

(No Model.)

J. BARKER & L. L. FRIERSON.
PACKING REFRIGERATOR.

No. 431,865.

Patented July 8, 1890.

Fig. 1.

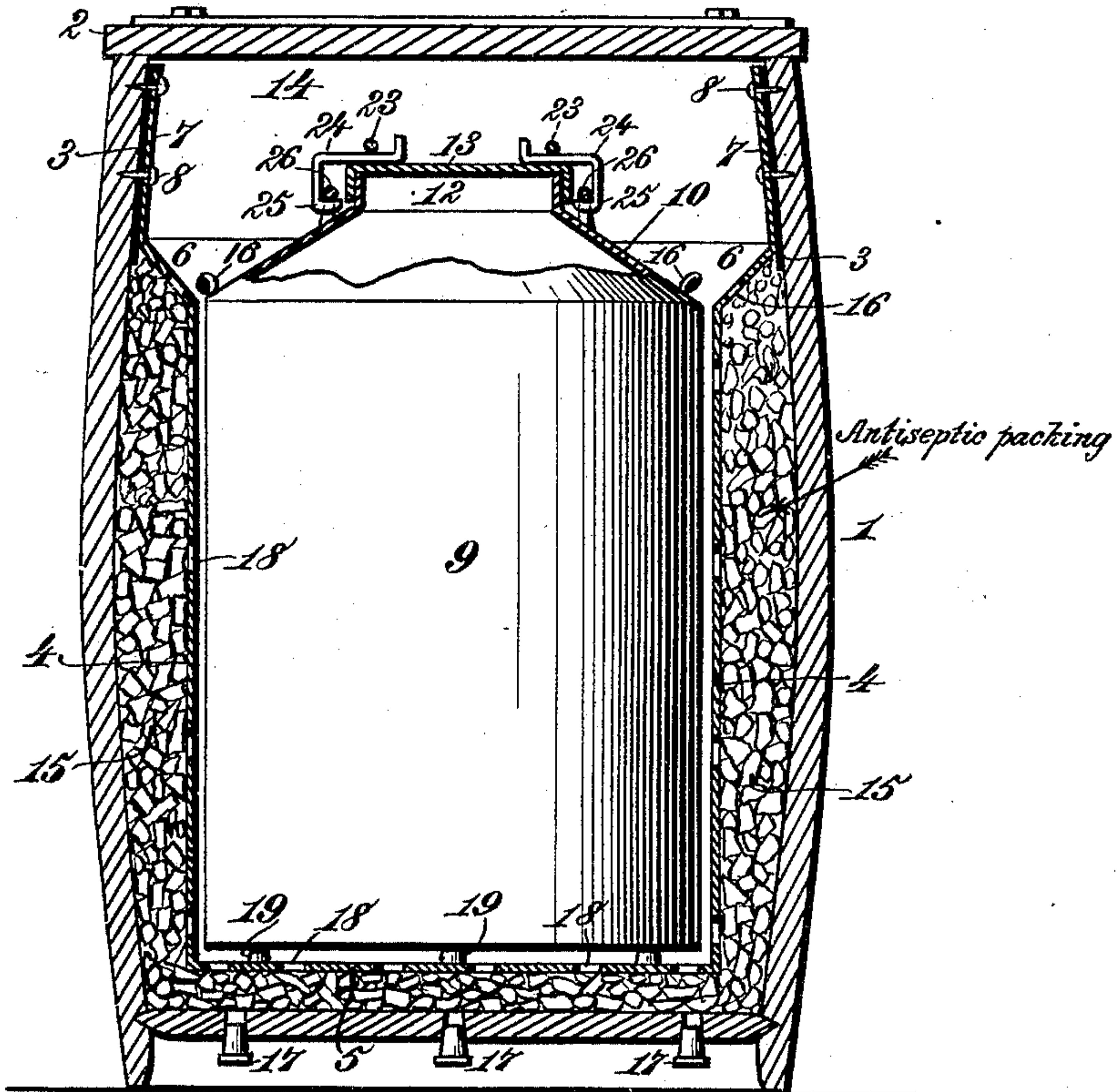
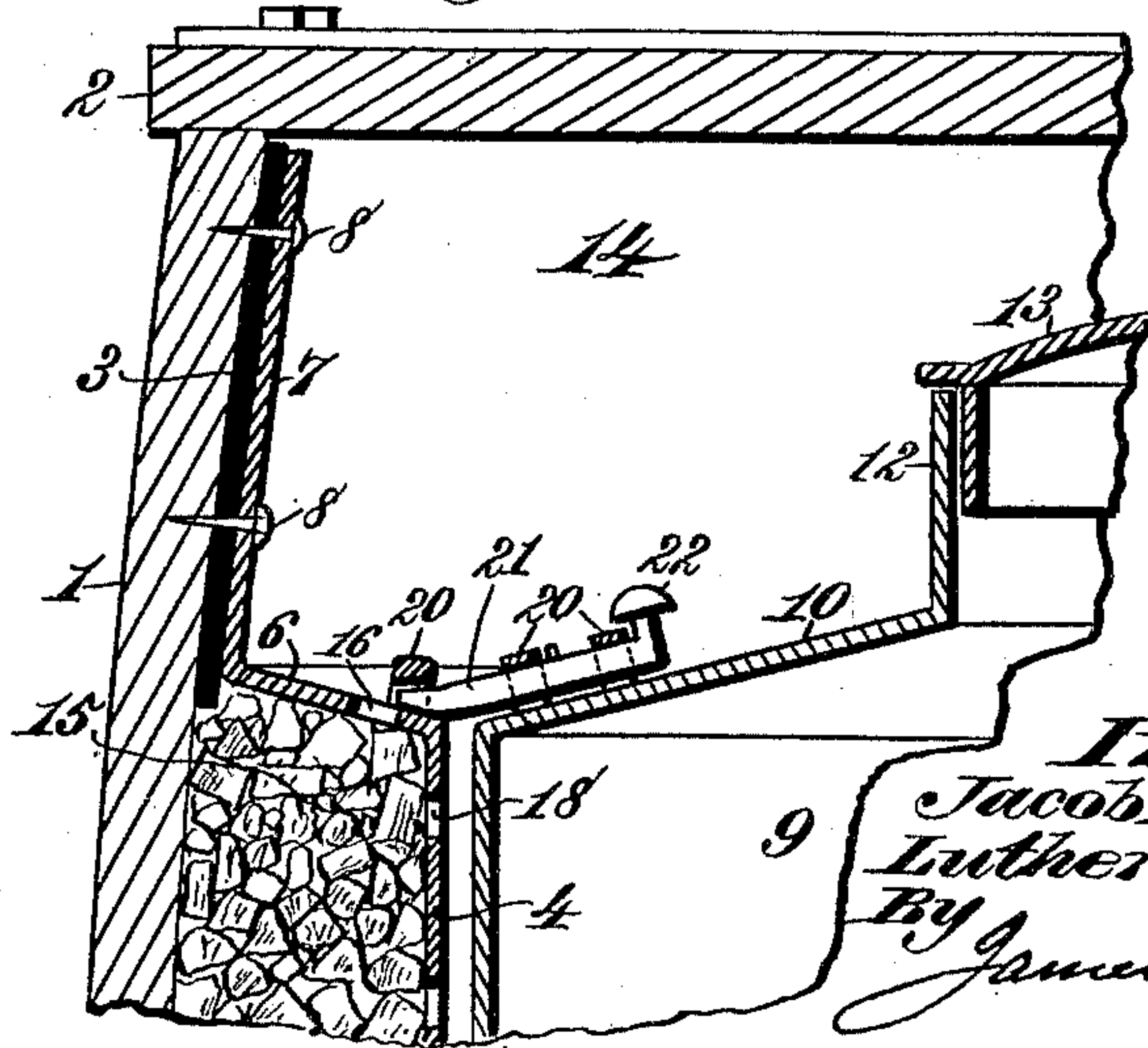


Fig. 2.



