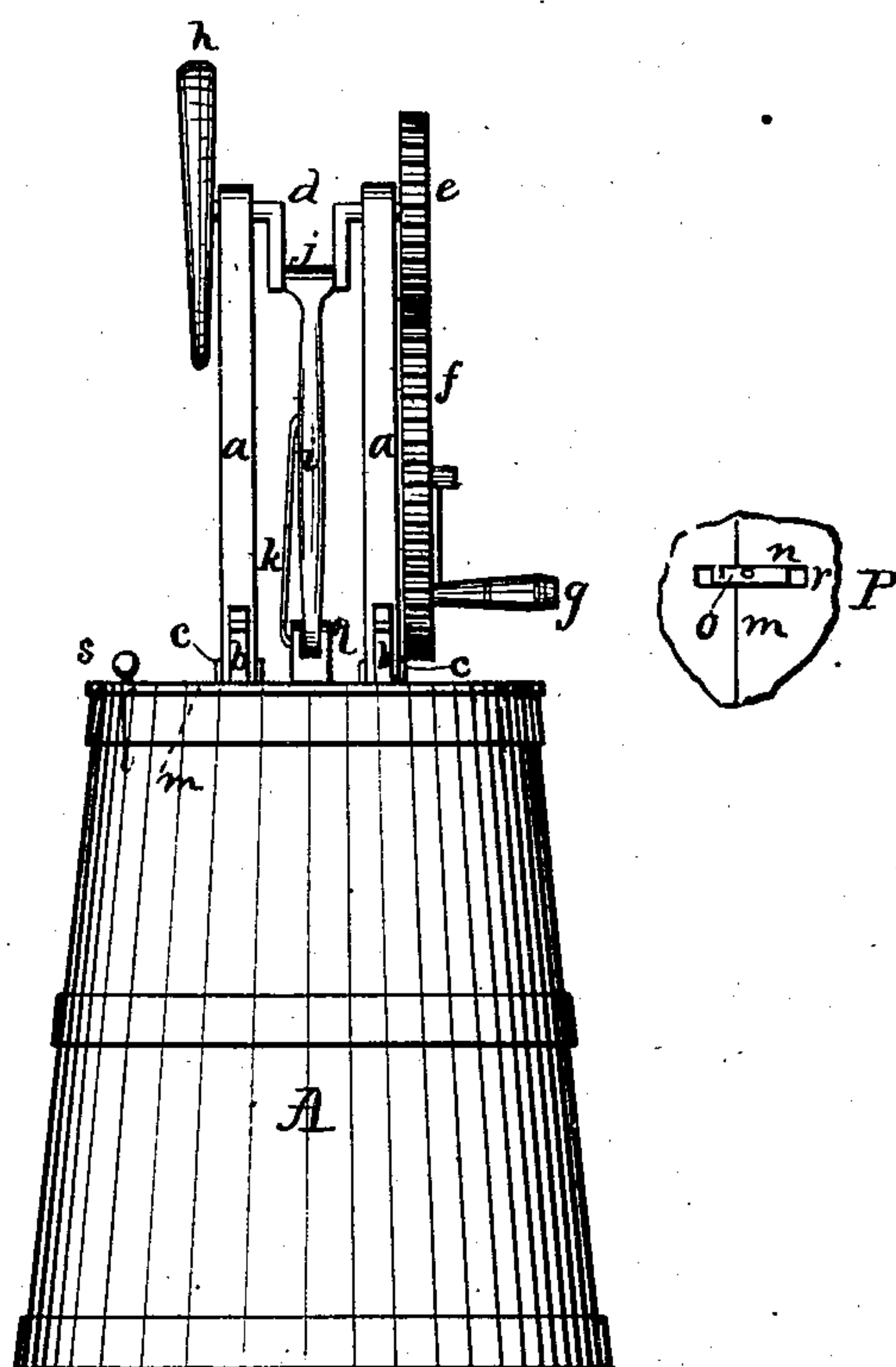


Morse & Sawyer

Churn.

Nº 76,649.

Patented Apr. 14, 1868.



Witnesses:

Henry C. Houston
Thurman, Hanson.

Inventors:

Marshall Morse
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Per atty W. H. Hifford

United States Patent Office

MARSHAL MORSE AND P. W. SAWYER, OF GRAY, MAINE.

Letters Patent No. 76,649, dated April 14, 1868.

IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, MARSHAL MORSE and P. W. SAWYER, of Gray, 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 consists in a combination and arrangement of certain devices for giving motion to the dasher of a common cylindrical, single-dasher churn.

These devices are so arranged that they may be removed from the churn when not in use, thus being more easily kept clean. They may also be readily attached to the old-fashioned churn. An arrangement of the cover, by which a portion may be raised while the churn is in operation, and which will be hereafter described, forms a part of our invention.

The description of the drawings is as follows:

A shows the body of the cylindrical churn; *a a* are two upright standards secured to the cover of the same by the slides *b b*. These slides are received by corresponding grooves in the metal sockets *c c*, permanently attached to the churn-cover. In the drawing they are shown as slid into the grooves, fastening the standards, as when in use.

Passed through the upper end of the posts *a a* is a crank-shaft, *d*. To one end of this shaft is attached the pinion, *e*, meshing into and receiving its revolution from the geared wheel *f*, moved by the crank *g*. At the other end of the shaft *d* is the balance-wheel, *h*, weighted on one side, so as to assist the operator by its momentum in raising the dasher and rod, and to counteract the uneven and jerking motion which would result from the revolution of the crank-shaft *d* when the same was descending. The weighted part of the balance-wheel *h* is always on the opposite side of the circle from the crank of the shaft *d*. The driving-rod *i* is attached to the crank at *j*, and is furnished with a spring-catch, *k*, which passes through the driving-rod and dasher, *l*, of the churn, as shown by the dotted lines. The spring keeps the dasher in place when the churn is in operation, and allows it to be withdrawn when the driving-apparatus is to be removed.

Our arrangement for removing a portion of the cover, to allow the operator to look at the interior of the churn, if necessary, while in use, is made as follows:

m shows the division-line between the parts of the cover; and across this, running in corresponding grooves, *n*, on either side, is placed the metallic slide *o*, two or more of which are to be used.

When the slide is in the position shown in the detail P, the two portions of the cover are securely fastened, but by pushing the slide *o* toward *r*, it is drawn out of the smaller portion of the cover, which may then be lifted by the handle or knob *s*, exposing the interior of the churn. These two adjoining parts of the cover may be furnished with overlapping shoulders, to form a close joint between them.

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

The single-dash churn as described, said dash being operated by crank *g*, gear *f*, pinion *e*, crank-shaft *d*, irregular balance-wheel *h*, driving-rod *i*, having the spring-catch *k*, said churn also having the slides *b*, sockets *c*, and slides *o* moving in grooves *n* on divided cover *m*; the said driving-devices also being intended to be removable, as described, for the purpose of being attached to any common cylindrical churn, and all as set forth.

MARSHAL MORSE,
P. W. SAWYER.

Witnesses:

WM. H. CLIFFORD,
HENRY C. HOUSTON.