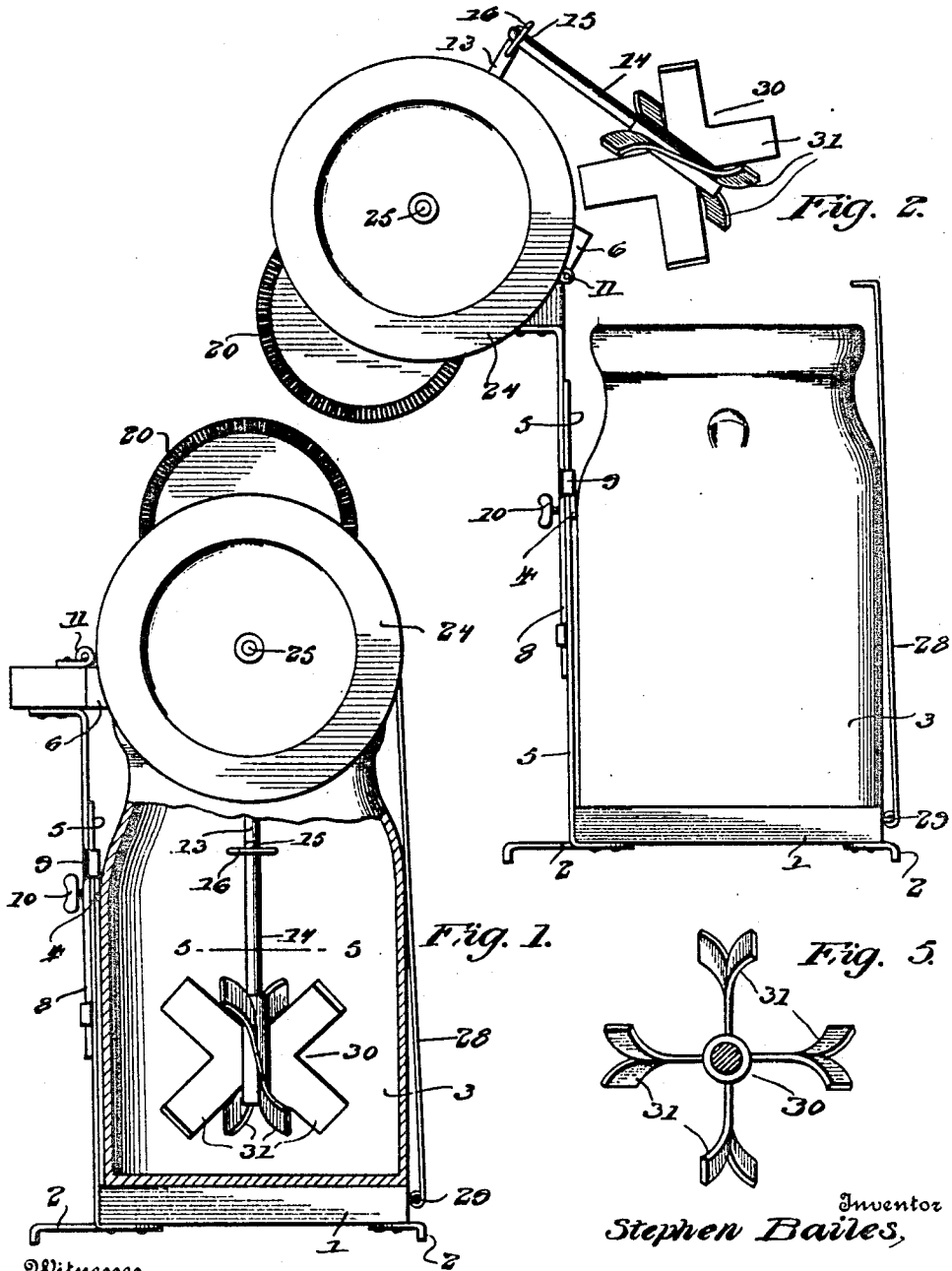


S. BAILES.
CHURN.
APPLICATION FILED JULY 10, 1914.

1,133,909.

