D. H. BENEDICT.

Churn.

No. 209,322. Patented Oct. 29, 1878.

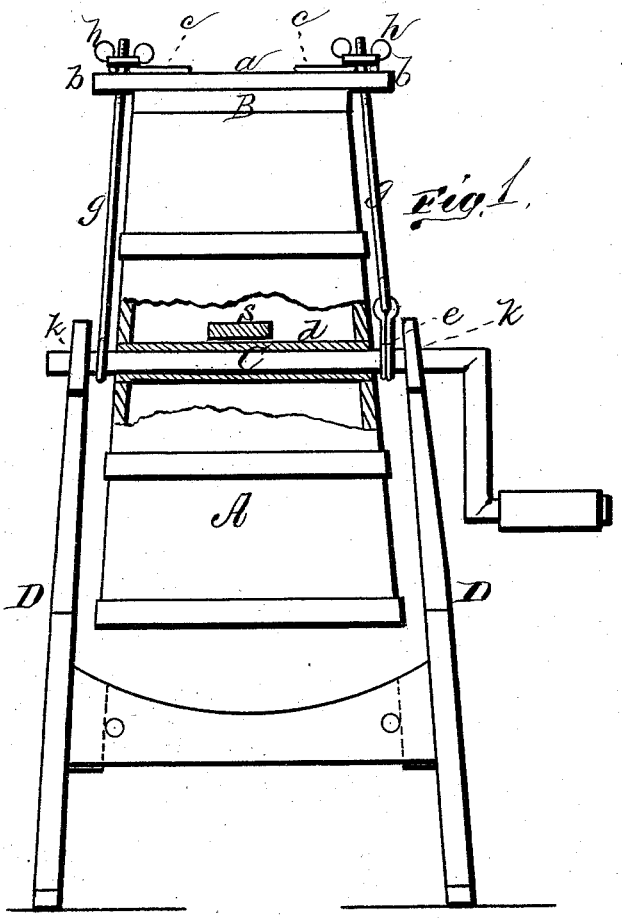

Fig. 1.

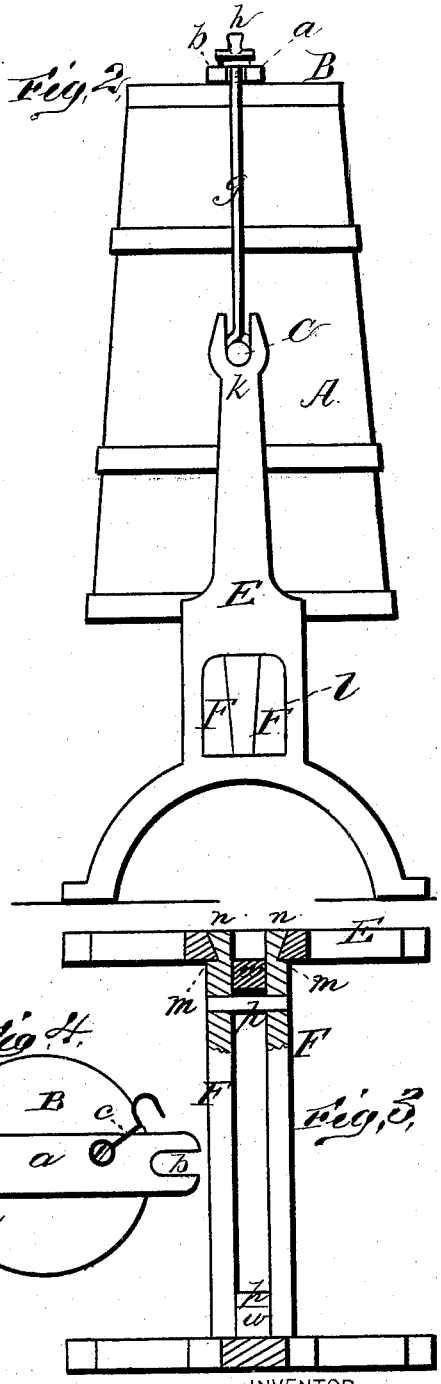

Fig. 2.

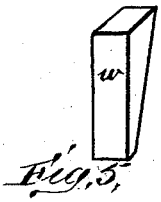

Fig. 5.

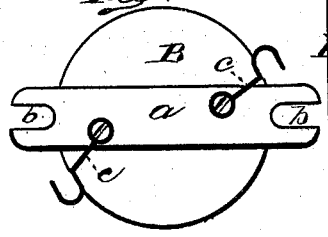

Fig. 4.

