

Churn Power.

Patented May 29, 1866.

UNITED STATES PATENT OFFICE.

JOHN F. SEAMAN, OF CORTLANDVILLE, NEW YORK.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 55,169, dated May 29, 1866.

To all whom it may concern:

Be it known that I, JOHN F. SEAMAN, of Cortlandville, in the county of Cortland and State of New York, have invented a new and Improved Churning-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is an inclined side view of my invention. Fig. 2 is a side view of post D, showing the inside of said post, to which lever 2 is attached.

Similar letters of reference indicate corresponding parts in the two figures.

The nature of my invention consists in a novel arrangement of levers and bars, as hereinafter shown, and in their connection with the bottom of a pendulum or pendulum-weight, so that greater motion is produced by the application of less power than in the ordinary way of crank or dash churns; also in the arrangement of springs over the top to operate against each side of the pendulum-rod, for the purpose of regulating the motion of the pendulum.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a sill of sufficient length, a trifle longer than the space between C D, which represent posts that are set into the sill A, one near each end, as shown in Fig. 1. B is also a sill, one end of which is attached to sill A, at the inside of and nearly to the post D. At the other end of the sill B a post, F, is set, near the upper end of which sweep G is attached by a pin or bolt, H, so as to form a joint, that the sweep G may be raised or lowered at each end. Near the upper end of the posts C D holes I I are bored, into which the rounded ends of bar J is entered.

The upper end of the pendulum-rod K is attached to bar J sufficiently near to the post D for the proper connection and operation of the bar O with the weight L, as hereinafter described.

The pendulum-rod K has a weight, L, fastened to its lower end, to be varied in size and weight according to the size of the churn, as the larger churns require a heavier weight.

Near to the pendulum-weight L handle M is attached to the rod K by means of an eye, N, which forms a joint, so that the handle M may be raised or lowered as desired by the operator.

To the pendulum-weight L one end of a bar, O, is connected with a pin or screw, P. The other end of bar O is attached to one end of lever Q by means of a bolt or pin, R, forming a joint.

The lever Q is attached to post D with a bolt or screw, S, forming a joint about the same space from the end that is attached to the bar O that pin or screw P and bolt or pin R are apart.

The bolt or screw S and the manner of attaching the lever Q to post D is clearly shown in Fig. 2.

At one end of the lever Q holes t t t t are made for the purpose of lengthening or shortening the stroke of the churn-dash W, by changing the bolt or pin H, which connects the bar Y to the lever Q, from one hole to another.

The bar Y is attached to one end of the sweep G by means of a pin, Z, forming a jointed connection with lever Q and bar O and the pendulum-weight L; also with sweep G and dash W. Upon the top of the posts C D the cap 1 is fastened, and to each side of it, directly over pendulum-rod R, springs 2 and 3 are attached, so that they press the pendulum-rod K as it swings back and forth.

The operation is as follows: The operator is seated or stands near the handle M, and with it moves the pendulum back and forth, which causes the bar O to move the lever Q in a semi-circular manner. The end of lever Q which is connected to bar Y moves in opposite direction to the pendulum, and describes a half-circle as the pendulum is pressed forward, and likewise a half-circle as the pendulum is drawn back, which forces the bar Y to raise and lower the sweep G, by which the dash W is caused to operate upward and downward with double the motion of the pendulum. As the pendulum is pushed forward to about the point where it should return the pendulum-rod K is pressed against the spring 2, and when the pendulum is stopped the pressure of the spring quickens the return motion, and when the rod is brought against the spring 3 its operation is the same on the return motion of the pendulum as that of spring 2.

The operation of springs 2 and 3 is an im-

portant feature in my invention, as an unsteady and jarring motion would be unavoidable without them.

I do not claim churning by the use of a pendulum motion produced by a hand-lever, neither do I claim churning by means of any arrangement to propel the dash of a churn at the top of a pendulum-rod or swinging churn; but,

Having thus described my invention, what I do claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of bars O and Y in their connection with the lever Q and pendulum-weight L, for the purpose specified.

2. Churning by an attachment to the bottom of a pendulum or pendulum-weight, as set forth, and for the purpose specified.

3. The arrangement of the springs 2 and 3, as set forth, and for the purpose specified.

JOHN F. SEAMAN.

Witnesses:

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S. BREWER.