T. B. BURTIS.

Refrigerator.

No. 25,719. Patented Oct. 11, 1859.

Fig. 1.

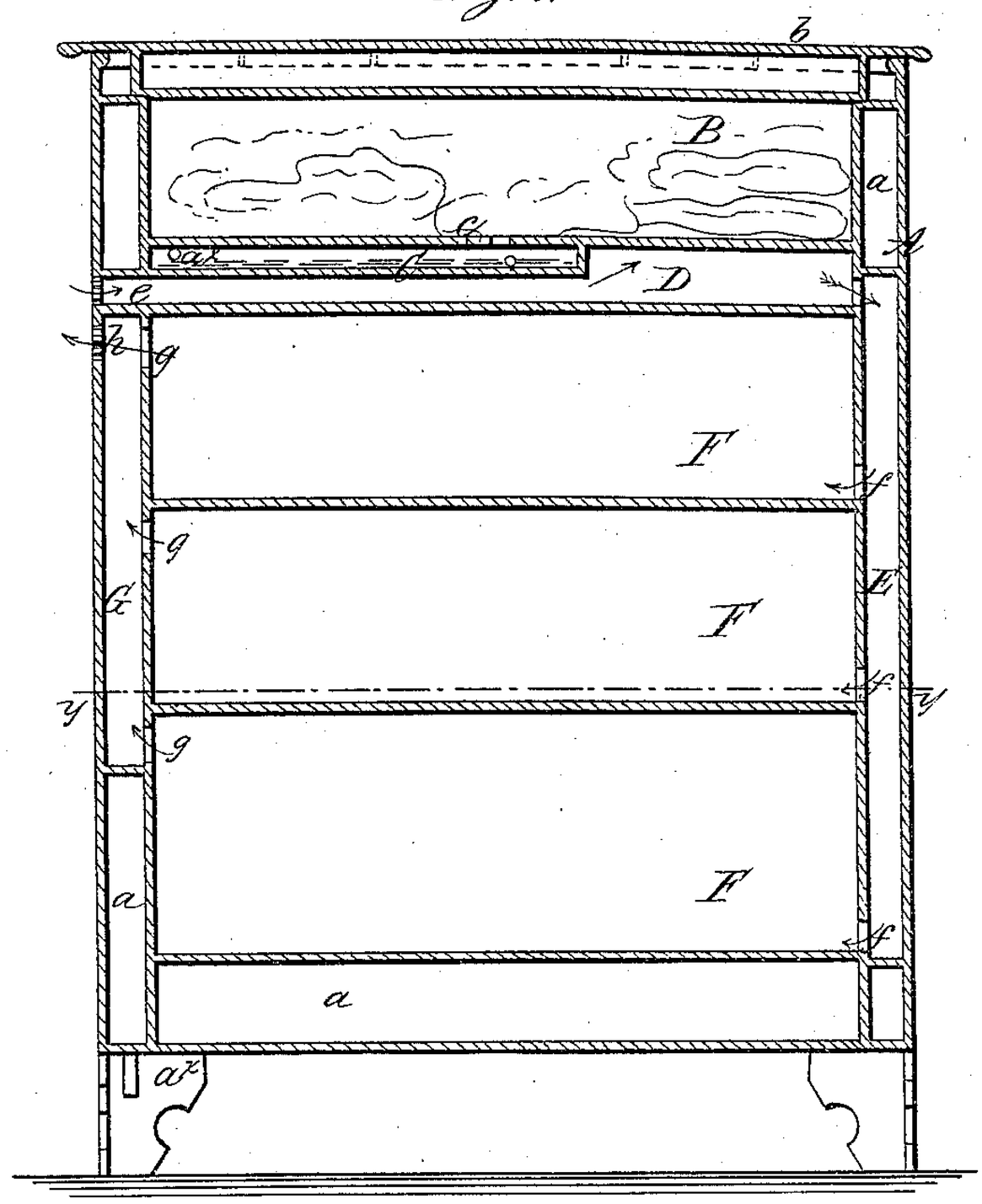
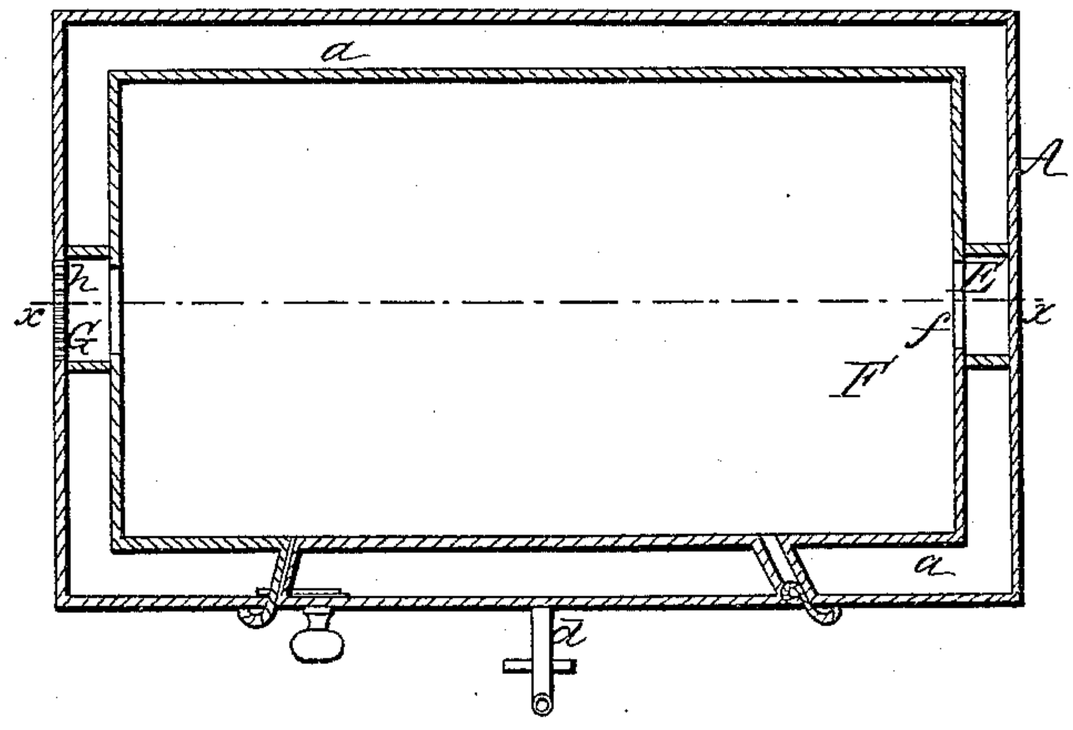


