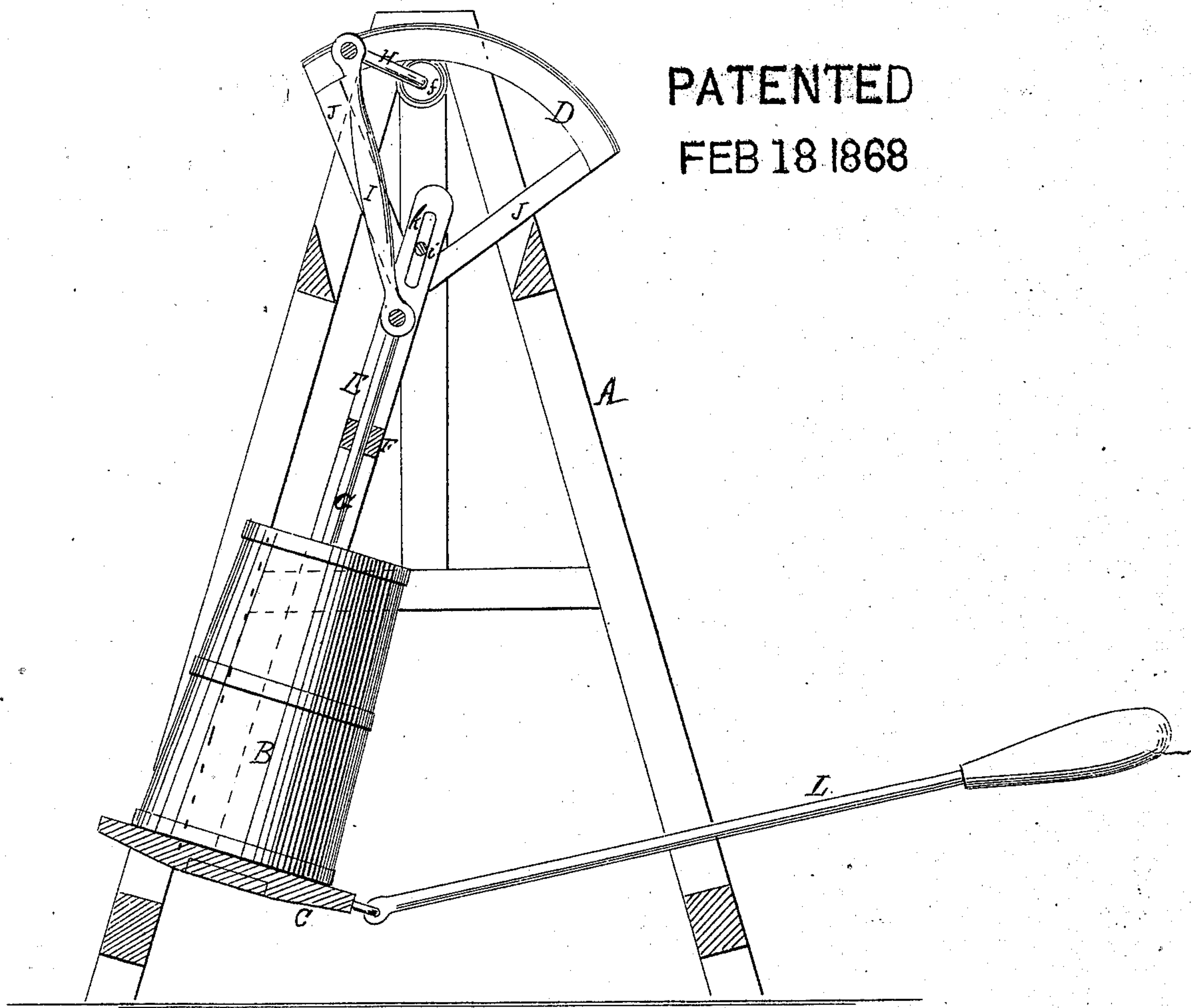


D.H. Carpenter and H.L. Slaght's Churn.

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PATENTED
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DANIEL H. CARPENTER, OF HECTOR, AND HIRAM L. SLAGHT, OF LODI,
NEW YORK.

Letters Patent No. 74,498, dated February 18, 1868.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, DANIEL H. CARPENTER, of Hector, in the county of Schuyler, and State of New York, and HIRAM L. SLAGHT, of Lodi, in the county of Seneca, and State of New York, have invented a new and useful Improvement in Churns; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in the method of constructing churns for dairy purposes, whereby the ordinary single or double-dasher barrel-churn is operated with much less labor or exertion of strength than when operated in the ordinary manner; and the invention consists in attaching the churn to a swinging frame, and in oscillating a crank-shaft by the swinging motion of the frame, and operating the churn-dasher thereby, as will be hereinafter more fully described.

The drawing represents a vertical sectional elevation of the arrangement, showing portions of the stationary and swinging frames with the churn attached thereto.

A represents a stationary frame, upon which the churn and swinging frame are supported. B is the churn, which stands upon a platform, C, of the swinging frame. D represents the upper portion of the swinging frame, which portion is composed of two side pieces, (only one of which is seen in the drawing,) marked E. These side pieces E are connected together by a transverse bar, F, through which the dasher-rod G of the churn passes. H represents a crank-shaft, which is connected with the end of the dasher-rod by the connecting-rod I. This crank-shaft H has its bearings in the stationary frame A, at its ends, and just inside of each bearing there is rigidly attached to the crank-shaft a friction-roll, *f*, through which the crank receives its oscillating motion. J represents arms, which branch from the side pieces E of the swinging frame, the upper ends of which are connected together by segments forming the upper end of the frame, as seen at D. The side pieces E act as levers in this connection, the fulcrum of which is at the pin *i*, which is attached to the frame A. The upper ends of these pieces are slotted, as seen at *k*, which allows them a longitudinal motion. The weight of the churn and swinging frame rests upon the rolls *f* on the shaft H. The churn is put in motion by working the rod L back and forth. The whole weight being suspended on the shaft H through the rolls *f*, the motion is governed by the pin *i* on each side, so the segment D traverses the rollers *f*, and the weight on these rollers is sufficient to partially rotate the crank-shaft H. This partial rotation gives motion to the dasher-rod G through the connecting-rod I and crank-shaft H.

It will be seen that the reciprocating horizontal motion imparted to the swing frame by the rod L, imparts the required and usual reciprocating motion to the dasher-rod of the churn, and that when in operation the gravity and momentum of the frame and the loaded churn combine to aid in the operation, thus rendering the tedious and laborious process of churning butter comparatively easy.

Having thus described our invention, we claim as new, and desire to secure by Letters Patent—

1. The stationary frame A, the swinging frame composed of the parts C, E, J, and D, arranged substantially as described for the purpose set forth.
2. The fulcrum-pin *i*, slot *k*, connecting-rod I, shaft H, with the friction-rolls *f*, in combination with the swinging frame, the whole arranged and operating substantially as and for the purposes described.

DANIEL H. CARPENTER,
HIRAM L. SLAGHT.

Witnesses:

C. S. ROBINSON,
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