E. GOSLINER.

EVAPORATING COOLER.

APPLICATION FILED SEPT. 22, 1911.

1,044,376.

Patented Nov. 12, 1912.

3 SHEETS—SHEET 1.

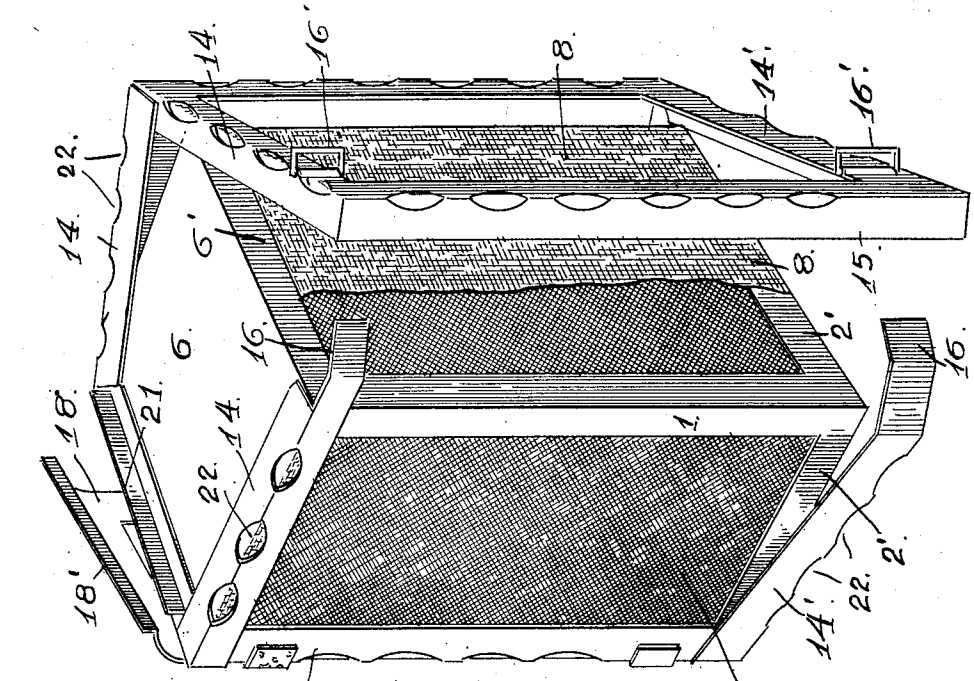

Fig. 2.

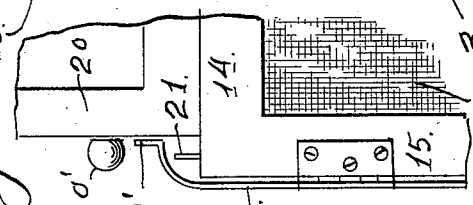

Fig. 3.

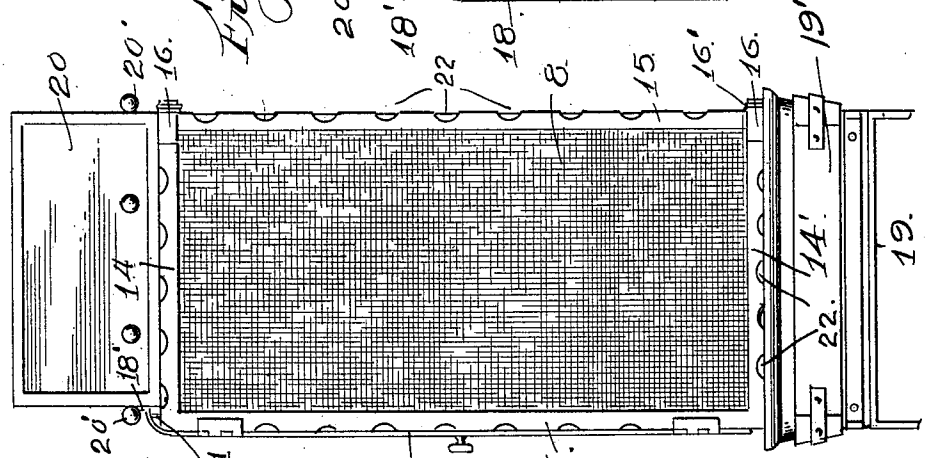

Fig. 1.

