

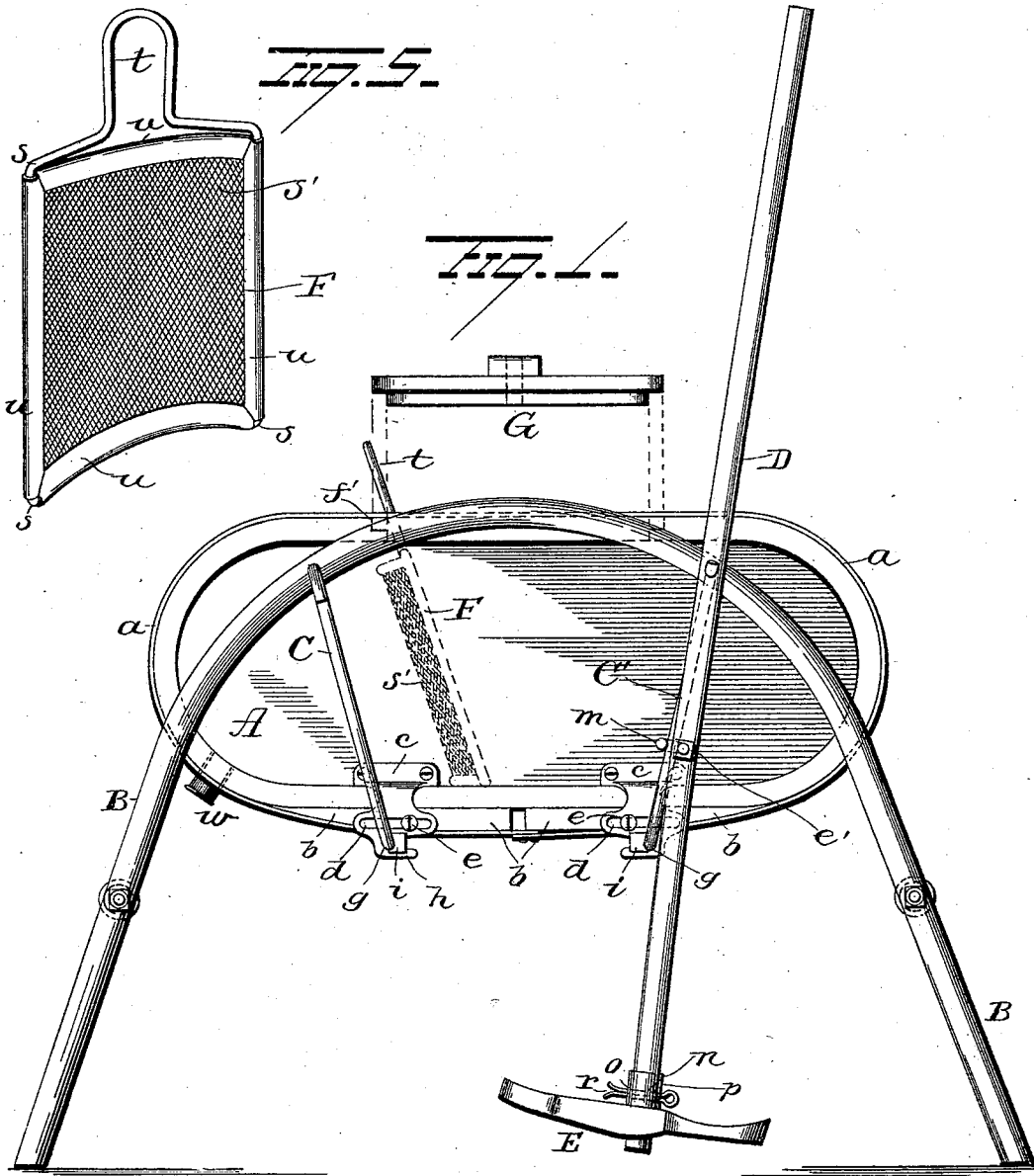
(No Model.)

2 Sheets—Sheet 1.

W. H. CURTICE.
CHURN.

No. 532,644.

Patented Jan. 15, 1895.



