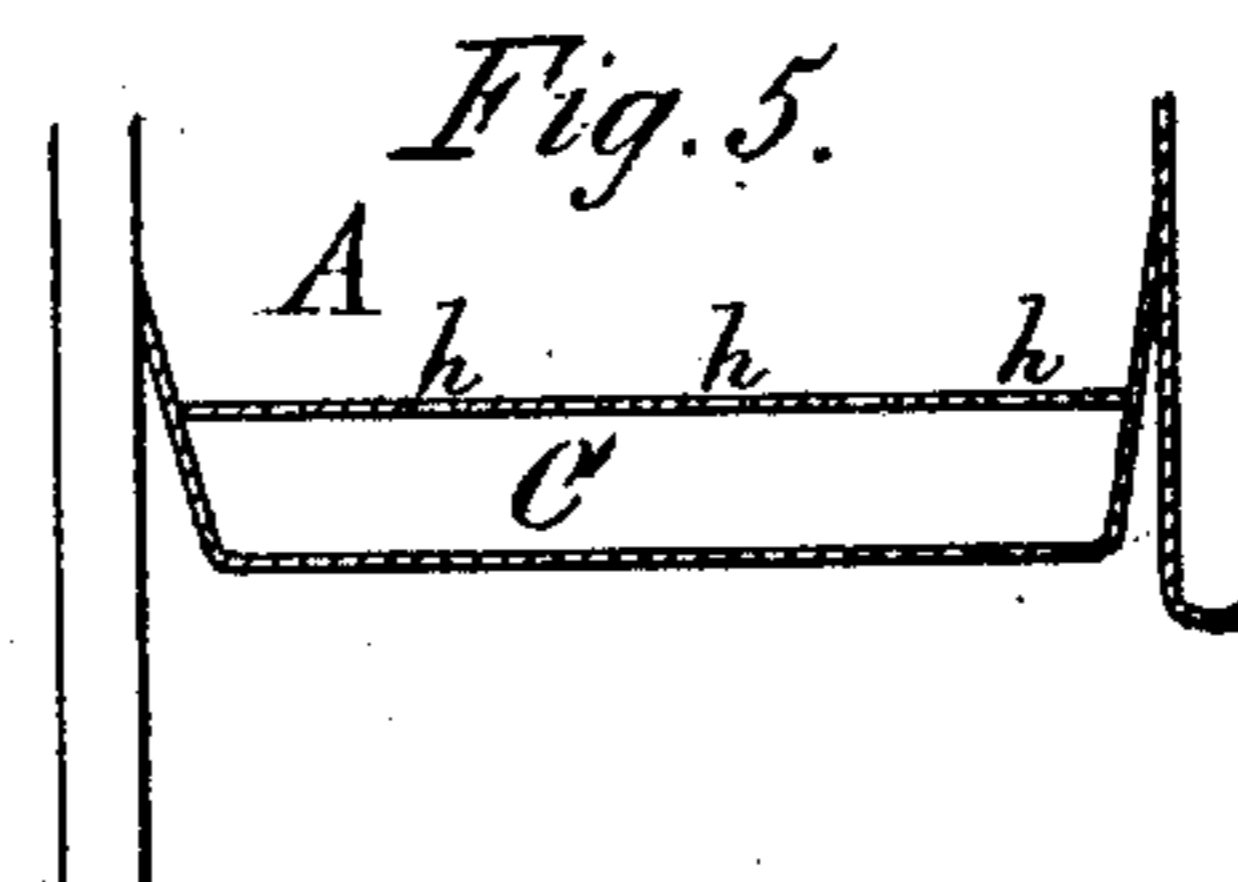
