uniformly distributed throughout the storage compartment and zones of air having different temperatures will not be permitted to occur. Air conduit 45 and shelf assembly 83 may be constructed of any suitable material such as an aluminum alloy or the like.

The component parts of this invention, namely transparent door 16, adjustable shelf assemblies 83, brackets 81 and air conduit 45 may comprise a kit which is extremely useful in converting a receptacle such as a cooler. The outmoded cooler could be converted to an efficient and attractive cooler through the use of the component parts of the kit identified above.

Thus it can be seen from the foregoing that the device accomplishes at least all of its stated objectives.

Some changes may be made in the construction and arrangement of my cooler device without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a cooler device,

a cabinet having upper and lower compartments, said upper compartment having a vertical back wall,

a cooling means in said lower compartment,

an elongated vertically disposed air conduit operatively secured to said back wall including a front wall portion spaced from said upper compartment back wall and also including spaced apart opposite side walls extending from said front wall portion to said upper compartment back wall, said air conduit having open upper and lower ends, the open lower end of said conduit being in communication with said cooling means,

and a plurality of vertically spaced baffles secured to each of said side walls in confronting relation in said air conduit,

said side walls of said conduit each having a plurality of vertically spaced air discharge openings formed therein each of the baffles on each of sidewalls extending downwardly and away from their respective sidewalls, said cooling means directing the air upwardly between the baffles.

2. The cooler device of claim 6 wherein an air discharge opening is formed in said sidewalls at a position between the upper and lower ends of each of said baffles.

3. The device of claim 6 wherein each of said baffles has a back and front surface with respect to said conduit front wall portion, the front surfaces of said baffles being spaced from said conduit front wall portion, and the back surfaces of said baffles being positioned adjacent said upper compartment back wall.

4. The device of claim 6 wherein the upper end of said air conduit is spaced below the upper end of said upper compartment back wall.

5. The device of claim 6 wherein said upper compartment also includes spaced apart vertical sidewalls and a front portion and wherein a plurality of adjustable shelf assemblies are detachably secured to and extend between said upper compartment sidewalls between said air conduit front wall portion and said upper compartment front portion.

6. In a cooler device, a cabinet having upper and lower compartments, said upper compartment having a vertical back wall, a cooling means in said lower compartment, an elongated vertically disposed air conduit operatively secured to said back wall including a front wall portion spaced from said upper compartment back wall and also including spaced apart opposite sidewalls extending from said front wall portion to said upper compartment back wall, said air conduit having open upper and lower ends, the open lower end of said conduit being in communication with said cooling means,

and a plurality of vertically spaced baffles secured to each of said side walls in confronting relation in said air conduit, said side walls of said conduit each having a plurality of vertically spaced air discharge openings formed therein,

the length of said baffles on each of said sidewalls increasing from the lower end to the upper end of said conduit,

each of the baffles on each of said sidewalls extending downwardly and away from their respective sidewalls, said cooling means directing the air upwardly between the baffles.

7. In a cooler device, a cabinet having upper and lower compartments, said upper compartment having a vertical back wall, a cooling means in said lower compartment,

an elongated vertically disposed air conduit operatively secured to said back wall including a front wall portion spaced from said upper compartment back wall and also including spaced apart opposite side walls extending from said front wall portion to said upper compartment back wall, said air conduit having open upper and lower ends, the open lower end of said conduit being in communication with said cooling means,

and a plurality of vertically spaced baffles secured to each of said side walls in confronting relation in said air conduit,

said side walls of said conduit each having a plurality of vertically spaced air discharge openings formed therein,

each of said baffles having a back and front surface with respect to said conduit front wall portion, the front surfaces of said baffles being spaced from said conduit front wall portion and the back surfaces of said baffles being positioned adjacent said upper compartment back wall, said cooling means directing the air upwardly between the baffles.

8. A conversion kit for a cooler, comprising a transparent door member adapted to be operatively secured to the cooler, a plurality of supporting brackets adapted to be operatively secured to the interior of the cooler, a

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plurality of shelf assemblies adapted to be detachably secured to said supporting brackets, and an air conduit adapted to be secured to the cooler for establishing a controlled flow of air within the cooler, said air conduit having a front wall and side walls, and having a plurality of baffles secured to each of the side walls, said air conduit also having a plurality of air discharge openings in the side walls adjacent the point of attachment of said baffles, said conversion kit, in combination with a cooler being adapted to convert the cooler to a storage cabinet having uniform air temperature therein.

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