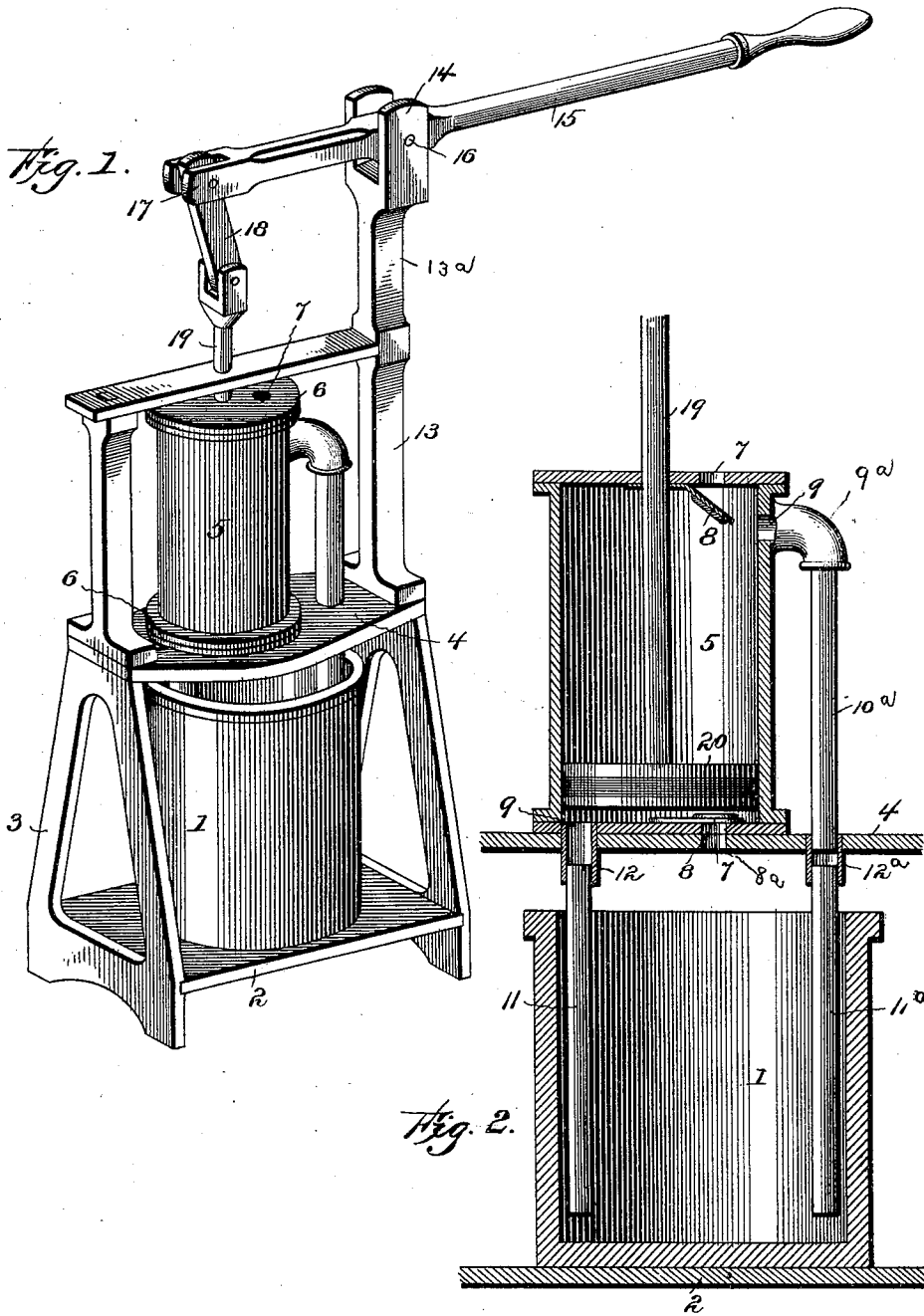


(No Model.)

A. MEARNS.
CHURN.

No. 586,908.

Patented July 20, 1897.



Witnesses
John Enders, Jr.
R. H. F. Ogilvie

Inventor
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UNITED STATES PATENT OFFICE.

ANDREW MEARNs, OF MAYSVILLE, KENTUCKY, ASSIGNOR TO L. W. GALBRAITH, OF SAME PLACE.

CHURN.

SPECIFICATION forming part of Letters Patent No. 586,908, dated July 20, 1897.

Application filed August 20, 1896. Serial No. 603,369. (No model.)

To all whom it may concern:

Be it known that I, ANDREW MEARNs, a citizen of the United States, residing at Maysville, in the county of Mason 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.

In the accompanying drawings, Figure 1 is a perspective view of my improved churn, and Fig. 2 is a sectional view thereof.

In both of the figures the same numeral indicates the same part.

The present invention relates to that class of churns in which the cream is agitated to break up the butter globules by means of compressed air which is forced down into the body of the cream. The object of the invention is to provide improved means whereby superior results are produced with respect to efficiency in use.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the said drawings the reference-numeral 1 designates a cylinder, open at the upper end, which serves as the cream-receptacle. This cylinder rests upon a stand 2, provided with standards 3, provided with a top 4. Seated in said top is an air-compressing cylinder 5, closed at the top and bottom by means of heads or ends 6. These heads are formed with openings 7, provided with inwardly-opening check-valves 8. The opening 7 in the lower end or head registers with a corresponding opening 8^a in the top 4. Also formed in said lower head or end is an opening 9, in which fits a socket 12, with which telescopes a tube 11, leading down to near the bottom of cylinder 1. Near the upper end of cylinder 5 is a joint or coupling 9^a, with which is connected a pipe 10^a, the lower end of which telescopes in a socket 12^a, passing through a hole in the top 4. Also telescoping with said socket is a pipe 11^a, extending down to near the bottom of cylinder 1.

The numeral 13 designates a frame secured

to the top 4 and is provided with an extension 13^a, the upper end of which is pivoted to a lever 15, the inner end of which is bifurcated, forming lugs 17, to which is pivoted a link 18, also pivoted to the upper end of a piston-rod 19, having a piston 20 secured to its lower end.

The operation is as follows: The receptacle 1 is filled with cream and the piston is operated by means of the lever to force air into the cylinder to break up the butter globules. On the upstroke of the piston air is drawn into the cylinder through the valve in the bottom and forced out through pipes 10^a and 11^a into the body of the cream, the valve in the upper end of the cylinder closing. Upon the return or down stroke the valve in the upper end of the cylinder will open to admit air thereinto and the valve in the bottom will close. The air will now be forced through pipe 10 into the cream contained in the cylinder or receptacle 1. By this means the air is alternately forced through the pipes 11 and 11^a, whereby a continuous supply is fed into the cream, thereby facilitating the formation of the butter. When the churning is completed, the pipes 11 and 11^a are detached from their sockets and the receptacle 1 removed.

Having thus fully described my invention, what I claim is—

In a churn of the character described, the combination with the stand, the standards and the top having holes therein, of the removable cream-receptacle, the sockets seated in said holes in the top, the downwardly-depending pipes removably connected with said sockets, of the cylinder located on said top having openings in the upper and lower ends and those in the lower ends registering with holes in said top, the alternately-operating check-valves, the opening near the top of said cylinder, the pipe connected therewith and with one of said sockets, and the pistons and piston-rod substantially as described.

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

ANDREW MEARNs.

Witnesses:

C. BURGESS TAYLOR,
T. D. SLATTERY.