June 20, 1939. C. S. KAUFFMAN 2,163,491

COOLER

Filed April 1, 1938

FIG. 1.

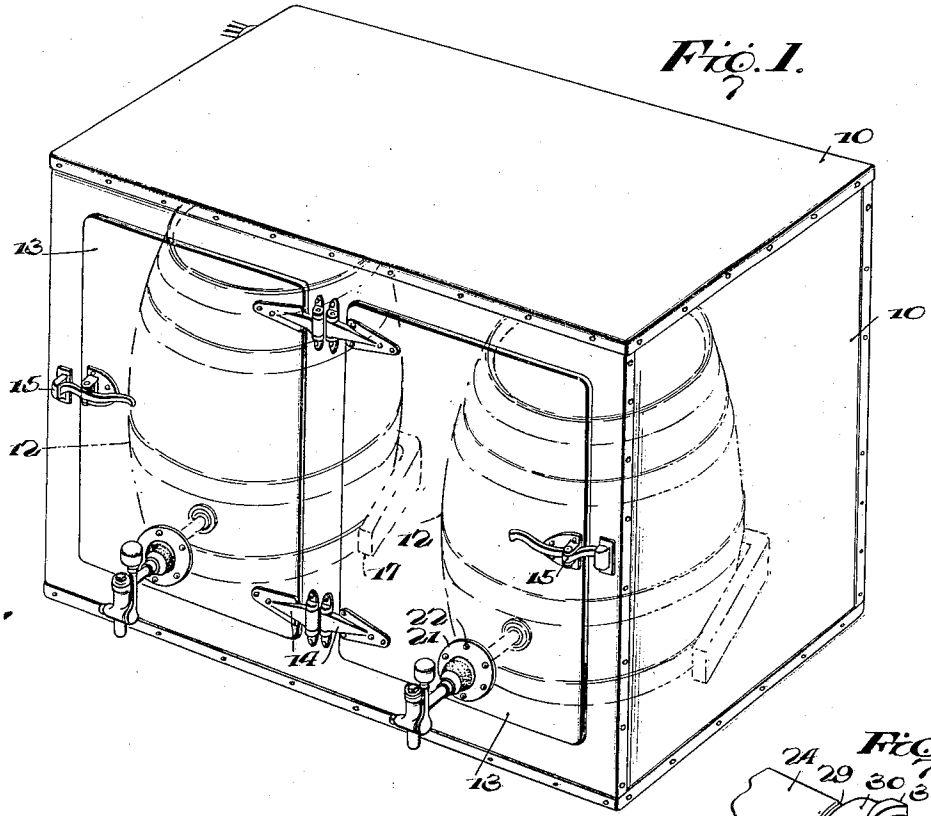


FIG. 2.

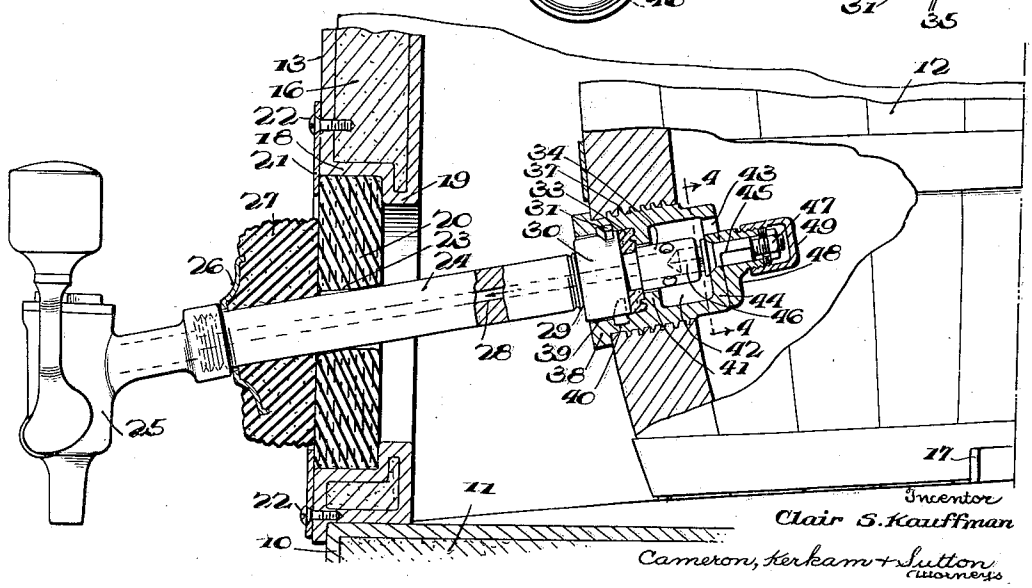


FIG. 4.

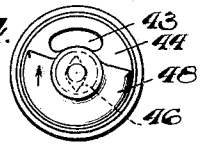
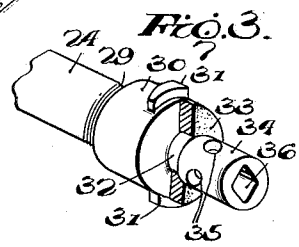


FIG. 3.



