

J. M. Elroy.

Churn.

No. 93462.

Patented Aug 10. 1869.

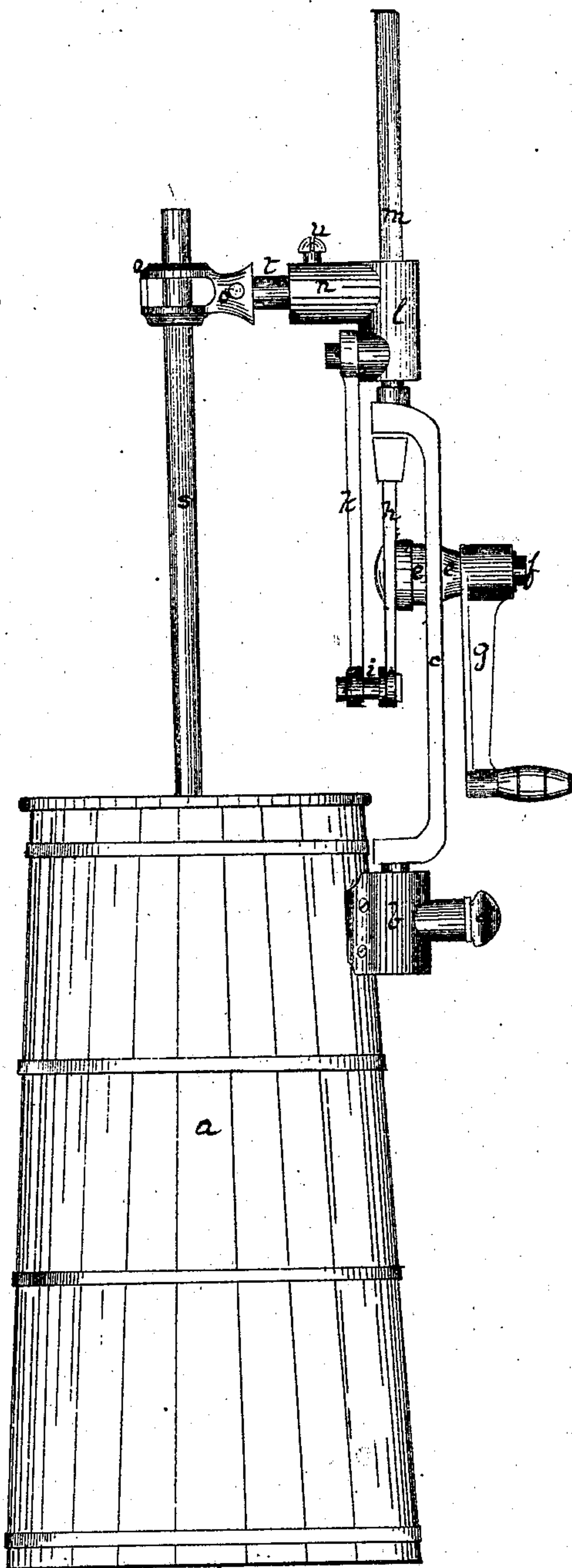


Fig. 1.

