

(No Model.)

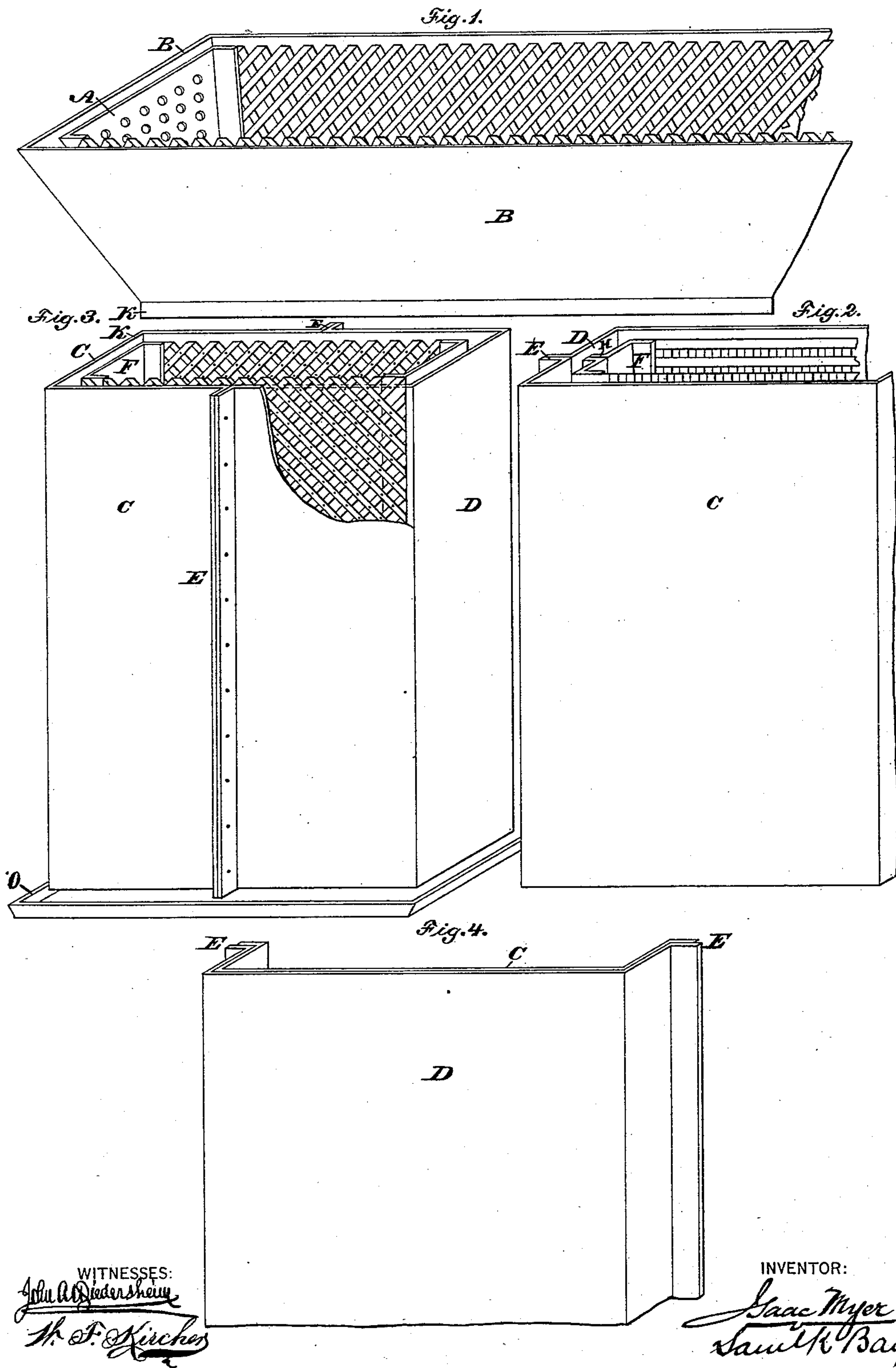
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I. MYER & S. K. BAYLEY.

