

J. C. & J. J. RAUM.
REFRIGERATOR WAGON.
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1,058,333.

Patented Apr. 8, 1913.

Fig. 1.

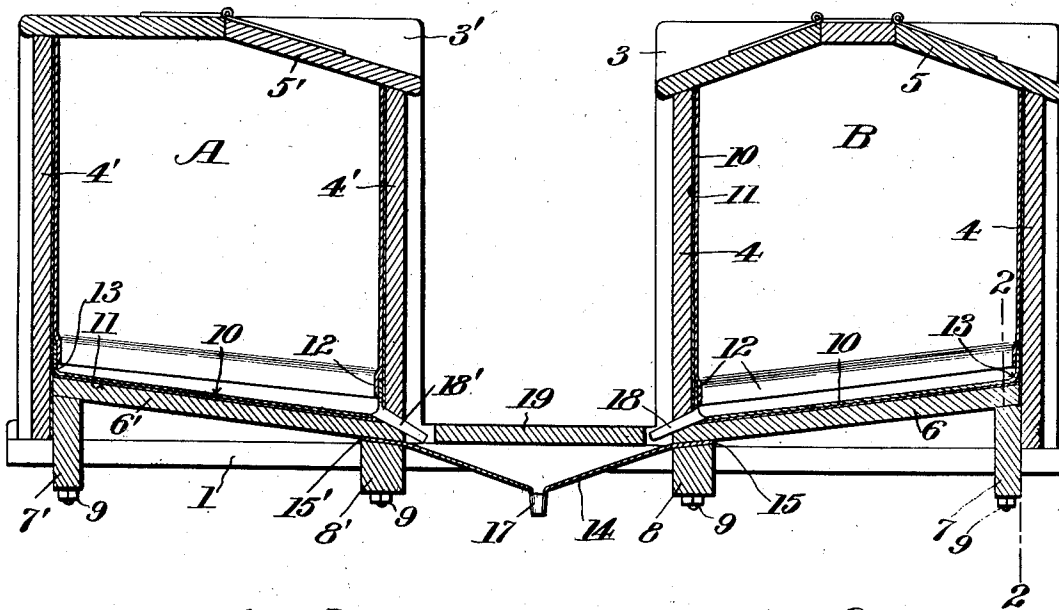


Fig. 2.

Fig. 3.

