

O. W. MICHELFELDER.

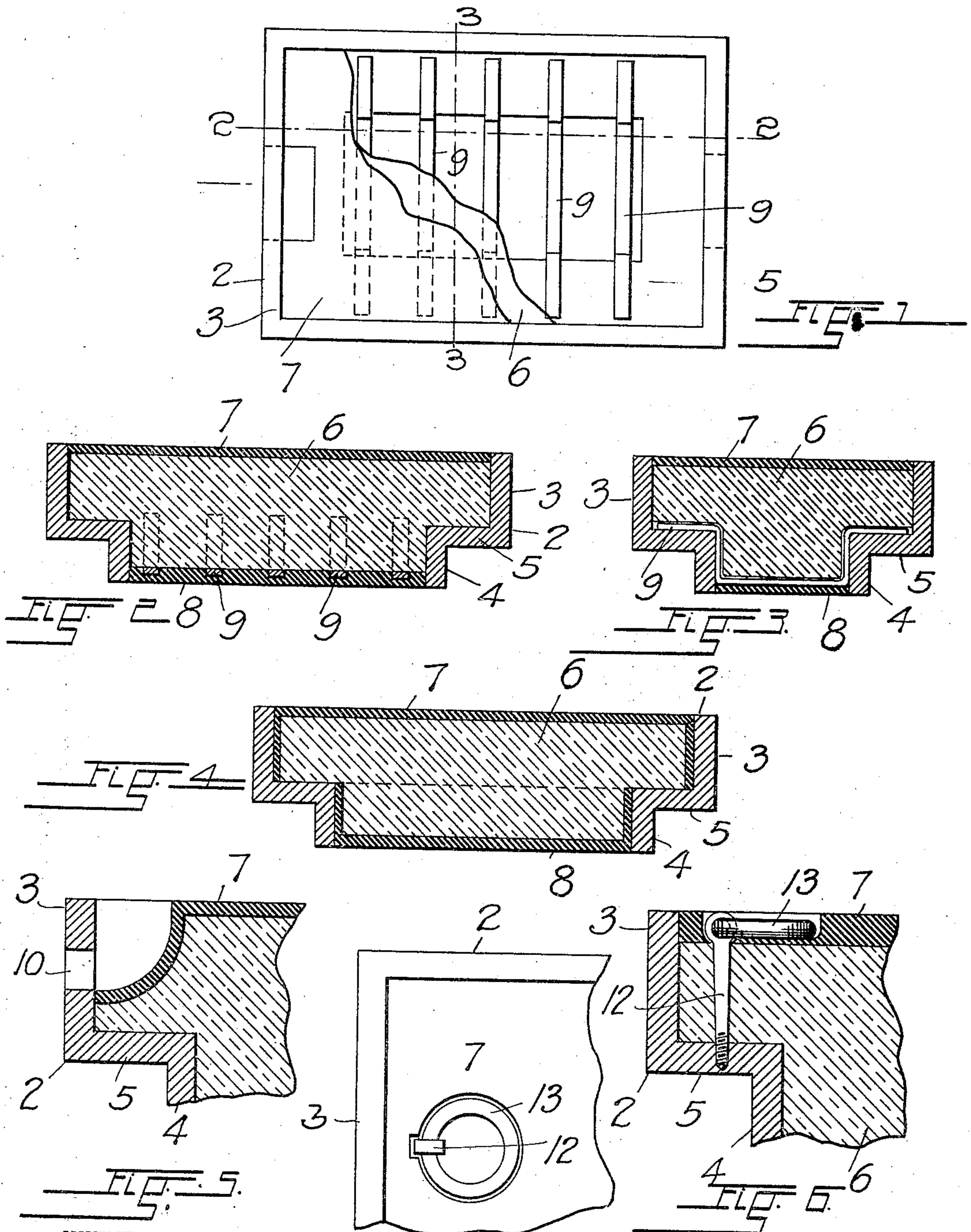
LID FOR ICE CANS.

APPLICATION FILED JUNE 2, 1909.

946,945.

Patented Jan. 18, 1910.

2 SHEETS—SHEET 1.



WITNESSES:

M. L. Geary.
J. H. Cuno.

INVENTOR.

