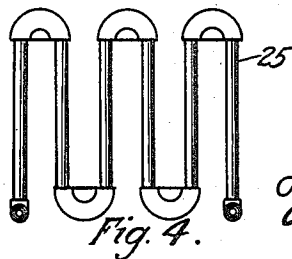
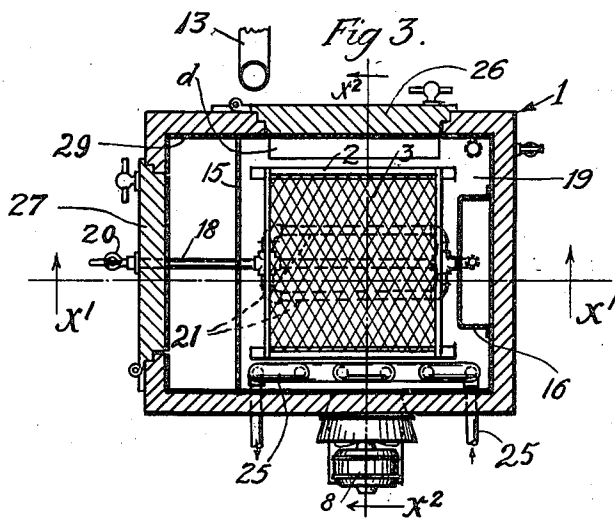
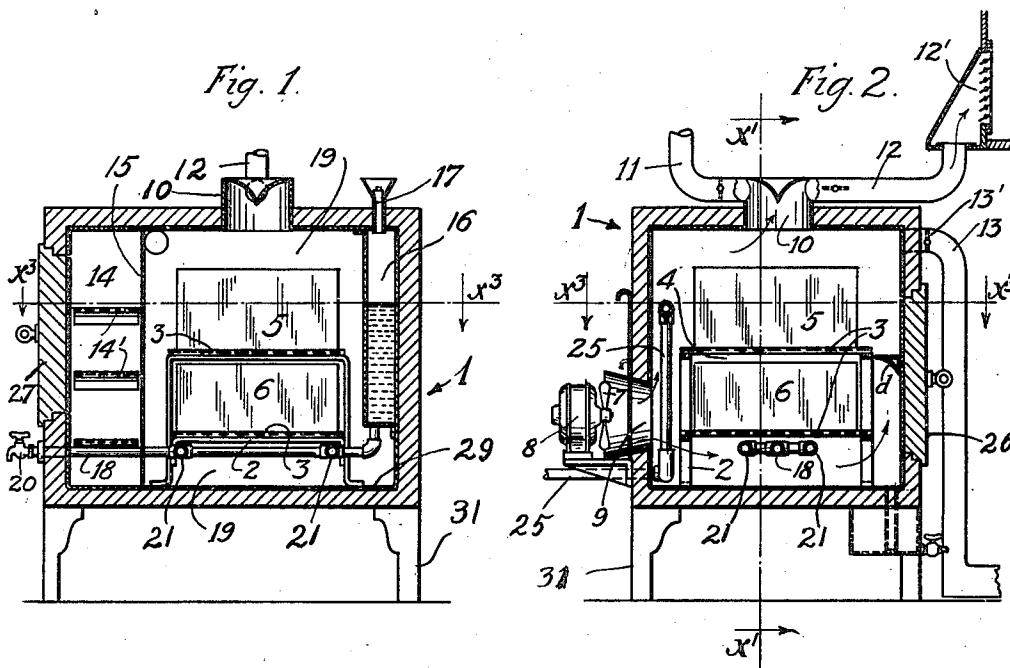


J. A. SMITH.
 COMBINED ICE BOX AND HOUSE COOLER.
 APPLICATION FILED AUG. 5, 1912.

1,069,489.

Patented Aug. 5, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH A. SMITH, OF LOS ANGELES, CALIFORNIA.

COMBINED ICE-BOX AND HOUSE-COOLER.

1,069,489.

Specification of Letters Patent.

Patented Aug. 5, 1913.

Application filed August 5, 1912. Serial No. 713,244.

