C. S. WAYBRIGHT.

CHURN.

APPLICATION FILED OCT. 12, 1911.

1,023,696. Patented Apr. 16, 1912.

Fig. 1.

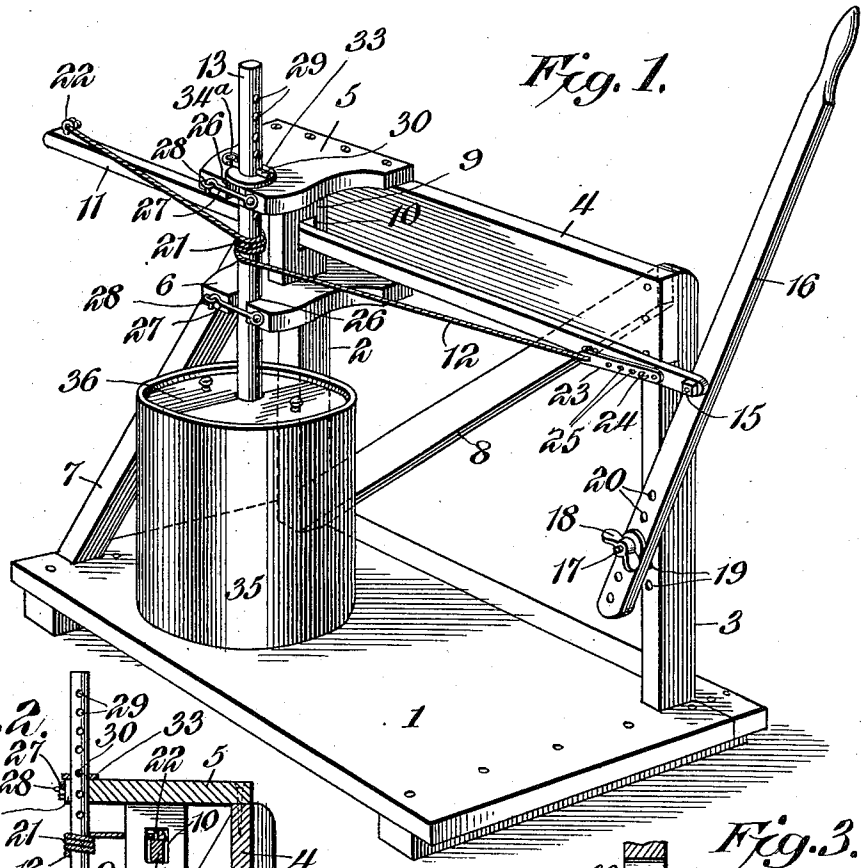


Fig. 2.

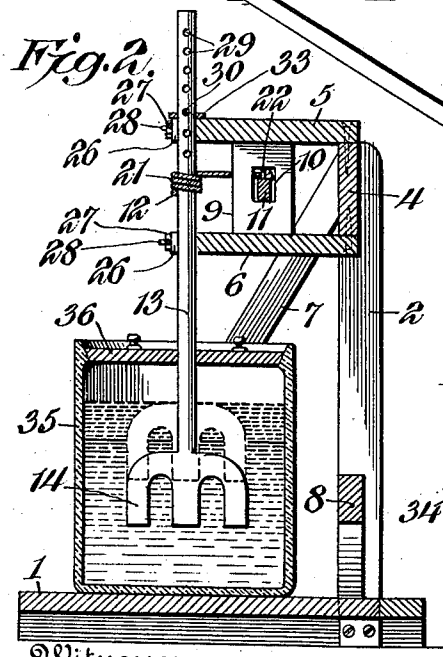


Fig. 3.

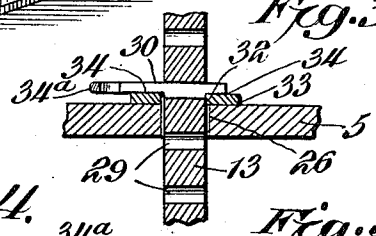


Fig. 4.

