(No Model.)

V. KOCH.

Refrigerator.

No. 239,513. Patented March 29, 1881.

Fig 1,

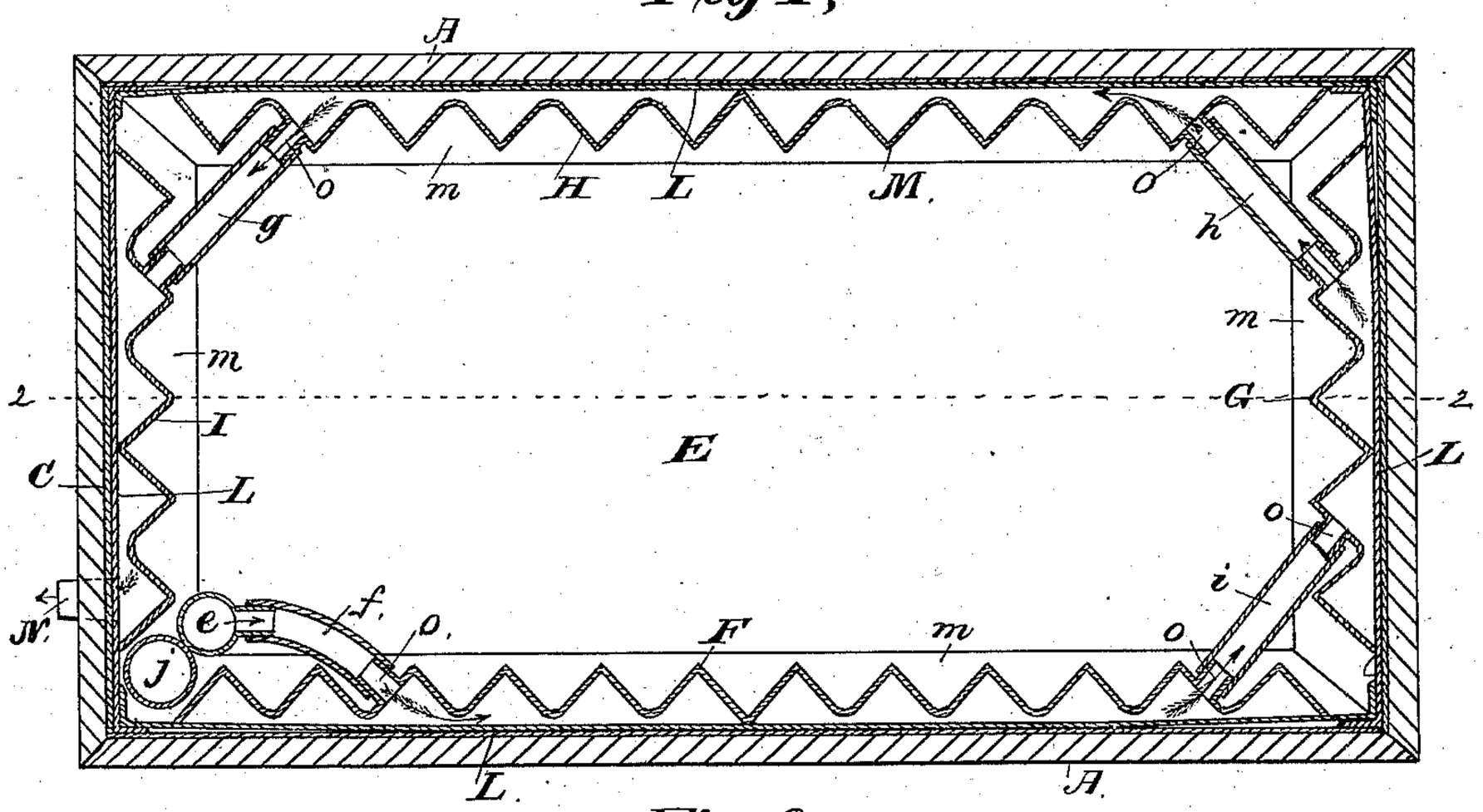
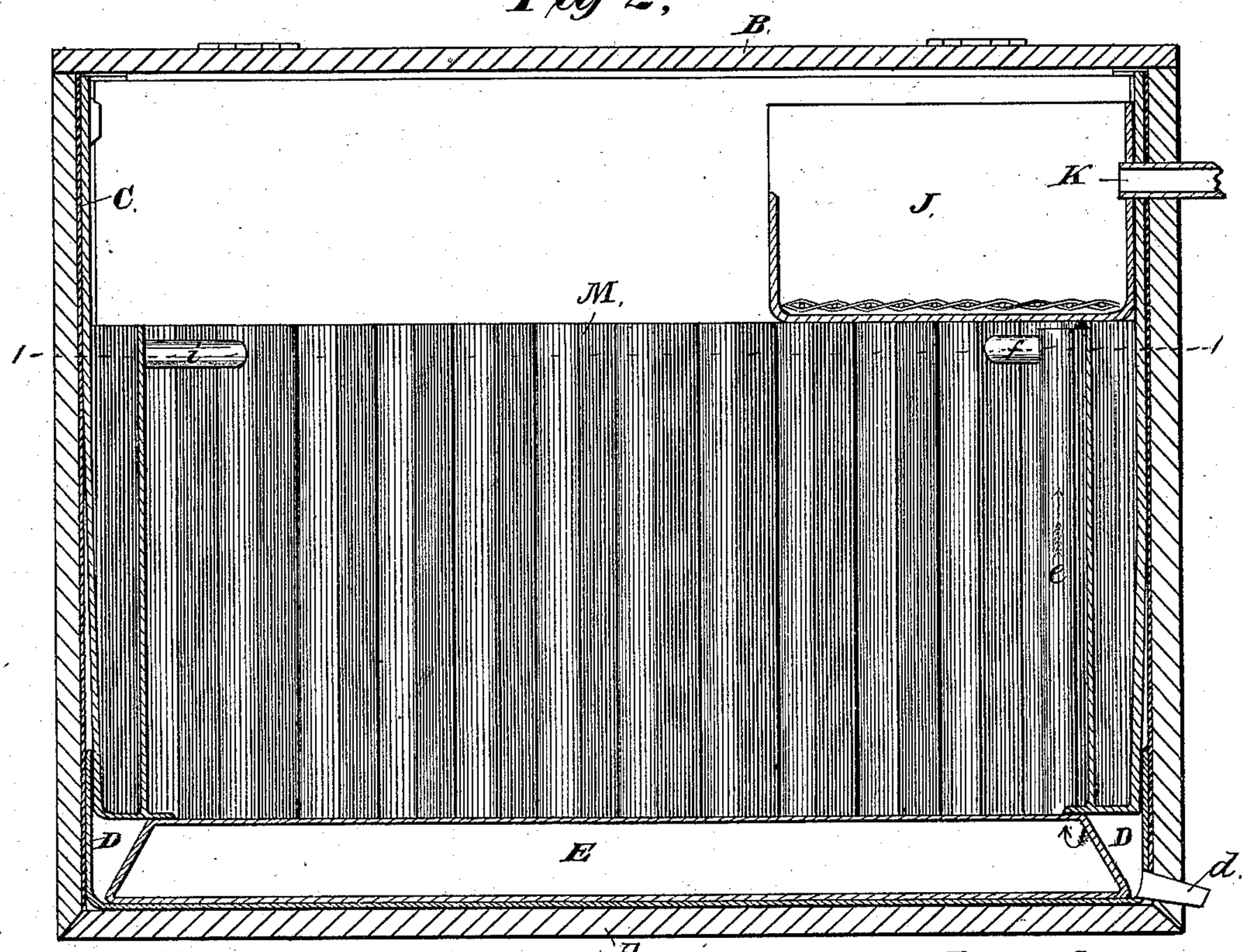


