

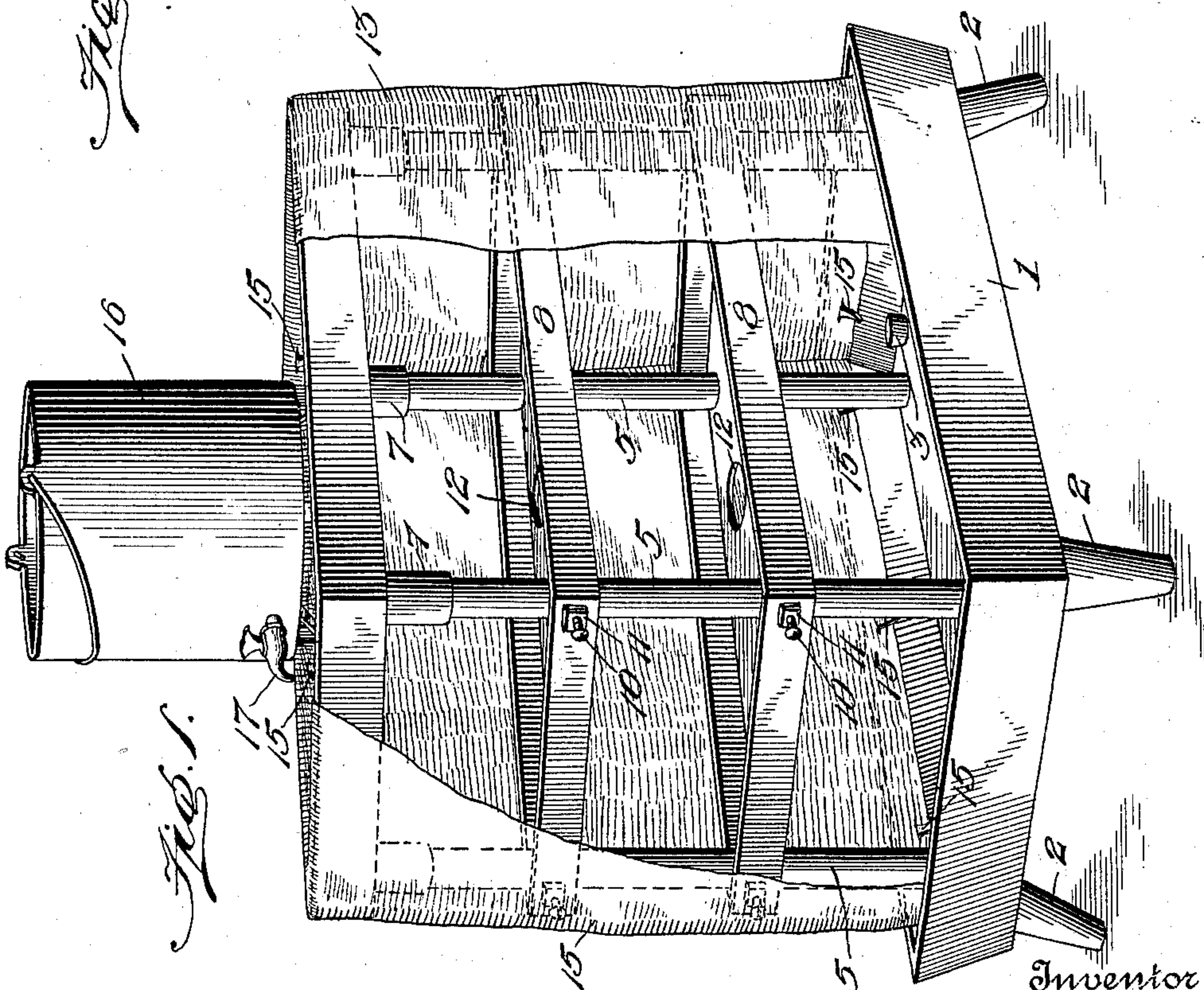
