

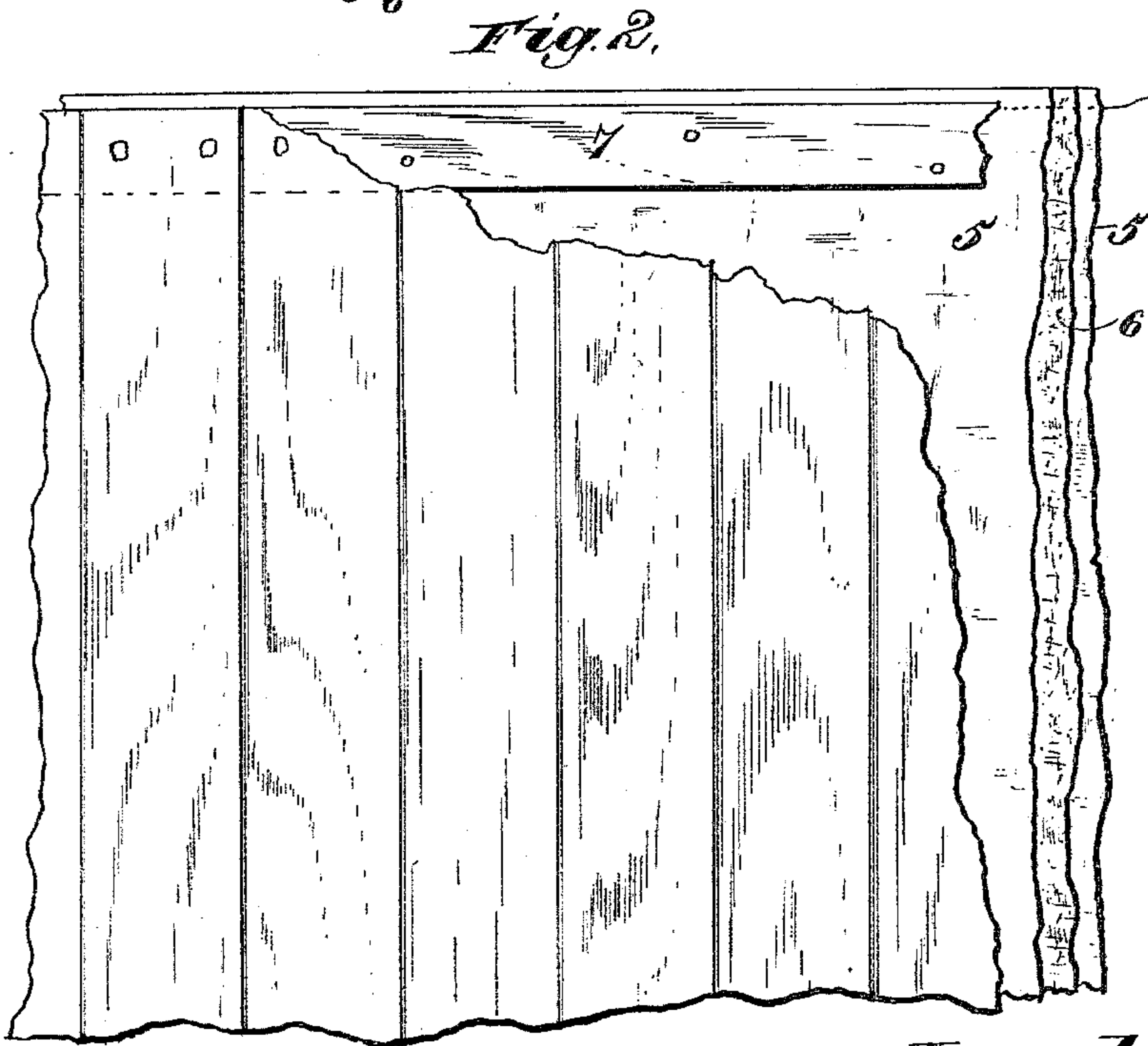
