No. 648,199. Patented Apr. 24, 1900.

H. GALER & E. J. SMITH.

CREAM SEPARATOR.

(Application filed Feb. 10, 1900.)

(No Model.)

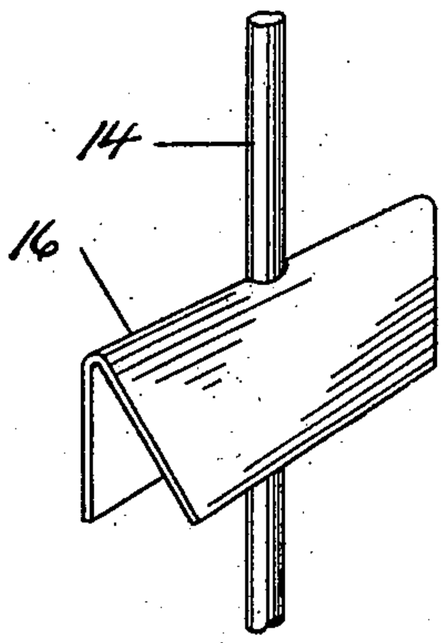

Fig. 4.

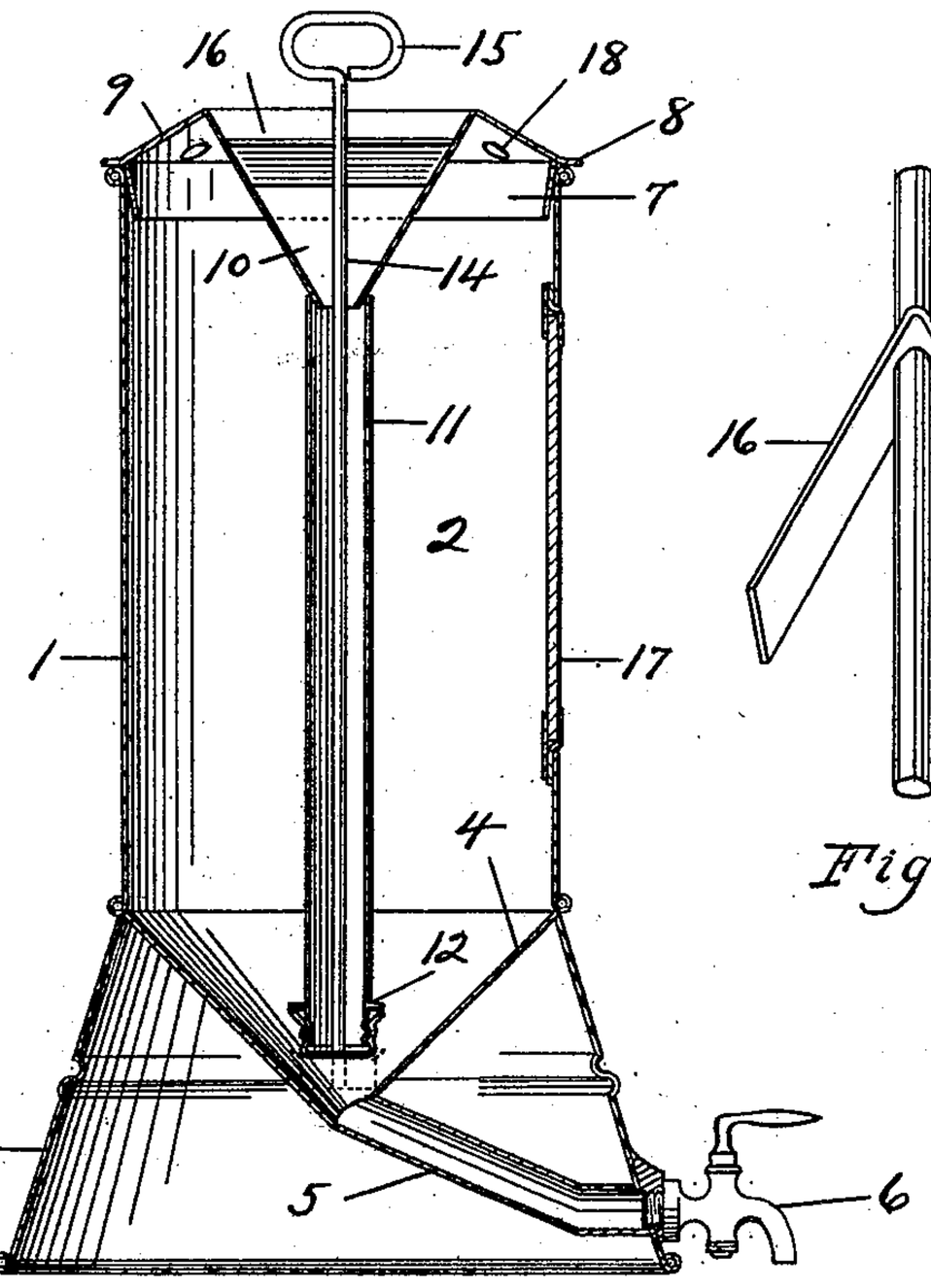

Fig. 1.

Fig. 5.

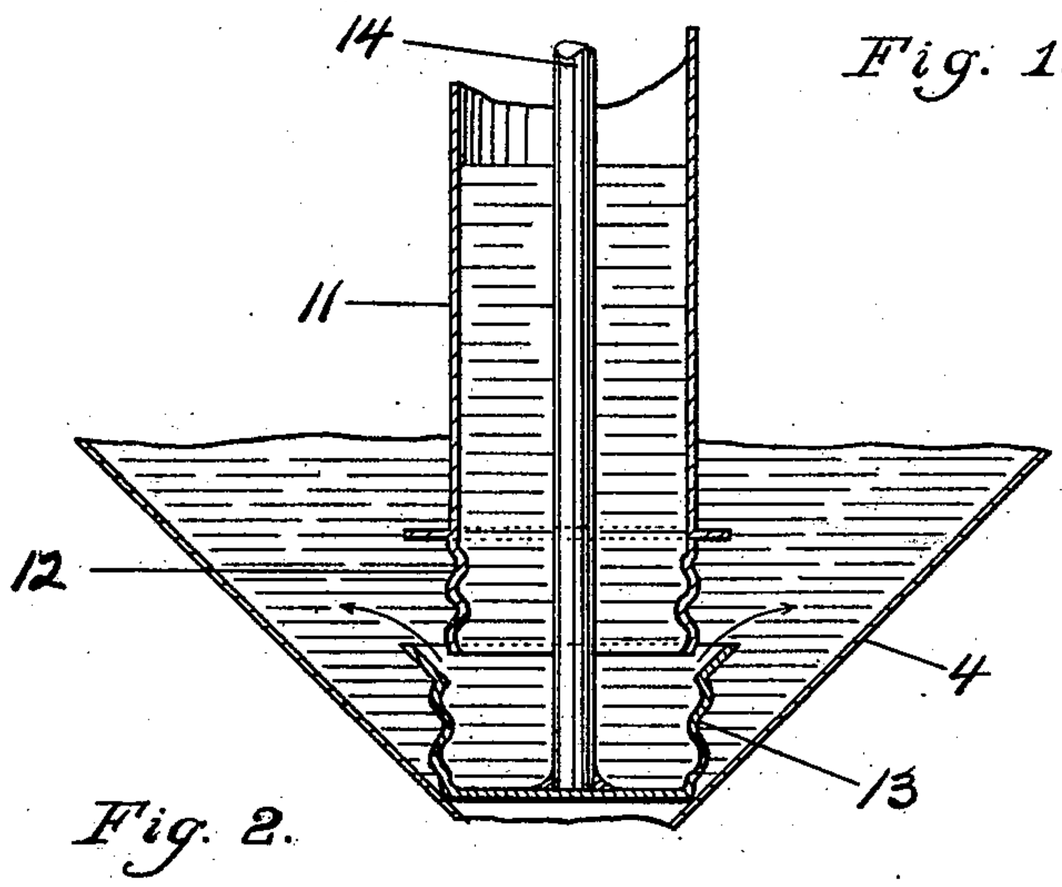

Fig. 2.

