

United States Patent Office.

CHARLES HESS, OF LYONS, IOWA.

Letters Patent No. 88,568, dated April 6, 1869.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES HESS, of Lyons, Clinton county, State of Iowa, have invented a new and useful Improvement in Dairy-Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to letters of reference marked thereon.

The nature of my invention consists in so constructing and arranging the dasher with its parts, and giving it motion, that the labor of "churning" is quickly performed in an easy and successful manner.

To enable others to understand my invention, and construct and operate the same, I will describe its construction and operation.

Figure 1 represents an end elevation.

Figure 2 represents a section.

Figure 3 represents a perspective view of dasher.

A and X represent body of churn.

B represents pitman to operate dasher.

C represents button to confine shaft H in place.

D represents arm to operate dasher M.

E represents balance-wheel.

F represents crank to turn wheel R.

G represents wrist to receive pitman B.

H represents shaft of dasher.

J represents gathering-bar.

K represents bevelled-shaped fingers to agitate cream.

M represents dasher-frame.

N represents curved-shaped perforated bars to agitate cream.

O represents handle to lift cover V with.

P represents ventilating-tube.

R represents drive-wheel.

S represents pinion on fly-wheel shaft.

V represents lid, or cover.

Z Z represent curves in churn-body to turn cream down.

W represents frame to hold the fly-wheel and pinions.

I construct the body of the churn A and X of any suitable material, also the frame W with the drive-wheel R, pinion S, and fly-wheel E, all in ordinary manner, claiming no patent therefor.

I construct the dasher M, as indicated in figs. 2 and 3, putting into the shaft H, bevelled fingers K K, having as many as the length of churn will allow, letting

them be about one inch apart. These fingers extend down to near the gathering-bar J, which is placed in an angular position, as shown.

I make the bars N N in a curved shape, having holes through them every one and a half inch.

To the shaft H, I attach an arm, D, having several holes in which to make fast the pitman B, which I attach to wrist G, and arm D, to communicate motion from the wrist G to dasher M.

The operation of this churn is as follows:

Remove the lid V, and put the cream into the body of the churn, having the dasher M in place, replace the lid, and have the pitman B attached to the arm D and wrist G. Now, by means of the crank F turn the wheel R, which gears into the pinion S on the fly-wheel shaft, to which the crank, or wrist G is attached, and a very rapid motion is communicated to the dasher M, by means of pitman B and arm D, which oscillates back and forth, agitating the cream by means of fingers K K, bars J and N N, and forcing it up the sides of churn, toward the top, where by means of the curved shape of the top Z Z, fig. 2, it is turned down on to the dasher, to again be agitated.

When the cream is converted into butter, take off the pitman B from the wrist, or crank G, and by hand-motion slowly move the dasher through the butter and the milk, and the gathering-bar J acting in connection with the back of bars N N, will gather the butter in two rolls, then draw off the milk, and by moving the dasher far enough, the butter may be spread out in bottom of churn, where the salt may be added, and by working the dasher, it may be thoroughly worked in.

In order to cleanse this churn, turn the bottom C, so as to remove the stop over shaft, then remove the dasher, and all the parts are easily cleansed in the ordinary way.

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

The combination and arrangement of pitman B, arm D, curved-shaped top Z Z, dasher M, with its bevelled-shaped fingers K K, gathering-bars J and N N, when constructed and arranged substantially as and for the purposes herein set forth.

CHARLES HESS.

Witnesses:

WM. W. SANBORN,
J. N. CROSS.