Patented Mar. 30, 1915.
3 SHEETS—SHEET 1.



Witnesses

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2 SHEETS-SHEET 2.

Fig. 3.

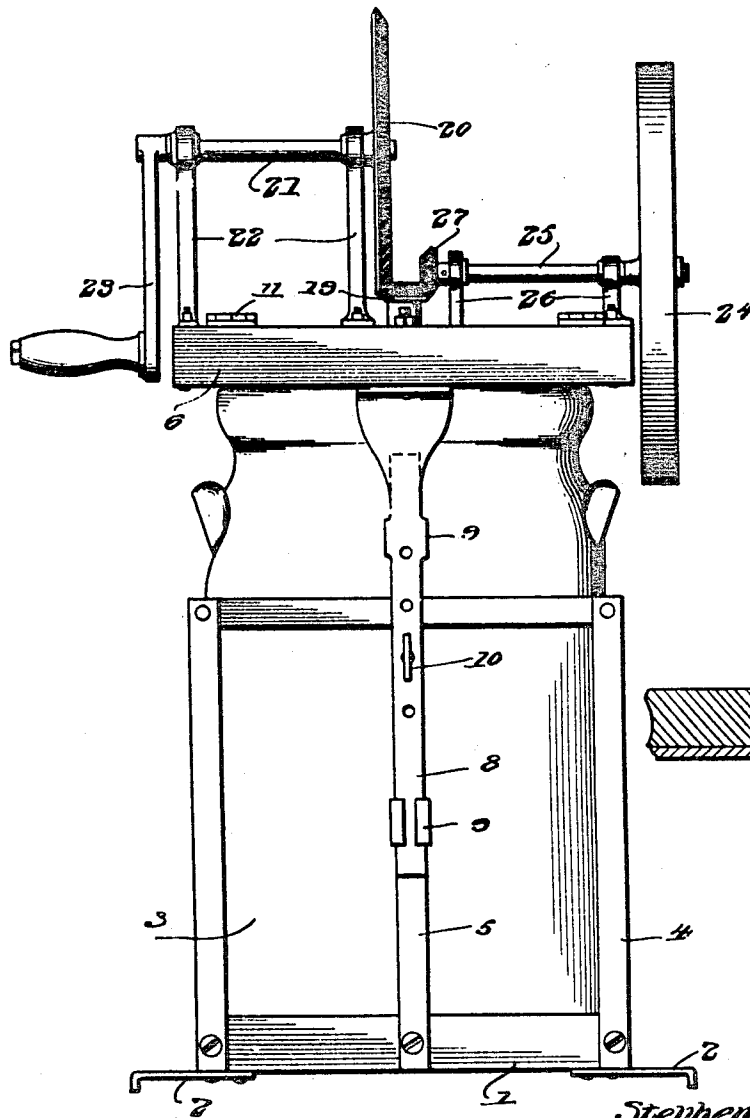
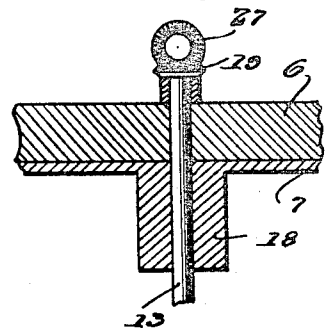


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

STEPHEN BAILES, OF NETTIE, WEST VIRGINIA.

CHURN.

1,133,909.

Specification of Letters Patent.

Patented Mar. 30, 1915.

Application filed July 10, 1914. Serial No. 850,233.

To all whom it may concern:

Be it known that I, STEPHEN BAILES, a citizen of the United States, residing at Nettie, in the county of Nicholas and State of West Virginia, have invented new and useful Improvements in Churns, of which the following is a specification.

This invention is an improved churn and manually operated motor mechanism therefor, the object of the invention being to provide an improved machine of this character which may be used in connection with any ordinary churn body, jar or the like and adjusted according to the height of the churn body or jar; another object being to provide means whereby the motor mechanism and churn dasher may be arranged to one side and out of the way of the churn body when desired.

The invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings: Figure 1 is a side elevation of a churn constructed in accordance with my invention and with the body of the churn shown as an ordinary jar and in vertical section to disclose the construction of the churn dasher. Fig. 2 is a similar view with the dasher and the operating means therefor turned out of the way. Fig. 3 is an elevation at right angles to Fig. 1. Figs. 4 and 5 are detail views.

In the embodiment of my invention I provide a base 1 which is here shown as having bracing feet 2 extending from its outer corners. An ordinary churn body or jar such as shown at 3 may be placed on the base and the base is provided on its outer side with a vertical frame 4 including a centrally arranged vertical standard arm 5.

The cover 6 for the churn body is provided on its under side at the center with a disk 7 of a size and shape adapting it to fit in the mouth or upper end of the churn body or jar, the cover being sufficiently large to not only cover the body or jar but to also extend outwardly therefrom. Hence the cover may be used on churn bodies or jars of various sizes. A standard 8 is connected to the standard arm 5 for vertical adjustable movement by means of a slide 9 and a clamping screw 10. The cover comprises two members of unequal size the smaller member being secured directly to the upper end of the standard 8 and the larger, main member be-

ing hinged to the smaller member as at 11. Hence in effect the cover is hingedly connected to the standard. The standard may be adjusted vertically according to the height of the churn body and by reason of the hinged connection between the cover and the standard the cover may be arranged on the churn body to close the same while churning or may be turned outwardly therefrom out of the way when it is desired to remove the churn body or to fill or empty or wash the same or to inspect the butter during the process of churning.

A dasher shaft is provided which comprises an upper member 13 and a lower member 14 that are pivotally connected together as at 15 and provided at the joint with a suitable clamping screw or coupling member such as shown at 16 to secure the said members in extended position or to enable the member 14 to be turned as at an angle to the member 13 as shown. The member 13 is mounted in a vertical bearing sleeve 18 which is arranged at and depends from the center of the cover and on the upper end of said member is a miter gear 19. This is engaged on one side by a driving gear 20 which is on the inner end of a shaft 21. The shaft is mounted horizontally in suitable bearings 22 with which the cover is provided and at the outer end of the shaft is a crank handle 23 whereby it may be turned to cause the gear 20 in coaction with the gear 19 to revolve the dasher shaft and the dasher at the lower end of said shaft. A fly wheel 24 is also provided which is on the outer end of a shaft 25. This shaft is mounted in bearings 26 on the cover and has at its inner end a miter gear 27 which engages the gear 19. This fly wheel serves to steady the motion and operation of the churn and to greatly facilitate the operation thereof. The bearings for the shafts are preferably cast integrally with the cover but may be otherwise constructed in accordance with my invention.

When the cover is arranged over the churn body, in churning, it is secured by means of a hook rod 28 which is pivotally connected as at 29 to one side of the base 1. The dasher 30 is provided with paddles 31 which are arranged radially at the lower end of the shaft member 14 and are also inclined to an angle of about 45°. These paddles when in operating the churn thor-

oughly mix and agitate the contents of the churn and enable the butter to be formed in a few minutes.

5 My improved churn may be made of any suitable material and the parts thereof may be of any suitable size, shape and proportion.

Having thus described my invention, I claim:—

10 In a churn a support including a vertically adjustable standard, a churn body arranged at one side of the standard, a cover pivotally connected to the standard and adapted thereby to be arranged on the upper
15 end of the churn body or turned outwardly therefrom, a dasher shaft comprising piv-

otally jointed members one of which has a bearing in the cover, means on the cover for revolving the dasher shaft and means to secure the jointed members of the dasher shaft rigidly when the dasher shaft is
20 straightened, the hinged cover and the pivot joint in the dasher shaft adapting the dasher shaft to be drawn out and up from the churn body when the cover is outturned
25 therefrom.

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

STEPHEN BAILES.

Witnesses:

JOHN K. DOFFY,

DAVID W. DUNBAR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."