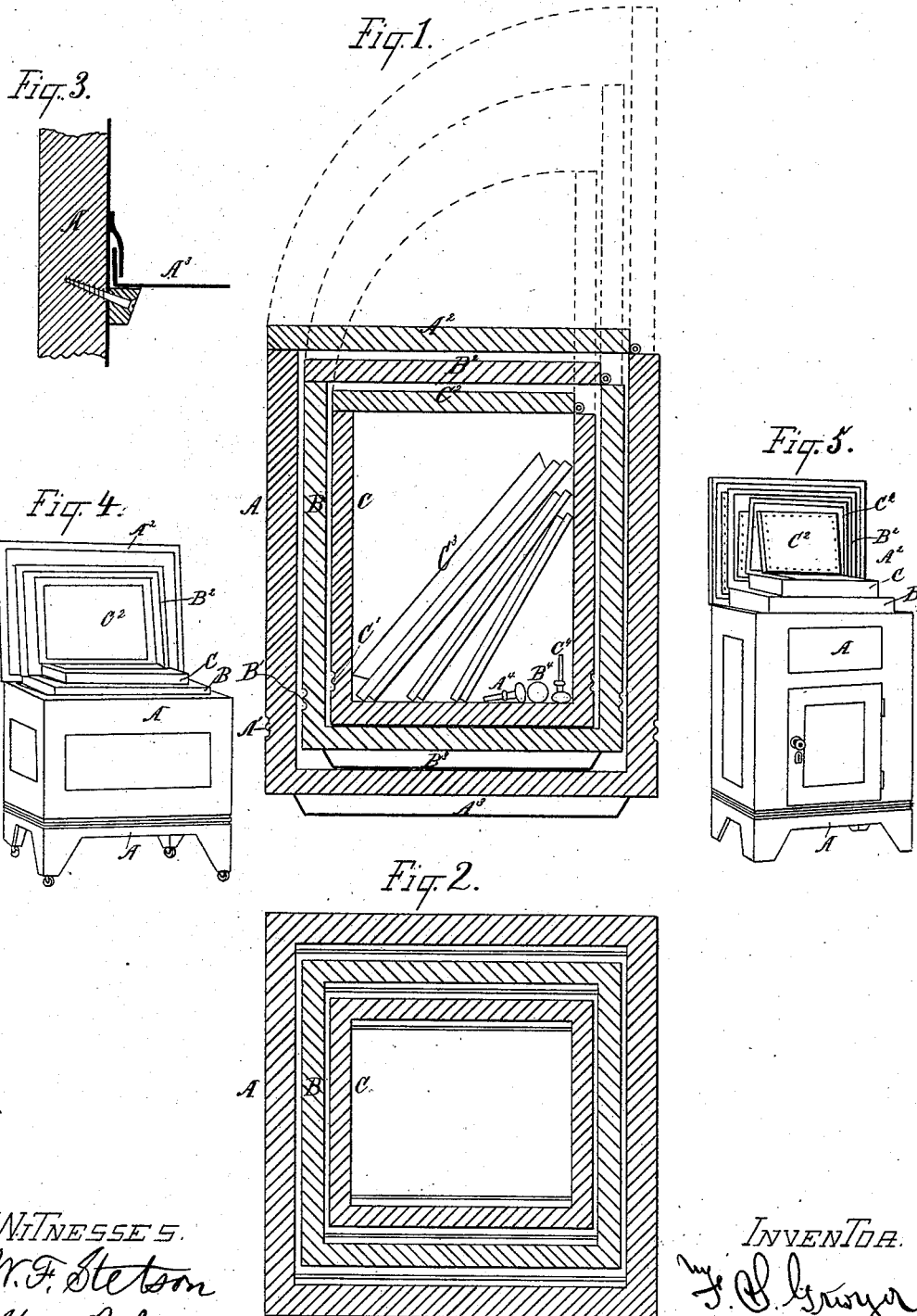


(No Model.)

F. S. GWYER.  
REFRIGERATOR.

No. 347,293.

Patented Aug. 10, 1886.



WITNESSES.  
W. F. Stetson  
Charles R. Searle.

INVENTOR.  
F. S. Gwyer,  
by his attorney  
Thomas S. Searle.

# UNITED STATES PATENT OFFICE.

FREDERICK S. GWYER, OF NEW YORK, N. Y.

## REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 347,293, dated August 10, 1886.

Application filed February 24, 1885. Serial No. 156,752. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK S. GWYER, of New York city, in the county and State of New York, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification.

I have discovered that the thick structures known as "refrigerators," composed of two or more thicknesses of material adapted to afford protection of the contents against the access of heat, can be successfully nested. I make the sides perpendicular, without any projections beyond the general line of the sides, either in the form of a base-board, cover, or knob. The knobs and shanks are not applied until after the refrigerators are unpacked or separated. I employ but one cover for each refrigerator, giving it increased thickness in the middle, and hinging it so that it can be turned up into the perpendicular position without projecting beyond the exterior line of the back. The greater part of the furniture or interior work for the whole can be stored in the interior of the innermost refrigerator. I proportion the parts with reference to this mode of stowage.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a central vertical section showing the refrigerators in the nested condition. Fig. 2 is a horizontal section of the same, the furniture being removed. Fig. 3 is a vertical section of a detail on a larger scale. Figs. 4 and 5 are perspective views showing two forms of refrigerators. They are represented as each elevated relatively to the next, the better to show the arrangement.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

I have represented the nest as composed of three refrigerators, and will so describe it.

