(No Model.)

W. R. CULLISON.

CchurN.

No. 571,039. Patented Nov. 10, 1896.

Fig. 4.

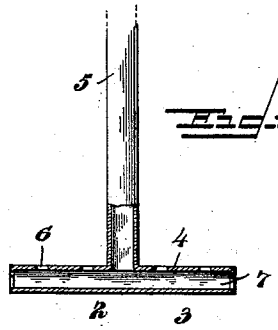


Fig. 1.

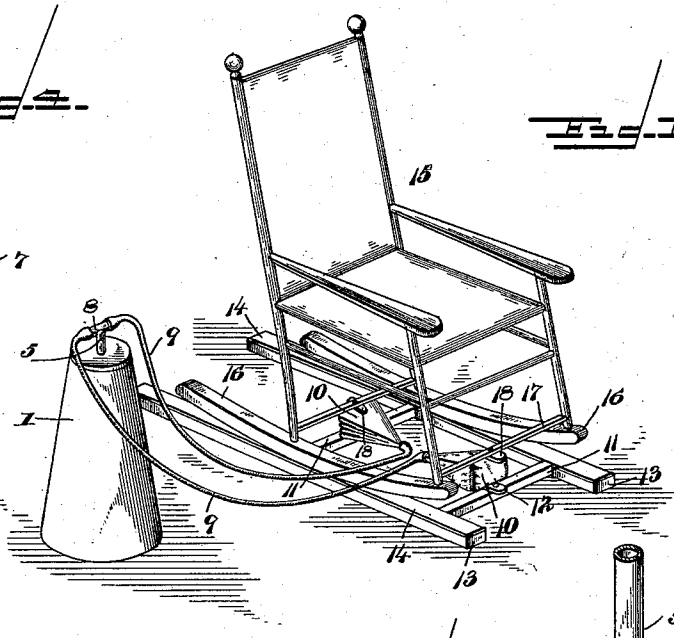


Fig. 3.

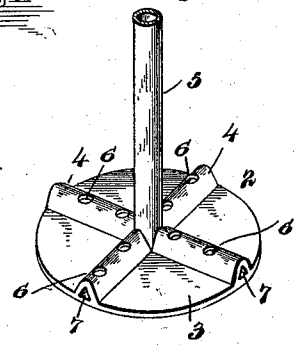


Fig. 2.

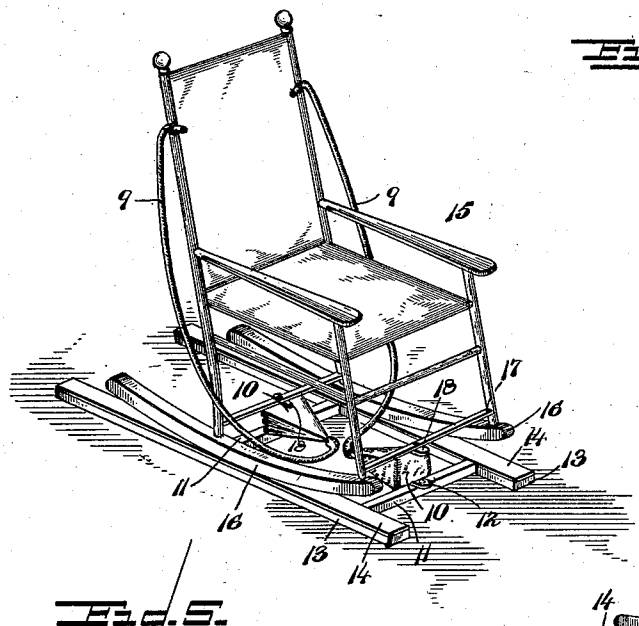
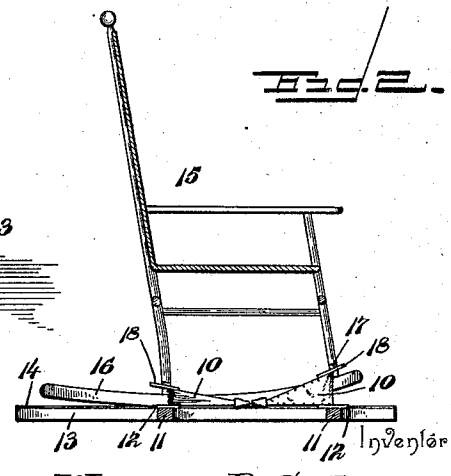


Fig. 5.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM RUSH CULLISON, OF CHICAGO, ILLINOIS.

CHURN.

SPECIFICATION forming part of Letters Patent No. 571,039, dated November 10, 1896.

Application filed August 22, 1894. Renewed August 8, 1896. Serial No. 602,194. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RUSH CULLISON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Churn, of which the following is a specification.

This invention relates to an improved churn wherein means are provided for forcing a continuous current of air into and through the cream, whereby alone the churning of the cream is effected; and it consists in certain novel features of construction and combination and arrangement of parts, as will be more fully described hereinafter, and finally embodied in the claim.

