J. H. DUGAN & G. MONCRIEF.

BUTTER-CUTTER.

No. 189,025. Patented April 3, 1877.

Fig. 1.

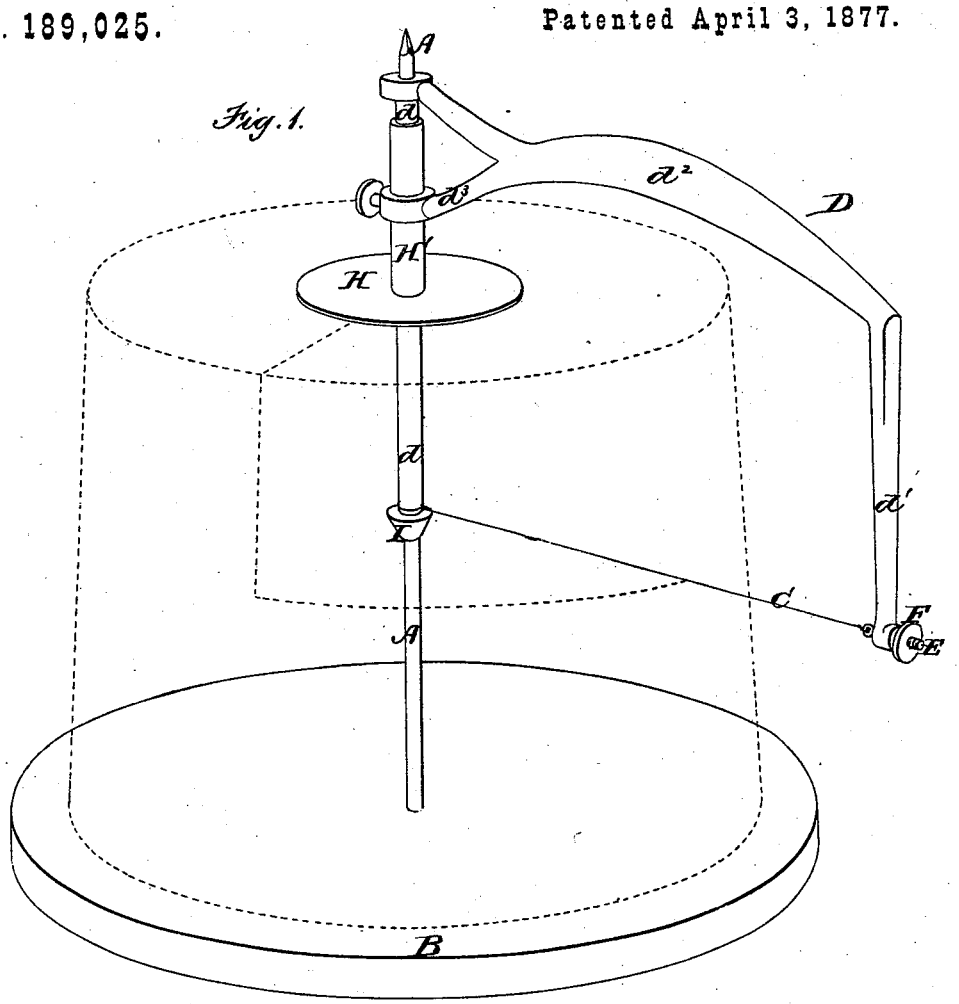
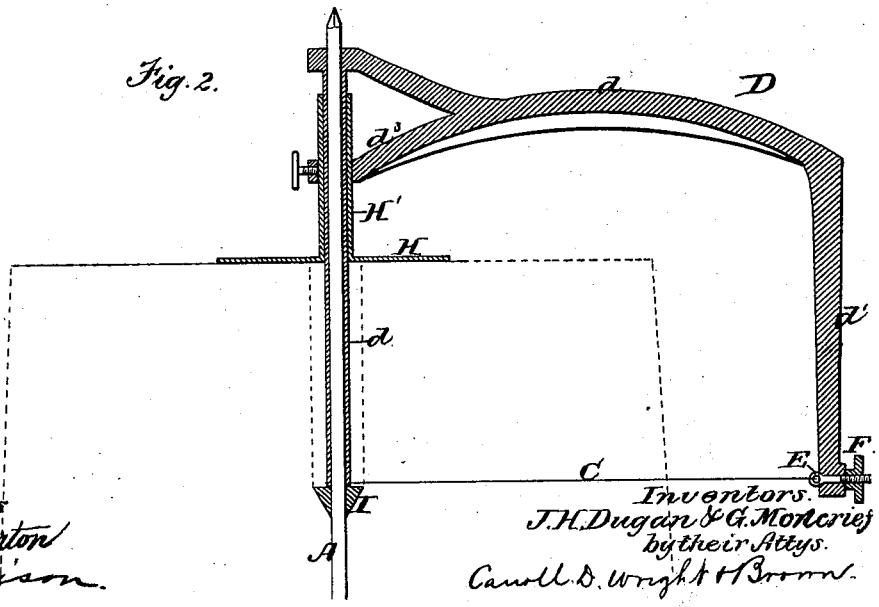


Fig. 2.



