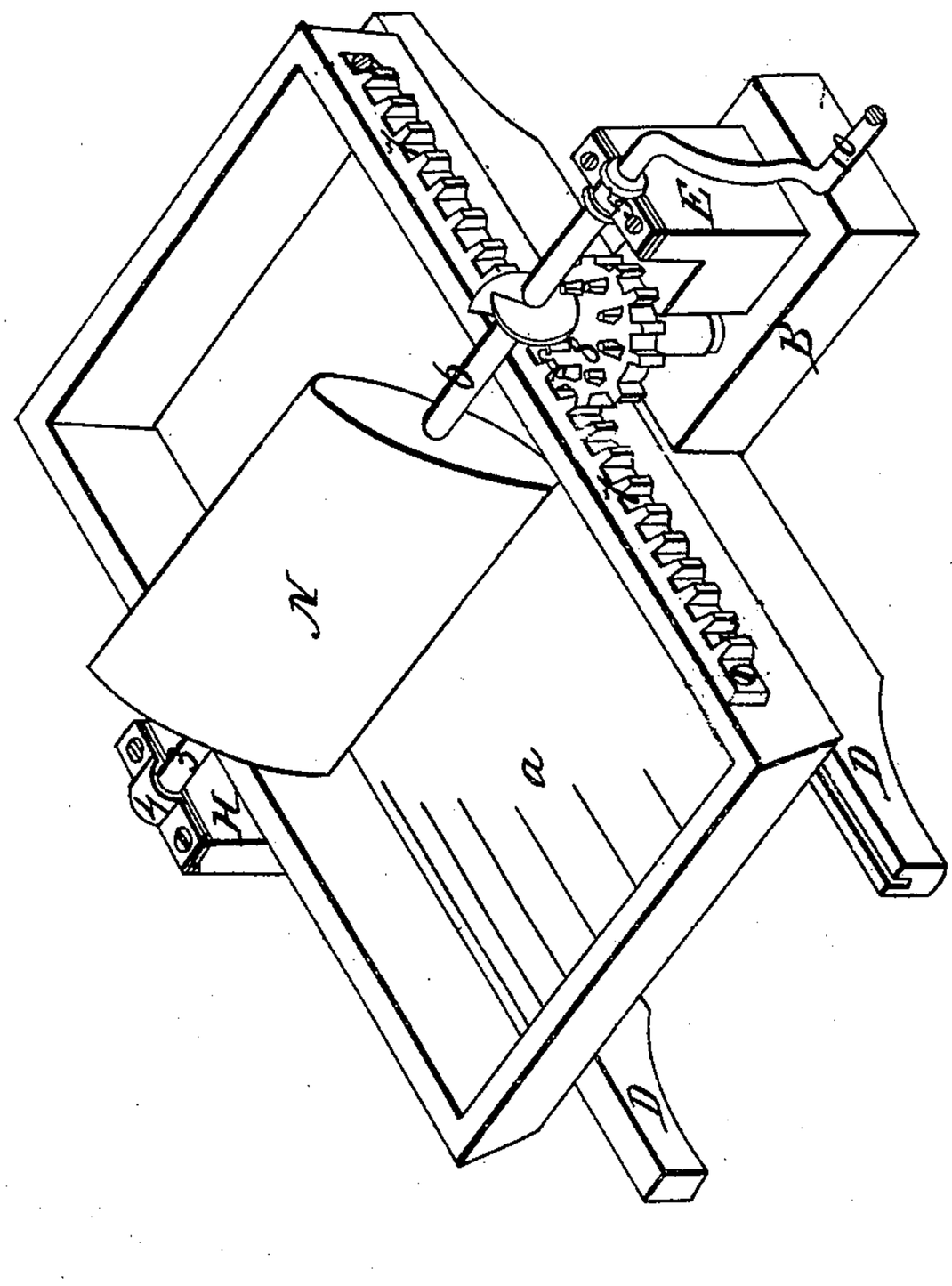
M. SWEET.

BUTTER WORKER.

No. 37,664. Patented Feb. 10, 1863.



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UNITED STATES PATENT OFFICE.

MARVIN SWEET, OF SIDNEY, NEW YORK

IMPROVEMENT IN BUTTER-WORKERS.

Specification forming part of Letters Patent No. **37,664**, dated February 10, 1863.

To all whom it may concern:

Be it known that I, MARVIN SWEET, of the town of Sidney, county of Delaware, and State of New York, have invented a new and useful Machine for Working Over Butter, which I denominate a "Butter-Worker;" and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification, in which—

The figure is a perspective view of said machine.

In said figure A is a trough, which may be made of any kind of wood that will not injure the quality of butter, of two and one-half feet in length, and twenty-two inches in width, and four inches in height, a little flaring at the top—may be made of inch-boards put together in some durable manner.

