No. 887,668. PATENTED MAY 12, 1908.

C. H. LINNEY.

CHURN CONSTRUCTION.

APPLICATION FILED MAR. 17, 1908.

Fig. 1.

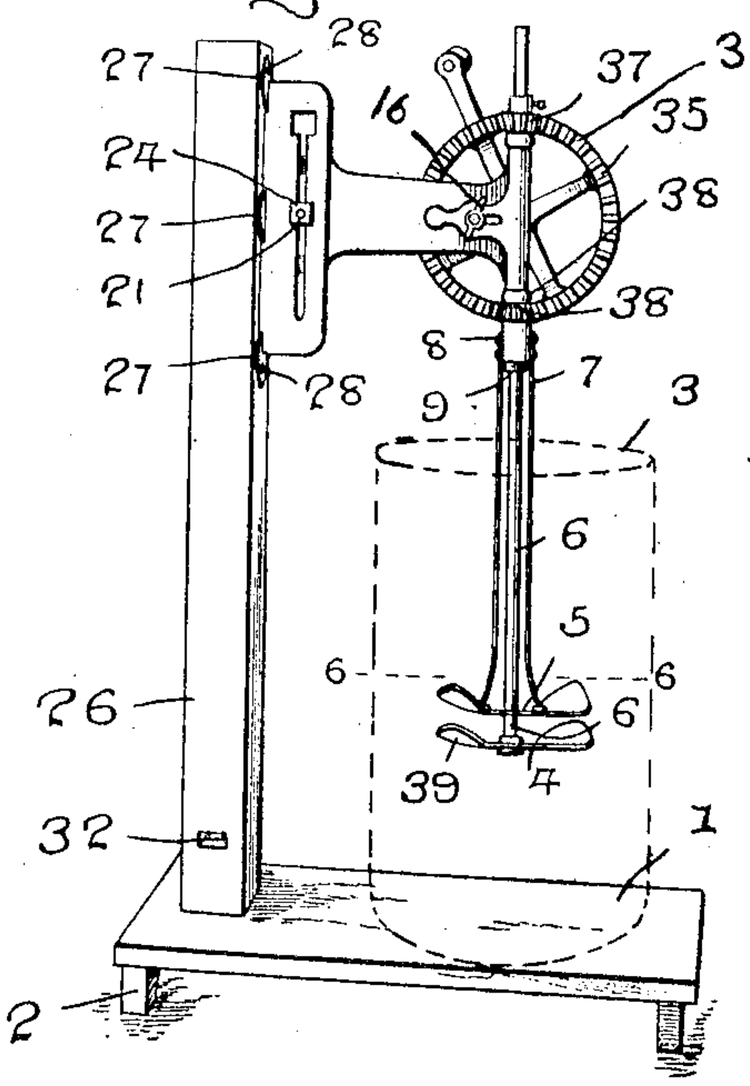


Fig. 2.

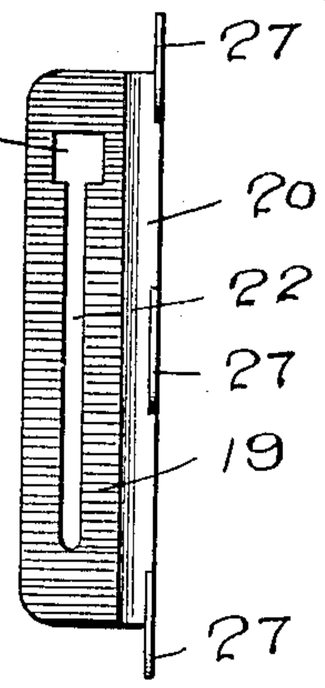


Fig. 5.