Witnesses
E. J. Nottingham
G. F. Downing

Inventor
William H. Curtice
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Attorney

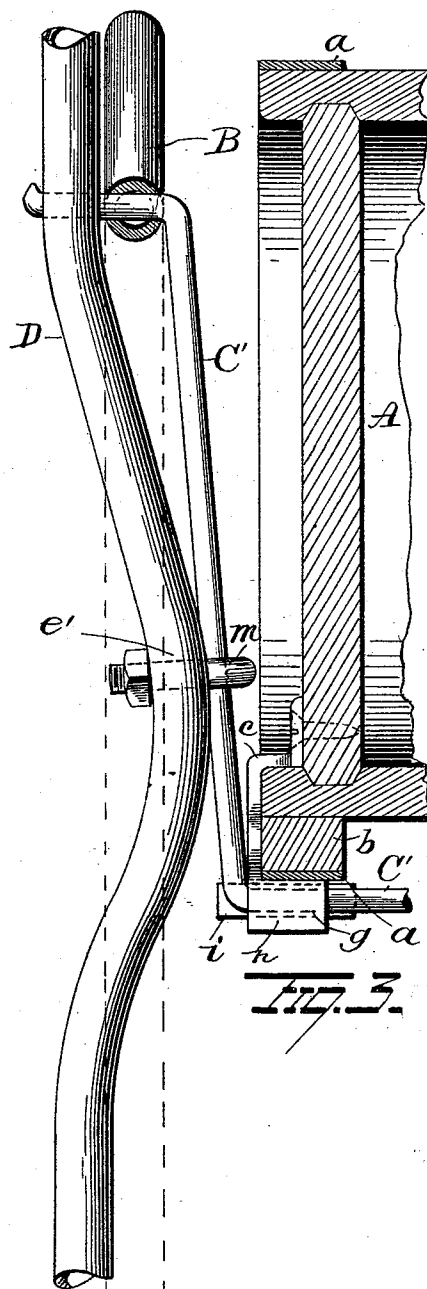
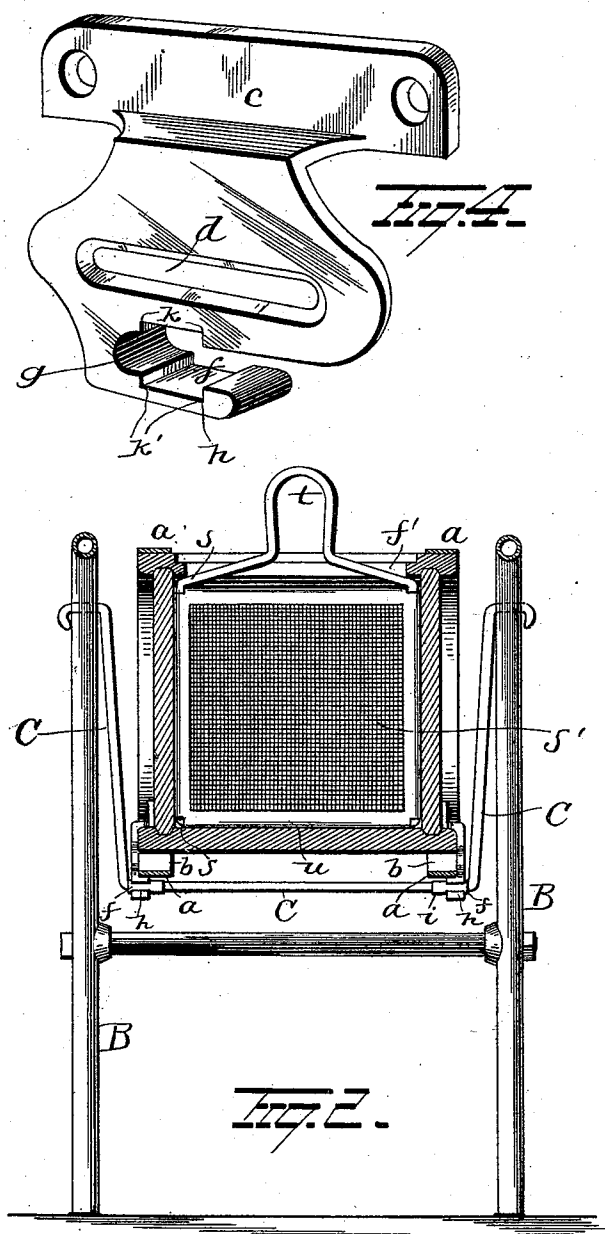
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

WILLIAM H. CURTICE, OF EMINENCE, KENTUCKY.

CHURN.

SPECIFICATION forming part of Letters Patent No. 532,644, dated January 15, 1895.

Application filed August 9, 1894. Serial No. 519,868. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. CURTICE, of Eminence, in the county of Henry and State of Kentucky, have invented certain new and useful Improvements in Churns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in churns, preferably of the class known as swinging churns, and it consists in certain novel features of construction and combinations of parts as will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of my improvement in side elevation, showing the screen or strainer in dotted lines. Fig. 2 is a vertical transverse section of the same, showing the screen or strainer in its operative position. Fig. 3 is a view showing the manner of attaching the handle to one of the swinging arms or rods; and Figs. 4 and 5 are detached views of the supporting bracket and screen or strainer, respectively.

