

(No Model.)

S. L. SMITH.
COOLING APPARATUS.

No. 473,793.

Patented Apr. 26, 1892.

Fig. 1.

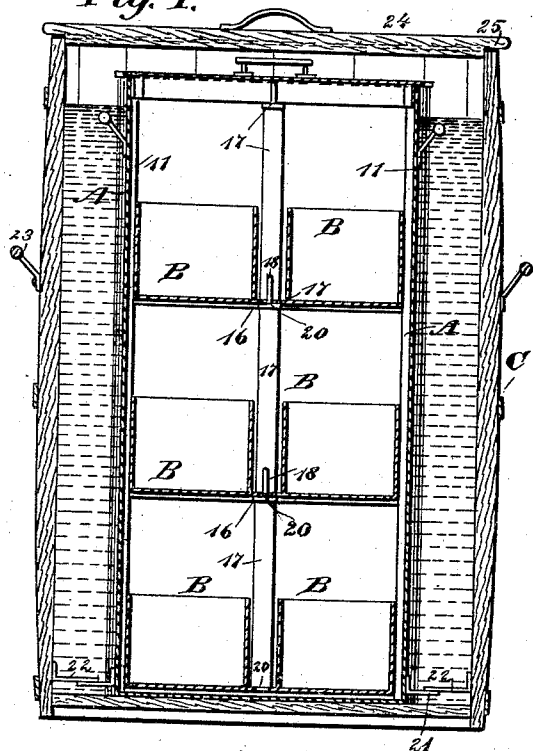
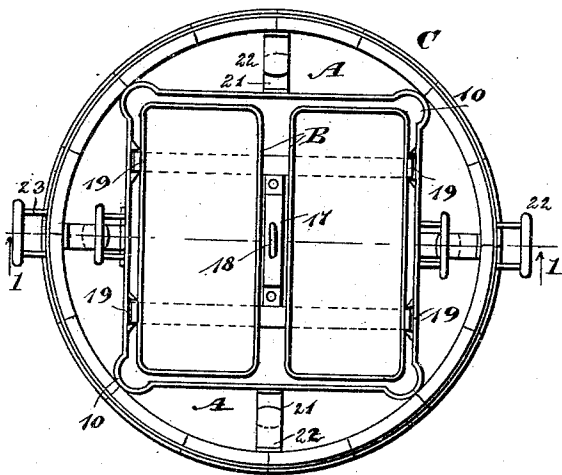


Fig. 2.



WITNESSES:

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Fig. 3.

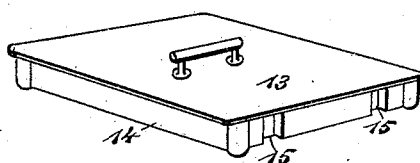


Fig. 4.

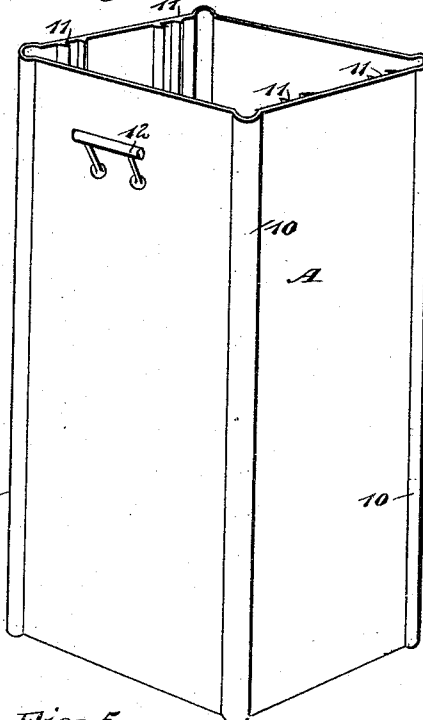
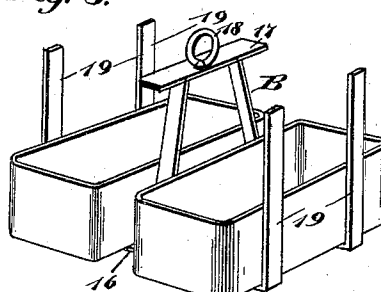


Fig. 5.



