2 Sheets—Sheet 1.

A. ULRICH.

Refrigerator-Wagon.

No. 214,853. Patented April 29, 1879.

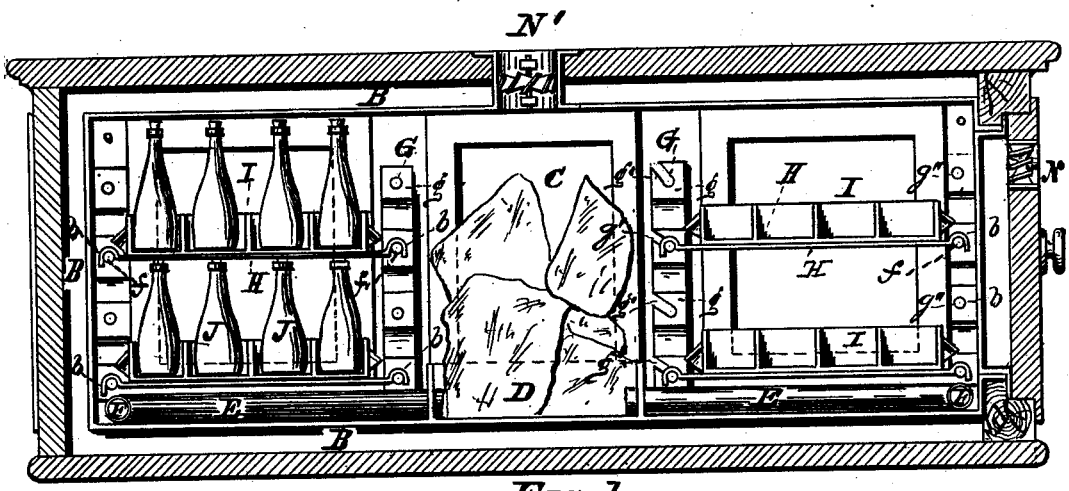

FIG. 1.

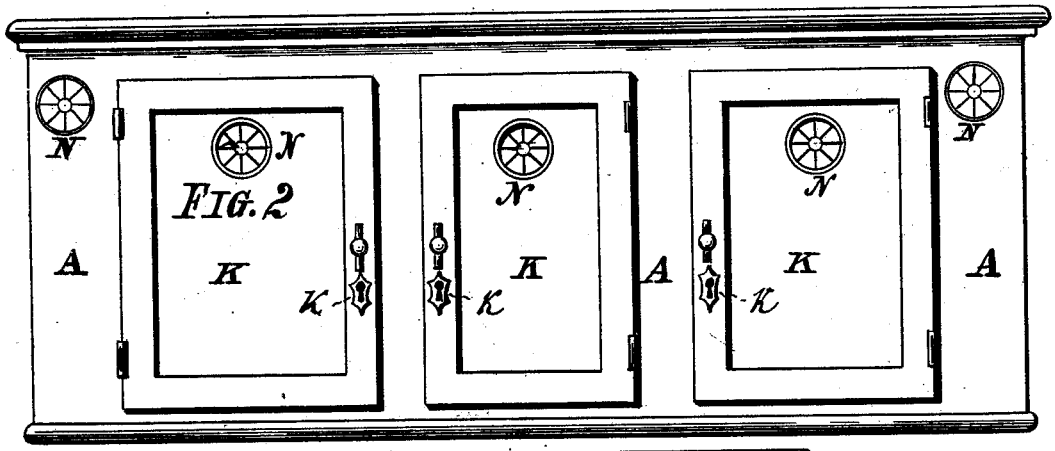

FIG. 2.

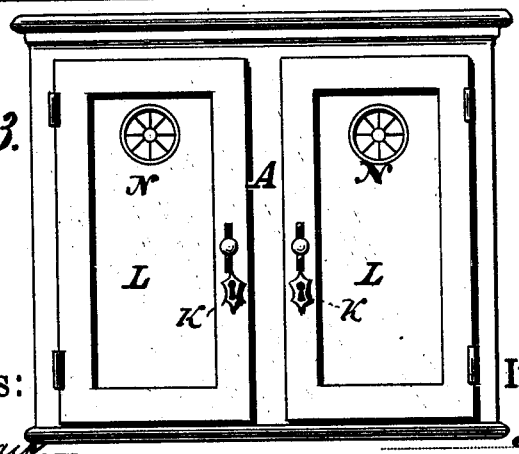

FIG. 3.