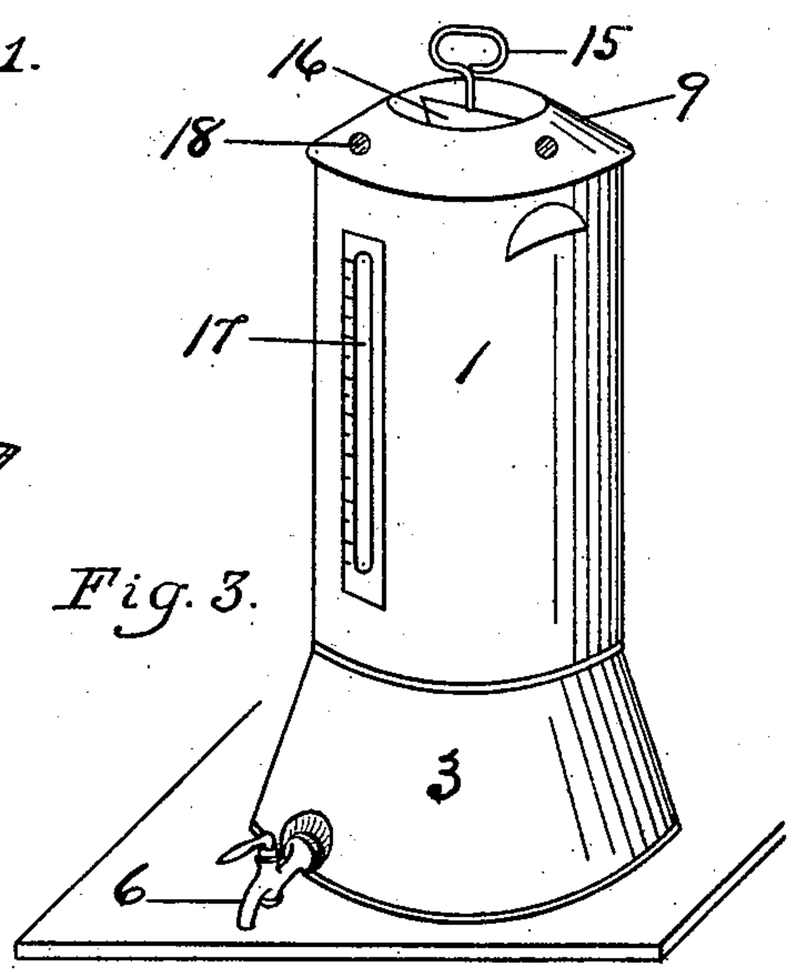

Fig. 3.

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UNITED STATES PATENT OFFICE.

HERBERT GALER AND EDGAR J. SMITH, OF KANSAS CITY, KANSAS.

CREAM-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 648,199, dated April 24, 1900.

Application filed February 10, 1900. Serial No. 4,762. (No model.)

To all whom it may concern:

Be it known that we, HERBERT GALER and EDGAR J. SMITH, citizens of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Cream-Separators, of which the following is a specification.

Our invention relates to improvements in cream-separators of the class in which a body of water of a lower temperature than the milk is introduced into the can or other receptacle containing such milk at a point below the milk, and it relates especially to a central filling-tube provided with an integral funnel at its upper end and also with a screw-cap at its lower end, said cap being operated by a rod attached to the screw-cap on the inside and extending upwardly through the filling-tube to a convenient handle above the separator.

In the accompanying drawings, Figure 1 is a central vertical section through the separator. Fig. 2 is an enlarged central vertical section through the lower end of the filling-tube, also through the screw-cap for closing said tube, also through the adjacent portion of the bottom of the milk-chamber. Fig. 3 is a perspective view of the exterior of the separator. Figs. 4 and 5 are detached and enlarged detail views of a bridge-piece for supporting the upper end of the operating-rod used in connection with the filling-tube.