INVENTOR:

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UNITED STATES PATENT OFFICE.

SHERMAN L. SMITH, OF PLYMOUTH, PENNSYLVANIA.

COOLING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 473,793, dated April 26, 1892.

Application filed November 19, 1891. Serial No. 412,401. (No model.)

To all whom it may concern:

Be it known that I, SHERMAN L. SMITH, of Plymouth, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Improvement in Cooling Apparatus, of which the following is a full, clear, and exact description.

My invention relates to an improvement in cooling apparatus, especially to that class of apparatus designed for use in the transportation of butter and like articles liable to be affected by the heat.

The object of the invention is to provide an apparatus of simple and durable construction wherein a number of rolls or pats of butter may be placed and preserved in hot weather, and whereby, also, any one of the pats or rolls may be removed from the apparatus without disturbing others.

Another object of the invention is to provide an apparatus capable of being readily transported from place to place and quickly and conveniently manipulated in order to place the butter or other predetermined contents therein or to remove the said contents therefrom.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a central vertical section through the apparatus, taken practically on the line 1 1 of Fig. 2. Fig. 2 is a plan view with the top removed. Fig. 3 is a perspective view of the cover of the inner receptacle. Fig. 4 is a perspective view of said receptacle, and Fig. 5 is a perspective view of one set of trays removed from the receptacle in which they are adapted to be located.

The receptacle A, into which the material to be transported is to be packed, may be given any desired shape. Preferably, however, the receptacle is rectangular in cross-section, or essentially so, with the exception of the corners, at which points the receptacle

is bowed outward, as shown at 10 in Fig. 4, producing at each corner a longitudinal exterior cylindrical rib and an interior vertical channel-way semicircular in cross-section.

The material from which the receptacle A is made is preferably sheet metal; but other material may be employed if in practice it is found desirable. Upon the inner face of opposite sides of the receptacle A two sets of slideways 11 are produced, the said slideways being vertically located and extending from top to bottom of the receptacle, one being located at each side of the center of the face of the receptacle of which they form a part. These slideways may be produced in any suitable or approved manner, and may, if desired, be of dovetail shape in cross-section. The parts constituting the slideways may be either attached to the receptacle or constitute an integral portion thereof.

In the further construction of the receptacle A handles 12 are provided upon the exterior and which may be of any approved pattern, and a cover 13 is also provided, which cover extends, preferably, beyond the outer faces of the receptacle and is provided with a marginal flange 14, extending within the receptacle, the said flange being provided with recesses 15 to receive the slideways 11.

A series of trays B is located in the receptacle A at predetermined intervals apart, one tray above the other. The trays are preferably made rectangular, with the corners rounded, and said trays are preferably arranged in sets of two or more, as shown in Fig. 5, the bottom portions of the two trays being connected at their centers, as illustrated at 16 in Fig. 1. The trays are arranged but a short distance apart, sufficient, however, to receive an essentially A-shaped standard 17, the lower ends of the members of the standards being secured in any suitable or approved manner to the connecting portion 16 of the bottom of the tray, and at the top of the A-shaped standard 17 a ring 18, knob, or like handle is secured, the knob being preferably located at the central portion of the standard, and the top of said standard is made flat and extends some distance beyond the side members. Each tray has at-

tached thereto two uprights 19, the said uprights consisting of bars of metal of a size and shape in cross-section adapted to fit into the slideways 11. These bars extend upward
 5 above the trays a distance equal to the height of the top of the A-shaped standard 17. The lower ends of the bars are preferably secured to the bottom portions of the trays, and the bars are located one at each side of the center of the tray. The bottom connecting portions of each set of trays when constructed as above described are provided with an aperture 20, (best shown in Fig. 1,) and through the apertures the knobs 18 of the lower set
 10 of trays pass upward.

