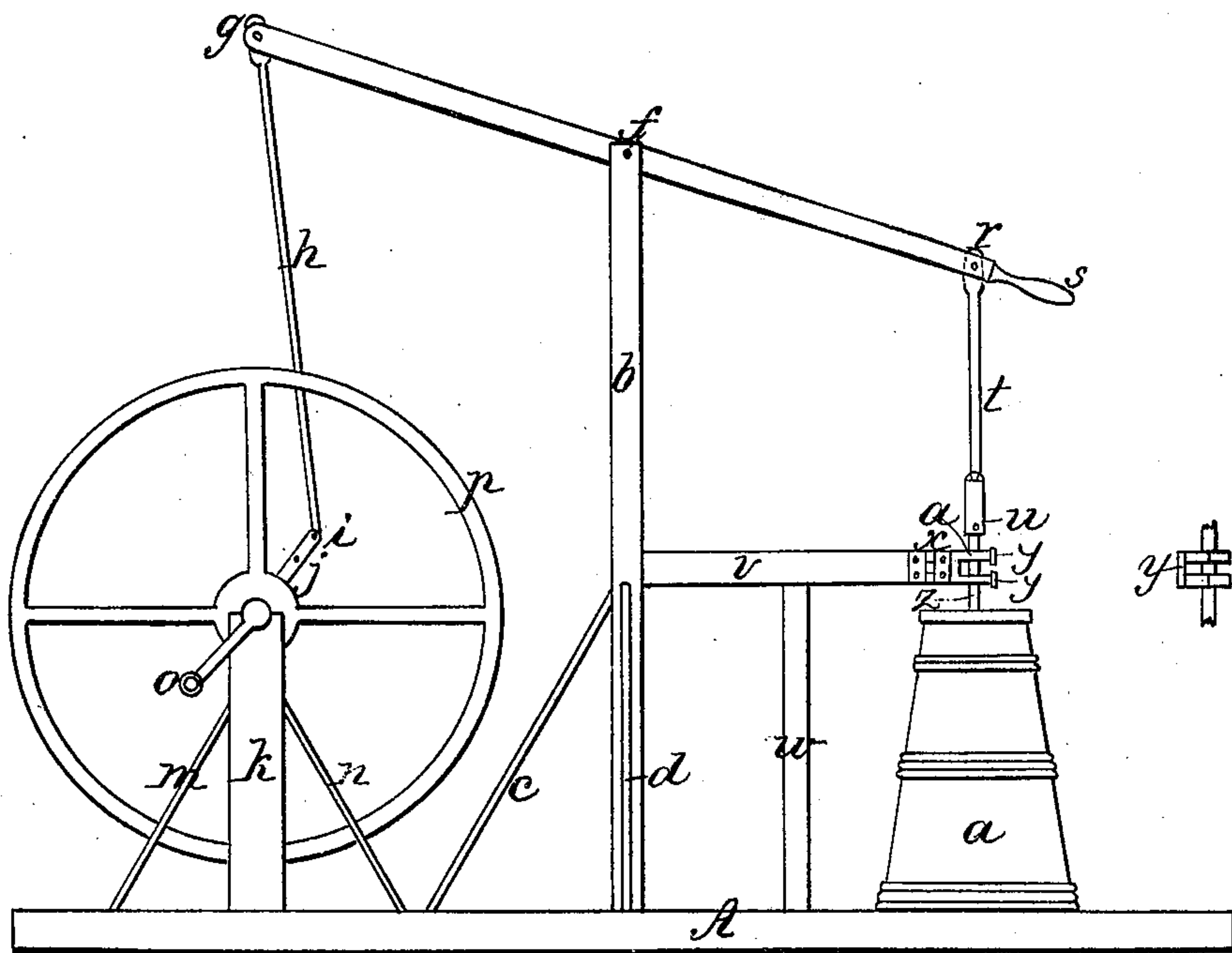


*McManis & Merryman,*

*Churn.*

*No. 90,674.*

*Patented June 1, 1869.*



*Witnesses*

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# UNITED STATES PATENT OFFICE.

WALTER S. McMANUS AND ROBERT S. MERRYMAN, OF BRUNSWICK, MAINE.

## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 90,674, dated June 1, 1869.

*To all whom it may concern:*

Be it known that we, WALTER S. McMANUS and ROBERT S. MERRYMAN, both of Brunswick, in the county of Cumberland and State of Maine, have invented a new and useful Improved Churn; and we hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use our invention, reference being had to the accompanying drawings, forming part of this specification, in which is shown a side elevation of our invention.

The invention relates to a new and improved manner of operating a churn-dash.

In the drawings, *a* is the churn-body, which is bolted in such manner that it can be removed at pleasure from the base or platform *A*. Rising from the center of the said platform is the standard *b*, held securely by braces *c d*. At the top this standard *b* is notched or bifurcated, so as to receive the horizontal vibrating arm *e*, which is pivoted in the said notch on the pivot *f*.

At *g*, at one end of the arm *e*, is pivoted the vertical connecting-rod *h*, which connects with the crank *j* at *i*, the crank being rigidly connected with the shaft of the balance-wheel *p*, which wheel is rigidly set upon its shaft.

*o* is the hand-crank of the wheel *p*. As *o* is moved the rotation of the wheel *p*, through the rod *h*, imparts a vibratory vertical motion to *e*. At *r* the connecting-rod *t* is pivoted to *e*. This arm *t* is pivoted, at *u*, to the dasher *z* of the churn.

A horizontal arm, *v*, projects from the upright *b*, and is supported by the shorter upright *w*. Through the end of this arm the

churn-dash rises and falls. An aperture in the said end is prepared for the dasher; and in order to admit of its ready and easy introduction and removal, a hinged part, *a'*, is constructed, capable, by reason of the hinge *x*, of being swung to and fro, to release or hold in place the dasher, as desired.

When this hinged part is shut, as in the drawing, it is held by metal clamps *y y*, which can be slipped off when it is desired to throw back the hinged part and release the dasher *z*.

The pivot at *r* and the pivot at *u*, with this perforated arm *v*, secure the true vertical movement of the dasher.

A handle, *s*, will also move the dasher when properly manipulated, and the wheel *p* then much assists the power.

*m n* are braces to the supports *k*, in which the shaft of the wheel *p* runs.

When the operation of churning is completed, the churn is removed by taking out the pin at *u*, removing clamps *y y*, throwing back the hinged part *a*, and thus releasing the dasher.

What we claim as our invention, and desire to secure by Letters Patent, is—

The machine herein described, composed of all the described parts conjointly, for operating the churn-dasher *z*—viz., base *A*, wheel *p*, crank *j*, rod *h*, arm *e*, standard *b*, rod *t*, arm *v*, with its hinged part *a'*, clamps *y y*, and support *w*, as herein set forth.

WALTER S. McMANUS.

ROBERT S. MERRYMAN.

Witnesses:

H. W. GREEN,

AMHERST WHITMORR.