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UNITED STATES PATENT OFFICE.

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PACKING-REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 431,865, dated July 8, 1890.

Application filed February 28, 1890. Serial No. 342,051. (No model.)

To all whom it may concern:

Be it known that we, JACOB BARKER, residing at Columbia, and LUTHER L. FRIERSON, residing at Mount Pleasant, in the county of Maury and State of Tennessee, citizens of the United States, have invented new and useful Improvements in Packing-Refrigerators, of which the following is a specification.

This invention relates to that type of packing and refrigerating vessels for transporting food products wherein a can or container is removably placed within an external casing of barrel shape having an antiseptic packing around its inside, as in the Letters Patent issued to us September 3, 1889, No. 410,481.

The objects of the invention are to improve the prior refrigerators of this type, to provide a novel construction for producing an annular trough at the base of the ice-chamber, whereby an ordinary can is adapted for use with the refrigerator, to provide novel means for supporting the can or container in the envelope or external casing, and to provide novel means for confining the antiseptic packing and admitting air to all parts thereof to dry the same when the can or container is removed.

To accomplish all these objects, the invention involves the features of construction and the combination or arrangement of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a vertical central sectional view of the improved packing-refrigerator. Fig. 2 is a similar view showing a modified construction.

In order to enable those skilled in the art to make and use the invention, it will now be described in detail, referring to the drawings, wherein—

The numeral 1 indicates the external wood or other envelope or casing, preferably of barrel shape, of any desired form in cross-section, and provided with a detachable or movable lid 2, having suitable fastenings to secure it air-tight. The casing at its upper end portion is lined, as at 3, with any proper material which is water-proof and a non-conductor of heat, to economize in ice, and sus-

ended within the envelope is an internal metallic cylinder or cylindrical casing 4, provided with a bottom wall 5 and having its side wall bent laterally on an inclined plane, as at 6, and thence extended vertically, as at 7, to rest in close contact with the lining 3, where such vertical extension is firmly attached to the external envelope or casing by nails, screws, or other fastening devices, as at 8.

The cylindrical can or container 9 sets within the internal casing or envelope, and is provided with a conical or inclined breast 10, from which rises a neck 12, forming a seat for the detachable cover or lid 13. The base of the conical breast coincides with the base of the inclined part 6 of the internal casing or cylinder 4, and conjointly therewith constitutes an annular trough, which is the bottom of an ice-chamber 14, that extends over the cover or lid of the can or container. The space between the bottom and sides of the envelope and the bottom and sides of the internal casing or cylinder is filled with an antiseptic packing 15, of charcoal or other material suitable for the conditions required. This packing surrounds the inside of the envelope, and is confined in position by the inner casing, the inclined wall or part 6 of which bears on the top portion of the packing. The inclined wall 6 is provided with water-orifices 16 for the passage of the ice-water to the antiseptic packing, through which the water percolates, cooling the inner casing and the can or container.

The bottom wall of the envelope is provided with water-outlet orifices, closed by removable stoppers or plugs 17, for the escape of water from the packing, when desired.

The extension 7 is substantially parallel with that part of the envelope to which it is attached, and by the water-proof and non-conductor lining 3 interposed between such extension 7 and the envelope the efficiency of the structure is materially improved in that the ice will more slowly melt, and refrigeration is thereby promoted.

