

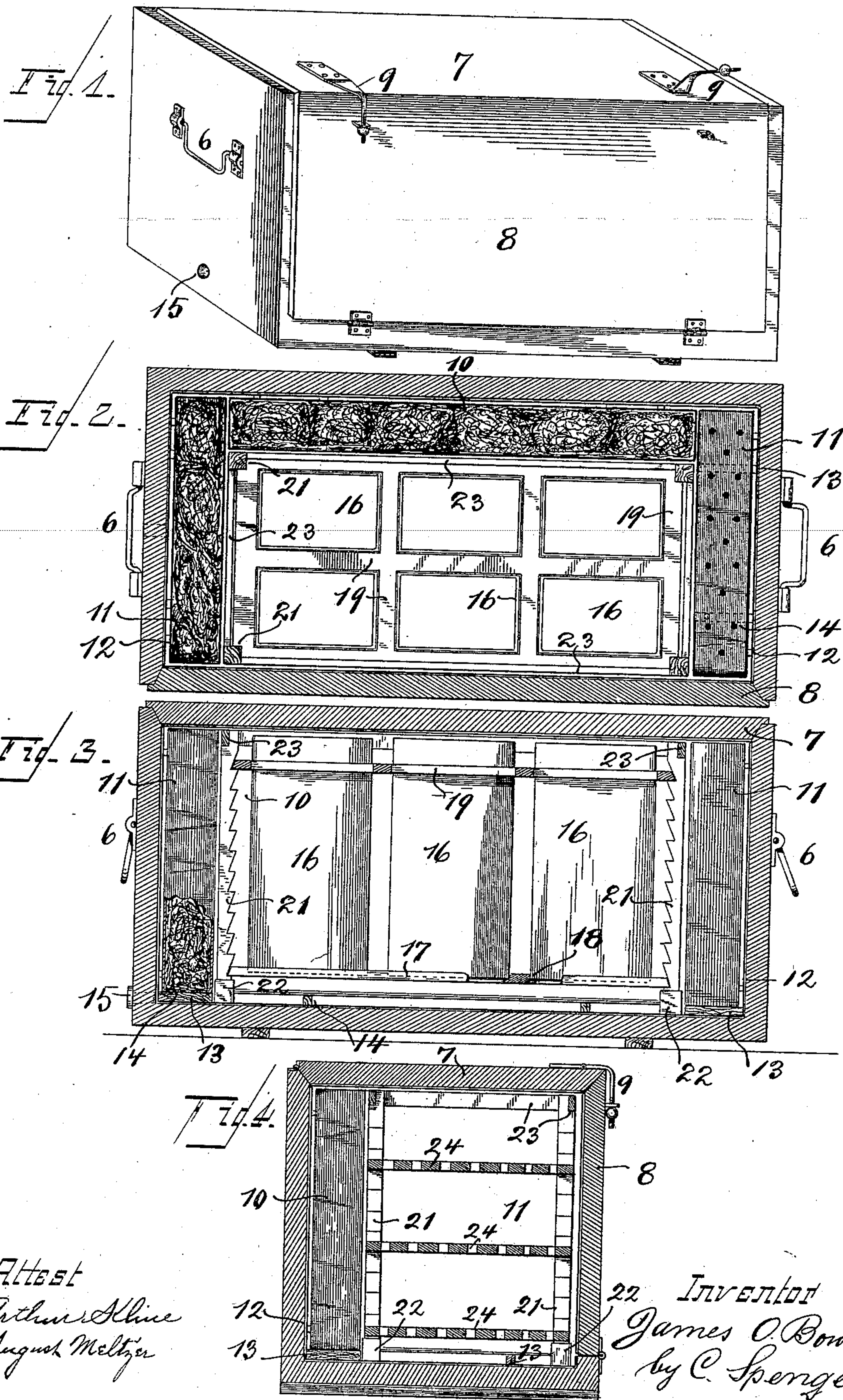
No. 624,165.

Patented May 2, 1899.

J. O. BOWDISH.
SHIPPER'S REFRIGERATOR.

(Application filed Oct. 1, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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SHIPPER'S REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 624,165, dated May 2, 1899.

Application filed October 1, 1898. Serial No. 692,386. (No model.)