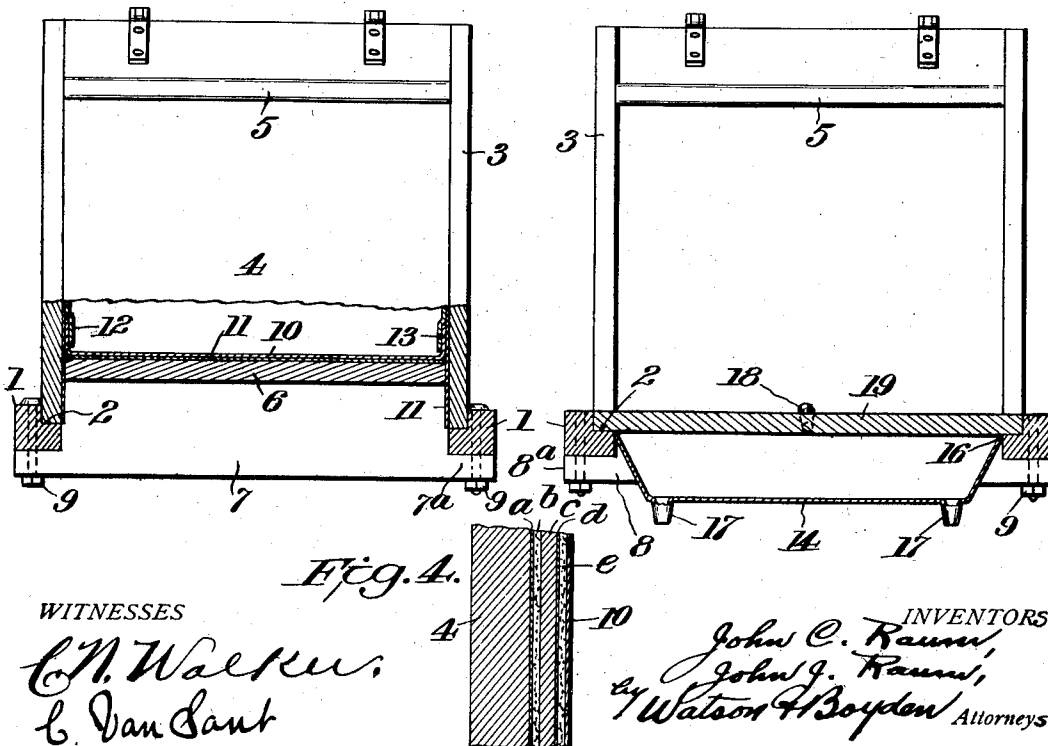


Fig. 4.

WITNESSES

C. N. Walker,
L. Van Sant

INVENTORS

John C. Raum,
John J. Raum,
by Watson & Boyden Attorneys.

UNITED STATES PATENT OFFICE.

JOHN C. RAUM AND JOHN J. RAUM, OF BALTIMORE, MARYLAND.

REFRIGERATOR-WAGON.

1,058,333.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed October 24, 1912. Serial No. 727,580.

To all whom it may concern:

Be it known that we, JOHN C. RAUM and JOHN J. RAUM, citizens of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Refrigerator-Wagons, of which the following is a specification.

Our invention relates to refrigerator structures adapted to contain melting ice, and more particularly to such structures when applied to devices commonly known as ice cream wagons.

The main object of the invention is to provide an anti-drip wagon of improved construction, in which the parts may be removed for cleaning or repair more readily than in prior devices of this character.

With the above and other minor objects in view, the invention consists in the construction and arrangement of parts hereinafter described, and illustrated in the accompanying drawings, in which:

Figure 1 is a longitudinal vertical section through our improved refrigerator wagon; Fig. 2 is a section on the line 2—2 of Fig. 1, parts being in elevation; Fig. 3 is a central transverse section through the wagon; and, Fig. 4 is an enlarged sectional detail showing our preferred form of heat insulation.

Referring to the drawings in detail, the wagon frame comprises the usual side sills 1, having rabbets 2 in which are seated the side walls 3 and 3' of the front and rear body compartments A and B, which are spaced apart to provide a passageway, as shown in Fig. 1. The compartments B and A also have the end walls 4 and 4', and suitable tops or covers having hinged doors 5 and 5'. These covers and doors may be of the construction shown in our co-pending application, Serial No. 694,116, filed April 30, 1912.

Each compartment is provided with a bottom 6, which bottom is of a size to snugly fit between the side walls 3 and is supported by means of cross-sills 7 and 8, which cross-sills are secured at their outer ends to the under side of the side sills 1 by means of bolts 9. It will be noted that the end sill 7 is considerably deeper than the middle sill 8, whereby the bottom 6 is supported in an inclined position, as clearly shown in Fig. 1.

The sides and bottom of each body compartment are preferably lined with sheet

metal 10 laid over a suitable layer of heat insulating material as hereinafter described. The edges of the bottom sheet 10 are turned up as clearly indicated at 13, and the lower edges 12 of the side wall covering overlap the upturned edges 13 of the bottom. Any water accumulating on the side walls will therefore trickle off into the bottom of the compartment.

Disposed between the compartments A and B is a drip pan 14, the side edges 15 and 15' of which rest upon the cross-sills 8 and 8', respectively, and are gripped between such sills, and the bottoms 6 and 6' of the compartments. In other words, such bottoms over-hang the edges of the pan. The end edges of the pan lie within the side-sills 1, as indicated in Fig. 3, but are unattached thereto. The drip pan is provided with one or more discharge spouts 17 at its center, which is the lowest point, such spouts being so located as to prevent the water dripping upon any part of the running gear of the vehicle. Each bottom 6 and 6' carries at its lower edge a discharge spout 18 and 18', respectively, which over-hang the pan. A removable running board 19 preferably extends between the side sills in the space between the compartments A and B, such board resting at its ends in the rabbets 2.