O. W. Michelfelder

BY

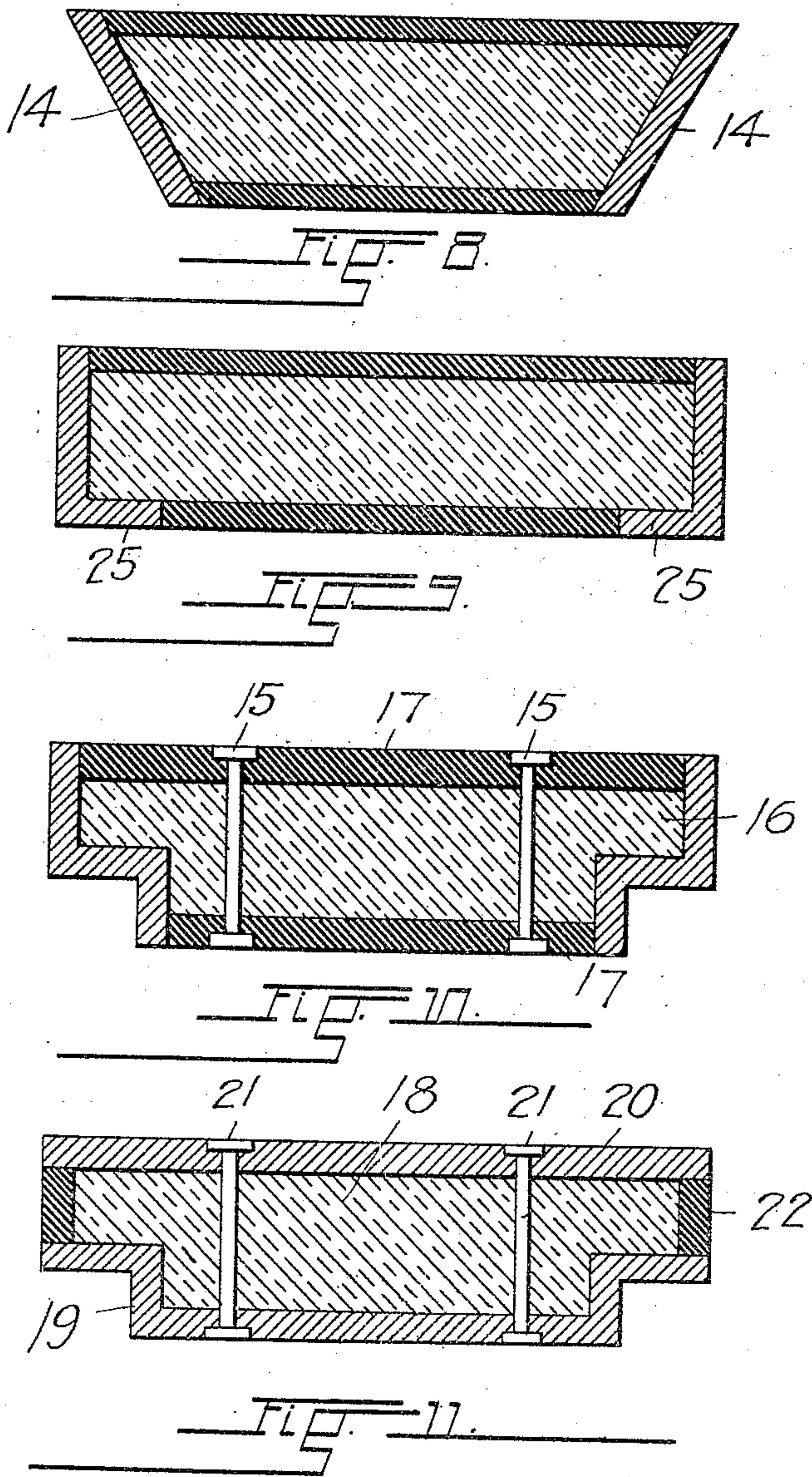
G. J. Hollander

ATTORNEY.

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M. L. Geary.
F. H. Arno.

INVENTOR.
O. W. Michelfelder
BY
[Signature]
ATTORNEY.

UNITED STATES PATENT OFFICE.

OTTO W. MICHELFELDER, OF DENVER, COLORADO.

LID FOR ICE-CANS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OTTO W. MICHELFELDER, a subject of Wilhelm Second, Emperor of Germany, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Lids for Ice-Cans, of which the following is a specification.

This invention relates to covers for the cans employed in the manufacture of artificial ice to subject water to the congealing influence of a surrounding brine solution, and the object of the invention resides in the provision of a lid which combines simplicity of construction, durability and practicability in use, with the property of effectively insulating the contents of the can from the surrounding atmosphere and of presenting, in conjunction with the covers of adjoining cans, a floor surface at once durable and non-slippery.

Other objects of my invention are brought out in the following description in the various views of which like parts are similarly designated and in which—

Figure 1, represents a plan view of the cover, part of the insulating substance and covering having been broken away to expose subjacent parts, Fig. 2, a section along the line 2—2 Fig. 1, Fig. 3, a transverse section along the line 3—3 Fig. 1, Fig. 4, a longitudinal section similar to Fig. 1, illustrating a modified method of construction, Fig. 5, an enlarged, fragmentary section showing the construction of a handle formed in the side of the cover, Fig. 6, a similar view showing the application of a substitute for the handle shown in the preceding figure Fig. 7, a top view of the construction illustrated in Fig. 6, and Figs. 8, 9, 10 and 11, sectional views of the cover showing modified methods of construction.

