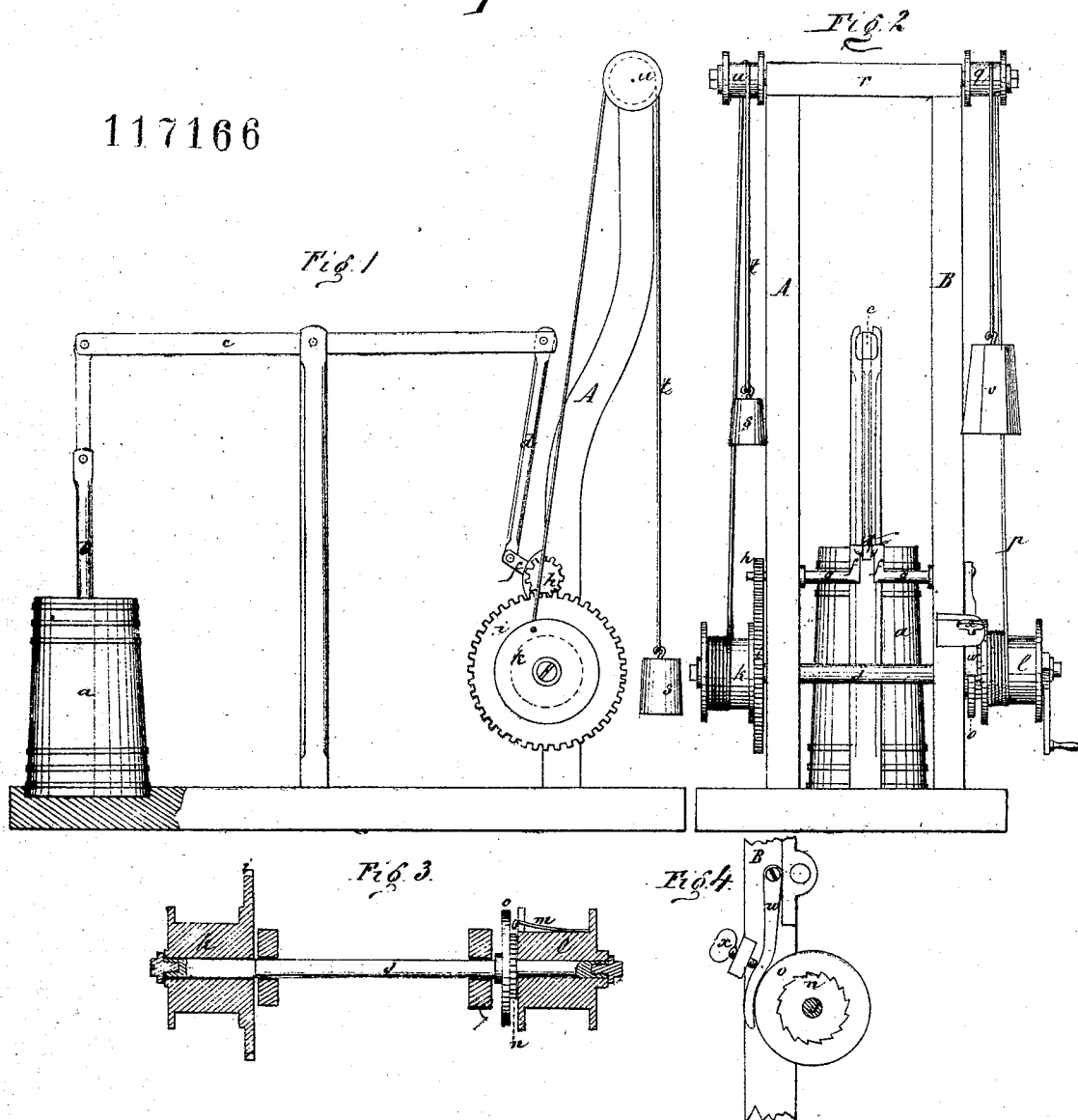


B. F. Frampton.
Power for Churns.

PATENTED JUL 18 1871

117166



Witnesses:

H. J. Arctz
John Simon

Inventor:

B. F. Frampton.

PER

Wm. C.
 Attorneys.