REFRIGERATING CHAMBER, CAR, AND APPARATUS.

No. 277,150.

Patented May 8, 1883.



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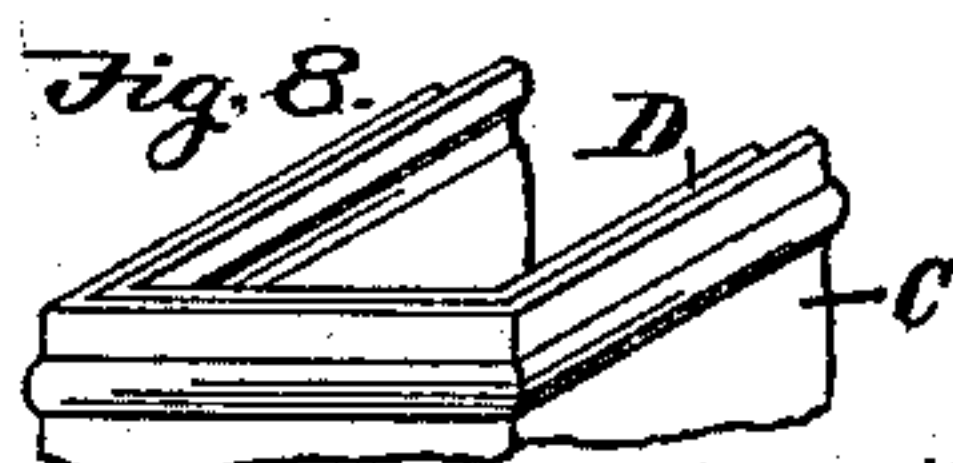
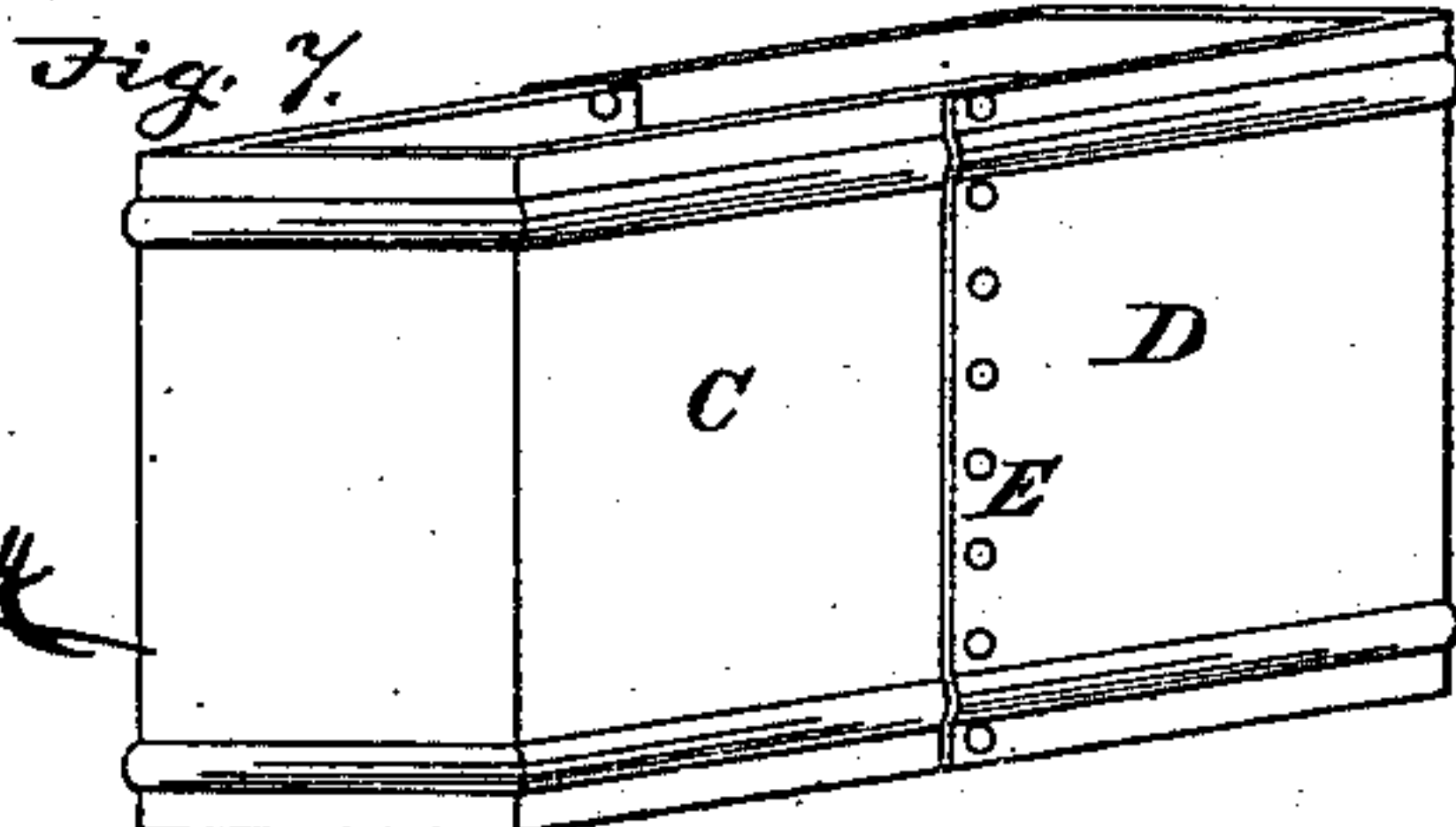
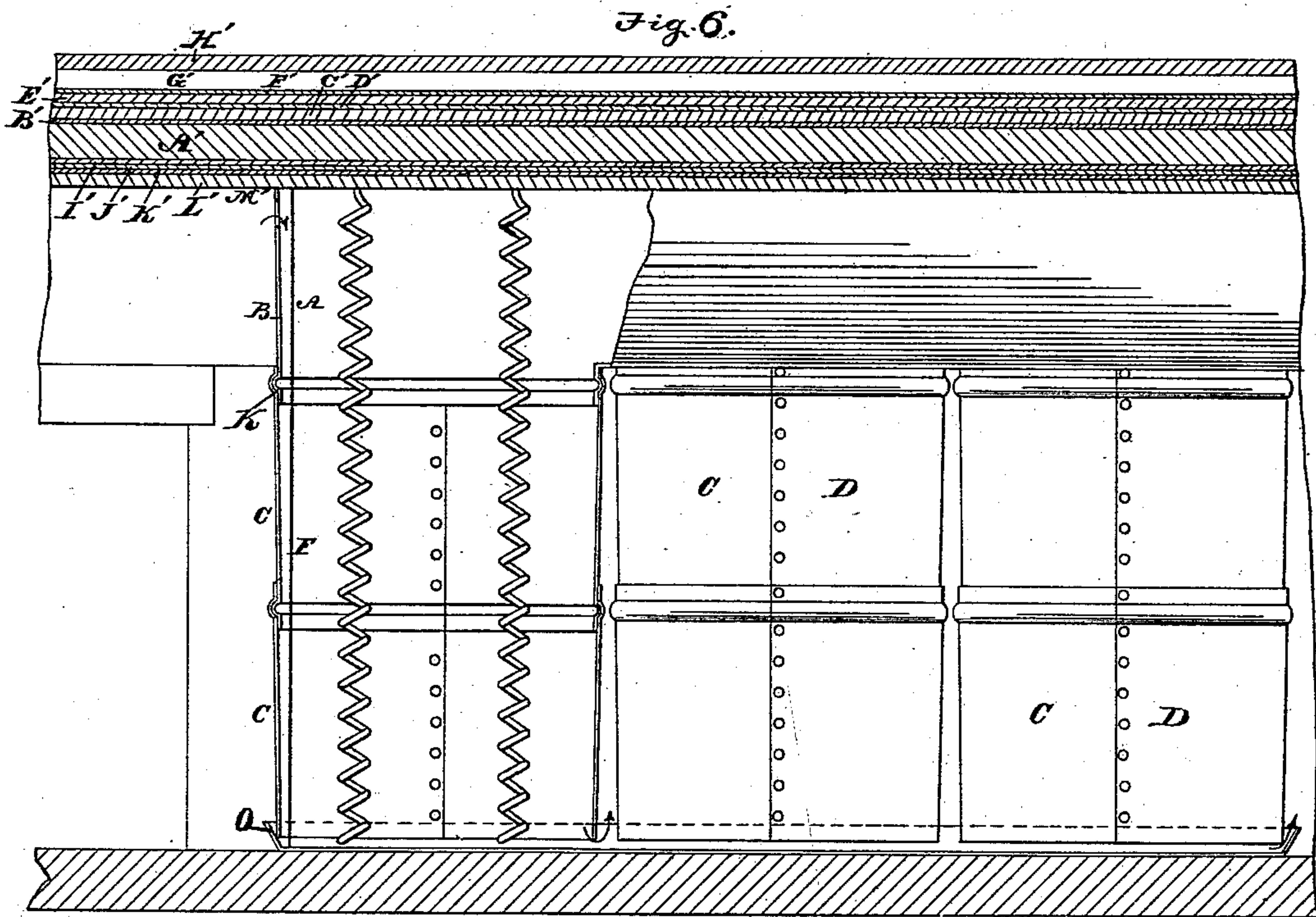
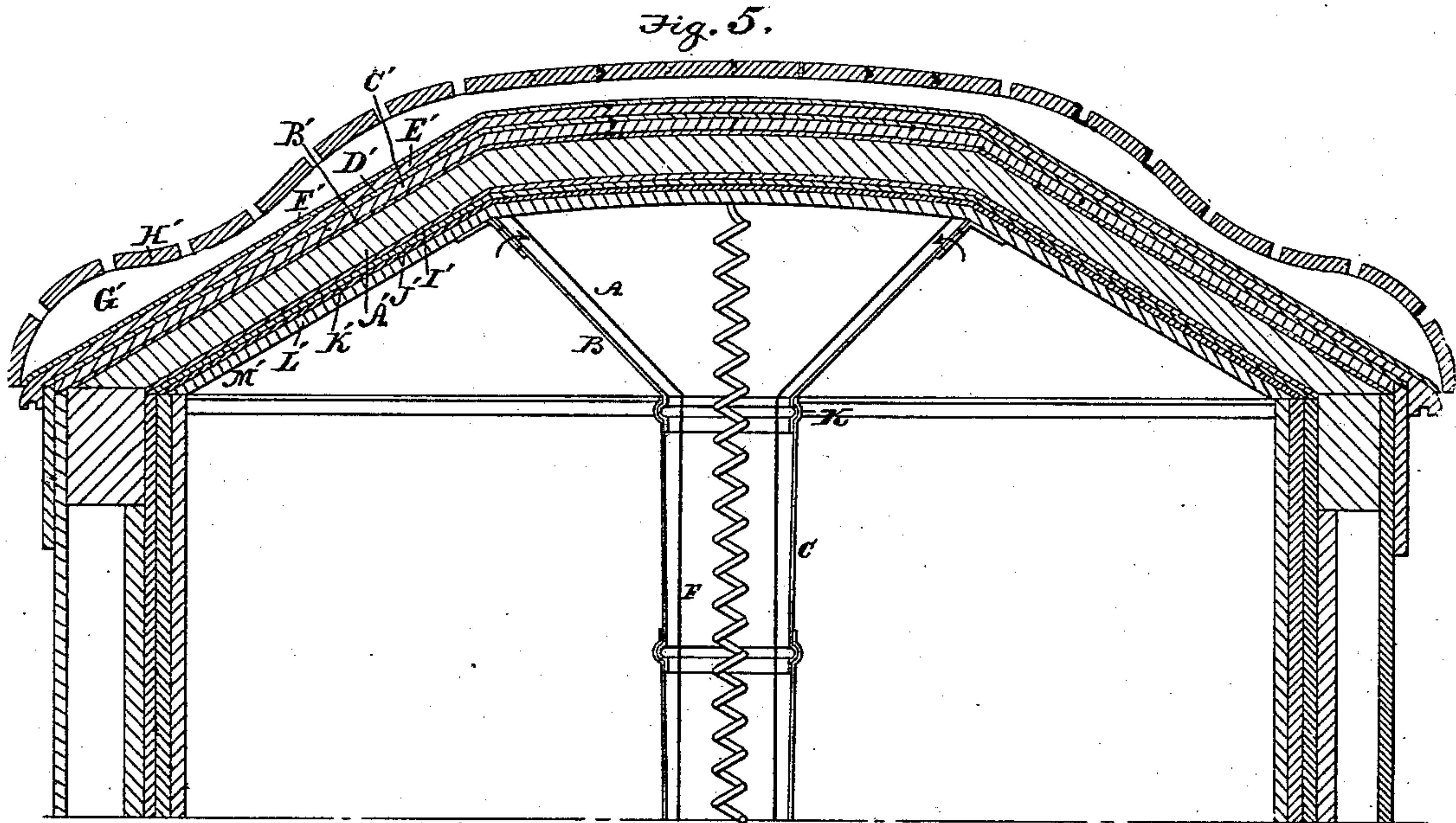
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WITNESSES:  
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# UNITED STATES PATENT OFFICE.