Witnesses.
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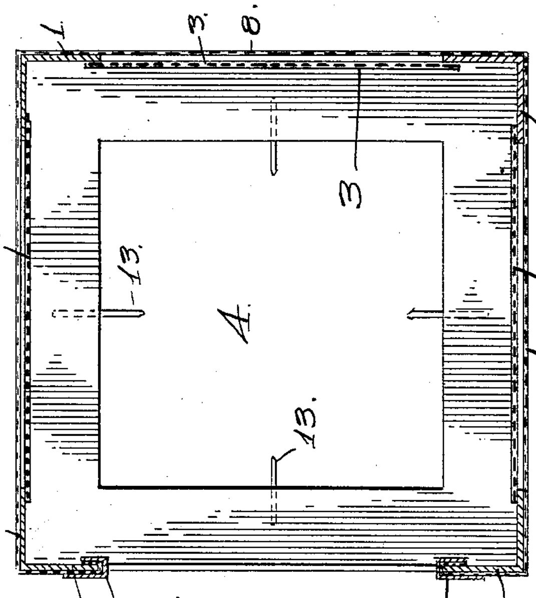

Fig. 5.

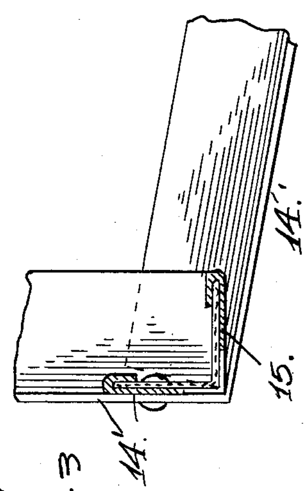

Fig. 4.

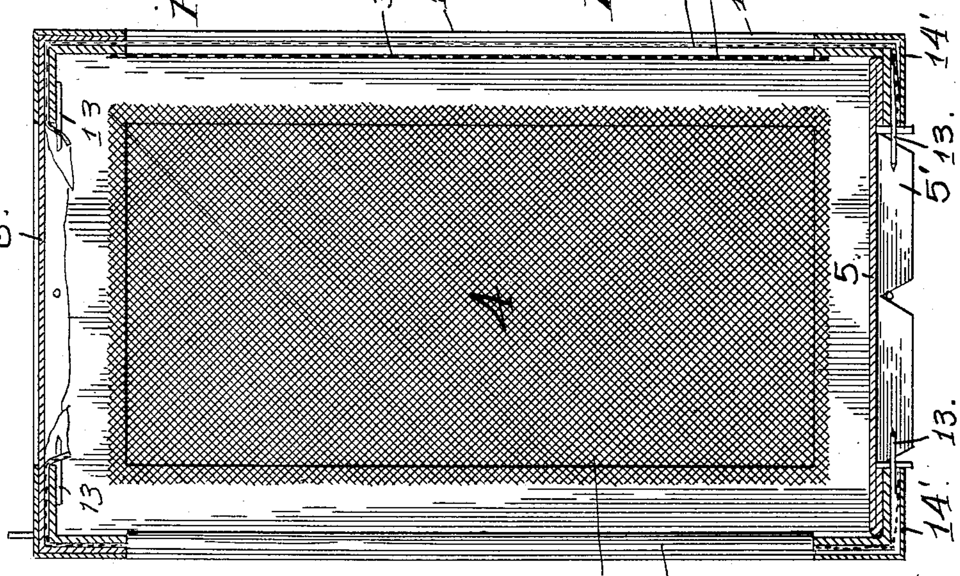

Fig. 6.

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3 SHEETS—SHEET 3.

