

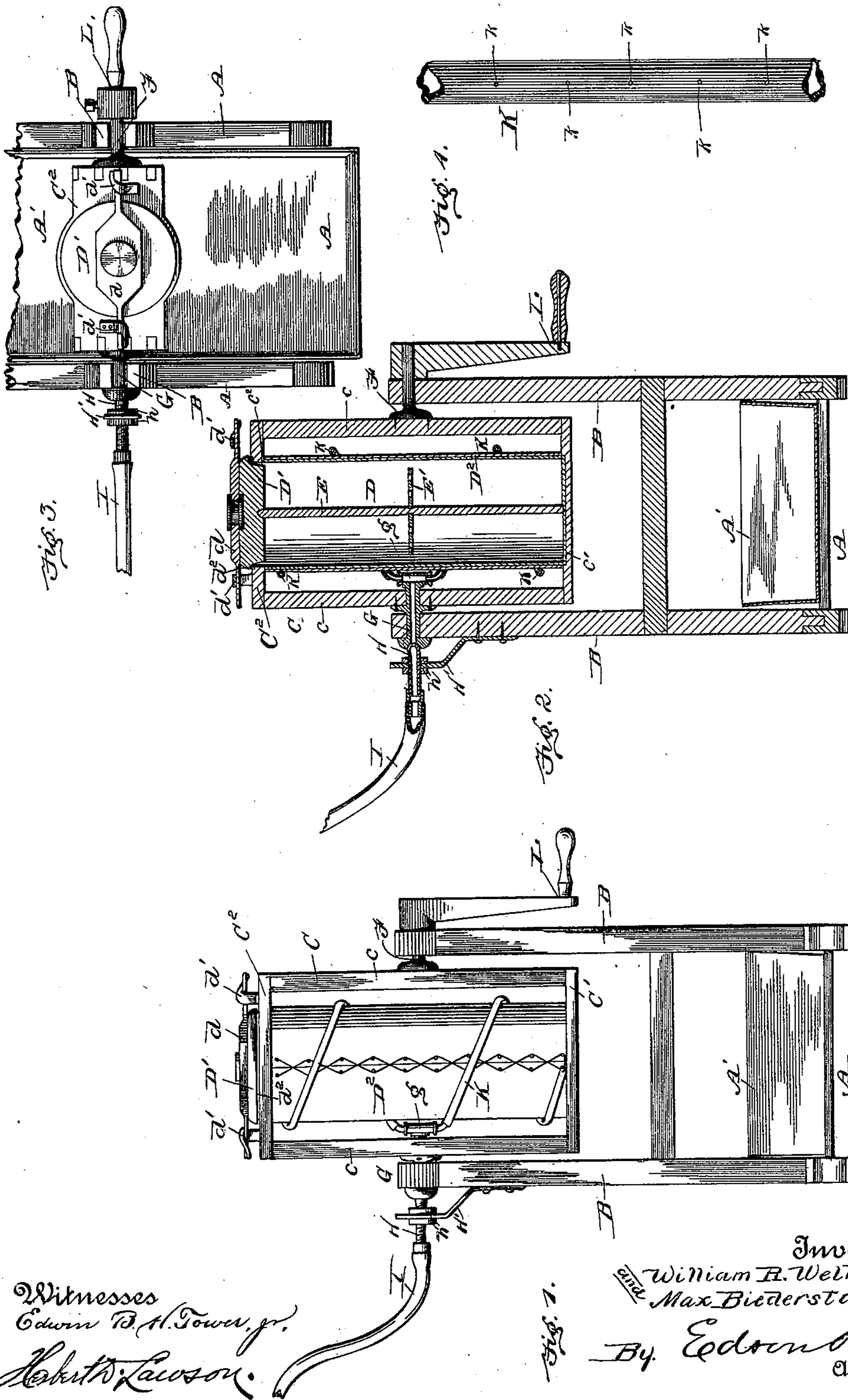
No. 652,906.

Patented July 3, 1900.

W. R. WELKE & M. BIEDERSTAEDT.
CHURN.

(Application filed Oct. 26, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM R. WELKE AND MAX BIEDERSTAEDT, OF DALLAS, TEXAS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 652,906, dated July 3, 1900.

Application filed October 26, 1899. Serial No. 734,866. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM R. WELKE and MAX BIEDERSTAEDT, citizens of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Churns; and we 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.

This invention relates to a new and useful improvement in churns, and its objects, among other things, are to provide a simple device more durable in construction than heretofore and one which is cheap of manufacture, may be readily operated and cleaned, and is adapted to keep the contents thereof at a desired temperature.