Referring to the drawings by numerical reference characters, let the numeral 2 designate a wooden frame composed of two rectangular sections 3 and 4 of dissimilar areas, connected by an integral rectangular, laterally extending flange 5. The exterior surface of the latter engages, in practice, the edge of the can into which the smaller, lower section of the lid projects, while its interior surface provides a seat for a core of insulating material 6 which occupies the greater portion of the interior of the frame. The parallel upper and lower surfaces of the core 6 are spaced respectively from the upper

and lower edges of the frame and are covered by layers 7 and 8 of protective material whose outer surfaces are flush with the said edges. Inasmuch as the lids when in place upon the cans, present a floor upon which the operatives walk while the process of manufacture is carried on, it is essential that they should be of sufficient strength to withstand a considerable vertical strain and I have to this end, provided a plurality of U shaped metallic slats 9 whose laterally extending ends rest upon the interior surface of the horizontal part 5 of the frame 2 and which, in conjunction with said surface, support the core 6.

In the form shown in Fig. 4, the vertical interior surfaces of the two sections 3 and 4 are separated from the core 6 by a thin layer of plastic material for the purpose of providing a juncture between the two, impervious to moisture and heat. The core above referred to is preferably formed of so called cork-board which is composed of small particles of cork which, having been mixed with an adhesive substance such as glue or asphalt, are united into a solid body. The function of the core is to insulate the contents of the can from the surrounding atmosphere, that of the wooden frame to provide a non-conductive support, while the layers 7 and 8 protect the core from moisture and injury and as hereinabove described, present a durable, tenacious floor surface. The layers 7 and 8 are preferably composed of asphalt, which material is best suited to the purpose.

To facilitate handling of the lids I provide handles in the sides of the frame, by forming hand holes 10 (Fig. 5) therein and recessing the adjoining portions of the core, the exposed surface of which is covered by a layer of asphalt.

In the form illustrated in Fig. 6, eye-bolts 12, project through vertical bores in the core and are screwed into the subjacent horizontal portion 5 of the frame and rings 13 inserted in the eyes of the bolts are, when not in use, disposed in depressions in the upper surface of the asphalt layer 7.

The construction of the cover may be modified as shown in Figs. 8, 9, 10 and 11 of the drawings.

In the form shown in Fig. 8, the walls of the wooden frame 14 converge downwardly; in the form shown in Fig. 9, the lower portion 4 of the construction shown in Figs. 1, 2, and 3 is omitted and the lower layer of

asphalt disposed within the opening formed by the inwardly directed flanges 25 on the lower edges of the rectangular frame; in Fig. 10 bolts 15 are employed to connect the
 5 cork core 16 and the layers 17 which in this case may be composed of wood, and in Fig. 11, the core 18 is supported upon a wooden base 19 and covered by a board 20, the parts 19 and 20 are connected by means of bolts 21
 10 and a layer of asphalt 22 is disposed between their edges to protect and insulate the sides of the cork core.

Having thus described my invention, what I claim is:—

15 1. A lid for ice cans comprising a frame of non-conductive material composed of sections of dissimilar areas connected by a laterally extending, integral flange, a core of insulating material supported upon the lat-
 20 ter, and layers of protective material covering the upper and lower surfaces of said core.

2. A lid for ice-cans comprising a frame of non-conductive material composed of sec-
 25 tions of dissimilar areas connected by a laterally extending, integral flange, a core of insulating material supported upon the latter, and a layer of protective material covering the surface of said core.

30 3. A lid for ice-cans comprising a frame of non-conductive material composed of sections of dissimilar areas connected by a laterally extending, integral flange, a core of insulating material supported upon the lat-
 35 ter, and layers of protective material between said core and the inner surfaces of said sections and upon its upper and lower surfaces.

40 4. A lid for ice-cans comprising a frame of non-conductive material composed of sec-

tions of dissimilar areas, connected by a laterally extending, integral flange, a core of cork supported upon the latter, and a layer of asphalt covering the upper surface of said core.

45 5. A lid for ice-cans comprising a frame of non-conductive material composed of sections of dissimilar areas connected by a laterally extending, integral flange, slats supported upon the latter, a core of insulating
 50 material supported upon said slats and a layer of protective material upon the upper surface of said core.

6. A lid for ice-cans comprising a frame of non-conductive material, a core of cork
 55 occupying the central portion thereof, a layer of protective material covering the lower surface of said core and a layer of asphalt covering the upper surface thereof.

7. A lid for ice cans comprising a frame
 60 of non-conductive material having an inwardly extending flange, a core of insulating material, a layer of asphalt covering the upper surface thereof, and protective material within said flange, protecting the lower
 65 surface of said core.

8. A lid for ice-cans comprising a frame of non-conductive material, having an inwardly extending flange, slats supported upon the latter, a core of insulating mate-
 70 rial, and layers of protective material covering the upper and lower surfaces of said core.

In testimony whereof I have affixed my signature in presence of two witnesses.

OTTO W. MICHELFELDER.

Witnesses:

G. J. ROLLANDET,
 M. L. GEARY.