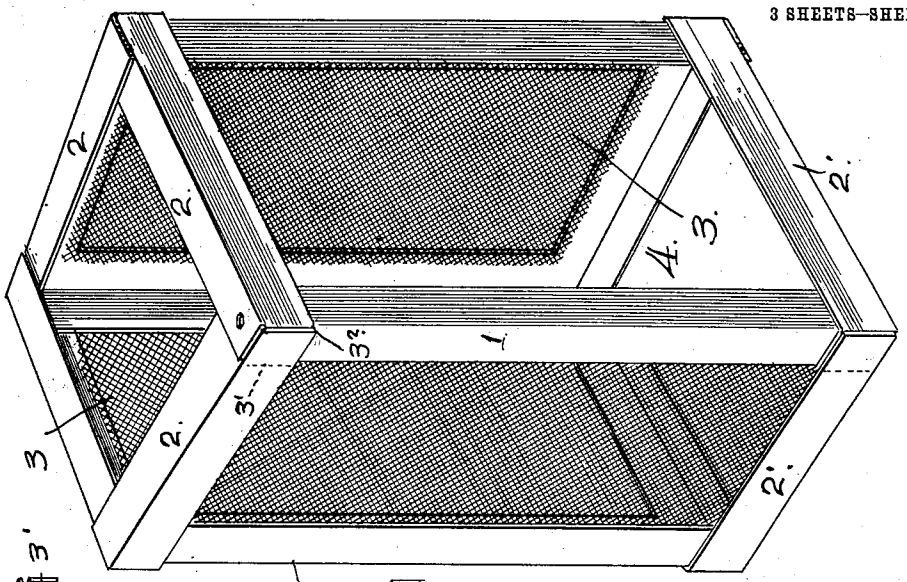

Fig. 8.

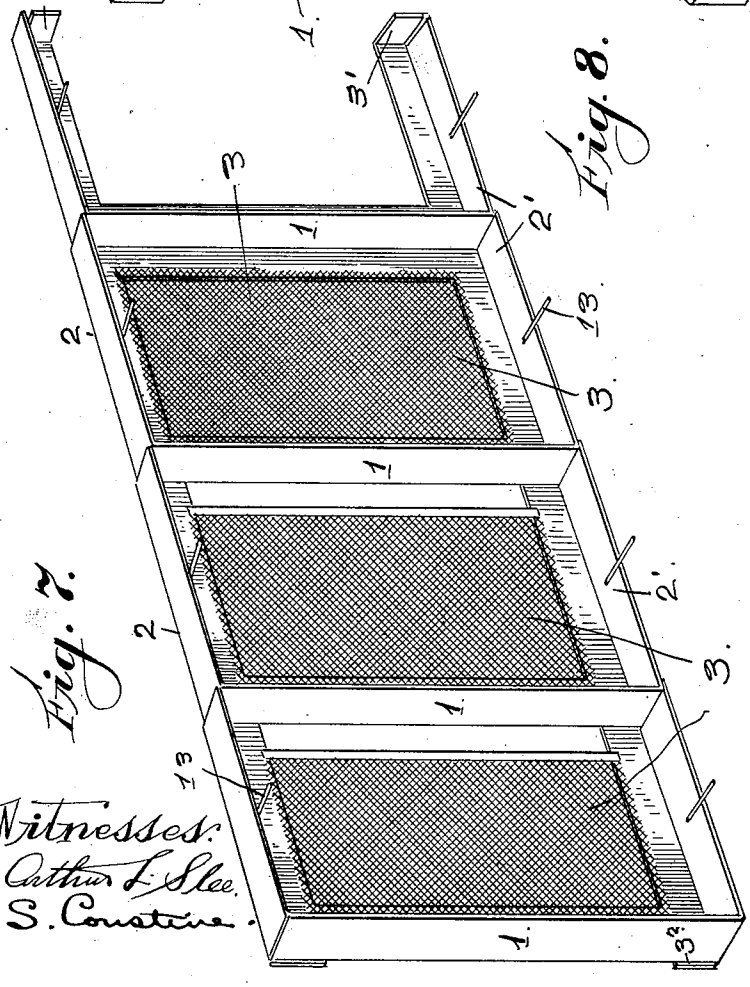

Fig. 7.

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UNITED STATES PATENT OFFICE.

ELKAN GOSLINER, OF SAN FRANCISCO, CALIFORNIA.

EVAPORATING-COOLER.

1,044,376. Specification of Letters Patent. Patented Nov. 12, 1912.

Application filed September 22, 1911. Serial No. 650,818.

To all whom it may concern:

Be it known that I, ELKAN GOSLINER, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Evaporating-Coolers, of which the following is a specification.