In the accompanying drawings, Figure 1 represents a perspective view of a churning apparatus embodying the essential features of my invention; Fig. 2, a vertical section of the blast-creating portion thereof; Fig. 3, a detail perspective of the air-discharging head; Fig. 4, a sectional view thereof; Fig. 5, a view showing how the blast-creating apparatus may be converted into an invalid-chair.

The reference-numeral 1 indicates the body of the churn or the cream-receptacle, which may be of any form or construction, and which is here shown as cylindrical. Located within the body portion or cream-receptacle is the blast-discharging head 2, which consists of a circular and imperforate base-plate 3, having rigidly secured to its upper side and radiating from the center thereof the triangular tubes 4, which are preferably four in number and which communicate at their inner ends with the vertically-extending tube 5. Formed in the tubes 4, at their upper angle or apex, are the perforations or orifices 6, which may be of any reasonable number, and which, together with the openings 7 in the ends of the tubes, operate to permit the escape of air entering by way of the vertical tube 5.

The vertical tube 5 extends upwardly to a point slightly beyond the upper end of the body portion or cream-receptacle 1 and is provided at its upper end with a short section of horizontally-extending pipe 8, which communicates with the tube 5 at the middle of the pipe 8, and which has its ends open, thus forming a T at the upper end of the tube 5.

Removably connected to the respective ends of the T 8 are the flexible rubber tubes 9, which are two in number and which have their remaining ends connected to the nozzles of the bellows 10.

The bellows 10 are two in number, one for each of the tubes 9, and have their lower handle-rods 12 clipped to the respective cross-bars 11, whereby each bellows is fixed to one of the cross-bars. The bellows are so arranged that their nozzles will be immediately adjacent to each other, to the end that the tubes 9 may be kept approximately parallel, thereby avoiding curves in the tubes.

The cross-bars 11 are rigidly fixed to the parallel pillow-beams 13, which are two in number and which have their upper surfaces provided with strips of gum or carpet 14 to prevent slipping of the rockers on the beams 14 and to cushion the rocking movements of the chair.

15 indicates a rocking-chair which has its rockers 16 respectively mounted upon the pillow-beams 13 and resting upon the strips 14 thereof, while the rungs 17 of the chair are clipped to the upper handle-rods 18 of the bellows 10.

In the operation of my invention the body portion is filled with the cream to be churned, and the operator seats himself upon the chair 15 and imparts thereto an oscillatory movement, as in the well-known rocking operation. This will result in an alternate compression and expansion of the bellows 10 and in a consequent flow of air through the tubes 9 and into the tube 5. From the tube 5 the blast passes into the tubes 4 and thence out into the cream by way of the orifices 6. The entry of the air into the cream will result in an agitation thereof and in the production of butter.

It will be observed that the churning operation with my invention is both easy and expeditious, and that, owing to the chair, the operator is put to but little exertion.

Fig. 5 illustrates how the air-blasting apparatus may be transformed into a fanning attachment for chairs, such as will be useful for invalids. This is done by disconnecting the tubes 9 from the T 8 and securing them to the side portions of the chair-back, so that they will emit their blast inwardly and to-

ward the person that may be seated in the chair. Thus by rocking the chair the person therein may be fanned effectively.

It will be observed that my invention is capable of use as a washing-machine as well as for churning butter. This may be effected by changing the size and shape of the cream-receptacle 1, so that it may be made to contain the clothes to be cleaned, after which the receptacle may be loaded with the clothes and the washing operation performed by operating the chair 15, as has been explained.

The parallel pillow-beams 14 and their connecting cross-bars 11 form a base or platform to support the chair 15 when in operation. It will be observed that the cross-bars 11 are disposed so as to come opposite the lower rungs 17 of the chair. By having the handle-bars of the bellows 10 firmly attached to the respective rungs 17 and cross-bars 11 no other means are necessary to secure the chair 15 upon its supporting-platform. In devices of this nature, so far as I am aware and have been able to discover, the rocking-chair has been held upon its base or platform by independent and extra fastenings; but by my construction such fastenings are not necessary and may be dispensed with, as the attaching of the bellows to the chair and its base in the manner set forth renders the employment of such fastenings unnecessary.

Having described the invention, I claim—

The combination with a base or platform comprising parallel pillow-beams and cross-bars, and strips of gum or like substance placed upon the pillow-beams, of two bellows inversely disposed and firmly attached to the cross-bars of the said base, separate tubes extending from each bellows and adapted to be used in the manner set forth, and a rocking-chair mounted upon the pillow-beams of the base and having its front and rear lower rungs firmly attached to the respective bellows, whereby the said rocking-chair is maintained upon its base and the bellows are positively and alternately actuated in the rocking movements of the chair, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM RUSH CULLISON.

Witnesses:
JNO. G. BONISCHEIN,
C. L. WALTON.