A is the largest, B the intermediate, and C the smallest refrigerator. Certain portions of each will be designated, when necessary, by additional marks, as A' B'.

A beaded groove around each refrigerator at a proper height separates a lower portion, A' B' C', from the main body above. This gives the appearance of a base; but it is only

of the same dimensions as the upper portion. The cover A<sup>2</sup> B<sup>2</sup> C<sup>2</sup> of each is of such dimensions and so applied that it does not overhang. It is hinged to the inner instead of the outer edge, and can be thrown into the upright position, as indicated by dotted lines in Fig. 1, without extending outside of the boundary-line, and consequently without striking the inclosing-refrigerator. The thickness of each refrigerator is something less than is usual with refrigerators which are not thus packed. By using good material one and one-half inch to two inches is a sufficient thickness for a good non-conducting wall.

The refrigerators A, B, and C are similar in construction each to the others; but their proportions are different. There is more space allowed within at each end than at the front and back. This is necessary to accommodate the wires at the ends which support the shelves. They require more space than the cleats which extend along the front and back to support the ice-pan. I make the smallest one with the same thickness of wall as the others. In each there is an outer board of some seven-eighths inch, then a layer of felt, then a thin inner board, and a zinc lining. In each there are the usual door, rabbeted, wires, permanently set, supporting removable shelves, and cleats to support a removable ice-pan, A<sup>3</sup> B<sup>3</sup>, &c. A knob and shank for operating each door A<sup>4</sup> B<sup>4</sup> C<sup>4</sup> is furnished with each, but not connected. Each knob and shank is placed in the interior of C.

All the parts being prepared and the cover being properly hinged to each body, the largest refrigerator, A, is opened and the intermediate refrigerator, B, is lowered into it, the ice-pan therefor being first placed in the bottom of the interior of A. Then the cover B<sup>2</sup> of the refrigerator B is raised and the refrigerator C is lowered into it. Then the cover C<sup>2</sup> of the refrigerator C is raised and the ice-pan of C and the shelves of all the refrigerators are placed inside, as also the feet and shanks and knobs for all. Then closing C, B, and A in succession and securing them, as a final step I secure the ice-pan of A to the exterior of the bottom of A, and the whole nest is ready for storage or shipment, either with or without a cheap packing-case for protection.

The invention is intended, mainly, to facili-

tate packing and transportation, it being understood that the refrigerators are to be separated when used; but in case all three are purchased by one party, and a less number is required, or in case an intensely-hot climate and a scarcity of ice shall render such a course expedient, all three or any two of the refrigerators may be used in their nested condition—that is to say, the furniture may be introduced only in the smaller, which remains within the other refrigerators, and the ice and other contents are introduced in the inner refrigerator. In such case all the bodies are available as non-conductors at the sides and bottom, and all the covers are available as non-conductors at the top.

Modifications may be made in the details. It will be understood that points not described may be of the ordinary construction. The ice-pan may be made non-conducting in the ordinary manner and slanted back, as usual. The drain-pipe for each may be as usual. By a little care in the proportioning, all the furniture except the ice pans of the largest and medium refrigerators will pack in the inside of the smallest.

The invention will apply to ice-chests, by which I mean that form of construction in which there is no door-opening through the front, and all articles are introduced and removed through the top.

I am aware that boxes and other receptacles have been before constructed of regularly-varying sizes and adapted to be nested one within another in regular series. My invention contemplates more than this. I provide

such a difference in size between the intermediate refrigerators that room is left for the ice-pan of each between it and the next outside refrigerator. The ice-pan of each, except the innermost refrigerator, is packed outside of its respective refrigerator. Another important feature lies in the hinging of the lids upon the inner edge of each refrigerator, whereby the lids of the entire series may be raised when the refrigerators are nested.

What I claim as new is—

1. A series of refrigerators with hinged lids nested together, the outer one having its ice-pan secured upon its exterior bottom, to leave its interior free to receive the next smaller refrigerator and its ice-pan, the inner refrigerator of the series being of a size to correspond with the interior of the next larger refrigerator, and carrying its ice-pan in its interior, and the other refrigerators of the series being received with their ice-pans within the next larger refrigerator, as set forth.

2. A series of refrigerators of different sizes, nested together as described, and having lids hinged upon the inner edges, whereby all the lids may be opened while the refrigerators are nested, as set forth.

In testimony whereof I have hereunto set my hand, at New York city, New York, this 31st day of January, 1885, in the presence of two subscribing witnesses.

FREDERICK S. GWYER.

Witnesses:

M. F. BOYLE,

CHARLES R. SEARLE.