

B. A. KUHNS.
REFRIGERATOR.

APPLICATION FILED JAN. 26, 1911.

1,016,336.

Patented Feb. 6, 1912.

2 SHEETS—SHEET 1.

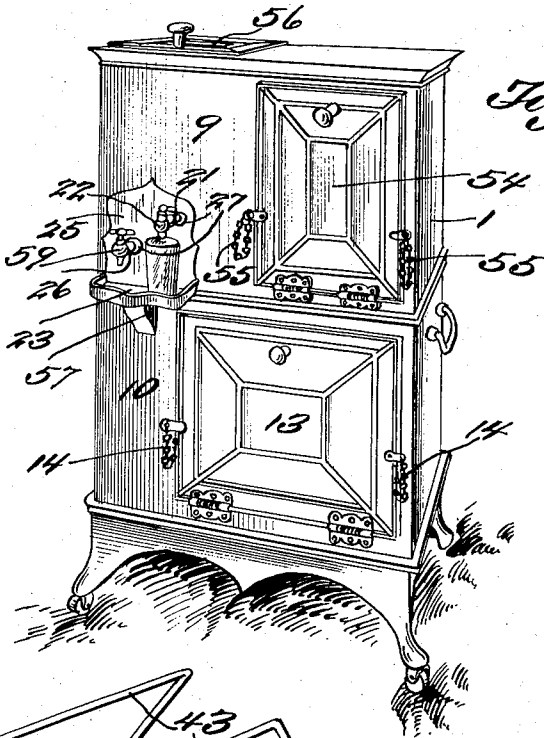


Fig. 1.

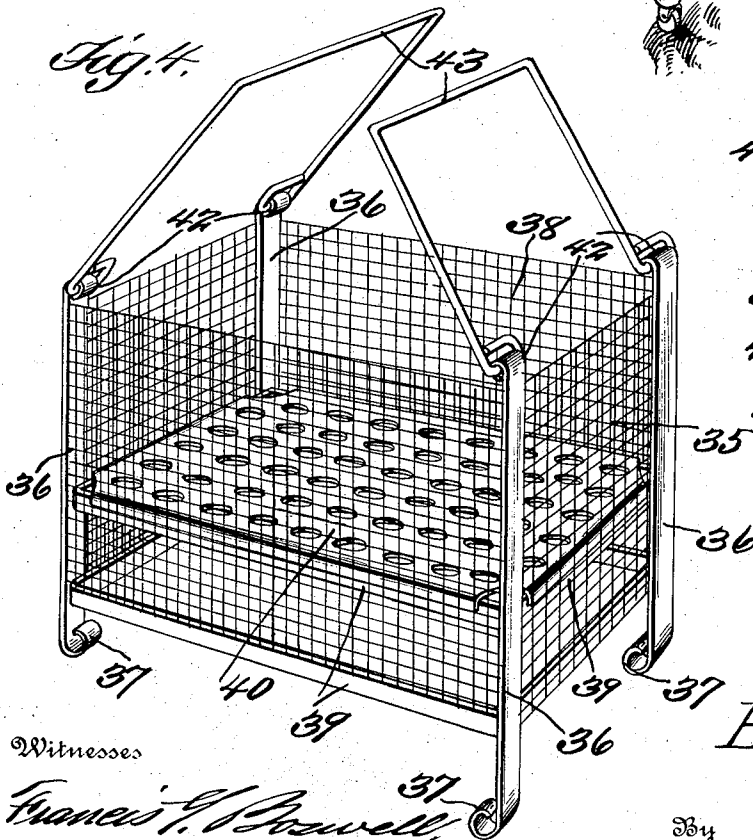


Fig. 4.

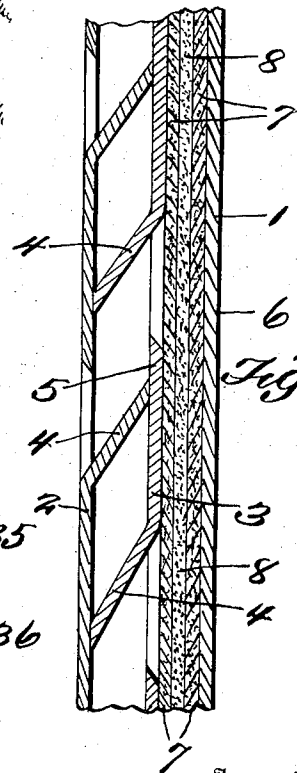


Fig. 5.

