

No. 809,889.

PATENTED JAN. 9, 1906.

D. AYERS & J. D. SLOAN.

CHURN.

APPLICATION FILED AUG. 17, 1905.

Fig. 1.

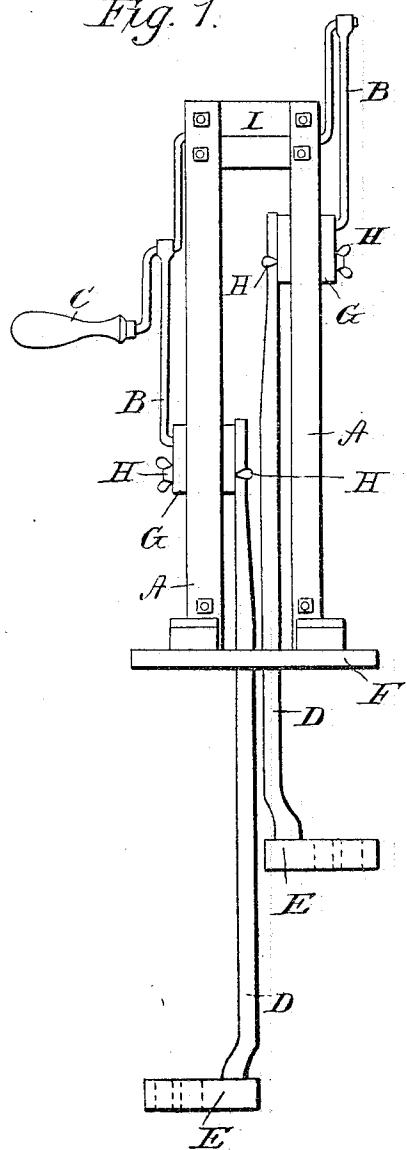


Fig. 2.

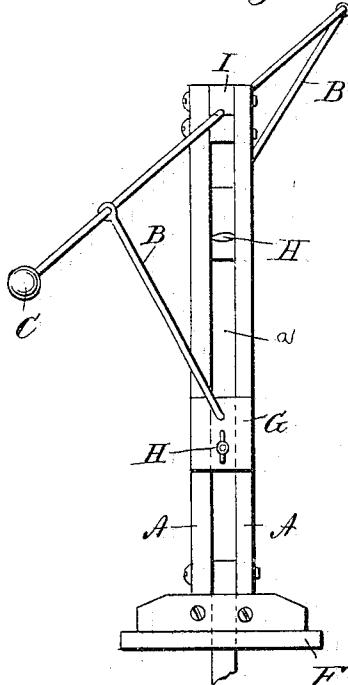
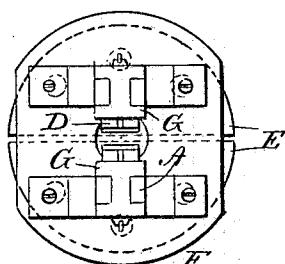


Fig. 3.



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# UNITED STATES PATENT OFFICE.

DEE AYERS AND JAMES DANIEL SLOAN, OF MOUNT VERNON, MISSOURI.

## CHURN.

No. 809,889.

Specification of Letters Patent.

Patented Jan. 9, 1906.

Application filed August 17, 1905. Serial No. 274,633.

*To all whom it may concern:*

Be it known that we, DEE AYERS and JAMES DANIEL SLOAN, citizens of the United States, residing at the city of Mount Vernon, in the county of Lawrence and State of Missouri, have invented a new Attachment to Churns, of which the following is a specification.

Our invention relates to dasher-churns in which the dashers are actuated up and down by cranks and pitmen.

It is the object of the invention to strengthen the structure, thus rendering it more durable, and simplify the construction so as to make it more simple and handy in use.