It will be observed that by taking off the nuts 9, the sills 8 and 8' can be lowered, and with them the pan 14, and by similarly removing the sills 7 and 7' as well, the bottoms 6 and 6' can be lowered away from their respective compartments. In this way both the drip pan and the bottoms of the compartments can be removed without in any way dismantling or disturbing the other parts of the wagon body structure.

In Fig. 4, we have shown an improved method of constructing the walls and bottom of our refrigerator compartments, which method has proven very satisfactory in practice. On a suitable base 4, such as a board, we first place a layer *a* of water-proof material such, for example, as tarred paper. Upon this we place a layer *b* of hair felt or other heat insulating material. Upon this is preferably laid a thin wooden sheet or board *c*, and upon this a second sheet of water-proof paper *d*. A second layer of felt *e* is then preferably interposed between the paper *c* and the protecting covering 10 of sheet metal. Owing to this construction it

will be observed that any moisture which may condense upon the under side of the sheet metal lining 10 of the bottom of one of our improved compartments will work its way downward along such inclined bottom, flowing over the water proof paper and finally escaping at the lower edge of the bottom and discharging into the pan. Thus, the objectionable dripping, heretofore caused by "sweating," is entirely eliminated.

It will thus be seen that we have provided a refrigerator wagon structure, the parts of which can be readily removed for cleaning or repair, and which is simple in construction and efficient in operation, and it is thought that the many advantages thereof will be fully appreciated by those skilled in the art without further discussion.

20 What we claim is:

1. In a refrigerator wagon, the combination with the main frame comprising side sills, of a body compartment supported on said sills, a bottom for said compartment of a size capable of fitting between said sills, and cross-sills on which said bottom rests, said cross-sills being detachably connected at their ends to the under side of said side-sills, whereby, when said cross-sills are removed, said bottom can be lowered away from said compartment.

2. In a refrigerator wagon, the combination with the main frame comprising side sills, of a body compartment supported on said sills, a bottom for said compartment of a size capable of fitting between said sills, and cross-sills on which said bottom rests, said cross-sills being detachably connected at their ends to the under side of said side-sills, one of said cross-sills being of greater depth than the other, whereby said bottom is supported in sloping position between the sides of said compartment.

3. In a refrigerator wagon, the combination with the main frame including side sills, of a body compartment, a drip pan associated therewith, and arranged to catch the leakage therefrom, and cross-sills on

which said pan is wholly supported, said cross-sills being detachably secured at their ends to the under side of said side sills, whereby, when said cross-sills are removed, said pan may be lowered.

4. In a refrigerator wagon, the combination with the main frame including side sills, of a pair of body compartments supported by said sills and spaced apart, a drip pan located between said compartments, and inclined bottoms for said compartments sloping toward said pan and having their edges overhanging the edges of said pan.

5. In a refrigerator wagon, the combination with the main frame including side sills, of a pair of body compartments supported by said sills and spaced apart, a drip pan located between said compartments, and a drip spout communicating with each compartment, and discharging into said pan.

6. In a refrigerator wagon, the combination with a main frame, including side sills, of a pair of body compartments carried thereby, and spaced apart, a pan located between said compartments, and arranged to catch the drip therefrom, said pan being unattached to said side sills, and cross-sills on which said pan is wholly supported, whereby said pan may be lowered and removed without disturbing said compartments.

7. In a refrigerator wagon, a body compartment comprising sides and a bottom fitting therebetween, a sheet metal lining for said bottom having turned up edges, a sheet metal lining for said sides having its lower edge overlapping the upturned edges of said bottom, and means for so supporting said bottom that it may be lowered away from between the sides.

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

JOHN C. RAUM.
JOHN J. RAUM.

Witnesses:

GEO. THORN. REED,
BESSIE C. LOHMULLER.