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COOLER

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6 Claims. (Cl. 225—40)

This invention relates to coolers and more particularly to coolers for beverages in which kegs containing the beverage are placed within the cooler, and thereafter tapping means carried by the door of the cooler are engaged with the kegs in the cooler after the door of the cooler has been shut to draw off the contents of the keg.

It is accordingly an object of this invention to provide a novel cooler for beverages in kegs in which novel means are carried by the door of the cooler to engage the keg in the cooler when the door of the cooler is shut to draw off the contents of the keg.

Another object of my invention is to provide a novel cooler for beverages in kegs in which the kegs are placed within the cooler, suitable doors being provided for this purpose, and novel taps are carried by the doors to engage the kegs when the doors are closed to draw off the beverages in the kegs.

Another object of my invention is to provide a novel cooler for beverages in kegs in which novel means are provided for mounting novel tapping means in the door of the cooler to allow play of the tapping means when engaging the keg within the cooler when the door of the cooler is closed.

Another object of this invention is to provide a novel cooler for beverages in kegs in which novel means are provided for mounting novel tapping means in the door of the cooler for engagement with the keg in the cooler when the door is closed to prevent escape of cooling medium around the mounting of the tap and yet allow play of the tap when engaging the keg.

Another object of my invention is to provide a novel cooler for beverages in kegs having novel tapping means carried by the door of the cooler for engagement with the keg in the cooler when the door of the cooler is closed which is cheap to manufacture, durable, efficient, convenient and compact.

Other and further objects of my invention will appear as the description thereof proceeds.

The cooler of the present invention is capable of receiving many different embodiments and so for the purposes of illustration one embodiment of the cooler of the present invention is shown in the accompanying drawing, but it is to be expressly understood that this drawing is for the purpose of illustration only and it should not be construed as a limitation of the present invention. To determine the scope of the present invention reference should be had to the appended claims.

In the accompanying drawing:

Fig. 1 is a view of one embodiment of my novel cooler arranged to receive two kegs of beverage and provided with two doors, each carrying tapping means;

Fig. 2 is a sectional view of a part of Fig. 1 showing novel means for mounting a suitable tapping means in the door of the cooler and the means used to engage the tapping means and the keg;

Fig. 3 is a view of the male portion of a suitable tapping means; and

Fig. 4 is a view on the line 4—4 of Fig. 2 showing the valve actuated by the male portion of the tapping means.

In the several figures in which like reference characters indicate similar parts, 10 is any suitable container made of any suitable material insulated at 11 and of any desired size to receive one or more kegs of beverage 12. For each keg 12 a door 13 is provided in the cooler 10 having hinges 14 and latch 15 and of a size sufficient to allow the easy removal or insertion of the keg 12. Each door 13 is suitably insulated at 16. Carried by the bottom of container 10 are spacers 17, one for each keg 12, adapted to receive the kegs 12 and center them in the proper position opposite their respective doors 13. Suitable cooling means, not shown, are provided within container 10.

Each door 13 is cut away at 18 and provided with shoulders 19. Mounted in cut away portion 18 and against shoulders 19 is any suitable resilient ring 20 made of insulating material, preferably of heavy rubber, and held in place in cut away portion 18 by the circular plate 21 suitably secured to door 13 as by screws 22. Ring member 20 is centrally bored at 23 to receive the shank 24 of any suitable tap 25 in a firm but yielding grip. Loosely mounted on shank 24 is collar 26 adapted to engage a resilient ring 27 of suitable material, such as sponge rubber, surrounding shank 24 and adapted to contact member 20 to assure an insulated joint between shank 24 and member 20. Shank 24 is internally bored at 28, the size of boring 28 being selected to properly control the flow of beverage from the keg 12 when tap 25 is open.

Shank 24 is threaded on its inner end as at 29 (Fig. 3). Mounted on threaded portion 29 of shank 24 is centraly bored enlargement 30 having cam action look surfaces 31 mounted thereon. Enlargement 30 is of reduced diameter at 32 to

receive washer 33 and is extended at 34. Extension 34 is provided with orifices 35 opening into the central boring to allow the flow of liquid to tap 25 and has let into its end a non-circular recess 36.

Suitably secured in the proper place in keg 12, as by threads 37, is housing 38 recessed at 39 to receive the enlargement 30 and provided with cam grooves 40 to receive cam lock surfaces 31 to urge washer 33 into engagement with partition 41 of housing 38 to form a fluid tight joint therewith when enlargement 30 is rotated into locked position. Housing 38 is provided with a chamber 42 into which extension 34 projects when enlargement 30 is in locked position and a suitable orifice 43 in end 44 of housing 38 places chamber 42 in communication with the interior of keg 12. Passing through end 44 and rotatably mounted therein is valve shaft 45 projecting into chamber 42 and terminating in a non-circular projection 46 adapted to be received by non-circular recess 36 of extension 34 of enlargement 30 when enlargement 30 is inserted in recessed portion 39 of housing 38. Mounted on valve shaft 45 and secured for rotation therewith as by nut 47 is valve member 48 adapted to close orifice 43, a cap 49 being provided to cover nut 47.