To permit the ice-water to pass in superficial contact with the wall of the can or container, the inner casing is provided in its sides and bottom with numerous perforations

18, and if this construction is adapted there should be a small space created between the sides and bottoms of the inner casing and the can or container. This may be accomplished
 5 by making the can of the required diameter to create a space around its sides, while the bottom of the can or container may be held above the bottom wall of the inner casing by suitable means—such, for instance, as studs
 10 19. The perforations in the cylindrical casing also permit the entrance of air to the packing for drying the same when the can is removed. The inner casing or cylinder not only confines the antiseptic packing and forms part of the
 15 annular trough, but it also supports the can or container within the envelope, the whole constituting a simple, efficient, and durable packing-refrigerator for the safe transportation of milk, poultry, and other food products.
 20 To firmly retain the can or container in proper position should the envelope be overturned or unduly handled, the inclined wall of the inner casing and the conical breast of the can are provided with coinciding loops or staples
 25 20, through which may be slid the bolts or rods 21, having heads or handles 22, as shown in Fig. 2. In this arrangement the construction and function of the several parts are the same as described with reference to Fig. 1,
 30 the only difference being that the inclined wall 6 of the inner casing 4 is placed at a less angle of inclination than that shown in Fig. 1 in order to permit the insertion and withdrawal of the retaining bolts or rods.
 35 The can cover or lid is provided with loops or eyes 23, in which are adapted to slide locking-rods 24, having their outer end portions bent downwardly and then upwardly to form hooked shanks 25, which are adapted to enter
 40 and engage with loops or eyes 26, secured to the inclined breast of the can. When the cover or lid is applied to the neck to close the can, the locking-rods are moved inward toward the center of the cover, whereby the
 45 hooked shanks are engaged with the loops or eyes on the can-breast, and thus lock the cover or lid in position on the can. To release the cover or lid, the locking-rods are slid outward to disengage the hooked shanks from the loops
 50 or eyes on the can-breast.

The present construction is an improvement on the structure shown in the patent hereinbefore alluded to in that the vertical extension of the lateral wall of the casing co-operates with such wall and forms, as it were, a
 55 brace and strut to rigidly and immovably hold the inner casing, while by forming the inclined wall with the casing and extending such wall vertically provision is made for
 60 conveniently attaching the casing to the inside of the envelope. Moreover, as in the present construction the container is removable independent of the inclined wall, if an accident occur to such container an ordinary

can is adapted for use conjointly with the 65 other parts.

Having thus described our invention, what we claim is—

1. A packing-refrigerator consisting of an envelope having on its interior a surrounding 70 packing of antiseptic material, an inner casing bearing upon the packing, bent outwardly to form a wall, which is provided with water-orifices and extended vertically from said wall in a line parallel with and rigidly at- 75 tached to the inside of the envelope, and a can or container supported by the casing and having an inclined wall, which conjointly with said wall forms a surrounding trough and the bottom of an ice-chamber, whereby an or- 80 dinary can is adapted to be removed and replaced independent of the said wall of the casing, substantially as described.

2. A packing-refrigerator consisting of an envelope having on its interior a surrounding 85 packing of antiseptic material, an inner casing having a bottom wall and bearing against the packing and extended laterally and vertically to form a wall having perforations and an upward extension, which is parallel with 90 and rigidly attached to the envelope, a water-proof and non-conductor lining interposed between the envelope and the said upward extension, and a can or container located within the casing, supported by the bottom 95 wall thereof and having an inclined breast, which conjointly with the lateral wall of the casing forms an annular trough and the bottom of an ice-chamber, whereby an ordinary can is adapted to be removed and replaced 100 independent of the casing and its lateral wall, substantially as described.

3. A packing-refrigerator consisting of an envelope having on its interior a surrounding 105 packing of antiseptic material, a perforated cylinder having a perforated bottom wall bearing against the packing and extended laterally and vertically at its upper end portion to form an inclined wall, which is pro- 110 vided with water-orifices and an upward extension, which is parallel with and rigidly attached to the inside of the envelope, and a can or container supported by the perforated bottom wall of the cylinder and having an inclined breast, which conjointly with the in- 115 clined wall forms an annular trough and the bottom of an ice-chamber, whereby an ordinary can is adapted to be removed and replaced independent of the said inclined wall 120 of the casing, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JACOB BARKER.

LUTHER L. FRIERSON.

Witnesses:

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