

UNITED STATES PATENT OFFICE.

TILSON LANDT, OF ILION, NEW YORK, ASSIGNOR TO ALONZO B. ELY,
OF SAME PLACE.

IMPROVEMENT IN ROTARY CHURNS.

Specification forming part of Letters Patent No. **185,112**, dated December 5, 1876; application filed August 26, 1876.

To all whom it may concern:

Be it known that I, TILSON LANDT, of Ilion, in the county of Herkimer and State of New York, 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my churn, and Fig. 2 is a plan view of the same.

This invention is an improvement upon a rotary churn secured to Tilson Landt by Letters Patent No. 165,739, dated July 20, 1875; and it consists in the combination of rotary dashers, provided with radially-projecting lugs, with similar lugs fast upon the inside of the churn-box, the lugs of each series being arranged alternately with relation to those of the other series, as hereinafter fully set forth.

In the annexed drawings, A designates a longitudinal horizontally-arranged churn-box, supported upon legs or standards B. The upper part of the said box is perfectly vertical; but the lower parts of the sides incline toward each other, and terminate in a narrow bottom frame, C. D is a long narrow metallic receptacle or casing, which is provided at one end with an outlet-pipe, E, and on the other with an inlet-pipe, F, running down to said casing from reservoir G. Said reservoir is arranged just above the top of said churn-box at one end thereof, and is provided with a supply-funnel, H. By means of these devices a current of water or other cooling fluid can be maintained along the under side of said churn, for the purpose of cooling the contents thereof. I designates the cover of the said churn.

The foregoing parts of my apparatus are fully described in Letters Patent No. 165,739, above referred to, and are not indispensable to the operation of the devices embodying my present invention, as any ordinary churn-box, &c., may be substituted therefor.

K designates a crank-handle, which oper-

ates a longitudinal horizontal rotating shaft, J, to which are secured rigid arms J' J', bearing longitudinal rotating dasher-blades L L. Said blades are provided with radially-extending lugs M M, alternating with spaces *m*, which separate said lugs. To one of the sides of the inside of said churn-box are rigidly secured similar lugs N N, having similar spaces *n n* between them.

The arrangement of said lugs and spaces is such that when dasher-shaft J and dasher-blades L are rotated the said rotating lugs M M pass through the spaces *n n*, between the said stationary lugs N N, and the said stationary lugs in like manner fill the spaces between the said revolving lugs. The result of this operation is, that the cream or milk which is being churned is very effectually beaten and stirred by and between said revolving and said stationary lugs, and the separation of the butter is thereby facilitated.

n is a double-beveled piece, fitting in corresponding grooves in one end of the box, and provided with a recess, *o*, by means of which it may be removed, and its lower end is circularly shaped to conform with the dasher-shaft. At the opposite end of the dasher-shaft a screw, *s*, passes through the end of the churn-body into the end of the dasher-shaft, forming a bearing for one end of the latter.

By this construction the dasher can readily be removed for cleaning or other purposes, and can also be readily replaced.

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

In a horizontal churn-body, the lugs N, arranged on one side only of the churn-box A, in combination with the horizontal rotary dasher J, provided with projections M, substantially as described, and for the purpose set forth.

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

TILSON LANDT.

Witnesses:

REUBEN WRIGHT,
HENRY ROOT.