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

T. B. BURTIS, OF CHICAGO, ILLINOIS.

REFRIGERATOR.

Specification of Letters Patent No. 25,719, dated October 11, 1859.

To all whom it may concern:

Be it known that I, T. B. BURTIS, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Refrigerators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a sectional elevation of my invention, taken in the line *x*, *x*, Fig. 2. Fig. 2, is a horizontal section of the same, taken in the line *y*, *y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in a peculiar arrangement of an ice-chamber, water-chamber, air passages and provision chambers substantially as hereinafter shown, whereby currents of cool air are made to pass simultaneously through a series of separate provision chambers, keeping the contents cool and removing therefrom all impure air and deleterious gases.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents the body or case of the refrigerator which may be of quadrilateral form, and is double walled as usual and filled between with a non-conducting substance *a*. In the upper part of the body or case A, the ice-chamber B, is placed access to which is had by means of a lid *b*. This ice-chamber extends the whole width and length of the body or case and is of a suitable depth. Directly underneath the ice-chamber there is a water-chamber C. This chamber C, does not extend the whole length of the ice-chamber, but a trifle more than half-way as shown clearly in Fig. 1. The ice-chamber communicates with the water-chamber by a small aperture *c*, and the water-chamber is provided with a faucet *d*, so that cool water may be drawn therefrom when required.

D, is an air-passage which is underneath the water-chamber C, and ice-chamber B. This passage D, communicates at one end with the external air as shown at *e*, and the opposite end communicates with a vertical air passage E, which extends down between the two walls at one side of the body or case A. The passage E, communicates with the lower parts of the provision chambers F, by openings *f*. At the opposite side of the body or case A, there is an air-passage G, which communicates with the upper parts of the provision chambers F, by openings *g*, and the upper part of passage G, communicates with the external air as shown at *h*.

From the above description it will be seen that the external air will enter the passage D, at *e*, and will first come in contact with the cool water-chamber C, and next with the bottom of the ice-chamber B, the ice in said chamber being placed directly over the passage D, and not over the water-chamber as shown clearly in Fig. 1. The air it will be seen passes into the lower part of each provision chamber F, and out at their upper parts at the opposite side into the passage G, carrying all deleterious gases with it and escaping at the opening *h*, in the upper part of G, thereby keeping the provision chambers not only supplied with cool but also with pure air. The chambers F, are kept distinct so that the effluvia escaping from one chamber cannot enter either of the others. Different kinds of provisions therefore may be kept in the same refrigerator without being deteriorated as is the case when several kinds are kept in a common chamber. By having the cold-water chamber C, which receives the drip from B, arranged relatively with B, as shown the water is made to assist materially in cooling the air before it comes in contact with the bottom of B. The whole benefit of the ice therefore is obtained for the water as it drops from the ice is capable of imparting a considerable degree of coolness to the air as it passes through the passage D. The water chamber may be provided with an over flow or waste pipe $a^{\times}$, arranged in any proper way.

I am aware that air passages extending around ice-chambers and through provision chambers have been used and arranged in various ways and I do not claim therefore any of the parts herein described separately but,

I do claim as new and desire to secure by Letters Patent,

The employment or use of the ice-chamber B, water-chamber C, air-passages D, E, G, and a series of provision chambers F, arranged relatively with each other for the purpose set forth.

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Witnesses:

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