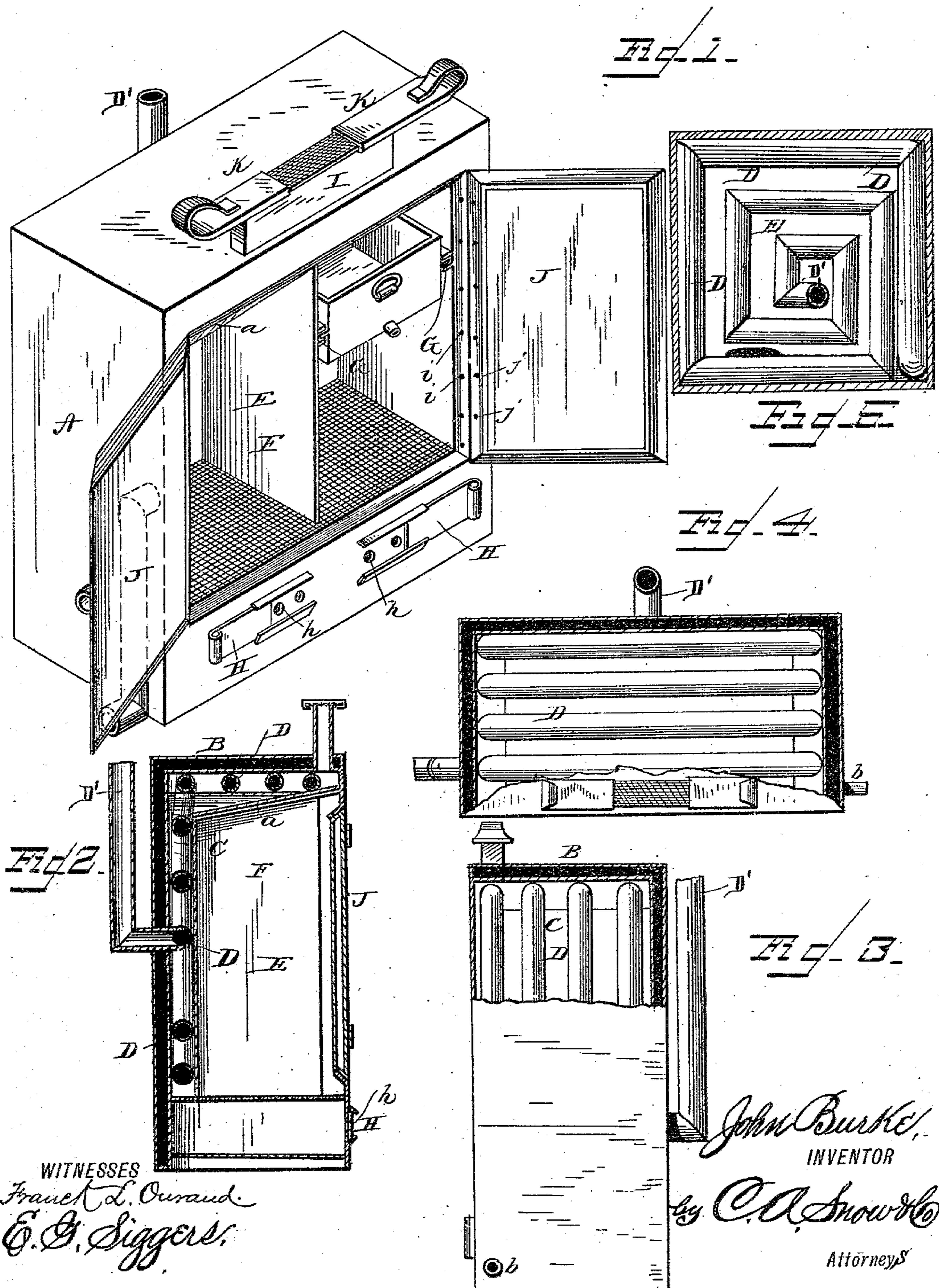


(No Model.)

J. BURKE.
REFRIGERATOR.

No. 295,110.

Patented Mar. 11, 1884.



UNITED STATES PATENT OFFICE.

JOHN BURKE, OF NILES, MICHIGAN.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 295,110, dated March 11, 1884.

Application filed December 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN BURKE, a citizen of the United States, residing at Niles, in the county of Berrien and State of Michigan, have
5 invented a new and useful Improvement in Refrigerators, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to refrigerators, and
10 more particularly to that class in which a series of pipes or tubes are employed to convey the water to different parts of the same for the purpose of cooling and preserving the contents, and is especially adapted for use in the
15 preservation of milk, butter, and other dairy products.

