

1,061,974.

G. C. BOHN.
REFRIGERATOR CAR.
APPLICATION FILED JAN. 17, 1912.

Patented May 20, 1913.

3 SHEETS—SHEET 1.

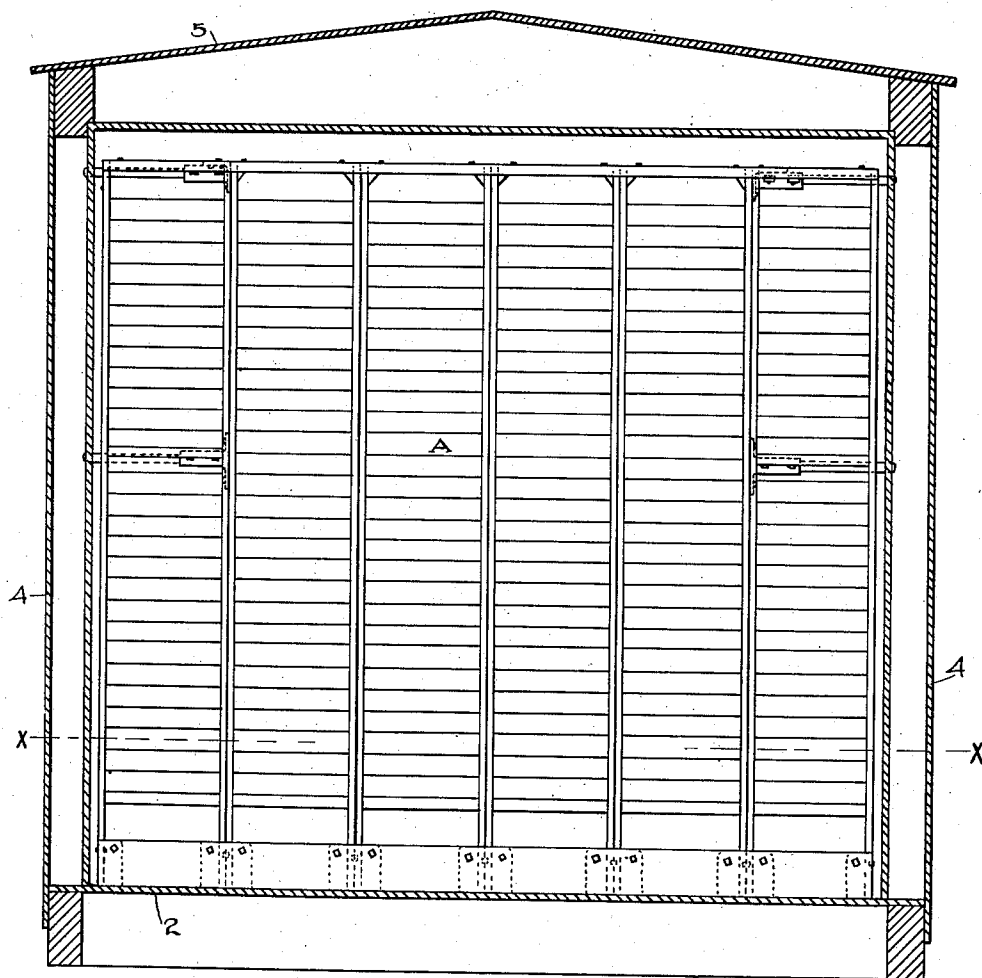


Fig. 1.

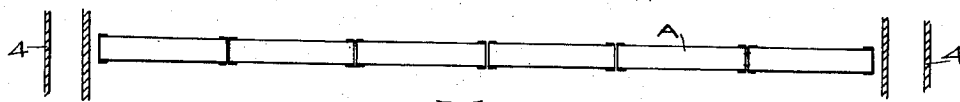


Fig. 2.

WITNESSES.

