

(No Model.)

S. J. LINN.  
Churn Dashers.

No. 230,295.

Patented July 20, 1880.

Fig. 1.

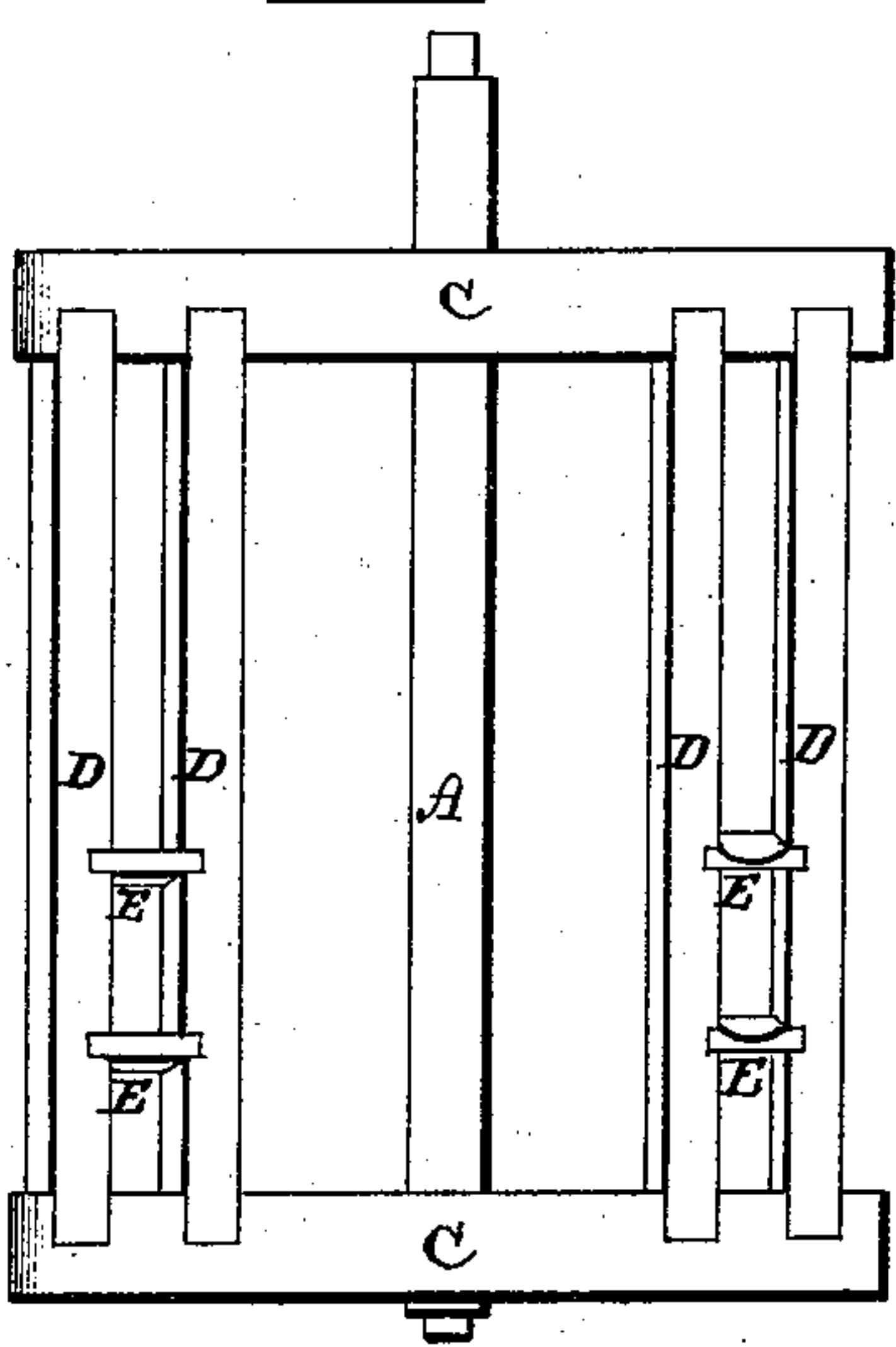
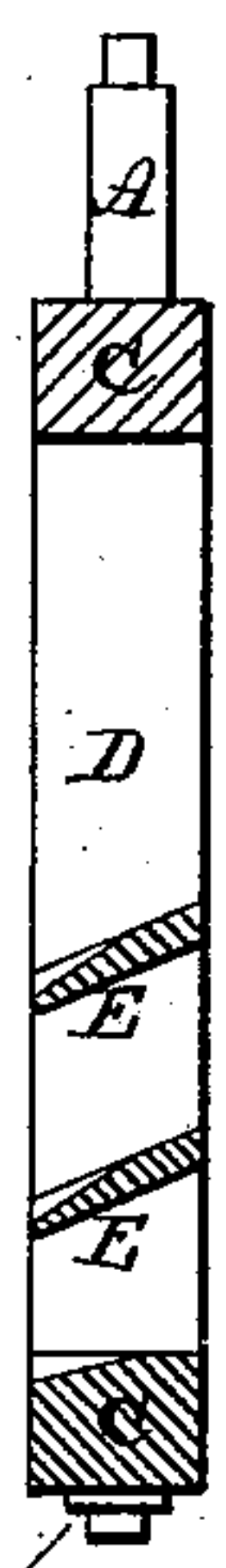


