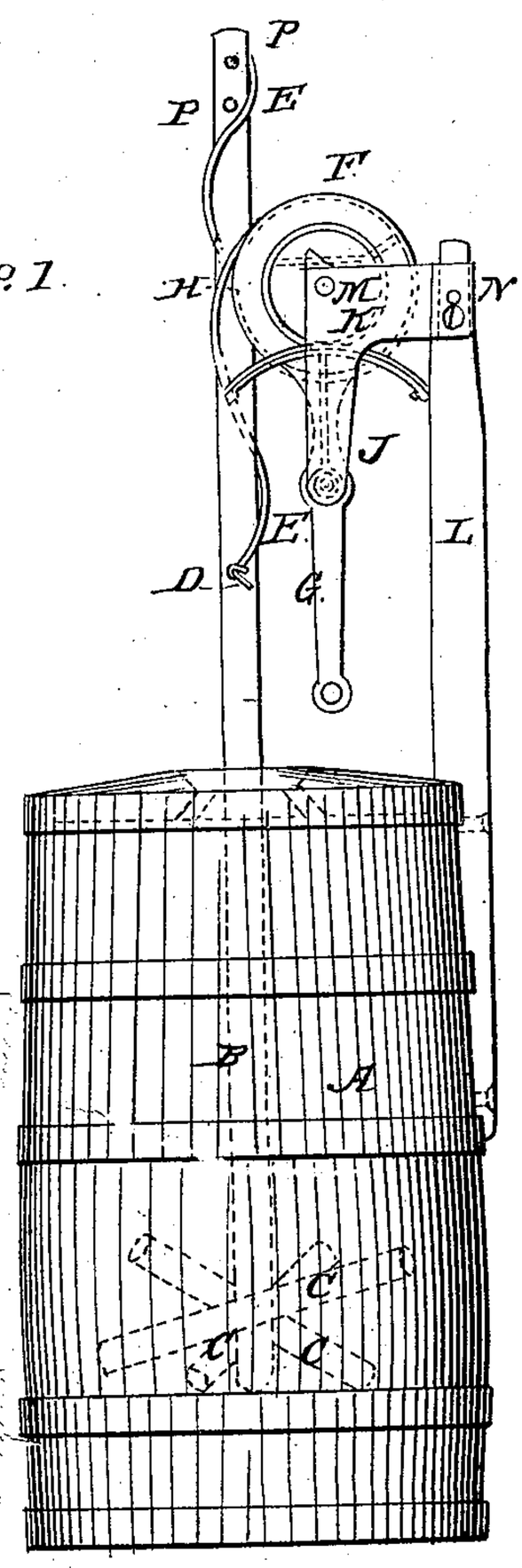
# L. LEAVENWORTH.