Witnesses:

Michael J. Stark

Frank Hirsch

Inventor:

Anton Ulrich

by Michael J. Stark

Attorney.

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

2 Sheets—Sheet 2

A. ULRICH.

Refrigerator-Wagon.

No. 214,853. Patented April 29, 1879.

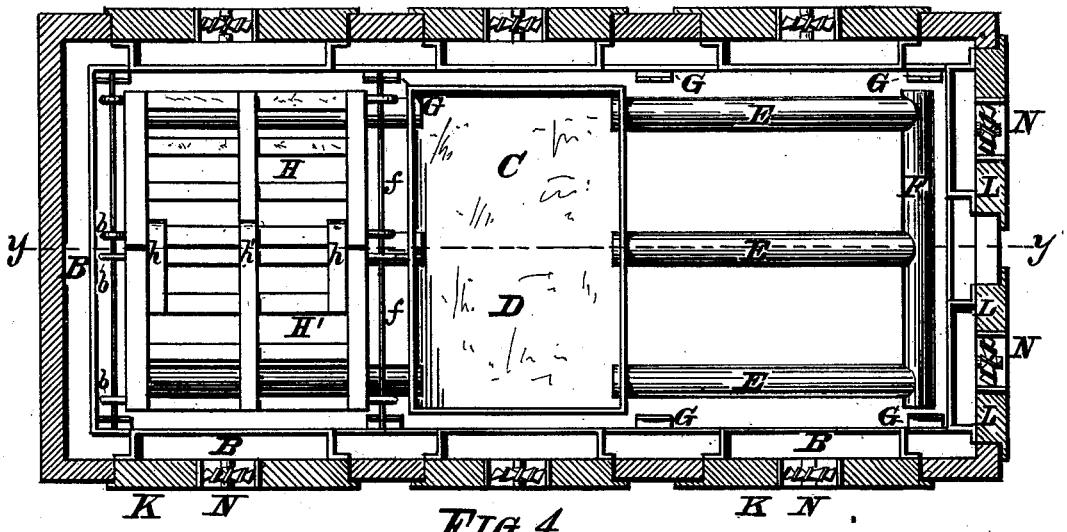

FIG. 4.

FIG. 6.

FIG. 8.

FIG. 5.

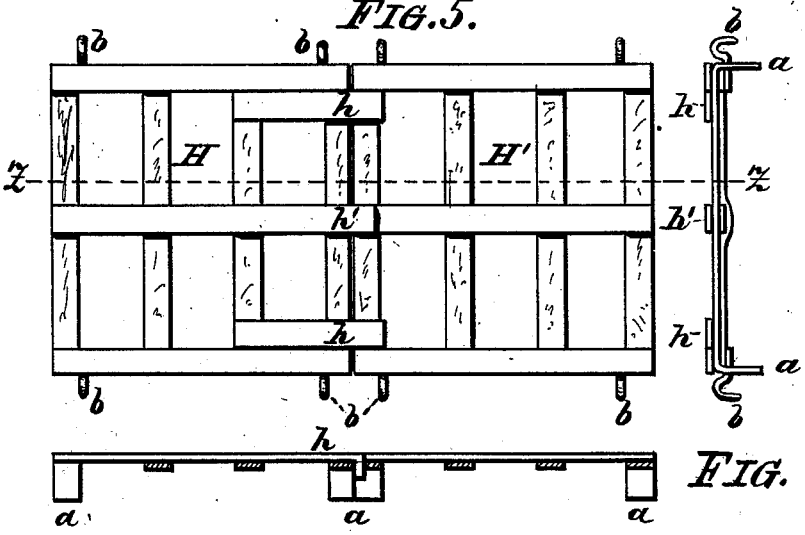

FIG. 7.

Witnesses:

Michael J. Stark

Frank Hirsch

Inventor:

Anton Ulrich,

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Attorney.

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

UNITED STATES PATENT OFFICE.

ANTON ULRICH, OF LOCKPORT, NEW YORK.

IMPROVEMENT IN REFRIGERATOR-WAGONS.

Specification forming part of Letters Patent No. **214,853**, dated April 29, 1879; application filed February 27, 1879.

