

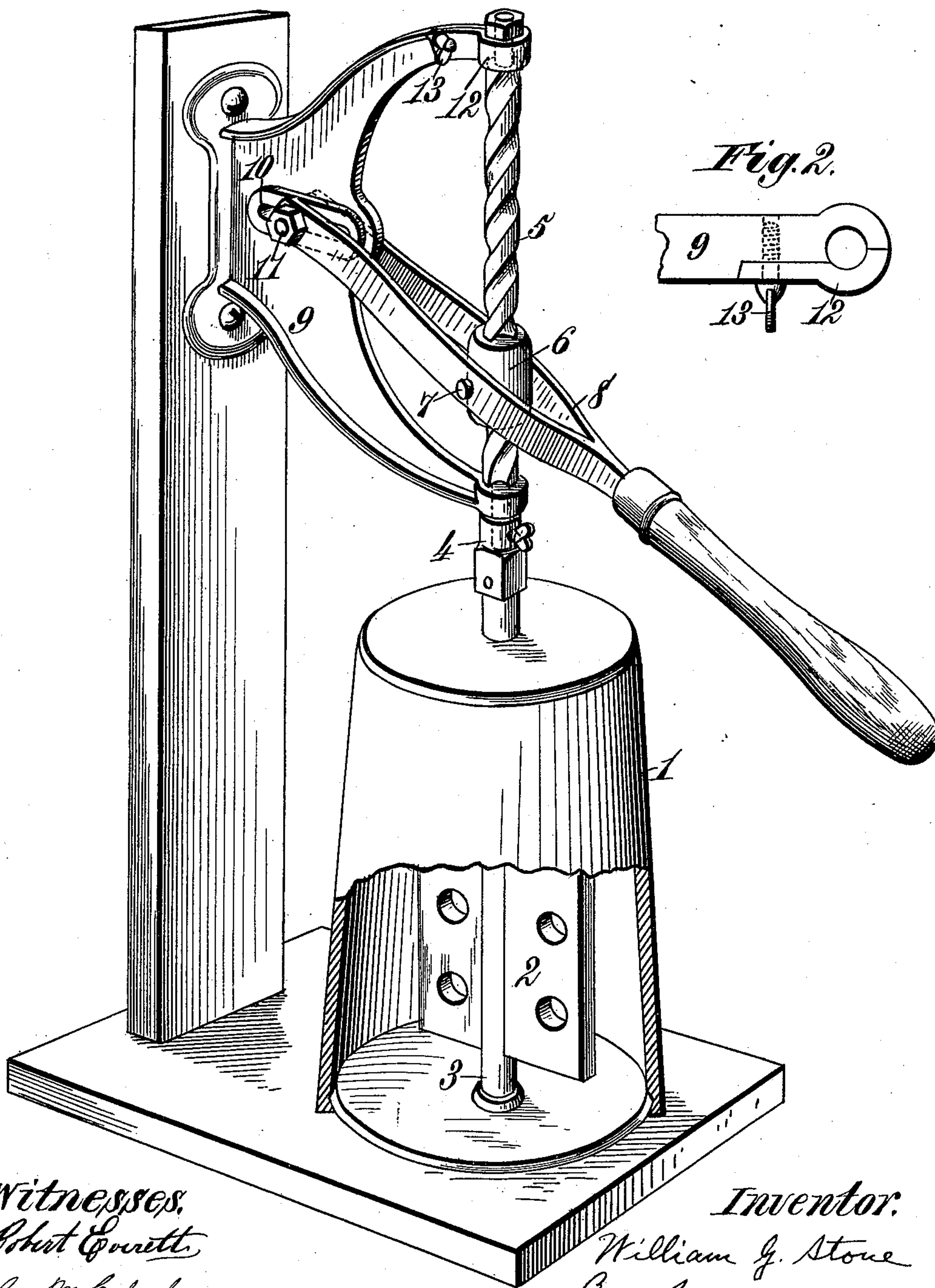
(No Model.)

W. G. STONE.  
CHURN.

No. 602,201.

Patented Apr. 12, 1898.