A represents the churn body; *a, a*, the hoops thereof; *b, b*, the adjusting wedges, and *c, c*, the supporting brackets, which latter are each provided with an oblong slot *d*, within which moves the screws or pins *e* carried by the adjusting wedges *b, b*. The upper face of the adjusting wedges *b, b*, rest against the bottom of churn A, while their lower faces rest against the inner faces of hoops *a, a*.

The churn body A is held together by means of the hoops *a, a*, which latter are tightened and retained in their normal position by the wedges *b, b*, said wedges being so constructed and arranged that they can be forced apart in order to tighten the hoops *a, a*, without interfering with any of the other parts of the churn or its attachments, the wedges being retained against displacement by the screws or pins *e*, which latter when the wedges are moved in either direction are adapted to travel in the oblong slots or grooves *d*, and hence any tendency on the part of the wedges to depart from their course is obviated.

The supporting brackets *c, c*, are each provided on their lower ends with an open slot *f*, the inner portion of which latter constituting a bearing *g*, while the forward portion

thereof is of greater diameter than said bearing *g*, whereby a recess *h* is formed for the reception of keys *i*, the latter being retained against sidewise movement by the shoulders *k, k'* at the inner and outer ends of slots *f*.

The body portion of churn A is provided in its top with an opening *f'* and this is closed by the removable lid G.

The supporting frame B of the churn is preferably constructed of pipe or tubing and of the form shown in the drawings. To the frame B are pivotally connected the swinging arms or rods C, C', which are substantially U-shaped and extend from one side of frame B to the opposite side thereof. The swinging arms or rods C, C', are loosely mounted in bearings *g*, located in supporting brackets *c, c*, which latter are secured to the sides of churn A in any desired manner, and hence it will be seen that the latter is movably supported on the frame B.

The outer or pivotal end of swinging arm or rod C' is so arranged as to constitute the pivotal point and connection for handle D, which latter is also rigidly secured to said arm or rod C' at the point *e'*, by means of the fastening *m*, and hence it will be noticed that when handle D is moved, arm or rod C' is necessarily moved. Consequently the churn body is vibrated. At or near the lower end of handle D is located a hole or opening *n*, which is in open communication with both sides thereof, and is adapted to register with a like opening *o* passing through the collar *p* of treadle E. When the collar of treadle E is slipped over the end of handle D, the holes *n, o*, are adapted to register so as to receive the spring key *r*, by means of which the treadle E is removably secured to the handle D.

When the churning has been completed, the wire screen or strainer F is placed within the churn body A as shown in the drawings. This wire screen or strainer F, consists of a frame *s*, wire netting or fabric connected to said frame and a handle *t*, by means of which the screen or strainer is manipulated and held in position with the churn. In order to make the screen or strainer have a finished appearance at the juncture of frame *s* and wire fabric *s'*, a series of narrow metal strips *u* are soldered around frame *s* and fabric *s'*, which not only accomplishes the result above noted,

but prevents the wire fabric from becoming loose or detached and further renders the entire device stronger. The wire screen or strainer is preferably bent substantially in the arc of a circle and when placed in the position disclosed in the drawings, is prevented from being displaced by the handle *t*, which latter abuts against one end of opening *f'* in the top of churn *A*.

10 When it is desired to draw off the milk, the churn is first tilted in the desired direction, which causes the butter and milk to assemble in the lower end of the churn. The wire screen or strainer is then inserted, after which
15 the churn is tilted in the opposite direction, which causes the milk to pass through the wire fabric *s'*, and out of the opening *w*, located in said tilted end of churn, the butter being caught by the screen. After the milk
20 has been drained off, the butter can be removed by simply removing the screen or strainer *F*.

It is evident that changes in the construction and relative arrangement of the several
25 parts might be made without avoiding my invention and hence I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but,

30 Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a churn, the combination with a churn body, of hoops around the body and secured together at the ends, wedges inserted between
35 the body and the hoops and adapted to be forced apart to tighten the hoops, brackets secured to the churn body, screws passed through the brackets into the wedges whereby to hold them in place, substantially as set
40 forth.

2. In a churn, the combination with a frame, a churn body, and hangers hinged to the frame and supporting the churn to swing back and forth, of brackets having bearings therein to
45 receive the hangers, keys in said brackets to retain the hangers in the bearings, hoops around the body, said hoops having their ends secured together, wedges interposed between the body and hoops, and screws passed through
50 elongated slots in the brackets into the wedges whereby to hold said wedges in position when adjusted, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing
55 witnesses.

WILLIAM H. CURTICE.

Witnesses:

H. R. CAMP,

JAMES H. PATTERSON.