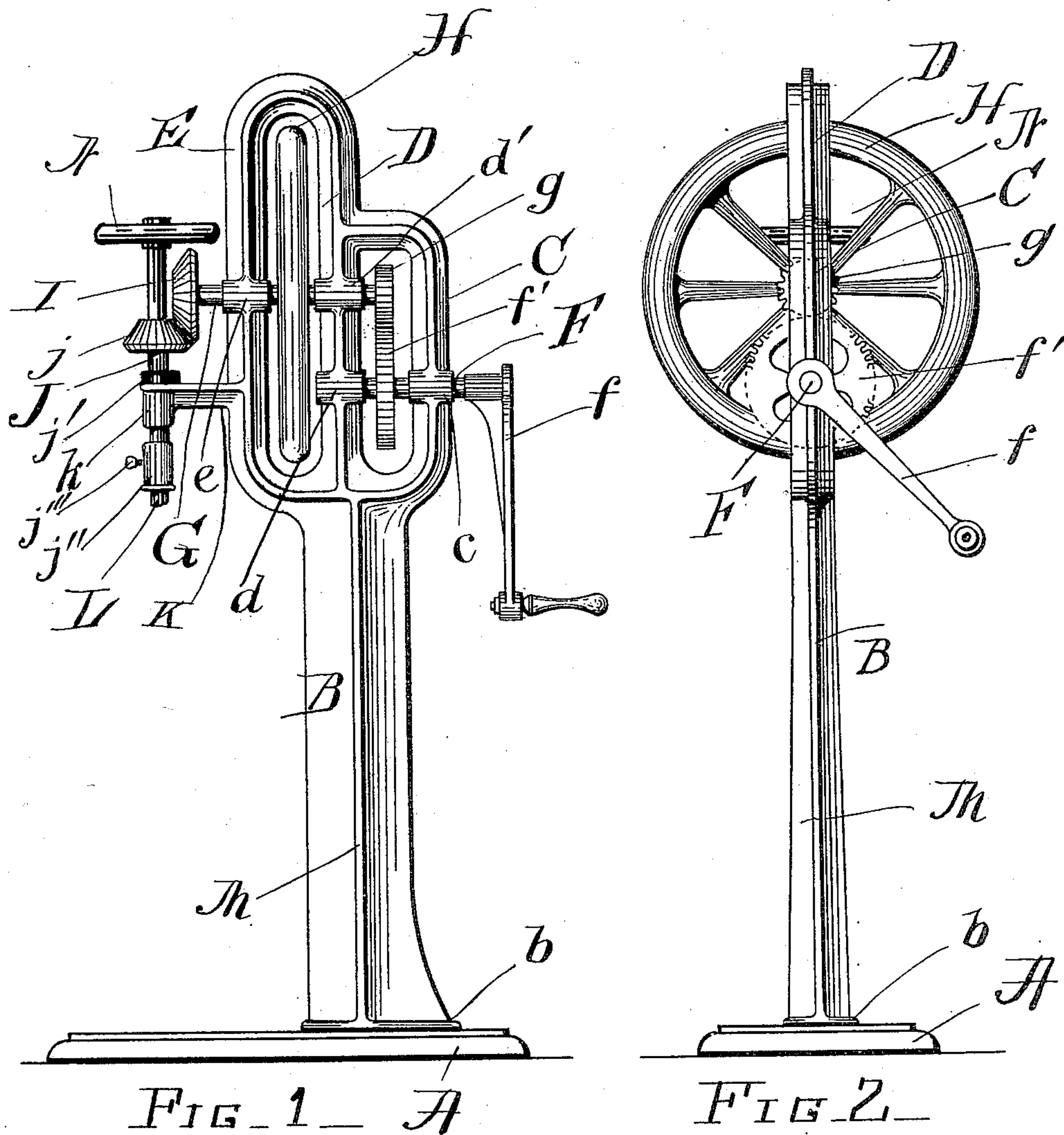


(No Model.)

M. J. WILLIAMSON.  
CHURN POWER.

No. 428,987.

Patented May 27, 1890.