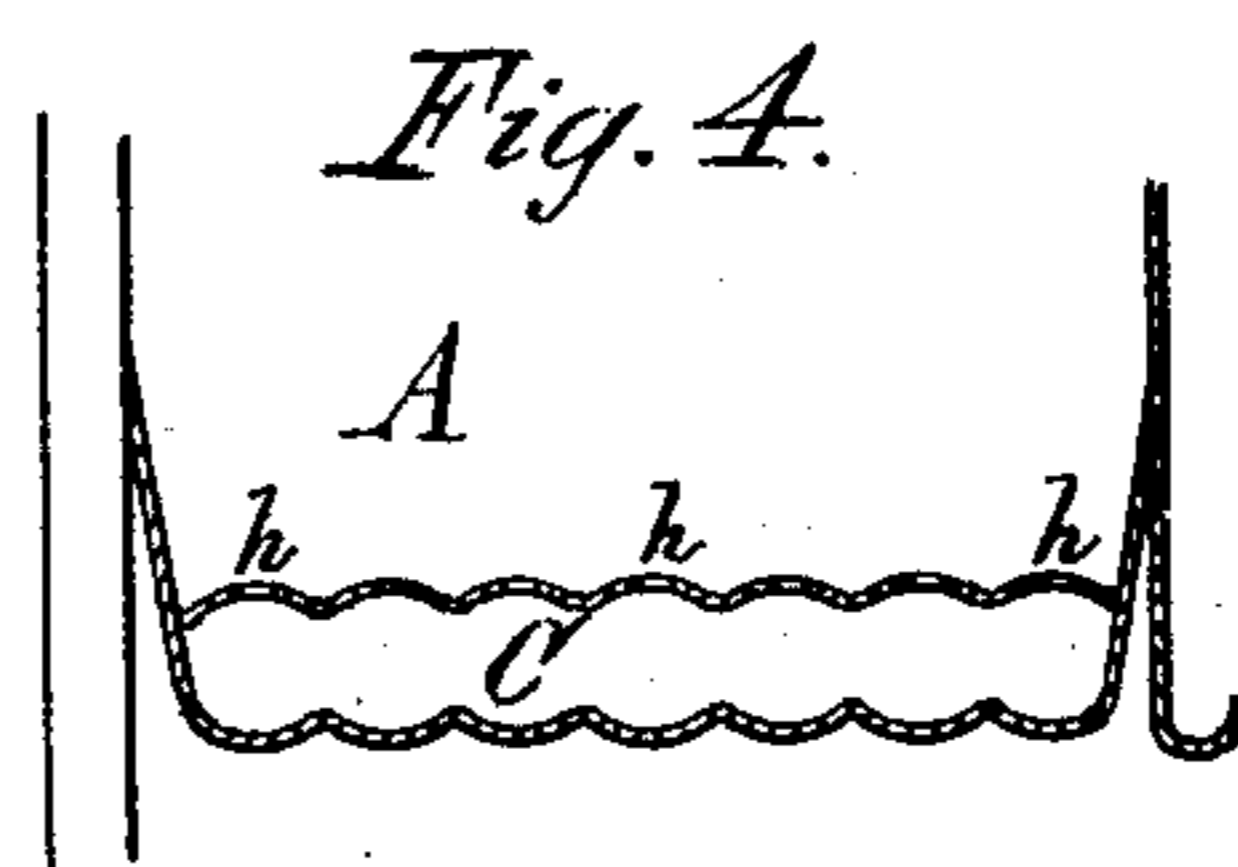
