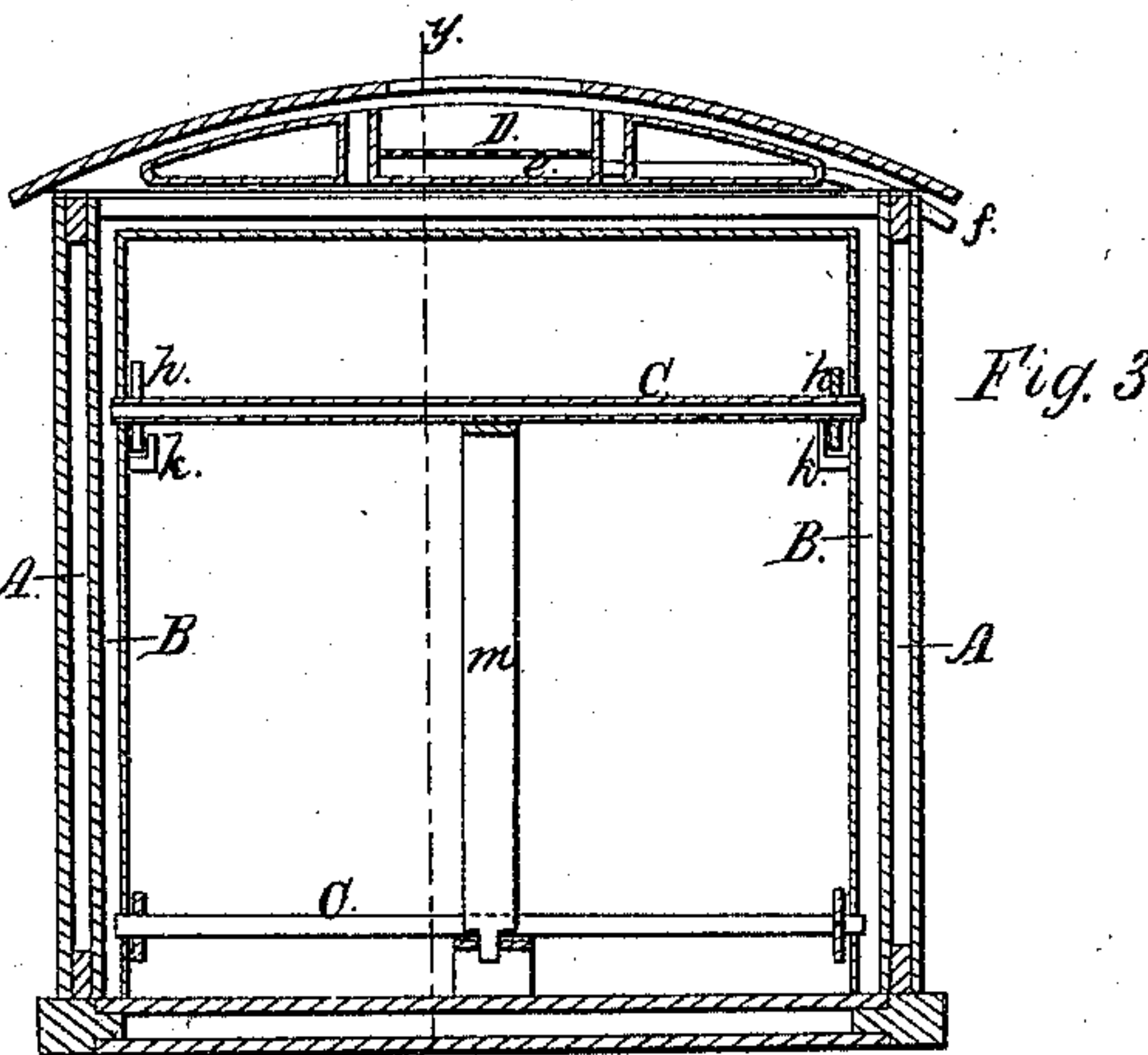
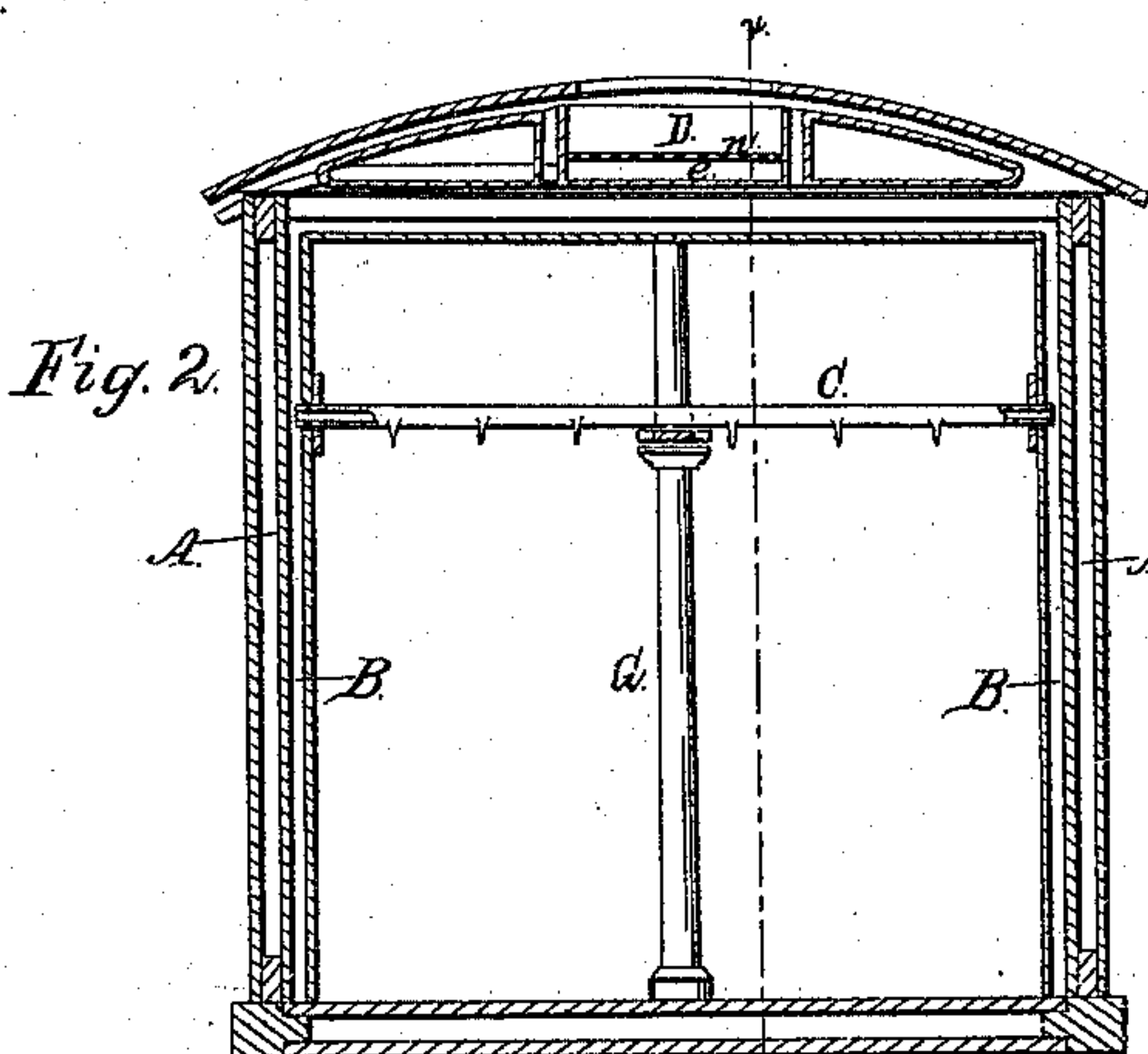