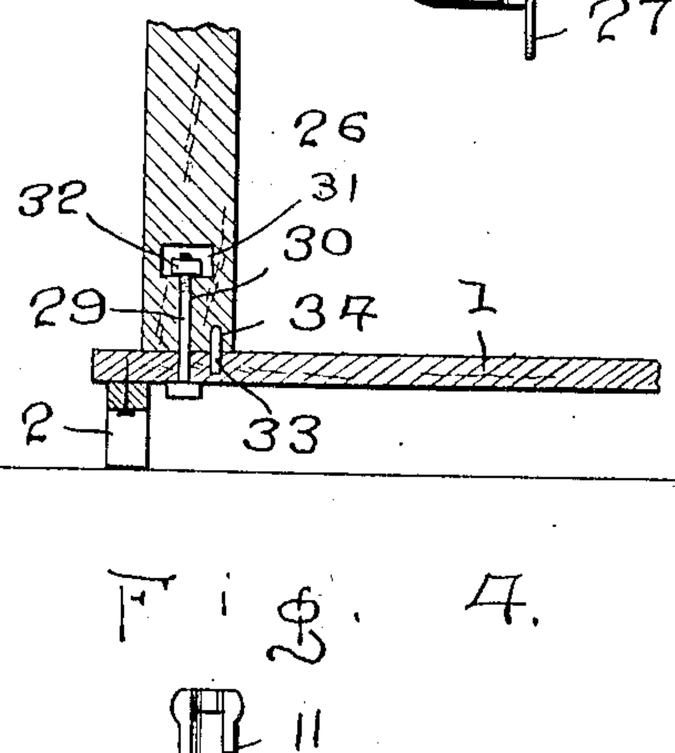


Fig. 3.

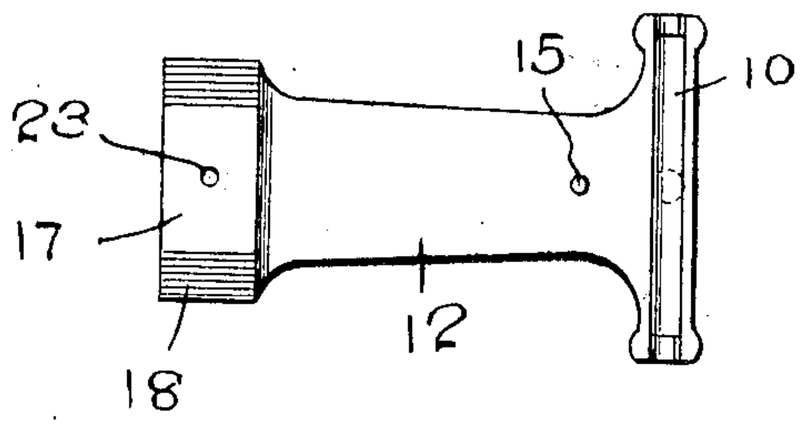


Fig. 4.

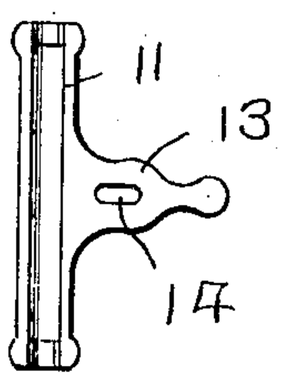
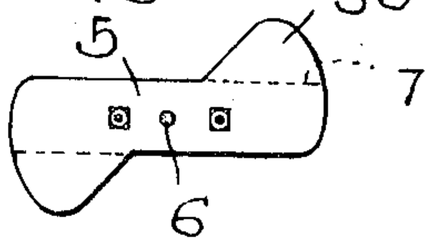


Fig. 6.



WITNESSES:

Thomas Riley

E. F. Head

INVENTOR

C. H. Linney

BY

W. J. Fitzgerald & Co

Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES H. LINNEY, OF EMINENCE, KENTUCKY.

CHURN CONSTRUCTION.

No. 887,668. Specification of Letters Patent. Patented May 12, 1908.

Application filed March 17, 1908. Serial No. 421,644.