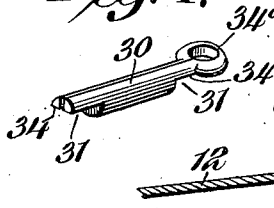
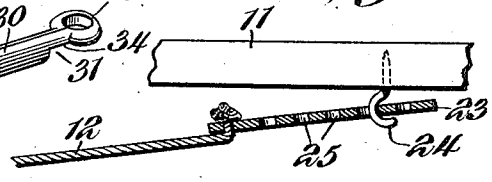


Fig. 5.



Witnesses

Howard D. Orr.

H. F. Riley

Charles S. Waybright, Inventor,

By E. G. Siggers.

Attorney

UNITED STATES PATENT OFFICE.

CHARLES S. WAYBRIGHT, OF STAUNTON, VIRGINIA.

CHURN.

1,023,696. Specification of Letters Patent. Patented Apr. 16, 1912.

Application filed October 12, 1911. Serial No. 654,377.

To all whom it may concern:

Be it known that I, CHARLES S. WAYBRIGHT, a citizen of the United States, residing at Staunton, in the county of Augusta and State of Virginia, have invented a new and useful Churn, of which the following is a specification.

The invention relates to improvements in churns.

The object of the present invention is to provide a simple, efficient and exceedingly inexpensive churn, capable of easy operation and equipped with an adjustable dasher, adapted to be readily arranged at the proper elevation to suit the quantity of cream to be churned, and capable, after the operation of churning has been completed, of being quickly elevated to the proper elevation for gathering the butter.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claim, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of a churn, constructed in accordance with this invention. Fig. 2 is a transverse sectional view. Fig. 3 is an enlarged detail sectional view, illustrating the construction for adjustably suspending the dasher at the desired elevation. Fig. 4 is a detail perspective view of the dasher supporting and locking device. Fig. 5 is a detail sectional view, illustrating the construction for adjusting the cord of the reciprocatory bow.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the accompanying drawing in which is illustrated the preferred construction of the invention, the churn is equipped with a supporting frame composed of a base 1, spaced upright standards 2 and 3, and a top connecting bar 4 from which project spaced upper and lower horizontal bearing arms 5 and 6. The upright portion of the frame formed by the standards 2 and 3 and the horizontal top bar is supported by inclined side and rear braces 7 and 8, but the supporting frame may be of any preferred construction. The standards 2 and 3 are preferably arranged at the rear face of the horizontal top bar and the horizontal bearing arms are braced by a vertical block or piece 9, secured between the said bearing arms and spaced from the horizontal top bar 4 and provided with a guide opening 10 through which passes a reciprocatory rod or bow 11, carrying a cord 12 spirally wound around a rod or stem 13 of a dasher 14, whereby when the rod or bow is reciprocated, the dasher will be reversely rotated. One end of the reciprocatory bar or bow 11 is pivoted by a bolt 15, or other suitable fastening device to an operating lever 16, which is adjustably fulcrumed at its lower portion on the standard 3 by means of a bolt 17, having a thumb nut 18 and adapted to be arranged in any of the perforations 19 and 20 of the standards 3 and the operating lever 16, whereby the latter may be raised or lowered and varied in effective length to arrange it in the desired position and to secure the desired throw or movement of the lever. That portion of the cord, which extends from the upper end of the coil 21, is secured by an eye 22, or other suitable means at the upper face of the bar or bow 11, and the other end of the cord 12 is connected by an adjustable member 23 with a hook 24 mounted on the bar or bow at a point below the horizontal plane of the eye 22. This arranges the opposite portions of the cord 12 at different elevations and prevents the cord from overlapping and rubbing or cutting portions of it. The adjustable member 23, which may be constructed of any suitable material, is provided at intervals with perforations 25 for engaging with the hook 24 for lengthening or shortening the cord, which may be maintained at the desired tension.

