

W. MAURER.
Power-Churns.

No. 151,302.

Patented May 26, 1874.

FIG. 1.

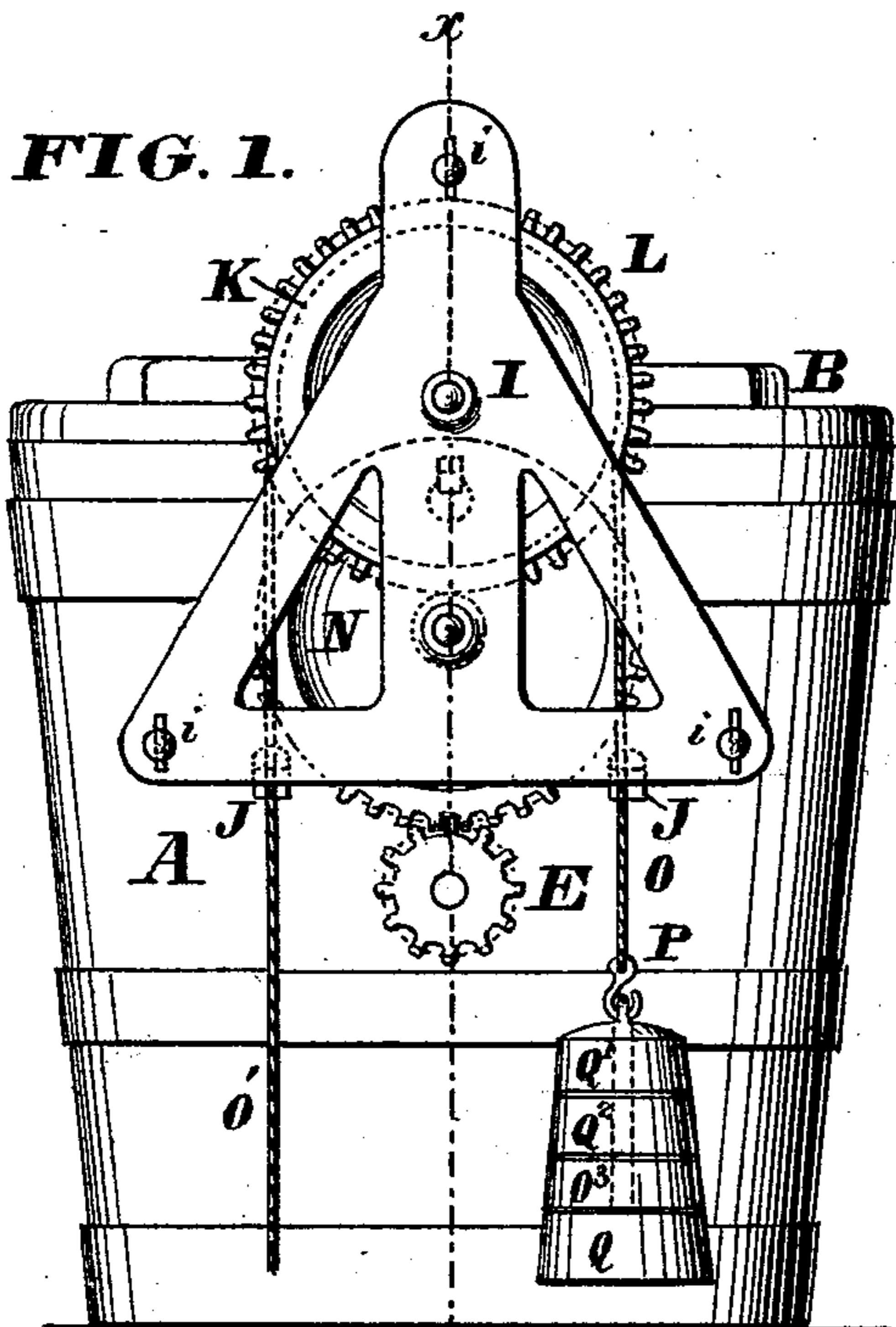


FIG. 3.