To all whom it may concern:

Be it known that I, CHARLES H. LINNEY, a citizen of the United States, residing at Eminence, in the county of Henry and State of Kentucky, have invented certain new and useful Improvements in Churn Construction; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in churn constructions and my object is to provide means for supporting a churn dasher and means to operate the same.

A further object is to provide means for mounting the support upon a platform and a still further object is to provide means for adjusting the dasher and operating mechanism at various heights above the platform.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a perspective view showing a platform and means for mounting the churn dasher and operating mechanism thereon. Fig. 2 is an elevation of a bracket employed for adjustably receiving the dasher supporting arm. Fig. 3 is an elevation of the dasher-supporting arm and one section of the tubular socket employed for holding the dasher shaft. Fig. 4 is a similar view of the coöperating portion of the socket. Fig. 5 is a detail sectional view showing the manner of securing the supporting post to the platform, and, Fig. 6 is a sectional view as seen on line 6—6, Fig. 1.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates a platform, which is preferably provided at each end with supports 2, said platform being adapted to receive and form a rest for any suitable form of churn body 3 (shown by dotted lines in Fig. 1) and suspended above the platform and adapted to enter the churn body is a pair of coöperating dashers 4 and 5, the dasher 4 being supported by a vertically extending shaft 6, while the dasher 5 is rotatably mounted on said shaft above the dasher 4 by means of straps 7, the upper ends of which are secured to a collar 8 on the shaft 6, the downward movement of said collar being limited by means of a washer, or the like 9 fixed to the shaft 6 immediately below the collar.

The upper end of the shaft 6 is extended through a tubular socket, which socket is preferably formed in two sections 10 and 11, each section forming one-half of the socket, the section 10 being carried by an arm 12, while the section 11 is secured to the arm by providing a tongue 13 adjacent the center of the socket section 11 and providing the same with a slot 14, through which is adapted to take a bolt 15 on the arm 12, the end of said bolt being threaded to receive a wing nut 16, by which means the tongue is clamped on the bolt.

The rear end of the arm 12 is provided with a head 17, one face of which is provided with corrugations or teeth 18, which are adapted to engage similar corrugations 19 on one face of a suspending bracket 20 and the corrugations on the head are held in engagement with the corrugations on the bracket by means of a bolt 21, which passes through an elongated slot 22 in the bracket 20 and through an opening 23 in the head 17, one end of the bolt being provided with a substantially square head 24, while the opposite end is adapted to receive a nut (not shown) and thus clamp the head in engagement with the bracket and as said bracket rests in a vertical position and is preferably longer than the head 17, said head and parts carried thereby may be adjusted vertically on the bracket to adjust the dashers at various heights from the platform 1.

To avoid the necessity of removing the bolt from the opening 23, in order to remove the head from engagement with the bracket, the upper end of the slot 22 is provided with an enlarged opening 25 similar in size and contour to the bolt head 24, whereby when the nut on the bolt is adjusted to permit the corrugations to be disengaged from each other and the head and parts carried thereby elevated to the upper end of the slot, the head on the bolt will readily pass through the enlarged opening 25 or may be introduced therethrough to again attach the head to the bracket.

The bracket 20 is secured to a supporting standard 26 by providing on the rear edge of said bracket, preferably at each end and center thereof, ears 27, the ears at the ends of the bracket being provided with openings to receive screws or the like 28, while the ears at the center of the bracket are adapted to

rest against the face of the standard and lend rigidity to the bracket, the ears being in such proportion that the bracket will be securely held in position by introducing a single screw through each of the ears at the ends of the bracket.

