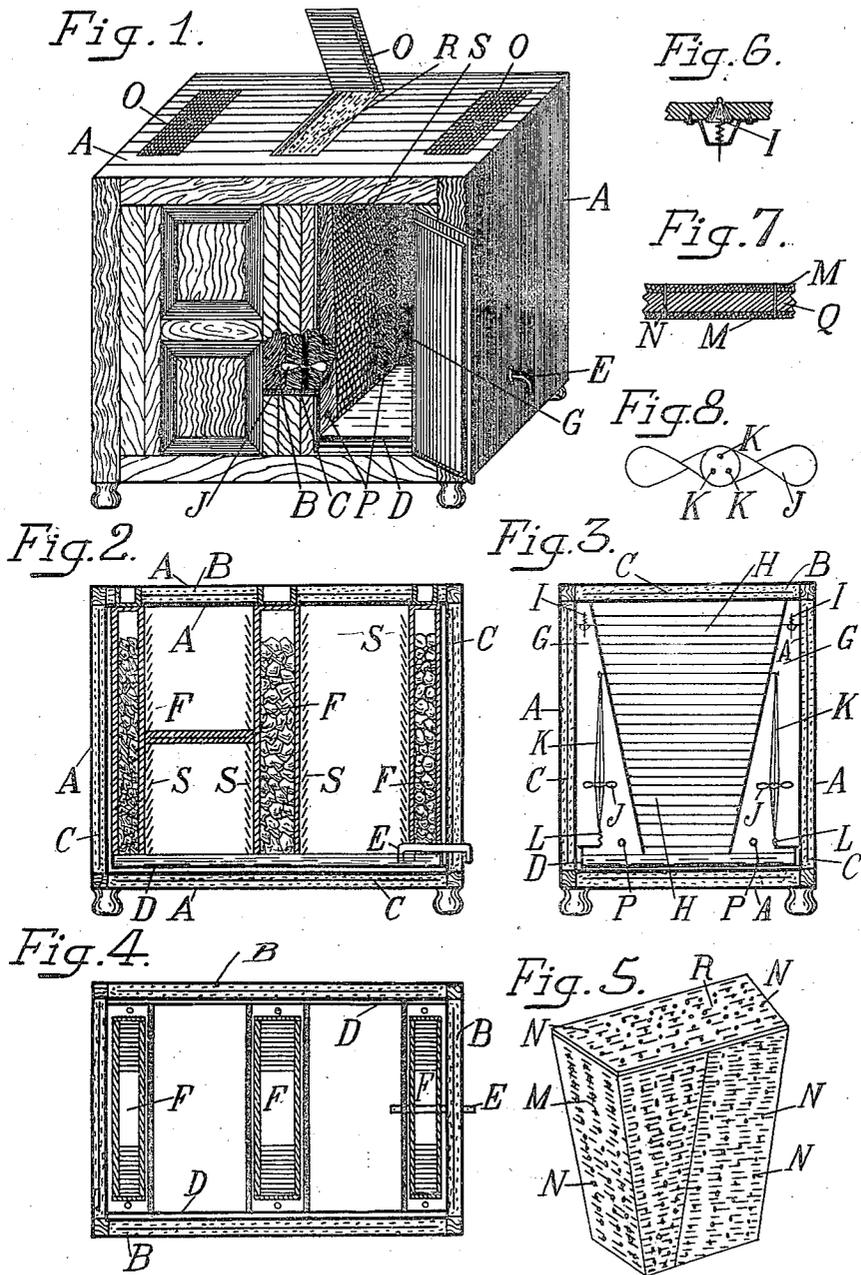


C. PIAZZA.
 ICE CHEST OR REFRIGERATOR.
 APPLICATION FILED JAN. 6, 1914.

1,210,833.

Patented Jan. 2, 1917.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CELSE PIAZZA, OF MARSEILLE, FRANCE.

ICE-CHEST OR REFRIGERATOR.

