I. G. HUBBARD & D. G. STERLING.

CHURN.

No. 182,930. Patented Oct. 3, 1876.

Fig. 1.

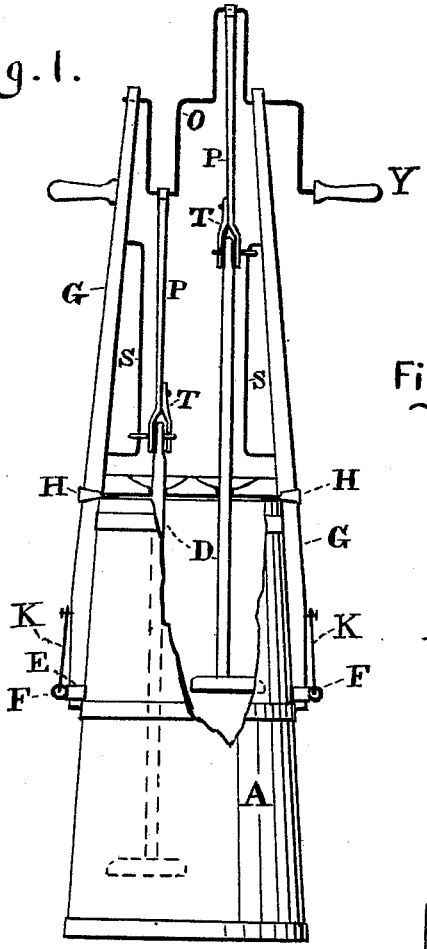


Fig. 2.

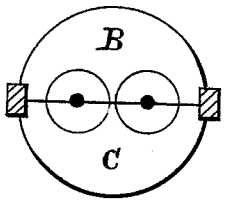


Fig. 3.

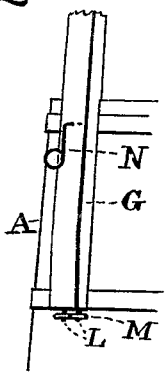


Fig. 4.

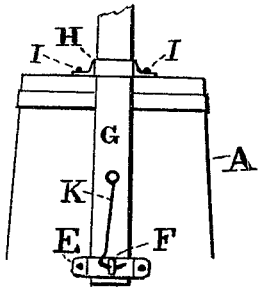
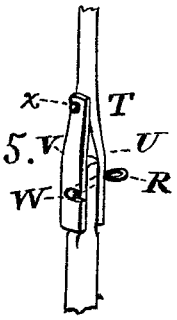


Fig. 5.



Witnesses:

George H. Howard

H. A. Daniels

Inventors:

Isaac G. Hubbard and

Daniel G. Sterling,

by Theodore Mungen,

Attorney.

UNITED STATES PATENT OFFICE.

ISAAC G. HUBBARD AND DANIEL G. STERLING, OF NOKOMIS, ILLINOIS.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **182,930**, dated October 3, 1876; application filed August 3, 1876.

To all whom it may concern:

Be it known that we, ISAAC G. HUBBARD and DANIEL G. STERLING, of Nokomis, in the county of Montgomery and State of Illinois, have invented a new and useful Improvement in Churns; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a front elevation of the improved churn. Fig. 2 is a plan view of the churn-lid. Figs. 3 and 4 illustrate the attachments of the standards to the churn-body, as herein described. Fig. 5 illustrates the connection of the dasher-arms and pitman-rods.

This invention relates to an improvement in that class of churns known as "double-dasher churns;" and it consists of a removable dasher-frame, provided with a double crank, pitman-rods, and guides, and a pair of removable dashers, the former arranged to be attached or detached from the body of the churn, and the latter arranged to be attached to or detached from the pitman-rods and guides, with which the dasher-frame is provided at pleasure, all of which is hereinafter more fully set forth and described.

In the accompanying drawing, similar letters of reference indicate like parts of the invention.

The body A is that of an ordinary upright-dasher churn, the lid being made in sections B and C, with openings to surround the dasher-arms D. Loops E, having external eyes F, are secured to the churn to receive the feet of the standards G, which have also upper connections with the body of the churn, consisting of looped and perforated plates H, which engage with pins I in the edge of the rim of the churn-body A. Hooks K, secured near the lower ends of the standards G, engage with the eyes F on the loops E to prevent the standards from being raised from said loops E while in use.

A modification of the loops E is shown in Fig. 3, where pins L, in the foot of the standard G, enter eyebolts M, driven into the side of the churn-body.

A modification of the looped and perforated plates H is shown in Fig. 3, where pins N are driven through the standards G into the churn-body to hold them and prevent them from swaying when in use.

The standards G are connected at their tops by a double crank, O, provided with two pitman-rods, P, having the dasher-arms D detachably connected to their lower ends by the eyebolts R, connected to the guides S, and passed through the bifurcations T, one arm, U, of each of which is perforated, and the other arm V is notched at W and pivoted at X, so as to be either turned to receive or release the shanks of the eyebolts R, for the purposes of attaching and removing the dashers to and from the dasher-frame, when it is desired to apply for using, or to remove for cleaning the same. A handle, Y, is attached to the double crank O, and one also to the opposite standard G, for the purposes of operating the crank and of handling the dasher-frame when it is to be removed from the churn.

To remove the dasher-frame from the churn-body it is necessary first to remove the lid B C, turn the arms U V from the shanks of the eyebolts R, and remove the dasher-arms and let the dashers drop into the churn, detach the hooks and raise the dasher-frame, and hang it up in any convenient place.

When the eyebolts M and the pins N are used it is necessary to withdraw the pins N before the dasher-frame can be removed.

This removable dasher-frame, with its removable dashers, can be attached to any dasher-churn, and the dashers are so operated by the guides and the openings in the lid of the churn as to have no lateral motion in the churn.

Having thus described my invention, we claim—

1. The removable dasher-frame, having the double crank O, pitmen P, having bifurcations at their lower ends, detachable dashers

D, and guides S, in combination with the loops H and E F, and hooks K, substantially as and for the purposes set forth.

2. The pitmen P having the bifurcations, one arm of which is notched and pivoted, in combination with the dashers D, substantially as and for the purposes set forth.

In testimony that we claim the foregoing improvements, as above described, we have hereunto set our hands and seals this 31st day of July, 1876.

ISAAC G. HUBBARD. [L. S.]
DANIEL G. STERLING. [L. S.]

Witnesses:
L. MERIGAN,
J. M. HANCOCK,
JOHN C. DANIELS,
WM. SERVICE.