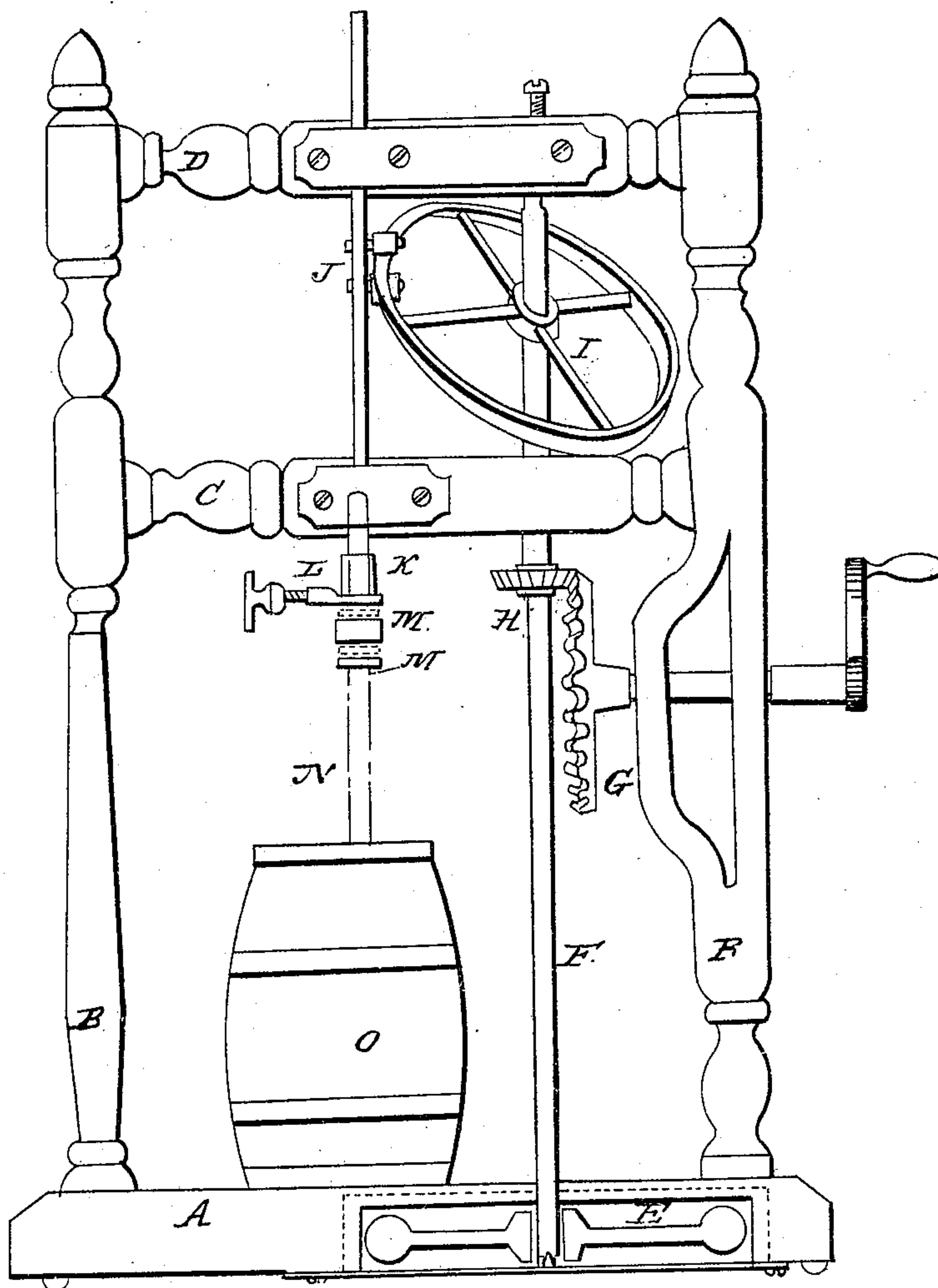


D. MARSHALL.

Churn.

No. 55,320.

Patented June 5, 1866.



Witnesses
Chas. Prunze
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UNITED STATES PATENT OFFICE.

DAVID MARSHALL, OF GENOA, NEW YORK.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 55,320, dated June 5, 1866.

To all whom it may concern:

Be it known that I, DAVID MARSHALL, of Genoa, in the county of Cayuga and State of New York, have invented a new and useful Improvement in Churn-Powers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, in which the figure is a front elevation of the whole machine.

A is the base-plate or foundation. It may be made in any convenient manner, and must be made so as to support the churn and posts of the frame and thick enough to receive the balance-wheel below the upper surface, as shown in the figure, in which the dotted lines represent a part of the plate removed to show the balance-wheel.

B and B are posts fastened upon the base-plate. Their use is to support the cross-pieces, C and D, also to support the driving-wheel axle.

C is the lower cross-piece. It must be placed high enough above the churn to allow the attachments to the dasher to move up and down without touching. It has a hole through it for the spindle H to pass through, and slide-box for the slide J to pass through.

D is the upper cross-piece. It also has a slide-box, and journal-box to support the upper end of the spindle.

E is a balance-wheel. It is fastened to the lower end of the spindle F. It should be below the upper surface of the base-plate to be out of the way.

F is the spindle. It is made long enough to extend from near the bottom of the base-plate to the upper cross-piece. At the lower end it should be supported upon a pivot or step to keep it in position and prevent friction. The upper end is supported in a journal-box, and should have a set-screw applied to the upper end to keep it from moving up or down. It has the cam-wheel I securely fastened to it on the part between the cross-pieces.

G is a driving-wheel of bevel-gear of any size required to give the proper motion. It is supported by an axle that is supported in one of the posts B.

H is a pinion. It is fastened to the spindle, and is driven by the wheel G.

I is a vertical cam-wheel. It is made any size to give the required motion to the churn-dasher. It is securely fastened to the spindle F between the cross-pieces, as shown in the figure.

J is a vertical slider or sliding bar. It is held in position by boxes in the cross-pieces C and D. It has a projection at the lower end with a hole through it for receiving and holding dasher-clasps. It is actuated by means of pins or studs that project from the side toward the cam-wheel, one being above and the other below the rim of the wheel. On these studs are rollers placed to prevent friction. These rollers may be made of metal, but to prevent noise they may be made of leather or india-rubber.

K is a sleeve or dasher-clasp. It is made to pass through the projection at the lower end of the slider J. It has a collar at the lower end, and has two vertical slits from the upper end down as far as the clasp L can go for the purpose of yielding to the screw in the clasp, so that the churn-dasher may be firmly clasped at any required point or place.

L is a sliding ring made to fit upon the sleeve K. It is provided with a thumb-screw that is used to fasten the ring where required.

M and M are elastic rings placed upon the sleeve K, one above and one below the projection of the slider. The use of the rings is to prevent noise when the dasher is given less motion than the slider. To use the sleeve and clasp at the commencement, put the sleeve up, and then place the ring L down firmly upon the projection, with the elastic rings M in place, and with the thumb-screw fasten it, and the whole motion of the slider will be given to the dasher; but when less agitation is required raise the ring L up on the sleeve as far as required, and the distance it is raised will be the loss of motion to the dasher. By these means the motion of the dasher may be changed, and the dasher may be raised or lowered so as to work at the top or bottom of the cream, as required.

N is the churn-staff. O is the churn, of any ordinary construction.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of the spindle F, cam-wheel I, and slider J, when made substantially as specified and used for the purpose set forth.

2. The sleeve K, ring L, and elastic rings M and M, when made and applied as herein specified.

DAVID MARSHALL.

Witnesses:

ELIAS PERRIGO,
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