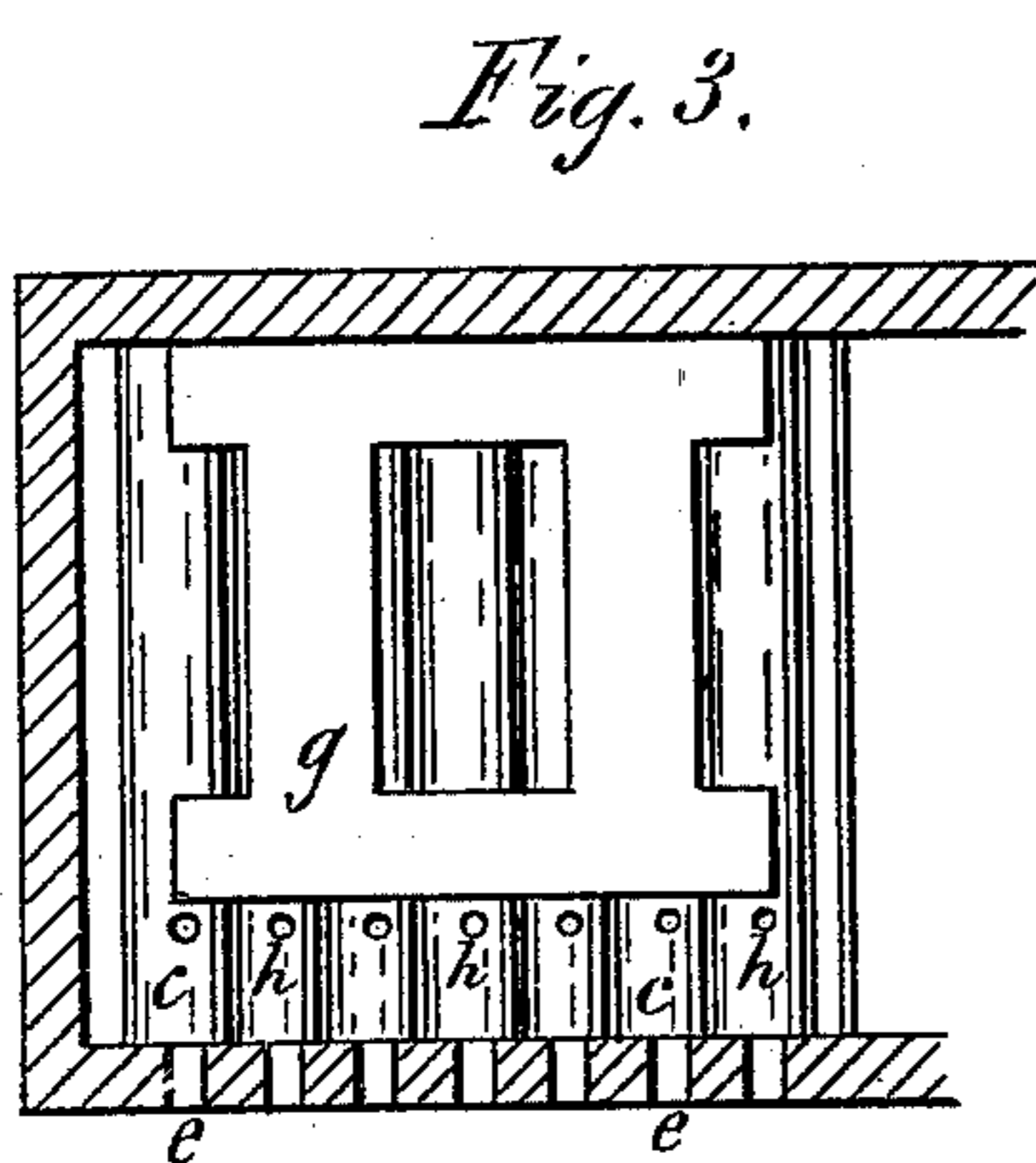