The bearing arms 5 and 6 are provided with vertically alined open bearing recesses 26 to receive the dasher rod or stem 13, which is retained in the bearing recesses by hooks 27 and pivotally mounted at one side of the bearing recesses and having eyes 28 at the other side. The dasher rod or stem 13 is provided at its upper portion with perforations 29, arranged at intervals and adapted to receive a supporting and locking device 30, consisting of a pin or key fitting snugly the perforations 29 and split longitudinally to form two sides and provided at

its ends with terminal recesses 31, located at the lower face of the locking device and forming a central depending projecting portion, which fits within an opening 32 of a washer 33. The washer 33 is arranged upon the upper face of the bearing arm 5, and it forms a metallic bearing for the dasher supporting and locking device, and the lower intermediate projecting portion of the pin or key forms shoulders for engaging the walls of the opening of the washer, whereby the latter is held against longitudinal movement. The terminal portions of the pin or key present flat lower faces 34 to the upper face of the washer 33. The sides of the locking device are connected at one end thereof by means of a resilient head 34ª, consisting of a circular loop and forming a handle and operating as a spring to spread the sides of the locking device for preventing the same, when introduced into a perforation of the dasher, from rattling and shaking loose. Also this construction is especially advantageous when the locking device is used in connection with a wooden dasher stem, which is liable to swell and cause the locking device to become tight. By using the split locking device any swelling of the wood will simply compress the sides of the device and close the space between them without interfering with the free removal of the device from the perforation of the dasher stem. Furthermore, the circular resilient head 34ª forms a convenient handle to facilitate in introducing the locking device into and removing the same from the perforations of the stem of the dasher. When it is desired to adjust the dasher, the latter is lifted sufficiently to disengage the central depending portion of the pin or key from the opening of the washer, and the pin or key is then removed and the dasher may be raised or lowered and suspended at the desired elevation by replacing the pin or key in the proper perforation.

The dasher may be of any preferred form, and it may be made either of wood or metal, and when constructed of wood, it is solid as shown in the accompanying drawing, but when made of metal, the stem will preferably consist of a thin metallic tube. The dasher is arranged within a churn body 35, which may consist of a stone jar, or an enameled or other sanitary receptacle, and it is equipped with a sectional lid or cover 36, having a central opening through which the rod or stem of the dasher extends. The dasher is designed to be arranged centrally of the cream, as illustrated in full lines in Fig. 2 of the drawing for churning, and after the butter is produced, the dasher is elevated to the position illustrated in dotted lines in Fig. 2 with its upper portion in the butter, and it may then be slowly rotated for gathering the butter. As the dasher is adjustably suspended above the bottom of the churn body, the latter may be constructed of any suitable material. The suspending and supporting device not only facilitates a rapid adjustment of the dasher, but it also facilitates the ready removal of the same from the churn body, so that the parts may be easily maintained in a cleanly and sanitary condition.

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

In a device of the class described, the combination with a support having upper and lower spaced bearing arms, of a vertically adjustable dasher provided with a stem having transverse perforations arranged at intervals, a stationary washer seated upon the upper arm of the support and forming a metallic bearing and having an opening receiving the stem of the dasher, and a rotating supporting and locking device consisting of a pin adapted to be arranged in any of the perforations of the stem of the dasher and split longitudinally to form two sides, and a resilient head consisting of a loop and connecting the sides forming a handle at one end of the supporting and locking device and maintaining the sides thereof in frictional engagement with the stem of the dasher, said device being provided at opposite sides of its center with lower terminal recesses receiving opposite portions of the washer and forming an intermediate depending projecting portion extending into the opening of the washer and providing shoulders for engaging the walls of the said opening, whereby the locking device is held against longitudinal movement and is retained in a perforation of the stem, said recesses also forming lower terminal bearing faces, which rest upon the upper face of the washer.

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

CHARLES S. WAYBRIGHT.

Witnesses:
IRA W. NICHOLAS,
S. H. RALSTON.