

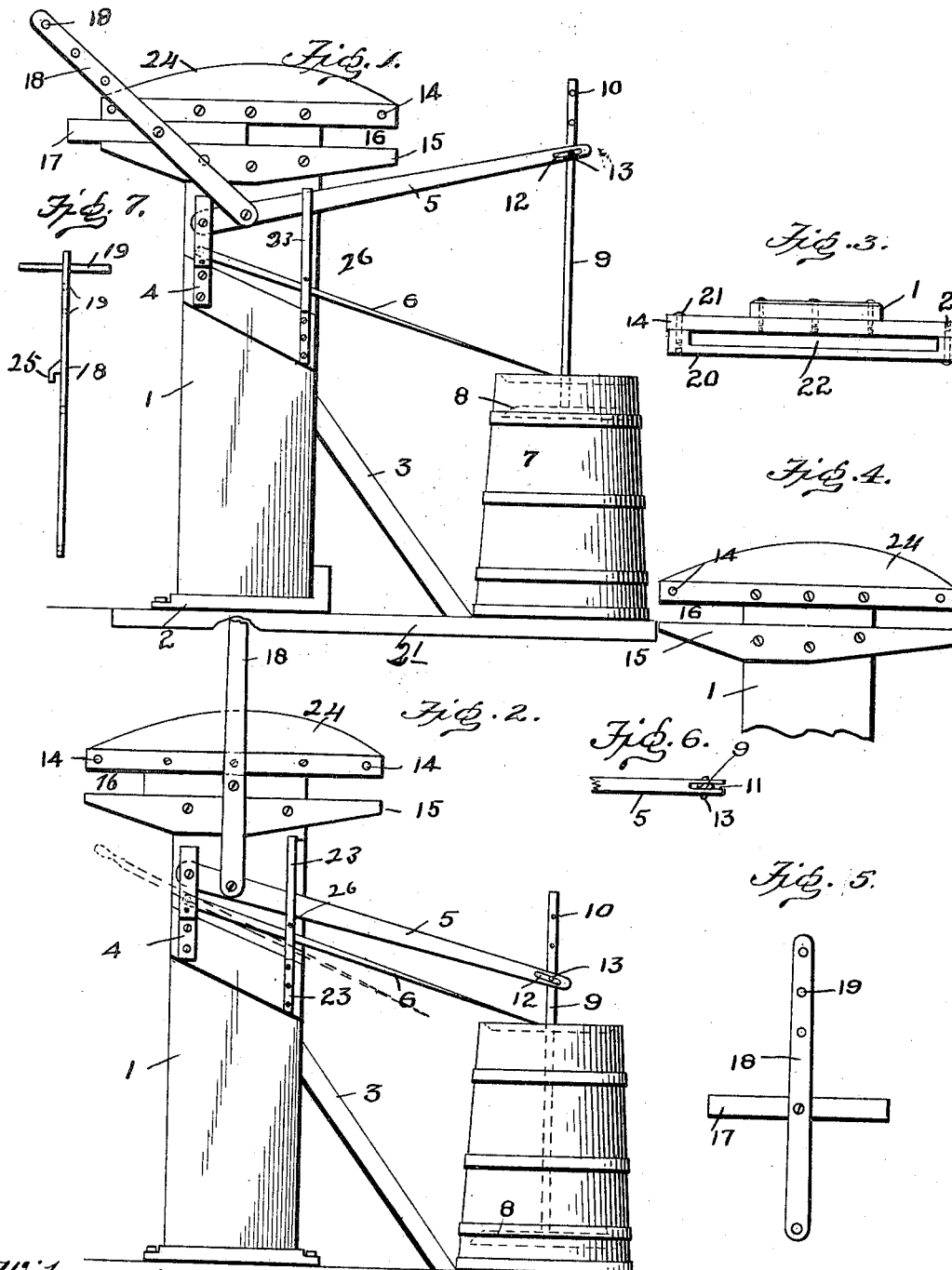
No. 649,557.

W. SMITH.  
CHURN.

Patented May 15, 1900.

(Application filed Aug. 18, 1899.)

(No Model.)



Witnesses:  
Mr. V. Thompson. Mr. Smith  
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Inventor  
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# UNITED STATES PATENT OFFICE.

WILLIAM SMITH, OF SPRINGDALE, ARKANSAS.

## CHURN.

SPECIFICATION forming part of Letters Patent No. 649,557, dated May 15, 1900.

Application filed August 16, 1899. Serial No. 727,360. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM SMITH, a citizen of the United States, residing at Springdale, in the county of Washington and State of Arkansas, have invented certain new and useful Improvements in Churns, of which the following is a specification.

My invention is a churn; and it consists of a churn proper, mechanical means for rapidly and easily operating the dasher, and means for holding the lid down.