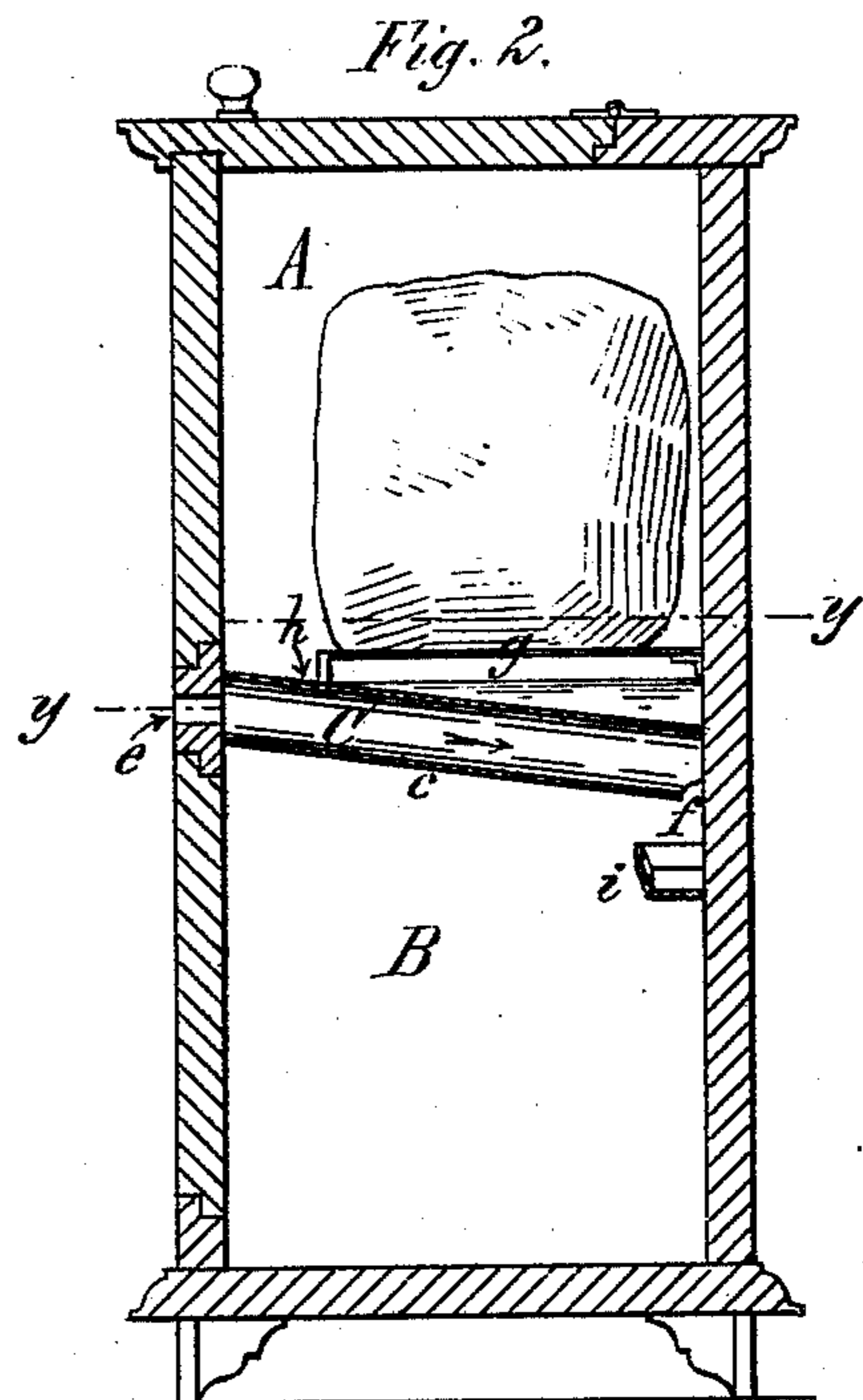