1,210,833.

Specification of Letters Patent.

Patented Jan. 2, 1917.

Application filed January 6, 1914. Serial No. 810,538.

To all whom it may concern:

Be it known that I, CELSE PIAZZA, citizen of Italy, residing at 35 Rue Paradis, Marseille, in the Republic of France, have invented new and useful Improvements in Ice-Chests or Refrigerators, of which the following is a specification.

This invention has for its object an economical refrigerator or ice safe; the peculiar arrangement and insulation of which enables the loss of ice to be reduced to a minimum.

Now referring to the accompanying drawings which show an example of the application of the invention which may be considerably modified while still retaining the essential features of the invention; Figure 1 shows a view in perspective of the ice chest or refrigerator; Fig. 2 is a vertical longitudinal section; Fig. 3, a vertical transverse section; Fig. 4, a horizontal section; Fig. 5 is a view in perspective of the insulating envelop or casing containing the ice; Fig. 6 is a view of the air aspiration valve; Fig. 7 is a section of a portion of the insulating casing containing the ice; Fig. 8 is a view of one of the fans or propellers for changing the air.

The refrigerator is composed of a wooden chest or safe having double walls A, between which Galician wood-charcoal B is placed in the form of grains. In the middle of the charcoal and in order to render completely impervious the walls of the refrigerator, a sheet of cardboard C coated on the inner side with a mixture of tar and niter is provided. The bottom of the ice chest or refrigerator is occupied by a shallow zinc dish or pan D, intended to receive the water formed by the melting of the ice. This dish has a little siphon E which is closed by a few drops of water. In the center and against two sides of the ice chest, receptacles F containing the ice are placed. Each of these receptacles, the number of which may vary, is formed of a box divided into three compartments G H G; the parts G which are similar to one another are tightly closed and contain at the upper part a very sensitive valve I, held down by a spring and opening inward, and a very small screw propeller or fan J mounted on three gut cords K held taut by a spring L. A hole P is bored at the bottom of each of the compartments

G for the exit of air. The compartment H has on its two larger faces inclined strips S of wood to allow the vapor of the ice to escape. An inverted trapezoidal or truncated pyramidal form is given to this compartment H with the object of providing a greater cooling effect to the upper part of the refrigerator where the warmer air is always found. The interior of this compartment H is lined with a double cover of wool M, which is preferably formed into a removable envelop or casing adapted to receive the ice, and between the layers of which a mixture of wax and fireclay Q is placed in order to preserve the ice. Small holes N formed with a punch in this cover between the strips of wood enable the vapor to escape from the ice.

The ice is filled in at the upper part of the receptacles by lifting lids O and the top R of the casing M. After the ice has been placed in the receptacles and in proportion as the temperature descends, the gut cords K become tauter and cause the screw fans J to make several revolutions; the air contained in the upper part of the refrigerator or ice safe is then drawn through the spring valves and returned to the lower portion of the refrigerator whence a portion can escape through the siphon. The same movements are repeated automatically when the doors of the refrigerator or ice chest are opened and closed and the temperature rises due to the effect of the introduction of warm air. The slight stirring and washing of the air by the screw propellers also serve to produce a regular temperature both in the lower and in the upper part of the refrigerator.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. In a refrigerator or ice chest, a casing for the ice comprising a double layer of wool, and an intermediate filling of clay and wax.

2. In a refrigerator or ice chest, a casing for the ice comprising a double layer of wool, and an intermediate filling of clay and wax, the walls of said casing having holes therethrough.

3. In a refrigerator or ice chest, a casing for the ice comprising a double layer of wool, and an intermediate filling of clay and

wax, said casing having the shape of an inverted truncated pyramid as described.

4. In a refrigerator or ice chest, an ice compartment lined with a double layer of wool and a filling of wax and clay between the layers of wool.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

CELSO PIAZZA.

Witnesses:

E. DUCATTORE,
BUCCHIENI JOSEPH.