1 designates the body of the separator, which is preferably cylindrical in form and incloses an inner milk-chamber 2. Said body rests, preferably, on a flaring base 3, open at the bottom, and the milk-chamber 2 is provided with a tapering bottom 4, from the lowest point of which extends a discharge-pipe 5, leading to a faucet 6.

The cover portion of the separator is provided with a downwardly-extending flange 7, fitting within the chamber 2, a rim or lip 8, on which the cover is supported, an upwardly-inclined portion 9, and a central downwardly-tapering or funnel portion 10. To the lower end or apex of said funnel portion is permanently secured the upper end of a cylindrical filling-tube 11. Said filling-tube normally extends downward nearly to the bottom outlet of chamber 2 and is provided at its lower end with an externally-threaded terminal 12, adapted to engage an internally-threaded cap 13, secured on the lower end of an operating-rod 14. Said rod extends upward through the tube 11 and is provided at its upper end with a handle 15. It is supported in a position central to the tube by a bridge-piece 16, (shown in detail in Figs. 4 and 5,) through an opening in which it passes. Said bridge-piece consists, preferably, as shown, of a piece of sheet metal bent up into the form of an inverted letter V and soldered to the sloping sides of the funnel 10. By rotating the rod 14 in the proper direction the threaded cap 13 may be made to engage threaded terminal 12 of tube 11 and close the lower end of said tube against the entrance or exit of liquid.

The operation of the cream-separator is as follows: The cover and filling-tube being first removed and faucet 6 closed, the milk-chamber 2 is filled about half-full of milk, the height of which may be noted through the usual glass-covered sight-opening 17 in the side of the chamber. The cover, carrying the tube 11, said tube being closed at the bottom, is then put in place and tube 11 filled with water. Cap 13 is then unscrewed, opening communication between tube 11 and chamber 2. Cold water is then poured down said tube, issuing from it in the form of a spray, and accumulates in the lower part of chamber 2, gradually forcing the milk upward until the chamber is filled or the body of water is about equal to that of the milk. The bottom of tube 11 is then closed and the apparatus allowed to stand for the proper time, usually about one hour, until the cream has all risen to the surface of the milk. The faucet 6 is then opened and the mingled water and milk drawn off. The cream may then be drawn off into a separate receptacle. The screw-cap 13 may then be removed from tube 11 and the tube and other parts of the apparatus properly flushed. In the cover are provided the usual gauze-covered vents 18 for the passage of air into or out of chamber 2.

Having described our invention, we claim as new and desire to secure by Letters Patent—

1. A cream-separator comprising a body mounted on a suitable base, and provided

with a tapering bottom and a discharge-passage leading therefrom, a faucet at the outlet of said passage, a cover having a central depending funnel portion, a filling-tube secured to the apex of said funnel and extending downwardly to a point near the bottom of said chamber, a screw-cap adapted to engage the lower end of said tube, an operating-rod, on which said cap is mounted, extending through said tube, and provided with a handle at its upper end, and a bridge-piece, through which the rod passes, mounted within said funnel, for holding said rod centrally in said tube, substantially as set forth.

2. In a cream-separator of the class described, a central filling-tube, provided with a funnel portion at its upper end, and extending downwardly into the milk-chamber to a point near the bottom thereof, and provided with an externally-threaded terminal at its lower end, in combination with an internally-threaded screw-cap adapted to engage said threaded terminal, an operating-rod, on which said cap is mounted, extending through said tube and provided with a handle at its upper end, and a bridge-piece, through which said rod passes, mounted within said funnel, adapted to hold said rod centrally in said tube, substantially as set forth.

In testimony whereof we affix our signatures in the presence of two witnesses.

HERBERT GALER.
EDGAR J. SMITH.

Witnesses:
M. L. LANGE,
K. M. IMBODEN.