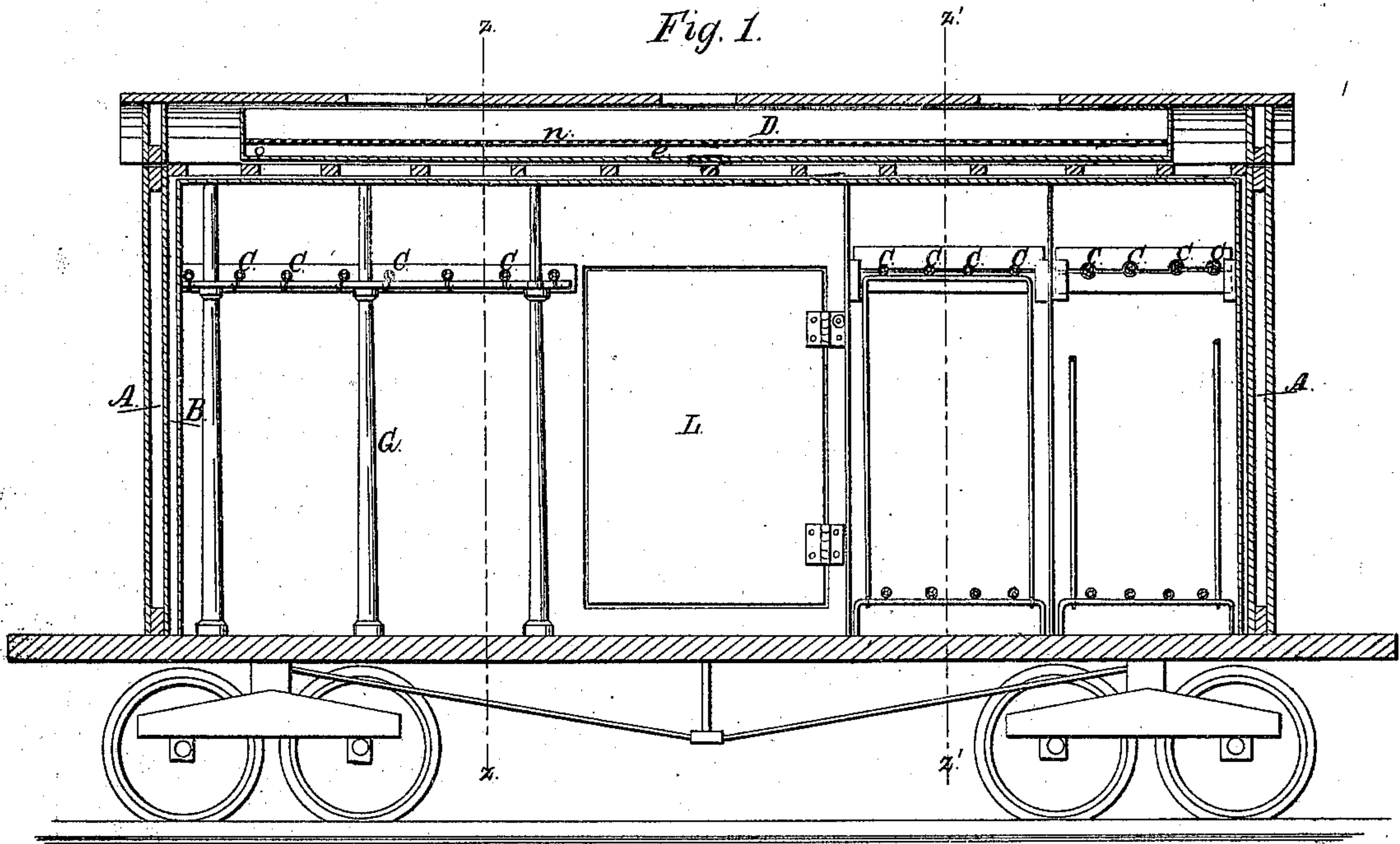