WITNESSES:

Otis D. Smith.

*A. P. [Signature]*

INVENTOR

*Marshall J. Williamson*

BY

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ATTORNEY.

# UNITED STATES PATENT OFFICE.

MARSHALL J. WILLIAMSON, OF JONESBOROUGH, GEORGIA.

## CHURN-POWER.

SPECIFICATION forming part of Letters Patent No. 428,987, dated May 27, 1890.

Application filed February 24, 1890. Serial No. 341,519. (No model.)

### *To all whom it may concern:*

Be it known that I, MARSHALL J. WILLIAMSON, of Jonesborough, in the county of Clayton and the State of Georgia, and a citizen of the United States of America, have invented certain new and useful Improvements in Churn-Powers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to devices for facilitating the operation of churning by conveniently producing a rapid motion of the dasher without the necessity of a rapid motion of the hand in the operation, the invention consisting in the cheaply-constructed and efficient frame for holding the parts, and of a combination of gearing, and so forth, whereby ease and speed are acquired, the details of all of which will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a side elevation of the device, showing the conformation and construction of the frame and the arrangement of the operative parts suitably journaled therein. Fig. 2 is an end elevation of the device, showing the elements as seen from the right of Fig. 1.

In the figures, like reference-marks indicating corresponding parts in the several views, A is the base, which is made of the desired form, material, and dimensions, and to which the standard B is secured by means of screws passing through the base-plate *b'*. On the projecting end of the base A the churn is set and will hold the device steady while the same is being operated. On the top end of the standard B and made integrally therewith, preferably, are the smaller uprights C, D, and E, which are connected together, as shown, at their tops, and form between them spaces for the gearing and other parts of the device.

The shaft F, carrying crank *f* and gear *f'*, said gear being a spur-gear, is journaled in bearings *c* on the upright C and *d* on the

standard D, and is adapted to revolve therein, the gear *f'* running in the opening between the uprights C and D and meshing with the pinion *g* on the shaft G, which said shaft is journaled in the bearing *d'* and *e* in the uprights D and E, respectively, carrying in the space between said uprights the balance-wheel H and bevel spur-gear I, which engages with the pinion *j* on the shaft J, said shaft being suitably journaled in the vertical bearing *k* on the arm K, which is made integral with or attached to the upright E. The vertical play of the shaft J in the bearing *k* is prevented by the collar *j'* thereon, said shaft carrying the chuck *j''* for connection with the dasher-stem L, said stem being securely held therein by the set-screw *j'''*. On the top of said shaft is a second balance-wheel N of like form, but smaller than the other one.

Strength is given and beauty added to the structure by a flange M, which follows up the standard B and along the standards C, D, and E, following their curves, and where it encounters journal-boxes merging therewith.

It is obvious that the speed of the shaft J is much greater than the speed of the shaft F, and that the balance-wheels give steadiness of motion.

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

1. In a churn-power, the means for supporting the operative parts, consisting of the base A, the standard B, and the frame comprising the connected uprights C, D, and E, said uprights E having journal-bearing arm K, substantially as and for the purpose specified.

2. In a churn-power, the shaft F, carrying the spur-wheel *f'*, the shaft G, carrying the gear *g*, engaging with said wheel *f'*, the balance-wheel H, and the spur-gear I, carried by said shaft G, the shaft J, carrying the pinion *j*, engaging with the gear-wheel I, and the chuck *j''*, attached to the lower end of the shaft J, all arranged and combined substantially as and for the purpose specified.

3. In a churn-power, the shaft F, carrying



the spur-gear  $f'$ , the shaft G, carrying the gear  $g$ , meshing with the said spur-gear  $f'$ , the balance-wheel H, carried by the shaft G, the bevel-spur I on the outer end of the shaft  
5 G, the shaft J, carrying the pinion  $j$ , meshing with the gear I, the balance-wheel N, and the chuck  $j''$ , carried by the shaft J, substantially as and for the purpose specified.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

MARSHALL J. WILLIAMSON.

Witnesses:

A. P. WOOD,  
S. M. WOOD.