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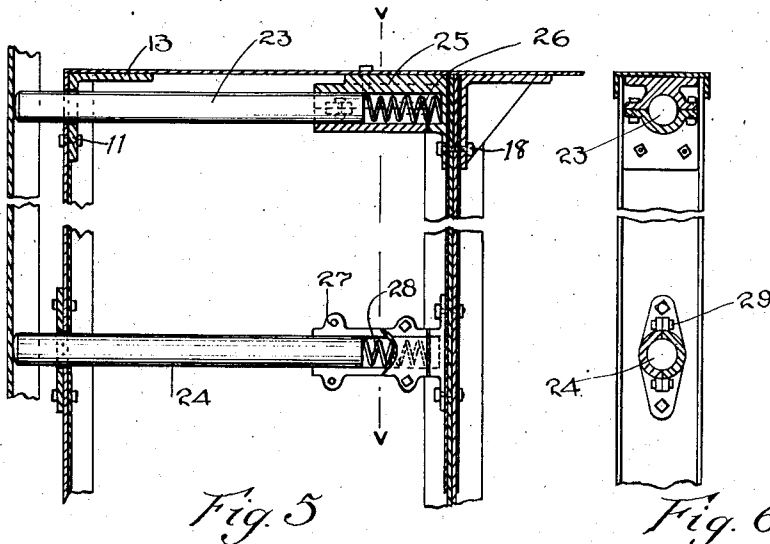
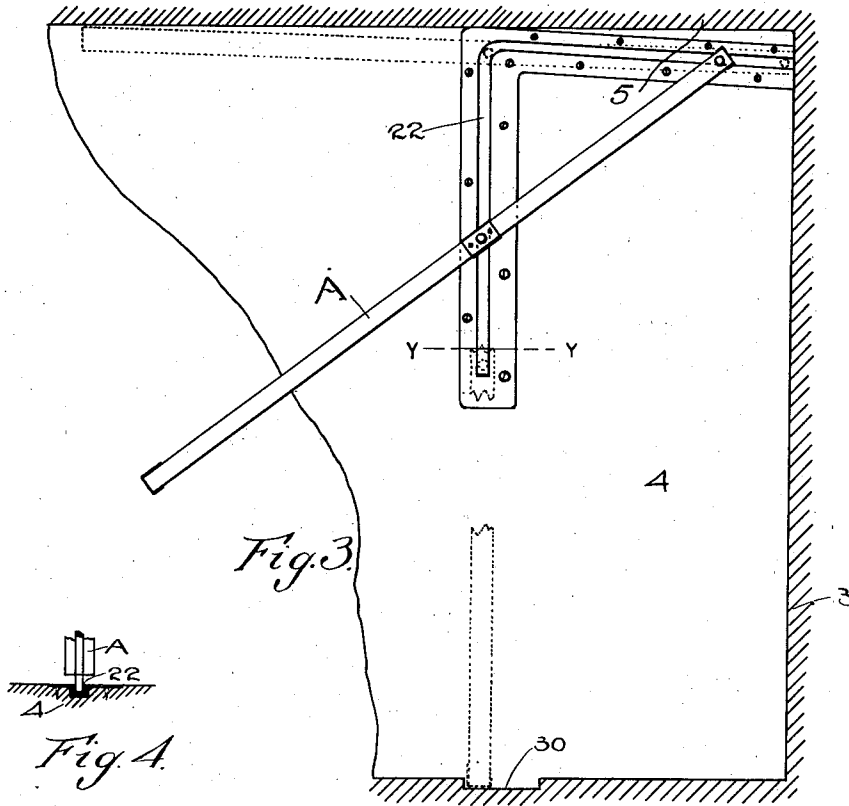
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3 SHEETS—SHEET 3.