Witnesses

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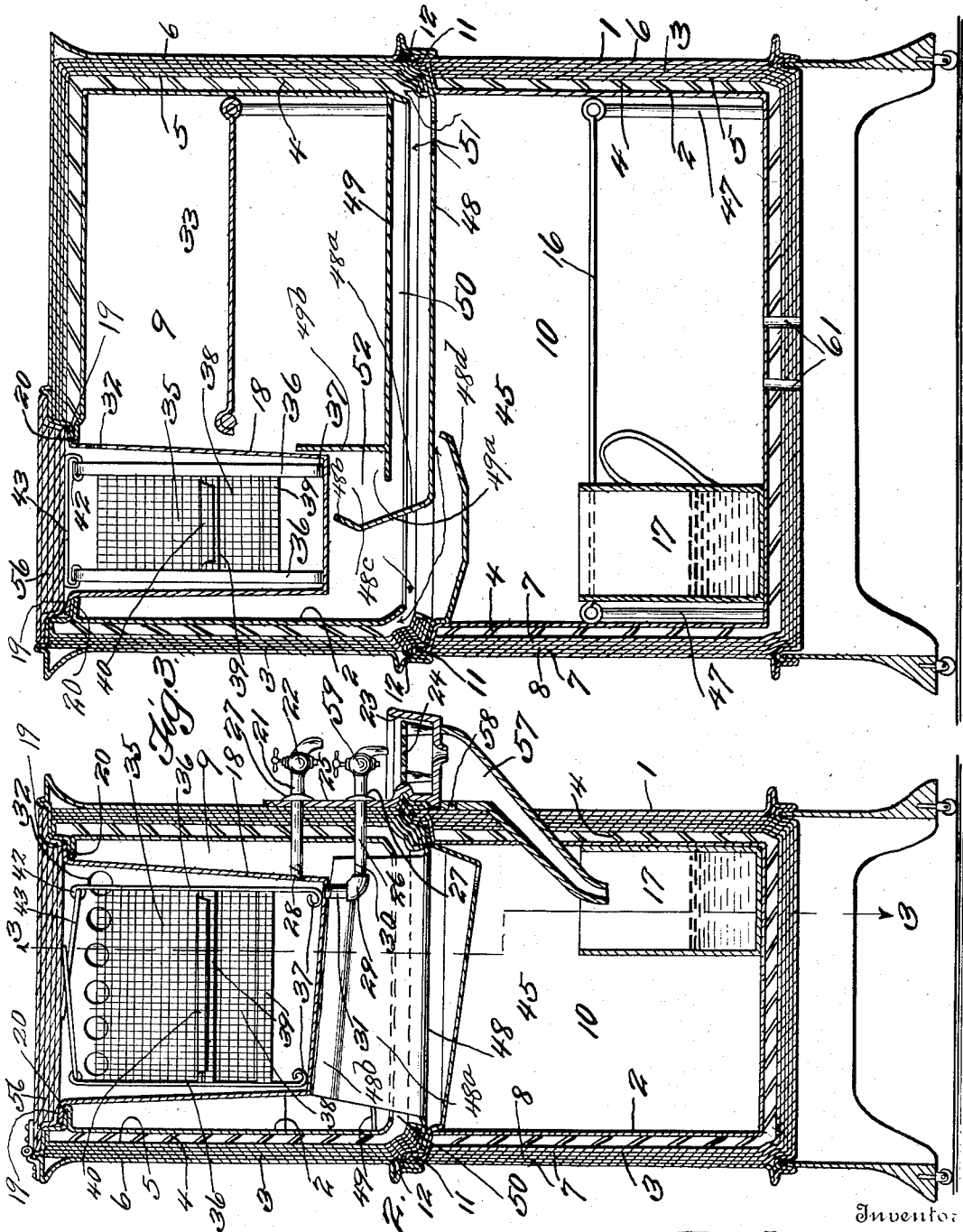
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

BENOVILL A. KUHN, OF WILMINGTON, DELAWARE.

REFRIGERATOR.

1,016,336.

Specification of Letters Patent.

Patented Feb. 6, 1912.

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To all whom it may concern:

Be it known that I, BENOVILL A. KUHN, a citizen of the United States, residing at Wilmington, in the county of Newcastle and State of Delaware, have invented a new and useful Refrigerator; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention belongs to the art of household or kitchen furniture, and it more especially pertains to a new and useful refrigerator, and the object of the invention is to improve the structure of such articles.

