

H. MESSENGER.

Improvement in Milk-Coolers

No. 124,369.

Patented March 5, 1872.

Fig 1.

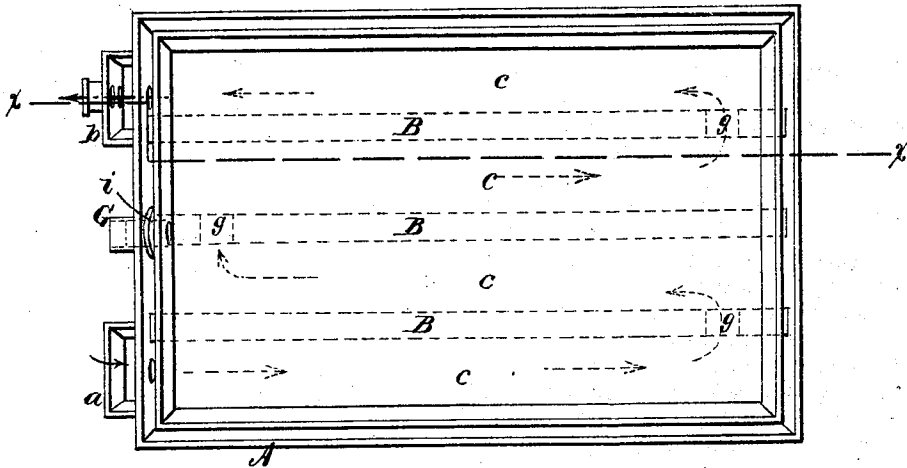


Fig 2.

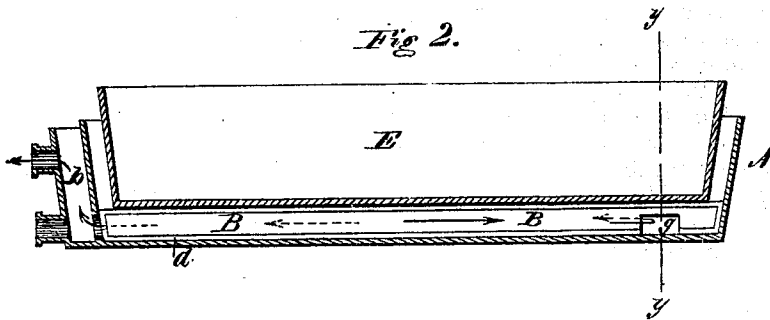
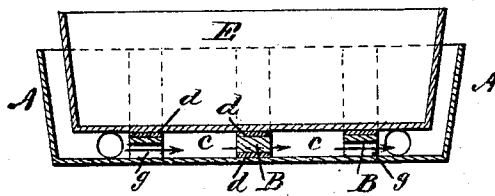


Fig 3.



Witnesses.

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his atty -

UNITED STATES PATENT OFFICE.

HENRY MESSENGER, OF MASSENA, NEW YORK.

IMPROVEMENT IN MILK-COOLERS.

Specification forming part of Letters Patent No. 124,369, dated March 5, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, HENRY MESSENGER, of Massena, in the county of St. Lawrence and State of New York, have invented certain Improvements in Milk-Coolers, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to that class of milk-coolers in which water is caused to flow through winding passages in contact with the pan or vessel containing the milk; and it consists in making the milk-vessel and the partitions removable, so as to permit the thorough cleansing of the interior parts and a change in the number or arrangement of the passages.

Figure 1 is a top-plan view of my cooler; Fig. 2, a longitudinal vertical section of the same; Fig. 3, a cross-section of the same.

In constructing my cooler, I first provide a rectangular body or vessel, A, having at one end two cups, *a* and *b*, connected by openings with the interior of the body. In the body, on its bottom, I place three or more closely-fitting longitudinal bars or partitions B, made of wood and covered with felt, rubber, or similar elastic material, *d*. The bars or partitions thus applied divide the bottom of the body into several passages, *c*, which communicate with each other by openings *g* made through the bars or partitions, as shown; the opening in each bar being at the opposite end of the body from the openings through the adjoining bars. I next provide the flat shallow milk-pan or vessel E, and place it in the body A upon the bars and provide it with a neck or tube, G, extending out through the end of the body and surrounded by a rubber washer *i* to prevent the leakage of water.

The water for cooling purposes is introduced into the cup or receptacle *a* and flows into and through the outside passage *e*, and then through the opening *d* into the next passage, and back through the latter into the third one, and so on back and forth until it reaches the opening to cup *b* and escapes through the same; this

circulation of the water being the same in all this class of coolers. If it is desired to have the water act upon the sides as well as the bottom of the milk-vessel, the bars or partitions are extended upward between the ends of the pan and the body and the inlet and outlet openings of the cups *a b* placed at the desired level of the water. When this is done the water must, of course, rise to and maintain a level with the outlet or overflow.

The drawing represents the discharge-cup *b* as having two openings, one above the other, so that when the lower opening is closed the water rises to the level of the upper one, so that, by means of these two openings, the water may be caused to act on the bottom or bottom and sides, at will.

The pan and bars being arranged as described can be readily removed, so as to permit a thorough cleaning.

One or more bars may be added or removed at any time so as to change the number of passages, as may be desired.

The bars may be made of wood, stone, glass, or metal and covered with any suitable elastic material; or, they may be smooth enough to answer without the packing or covering, or made entirely of rubber or similar elastic flexible material.

It is obvious that these removable bars or partitions may be applied to coolers of all shapes and forms in which passages are provided; and, also, that they may, if desired, be placed in the milk-vessel to cause a circulation therein as well as in the water-vessel.

By my method of construction, I produce a cooler all parts of which may be readily cleaned, kept sweet, and protected from rust.

Having thus described my invention, what I claim is—

The herein-described milk-cooler, consisting of the body or water-vessel A, the removable bars or partitions B, and the removable pan E, constructed substantially as described.

Witnesses: HENRY MESSENGER.

PHIL T. DODGE,
J. MCKENNEY.