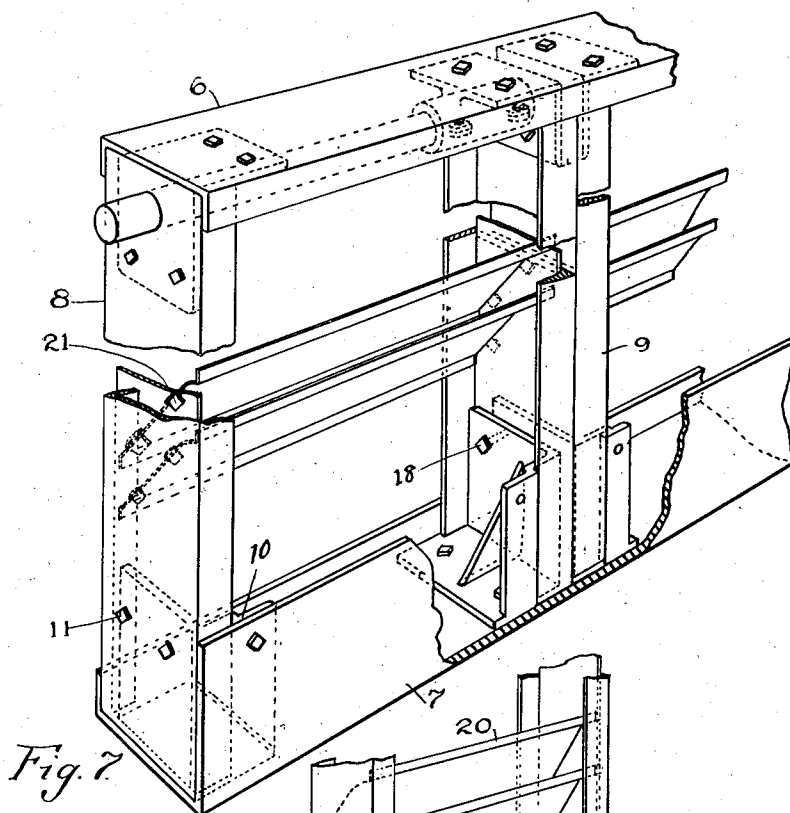


Fig. 7

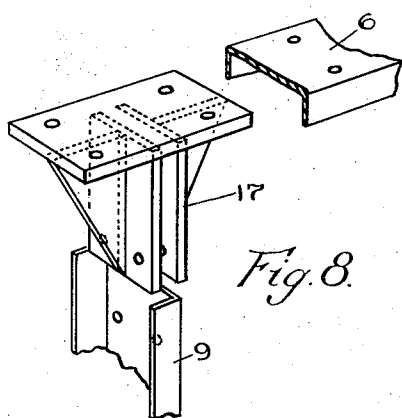


Fig. 8

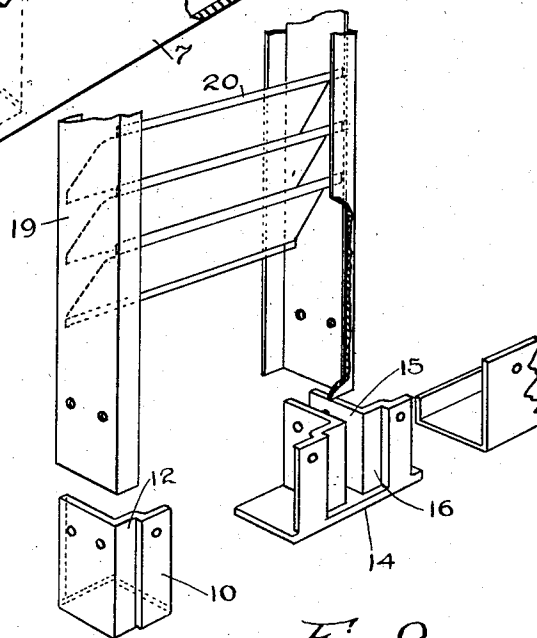


Fig. 9

WITNESSES

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GEHBARD C. BOHN, OF ST. PAUL, MINNESOTA.

REFRIGERATOR-CAR.

1,061,974.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed January 17, 1912. Serial No. 871,614.

To all whom it may concern:

Be it known that I, GEHBARD C. BOHN, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Refrigerator-Cars, of which the following is a specification.

My invention relates to improvements in refrigerator cars of that type in which the ice containers are in the ends of the cars, its object being particularly to provide an improved construction of metal bulkhead to form the inner wall of the ice container in connection with improved means for holding the bulkhead in coöperative relation with the walls of the car.

To this end the invention consists in the features of construction, combination, and arrangements of parts hereinafter described and claimed.

In the accompanying drawings forming part of this specification, Figure 1 is a cross section of the car showing the bulkhead in elevation; Fig. 2 is a section on line $x-x$ of Fig. 1; Fig. 3 is a vertical longitudinal section of one end of the car, broken away, showing my improved bulkhead in partly raised position; Fig. 4 is a section on line $y-y$ of Fig. 3; Fig. 5 is a longitudinal section through a portion of the bulkhead and coöperating guide way formed in the side wall of the car; Fig. 6 is a section on line $v-v$ of Fig. 5; Fig. 7 is a perspective view of the bulkhead broken away. Fig. 8 is a perspective view broken away of a portion of the top of the bulkhead frame; and Fig. 9 is a perspective view broken away of a portion of the bottom of the bulkhead frame illustrating the method of assembling the members of the bulkhead.

