June 6, 1939. M. H. HOVEY 2,161,050

REFRIGERATING TRUCK

Filed July 28, 1937

FIG. 1.

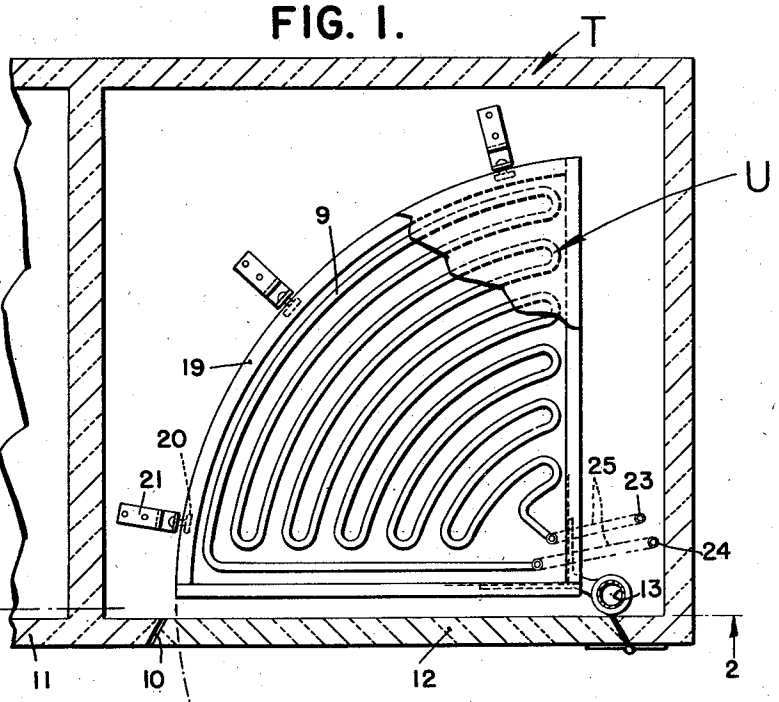



FIG. 3.

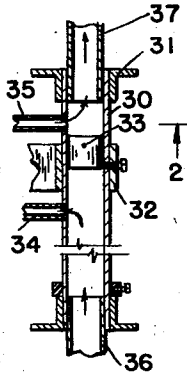



FIG. 2.

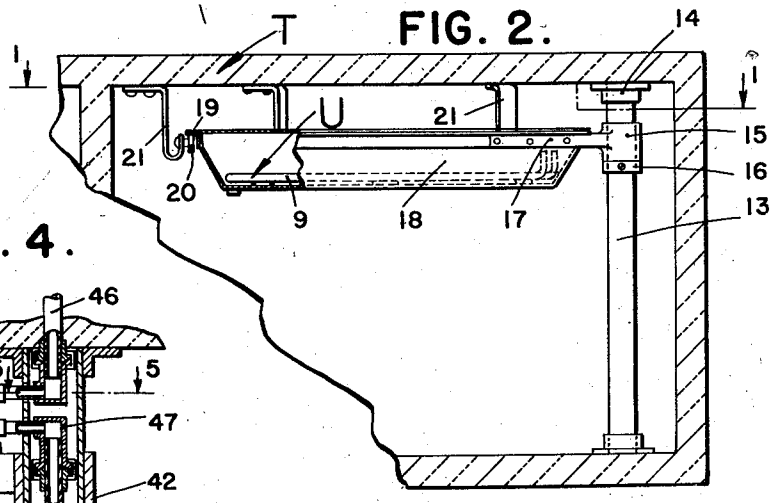



FIG. 4.