The lower end of the standard 26 is secured to the platform 1 by introducing a bolt 29 through the platform and through a central opening 30 in the lower end of the standard, the upper end of the opening 30 terminating in a cavity 31, which cavity extends entirely through the standard, whereby a nut 32 may be placed in position to engage the upper end of the bolt 29 and if desired, the width of the cavity may be such as to hold the nut against rotation, whereby when the bolt is rotated, the threaded end thereof will engage the threads in the nut and clamp the standard securely on the platform or, as shown in the drawing, the cavity may be of such size to admit of the introduction of a wrench into the cavity to engage and hold the nut. This manner of securing the standard to the platform will prevent independent movement of one of the parts from the other, but it is likewise necessary to hold the standard against rotation, whereby the dashers will be held in position over the platform and to this end a pin 33 is secured in any preferred manner to the upper face of the platform 1, the upwardly extending portion thereof entering a socket 34 in the lower end of the standard 26 and as said pin is located at a distance from the axial center of the standard, said pin will serve to prevent rotation of the standard when the pin is entered in its respective socket.

My object is to provide a device of this class which may be placed on the market and sold as a commodity within itself without providing a churn body, as the dashers may be introduced into a jar and the contents thereof churned equally as well as when introduced into a regular churn body, thereby enabling me to materially reduce the cost of the article, my prime object being to provide a support for the object used as a churn body and also for suspending the dashers and operating mechanism in position to enter the churn body, the adjusting feature permitting the dashers to be raised or lowered to enter churn bodies of various heights.

In applying the device to use, a churn body containing a quantity of prepared cream is placed on the platform 1 and the dashers introduced therein in the usual manner, when the contents of the churn body may be thoroughly churned by imparting rotating motion to the dashers 4 and 5, this operation being accomplished by providing a driving gear 35 having on one of its faces teeth 36, which teeth are adapted to mesh with a pinion 37 fixed to the shaft 6 above the socket sections 10 and 11 and with a similar pinion 38 fixed to the collar 8 and adjacent the lower end of the socket sections it will readily be seen that as the gear 35 is rotated, the shaft 6 and dasher 4 carried thereby, will be revolved in one direction, while the collar 8 and dasher 5 carried thereby will be revolved in the opposite direction thus increasing churning qualities of the dashers. Each of said dashers is provided at its opposite ends with upwardly turned wings 39, which wings are placed at opposite edges of the dashers. When the churning operation is completed, the nut on the bolt 21 is loosened until the corrugations on the head and bracket are released from each other when the churning mechanism and supporting arm therefor may be elevated and entirely removed from engagement with the bracket. If, however, it is not desired to release the arm from the bracket, the socket section 11 is released and the dashers removed from position on the arm and may then be lifted from the churn body.

What I claim is:

1. A churn attachment comprising the combination with a standard, a platform for the standard and means to removably secure the standard to the platform; of a bracket having ears at the upper and lower ends and at the center thereof, means to secure said end ears to said standard, an arm having a head at one end thereof, the meeting faces of said head and bracket having interlocking corrugations thereon and means to adjustably secure the head to the bracket.

2. A churn attachment comprising the combination with a platform, a standard on the platform and means to removably secure the standard to the platform; of a bracket secured to said standard adjacent its upper end, said bracket having a vertically extending slot terminating at its upper end in an enlarged opening; a supporting arm having a head at one end adapted to coöperate with said bracket, the meeting faces of said head and bracket having inter-meshing corrugations thereon, a bolt adapted to extend through said slot and head and hold the corrugations on the head in engagement with the corrugations on the bracket, said bolt having a head at one end in size and contour to fit and pass through the enlarged opening at the upper end of the slot, whereby the arm may be removed from the bracket without disengaging the bolt from the head on the arm.

3. In a churn attachment, the combination with a bracket, an arm adjustably secured to said bracket and the churning mechanism carried by the arm; of a vertically disposed standard adapted to receive and support said bracket, said standard having a vertical opening extending upwardly from its lower end and a cavity extending laterally through the standard and communicating with the upper end of said opening, a

platform to support the standard, a bolt extended through the platform and through the opening in the post, a nut adapted to enter said cavity and engage the upper end of the bolt and a pin carried by the platform adapted to engage and hold the standard against rotation on the bolt.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES H. LINNEY.

Witnesses:
J. R. WICKEY,
J. H. BOWLING.