The invention consists of a dasher-churn in which the dashers are operated vertically by two half-round rods passing through a round hole in the top of the churn. Two slotted uprights rest on the top of the churn, and a head-block is arranged between the tops of the uprights, which with the top ends of the uprights form a bearing for the cranks which are connected with the dasher-rods through the medium of pitmen. The dashers are half-round, and one is carried by each rod.

The drawings hereto annexed form a part of this specification and are to be referred to as such.

Figure 1 shows a front view of the improvements, the churn-body being omitted. Fig. 2 is a side elevation. Fig. 3 is a bottom view, the cranks and pitmen being omitted.

The same letters designate the same parts or features wherever they occur.

In the drawings, F designates the top or head of the churn, from which there extend two uprights A, slotted, as at a, from near the bottom to near the top. At the top the standards are spaced by a substantial block I, which with the upper ends of the uprights have a groove formed therein for the straight connecting part of the two cranks C to lie in as a bearing. The block I may be made in two parts, as shown, each part being securely bolted to its upright. This secures a firm construction at the top and enables us to operate the cranks and pitmen outside of the uprights and their bearings.

C C designate the cranks by which the machine is driven, there being one on each side and the straight connecting part resting in a bearing on the upper ends of the uprights and blocks.

B B designate pitmen, one on each side of the uprights, which connect the arms of the

crank with the vertical dasher arms or rods D D half-round and together forming a substantially round wooden or, it may be, metallic rod which extends through a substantially round hole in the base F, which may serve as the top or lid to the churn. The lower end of each half-round rod D is secured to one part of the dasher E, which is half-round, so that when the inner sides are brought together the dasher will be a round disk with holes made therethrough, just as it should be to constitute a good dasher-agitator in a round churn. The lower ends of the pitmen are connected to the upper ends of the dasher-rods through the intervention of two slides G, grooved on their inner sides to fit the uprights, one being adapted to slide on the outside of its upright and the other on the inside, the two being joined by a screw or bolt and nut H. In the outer slide the lower end of each pitman B is pivoted, and the upper end of the dasher-rod D is connected to the inner slide-block, the construction being the same on each side. The bolt H, which connects the two slide-blocks, is used also to clamp the upper end of the dasher-rod D to the block. The construction at this point secures an easy operation of the cranks and pitmen and a positive unvarying action of the dasher-rods.

A person conveniently seated at any point where he may operate the cranks with his feet or his hands will actuate the dashers to effect churning with the machine in the most efficient manner. The churn-body may be made of wood or other material in any shape and of any strength that may be thought best. It constitutes no part of our invention, and hence has not been shown. It may be noted, however, as a mere suggestion that it may consist of a kind of barrel, the dashers operating through the end, as is common, and the barrel may, if thought best, be made larger at the bottom than at the top.

We are aware that our invention is confined to improvements on existing machines and is not a pioneer in the sense of presenting an entirely new organization in churning mechanism; but, nevertheless, the features of our construction are efficient, durable, and handy and may be carried into effect economically.

We claim—

1. The combination, with the dashers and vertically-movable dasher-rods, of the upright supports, the head-blocks between the

upper ends thereof to which they are firmly bolted, the cranks on the outside of the uprights, provided with a straight part having its bearing in the said head-blocks, the 5 dasher-rod vertically movable inside of the uprights, the pitmen connected to the cranks, and slide-blocks on the uprights through the intervention of which the pitmen are connected to the dasher-rod.

10 2. The combination, with the dashers and vertically-movable dasher-rod, of the upright supports, the head-blocks between the upper ends thereof to which they are firmly bolted, the cranks on the outside of the up- 15 rights, provided with a straight part having its bearing in the said head-blocks, the

dasher-rod vertically movable inside of the uprights, the pitmen, each pivoted at its upper end to the crank, two-part slides adapted to move on the uprights—one part on the outside and the other part on the inside—a clamping-bolt connecting the two parts of each slide and securing the upper end of the dasher-rod to the inner part of the slide, the lower end of the pitman being pivoted to the 20 outer part of the slide.

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