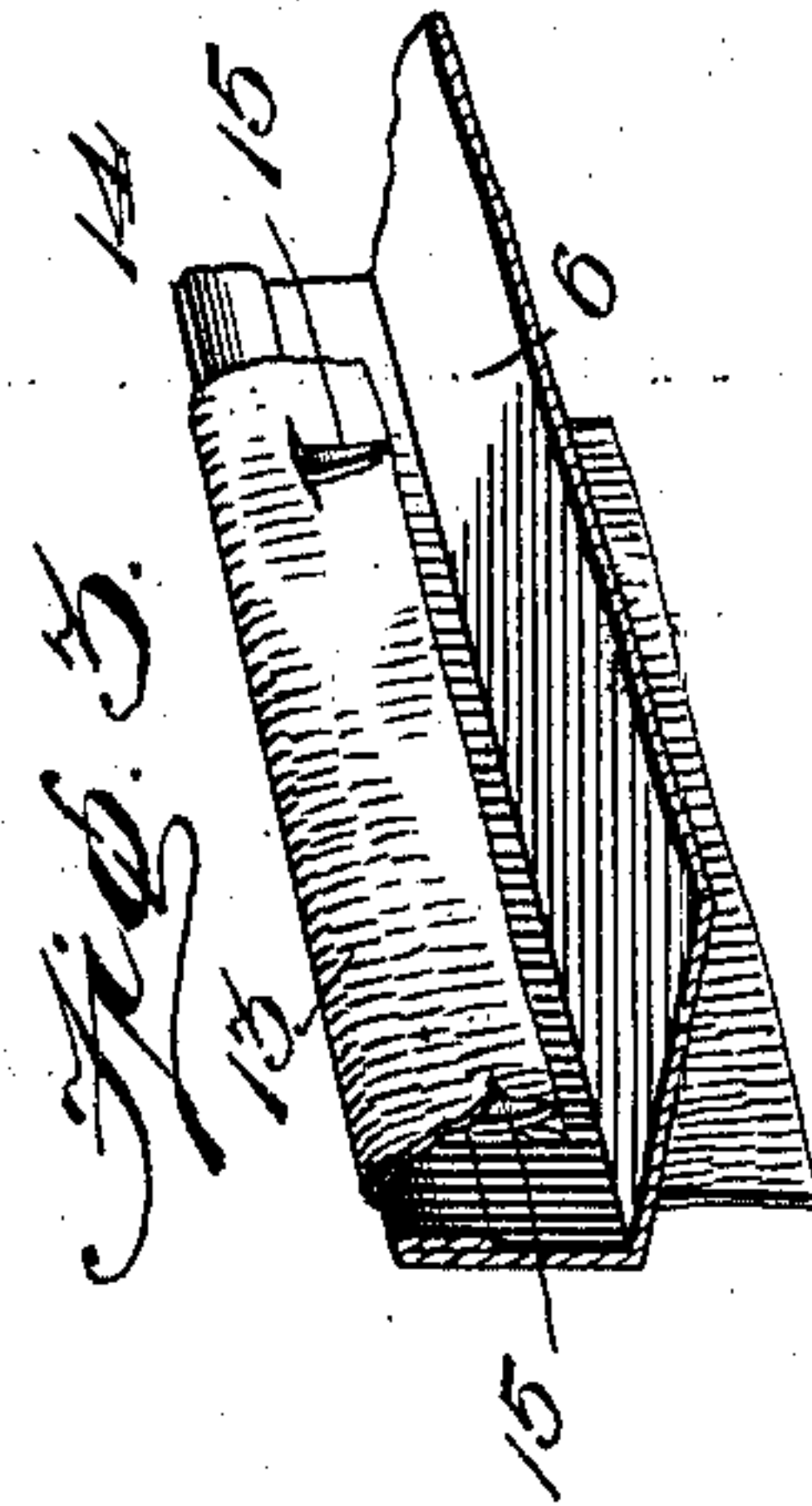