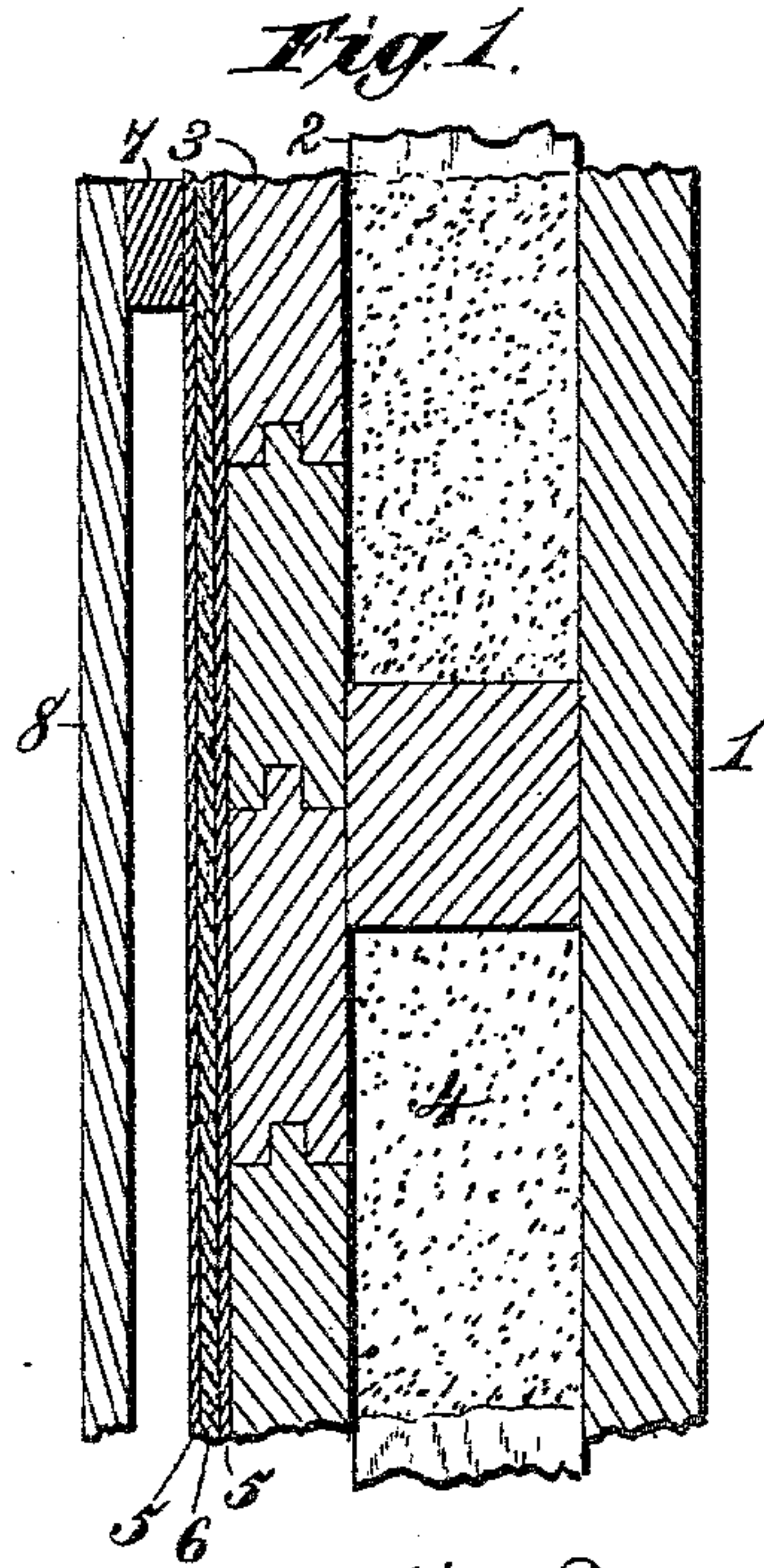
(No Model.)

