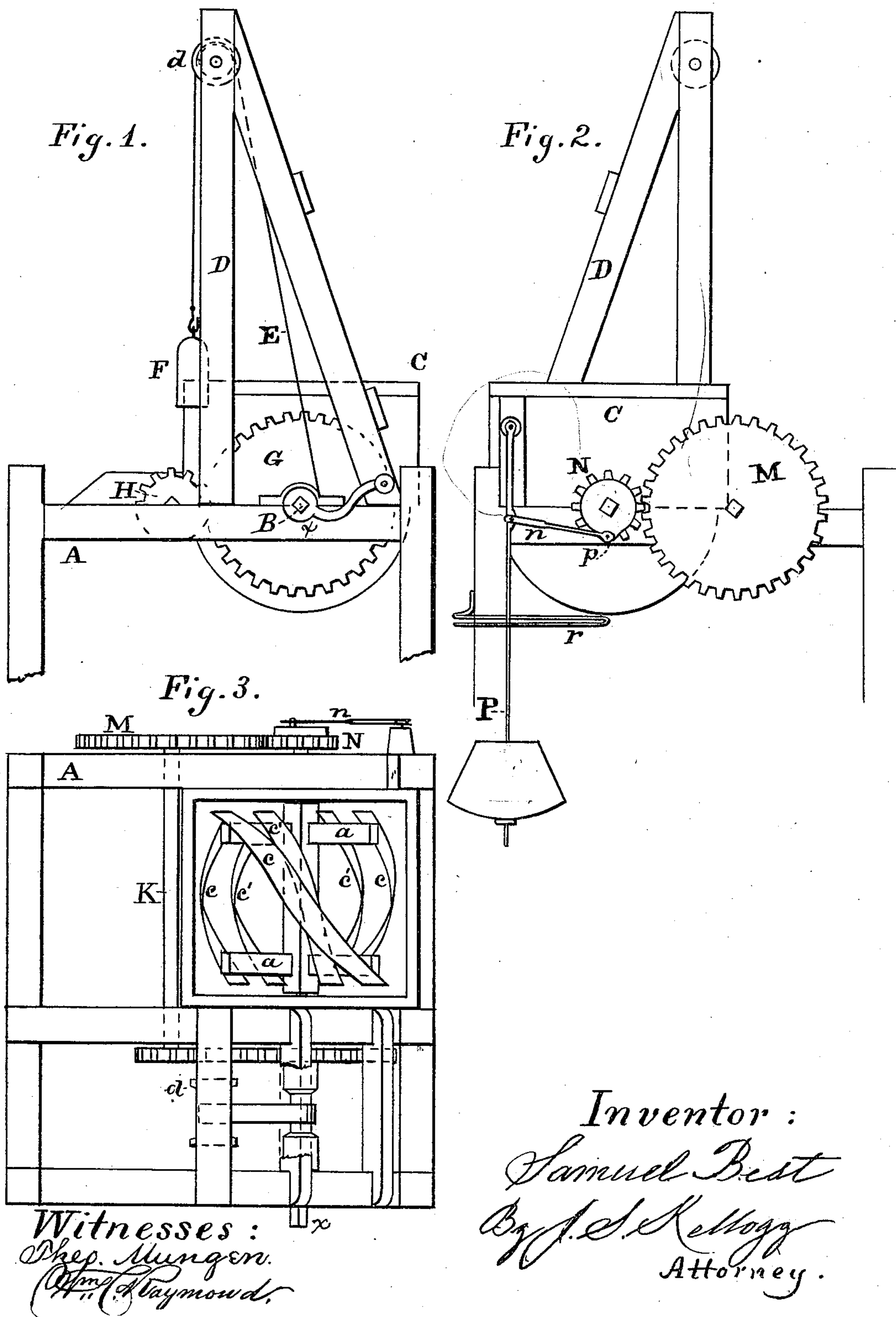


S. BEST.
POWER-CHURN.

No. 179,394.

Patented July 4, 1876.



UNITED STATES PATENT OFFICE.

SAMUEL BEST, OF MONTGOMERY, MICHIGAN.

IMPROVEMENT IN POWER-CHURNS.

Specification forming part of Letters Patent No. **179,394**, dated July 4, 1876; application filed February 14, 1876.

To all whom it may concern:

Be it known that I, SAMUEL BEST, of Montgomery, in the county of Hillsdale and State of Michigan, have invented certain Improvements in Churns, of which the following is a specification:

My invention relates to household articles known as "churns;" and consists in certain improvements in the construction of a churn—namely, a revolving dasher fixed upon a shaft passing through the churn, said dasher being provided with an outer and inner set of spirally-curved blades attached to cross-pieces, so as to surround the shaft; a pulley or roller elevated by means of a frame, and having a belt with one end attached to the dasher-shaft, upon which it may be wound, said belt passing over the pulley, and being provided with a weight at the outer end for the purpose of operation; the provision of a pendulum to assist and regulate the operation, communication with the dasher-shaft being formed of a series of gear-wheels and pinions, shafts, crank, and connecting-rod, as hereinafter more fully set forth.

In the accompanying drawing, forming a part of this specification, Figures 1 and 2 represent views of opposite sides of a churn having my improvements. Fig. 3 represents a top view of the same with the cover of the churn removed.

In the said drawing, A designates the frame supporting the churn and its operating mechanism. B indicates the driving-shaft, having its bearings in the frame A, and passing horizontally through the churn C, the latter being of the kind having a revolving dasher. Upon the said shaft, and fixed thereto, is the dasher, consisting of the cross-pieces *a* and spirally-curved blades *c* and *c'*, the said blades *c* being fastened to the cross-pieces, at the outer extremities thereof, as shown, and the blades *c'* being secured to said cross-pieces at points nearer to the shaft. D is a removable frame, mounted upon the main frame A, and within said frame D, at or near the top, is

placed a pulley or roller, *d*, over which passes the belt E, one end of which has a hook for coupling with the weight F, the other end of the belt being attached to the shaft B, on which a spool is formed for winding the belt thereon. Upon the shaft B, at one side of the churn, is a gear-wheel, G, which engages with a pinion, H, on another shaft, K, having its bearings in the frame A. At the opposite side of the churn the shaft B has a pinion, N, which engages with a gear-wheel, M, on the shaft K. Near the said pinion N, and in proper relative position therewith, is suspended a pendulum, P, adjustable as to its motion, and communicating with the pinion N by the connecting-rod *n* and crank *p*, said pendulum having the guide *r*.

In the operation of the mechanism described, a steady and constant movement is caused by the descending weight F, attached to the belt E, the motion being regulated by the pendulum P, which is of sufficient size and weight.

As a modification in the construction of my invention, in lieu of the weighted belt and pulley, the motive power may be supplied by a coiled spring upon the shaft B, the outer end of the spring being suitably fastened to a bar forming a part of the frame.

In preparing the machine for operation the weighted belt, or spring, when the latter is used, is wound upon the shaft B by turning said shaft with a crank applied at *x*.

Having described my invention, I claim and desire to secure by Letters Patent—

The churn-frame constructed as shown, and provided with the guide *r*, in which works the pendulum P, as and for the purposes described.

Witness my signature hereto in the presence of two witnesses.

SAMUEL BEST.

Witnesses:

A. O. SHEFFER,
N. T. DOBBS.