Another object of the invention is to provide an air space between the inner and outer walls of the refrigerator, including means projecting from the inner part of a portion of the outer wall, for holding the inner casing spaced apart from the outer casing or wall.

A further object of the invention is to construct the outer casing or wall of the refrigerator in two parts with a packing of cement and paper therebetween, thereby preventing the warm air from the outside of the refrigerator from having a tendency to change the temperature of the cool air from the interior of the refrigerator.

A further feature of the invention is to provide means, including a spigot for draining the ice box of the refrigerator, and to so arrange the spigot with regard to a drain pan, as to prevent the placing of a glass beneath the same.

A further feature of the invention is the provision of a wire cage or basket, for supporting the ice in the ice-box.

Another feature of the invention, is to construct the refrigerator so that the compartments of the upper and lower sections of the refrigerator, may have a free circulation of air between them.

Other features and combination of parts will be hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Figure 1 is a perspective view of a refrigerator embodying various features of the invention. Fig. 2 is a sectional view of Fig. 1, taken through the ice-box, showing a wired cage, crate or basket for the support of the ice. Fig. 3 is a sectional view on line 3—3 of Fig. 2, taken at right angles to the sectional view shown in Fig. 2. Fig. 4 is a perspective view of

the wire cage, crate or basket removed from the ice-box. Fig. 5 is an enlarged detail sectional view, showing the construction of the casing of the refrigerator, in order to show how the air space is maintained.

Referring to the drawings 1 designates the casing of the refrigerator, which comprises an inner and outer wall 2 and 3. The inner wall 2 is spaced apart from the outer wall, and held so by the strips 4, which are struck out of the inner faces of the outer and inner walls. The outer wall comprises two parts or walls 5 and 6 of sheet metal, and between them a packing of paper 7 and cement 8 is arranged, to prevent the atmosphere on the outside of the refrigerator from changing the temperature of the interior thereof.

The refrigerator comprises two sections, an upper section 9 and a lower section 10. The lower section is provided with an upstanding flange 11 to be received in a recess 12 of the upper section to hold the two sections in place. The lower section is provided with a closure 13, which when held open is supported in a horizontal position by the chains 14, there being a spring so arranged with regard to the closure as to be placed under tension when the closure is opened. Arranged upon the interior of the lower section is a removable shelf 16, for the support of various articles. A waste water tank 17 is also arranged in the lower section.

At one end of the interior of the upper section, a removable ice-box 18 is provided. This ice-box has a flange 19 to engage the flange 20 for supporting the box. Extending from the ice-box and through the casing of the upper section is a pipe 21, which is provided with a spigot 22. The spigot 22 is for the purpose of drawing drinking water from the ice-box, and is arranged a sufficient distance above the drain tray 23, in order to permit a glass to be placed under it. This drain tray is removably or detachably connected to the casing of the lower section, and is provided with a perforated false bottom 24. The object of the false bottom is to prevent foreign matter from passing in to the waste water tank. This drain tray is formed with an integral plate 25, through which the pipes 21 and 26 penetrate. Plate 25 is held against the outer face of the upper section by means of the flanges 27 of the said pipes 21 and 26, which pipes have threaded connections with the ice-box as at 28, and with

the elbow 29, as at 30. The elbow 29 is threaded to a short pipe 31 of the lower part or bottom of the ice-box. The bottom of the ice-box is arranged upon an incline, in order that the dregs and the water below the level of the pipe 21 may thoroughly drain from the box through the pipes 26 and 31. The ice-box upon one side thereof adjacent the upper part, is provided with a series of apertures 32, in order to permit the cool air from the box to enter the compartment 33 of the upper section.

Positioned in the ice-box is a wire frame or crate 35, which is rectangular to conform to the contour of the ice-box. This rectangular frame or crate comprises four upstanding metal posts 36, with their lower extremities formed into coils to provide the feet 37, and including a wire mesh work 38, which is secured to said posts. Extending from post to post are the parallel bars 39, the upper ones of which support the perforated shelf or bottom 40. This frame or basket is for the purpose of supporting ice in the box, a slight distance above the bottom thereof. The upper portions of the posts terminate into rolls 42, in which are connected the handles 43. By the use of these handles the frame, with the ice upon the perforated bottom may be bodily removed from the ice-box. This frame not only serves to support the ice a slight distance above the ice-box, but also permits the ice to be lowered into the box gradually.

