H. SOGGS.

Churn.

No. 45,277. Patented Nov. 29, 1864.

Fig. 2

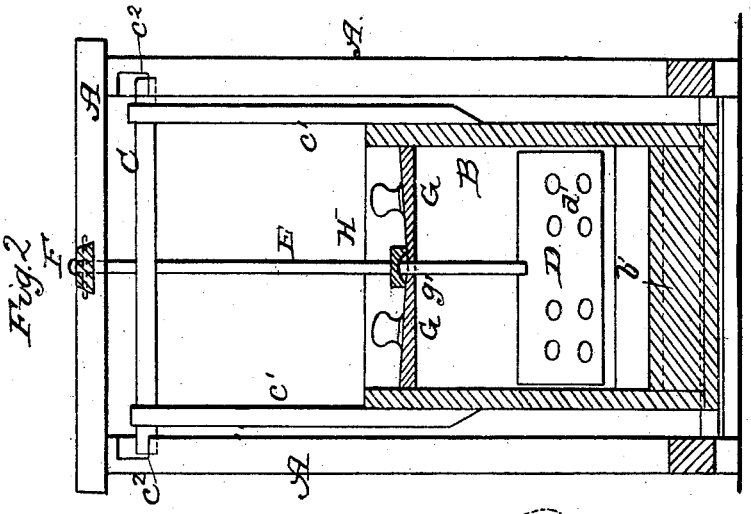
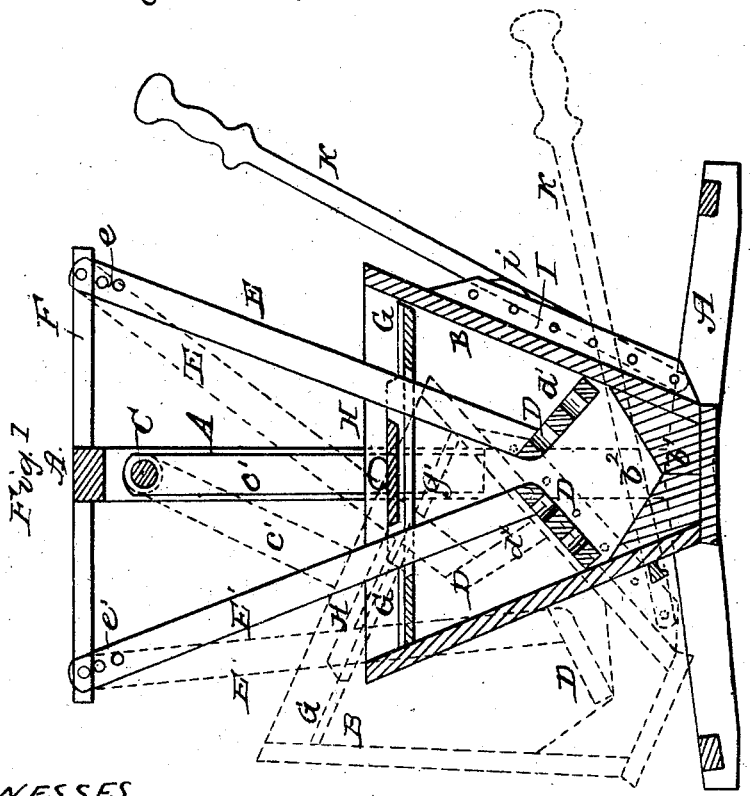


Fig. 1



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY SOGGS, OF COLUMBUS, PENNSYLVANIA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 45,277, dated November 29, 1864.

To all whom it may concern:

Be it known that I, HENRY SOGGS, of the town of Columbus, county of Warren, and State of Pennsylvania, have invented a new and Improved Churn; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure I is a vertical section; and Fig. II, a transverse vertical section.

The nature of this invention relates to connecting the dashers of a suspended and swinging churn-tub to a rigidly-projecting cross-beam of the frame, in which the churn-tub is suspended, so that the swing of the churn-tub will operate the dashers without the use of gearing.

Letters of like name and kind refer to like parts in each of the figures.