In the drawing 2 represents the floor, 3 the end wall, 4 the side walls, and 5 the roof of an ordinary refrigerator car. Extending across the end of the car and adapted to form the inner wall of the ice container is my improved bulkhead A. The bulkhead is of knockdown metal construction as shown particularly in Figs. 5 to 9. In constructing my bulkhead I employ angle shaped top and bottom cross bars 6 and 7 between which are secured the vertical end angle shaped uprights 8 and intermediate uprights 9. The end uprights 8 are secured at their lower ends within the bottom cross bars 7 through the medium of the

brackets 10 which are overlapped by the lower ends of the uprights, the uprights being secured to the brackets as by bolts 11, and the bracket being similarly secured to the bottom cross bar. Each bracket 10 is formed with a depressed corner portion 12 to receive the inwardly bent front edge of the upright 8. The upper end of the upright is secured within the adjacent end of the top cross bar 6 as by an angle bracket 13. The intermediate uprights 9 are secured to the bottom cross bar 7 by means of a bracket 14. The bracket 14 is formed with a central opening 15 to receive the lower ends of a pair of uprights 9 placed back to back, the flanged edges of the uprights 9 extending into recesses 16 in the outside of the bracket so as to stand between the bracket and upwardly extending front wall of the bottom cross beam. The upper ends of the uprights 9 are secured in substantially similar brackets 17, the uprights being secured in said brackets 14 and 17 as by means of the bolts 18 and the brackets being similarly secured to the upper and lower cross beams. The end upright 8 and the opposed upright 9, with each additional pair of uprights 9, constitute receiving sides for the port frame sections illustrated specifically in Fig. 9. Each port frame section consists of inwardly flanged metal side bars 19 between which are supported a plurality of superimposed interspaced port walls 20. The port walls 20 may be secured in the side bars 19 as by being formed at their ends with tongues 21 clenched through corresponding slots in the adjacent side bars.

In order to support the bulkheads in guideways 22 extending upwardly and horizontally in the side walls of the car, I provide the pivot bolts 23 and 24. The pivot bolts 23 are slidably supported at the upper corners of the bulkhead by sockets 25 carried by the end brackets 17 and into which sockets the pivot bolts slidably extend, the bolts being pressed outward by the springs 26 inclosed within the sockets. The outer ends of the bolts extend through openings in the end uprights of the bulkhead and project into the guideways 22. Supported in the bulkhead below the bolts are the bolts 24, the inner ends of which bolts 24 slide in sockets 27 supported upon the inner faces of the adjacent uprights 9, said bolts 24 being pressed outwardly by

the springs 28 inclosed within said sockets, the outer ends of the bolts extending through the end uprights of the bulkhead and projecting into the guideways 22. The sockets 5 25 and 27 as shown in Fig. 6 are split, the socket members being connected by bolts 29, thus permitting the removal of the bolts.

In carrying the bulkhead to supported position it will first be lifted out of the groove 10 30 in the car floor and as soon as the pivot bolts 23 reach the horizontal portion of the guideways 22 the bulkhead may be swung outwardly, the upper pivot bolts traveling rearwardly in the horizontal portions of the 15 guideways and the pivot bolts 24 traveling upwardly in the vertical portions of the guideways, allowing the bulkhead to be carried to raised position underneath the roof of the car:

20 I claim nothing in the method of supporting the bulkhead in the side walls of the car, my present invention being limited to the construction of the bulkhead and associated parts.

25 In building the bulkhead in the manner shown I secure a bulkhead which may be made entirely of metal and in which the uprights are thoroughly braced and supported in connection with the top and bottom cross 30 beams, and in which a plurality of port sections, as shown in Fig. 9 are independently supported so that one port section may be removed and repaired without injuring the other port sections. I also secure a construction 35 in which the pivot bolts are firmly supported and braced and at the same time easy of removal.

I claim as my invention:

1. In combination with a refrigerator car,

a transverse metal bulkhead supported therein and spaced from the adjacent end of the 40 car, said bulkhead comprising top and bottom cross bars angular in cross section, a plurality of uprights secured at their ends within said cross bars and spaced to form 45 frame openings, and ported frame sections consisting of uprights and connecting port walls supported within said frame openings.

2. In combination with a refrigerator car, 50 a transverse metal bulkhead supported therein and spaced from one end of the car, said bulkhead comprising top and bottom cross bars angular in cross section, a plurality of spaced uprights secured at their ends within 55 said top and bottom cross bars, said spaced uprights being angular in cross section whereby said cross bars and uprights constitute inwardly channeled frame openings, and ported frame sections secured within 60 the channels of said frame openings.

3. In combination with a refrigerator car, a transverse metal bulkhead supported therein and spaced from one end of the car, said 65 bulkhead comprising top and bottom cross bars and connecting spaced uprights, said cross bars and uprights being channeled upon their inner faces and forming frame openings, horizontally ported frame sections fitted within the channels of said frame 70 openings, and corner brackets securing said frame sections and cross bars.

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

GEBHARD C. BOHN.

Witnesses:

H. S. JOHNSON,

H. SWANSON.