To all whom it may concern:

Be it known that I, JAMES O. BOWDISH, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and Improved Shipper's Refrigerator; and I do hereby declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

The object of this invention is to provide a portable refrigerator for use by transportation and express companies and intended to protect and preserve during transit shipments of perishable goods, like meat, fish, oysters, milk, &c. It is to be used where the quantity of the articles to be shipped is limited and not sufficient to warrant the use of a refrigerating-car. After use it may be removed from the car and the space utilized otherwise. It provides interchangeable supporting means suitable to be used when either solid or liquid goods are to be shipped. The inclosing box is constructed in a manner to give quick, convenient, and complete access to the whole interior at once and to the goods therein to permit them to be either packed or removed, all in compliance with exigencies as they may arise in view of the special purpose intended—to wit, the quick and convenient handling of various classes of goods, as required by a transportation company. What has been said in regard to ready access to the interior and goods therein applies also to the ice-receptacles, which must be capable of being reached with equal facility for the purpose of charging them. The goods, as well as the ice, are protected in a manner that only a limited quantity of the latter is required, while at the same time by certain features of construction and arrangement its effective refrigerating capacity is greatly increased. Proper provision is made to prevent the melt-water from coming in contact with the goods to be shipped and for its discharge.

In the following specification, and particularly pointed out in the claim, is found a full description of the invention, its manner of

use, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the refrigerator. Fig. 2 is a horizontal section of the same, taken near the top of it. Figs. 3 and 4 are vertical sections, the first a longitudinal one, the other a cross-section.

The refrigerator is substantially box or trunk shaped and provided with suitable handles 6 to permit convenient carrying and handling. The inclosing walls are shown solid, but are to be constructed on any of the approved methods used in refrigerating work, so as to render the interior of the box secure by insulating the same against the effects of changes of temperature. The whole interior is to be lined with zinc or galvanized iron to prevent the moisture and melt-water from coming in contact with the walls of the box. Top 7 and front side 8 are hingedly secured and when open permit convenient and ready access to the whole interior from above as well as from the front. Their free edges come together at the upper front edge of the box, and suitable fastening and catch devices 9 are provided thereat to hold them together to close the box. The ice in small pieces is received by removable narrow tanks 10 11 11, which are of a height equaling about the height inside of the box. Tank 10 rests close to the rear wall, while tanks 11 11 rest close against the ends, all being kept from actual contact, however, by strips 12 and cleats 13 below, on which they rest, so as to permit circulation and contact of the air inside of the box with all sides of the ice-tanks. Tank 10 fits closely between tanks 11, thus holding these latter in position. The bottoms of the tanks are provided with perforations 14 to permit the melt-water to drain off, which escapes into the lower part of the box, from which it may be drawn off from time to time through an outlet-opening 15, which is ordinarily kept closed by a plug or other suitable device.

The space between the tanks is used to receive the goods to be shipped. For liquid or soft goods, like milk, oysters, &c., cans 16 are provided, supported on a frame 17, which is recessed, as shown at 18, within which recesses these cans rest. Near the top there is an additional frame 19, provided with open

spaces, within which these cans fit and where-
by they are prevented from swaying or tip-
ping. These frames are supported on notched
posts 21, resting in metallic sockets 22, which
5 are soldered to the box floor and keep the
water away from the lower ends of these
posts. The upper ends of these latter are
connected and held in position by cross-pieces
23. When the box is to be used for shipping
10 solid goods, like meat, fruit, &c., then they
are supported on open shelves 24, formed of
racks and supported on the notches of posts
21. These posts thus serve in either case,
and their notches permit adjustment of the
15 height, respectively, of spaces between these
shelves as well as between frames 17 and 19.

Strips of rubber or other soft material may
be interposed between the doors and between
doors and edges of box to render the joints
20 air-tight.

Having described my invention, I claim as
new—

A refrigerator for preserving perishable
goods during shipment, consisting substan-

tially of a box having three sides of its inte- 25
rior, to wit: its rear side and the two ends
lined with ice-tanks, the tank on the rear
side being closely fitted between the tanks
at the ends, thereby holding them in place, a
frame consisting of posts erected in the space 30
between the ice-tanks, means carried by these
posts for supporting the contents of the re-
frigerator, the top of the latter being hinged
to the upper edge of the rear side of the box
and the front side being hinged to the front 35
edge of the bottom of the latter and means
for locking the hinged top to the hinged front
side, said locking means carried by these parts
so that on release of them top and front side
may be opened together, thereby giving access 40
to the interior of the refrigerator at once from
above and from the front.

In testimony whereof I hereunto affix my
signature in presence of two witnesses.

JAMES O. BOWDISH.

Witnesses:

C. SPENGEL,
ROSE BAERLO.