Fig. 3.

WITNESSES

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DAVID H. BENEDICT, OF NEWTON, IOWA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **209,322**, dated October 29, 1878; application filed April 6, 1878.

To all whom it may concern:

Be it known that I, D. H. BENEDICT, of Newton, in the county of Jasper and State of Iowa, have invented a new and valuable Improvement in 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 annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a front view of my improved churn. Fig. 2 is an end view of the churn-frame. Fig. 3 is a horizontal section of the churn-frame. Fig. 4 is a top view of the lid; and Fig. 5 is a detail view of the wedge.

This invention has relation to revolving churns; and it consists in the construction and novel arrangement of the knock-down frame, whereby the churn is supported in journal-seats in the detachable journal-shaft, and the fixed sleeve passing through the middle portion of the churn, and serving as a dasher as the churn revolves end over end; in the removable stationary cross-dasher, adjusted about the middle of the churn; and in the mode of securing the detachable parts, being the cover and journal-shaft, by connecting them together on each side of the churn, all as hereinafter fully shown and described.

In the accompany drawings, the letter A designates the churn-body, having the ordinary elongated form, and provided with a detachable cover, B, having across its top a bar, *a*, with forked or notched ends *b*, and hooks *c*, extending outward to said forked or notched ends. Through the body of the churn, at about its middle portion, passes a transverse sleeve, *d*, which is fixed in position, having its ends tightly connected with the churn-wall, so that there will be no leakage. C represents a crank-shaft, which is passed through the sleeve *d*, and, projecting therefrom at each end, serves to support the churn in the journal-seats of the standard-frame. In order to prevent the shaft from turning in the sleeve it is fastened in position by means of a projection or loop, *e*, which is preferably attached to one of the lateral rods or connecting-ties *g*, the other being attached to the shaft at its opposite projecting end. The upper ends of these tie-rods are threaded to engage with thumb-nuts *h*, which are applied above the forked ends of the bar *a*, through which the upper ends of said tie-rods pass to secure the cover. This fastening at the same time serves to secure the crank-shaft in position in the sleeve *d*, while it permits the ready removal of said shaft when desired. The churn so constructed is adapted to be rotated end over end in a supporting-frame, D, which is designed to be so constructed that it can be easily taken apart or knocked down when it is to be transported or packed away. This frame consists of two end standards, E E, the upper ends of which form the journal-seats *k k* for the crank-shaft of the churn. At its middle portion each standard has an opening, *l*, whereof the margin is flared or beveled outwardly. F F represent the cross-bars whereby the standards are connected. Each end of each cross-bar is formed with a shoulder, *m*, and beyond the same a dovetail tenon, *n*, which passes into the opening *l* of the standard, and engages with the beveled margin of the same. The two cross-bars being placed parallel to each other are connected by means of pins *p*, which pass through them transversely near each end, and are spread by means of wedges or keys *w*, which pass vertically downward between the cross-bars and between said pins and their adjacent standards, thereby forcing the beveled ends of the cross-bars apart and into secure engagement with the margin of the opening *l*, forming a firm joint.

The churn, being placed between the standards above the cross-bar, is readily rotated end over end by means of the crank-shaft. In this operation the cream is dashed against the sleeve *d* in the middle part of the churn, first in one direction and then in the other, said sleeve thus performing the part of the dasher. In order to assist in this operation, a detachable bar, *s*, is usually introduced, being adjusted transversely in the middle portion of the interior of the churn and at right angles with the sleeve *d*.

When the lid is in position with the connecting-rods engaged with the cross-bar *a*, the hooks *c* are caught upon the connecting-rods and hold them in place.

By introducing balls instead of the detachable cross-bar, this machine will operate for washing clothes.

Having thus described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In an elongated churn, rotating end over end, the transverse sleeve *d*, through the middle portion of the churn, for the passage of the shaft upon which the churn rotates, substantially as specified.

2. The combination, with the churn-body and its lid, having the cross-bar *a*, shaft C and the rods *g*, connecting said cross-bar and shaft, and the thumb-nuts *h*, substantially as specified.

3. The knock-down churn-frame consisting of the standards E, having the openings *l*, the parallel cross-bars F, having the end tenons engaging with said openings, the pins *p*, and keys *w*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

DAVID H. BENEDICT.

Witnesses:

A. K. CAMPBELL,

E. J. FULLERTON.