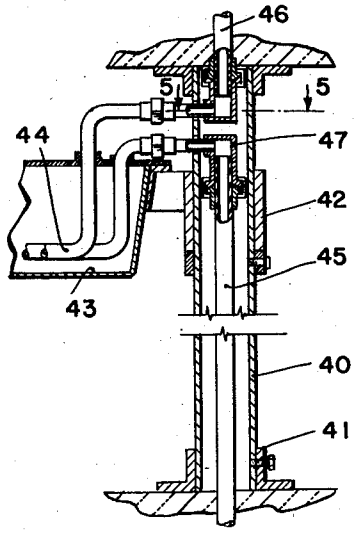
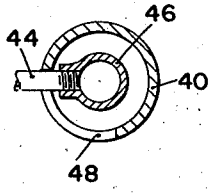



FIG. 5.




INVENTOR

MARK H. HOVEY

BY

ATTORNEYS

Patented June 6, 1939

2,161,050

# UNITED STATES PATENT OFFICE

2,161,050

## REFRIGERATING TRUCK

Mark H. Hovey, Stoughton, Wis.

Application July 28, 1937, Serial No. 156,179

4 Claims. (Cl. 62—89)

This invention appertains to refrigeration, and more particularly to refrigerators or refrigerating trucks.

As is well known, the efficiency of the refrigerating unit is reduced by the collection of frost or ice thereon, and, consequently, these units have to be periodically defrosted. Much difficulty is experienced in defrosting these units, and generally the temperature of the entire refrigerator or truck has to be raised.

One of the primary objects of my invention is the provision of novel means for forming the refrigerator or truck, and novel means for mounting the unit in the refrigerator or truck, whereby the unit can be readily swung out of the refrigerator or truck and rapidly defrosted without materially raising the temperature of the refrigerator or truck.

Another salient object of my invention is the provision of a refrigerating unit of the "Hold-Over" type mounted on a post adjacent to an opening in the refrigerator or truck body, whereby the unit can be swung out of the refrigerator or truck, the feed and return pipes for the unit being arranged adjacent to the post, whereby desirable connections can readily be had between the unit and the pipes.

A further important object of my invention is to provide a sector shaped unit mounted for swinging movement in a horizontal plane on a supporting post, with means in the truck for slidably supporting the edge of the unit remote from the post, the unit being movable through a normally closed opening exteriorly of the truck, so that the unit can be readily and easily defrosted by a hose or the like.

A still further object of my invention is to provide novel means for rapidly defrosting a refrigerating unit of the above character, which will be durable and efficient in use, one that will be simple and easy to manufacture, and one which can be incorporated with a refrigerating truck at a small cost.

With these and other objects in view, the invention consists in the novel construction, arrangement, and formation of parts, as will be hereinafter more specifically described, claimed, and illustrated in the accompanying drawing, in which drawing:

Figure 1 is a fragmentary horizontal section through a refrigerating truck, with my novel unit mounted therein, the section being taken substantially on the line 1—1 of Figure 2, looking in the direction of the arrows.

Figure 2 is a fragmentary, vertical sectional view through a refrigerating truck, showing the unit mounted therein, the view being taken substantially on the line 2—2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a detail, fragmentary, vertical sectional view illustrating a modified form of means for mounting the unit and for supplying the refrigerating fluid thereto.

Figure 4 is a view similar to Figure 3, illustrating another modified form of connecting the feed and return pipes with the unit.

Figure 5 is a horizontal sectional view taken substantially on the line 5—5 of Figure 4, looking in the direction of the arrows.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter T generally indicates a refrigerating truck, and U a refrigerating unit therefor. The truck T can be of any preferred construction or form, and the walls thereof are insulated in the usual manner.

In accordance with my invention, I form an elongated opening 10 in one wall 11 of the truck, and this opening is normally closed by a hinged door 12.

Within the truck, adjacent to the hinges of the door 12, I arrange a vertical post 13. This post can be mounted in suitable sockets 14 carried by the top and bottom walls of the truck body. Rotatably mounted on the post 13 is a bearing sleeve 15, and this sleeve can rest against a bearing collar 16 secured to the post. The rotatable sleeve 15 carries supporting bracket arms 17, which are riveted or otherwise secured to the sector-shaped unit U. The unit U includes an inner coil 9 and a closed casing 18 for the brine.