A. L. McCrea.

Refrigerating Car.

N^o 87,348.

Patented Mar. 2, 1869.



Witnesses.

*Chas. Nida
Alex. F. Roberts*

Inventor.

*A. L. McCrea
Munroe &
Attorneys.*

UNITED STATES PATENT OFFICE.

AUGUSTINE L. MCCREA, OF CHICAGO, ILLINOIS.

IMPROVED REFRIGERATING-CAR.

Specification forming part of Letters Patent No. 87,348, dated March 2, 1869.

To all whom it may concern:

Be it known that I, AUGUSTINE L. MCCREA, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Refrigerating-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in the construction of refrigerating railroad-cars for transporting fresh meat, fruit, and all articles which require a low temperature for their preservation; and the invention consists in connecting the sides of the air-chamber, by which the car is surrounded, by horizontal tubes, which tubes form the support for the meat, they being applied and arranged as hereinafter more fully described.

In the accompanying plate of drawings, Figure 1 represents a vertical longitudinal section of a car constructed according to my invention, the section being through the lines *x x* and *y y* of Figs. 2 and 3. Fig. 2 is a vertical cross-section of Fig. 1 through the line *z z*. Fig. 3 is a vertical cross-section of Fig. 1 through the line *z' z'*.

Similar letters of reference indicate corresponding parts.

This car is formed with a space filled with any good non-conductor of heat, and with an interior air-chamber surrounding a metallic lining, with transverse tubes connecting the sides of the air-chamber, the tubes serving as shelves or sustaining-hooks for supporting meat or other articles, the arrangement being different in the two parts of the car, for the better accommodation of the different kinds of meat or other articles to be transported.

A is a space filled with wool or other good non-conducting substance, by which the car is surrounded. B is the air-chamber. C represents transverse tubes, which extend from one side of the car to the other, and connect the sides of the air-chamber, and allow of the presence of cold air within them. D is the ice-box, which is placed above the air-chamber. The drip-water from the ice descends

into the pan *e*, and is discharged from the pipes *f*. G represents stanchions for the support of the roof of the car, ice-box, &c. They may be more or less in number, and arranged in any suitable manner. *i* represents hooks attached to the tubes C, in either or both ends of the car, and in any desired number, for hanging up quantities of meat, poultry, or other articles. The tubes C are confined in the chambers B by means of clamps *h*, formed in two pieces, through which the tubes pass. The clamps are held in place or confined to the inner lining or wall, *j*, by the hooks K. The parts of the clamp form a tight joint around the tubes and keep them in place. By removing the clamps the tubes may readily be taken out for cleaning or other purposes. L represents an entrance-door.

All parts of the car are designed to be suitably protected by air-chambers and non-conducting substances.

The cold air produced by the presence of the ice will, of course, descend by its own gravity, and reduce the temperature of the car to as low a degree as may be required.

The tubes are placed in the car in sections, as represented in the drawing, in one end or part of the car. *m* represents a support for each section, which supports are arranged so as to be readily removed.

Supporting-pieces may also extend from one to the other of the stanchions G, for supporting the tubes at their centers.

The ice is admitted into the ice-box through hatches in the roof of the car, and rests on the perforated bottom *n*.

I claim as new and desire to secure by Letters Patent—

The removable sections of horizontal tubes C, each section supported centrally within the car by the frame *m*, and at the ends by the divided clamps *h*, through which the ends of the tubes pass, and which form tight joints around said tubes at their points of introduction to the air-chamber B, as herein described, for the purpose specified.

AUGS. L. MCCREA.

Witnesses:

F. BLOCKLEY,
ALEX. F. ROBERTS.