A represents the frame in which my churn is suspended, which frame is composed of two upright posts and horizontal foundation-timbers, cross-beam a', and the transverse projecting cross-beam F, to which the churn-dashers are attached.

B represents the churn-tub, which is of peculiar construction. The two sides nearest the frame-posts are perpendicular, while the other two are made pyramidal, thus constructing an inverted pyramidal vessel.

b' is a bottom piece inserted into the tub, by which means the bottom is made sloping toward the center into a gutter, as shown at b^2, which gutter extends horizontally across the tub between the perpendicular sides of the same.

C is a shaft on which the churn-tub is suspended by the side pieces, c'. The ends of the shaft hang in bearings c^2, cut into the posts of the frame A, thereby permitting the churn-tub to assume a swinging motion in the frame.

D D represent two dashers, and E E the dash rods or bars connected thereto. The dashers are perforated, as shown at d', and are made oblong, their ends just clearing the perpendicular sides of the tub. The upper ends of the dash-rods are hinged to the opposite ends of a rigid timber, F, placed at right angles through the center of the cross-beam of the frame A. The dashers are hanging face to face in the tub—that is to say, the side of each dasher to which the dash-rod is connected extends almost to the center of the tub when in a stationary or perpendicular position, while the free end or edge of each dasher rests on the sloping sides of the tub. For the purpose of retaining the dashers in this latter position the cross-timber F should be extended on either side of the frame sufficiently so as to bring the dash-rods about parallel with the sloping sides of the tub when stationary, as will appear by the drawings.

G G are two covers, which, by reason of the conical shape of the ends of the tub, fit nicely into the top on each side of the dash-rods. There is a slot, g', left between the dash-rods wide enough to allow a free movement of the dash-rods therein.

H is a movable slide placed over the slot g', the two ends of which are jaws, into which the dash-rods fit, and which inclose the same. The under side of this slide is hollowed out, thus providing a means of letting air into the churn-tub, and at the same time a cover to prevent the milk or cream from escaping through the slot g'.

I are cleats fastened to the outside of the churn-tub, between which one end of a rod, K, is hinged for setting the machine in motion. There is a row of holes made in the cleats so that the rod K may be adjusted according to the position of the churn or the convenience of the operator.

Operation: When the milk or cream is put into the bucket, the operator, by means of the rod K, gives the churn-tub a swinging motion. As soon as the tub moves, the dashers will retreat from each other. The one slides upward, and the other downward along the respective pyramidal sides of the tub until the latter touches the gutter b^2, which will stop its progress and demand a back movement of the tub. Then the motion of the dashers will be reversed until the other touches bottom, or nearly so, so that by swinging the churn-tub the dashers will move alternately up and down the pyramidal sides of the tub and press the milk or cream and force it through the perforations d', thereby producing butter in a short time and with little manual exertion.

It will be readily observed that this principle is applicable for washing clothes and for working butter, and, indeed, the same machine is applicable for each purpose without any change in its construction. I contemplate

using the machine for each purpose. In using the machine for working butter one of the dashers may be reversed—that is, it may be turned half-way round at its connection with the rigid beam F, so that it will bring the opposite edge of the dasher in contact with the sloping side of the tub, so that it will have the effect to turn the butter over and over as the tub swings to and fro. Several holes are made in the dash-rods, as shown at e', so that by means of pins the dashers may be adjusted, and thereby adapted to any quantity of cream in the churn-tub, or to any quantity of butter to be worked therein, or to any quantity of clothes to be washed.

The red dotted lines show the churn-tub swung out to the extreme limit of its motion in one direction. It also swings to a similar position in the opposite direction.

The dashers, being connected to the rigid cross-beam F, are unyielding, and hence the swinging of the tub will cause the dashers to act with great force and power upon the cream or milk within the tub.

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

The suspended dashers D E, hinged to the rigid cross-beam F, in combination with the swinging pyramidal tub B, for the purposes and substantially as described.

HENRY SOGGS.

Witnesses:

JONES SMITH,

M. P. OSBORNE.