J. H. HELMS & J. E. BLACK.

AUTO OPERATING CHURN.

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944,965. Patented Dec. 28, 1909.

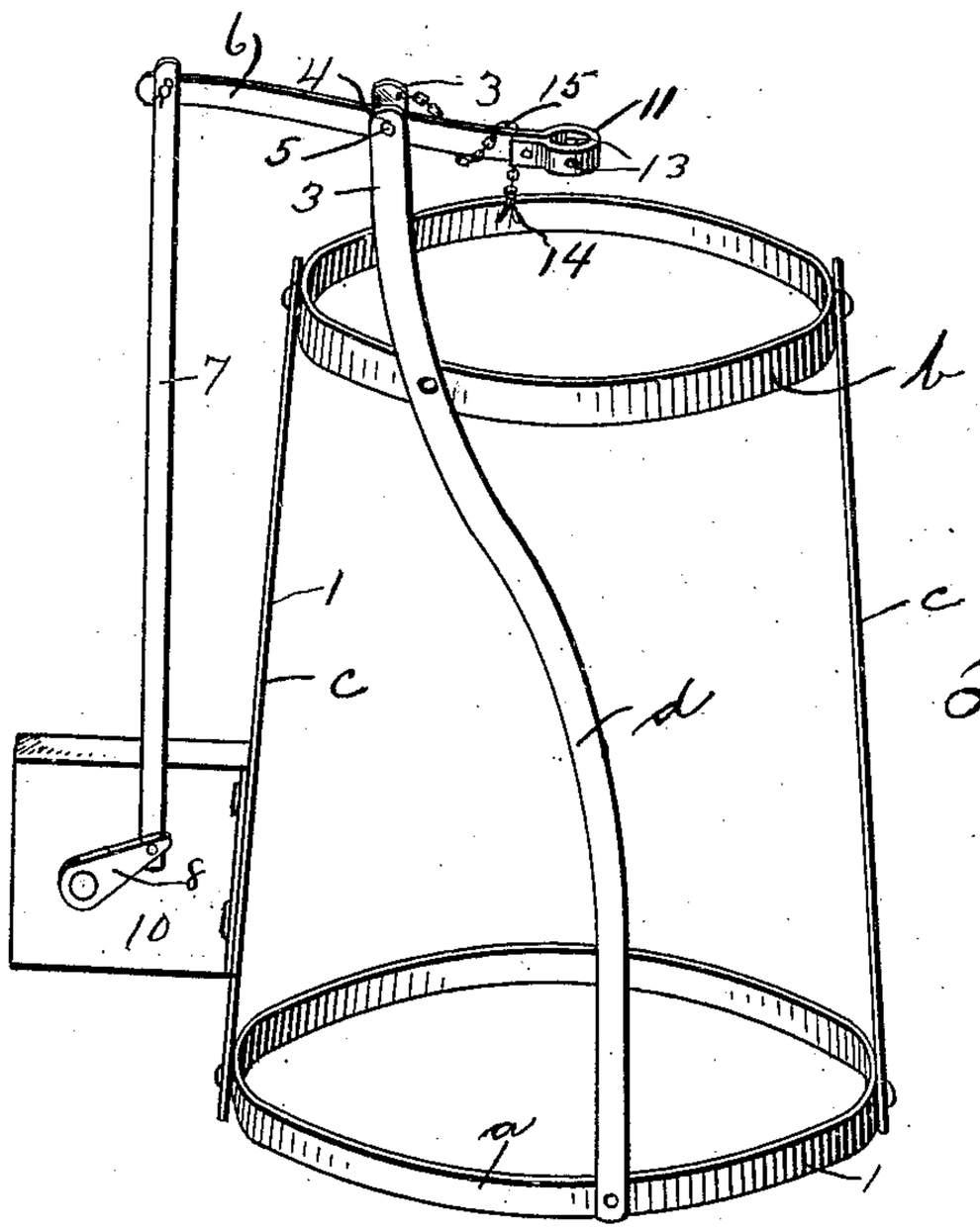

Fig. 1

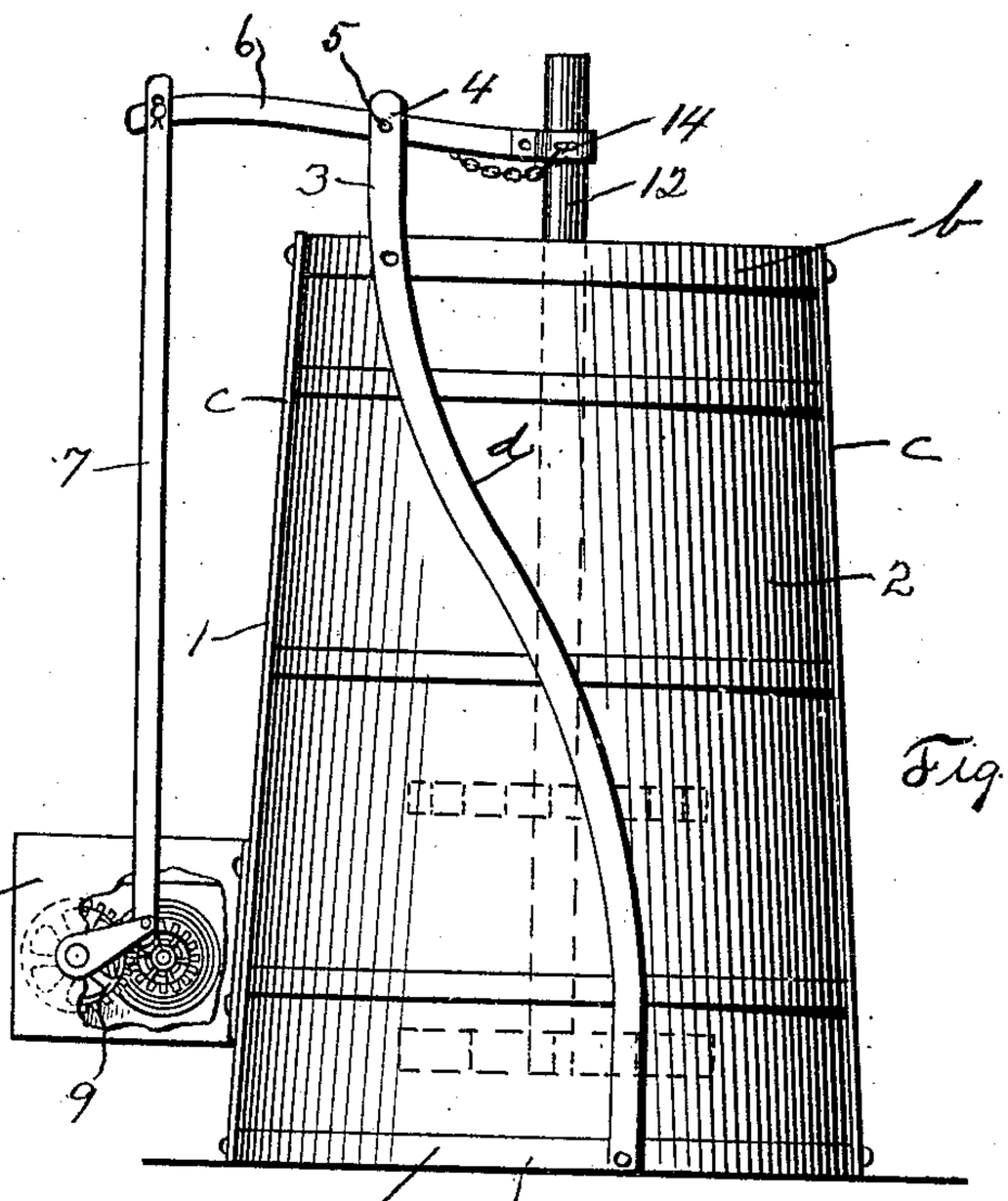

Fig. 2.

Witnesses

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JACOB H. HELMS AND JAMES E. BLACK, OF CHARLOTTE, NORTH CAROLINA.

AUTO-OPERATING CHURN.

· 944,965. Specification of Letters Patent. **Patented Dec. 28, 1909.**

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To all whom it may concern:

Be it known that we, JACOB H. HELMS and JAMES E. BLACK, citizens of the United States, residing at Charlotte, in the county of Mecklenburg and State of North Carolina, have invented a certain new and useful Improvement in Auto-Operating 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in an auto operating churn and consists of various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claim.

In describing the invention in detail reference will be had to the accompanying drawings forming part of this specification wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1, is a view in perspective of the invention. Fig. 2, is a view partly in elevation and partly in section of the invention with a churn applied.

In the drawings 1, denotes a metallic frame in which is placed the vertical dasher churn 2. This frame 1, has two arms 3, extending above the top of said frame provided with apertures 4, to receive a pin 5, which serves as a pivot for the horizontal lever 6. Pivotally secured to the outer end of the lever 6, is an end portion of the pitman 7, the opposite end portion of the pitman being pivotally