

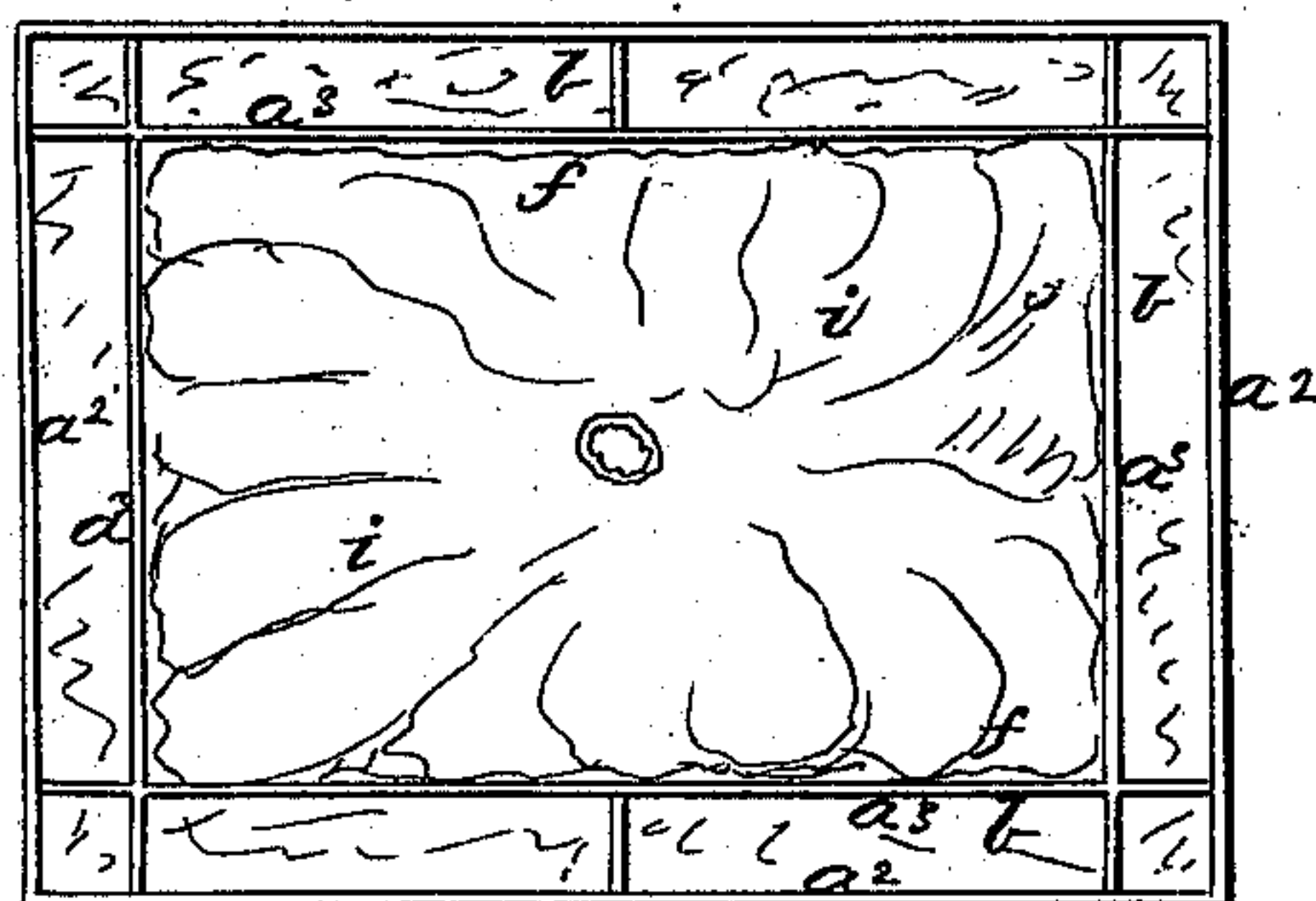
# *T. L. Rankin*

## *Refrigerator House.*

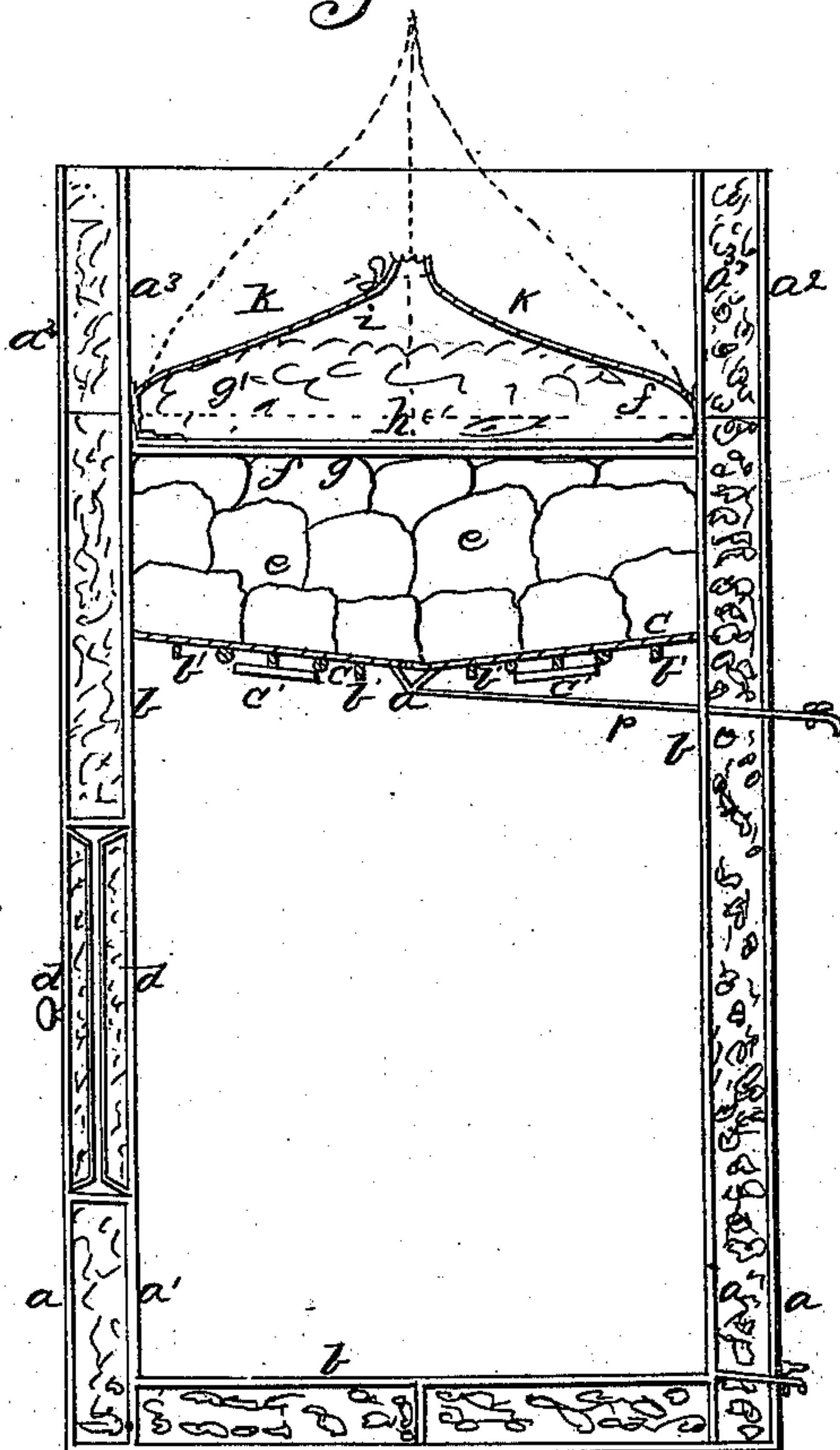
*N<sup>o</sup> 83,316.*

*Patented Oct 20, 1868.*

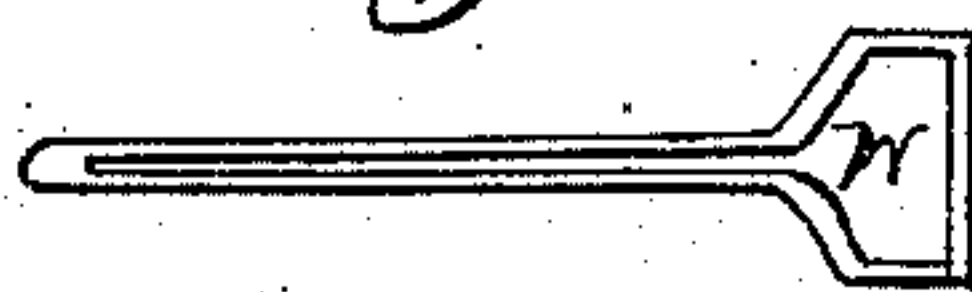
*Fig: 1 Sectional views*



*Fig: 2.*



*Fig: 3.*



Witnesses:

*G. J. Gordon*  
*Geo H Collins*

Inventor:

*Thos L Rankin*



# UNITED STATES PATENT OFFICE.

THOMAS L. RANKIN, OF NEW RICHMOND, OHIO.