In the accompanying drawings, Figure 1 is a perspective view of my invention, showing the position of the mechanism when the dasher has been thrown to the top of the churn. Fig. 2 is a perspective view showing the position of the mechanism when the dasher is down. Figs. 3, 4, 5, 6, and 7 are detail views of the parts of a mechanical mechanism operating the churn-dasher.

My invention is described as follows:

In the accompanying drawings, 1 is an upright provided with a base 2, secured on an additional base 2', or it may be secured on the floor or other substantial place.

3 is a brace for bracing the upright. To the upright is secured a bearing 4, to which is pivoted arm 5.

7 is the churn, and operating in said churn is a dasher represented by the dotted lines 8. Secured to the dasher and extending upwardly is a dasher-rod 9, its upper end being provided with perforations 10. Said rod passes through the vertical slot 11, Fig. 6, in the free end of the arm 5. Said extreme end of said arm is also provided with horizontal slots 12, and a pin 13 is secured in one of the perforations 10, its ends protruding through the slots 12. This slot is to allow play for the dasher-rod 9; but I may do away with the slot and put the pin through a simple auger-hole.

To the face and to the upper end of the upright 1 are horizontally secured two beams 14 and 15, their straight edges facing each other and situated far enough apart to leave between them a slot or depression 16, and between these two beams and adapted to play back and forth horizontally in said recess is a block 17. To this block 17 is pivoted not far from its center a lever 18, provided with perforations 19, through which may be inserted a pin

for a handhold, or by means of said perforations any convenient handhold may be attached to said lever. This lever may be longer or shorter, as circumstances may require. The lower end of this lever 18 is pivoted to the oscillating arm 5 a short distance from its rear end, so that when the upper end of the lever 18 is moved back and forth the free end of said oscillating arm is thereby caused to move up and down, and thus operate the churn-dasher. To the face of the beam 14 is secured a guide 20 by means of bolts 21, leaving between said guide and the beam 14 a slot 22 for the said lever 18 to play back and forth in. To the upper end of the upright 1 is secured a curved guide-piece 24, and to the rear side of lever 18 is secured a guide-piece 25, (see Fig. 7,) which works over the upper and circular edge of piece 24. The lever 18 may be kept in place by either guide 20 or piece 24 and guide 25, or by both.

A spring-rod 6 works between upright 1, bearing 4, and guide 23, its rear end above pin 25, and its front end below pin 26. The small end of this arm rests on the lid of the churn 7 to keep it down.

To the face of the upright 1 is secured the guide 23, between which and the upright 1 plays the arm 5.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. The combination of the upright 1; bearing 4, secured to the said upright; beams 14 and 15, secured to the upper end of said upright, having between them a recess 16, sliding block 17, adapted to move back and forth in said recess; oscillating arm 5, one end pivoted to bearing 4, its free end carrying the dasher-rod 9; lever 18, pivoted to block 17, and oscillating arm 5; dasher-rod 9, provided with perforations 10, said rod secured to the free end of arm 5; said mechanism adapted to move the dasher up and down in the churn-pail, substantially as shown and described and for the purposes set forth.

2. The combination of upright 1; bearing 4, secured to the said upright; guide 23, beams 14 and 15, secured to the upper end of said upright, having between them a recess 16; sliding block 17 adapted to move back and forth in said recess; oscillating arm 5, one end

pivoted to bearing 4, its free end pivoted to dasher-rod 9; lever 18, pivoted to block 17, and oscillating arm 5; dasher-rod 9, its lower end secured to dasher 8; sliding rod 6, working between bearing 4, upright 1, and guide 23 and adapted to hold down the lid of the churn; guide 20, secured to beam 14, and guide 23, secured to upright 1, said mechanism adapted to move the dasher up and down in the churn-pail, substantially as shown and described and for the purposes set forth.

3. The combination of base 2; upright 1, secured to said base, bearing 4, secured to said upright, and a guide 23 also secured to said upright; beams 14 and 15, secured horizontally to the upper end of said upright, leaving between them a recess 16; sliding block 17, adapted to move back and forth in said recess; oscillating arm 5, one end piv-

oted to bearing 4, its other end to dasher-rod 9; lever 18 pivoted to block 17, and oscillating arm 5; curved piece 24, secured to the upper end of upright 1; guide 25 secured to beam 18 and adapted to work over the top of the curved piece 24; dasher-handle 9, its lower end secured to dasher 8; spring-rod 6, working between bearing 4, upright 1 and, guide 23 and adapted to hold down the lid of the churn, said mechanism adapted to move the dasher up and down in the churn-pail, substantially as shown and described and for the purposes set forth.

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

WILLIAM SMITH.

Witnesses:

HARVEY ERNEST,  
DAVID J. BISHOP.