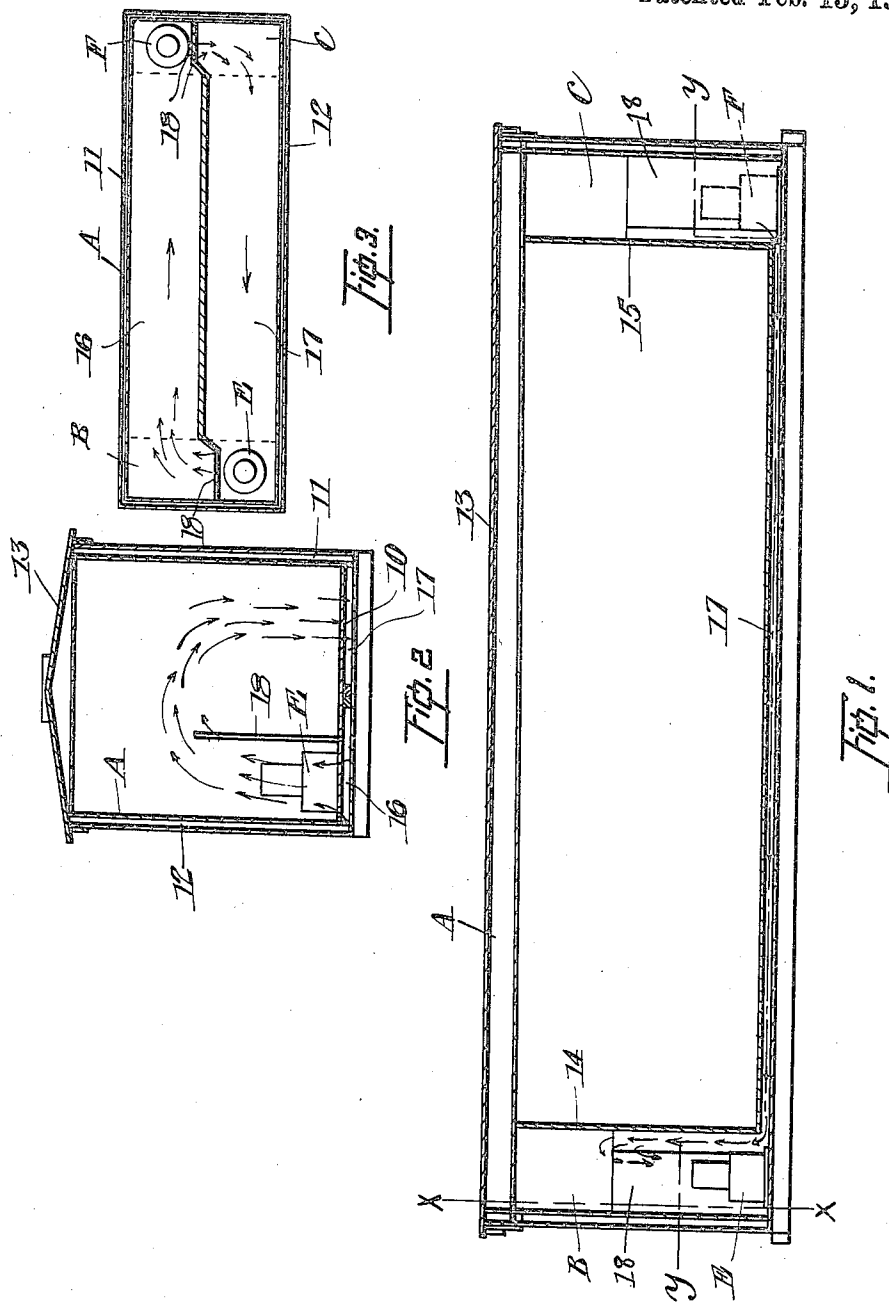


D. CLARK.
 MEANS FOR VARYING THE TEMPERATURE OF CARS.
 APPLICATION FILED MAY 2, 1919.

1,368,898.

Patented Feb. 15, 1921.