*Fig. 1.*



*Fig. 2.*

*Witnesses,*  
*Robert Everett,*  
*Geo. M. Copenhaver.*

*Inventor,*  
*William G. Stone*  
*By Percy B. Hills*  
*Atty.*



# UNITED STATES PATENT OFFICE.

WILLIAM GARFORTH STONE, OF CHARLOTTE, NORTH CAROLINA.

## CHURN.

SPECIFICATION forming part of Letters Patent No. 602,201, dated April 12, 1898.

Application filed August 7, 1897. Serial No. 647,494. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM GARFORTH STONE, a citizen of the United States, residing at Charlotte, in the county of Mecklenburg and State of North Carolina, have invented certain new and useful Improvements in Churn-Operating Mechanism, of which the following is a specification.

My invention relates to means for operating the dashers of vibratory churns, and has for its object more particularly to provide certain improvements in the construction disclosed in Letters Patent granted May 29, 1894, to John M. Hughes, No. 520,566, whereby the mechanism for supporting the operating-lever is materially simplified and strengthened. This object I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved device. Fig. 2 is an enlarged detail view of the point of connection between the shaft-section and its supporting-bracket.

In the said drawings the reference-numeral 1 denotes the churn-body, provided with any suitable vibratory dasher 2, carried by a dasher-shaft 3, the upper end of which is squared to engage into a socket 4, that is detachably engaged with the shaft-section 5 by a suitable thumb-nut or pin, as shown.

The shaft-section 5 is spirally threaded, as shown, to engage with the interior threads of a vertically-reciprocatory bur or nut 6, said nut being provided with trunnions 7, adapted to be engaged by suitable apertures in the bifurcated inner end of the operating-lever 8.

The shaft-section 5 is supported at its upper and lower ends by a substantially U-shaped bracket 9, fixed to the wall or other support, said bracket being provided with a horizontal slot 10, through which is loosely passed a bolt or roller 11, engaged with the extreme inner bifurcated ends of the operating-lever 8.

In order to provide for the removal of the shaft-section 8 from its supporting-bracket 9, I form the upper bearing for said shaft-section with a removable section 12, normally retained in position by a thumb-nut 13.

From the above description the operation of my improved construction will be understood to be as follows: The parts being connected together and the outer end of the operating-lever 8 vertically reciprocated, a rapid vibration will be imparted to the shaft-section 5 through the bur or nut 6 and from said shaft-section to the dasher-shaft 2 and dasher 1. The necessary play is permitted to the inner end of the lever 8 through its engagement with the slot 10, and at the same time the absence of any pivotal parts, as in the patented construction hereinbefore referred to, affords a stronger and much simpler construction that will stand any amount of wear. Moreover, by bifurcating the inner end of the lever 8 and making these bifurcated ends slightly resilient the same can be readily engaged with and disengaged from the trunnions 7 of the bur or nut 6 and retained in operative position by means of the bolt 11, as will be readily understood. To disengage the operating mechanism from the dasher-shaft 3, it is only necessary to loosen the thumb-nut on the socket 4 and remove the section 12, when the shaft-section 5 may be drawn up out of engagement with the socket 4.

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

1. In a churn-operating mechanism, the combination with the churn-body, a vibratory dasher therein, a dasher-shaft therefor, a spirally-threaded shaft-section engaged with said dasher-shaft, a bracket supporting said shaft-section, and an interiorly-threaded bur or nut vertically movable on said shaft-section, of an operating-lever engaged intermediate its ends with said bur or nut and having its inner end horizontally movable in a slot in the supporting-bracket, substantially as set forth.

2. In a churn-operating mechanism, the combination with the churn-body, a vibratory dasher therein, a dasher-shaft therefor, a spirally-threaded shaft-section engaged with said dasher-shaft, a bracket supporting said shaft-section, and an interiorly-threaded bur or nut vertically movable on said shaft-section, of an operating-lever having its inner

end bifurcated and slightly resilient, said bifurcated portion adapted to engage with trunnions on said bur or nut, and a bolt engaged with the extreme inner ends of the bifurcated lever and movable horizontally in a slot in the supporting-bracket, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

WILLIAM GARFORTH STONE.

Witnesses:

C. L. HUNTER,  
H. C. SEVERS.