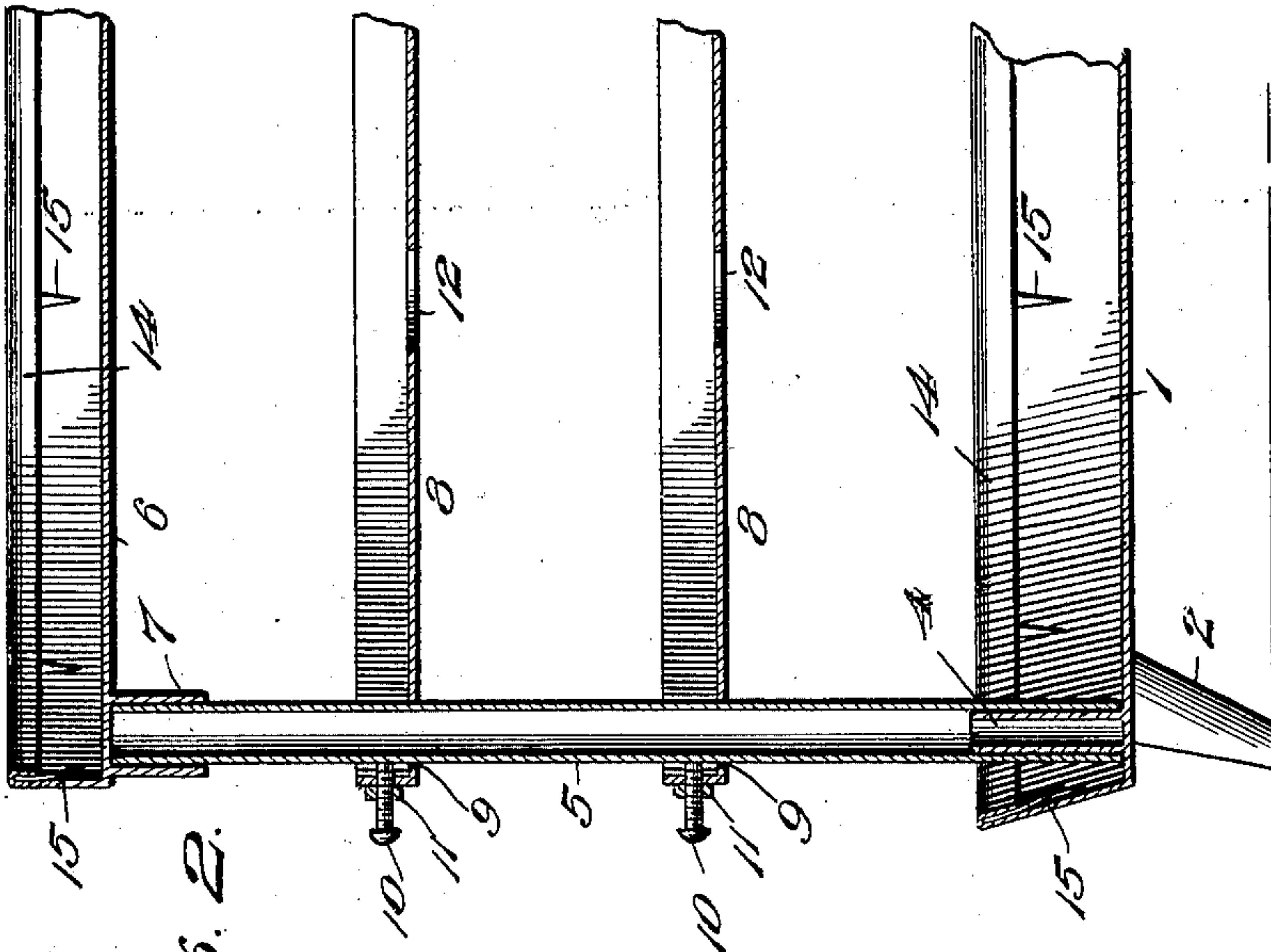
No. 653,072.