A. J. CHASE.

WALL FOR REFRIGERATOR STRUCTURES.

No. 318,870.

Patented May 26, 1885.



Witnesses.

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UNITED STATES PATENT OFFICE.

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WALL FOR REFRIGERATOR STRUCTURES.

SPECIFICATION forming part of Letters Patent No. 318,870, dated May 26, 1885.

Application filed March 21, 1885. (No model)

To all whom it may concern:

Be it known that I, ANDREW J. CHASE, a citizen of the United States, residing at Boston, Massachusetts, have invented new and useful Improvements in Walls for Refrigerator Structures, of which the following is a specification.

This invention has for its object to provide insulating or non-conducting walls for refrigerator-buildings, refrigerator-cars, and other analogous structures, which possess the requisites of being impermeable to heat or cold, are devoid of smell or odor, and are not liable to become a breeding place for vermin, and are, moreover, cheaper and superior to insulating or non-conducting walls heretofore devised.

The invention consists in the construction and combination of parts, which will be hereinafter more fully described, and then set forth in the claims.

In the drawings, Figure 1 is a vertical sectional view of an insulating or non-conducting wall for a refrigerator structure made according to my invention. Fig. 2 is an elevation partly in section.

The reference numeral 1 designates the outer wall of a refrigerator structure, which may be a permanent building, a car, or a portable structure of any required dimensions, shape, or capacity. This outer wall is made of vertical boards, which are secured to the outer side of a frame-work, usually made of upright joists or standards 2, and top and bottom beams or bars. To the inner side of this frame-work horizontal boards 3 are secured, so as to form a chamber between the two walls thus formed, which is filled in with dry mill-shavings, cut straw, granulated cork, or other light and elastic non-conducting material, indicated in the drawings by the numeral 4. The inside boarding, 3, is matched or connected by tongue-and-groove joints, and should be as dry as possible. Upon this boarding is tacked or otherwise secured one or more thicknesses of a fabric composed of sheets of strong paper, 5, and an even layer of cotton-wool, 6, which is interposed between the layers of paper, so that the latter become covers for said cotton. The sheets of paper and interposed cotton are hemmed and quilted some-

what like an ordinary quilt, so as to hold the parts together and permit it to be transported and handled without being separated. This compound fabric is tacked upon the boarding 3, so as to form a complete jacket on all sides, and after this strips of wood or furring-pieces 7 are nailed through the fabric onto the boarding 3. These furring-pieces thus serve to hold the compound fabric in place, and they also form a base or foundation, upon which to nail the inside or finish sheathing, 8. It will be observed that this furring also forms an air-space between the sheathing and the compound fabric.

It has been found by actual demonstration that the peculiar combination of surfaces above described makes a superior wall of insulation against the conduction of either heat or cold, and for this reason is admirably adapted for use in refrigerator or other analogous structures.

Hair felt has ordinarily been employed for lining or packing refrigerator-walls; but many objections exist to its use. First, it is expensive; next, it is of animal origin and frequently quite filthy, emitting strong odors, and it has been found to be a breeding-place for fleas and other vermin. My compound fabric of cotton and paper is a better non-conductor than hair felt, and, being free from odor and not liable to breed and attract vermin, its presence in a refrigerating structure is very desirable, since it is not liable to vitiate the air therein, and always remains pure and untainted.

Some other good fibrous filling of a vegetable or mineral nature may be substituted for cotton and held between the covering sheets of paper, and it is furthermore apparent that as many layers of the compound fabric may be used in the formation of the non-conducting walls as the requirements of the case demand.

Having thus described my invention, what I claim is—

1. A double wall for a refrigerator structure containing a packing or lining of a compound fabric made of sheets of paper and an interposed layer of cotton or vegetable fiber, substantially as described.

2. A non-conducting wall for a refrigerator

structure consisting of inner and outer board-
ing, an intermediate space filled with a dry
non-conducting substance, a compound fabric
of paper and cotton secured to the inner board-
5 ing, furring-pieces secured over the compound
fabric for holding it in place, and inner sheath-
ing secured to said furring, substantially as
described.

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

ANDREW J. CHASE.

Witnesses:

WARREN A. CHASE,
FISHER AMES.