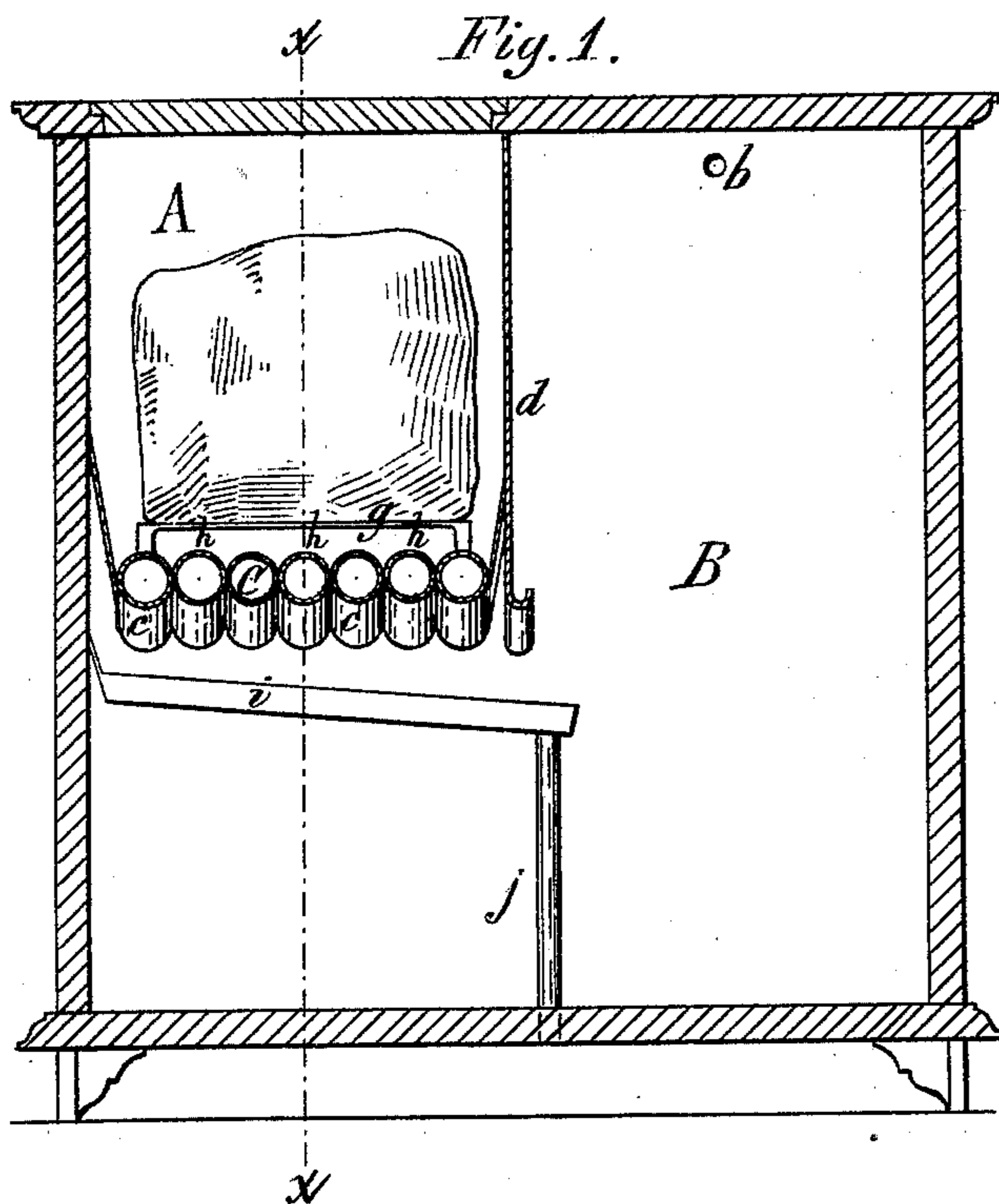


