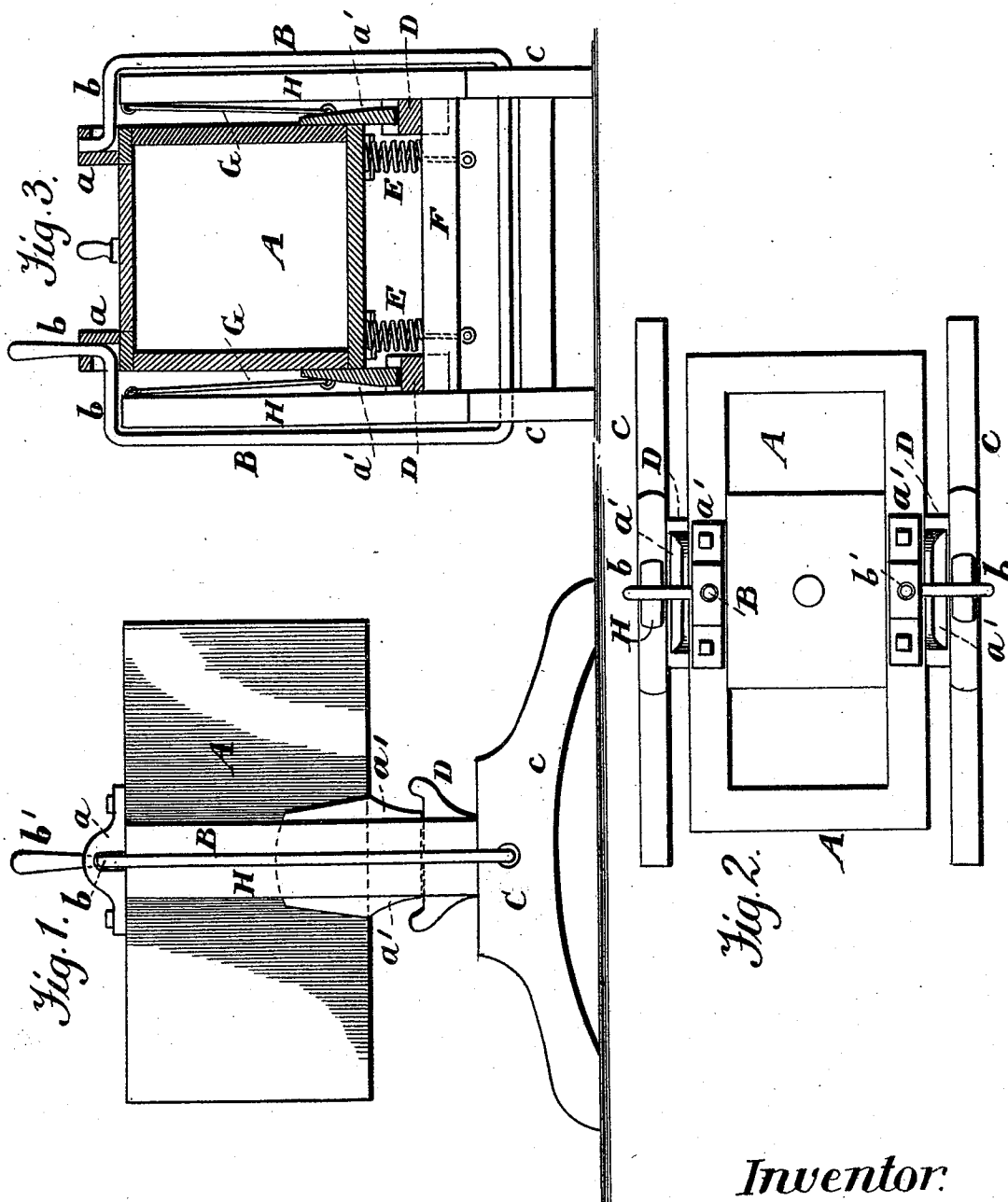


(No Model.)

A. M. LANCE.
CHURN.

No. 499,234.

Patented June 13, 1893.



Witnesses.
A. Ruppert.
G. B. Towles

Inventor:
Andrew M. Lance
Per
Thomas P. Simpson
att'y

UNITED STATES PATENT OFFICE.

ANDREW M. LANCE, OF BELLOWSVILLE, PENNSYLVANIA.

CHURN.

SPECIFICATION forming part of Letters Patent No. 499,234, dated June 13, 1893.

Application filed May 31, 1892. Serial No. 435,107. (No model.)

To all whom it may concern:

Be it known that I, ANDREW M. LANCE, a citizen of the United States, residing at Bel-
lowsville, in the county of Beaver and State
5 of Pennsylvania, 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
10 it appertains to make and use the same.

The special object of the invention is to
make a churn which may be conveniently
operated, without gearing, hand-crank shafts,
or other operative mechanism, but simply by
15 combining hand power with springs as here-
inafter described.

Figure 1 of the drawings is a side-elevation,
Fig. 2 a vertical horizontal section, and Fig.
3 a vertical cross-section.

20 In the drawings, A represents an oblong
churn body with any preferred detachable
cover and two side-flanges *a a* on the upper
face, opposite to each other. These flanges
are provided with vertical and horizontal
25 holes communicating with each other, to re-
ceive the angled ends *b b* of the yoke B, which
is journaled in the base of the frame C. This
enables the churn body to be vibrated by the
handle *b'* back and forth, for the purpose of
30 agitating the cream.

E are spiral springs which connect the bot-
tom of the churn body at each end with the
crossbars F F.

To the sides and at the middle of the churn-
35 body are attached the plates *a' a'* which pro-
ject down nearly to the blocks D and are con-
nected to the upper part of the posts H H by
the end-pivoted rods G which serve to regu-
late both the longitudinal and lateral move-
40 ments of the body. The cream having been

poured into the churn body at a proper tem-
perature, the operator pushes or pulls the
churn, by means of the handle *b'*, down at
one end and lets it go; the springs then cause
it to vibrate in diminishing arcs until another 45
impulse is given with the hand. This mode
of operation is continued for a few minutes
when the butter will "come" and require to
be treated in the usual manner. The rods G
support the whole weight of the churn until 50
it is thrown on its ends when the plates,
which do not turn on the blocks, meet the
ends of the blocks so as to stop the downward
motion, causing the cream to receive a sud-
den jar. At this time, the weight is on the 55
blocks, but as soon as the churn is started
back by the springs, the weight is assumed
by the rods. Thus it will be seen that the
springs keep the churn in constant motion,
necessitating very little effort on the part of 60
the operator.

Having thus described all that is necessary
to a full understanding of my invention, what
I claim as new, and desire to protect by Let-
ters Patent, is—

65 A churn consisting of the body A having
flanges *a a* and plates *a' a'*, a yoke B attached
at the upper ends to said flanges and jour-
naled at bottom in the supporting frame, the
blocks D D and spiral springs E E on a cross- 70
bar F and the rods G connecting the plates
a' a' with the upper ends of the posts H H,
all arranged substantially as shown and de-
scribed.

In testimony whereof I affix my signature in 75
presence of two witnesses.

ANDREW M. LANCE.

Witnesses:

H. C. MACKALL,
J. A. SUTHERLAND.