This invention relates to that class of coolers designed for the preserving of meats, vegetables, butter, milk and other perishable articles, wherein is utilized the evaporation of water flowing over an absorbent wall covering for the lowering of the temperature within the cooling chamber; the object being the production of a knock-down cooler, simple of construction, efficient, durable and perfectly sanitary.

To comprehend the invention reference should be had to the accompanying sheets of drawings, wherein—

Figure 1 is a side elevation of the improved cooler. Fig. 2 is a perspective view of the cooler with the inclosing or reinforcing frame partly opened, and the absorbent covering for the inner container partly broken away, the water reservoir being removed. Fig. 3 is an enlarged broken detail side elevation disclosing a portion of the water reservoir and upper corner of the cooler. Fig. 4 is an enlarged detail plan view of a portion of the reinforcing frame for the inner frame or container. Fig. 5 is a top plan view of the inner frame or container. Fig. 6 is a vertical sectional view of the improved cooler, the supporting base and the water reservoir being removed. Fig. 7 is a perspective view of the inner container frame extended. Fig. 8 is a perspective view of the inner container frame in closed position.

The cooler comprises an inner container or vessel of suitable height and capacity, the same comprising angle corner posts 1 united at their tops and bottoms by the cross angle pieces 2 and 2′. Two sides and one end of the container are closed by a meshed wall or screen 3, forming three substantially closed panels, the front of the frame being opened. In this manner a substantial rigid cooling frame or container is produced, open at top and bottom, the interior of which constitutes a chamber 4 for the holding of articles to be preserved.

The cross or top and bottom angle pieces 2 and 2′ each consist of a single piece of metal, to the inwardly projecting flange of which the angle corner posts are united in any suitable manner, the vertical flange of each strip being cut inwardly adjacent the union of the corner or vertical angle pieces 1 in order that the same may fold to form an open paneled frame, the panels being hinged one to the other. The free ends 3′ of the strips 2 and 2′, when the frame is set up or folded to form the container, slip into the joint seat 3^2 of the opposing ends of the said strips, Fig. 7 of the drawings.

A removable bottom 5 is provided for the cooling chamber 4, the same being fitted within the formed frame or container, and the top of said container is closed by the cover plate 6 which rests on the frame.

The screened surfaces of the inner frame are inclosed by a covering of textile or absorbent material 8, of a width sufficient to extend the full height of the walls of the inner frame and in length sufficient to extend over the screened surfaces thereof.

In applying the textile absorbent or fiber covering 8, one end thereof is placed over the free edge 9 of one of the front corner posts 1 of the container, and secured thereto by means of the slotted clamp strip 10 forced onto the edge 9 to hold the end of the cloth or fiber covering 8 in place, Fig. 5 of the drawings. The cloth or fiber covering is then drawn tight over the screened surface of the sides and end panels of the frame and the free end lapped over the free edge 11 of the opposing front corner post 1 and secured thereto by means of the clamp strip 12. The loose edges of the textile or absorbent covering are drawn over the top and bottom of the frame and secured to the pins 13 inwardly projecting from the top and bottom cross pieces 2, Figs. 5 and 6 of the drawings.

The corner, top and bottom cross angle pieces of the inner frame or container are reinforced by an outer open metallic frame consisting of the upper and lower angle strips 14 and 14′ formed of soft metal and the spaced vertically disposed angle pieces 15, which are united to the vertical flanges of the strips 14 and 14′ in any suitable manner, the inwardly projecting wall or flange of each strip 14 and 14′ being cut or slotted at the point of union of the vertical uprights 15 therewith, so that the formed open panel sections may swing as though hinged together for bending about the inner frame

or container. When the said frame is fitted about the inner frame the angle strips 14 and 14′ embrace the top and bottom cross pieces 2 and 2′ of the container and the uprights 15 embrace the angle corner posts 1 thereof, the tongue 16 projecting from one free end of the angle strips 14 and 14′ being passed through the loops 16′ of the opposing ends and turned back to lock the reinforcing frame in position. With the parts thus secured, the top and bottom plates 5 and 6 are applied, the flanges 5′ and 6′ depending from the plates 5 and 6 respectively holding the same securely in position within the open ends of the frame or container.