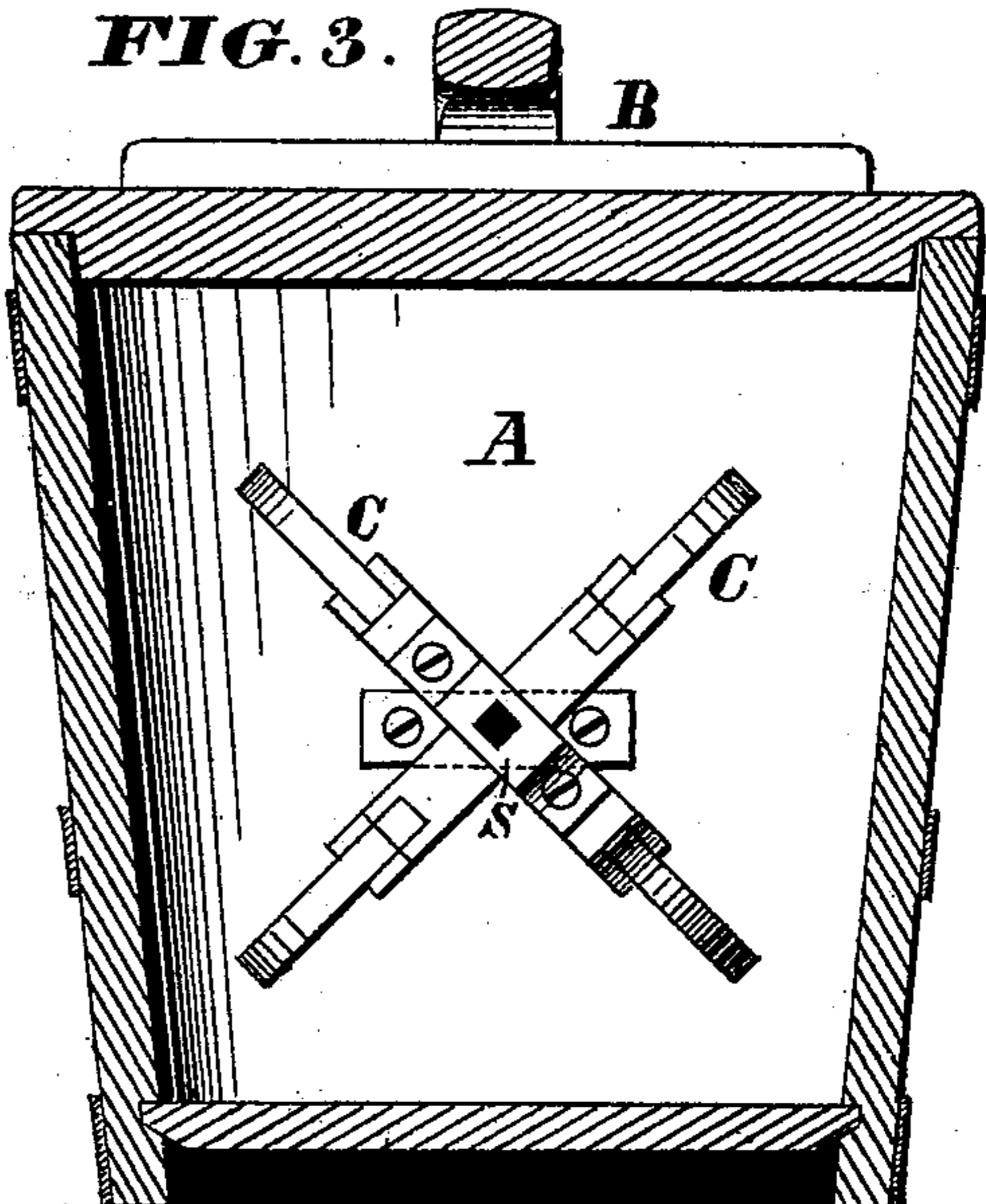
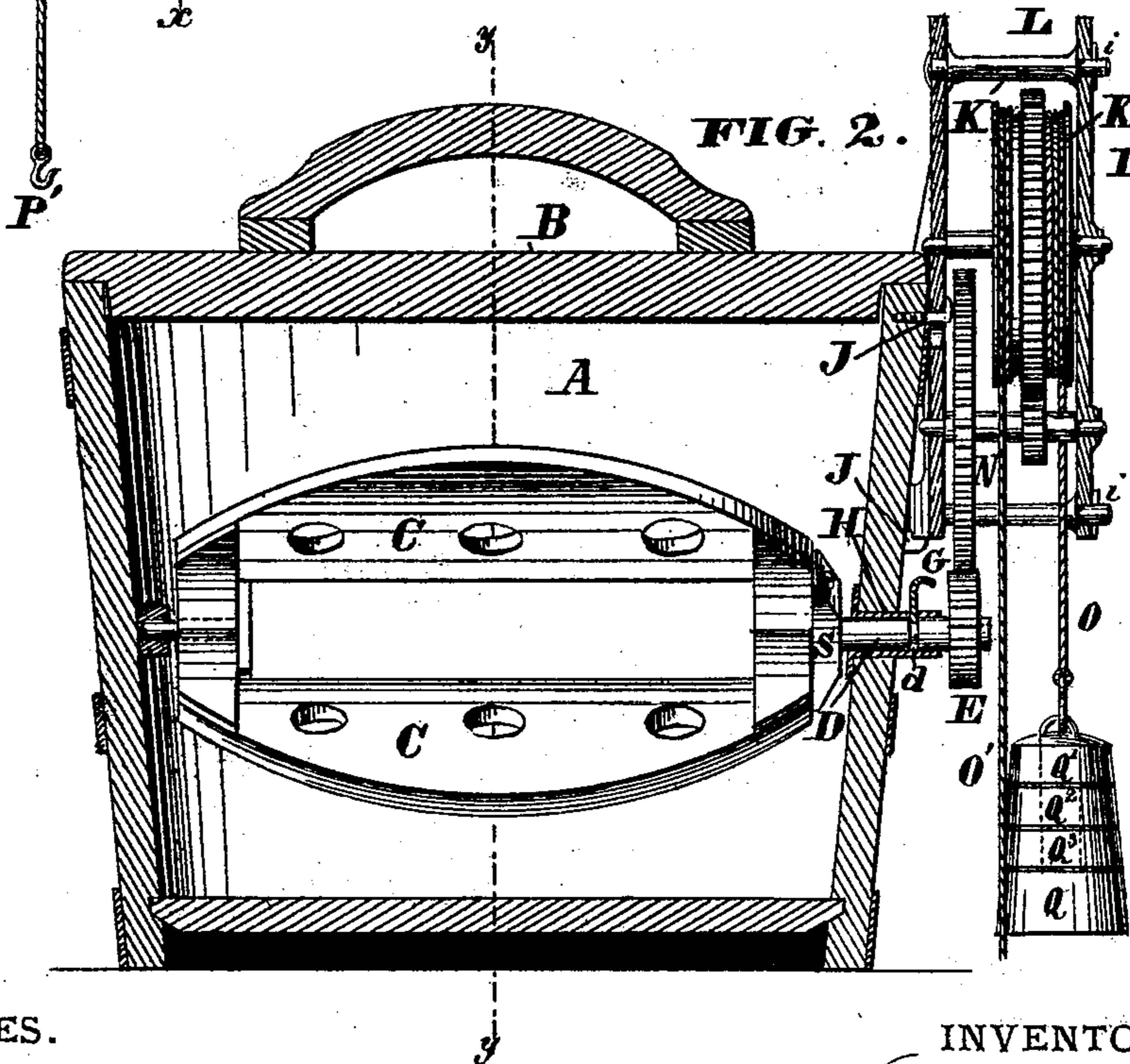