WITNESSES

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DANIEL CLARK, OF EDMONTON, ALBERTA, CANADA.

MEANS FOR VARYING THE TEMPERATURE OF CARS.

1,368,898.

Specification of Letters Patent.

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Application filed May 2, 1919. Serial No. 294,322.

To all whom it may concern:

Be it known that I, DANIEL CLARK, a subject of the King of Great Britain, and resident of the city of Edmonton, in the Province of Alberta, Dominion of Canada, have invented certain new and useful Improvements in Means for Varying the Temperature of Cars, of which the following is a specification.

10 This invention relates to improvements in means for varying the temperature of cars, and particularly those cars designed for the conveyance of fruit, vegetables, grain and the like which in the winter it is desired to
15 maintain above a given minimum, and in the summer below a given maximum, and the objects of the invention are to provide a simple and effective means for effecting a uniform distribution of circulation of the
20 heat conveying or extracting gas, and it consists essentially of a car having an inclosed heating chamber at each end with temperature varying means therein, and ducts on opposite sides of the car extend-
25 ing from end to end thereof connecting the heating chambers, whereby air will flow in opposite directions in the opposite ducts, all as hereinafter described in detail in the accompanying specification and drawings.

30 In the drawings:

Figure 1 is a longitudinal sectional elevation of an embodiment of the invention.

Fig. 2 is a cross sectional view through the same on the line $x-x$ of Fig. 1.

35 Fig. 3 is a sectional plan view on a reduced scale showing the circulation of air in the floor on the line $y-y$ of Fig. 1.

40 In the drawings like characters of reference indicate corresponding parts in all the figures.

Referring to the drawings, A represents a car of any well known design having a floor 10, side walls 11 and 12 and roof 13, the walls and roof being preferably double
45 walled to form a better heat insulation. B and C represent temperature varying chambers at opposite ends of the car. These chambers are closed except where the duct, as hereinafter described, communicates
50 therewith and are conveniently formed by partitions 14 and 15 which extend from the

top to the bottom of the car. The car is formed in the floor with two longitudinally extending ducts 16 and 17 on opposite sides thereof and which place the chambers B and C in communication with each other.

The temperature varying chambers B and C contain temperature varying devices E and F which may be stoves in cold weather and refrigerating devices or ice
60 chambers in hot weather. The stove E in the chamber B is placed opposite the end of the duct 17 while the stove F in the chamber C is placed opposite the duct 16. It will be seen that when the stove is in use a con-
65 tinuous circulation of warm air will be afforded. The stove E will draw cold air from the duct 17, which air will be heated and rise within the chamber B, then turn in the said chamber and pass downwardly
70 through the duct 16 to the chamber C where it will be heated by the stove F, and turn in the chamber and pass again into the duct 17. To concentrate the draft of the stoves E and F suitable partitions 18 are provided
75 adjacent thereto.

The temperature varying devices E and F may be of any suitable character. When stoves are used they may be of any desirable type having any well known means to sup-
80 ply with air and maintain combustion in the well known way. When refrigerating devices are used any of the well known forms of ammonia plants may be used, or if desired an ice chamber or refrigerator may be
85 used.

As many changes could be made in the above construction, and many apparently widely different embodiments of my invention, within the scope of the claims, con-
90 structed without departing from the spirit or scope thereof, it is intended that all matter contained in the accompanying specification and drawings shall be interpreted as illustrative and not in a limiting sense.

95 What I claim as my invention is:

A car having two ducts in the floor thereof extending from end to end of the car, temperature varying chambers at opposite ends of the car connected to the said ducts, 100 temperature varying devices in said chambers, the temperature varying devices at op-

posite ends of the car being placed opposite
different ducts whereby air will be caused to
circulate in opposite directions in the two
ducts, and partitions in the temperature
5 varying chambers adjacent to each tempera-
ture varying device adapted to concentrate
the draft around the same.

In witness whereof I have hereunto set
my hand in the presence of two witnesses.

DANIEL CLARK.

Witnesses:

RUSSEL S. SMART,

MARY E. KNOX.