To the free edge 17 of the front uprights 15 of the reinforcing frame is hinged in any suitable manner the screened metallic door 18, which, like the side panels of the inner frame or container, is provided with an absorbent textile or fiber covering. The upper end of the door frame is projected a slight distance above the inner frame or container and is inwardly curved to provide a lip 18′ which overhangs for a slight distance the upper edge of the inner frame or container when the door is closed.

The open frame not only reinforces the entire structure, but securely holds the absorbent covering in place relative to the inner ram or container, thus constituting a substantial clamping means therefor, while at the same time materially enhancing the general appearance of the structure. In case it is desired to renew the textile or fiber covering 8 for any reason whatever, it is only required that the reinforcing frame be detached, which is easily and quickly accomplished, when the said covering may be removed and replaced by a fresh one.

The construction of the outer reinforcing frame is the same as that of the inner frame or container, that is, composed of a series of hinged or foldable sections.

The constructed cooler is mounted on a supporting base 19, containing a drip pan 19′ for drip water from the textile covering 8, and on the top of the structure is situated a water reservoir 20, provided with controlled outlets 20′ for the escape of water therefrom, which water flows over the edge of the cover plate 6 and trickles down onto the absorbent covering 8.

The lip 18′ of the door 18 receives the drip from the forward outlets of the reservoir for guiding the same onto the absorbent covering thereof, and the cover 6 is provided with a projecting flange 21, which, when the door 18 is opened prevents the water from flowing over the forward edge of the structure.

The open reinforcing frame is provided with cut-outs 22 at intervals, the removal of which metal lessens the weight of the frame and at the same time allows of the air making contact with the exposed surface of the saturated textile or fiber covering held down by the said reinforcing or clamping frame.

The rapid evaporation of the water passing over the cloth or fiber covering of the inner frame or receptacle causes a lowering of the temperature within the inner chamber of the container to such a degree as to maintain in perfect condition for a considerable time articles placed therein.

While shelves or supporting trays have not been illustrated, it will be understood that a suitable number are placed within the interior chamber of the cooler.

When it is desired to clean the inside and outside of the improved cooler, it is only necessary to play onto the interior and exterior walls thereof a stream from an ordinary hose, the bottom 5 being removed to allow for any accumulations being carried off.

The improved cooler is simple of construction, strong and durable, and perfectly sanitary, and the arrangement of the parts is such that the entire structure may be readily taken apart and packed in a knock-down condition for shipment and storage purposes, thus enabling a number of said coolers being packed or stored within a limited space.

Having thus described the invention what is claimed as new and desired to protect by Letters Patent is—

1. In an evaporating cooler, the combination with an inner container provided with screened sides and one end wall, of an absorbent covering for the same, of means for securing the said covering in position, a removable top and bottom for the container, an open reinforcing frame embracing the inner container, and a water supply reservoir situated above the inner container provided with outlets for supplying water onto the absorbent covering of the said container.

2. In an evaporating cooler, the combination with an inner container thereof, of a reinforcing frame for holding in place an absorbent covering for the walls of the inner container, the same comprising upper and lower angle strips and a series of spaced vertical angle strips uniting the same to form an open paneled frame, the vertical strips being so disposed as to embrace the vertical corners of the inner container and the upper and lower strips embracing the upper and lower frame pieces of the container, each inwardly projecting flange of the upper and lower angle strips being inwardly cut adjacent the union of the vertical strips therewith to form a flexible joint means carried by the reinforcing frame for securing the same to the inner container and a hinged door for the frame.

3. An evaporating cooler, the same comprising an inner container provided with

screened panels, of an absorbent covering for said panels, a removable top and bottom for the container, a reinforcing frame consisting of a series of united open sections which embrace the covered panels of the container for securing in place the absorbent covering, means carried by the frame for securing the same to the container, a hinged door for the cooler, and a water supply reservoir situated above the cooler and provided with outlets for supplying water onto the absorbent covering of the inner container.

4. An evaporating cooler comprising an inner container having a front opening and formed of a plurality of hinged sections, a textile or absorbent covering for the same, means for securing the said covering in position relative to the container, a removable top and bottom for the container, an outer reinforcing frame for the container consisting of a series of united hinged open panel sections, a water supply reservoir for delivering water onto the absorbent covering for the inner container, and a door for closing the front opening of the cooler.

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

ELKAN GOSLINER.

Witnesses:
N. A. ACKER,
HENRY E. RUDEE.