ISAAC MYER, OF PHILADELPHIA, PENNSYLVANIA, AND SAMUEL K. BAYLEY, OF BOSTON, MASSACHUSETTS.

## REFRIGERATING CHAMBER, CAR, AND APPARATUS.

SPECIFICATION forming part of Letters Patent No. 277,150, dated May 8, 1883.

Application filed July 13, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, ISAAC MYER, of the city and county of Philadelphia, State of Pennsylvania, and SAMUEL K. BAYLEY, of Boston, in the county of Suffolk, State of Massachusetts, both citizens of the United States, have invented a new and useful Improvement in Refrigerating Apparatus, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1, 2, and 3 are perspective views of portions of refrigerating apparatus embodying our invention. Fig. 4 is a perspective view, showing the method of packing parts thereof. Fig. 5 is a transverse vertical section of the body of a car or chamber embodying our invention. Fig. 6 is a longitudinal vertical section thereof. Figs. 7 and 8 are perspective views of detached portions thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Our invention consists of certain improvements in refrigerating apparatus, as will be hereinafter fully described, and definitely set forth in the claims.

Referring to the drawings, A represents a tank for ice or other freezing material, and B represents an exterior casing which envelops said tank A, an air-space existing between said tank and casing, as shown in Fig. 1. The lower end of the casing B is formed with a neck, K, which is adapted to fit the top of a casing, C D, within which is a conductor or holder, F, which communicates with the tank or receiver A, and is fitted thereto, and is separated from the casing C D by an air-space, as shown in Figs. 2 and 3.

O represents a drip-pan, which is located below the casing C D and separated therefrom, whereby, while the water from the melted ice, &c., may be collected in said pan, the cold air created within the casing may escape at the bottom of the same and enter the apartment in which the apparatus is placed, the drip being suitably directed from said pan O.

The tank A is made of slatted or open work, and the holder F is formed in part or wholly of slats or bars pivotally connected after the manner of the well-known lazy-tongs, which permit the folding of the holder in compact form, and the casing C D is constructed of

plates, the parts of the tank and holder being bolted or screwed together, or otherwise fastened at their sides or ends, or both, at their angle ends E, whereby said parts may be disconnected and packed in compact form. The tank A and its casing, the holder F and its casing, and the drip-pan may be formed of metal, wood, or other suitable material and of any desirable or necessary shape, it being seen that when the apparatus as described is not required it may be taken down and stowed away in the apartment which it is to occupy when its service is required, the setting up of the same being accomplished in a simple and convenient manner. The angle ends E readily permit the folding of the plates in nests, as seen in Fig. 4.