Fig. 2.



Fig. 3.



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# UNITED STATES PATENT OFFICE.

SYLVESTER J. LINN, OF MONDAMIN, IOWA.

## CHURN-DASHER.

SPECIFICATION forming part of Letters Patent No. 230,295, dated July 20, 1880.

Application filed March 11, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, SYLVESTER JACOB LINN, of Mondamin, in the county of Harrison and State of Iowa, have invented certain new and useful Improvements in Churn-Dashers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in churn-dashers; and it consists in placing short inclined horizontal boards between the parallel vertical slats of the dasher, whereby as the dasher is made to revolve the cream is both thrown outward against the sides of the churn and upward at right angles thereto, so as to cause counter-currents, as will be more fully described hereinafter.

Figure 1 is a side elevation of my invention. Fig. 2 is a horizontal cross-section of the same, and Fig. 3 is a vertical section through the short inclined boards.

A represents the operating-shaft, which has one bearing in the bottom of the square box which forms the body of the churn and the other in the cover. To the upper end of this shaft may be applied a motor of any desired construction which will cause it to revolve. Secured to this shaft are the two cross-bars C, which are placed a suitable distance apart and connected together at their ends by the two sets of slats D. These slats are set at such an angle to the cross-bars that as the dasher revolves, instead of simply cutting edge-wise through the cream, they catch hold of the cream and dash it against the side of the box with considerable force. In between each set of these slats are placed two or more short inclined boards, E, one set of the boards E being inclined in one direction and the other in the opposite one. As the dasher revolves

these short boards catch under the cream and raise it upward, so as to produce counter-currents to those formed by the slats.

It will readily be seen that as the dasher revolves the cream is thrown outward against the sides of the square box in which the dasher is placed and at the same time is thrown upward at right angles, thus forming counter-currents, which serve to very thoroughly break all those globules in which the cream is held. The lower cross-bar at the same time serves to cause a rotary current, so that there will be at least three opposing currents at work in the cream.

This dasher is very cheap, simple, and easily constructed, and may either be made of some non-corrosive metal or wood, or partially of both.

No claim is here made to the vertical slats set at an angle, for this, as I am well aware, is not new in itself.

Having thus described my invention, I claim—

1. In a churn-dasher, the inclined horizontal boards E, placed in the outer edge of a revolving churn-dasher, for the purpose of causing upward currents in the cream, substantially as described.

2. In a revolving churn-dasher, the combination of the parallel slats D, set at an angle to the cross-bars C, so as to throw the cream outward against the sides of the churn, with the inclined horizontal boards E, secured between the slats D, whereby currents are caused at right, or nearly right, angles to each other in the cream, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of March, 1880.

SYLVESTER JACOB LINN.

Witnesses:

J. L. McCLANNAHAN,  
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