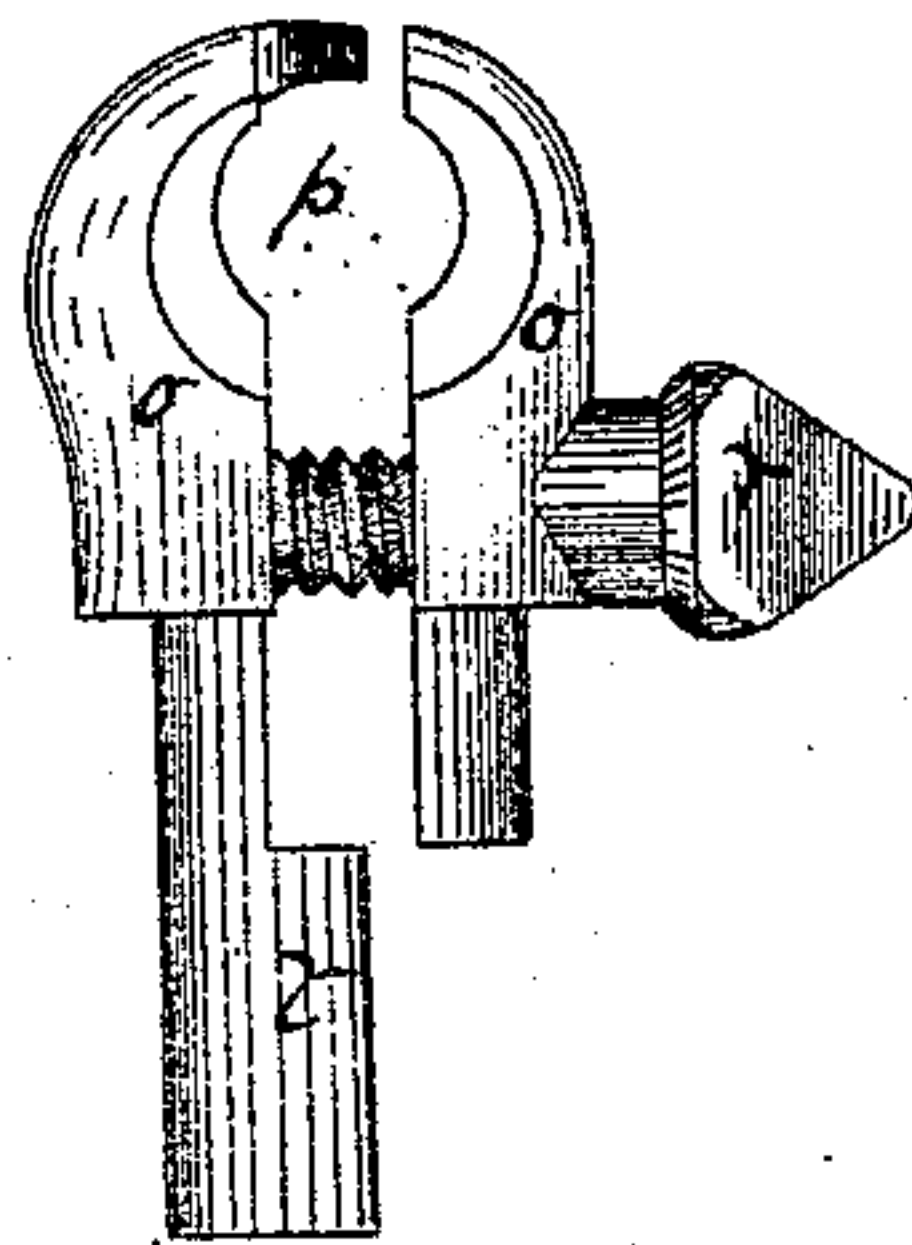


Fig. 2.

Witnesses:
R. W. Wrenshall
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Inventor:
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by Bakewell Johnson,
his Atty.

United States Patent Office.

JAMES McELROY, OF ALLEGHENY CITY, PENNSYLVANIA.

Letters Patent No. 93,462, dated August 10, 1869.

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 I, JAMES McELROY, of Allegheny city, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Attachment for Churns; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a side elevation of a churn, with my improved apparatus attached, and

Figure 2 is a plan view of the clip, by which the dasher-rod is connected to the attachment.

Like letters of reference indicate like parts in each.

The nature of my invention consists in such construction and arrangement of an improved churn-attachment, that

First, the working-parts shall be vertically outside the body of the churn, so that oil used in lubricating the working-parts cannot drip down on to or into the churn;

Second, the clip-shaft or stem shall be adjustable in the working-parts of the attachment, so as to operate with any-sized churn;

Third, the crank-shaft shall be adjustable, so as to give any desired length of stroke to the dasher; and

Fourth, the clip, by its improved construction, is easily and conveniently attached to or removed from the dasher.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and mode of operation.

In fig. 1—

a represents the barrel of a churn, to which is attached, in any convenient way, a bracket, *b*.

In a hole passing vertically through the bracket *b* is set the tapering end of an upright frame, *c*, which is held firmly in place by a set-screw, *d*.

Passing through and working in a socket, *e*, in the frame *c*, is a short shaft, *f*, on the outer end of which is a crank, *g*, and fastened to the inner end is a rotating arm, *h*, having one end attached, by a wrist, *i*, to a crank-shaft, *k*.

The upper end of the crank-shaft is fastened to a sliding box, *l*, which plays up and down on a rod, *m*.

The rod *m* is a continuation of the frame *c*.

Projecting from the side of the sliding box *l* is a

sleeve, *n*, into which slides and is fastened the stem *t* of a clip, *o*.

The handle *s* of the churn-dasher passes through the hole *p*, fig. 2, between the two opposite jaws of the clip.

The clamp-screw is turned up, and the handle is tightly grasped between the jaws of the clip.

By turning the crank *g*, a rotary motion is given to the arm *h*, and through the crank-shaft *k*, a reciprocating motion to the sliding box *l*, and to the dasher of the churn.

The clip *o* can be adjusted to suit any-sized churn, by simply pushing in or drawing out the clip-stem *t*, and securing it in the required position, by tightening the set-screw *u*.

When it is desired to remove the clip from the dasher, I unscrew the clamp *r*, and take out or slide back the removable side *x* of the clip, which leaves the dasher-rod free.

In the end of the rotating arm *h*, which is attached to the wrist *i*, I make a slot, so that the wrist may be moved up and down upon it and be secured, so as to give any length of stroke desired.

By this arrangement of the working-parts outside of the body of the churn, I guard against the danger of the oil used for lubricating-purposes dropping into or on to the churn. Also the up-and-down motion, which is so much preferred in butter-making, is secured, with comparatively little labor.

What I claim as my invention, and desire to secure by Letters Patent, is—

1: The clip *o*, having a loose or removable jaw, *x*, adjustable by a stem, *t*, in a sleeve or socket, *n*, the latter being attached to a sliding box, *l*, substantially as and for the purposes set forth.

2. In a churn-attachment, the sliding box *l* and shaft *k*, adjustable in a rotating arm, *h*, in combination with a frame, *c*, so made as to be attached by a bracket, *b*, to the barrel of the churn, substantially as described.

In testimony whereof, I, the said JAMES McELROY, have hereunto set my hand.

JAMES McELROY.

Witnesses:

A. S. NICHOLSON,
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