## IMPROVED REFRIGERATING-HOUSE.

Specification forming part of Letters Patent No. 83,316, dated October 20, 1868.

*To all whom it may concern:*

Be it known that I, THOMAS L. RANKIN, of New Richmond, county of Claremont, and State of Ohio, have invented a new and Improved Portable Refrigerating-House; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and the letters of reference marked thereon, in which the same letter represents the same thing in each figure.

Figure 1 is a top view of the ice-follower. Fig. 2 is a cross-section of the house. Fig. 3 is a longitudinal section of wiper.

The purpose of my invention is to apply certain of the principles and methods adopted by and patented to Professor Benjamin M. Nyce, in his fruit-preserving houses, to the preservation of meat, fish, and other articles in steamboats, railway-cars, hotels, and dwelling-houses, without waste of ice, and in a compact and easily-handled form, securing in the same house, for different articles at the same time, great coolness for some and a frozen state for others, at the pleasure of the proprietor. I accomplish this by making the house ordinarily about six feet square, of iron or metal on the exterior, and having an inner lining of galvanized iron one foot therefrom, the space between being filled with cotton or other non-conductor of heat.

For the ice-floor I adopt Professor Nyce's iron floor, inclining toward the center and resting on iron bars. Above this ice-floor I place the ice. Immediately above the ice, and in close contact, I place an air-tight wooden follower, lined on the inside with galvanized sheet-iron, and having at the edges, between the iron and wood, an india-rubber lip projecting about an inch beyond the follower all around.

To the top of the follower is tacked, near the edges, a stiff and strong woolen cloth, which is laid up against the sides of the ice-chamber. Upon the follower sawdust is placed, and the edges of the cloth turned down thereon. Attached to the four corners of the follower are ropes, by which it can be removed at will.

$a$  and  $a^1$  represent the outer and inner shells of the house;  $a^2$  and  $a^3$ , the same as to its top;  $b$ , the inner galvanized-iron linings of the refrigerating-chamber;  $b'$ , the iron bars

that support the ice-floor;  $c$ , the ice-floor;  $c'$  and  $c'$ , the freezing-pans;  $d$  and  $d'$ , the outer and inner doors;  $e$ , the ice;  $f$ , the galvanized sheet-iron lining of follower  $h$ ;  $g$  and  $g'$ , the rubber lips of follower;  $h$ , the follower;  $i$ , the sawdust;  $k$ , the woolen cloth;  $p$ , the cold-water pipe;  $w$ , the wiper.

The operation of these appliances is as follows: From the ice-covered iron floor cold air is constantly, by natural law, striking down to the bottom of the chamber, whence the warm air is rising to the ice-floor to be cooled and returned, thereby producing a temperature of about 34° Fahrenheit in the chamber. All the while moisture is depositing upon the inner surface of the ice-floor, which it is desirable to remove frequently.

When it is desired to freeze fish, oysters, or other perishable articles, fill pans  $c'$  with ice and salt or chloride, and the temperature of the lower part or floor of the chamber will be quickly reduced below freezing, and that of the whole chamber may be, if it is desired.

Follower  $h$ , being directly upon the ice, excludes the air, and prevents any vacuum forming over the ice by following it down as it melts, and the water therefrom passes off through pipe  $p$ .

The cloth  $k$  and rubber lips  $g'$  prevent any sawdust from reaching the ice or getting into the ice-chamber when the follower is removed, so that the ice-water drawn from pipe  $p$  is perfectly clean and pure, and the ice is economized in its use by being made to do two things at once—viz., cool or freeze articles to be preserved and supply ice-water for the table—an object of great importance where ice is thirty dollars a ton.

Mounted upon wheels, the house may be readily moved off and on steamboats and cars.

What I claim, and desire to secure by Letters Patent, is—

1. Ice-follower  $h$ , constructed and operating substantially as and for the purposes described.
2. The combination of ice-floor  $c$  and pans  $c'$ , operating together for the purposes explained.
3. The combination of ice-floor  $c$  and follower  $h$ , operating together substantially as and for the purposes explained.

THOS. L. RANKIN.

Witnesses:

S. J. GORDON,  
GEO. H. COLLINS.