Fig 2,



Attest:
Geo T. Smallwood Jr.
Walter Allen

Inventor:
Victor Koch.
By Knight Bros Attys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

VICTOR KOCH, OF SCRANTON, PENNSYLVANIA.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 239,513, dated March 29, 1881.

Application filed July 14, 1880. (No model.)

To all whom it may concern:

Be it known that I, VICTOR KOCH, of Scranton, Lackawanna county, in the State of Pennsylvania, have invented new and useful Improvements in Refrigerators, of which the following is a specification.

My invention relates to a refrigerator in which the water from the hydrant or the drip-water from the ice or other suitable source is caused to flow into chambers lining the interior walls and the floor of the refrigerator, for the purpose of cooling and purifying the air in the same.

The refrigerator consists of an outer wooden casing provided with a hinged top, and having its sides and floor lined with sheet-metal chambers, there being a separate chamber for each wall, and each chamber being connected with the ones adjacent by means of removable tubes in such a manner that the water from the ice or other source first flows into the bottom chamber, and from thence flows successively through the side chambers, and finally escapes through an outlet at the top of the last chamber. The tubular connections are made removable, so that the chambers may be lifted out separately when it becomes necessary to clean the apparatus. The bottom chamber lies in a pan that fits the bottom of the casing, and between this pan and the casing, as well as between the side chambers and the casing, I place sheets of paper, pasteboard, or other fabric capable of acting as a non-conductor of heat. The interior walls of the side chambers are corrugated, so as to present more cooling-surface.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a horizontal section of my refrigerator on line 1 1, Fig. 2. Fig. 2 is a vertical section of the same on the line 2 2, Fig. 1.

A represents a wooden box or casing having hinged lid B.

C is a paper, pasteboard, or other similar non-conducting lining on the sides and bottom of the casing.

A sheet-metal pan, D, having outlet *d* extending through the casing, serves to collect and drain all drippings occurring inside the refrigerator. In this pan rests a shallow water-tight box, E, of sheet metal, upon which are supported four side chambers, F G H I, also water-tight and of sheet metal, and connected together by removable tubes *g h i*, and with the box E by means of removable tube *f* and the vertical tube *e*. These removable tubes are shown as made of caoutchouc, connected to the water-chambers by engaging over nipples *o* protruding from the same.

Attached to the tube *e* is a similar tube, *j*, communicating with the box E below and with the ice-box J above, so as to conduct the water from the latter to the former.

Water may be introduced into the refrigerator by tubes K projecting through the sides of the casing and ice-box.

Each of the side chambers, F G H I, is complete in itself, and may each be removed in turn by disconnecting the tubes *f g h i*. When in position they interlock in such a manner at the ends, as shown in Fig. 1, that they hold each other securely in place. These side chambers are constructed with the outer sides, L, flat and extending to the top of the casing, while their inner sides are formed of corrugated sheets M, which are soldered to the bases *m* of the chambers, and do not extend to the top of the outer sides, L, thus affording room and support for the ice-box J and any shelves that might be desired. The middle crease of each of the walls M is soldered to the flat walls L from the top half-way down, so as to cause the water to descend and then ascend as it passes through.

It will be seen that the water from the inlet-tube K or from the ice in the box J will flow down the pipe *j* into the box E, then up the tube *e*, and through the tube *f* to the chamber F, and from thence up and down through the other side chambers, G H I, and tubes *g h i*, until all the chambers are full, when it will escape through an outlet, N, extending from the top of the last chamber I, and through the casing A. The upper ends of the side chambers are left open so as to expose the air in the refrigerator to the purifying effect of the water, which will absorb and carry off all objectionable odors.

It will also be seen that the water is caused to surround the refrigerator on all sides, thus

forming a cold jacket through which the heat cannot pass.

When it becomes necessary to clean the refrigerator the ice-box J is removed and the tubes *f g h i* slipped off the nipples *o*, and the chambers F, G, H, I, and E may then be taken out in the order named, which will enable the thorough cleaning of every part.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination of the removable water-chambers E F G H I with the removable tubular connections *f g h i*.

2. The removable water-chambers having their inner sides corrugated and one or more of the creases soldered to the outer side, for the purpose set forth.

VICTOR KOCH.

Witnesses:
C. W. ROESSER,
Z. H. SUNSTER.