In addition to the receptacle A an outer receptacle or cask C is employed, in which the receptacle A is to be located, and when the receptacle A is located in the cask the projecting rounded corners of the receptacle may be engaged with the inner walls of the cask, and a locking-contact between the receptacle A and the cask is effected in any suitable or approved manner, preferably by
 25 attaching horizontal lugs 21 to the outer faces of the receptacle A, and corresponding lugs 22 are secured to the inner faces of the cask. These lugs are ordinarily located near the bottom of the receptacle and the bottom
 30 of the cask, and the locking-contact is assured by revolving the receptacle within the cask until its lugs 21 engage with the under faces of the cask-lugs 22.

The cask is provided with suitable handles 23, located at its sides, and with a cover 24, which cover rests upon a gasket 25, the said gasket being attached to the top of the cask.

In the operation of the device one set of trays having been filled with butter, each tray containing one roll or a number of pats,
 40 the bars 19 of the folded tray are entered in the slideways 11, and the tray is permitted to drop to the bottom of the receptacle A. Another tray is then filled, and its bars likewise entered into the slideways, and this second tray is dropped downward until the lower portions of its bars engage with the upper ends of the bars of the lower tray, and the connecting portion of the bottom of the upper set of trays rests upon the top of the standard 17 of the lower trays, the knob attached to said standard passing upward through the aperture 20 in the connecting portion of the bottom of the upper set of trays, as shown in
 55 Fig. 1. In this manner the receptacle A is filled with trays, and when this is accomplished its cover 13 is placed in position. The filled receptacle is then placed in the cask C and manipulated to form a locking connection with said cask, as is likewise shown in Fig. 1. Ice, if conveniently at hand, is utilized to fill the space intervening the outer faces of the receptacle A and the inner face of the cask; but if ice cannot be had cold
 60 spring water may be used as a substitute.

The lid 24 is then placed upon the cask and it is in a condition to be transported to any desired place.

This device is exceedingly well adapted for the transportation of butter and like articles
 70 liable to melt readily in hot weather when being removed from the farm, dairy, or store and delivered to customers located at a distance therefrom, and when placed in a vehicle the party making the delivery is enabled to
 75 quickly and conveniently remove one set of trays without disturbing the next set or injuring its contents.

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

1. In a cooling apparatus, the combination, with a receptacle having slideways produced upon its inner face, of trays adapted to fit into the receptacle and provided with vertical
 85 bars or runners adapted to enter the slideways in the receptacle, the said bars extending above the trays and forming supports to space the several trays apart, substantially as set forth.

2. In a cooling apparatus, the combination, with a receptacle having slideways produced in its inner surface, of trays spaced and connected at their bottom portions and provided at their outer sides with vertically-disposed bars or runners adapted to enter the slideways in the receptacle, and an essentially-A-shaped standard located between the trays, substantially as and for the purpose
 90 specified.

3. In a cooling apparatus, the combination, with a receptacle provided with a series of slideways, of trays arranged in pairs, each pair of trays being spaced and connected, bars or runners attached to the outer sides
 105 of the trays and extending upward above the same, an essentially-A-shaped standard located between the trays and connected therewith, and a handle attached to the standard, substantially as and for the purpose specified.

4. In a cooling apparatus, the combination, with a cask and a receptacle located in the cask, a space intervening its walls and the walls of the cask, the said receptacle being
 115 provided with a series of slideways, of trays provided with bars attached to their sides and extending above them, the said bars being adapted to enter the slideways in the receptacle, and a locking connection between
 120 the receptacle and the cask, substantially as set forth.

5. In a cooling apparatus, the combination, with a cask and a receptacle essentially rectangular in shape, but having rounded projecting corners, the said receptacles being located in the cask and provided with slideways upon its inner faces, of trays arranged in pairs, said trays being spaced and connected, bars or runners attached to the outer
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sides of the trays and projected upward beyond them, a standard provided with a flat top and located between the trays, connected therewith, and provided with an attached
5 handle, the handle being adapted to enter an opening in the connecting-platform between the set of trays above it, and the bars being

adapted to enter the slideways in the receptacle, as and for the purpose specified.

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Witnesses:

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