To these ends the invention consists in the novel constructions and combinations of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of our invention, and in which—

Figure 1 is a front elevation of our churn. Fig. 2 is a central vertical section thereof. Fig. 3 is a top plan view. Fig. 4 is a view of a portion of the tubing enlarged. Referring to said figures by letters of reference, A is a base with upright standards B, arranged on either side thereof. Upon said base is adapted to rest a suitable pan or tub A', and between the standards B is mounted the churn-body, having a frame C, which is provided with trunnions bearing in the upper ends of the standards B. The frame is formed of a bottom C' and a top C², which are connected by strips c, as shown. The upper surface of the bottom C' is provided with a circular recess c', while a circular opening c² is formed in the top C² directly in alignment with said recess.

D is a cylindrical metallic can which passes through the opening c² and rests firmly in the recess c' in the bottom of the frame. The upper edge of the can lies flush with the top C² of the frame, and a cover D' may be placed thereover and locked in position, preferably by means of a cross-strip d, pivoted at the center thereto and fastened when in use by hooks d', secured to the top C². If desired,

rubber, as d², may be placed around the opening c², whereby the can be hermetically sealed when the cover is locked thereon.

At the middle of a rod E, either end of which rests in a socket in the center of the bottom and top of the can, respectively, is a disk-like dasher E', perforated, as shown, and preferably of slightly-less diameter than the internal diameter of the can.

The can D is provided with a cover D² of suitable material, as flannel, &c., and this is securely fastened thereto, preferably by means of lacing, whereby it may be quickly removed when desired.

As before stated, the frame C is provided with trunnions, which bear upon the standards B. One of the trunnions F is solid and is secured to the frame in any suitable manner, while the opposite trunnion G is preferably formed of pipe, which is revolvably mounted within a standard B and is secured to and projects through the frame C and is provided at its inner end with a T-joint g. Its opposite end is concaved and adapted to receive the convexed end of a short nipple or section of pipe H, which is supported by a suitable spring-bracket H', adapted to press the end thereof firmly into the concaved end of the trunnion G at all times, and thereby prevent all leakage at the joint. The tension of the spring-bracket H' may be regulated by means of nuts h, one to either side thereof, adapted to screw upon the pipe H and project the same inward more or less.

To the nipple H may be secured a hose, as I, leading from a suitable water-supply. The T-joint g has spiral rubber tubes K, closed at their outer ends and extending therefrom in opposite directions, said tubes encircling the can D and resting against the cloth covering thereof and provided with small perforations or apertures k throughout their length.

In operation milk is poured within the can D, the dasher is placed in position therein, and the cover D' locked thereon. Water is then admitted to the pipes I, H, and G and tubes K and the frame C turned upon its trunnions by means of a crank L or other suitable device secured to the solid trunnion F. The milk will play back and forth through the dasher as the frame revolves, while the water within the tubes K will ooze therefrom through

the apertures, soaking the cover D². The moisture in the cover will by reason of the revolution of the churn quickly evaporate, thereby cooling the contents of the cylinder.

5 It is obvious that any drippings from the cover D² will be caught by the pan A'. When the butter has formed sufficiently, the dasher and its rod may be removed, and the butter will then be brought quickly together into a solid
10 bulk by continuing the revolution of the can.

It is obvious that by this construction we secure a can which may be readily manipulated and cleaned and that owing to the even temperature which is maintained the forma-
15 tion of butter is expedited.

In the foregoing description we have shown the preferred embodiment of our invention; but we do not limit ourselves thereto, as we are aware that modifications may be made
20 therein without departing from the spirit or sacrificing the advantages thereof, and we therefore reserve the right to make such changes as fairly fall within the scope of our invention.

25 Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a churn, the combination, with the standards of a revoluble frame mounted there-
30 on, a can secured within said frame, means for hermetically sealing the same, perforated tubes encircling the can, and means for supplying water thereto during the operation of the churn, substantially as described.

2. In a churn, the combination with the 35 standards, of a frame mounted thereon, a hollow trunnion for said frame, a can secured within the frame, perforated tubes extending from the said trunnion and encircling the can, and means for supplying water to said pipes 40 during the operation of the churn, substantially as described.

3. A churn comprising the standards, a frame mounted thereon, a can secured to said frame, an absorbent covering detachably se- 45 cured to the can, and tubes encircling the can and having apertures therein, whereby water may be supplied from said tubes to the absorbent, substantially as described.

4. A churn comprising the tub-like base, 50 the standards, the frame mounted therebetween, a can secured within the frame, an absorbent covering therefor, a stationary rod detachably secured within the can, a circular perforated dasher secured to said rod, tubes 55 encircling the can and having apertures therein, said tubes secured to a hollow trunnion of the can, and means for supplying water to said tubes and trunnion during the operation of the churn, substantially as described. 60

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM R. WELKE.
MAX BIEDERSTAEDT.

Witnesses:

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