UNITED STATES PATENT OFFICE.

BENJAMIN F. FRAMPTON, OF PUNXATAWNEY, PENNSYLVANIA.

IMPROVEMENT IN CHURN-POWERS.

Specification forming part of Letters Patent No. 117,166, dated July 18, 1871.

To all whom it may concern:

Be it known that I, BENJAMIN F. FRAMPTON, of Punxatawney, in the county of Jefferson and State of Pennsylvania, have invented a new and Improved Power for Churns; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side elevation; Fig. 2, an end elevation. Fig. 3 is a sectional elevation of the shaft and drums, and Fig. 4 is a side elevation of the brake for the shaft.

My invention is an improvement in the class of churn-propellers which includes as a distinguishing feature a weight suspended by a cord from a winding-drum. My invention consists in an arrangement, hereinafter fully described, of parts whereby, as one weight descends, it not only operates the churn-dasher, but also raises another lesser weight, which, when the former has reached the floor, is in turn allowed to descend and continue the movements of the dasher.

Referring to the drawing, *a* is a churn; *b*, the dasher; *c*, a walking-beam that works the dasher through the medium of a pitman, *d*, and is itself worked by a pitman, *e*, that is jointed to a crank, *f*, formed in a shaft, *g*, mounted crosswise of a pair of vertical standards, A B, and connected by gearing *h i* with a second shaft, *j*, mounted in the same standards. The shaft *j* bears two drums, *k l*, one fixed, the other loose. The loose drum *l* is provided with a spring-pawl, *m*, which when pressed inward engages with a circular ratchet, *n*, secured to the side of a disk, *o*, that is fixed on the shaft *j*. To the periphery of the drum *l* is attached one end of a cord, *p*, the same passing thence upward over a sheave, *q*, mounted on a pin that extends from the end of the cross-bar *r*, which connects the upper extremities of the standards A B. When the drum *l* is turned backward the cord *p* is wound tightly around the drum and the weight *v*, which is fastened to the end of said cord, is thereby raised. The cord presses the pawl *m* inward, but the latter only slips over the ratchet *n* as long as the drum *l* is

rotated backward. When the weight *v* has been raised to the sheave *q* the backward rotation of the drum *l* should cease and the weight allowed to descend. Thereupon the pawl *m* engages with the ratchet *n* and effects the rotation of the shafts *g* and *j* and the working of the dasher. The drum *k* turns with the shaft *j*, and consequently winds up the lesser weight *s* by means of the cord *t* passing over the sheave *u*. The weight *s* reaches the sheave *u* at the same time that the weight *v* reaches the floor. The unwinding of the cord *p* from the drum *l* allows the pawl *m* to separate from the ratchet *n*, and as soon as this takes place the weight *s* begins to descend and to turn the shaft *g* in the opposite direction. The direction, however, in which said shaft turns is a matter of no consequence, as it works the dasher equally well either way. The weight *s* continues to operate the dasher till it reaches the floor. By this arrangement the same effect is produced as though the distance traveled by the weight *v* were twice what it is. By employing two weights, as described, the frame is as it were balanced and rendered steady without the aid of devices for securing the same to the floor or other support, and the friction or strain on the driving-shaft is not applied to one end alone so as to cause it to wear unequally. A brake, *u*, Fig. 4, is hung to one side of the standard B. By means of a screw, *x*, said brake can be pressed against the rim of the disk *o*. This is done when turning the drum *l* backward to wind up the weight *v*, and the object of doing it is to prevent the backward rotation of the shaft *j* at the same time.

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

The driving-shaft *j*, fixed drum *k*, loose drum *l*, pawl *m*, ratchet *n*, gear-wheels *h i*, pulleys *q u*, small weight *s*, and large weight *v*, arranged in connection with the frame A B *r*, as shown and described.

B. F. FRAMPTON.

Witnesses:

SOLON C. KEMON,
THOS. D. D. OURAND.