To all whom it may concern:

Be it known that I, ANTON ULRICH, of Lockport, in the county of Niagara and State of New York, have invented certain new and useful Improvements on a Refrigerator-Wagon; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to refrigerator-wagons for carrying bottled beverages on trays or shelves; and consists in the combination, with said trays or shelves and their bars and hooks, of certain peculiarly-constructed slotted and perforated support-blocks, substantially as and for the purposes hereinafter particularly set forth.

In the drawings, to which reference has already been had, Figure 1 is a longitudinal vertical section of my improved refrigerator-wagon. Fig. 2 is a side elevation, and Fig. 3 an end view, of the same. Fig. 4 is a plan. Figs. 5, 6, and 7 are detail views of the rack, and Fig. 8 a sectional view of the rack-support.

Like parts are designated by corresponding letters of reference in all the figures.

A is the box, mounted upon wheels in the manner of a delivery, &c., wagon, in the usual manner, the walls of said box being made of stout boards, &c. This box is provided with a metallic lining throughout, placed a sufficient distance away from the walls to produce spaces B, which may be filled with any of the well-known non-conductors, such as charcoal, sawdust, &c., but which I prefer to leave unfilled. The inside of this box is divided into an ice-chamber, C, placed preferably in the center of the box, and several preserving and storing chambers on the sides thereof; but said chamber may also be located on the sides or near the top of said box.

In the ice-chamber I locate a tray, D, having a series of pipes, E, leading to a cross-pipe, F, and serving as a medium to reduce the temperature in the interior of said box by the cold water resulting from the melting of the ice in said pan D circulating through said pipes.

On the two side walls of the lining I secure a series of carriers, G, one set of which is provided with apertures g'', and the other with inclined slots g', for the reception of cross-bars f, upon which are placed a series of racks, H, carrying metallic baskets I, within which the bottles J are placed, as clearly illustrated in Fig. 1.

In the side walls are placed a number of doors, K, provided with key-locks k, and in the rear end are placed similar doors L, likewise provided with locks, said doors being thus arranged to afford ready access to any part of the refrigerator without making an opening larger than necessary to obtain access to that shelf from which articles are to be removed or upon which such are to be placed.

In the side walls, as well as in the doors, I place ventilators N, having the usual fan-wheel, and in the top I place a similar ventilator, N′, the former establishing communication with the exterior atmosphere and the air-spaces B, and the latter with the interior of the box.

In wagons used for delivering effervescent liquids or liquors, such as soda and seltzer water, beer, &c., and returning the empty bottles, which is the purpose for which my said wagon is designed, it is a well-known fact that a large amount of carbonic-acid gas contained in the empty bottles, &c., settles in the interior of the box and tends to make the atmosphere therein obnoxious. This air I remove by means of the ventilators, which are in communication with the air-spaces B, and these with the interior of the box through the joints in the metal, &c., while the warmer air ascending finds exit through the ventilator N′, in the top of the box A. In this manner the atmosphere in the said box is always kept fresh and wholesome with the expenditure of no more ice than is usually consumed in a well constructed and ventilated ice-box.

The carriers G are made with protuberant parts g, and provided on one side with perforations g'', and the other side with inclined slots. This I have designed with a view of

enabling me to readily insert and withdraw the bars *f*, which are first inserted with one end in the apertures *g''*, and then slid into the inclined slot-holes *g'*, the object of making these bars removable being to readily clear the inside of the box, and thereby allow cleaning, &c.

The racks H, I prefer to form in two sections, H H′, Figs. 4 and 5, and to provide one of these sections with hooks *h*, so as to engage the opposite section, and thereby prevent their being displaced. The lowermost sections of these racks I provide with legs *a*, to rest upon the floor of the box, while the others are provided with sidewise-projecting hooks *b*, to engage the rods *f*.

By thus constructing the racks they are very strong, and may be readily removed for cleaning the interior of the box, as already mentioned.

Having thus fully described my invention, I claim as new and desire to secure to me by Letters Patent of the United States—

The combination, with the supports G, having the perforations *g''* and inclined slots *g'*, of the rods *f* and the shelves H, said shelves being provided with hooks *h* and *b*, as and for the object specified.

In testimony that I claim the foregoing as my invention I have hereto set my hand and affixed my seal in the presence of two subscribing witnesses.

ANTON ULRICH. [L. S.]

Witnesses:

MICHAEL J. STARK,

HERMAN BENSLER, Jr.