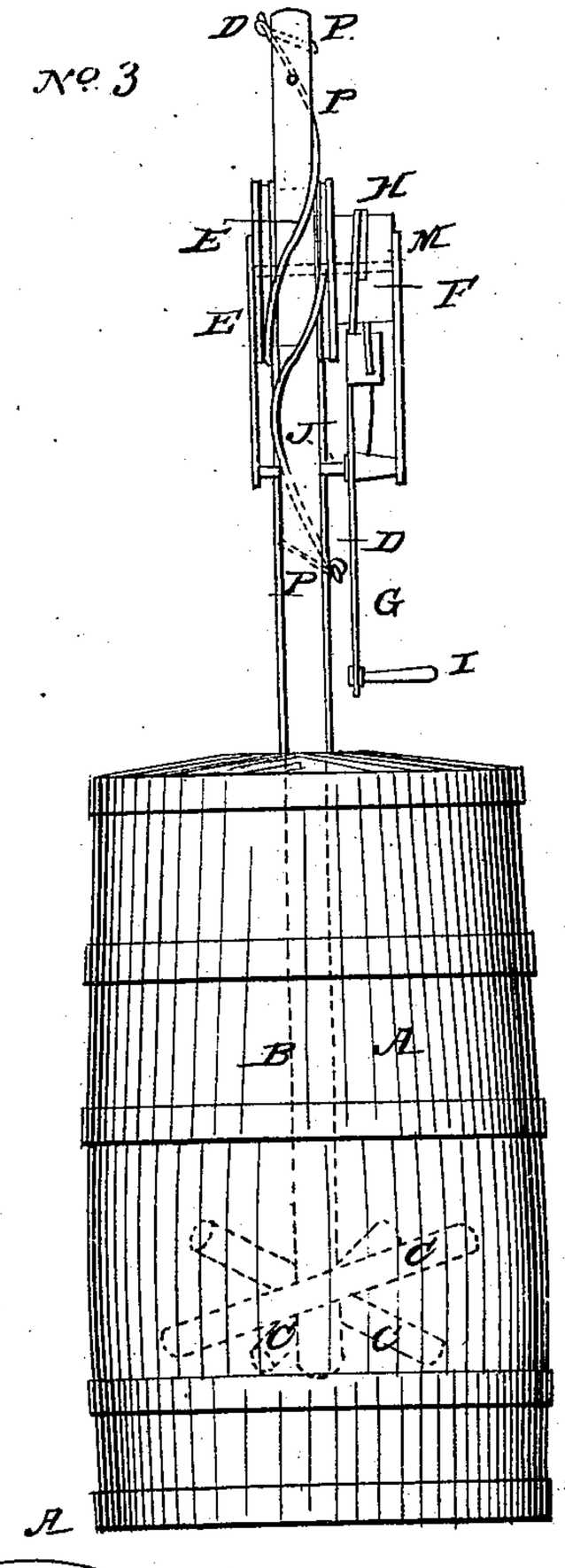
## Churn

No. 14,458. Patented March 18, 1856.

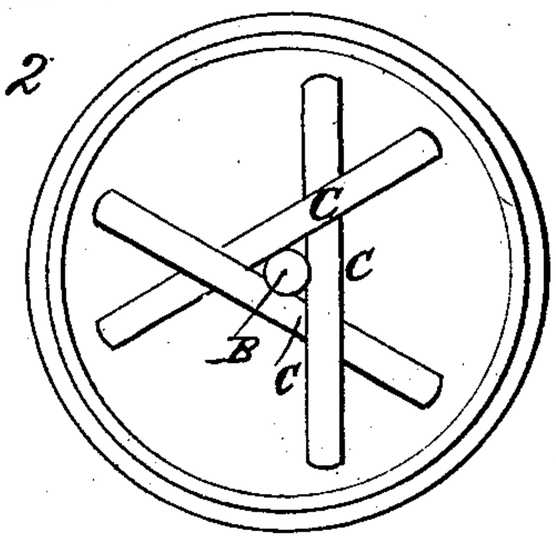
No. 1




No. 3




No. 2



# UNITED STATES PATENT OFFICE.

LUCIUS LEAVENWORTH, OF TRUMANSBURG, NEW YORK.

## CHURN.

Specification of Letters Patent No. 14,458, dated March 18, 1856.

*To all whom it may concern:*

Be it known that I, LUCIUS LEAVENWORTH, of the village of Trumansburg, in the county of Tompkins and State of New York, have invented a new and useful Improvement in Machinery for Operating Churns; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

No. 1, is a side view, No. 2, is a section showing the dash, No. 3 is a front elevation.

A, is the churn which may be of any form or size.

B, is the staff to which is locked three pieces in a triangular form, and on an angle vertically to the staff, thus forming the dash, C, C, C.

D, D, are pins fitting to the holes P, P, and to which are attached the cords or bands E, E, and are put into the staff on an angle so that the draft of the cords serves to retain them in their places.

E, E, are cords or bands which are attached to the pins D, D, in the staff, being wound on the staff in the same direction, (more or less, as the pins may be changed in the holes,) and in opposite direction, in the grooves in the periphery of the pulley F. The cords or bands may be lengthened or shortened either by changing the position of the pins in the staff, or by taking them up or letting them out at the place of fastening on the pulley, so if the cords are lengthened and wound on the staff, the act of unwinding them will cause the staff to partly revolve, which rotary motion is greater or less, according to the amount of cord on the staff, which is guided in its motion by the large groove in the pulley F, between the two grooves in which the cords run, the staff being confined in the groove by the action of the cords or bands.

H, is a cord which is passed through a smaller part of the pulley F, (as seen by the dotted line in No. 1,) so as to fasten it, each end being wound in opposite directions on the pulley, and attached to the ends of the arc of the lever G.

I, is a handle or wrist pin in the lower end of the lever G, to which may be attached a connecting rod from a rocking chain or other power.

J, is a shaft which is a center or fulcrum for the lever G.

K, is the frame which is fastened to the post L, by the ferrule N, which is also flattened on the inside to prevent the frame from turning, and is further secured by the pin O.

M, is a shaft on which the pulley F, is fastened.

The parts having been described, it remains to describe their action. By taking hold of the handle of the lever, and moving it with a reciprocating motion, the cords attached to arc of the lever, will alternately wind and unwind on the pulley F, causing it to partially revolve in the direction of the lever, thus causing the cords E, E, to move the staff with a reciprocating motion and by having cords wound on the staff imparting to it as they alternately wind and unwind a rotary motion.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The arrangement of the cords or bands attached to the pulley and also to the staff being wound on the staff to give a required rotary motion, as described in the specification.

LUCIUS LEAVENWORTH.

Witnesses:

WILLIAM A. ALLEN,
JAMES E. ALLEN.