The objects of the invention are to secure a perfect ventilation to all parts of the structure, and to so arrange the pipes for conveying the water that an even temperature will
20 be preserved, and, further, to cheapen the construction and durability of this class of inventions.

The invention consists in the improved construction and combinations of parts, hereinafter fully described, and pointed out in the
25 claims.

In the drawings, Figure 1 is a perspective view of a refrigerator constructed in accordance with my invention. Fig. 2 is a vertical
30 cross-section of the same. Fig. 3 is an end elevation, partly in section. Fig. 4 is a plan view with the top removed. Fig. 5 is a rear view, the back or covering being removed.

35 A represents the refrigerator, which is preferably constructed rectangular in form, and consisting of an outer and an inner casing, B C.

D represents a continuous series of pipes or
40 tubes, which are arranged between the outer and inner casing, B C, and covering nearly the entire surface within the chamber formed by said outer and inner casing. The space between these casings forms an air-chamber, which is continued around the entire surface of the refrigerator. These pipes D are connected with
45 a pipe, D', arranged upon the rear side of the refrigerator, and through which water is introduced to the said pipes D.

50 E represents the inner portion of the refrigerator, the roof or top portion of which is made inclined or slanting rearwardly, so that any moisture that may have accumulated upon

the same will be carried, by means of grooves a, into the rear air-chamber, and from thence it is carried to the side air-chamber, and then
55 drawn off by means of a cock or faucet, b, arranged upon the lower end of one of the sides.

F represents a partition dividing the inner part of the refrigerator into two compartments.

G represents a series of ribs for holding or
60 supporting the pans for containing the milk, &c.

The bottom of the inner portion of the refrigerator is perforated, so that cold air may readily pass to all parts of the inner portion of the same, and thoroughly cool the articles contained therein.
65

H H represent slides, which are arranged in guides secured upon the lower front sides of the refrigerator. The slides are for the
70 purpose of allowing air to pass to the air-chambers through openings h h, which are opened or closed by said slides.

I represents a ventilator arranged upon the top of the refrigerator, and connecting with
75 the air-chambers and the inner portion of the same, to carry off any gases from the milk or butter that may arise. This ventilator is opened or closed by a slide, k, arranged upon
80 the top of the same.

J J represent doors, which are hinged to the sides of the refrigerator, the sides or framework consisting of wood, and the center portion of glass, to form an air-chamber. The ends of the doors adjacent to the refrigerator
85 are provided with openings j, to register with openings i on the sides of the refrigerator, so that the cold air will pass to air-chamber of the doors. The doors and the upper and lower casings to the doors are provided with
90 strips of rubber, so that the inner compartment, in which the articles to be kept cool are placed, is kept perfectly air-tight.

The refrigerator, as above described, is meant to be inclosed in a wooden jacket or
95 casing, leaving a space between the outer metallic casing and the wooden casing, which is preferably filled with a composition of brick-dust, plaster-of-paris, and pulverized charcoal, or any other non-conducting composition.
100

The operation of the device above described will be apparent. Water is introduced into the pipe in the rear of the refrigerator, and from thence it passes through the pipes D to

all parts of the refrigerator, and is discharged through the escape-pipe arranged upon the side of the same. If at any time the temperature should become too cold, warm air may
5 be admitted through the ventilators H H. When it is desired to ventilate the refrigerator, the slide *k* may be withdrawn and the animal gases arising from the milk, &c., allowed to escape.

10 It will be apparent that my device is simple in its construction, affords a perfect ventilation to all parts of the same, and also maintains an equal temperature in all parts of the refrigerator, and by the use of water the ex-
15 pense is greatly diminished.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The herein-described refrigerator, consisting of an outer and an inner casing, a series 20 of pipes or tubes arranged between said casings, inner portion, E, having the inclined roof, ventilator I, doors J J, consisting of the framework, and having the center portion formed of glass, openings *j* in the side of the doors to 25 register with openings in the casings, said doors having strips of rubber arranged upon their upper and lower edges, and the slides H H, substantially as set forth.

In testimony that I claim the foregoing as 30 my own I have hereto affixed my signature in presence of two witnesses.

JOHN BURKE.

Witnesses:

HENRY M. COOLIDGE,
ORVILLE W. COOLIDGE.