To all whom it may concern:

Be it known that I, JOSEPH A. SMITH, a citizen of the United States, residing in the city and county of Los Angeles, State of California, have invented a new and useful Combined Ice-Box and House-Cooler, of which the following is a specification.

Among the objects of this invention are to furnish ice water, cool food, and distribute cooled air throughout the house, by a single, simply constructed air cooling device.

Other objects and advantages may hereinafter appear.

The invention consists in the various parts, combinations of parts, and details of construction described in connection with the accompanying drawings and then definitely pointed out in the claims.

Referring to the accompanying drawings, which illustrate the invention, Figure 1 is a vertical section on line X'-X' of Fig. 3. Fig. 2 is a vertical section on line X²-X² of Fig. 3. Fig. 3 is a horizontal section on line X³-X³ of Figs. 1 and 2. Fig. 4 is a detail side elevation of an ammonia cooled pipe.

Referring in detail to the drawings, within the box or casing 1 is mounted an ice supporting frame 2 provided with a plurality of ice-supporting devices preferably wire shelves 3. Said shelves 3 are disposed one above the other with sufficient space therebetween to permit the insertion of the good sized blocks of ice, there being a space 4 provided between the upper block of ice 5 and lower block of ice 6.

A blast of air is driven through the box by any suitable means, preferably a fan 7 driven by a motor 8 placed opposite an intake opening 9. After circulating around the blocks of ice the cooled air passes out the top of the casing through a main flue 10 having branches 11 and 12 to conduct away the cooled air to dwelling rooms or other apartments. The branch 12 is shown in Fig. 2 in communication with a heating register 12'. A descending cold air pipe 13 is shown, the same being provided with a damper 13'.

In ascending along the side of the ice blocks, the air current encounters a deflector *d* which is attached to the casing in position

to deflect the air current into the space 4 between the blocks of ice. Said deflector has a curved lower face, as shown, to offer less resistance to the air and at the same time perform its deflecting function better.

A food compartment 14 provided with shelves 14', is partitioned off within the casing 1 by means of a metal plate 15. On the other side of casing 1 is a water tank 16 provided with a filling tube 17 extending through the top of the casing. From the lower end of said tank leads an outlet pipe 18, said pipe extending through the food compartment 14. The lower shelf 3 contacts with said pipe so as to bring the ice block 6 into close proximity thereto. Said pipe is provided with an outlet faucet 20. Two by-pass pipes 21 retard the stream giving the water more time to cool. An ammonia cooled pipe coil 25 is shown in Figs. 2, 3 and 4 in order to further cool the air blast. Said pipe 25 is preferably located opposite the opening 9 through which the fan drives the air. The main compartment 19 is provided with a door 26 and the food compartment 14 with a door 27 on another side of the refrigerator. The casing is provided with an inner lining 29 and is supported on legs 31.

I claim:

1. In a cooling device, a casing, a water tank within said casing, an outlet pipe leading from said tank, an ice-supporting device just above said pipe in position to allow the ice to come into contact with or proximity to said pipe, and a blower to cause air to be driven first against the ice and then into contact with said tank.

2. In a cooling device, a casing, a lower ice-supporting shelf within said casing, said shelf being located at a distance from the floor of said casing and being spaced away from opposite walls thereof, an upper ice-supporting shelf located at a distance above said lower shelf, a blower to force a blast of air through one of said walls in such a direction that a portion of said blast of air will pass beneath a block of ice located on said lower shelf and up along the wall at the farther side thereof, a deflector projecting inwardly from said last mentioned wall to deflect a portion of the air striking there-

against back under said upper shelf and into contact with the under side of ice located thereon, and suitable conduits communicating with the upper portion of the casing to
5 conduct the cooled air to a place of use.

In testimony whereof I have hereunto signed my name in the presence of two sub-

scribing witnesses at Los Angeles, in the county of Los Angeles and State of California, this 29th day of July, 1912.

JOSEPH A. SMITH.

Witnesses:

ALBERT H. MERRILL,
JESSE W. WHANN.