secured to the crank 8. The crank 8, is operated by the spring motor 9, carried by the casing 10, said casing 10, being bolted or otherwise secured to the frame 1. The inner end portion of the horizontal lever 6, is provided with a metallic binding 11, which is adapted to receive and hold the dasher rod 12. The metallic binding is provided with alining openings 13, which are adapted to register with a suitable opening (not shown) in the dasher rod 12, all of said openings having passed therethrough a key 14, which locks the dasher rod to the binding. In order that the key may be of ready access it is carried by the chain 15, anchored to the frame 1.

The frame 1, comprises the bottom ring *a*, and the top ring *b*, united by the strips *c* and *d*, the arms 3, being extensions of the strips *d*. This frame 1, is placed over the churn, the ring *a*, embracing the lower portion thereof, while the ring *b*, surrounds the upper portion of the churn. It is to be observed that the motor casing 10, is secured to one of the strips *c* adjacent the lower end thereof.

We claim:—

In combination with a churn, a frame comprising an upper and a lower ring, and strips connecting said rings, said frame being adapted to embrace the churn, certain of said strips extending above the upper ring, a horizontal lever pivoted intermediate its length between the extensions of the strips, a coupling means carried by the inner end portion of the lever for engaging the dasher of the churn, a motor carried by one of the strips, and a connection between the motor on the outer end of the lever for operating the dasher.

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