(No Model.)

M. E. & F. M. GREENOUGH.

BUTTER CUTTER AND LIFTER.

No. 564,375. Patented July 21, 1896.

Fig. 1.

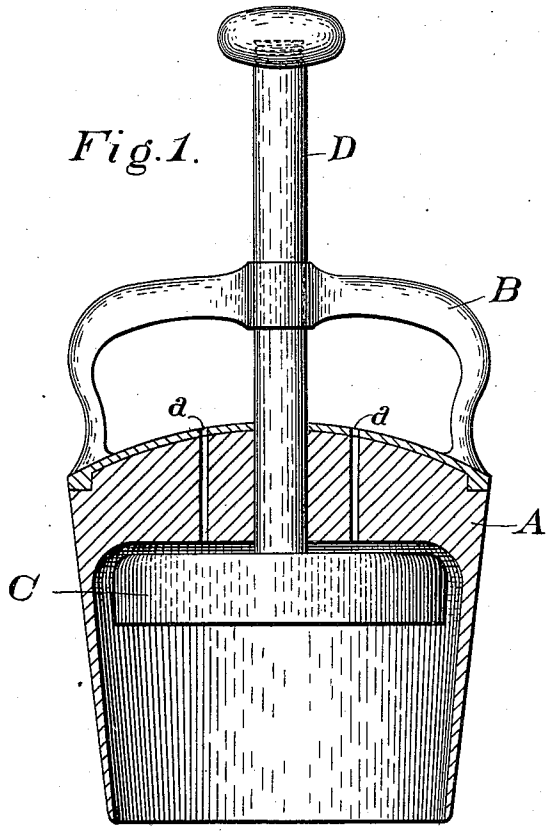
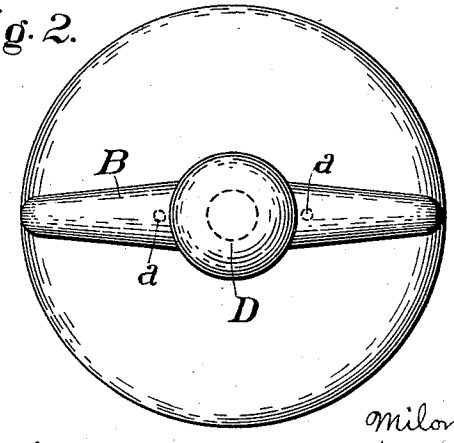


Fig. 2.



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UNITED STATES PATENT OFFICE.

MILON E. GREENOUGH AND FRANK M. GREENOUGH, OF TRAVERSE CITY, MICHIGAN.

BUTTER CUTTER AND LIFTER.

SPECIFICATION forming part of Letters Patent No. 564,375, dated July 21, 1896.

Application filed February 19, 1896. Serial No. 579,831. (No model.)

To all whom it may concern:

Be it known that we, MILON E. GREENOUGH and FRANK M. GREENOUGH, citizens of the United States, residing at Traverse City, in the county of Grand Traverse and State of Michigan, have invented certain new and useful Improvements in Butter Cutters and Lifters; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to butter workers and molds, and has for its object the improvement of devices for dividing portions of butter of various sizes from a main body or mass, and for lifting the portion so divided in order that it may be taken away from the main mass and deposited upon a scale-pan or other receptacle without necessary contact between the hands of the operator and the substance operated upon.

In all devices known to us and constructed with the object in view as above set out the sides of the rectangular or cylindrical boxes or molds have been approximately perpendicular to the closed end common to all, while the piston or expressing-disk has been heretofore constructed to fit the interior of the box or cylinder throughout. We effect our improvement by inclining the wall of the cylinder, internally and externally, from the closed end toward the mouth of the cutter portion, and in providing a piston slightly less in diameter than the mouth of the cylinder.

Referring to the accompanying drawings, wherein like letters are employed to designate like parts, Figure 1 is a view, principally a vertical mid-section, of our invention; and Fig. 2 is a top plan view.

Considering Fig. 1, the letter A designates the cutter-cylinder, formed with the walls inclining from a circle of larger diameter near the closed end to a circle of smaller diameter at the mouth, where the material is thinnest, and the exterior and interior surfaces may meet to form a cutting edge. Through the closed end of the cylinder are bored air-holes *a a*, the office of which is to admit the air behind the piston when the cylinder contains a charge of butter which it is desired to expel therefrom.

Letter B designates a handle of any suitable form attached to the upper exterior surface of the cylinder.

C designates the piston, and it will be noticed that it is constructed to fit the mouth of the cylinder. The upper interior of the cylinder being its largest section, it is apparent that the piston will not approach the walls closely, excepting at the mouth.

Through the closed end of the cylinder, and also through the handle as our invention is usually made, are bored orifices adapted to fit movably a rod D, which terminates in a cross-piece at its upper extremity, while its lower end is attached centrally to the piston C.

The operation of our invention may be described as follows: Determining beforehand about the size of the portion of butter to be removed from the main mass, the rod and piston are raised or lowered correspondingly, the hand grasping the device at the point where the rod passes through the handle. Any movement of the piston can be thus readily prevented as the cutter is pressed into the main mass. It will be observed (see Fig. 1) that from the closed end of the cylinder the mold tapers both inwardly and downwardly. This frusto-conical construction results in a special advantage due to the fact that as the cutter is forced into the mass the butter, meeting the lower surface of piston C, moves laterally under pressure and completely fills the mold. Thus the portion of butter divided from the main body is, in a measure, grasped by the mold, an effect quite beyond the power of a purely cylindrical mold, of the same diameter throughout, to produce. The convergence of outer and inner surfaces of the wall of the mold enables our invention to be readily forced into a mass of butter in the coldest weather, when resistance would naturally be greatest. A few lateral movements of the hand back and forth will serve to break the portion within the cylinder loose from the mass, whereupon it may be raised and transported as desired. Still keeping one

hand in place, as described, the operator may expel the portion entire by exerting a pressure upon the cross-piece of the rod D.

We are aware that butter cutters and lifters have been used that include in their construction cylinders and reciprocative pistons, and we do not claim that feature broadly.

What we claim is—

The combination in a butter cutter and lifter of a hollow frusto-conical mold having one closed end provided with air-holes and a central orifice, the walls of said mold tapering both inwardly and downwardly from said closed end, a handle attached to the upper exterior surface of said mold and having a middle orifice, a rod adapted to pass through the orifices in said handle and mold, and a piston constructed to be fixed upon an end of said rod, said piston adapted to movably fit interiorly the section of said mold of least diameter, substantially as described.

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

MILON E. GREENOUGH.
FRANK M. GREENOUGH.

Witnesses:
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