B is a piece of hard wood of one and one-half inch thick, eight inches wide, and two and two-thirds feet in length, extending through underneath said trough.

D D are pieces of hard wood three and one-fourth feet in length, two and one-half inches in width, and one and one-quarter inch in thickness, notched down on B in their centers, placed crosswise B, forming right angles therewith, one of them four inches from the standard E, the other twenty-three inches, notched down on B, so that the lower edges of D D meet the lower surface of B, consequently the upper edges of D D extend one inch above the upper surface of B, the said D D forming a slide for the said trough A to slide and rest on. A groove is made in D nearest to the standard E, of one-half of an inch in depth and width, extending the whole length thereof in the upper surface. A tongue is attached to the bottom of the trough A, one and one-half inch on from the side thereof nearest the standard E, extending the whole length of said trough, said tongue made to fit and work in said groove in D, so that the said trough can freely slide on D D and kept in its place.

E is a standard of hard wood of the height of five inches, six inches wide, and two inches thick, tenoned into B firmly four inches from D—that is, grooved, and in the center of B as regards its width. H also is a standard of hard wood five inches in height, four inches wide, and one and one-quarter inch thick, tenoned into B, twenty-five inches from the standard E, in the center of B as regards its width. N is a ladle, made of any hard wood that will not injure the quality of butter, of sufficient length to extend across the width of the said trough A and work therein, one and one-fourth inch thick at the center thereof, tapering to a rounding edge at the sides, and of sufficient width to just escape the bottom of the trough A when attached to the shaft 6 3, and made to revolve therewith, as hereinafter described. 6 is solid cast-iron, forming part of the shaft, of the length of ten inches, of one inch diameter to the distance of eight inches, and the remainder two inches one-half of an inch. At the larger end is fitted a crank of the common form, to which also may be attached a balance-wheel in place of said crank. At the point of intersection of the larger with the smaller portion of said 6 is a cross-arm extending out two inches from said point of intersection, forming right angles with the said shaft 6. At two and three-fourths inches from said cross-arm is a screw-wheel, S, of the diameter of one and a half inches of a screw of three-eights of an inch in depth and rim, turning to the left, and inserted into the cogs in the wheel 8 on the right side thereof. If a right screw is used, it must be placed on the left. At four and one-fourth inches from said cross-arm is a bearing of one inch with shoulders on both sides thereof to prevent the movement of the said shaft either way, said bearing made to work in a cast-iron box, 5, which is fastened down on the center of the top of the standard E.

3 is cast-iron, of the length of four and one-half inches, one inch in diameter to the distance of two and one-half inches, the remainder one-half inch in diameter. At the meeting of the larger with the smaller portion thereof is a cross-arm like the one described above.

6 3 are attached to the ends of said ladle A by inserting or driving the smaller portions thereof into the ends of said ladle up to the cross-arms, and fastening said arms firmly to said ladle in some substantial manner. 4 is a cast-iron box to fit the shaft 3, and is fastened on the center of the top of the standard H.

10 is a crank of any of the common constructions of cast-iron.

8 is a cast-iron cogged-wheel of the diameter of two and three-fourth inches, with cogs on the upper surface thereof to fit the screw on 6, so that said screw can freely work therein; also cogs on the edge of said wheel of any convenient size, made to fit cogs on a cast-iron bar, 7, said wheel having a shaft extending downward of two to three inches of the diameter of three-quarters of an inch, made to turn in a cast-iron box that is firmly fastened to the inside of the standard E in such a manner that the cogs on the upper surface enters the screw on the shaft 6, and the cogs on the edge of said wheel will gnash into the cogs on the said bar 7, which is attached to the side of said trough nearest the standard E, running parallel with the side of said trough down a sufficient distance to receive the cogged wheel 8, the said bar extending the whole length of said trough, of sufficient size for the purposes of sliding said trough. Said machine may be made larger or smaller, to suit the wants of dairymen.

To use the said machine, place the same on a table and fasten it down thereon. Place the butter in the trough A, on either side of the ladle N. Turn the crank toward the butter, which brings the ladle down on said butter, working down from one-eighth to one-quarter of an inch thereof to the turning the crank half-way round. The said butter is continually brought in contact with said ladle by means of the screw on the shaft 6, working in the cogged wheel 8, turning the same, which slides along the said trough toward said ladle and carries the butter therewith. Turn the crank until the butter is all worked over, which is deposited in the trough on the opposite side of said ladle in rolls. If required to work it over again, merely turn the crank the other way.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the slowly-moving trough A, with the revolving ladle N, formed of a smooth piece of wood or other suitable material without protuberances, when the said parts are constructed and arranged to operate together in the manner and for the purposes herein specified.

2. The combination of the screw-wheel S, double cog-wheel 8, and rack 7, employed to communicate motion from the revolving ladle N to the sliding trough A of a butter-working machine, as set forth.

MARVIN SWEET.

Witnesses:
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