FIG. 2.



WITNESSES.

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INVENTOR.

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UNITED STATES PATENT OFFICE.

WILLIAM MAURER, OF YORK, PENNSYLVANIA.

IMPROVEMENT IN POWER-CHURNS.

Specification forming part of Letters Patent No. 151,302, dated May 26, 1874; application filed May 14, 1874.

To all whom it may concern:

Be it known that I, WILLIAM MAURER, of the city and county of York, in the State of Pennsylvania, have invented an Improved Churn-Power, of which the following is a specification:

This invention relates to a jack removably attached, by means hereinafter described, to the side of a churn of any construction adapted therefor, said jack consisting of a train of multiplying-gear with a duplex pulley, from which depend cords provided with hooks, to which a weight may be applied alternately.

In the accompanying drawing, Figure 1 is a front elevation of the apparatus. Fig. 2 is a longitudinal section on the line *x x*, Fig. 1. Fig. 3 is a transverse section on the line *y y*, Fig. 2.

The tub A with its cover B, and the dasher C with its removable shaft D and pinion E, may be of common construction. In the illustration here given the shaft D, having an end of square or other non-circular shape, fits within a socket, S, of corresponding form in the end of the dasher, being retained by a removable key, G, occupying a slot in the bearing or box H, and a circumferential groove, *d*, in the shaft D, so that when the key is withdrawn the shaft may be slipped out and the dasher taken out of the tub for cleaning.

My invention does not relate specifically to, and is not limited by, these details in the mode of mounting the dasher.

The frame I of my improved driving-power is held firmly but removably in position by hooks or lugs J J J projecting from the tub A. In the said frame are mounted double pulleys K K', carrying a cog-wheel, L, which gears with the pinion M, on the shaft of which is another cog-wheel, N, gearing with the pinion E on the dasher-shaft. Cords O O' are wound on the pulleys K K' in reverse directions, so that the unwinding of one cord will wind the

other. At the ends of the cords are hooks P P', to which a weight, Q, is applied alternately.

In operation, the weight being applied to the hook P, as shown, will, through the multiplying-gearing, impart a rapid rotation to the dasher in one direction, and when run down has simply to be raised and applied to the hook P', which will have been elevated by the first movement. The dasher will then be driven in the opposite direction with the same effect. This operation may be continued as long as needful, the changing of the weight being the work of an instant, and having to be performed at considerable intervals, as the resistance of the cream makes the movement of the dasher moderate and regular, the weight being graduated in amount to correspond with the quantity of cream in the churn, by the addition of any necessary number of the supplementary weights Q¹ Q² Q³. The apparatus admits of being changed by slipping out the pins *i i*, taking off the outer member of the frame, removing the intermediate multiplying-wheel N, reversing the compound pulley and wheel K K' L, and setting it in the lower bearings, so that the wheel L will gear directly with the pinion E. A less weight will then drive the dasher, but for a shorter period.

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

The combination, with a churn of any suitable construction, of the jack, constructed as herein described, with double pulley K K', cords P P', and weight Q, the frame I being removably attached to the churn, substantially as herein set forth.

In testimony of which invention I hereunto set my hand this 5th day of September, 1873.

WILLIAM MAURER.

Witnesses:

OCTAVIUS KNIGHT,
WALTER ALLEN.