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J. W. & C. W. WALKUP.

MILK COOLER.

APPLICATION FILED JUNE 14, 1904.

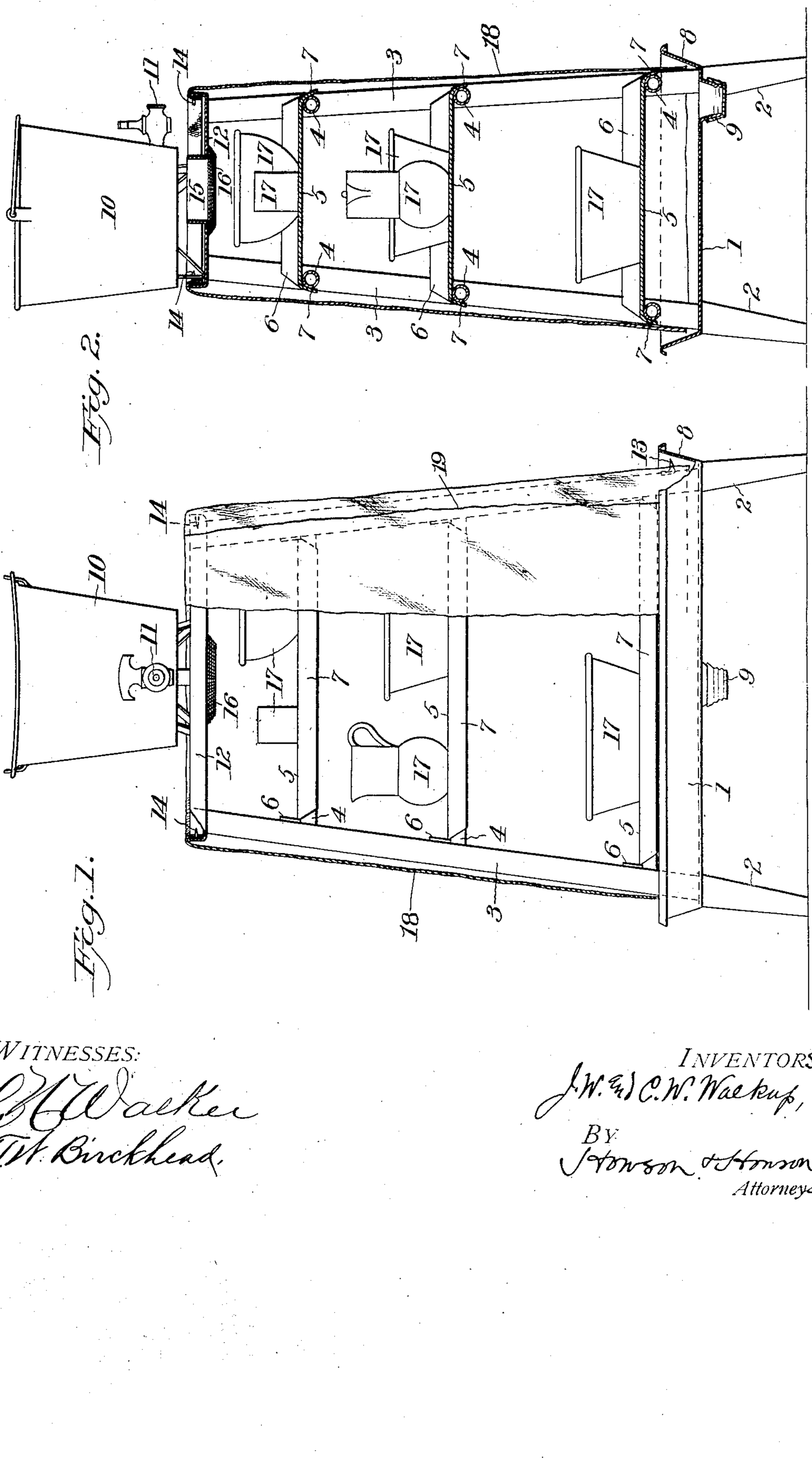

Fig. 1.

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN W. WALKUP AND CHARLES W. WALKUP, OF ROSEBUD, TEXAS.

MILK-COOLER.

SPECIFICATION forming part of Letters Patent No. 779,823, dated January 10, 1905.

Application filed June 14, 1904. Serial No. 212,562.

To all whom it may concern:

Be it known that we, JOHN W. WALKUP and CHARLES W. WALKUP, citizens of the United States, and residents of Rosebud, county of Falls, State of Texas, have invented certain new and useful Improvements in Milk-Coolers, of which the following is a specification.

Our invention relates to devices for cooling milk, cream, and other liquids, and more especially to such coolers wherein the liquid is contained in open jars, bottles, &c., supported on shelves around which the air cooled, preferably by evaporation of moisture, is caused or permitted to freely circulate.

Our objects are to provide a cooler of the character indicated in which the shelves may be readily removed and replaced, whereby the device may be easily cleaned; to so construct and arrange the parts that the milk or other liquid, contained in suitable receptacles, may be easily and quickly placed upon the shelves and removed therefrom; to make the device of the lightest possible weight consistent with the strength required in use, so that it will not only be easy to handle in ordinary use, but will be cheap in manufacture and cost the least amount in freight or other charges for transportation, and, finally, to provide a device of this character which shall possess the fewest parts and simplest construction and be thoroughly hygienic or capable of being so maintained with the slightest care.