With the embodiment of the novel cooler of the present invention assembled as above described and as shown in Fig. 2, if it is desired to remove keg 12 from container 10 then tap 25 is grasped and rotated in a counter-clockwise direction as seen in Fig. 1 through a quarter of a revolution. Counter-clockwise rotation of tap 25 rotates shank 24 and enlargement 30 in a counter-clockwise direction and disengages cam lock surfaces 31 and cam grooves 40 and at the same time rotates extension 34, extension 46, valve shaft 45 and valve 48 to close orifice 43. As cam lock surfaces 31 have been disengaged from cam grooves 40, latch 15 may now be opened and door 13 opened to withdraw enlargement 30 from housing 38. The keg 12 may now be removed through door 13 and a new or full keg placed in the cooler. When the keg is placed in the cooler it is pushed into spacers 17 to assure the proper position of the keg 12 in the cooler, care being taken that housing 38 is toward door 13 where it can be engaged by the enlargement 30 when door 13 is shut. With keg 12 properly placed in the cooler, door 13 is shut bringing enlargement 30 into recess 39 of housing 38, flexible rings 29 and 27 providing sufficient play of shank 24 to obtain this engagement. With enlargement 30 in recess 39 tap 25 is rotated a quarter turn in a clockwise direction as viewed in Fig. 1 engaging cam lock surfaces 31 in cam grooves 40 and forcing washer 33 against partition 41 to form a fluid tight joint therewith. At the same time non-circular recess 36 is brought into engagement with non-circular extension 46 of valve shaft 45 and rotates valve shaft 45 and valve 48 opening orifice 43 and allowing the liquid in keg 12 to enter chamber 42 aind to pass through orifices 35 into boring 28 and to tap 25 through which it may be drawn as desired.

It will be understood that the kegs 12 may be vented in any suitable manner to permit flow by gravity of the beverage from the keg, the size of the boring 28 being proportioned to limit the flow to the desired rate. Preferably the bottom of the cooler 10 is inclined so that the kegs 12 stand in an inclined position to facilitate the flow of beverage and to reduce waste residues in the kegs.

It will now be apparent that the present invention provides a novel cooler for beverages in kegs in which the kegs are placed within the cooler, means being carried by the door of the cooler to engage the keg when the door is shut to draw off the contents of the keg, the tapping means being mounted in the door of the cooler by novel mounting means which is flexible yet affords an insulated joint with the door to prevent heat transfer between the interior of the cooler and the outer atmosphere, the cooler of the present invention being cheap to manufacture, durable, efficient, convenient and compact.

To those skilled in the art changes to or modifications of the above described illustrative embodiment of the present invention may now be suggested without departing from the inventive concept of the present invention. Reference should therefore be had to the appended claims to determine the scope of the present invention.

What is claimed is:

1. In a cooler for beverages in kegs, a cooler casing, a door for said cooler casing, means for mounting a keg within said casing independently of said door whereby said door may be opened and closed without movement of the keg and tapping means carried by said door and so constructed and arranged as to engage the keg within the cooler when said door is shut to draw off the contents of the keg.

2. A cooler for beverages in kegs including a door for said cooler, means for mounting a keg within said cooler independently of said door whereby said door may be opened and closed without movement of the keg, a tap resiliently mounted in said door and extending interiorly in said cooler to engage the keg mounted within the cooler only when said door is shut to draw off the contents of the keg.

3. A cooler for beverages in kegs including a door for said cooler, means for mounting a keg within said cooler independently of said door whereby said door may be opened and closed without movement of the keg, a tap resiliently mounted in said door and extending interiorly in said cooler to engage the keg mounted within the cooler when said door is shut to draw off the contents of the keg, and means within the cooler for positioning the keg in alignment with the tap when the door is shut.

4. A cooler for geverages in kegs including a door for said cooler, means for mounting a keg within said cooler independently of said door whereby said door may be opened and closed without movement of the keg, a resilient ring of heat insulating material carried by said door and a tap carried by said resilient ring and extending through the resilient ring interiorly in said cooler to engage the key in the cooler when said door is shut to draw off the contents of the keg.

5. A cooler for beverages in kegs including a door for said cooler, a resilient ring of insulating material mounted in said door, a tap, a shank for said tap extending through said resilient ring and interiorly in said cooler, a second resilient ring carried by said shank exteriorly of said cooler for engagement with said first named resilient ring and means on said shank designed to engage the keg with longitudinal movement of said shank within the cooler when said door is closed to draw off the contents of the keg, the longitudinal movement of said shank in engaging the keg causing axial movement of the tap in the door to compress said second resilient ring against said first ring.

6. A cooler for beverages in kegs including a door for said cooler and a keg within said cooler, a resilient ring of insulating material mounted in said door, a tap, a shank for said tap extending through said resilient ring and interiorly in said cooler, a second resilient ring carried by said shank exteriorly of said cooler for engagement with said first named resilient ring, a male member on said shank and a female member for engagement with said male member carried by said keg and so constructed and arranged that when said female member is engaged by said male member when said door is shut to draw off the contents of the keg said shank and said tap are moved longitudinally to compress said second named resilient ring against said first named resilient ring.

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