E. B. JEWETT.
REFRIGERATOR.

No. 170,739.

Patented Dec. 7, 1875.



Edward Wilhelm
Chas. J. Buckheit. } Witnesses

Edgar B. Jewett, Inventor
by Jay Hyatt, Atty

UNITED STATES PATENT OFFICE.

EDGAR B. JEWETT, OF BUFFALO, NEW YORK.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. **170,739**, dated December 7, 1875; application filed November 8, 1875.

To all whom it may concern:

Be it known that I, EDGAR B. JEWETT, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Refrigerators, which improvements are fully set forth in the following specification, reference being had to the accompanying drawing.

My invention relates to that class of refrigerators which are provided with an air-cooling chamber or passage underneath the ice-chamber, so as to cause a continuous current of cold air to enter the provision-chamber.

My invention consists in the peculiar construction of the air-cooling chamber, whereby the ice-water is retained in a comparatively large body above the air-cooling chamber, and then discharged through the latter, whereby a more effectual cooling of the walls of the air-cooling chamber is effected.

In the accompanying drawing, Figure 1 is a vertical section of a refrigerator provided with my improvements. Fig. 2 is a vertical section in line *xx*, Fig. 1. Fig. 3 is a horizontal section in line *yy*, Fig. 2. Figs. 4 and 5 represent modified modes of constructing the air-cooling chamber.

Like letters of reference refer to like parts in each of the figures.

A represents the ice-chamber, and B the preserving-space of the refrigerator, the latter provided, near its top, with an opening, *b*, for the final escape of the air. C represents the air-cooling chamber, forming the bottom of the ice-chamber A. It consists, as represented in Figs. 1, 2, and 3, of a series of metallic tubes or pipes, *c*, arranged side by side and inclined backwardly, so as to form a receptacle for the ice-water above the chamber C. The joints between the pipes are rendered water-tight by soldering or in any other suitable manner. The chamber C is secured at the front, rear, and one side to the walls of the refrigerator, and at the other side to the metallic partition *d*, separating the ice-chamber from the preserving-space, all the joints being made water-tight. *e* are air-inlet openings, formed in the front wall of the refrigerator, so as to communicate with the interior of the chamber C near its highest point; and *f*, air-discharge

openings, formed in the lower wall of the chamber C at its rear or lowest end. *g* is the grate, placed on the chamber C for supporting the ice. *h* are overflow-openings, formed in the upper wall of the chamber C near its front or highest end for discharging the ice-water into the chamber C. *i* is a gutter, secured to the rear wall of the refrigerator for receiving the drippings from the chamber C, and *j* is the discharge-pipe of the gutter *i*.

The water resulting from the melting of the ice in the chamber A accumulates on the inclined top of the chamber C, forming the bottom of the ice-chamber, until the level of the water rises to the openings *h*, when it begins to flow over into the chamber C, through which it passes to the openings *f* at the rear end thereof, where it is discharged into the gutter *i*. The body of ice-water above the chamber C cools the walls of the latter, and consequently the air contained therein, which latter, as it becomes cooled, gradually descends in the inclined chamber C to the discharge-openings *f* thereof, where it escapes, thoroughly cooled, into the preserving-space of the refrigerator. As the cold air is discharged from the chamber C it is replaced by fresh air from the outside entering the chamber C through the openings *e*. In this manner a continuous air-current is created, which enters the cooling-chamber through the openings *e* at the front, and, after being thoroughly cooled therein, escapes into the refrigerator proper through the openings *f* in the rear. The ice-water entering the chamber C from the ice-chamber through the apertures *h*, in passing through the chamber C, cools the bottom thereof, while the body of ice-water resting upon the inclined top of said chamber retains the top in a cool state, thus insuring a most complete and perfect cooling of the upper and lower walls of the air-chamber.

It is obvious that the chamber C, instead of being composed of a series of pipes, as shown in Figs. 1, 2, and 3, may be constructed of two corrugated or flat plates, as represented in Figs. 4 and 5.

My improved cooling-chamber insures a constant and copious supply of fresh cold air to the refrigerator, thereby preserving the articles

placed therein in a better state, while consuming a less quantity of ice than the refrigerators now in common use.

I claim as my invention—

The combination, in a refrigerator and with the ice-chamber A thereof, of the inclined air-cooling chamber C, provided with air inlet and escape openings *e f* and overflow-apertures *h*, arranged near the highest point of the air-chamber, for retaining the ice-water in a body

above the air-chamber, and then discharging the same through the latter, whereby both the upper and lower walls of the air-chamber are thoroughly cooled, substantially as hereinbefore set forth.

EDGAR B. JEWETT.

Witnesses:

EDWARD WILHELM,
CHAS. J. BUCHHEIT.