It will be seen that when the tank A and holder F are supplied with ice or other freezing material large refrigerating or cooling surfaces are provided. The tank is covered by a suitable lid, which may be part of the apartment in which the apparatus is located, and the top of the casing is left open to permit circulation of air through the air-space. The cold air descends in the air-spaces, and the casings B and C D are also cooled, so as to cool the air of the apartment by radiation, which action and that mainly of direct cold air of the air-spaces, leaving the casing C D and entering said apartment, causes the refrigeration or cooling of the latter in an effective and reliable manner, some of the heated matters or vapors entering the air-space at the bottom of the casing C D, wherein they are chilled or condensed, and others rising to the top of the apparatus and entering the tank A or casing B, or both, where they are chilled or condensed, and so returned to the apartment or drip-pan.

In Figs. 5 and 6 are shown the car-body or other apartment in which the hereinbefore-described apparatus is placed, said apparatus and its circulating-air space reaching from the roof to the floor of said apartment, the access to the top of the apparatus being through the roof of the apartment or openings in the sides of the casing B and tank A.

The carling A' is formed of metal, wood, or other suitable material, and has a covering, B', of paper, above which are respectively a



layer, C', of felt, a layer, D', of paper, a course, E', of wood or other material, a water-proof covering, F', of metal or other material, a frame, G', of wood or other suitable material, and finally the exterior boards or strips, H', of wood or non-conducting material, the middle strips being close together and those on the sides being separated to permit the passage of air without the admission of the rays of the sun. Under the carling are respectively a course, I', of paper, a layer, J', of felting, a course, K', of paper, strips L' of wood, and finally the interior course of wood or other material forming the ceiling or lining of the car body or apartment, the casing B joining the same. The several parts are firmly nailed, screwed, or otherwise fastened in position, it being evident that the sides and bottom or other walls of the car body or apartment may be constructed similarly to the roof, the object of the peculiar combination of parts being to prevent heat or cold from the outside or inside of the apartment penetrating the covering or walls thereof, and thus entering or escaping therefrom, or in otherwise preventing communication of the atmosphere and the apartment, whereby there is an equable and even temperature in said apartment, the best effects of refrigeration and economy in ice or freezing material, and in the general construction of the entire device. Rain, dirt, &c., entering between the slats H' fall on the water-proof or metal covering F', and are directed to the sides of the roof and there discharged.

The coil or spiral wires shown in the drawings are not part of the subject-matter of the present application, as they are described and claimed in a prior application.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a refrigerating apparatus, the carling or covering of the apartment containing said apparatus, consisting of the paper covering B', felt C', paper D', wood E', water-proof covering F', frame G', and exterior strips, H', combined and operating substantially as and for the purpose set forth.

2. In a refrigerating apparatus, the part under the carling or ceiling of the apartment containing the same, consisting of paper I', felt J', paper K', and wooden strip L', substantially as and for the purpose set forth.

3. An ice-tank and ice-holder, in combination with an exterior casing for said tank and an exterior casing for said holder, said tank and holder being in communication, and said casings being in communication with the tank and holder and with each other by means of an air space which extends continuously from the top to the bottom of the apparatus, substantially as and for the purpose set forth.

4. An ice-receiving tank, in combination with an ice-holder continuous thereof, below the same, and exterior casings, the tank having a neck which is detachably fitted to the top of the holder, substantially as and for the purpose set forth.

5. An ice-receiver formed of bars or pieces connected after the manner of lazy-tongs, substantially as and for the purpose set forth.

6. The ice-receiver and surrounding casing formed of plates with angle ends E, which may be disconnected and packed in nests, as in Fig. 4, substantially as and for the purpose set forth.

7. A refrigerating apparatus formed of an apartment, an upper ice-tank joining the ceiling of said apartment, an ice-receiver below the same, resting on the floor, and inclosing casings for the tank and receiver, with a continuous air-space between the tank and receiver, and exterior casings from top to bottom of the apparatus, substantially as and for the purpose set forth.

ISAAC MYER.  
SAML. K. BAYLEY.

Witnesses as to the signature of Isaac Myer:

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