The outer arcuate edge of the casing 18 can have formed thereon an outstanding flange 19. This flange 19 constitutes a track for engaging anti-friction rollers 20 supported by brackets 21 depending from the top wall of the truck. By supporting the unit on the post 12, the unit can be bodily swung from inside the truck through the door opening 10 when the door 12 is swung to an open position.

After the unit is swung out of the truck, the same can be quickly defrosted by a hose or the like. After the cooling unit has been defrosted, the unit can be swung back into the truck. The door 12 can then be moved to its closed position.

By this arrangement and construction, the interior temperature of the truck is not materially lowered during the defrosting process, and very little time is expended to defrost the unit.

I mount feed and return pipes 23 and 24 adjacent to the post 13 and use flexible couplings or pipes 25 to connect the feed and return pipes with the terminals of the cooling coil 9. By this arrangement and construction, the flexible couplings or pipes only have to be formed very short, and the unit does not have to be disconnected from the feed and return pipes.

I can use various other means for connecting the unit with feed and return pipes, and in Figure 3 I have illustrated one preferred modified form of connection. In this form I utilize a hollow post 30, which is rotatably mounted within upper and lower bearings carried by the top and bottom walls of the truck. The post has rigidly secured thereto a sleeve 32, and this sleeve carries the unit. A plug or the like 33 is utilized for dividing the post into independent chambers, and feed and return pipe sections 34 and 35 extending from the unit lead into the independent chambers. The outer ends of the pipe rotatably receive the feed and return pipes 36 and 37 from the compressor (not shown). In this construction, the use of flexible pipes or couplings is entirely eliminated.

In Figures 4 and 5, I have shown a still further form of connection. In this form a hollow post 40 is utilized, and the same is rigidly mounted in supporting sockets 41 secured to the upper and lower walls of the truck. The post has rotatably mounted thereon a bearing sleeve 42 to which is attached a unit 43 carrying the coil 44. Extending into the hollow post are feed and return pipes 45 and 46, and these pipes are connected by swinging couplings 47 with the feed and return terminals of the cooling unit or coil. The post 40 can be slotted, as at 48, for receiving the terminals of the coil.

From the foregoing description it can be seen that I have provided an exceptionally simple and durable means for bringing about the quick and efficient defrosting of cooling units.

Changes in details may be made without departing from the spirit or the scope of my invention, but what I claim as new is:

1. In a device of the class described, an insulated body having a narrow elongated opening, a cooling unit hingedly mounted in the body adjacent to one end of the opening and movable through the opening into and out of said body, said cooling unit having inlet and outlet terminals of the unit being arranged adjacent to the hinge point thereof, and feed and return pipes for the cooling fluid arranged adjacent to said terminals and operatively connected therewith.

2. In a device of the class described, an insulated body having a door opening and a hinged door normally closing said opening, a supporting post, a bracket rotatably mounted on said post, a cooling unit rigidly secured to the bracket, means slidably supporting the unit at a point remote from the post, said unit being movable into and out of the body through said opening, said cooling unit having inlet and outlet terminals disposed adjacent to the post, feed and return pipes for cooling fluid disposed adjacent to the post, and flexible units connecting the pipes with the terminals.

3. In a device of the class described, an insulated body having an opening, and a door normally closing said opening, a rotatable hollow post mounted within said body adjacent to one end of the door opening, means dividing the post into a pair of chambers, a cooling unit mounted on the post and movable therewith, said unit being movable into and out of the body through the opening, said cooling unit having inlet and outlet terminals communicating with the chambers, and stationary feed and return pipes leading into said chambers.

4. In a device of the class described, an insulated body having a narrow elongated opening, a supporting post within said body adjacent to one end of the opening, a cooling unit mounted on the post for swinging movement in the body through said elongated opening, and a door for normally closing said opening.

MARK H. HOVEY.