Witnesses
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Inventors.
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UNITED STATES PATENT OFFICE.

JAMES H. DUGAN AND GEORGE MONCRIEF, OF STONEHAM, MASS.

IMPROVEMENT IN BUTTER-CUTTERS.

Specification forming part of Letters Patent No. **189,025**, dated April 3, 1877; application filed September 8, 1876.

To all whom it may concern:

Be it known that we, JAMES H. DUGAN and GEORGE MONCRIEF, of Stoneham, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Butter-Cutters, of which the following is a specification:

In the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of our invention. Fig. 2 represents a sectional view of the same.

Similar letters of reference in the accompanying drawings refer to like parts.

This invention, which is an improvement on our Patent No. 173,777, dated February 22, 1876, relates to the cutting up of cylindrical masses of butter after they are removed in bulk from the tubs or packages from which they acquire their shape.

In our above-mentioned patent the mass of butter was perforated vertically before being removed from its package, and was then dropped over a supporting rod or standard so as to surround the latter, and on this rod or standard was pivoted a wire, adapted to swing radially in any direction on its pivot, and also adapted to be moved up and down on the standard, the cutting being effected by swinging or drawing the wire through the butter.

Our present invention has for its object to produce a cutter which shall be more practical and convenient than the one patented as above, and capable of being more accurately guided by the operator, so as to cut the butter more evenly and precisely. It also has for its object to obviate the necessity of perforating the butter in its package before introducing the supporting-standard into it. To these ends our invention consists in the provision of means for holding and guiding the wire cutter, and for forming an opening in the mass of butter around the supporting-standard after the latter is thrust into the butter, which we will now proceed to describe.

In the drawings, A represents the supporting-standard, which is composed of a cylindrical rod about a quarter of an inch in thickness, mounted preferably on a portable base, B, in a vertical position, and pointed at its upper end.

C represents the cutter, which is composed of a length of fine wire attached at its ends to the ends of a frame, D. This frame is composed of two substantially parallel arms, d d^1, connected at their upper ends by a transverse piece or handle, d^2, and at their lower ends by the wire C, which is attached directly to the arm d, and to a threaded eye-bolt, E, in the arm d^1, this bolt passing through a socket in the arm d^1, and having a nut, F, by means of which the wire may be tightened or loosened.

The arm d is tubular, and is adapted to inclose the standard A, and slide up and down and rotate thereon. When the frame D is thus applied to the standard, the cutter projects from the standard at a right angle, as shown.

H represents a stop or rest, which is composed of a flat disk or plate formed on the lower end of a tube, H^1. This tube incloses the tubular arm d and fits snugly thereon, yet is adapted to be moved up and down. The handle d^2 is provided with an arm, d^3, having a socket, which incloses the tube H^1, and a set-screw, which secures said tube and the rest H at any desired distance above the cutter C.

I represents a conical collar, which is adapted to slide on the standard A, for a purpose to be described hereinafter.

The operation is as follows: The standard A, which is a little longer than the depth of the tub or package containing the butter to be cut, is forced downwardly into and through the center of the mass of butter in such tub or package until its pointed end touches the bottom. The tub is then inverted, causing the mass of butter to fall on the pedestal B, transfixed by the standard A, the pointed end of which projects above the mass. The conical collar I is placed on the projecting end of the standard, with its base upward. The handle d^2 is grasped by the operator, and the frame D is forced downward, its tubular arm d inclosing the standard. The collar I and cutter C are thus forced through the butter, the former crowding the butter away and making an annular space around the standard for the reception of the tubular arm d, and the latter making a vertical radial cut through or into the mass of butter. The downward movement of the frame is continued until the stop

or rest H strikes the upper surface of the mass, when the frame is rotated, causing the cutter to swing horizontally through the mass as far as desired, after which the frame is elevated until the cutter appears above the mass, a segment or section of a thickness equal to the distance between the stop H and the cutter being thus divided from the mass.

It will be seen that the stop or rest H limits the depth of the vertical movement or descent of the cutter, and steadies the latter during its horizontal movement, preventing it from deviating from a horizontal plane.

The conical collar I crowds the butter away from the standard without breaking it into fragments, and makes a space for the tubular arm *d* to work in without touching the butter.

By the employment of the frame D the cutter is held at a fixed angle with the supporting-standard, and is much more conveniently operated than when the wire was connected by a universal joint to the standard, and free to assume any angle with the standard, as in our previous patent.

If desired, the standard may be used without the base, the mass of butter being sufficient to support the standard until the butter is largely cut away.

We claim as our invention—

1. The frame D, constructed as described, combined with the wire C and the supporting-standard A, as set forth.

2. The stop or rest H, combined with the frame D, wire C, and standard A, as set forth.

3. The conical collar I, combined with the standard A and frame D, as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAMES H. DUGAN.
GEORGE MONCRIEF.

Witnesses:
WILLIAM COLLINS,
ROBERT HAGERTY.