The air space in the wall of the upper section communicates with the compartment 45 of the lower section, as shown by the arrows in Fig. 3, so as to permit of a thorough circulation of air. In the compartment 45 is the shelf 16, which is supported by the legs 47. This shelf may be removed, when the upper section is disconnected from the lower section.

Positioned between the compartments 33 and 45, and carried by the upper section are the partitions 48 and 49, which form the air space 50, through which the air may circulate from one compartment to another, by way of the apertures 51 and the space 52. The partition 49 extends partially under the ice box 18, as shown at 49^a. Arranged adjacent the end of the partition 49 and integrally connected thereto is a right angle extending portion 49^b, which is disposed substantially adjacent the lower side of the ice box, as shown in Fig. 3. The partition 48 terminates into a flange 48^a, arranged substantially at an obtuse angle to the partition 48. This flange 48^a is located beyond the end of the partition 49, and is disposed substantially beneath the ice box. The flange 48^a terminates into a supplemental flange 48^b disposed at an obtuse angle to the flange 48^a. The supplemental flange is slightly spaced apart from the bottom of the ice box,

as shown in Figs. 2 and 3. By means of the right angle extending portion 49^b and the flange 48^a with its supplemental flange 48^b, a space 48^c is formed, which is in communication with the space 50. By the provision of the spaces 50 and 48^c the cool air emanating from the ice box may thoroughly circulate into the air space of the upper section of the refrigerator. Disposed substantially below the flange 48^a is a drip tray 48^d, to receive the drippings from the icebox. Some of the drippings from the ice box fall on the partition 48 adjacent the flange 48^a, and then substantially run into the drip tray, as will be understood from Figs. 2 and 3.

The upper section of the refrigerator is provided with a spring tension closure 54, which may be supported in a horizontal position by the chains 55, when the closure is opened.

In order to gain access to the ice-box the upper section of the refrigerator is provided with a hinged closure 56.

In order to permit the drainage and waste water to enter the tank 17, a removable connection is disposed so as to penetrate the casing of the lower section. This connection 57 registers with an aperture in the bottom of the drain tray, there being a lug 58 to engage the connection 57 for holding it in position. The spigot 59 of the pipe 26 is disposed, so as to prevent the insertion of a glass between it and the drain tray.

The refrigerator casing is provided with suitable handles whereby the same may be moved from place to place.

The legs of the refrigerator have caster rollers to permit the refrigerator to be moved or rolled easily.

As illustrated in Fig. 3, the bottom of the lower section of the refrigerator is provided with air holes 61, in order to permit fresh air to enter the interior of the refrigerator.

From the foregoing in connection with the drawings it is apparent that there is provided a refrigerator involving novel features of construction, which are essentially useful to housekeepers.

The invention having been set forth, what is claimed as new and useful is:—

1. A refrigerator comprising an upper and lower section having interengaging connections, said sections having compartments, including inner and outer walls and an intermediate wall, said inner and intermediate walls having an air space between them, the intermediate wall and inner wall having strips struck therefrom to hold the inner wall spaced apart from the intermediate wall, said upper section having two horizontal parallel partitions with a space between them constituting a passageway whereby air may circulate from one compartment to the other.

2. In a device as set forth, an ice supporting rectangular basket, comprising corner posts connected by parallel connecting bars, and including a removable perforated false bottom adapted to be supported upon the bars, said corner posts terminating at their lower extremities into coils constituting feet, while their upper extremities are set inwardly and provided with apertures, and U shaped handles having their ends looped in the apertures, whereby the basket may be lifted bodily from the ice-box.

3. A refrigerator comprising upper and lower sections having interengaging connections therebetween and provided with non-communicative air spaces, the upper section having a compartment, an ice-box extending thereinto at one end of the compartment, the compartment of the upper section having a bottom extending partially under the ice-box, the bottom having a portion extending at right angles thereto disposed adjacent to the side of the box, the upper section having a second bottom below

the first bottom, thus providing an air space between the bottoms in communication with the air space of the upper section, the second bottom having a flange arranged substantially at an obtuse angle thereto and beyond the end of the first bottom, the flange of the second bottom having a supplemental flange disposed at an obtuse angle to the first flange, and a drip tray arranged below the first and second flanges of the second bottom and below the ice-box, the tray being held in position by the interengaging connections, the air space of the upper section, the air space between the two bottoms and the compartments of the upper and lower sections being in communication.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BENOVILL A. KUHNS.

Witnesses:

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WILLIAM A. MEISEL.