Patented July 3, 1900.

W. V. DEAN.
MILK COOLER.

(Application filed Jan. 30, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM VOLNEY DEAN, OF VALLEY MILLS, TEXAS.

MILK-COOLER.

SPECIFICATION forming part of Letters Patent No. 653,072, dated July 3, 1900.

Application filed January 30, 1900. Serial No. 3,310. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM VOLNEY DEAN, a citizen of the United States, residing at Valley Mills, county of Bosque, State of Texas, have invented certain new and useful Improvements in Milk-Coolers, of which the following is a specification.

This invention relates to milk-coolers, and has for one of its objects the provision of a simple and inexpensive knockdown construction which will permit packing into compact form when desirable.

Another object is to provide a milk-cooler having adjustable shelves of improved construction, whereby milk pans or pails of different sizes can be easily accommodated.

A further object of the invention is to provide a milk-cooler of the water-evaporation capillary-feed type which will be strong, compact, and of large capacity and provided with improved means for draining, catching, and retaining the water, holding the fabric, and adjusting and securing the shelves.

Having the foregoing and other objects in view, the invention consists of certain improved features and combinations set forth in detail hereinafter and recited in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view with the fabric broken away to disclose the shelves and standards; Fig. 2, a longitudinal sectional view taken through one of the standards, and Fig. 3 a detail view illustrating the manner of fastening the fabric.

There is a bottom tray 1, having legs 2 at its corners, and a plugged drain-outlet 3, which is adapted to catch the water as it is fed or drains downward. Inside this tray, at the corners thereof, are hollow vertical stub-standards 4. Hollow main standards 5 have their lower ends telescoping over the stub-standards and resting on the bottom of the tray 1.

A top tray 6 of somewhat-smaller size than the bottom tray is provided, and it is equipped with hollow stub-standards 7 at its corners which telescope over the upper ends of the main standards 5 in such manner that the tops of the latter abut the bottom of said top tray.

Shelves 8 in the form of trays and of ap-

proximately the same size as the top tray 6 are located one above the other between the top and bottom trays. The number of these trays can be varied as found desirable. The shelves have apertures 9 inside the four corners thereof, through which the standards 5 loosely pass, and the shelves are thus made adjustable up and down to any extent on said standards. They are clamped or held in position on the standards by set-screws 10, which pass through the sides of the shelf and bind on the standard. In the present instance I have shown blocks or nuts 11, which are soldered or otherwise suitably secured to the shelves, and the set-screws are threaded through these nuts. The foregoing construction is both simple and effective and adapted to permit adjustment of the shelves while the device is in use by simply loosening the screws and tightening them again after adjustment. To prevent the accumulation of any water or milk in the shelves, as well as to give a most perfect circulation of air, I provide them with openings 12.

The capillary-feed fabric 13 hangs from the top tray 6 into the bottom tray 1 and completely surrounds the shelves. This fabric is connected to the top and bottom trays in the manner shown in Fig. 3. The top edge of the side of the tray is bent over at 14, and between this bent portion and the side of the tray are secured, preferably by soldering, one end of the prongs 15, over which the fabric is caught. These prongs constitute a convenient means for properly securing the fabric and yet permitting its ready removal.

A water pail or reservoir 16, having suitable supporting-legs, rests within the top tray and is provided with a delivery faucet or cock 17 for regulating the flow from the reservoir into the tray.

The device is used as follows: The pans or pails containing the milk to be cooled are placed on the shelves, which have previously been adjusted. The fabric is then placed in position and the faucet 17 opened to allow the water contained in the reservoir to feed into the top tray. The water in the tray will then feed up into the edge of the fabric and down through it to the bottom tray by capillary attraction and will drain into said bottom tray, from which it can be drawn off when desired

by removing the plug from the drain-outlet. The evaporation of the water as it passes through the large area of exposed fabric is quite great and the surrounding air is cooled thereby, resulting in a rapid cooling of the milk.

The construction of the present invention is such that the standards, shelves, top tray, and pail can be taken apart very easily, thus permitting packing of the device into compact form when desired, while the shelves can be adjusted to suit milk pails or pans of different sizes, and the construction is both strong and capacious.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a milk-cooler, the combination with a bottom tray and a top tray, both of which are provided with bent edges and prongs secured between said bent edges and the tray itself, standards rising from the bottom tray and detachably connected to it and to the top tray, shelves secured to said standards, and a capillary-feed fabric having its upper and lower

edges engaged with the prongs on the top and bottom trays, respectively.

2. In a milk-cooler, the combination with a bottom tray and a top tray, both of which have stub-standards and are provided with bent edges and prongs secured between said bent edges and the tray itself, standards rising from the bottom tray and telescoping with the stub-standards on top and bottom trays, a capillary-feed fabric having its upper and lower ends engaged with the prongs on the top and bottom trays, and shelves having apertures through which the standards loosely pass, whereby the shelves can be adjusted on the standards, and provided with set-screws which are threaded through the shelves and are adapted to be screwed against the standards to bind thereon and clamp the shelves thereto.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM VOLNEY DEAN.

Witnesses:

HENRY HAYES,

W. L. McELHANNON.