With these objects in view our invention consists in the novel construction of cooler and in the details thereof, as hereinafter described, with reference to the accompanying drawings, and more particularly pointed out in the claims hereto appended.

In the drawings, Figure 1 is a front elevation of a cooler embodying our invention with a part broken away, and Fig. 2 is a central vertical section of the main structure with certain parts in elevation.

Referring now particularly to the drawings, in which the same reference characters relate to the same or corresponding parts in both views, it will be observed that we provide a bottom pan 1, having flaring sides or walls 8 and supported upon suitable legs 2, secured thereto in any convenient way. As we prefer to make all parts of the device of galvanized iron or equivalent material in order to secure lightness and cleanliness and a capability of preserving such hygienic condition, we find it preferable to secure the legs 2 to the bottom of the pan 1 by soldering, and such means of joining the parts is recommended for all the joints in the device.

Extending upwardly from bottom pan 1 are tubular posts or supports 3, between which on the four sides extend tubular rods 4, which serve not only as braces to strengthen the structure, but as supports for the flat shelves 5, upon which the milk or other liquid is placed in jars, crocks, bottles, or other receptacles 17. Mounted upon the upper ends of the tubular supports 3 is the top pan 12, and intermediate the top and bottom pans are the shelves 5, supported, as above indicated, on opposite cross rods or braces 4. Each of the shelves is provided with downwardly-extending lips or flanges 7, adapted to partially surround or embrace one of the braces or rods 4, and which, owing to the resiliency of the metal, exert sufficient pressure upon the respective supports to retain the shelf in position thereon and yet permit the same to be readily removed by simply grasping one of the flanges between the fingers and raising the edge of the shelf above the rod 4 and gently pushing the shelf outwardly or pulling it in such direction with the other hand. These lips or flanges 7 also secure the purpose of directing or shedding any water that may accumulate thereon onto the next-lower shelf and finally into the bottom pan 1, according to the batter or inclination of the posts or supports 3 and the distance apart of the shelves. On the side of the shelf 5 are transversely-extending and upwardly-turned flanges 6, which when the shelf is in position rest against adjacent supports 3, thereby affording an additional security to the shelf structure and adding strength thereto, such flanges being likewise resilient, and hence readily permitting removal of a shelf when desired.

The top pan 12 has vertical side walls and is provided with a central ventilating-opening surmounted by a guard-flange 15, which prevents any water from overflowing through

said opening onto the shelf below. This opening is provided with a protecting wire-gauze netting 16, which prevents insects or any foreign matter from passing below. A cloth 18, of textile material, such as light cotton fabric, incloses the structure from top to bottom, so that there is no exposure of the milk or other liquid while it is being cooled. This cloth covering is preferably in a single piece and so formed that its upper edge when in position will envelop the rim or flange of the pan 12 and extend down to be immersed in the water which is maintained therein through the medium of a reservoir or bucket 10, having a drip-cock 11 regulated so as to keep a cool and fresh supply of water in the pan—sufficient to be absorbed by the cloth and spread thereover by capillary attraction. The lower edge of the cloth is immersed in the water held in the bottom pan 1, so that it not only receives water therefrom, but forms a water seal at this point to keep out insects, dust, dirt, &c. The cloth is held in place by any suitable means, and we have shown in the drawings a simple device for this purpose consisting of one or more sharpened studs or pins 14, projecting from the side of the pan 12 at the top, and a similar pin 13, projecting from one or more of the posts 3, the cloth being simply wrapped around the structure, with the edges adjusted as above defined and the overlapping edges 19 impaled on said pins or studs.

The bottom pan 1 is provided with closable discharge-opening closed by a screw-cap 9, which is removed when desired to permit the water in the pan to run out, so that fresh water may be supplied thereto.

With a device constructed according to our invention it will be observed that when the milk or other liquid containing receptacles are in place and the cooling liquid or water supplied to the top and bottom pans the cloth will become quickly moistened throughout its area, and as the moisture therein evaporates, which it does quickly in ordinary temperature and humidity, the air circulating over and around the said milk, &c., being thereby cooled reduces the temperature thereof, effectively cools the same, and maintains it at a suitably low temperature.

While we have described a convenient form of our cooler, it is to be observed that various changes may be made in the form and arrangement of the parts, inclination of the posts, proportions, &c., without departing from the spirit of our invention.

We claim as our invention—

1. In a cooler for milk or other liquid, the combination of a bottom pan supported by legs, inclined posts extending upwardly from said pan, cross-braces interposed between and in line with the pairs of said posts acting to brace the structure and as supports for shelves, one or more removable flat shelves of resilient material having on two of the opposite sides thereof downwardly-turned flanges partly surrounding the braces, and means for evaporating moisture from around said structure, whereby cool air may circulate around the liquid in receptacles on the shelf or shelves, substantially as described.

2. In a cooler for milk or other liquid, the combination of a bottom pan supported by legs, inclined posts extending upwardly from said pan, cross-braces interposed between and in line with the pairs of said posts acting to brace the structure and as supports for shelves, one or more removable shelves of resilient material having on two of the opposite sides thereof downwardly-turned flanges partly surrounding the braces, and upwardly-turned flanges on the other two sides adapted to rest against the adjacent posts, and means for evaporating moisture from around said structure, whereby cool air may circulate around the liquid in receptacles on the shelf or shelves, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN W. WALKUP.
CHARLES W. WALKUP.

Witnesses:
TOM LITTLE,
THOMAS O. TYSON.