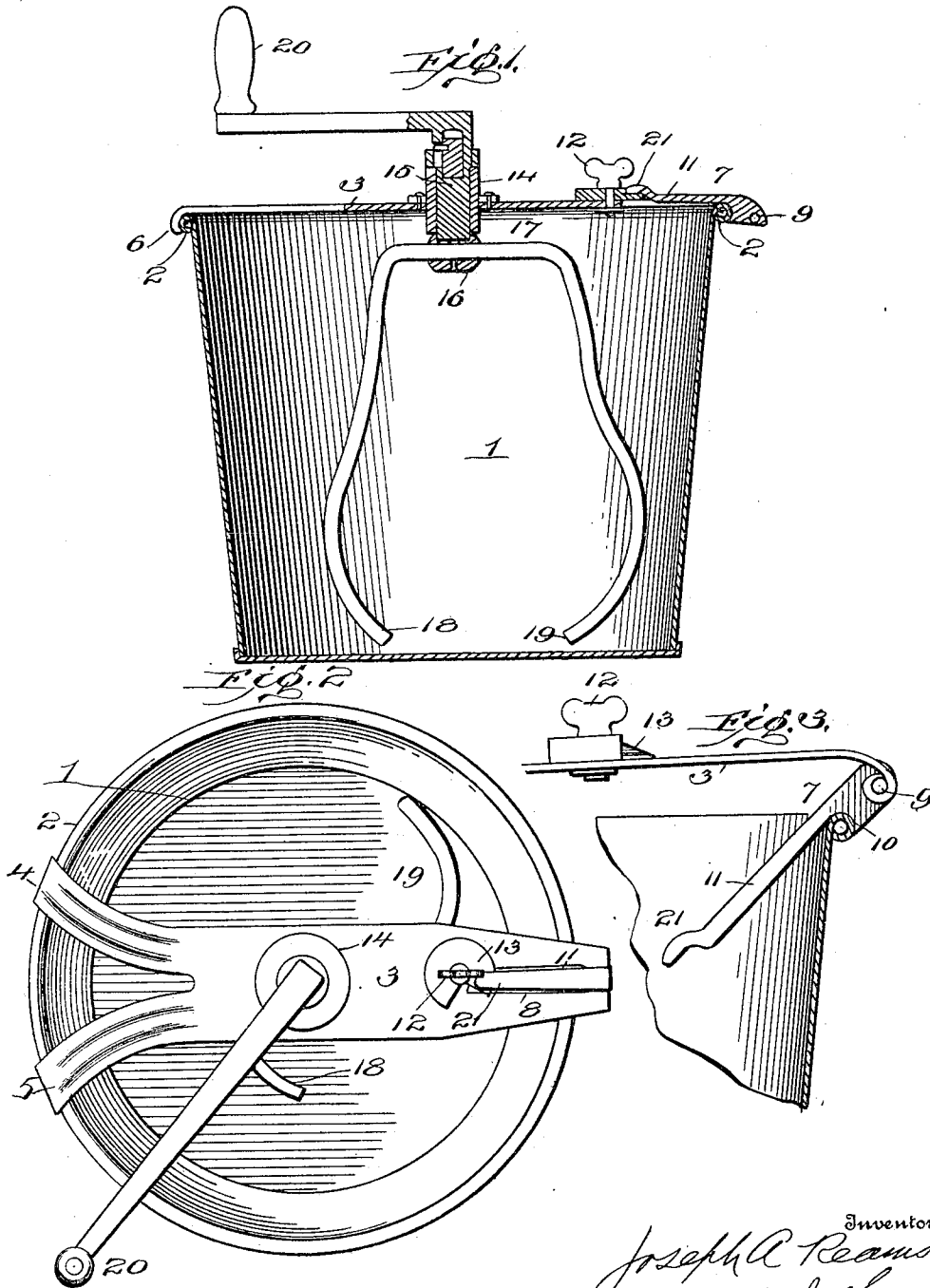


No. 819,799.

PATENTED MAY 8, 1906.

J. A. REAMS.
DOUGH MIXING MACHINE.
APPLICATION FILED MAR. 14, 1905.



Witnesses
J. M. Fowler
Cassell Severance

By

Inventor
Joseph A. Reams
Wm. Frank Lawrence

Attorney

UNITED STATES PATENT OFFICE.

JOSEPH A. REAMS, OF WEST NORFOLK, VIRGINIA, ASSIGNOR OF ONE-HALF TO THOMAS K. PARRISH, OF RICHMOND, VIRGINIA.

DOUGH-MIXING MACHINE.

No. 819,799.

Specification of Letters Patent.

Patented May 8, 1906.

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To all whom it may concern:

Be it known that I, JOSEPH A. REAMS, a citizen of the United States, residing at West Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Dough-Mixing Machines; 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.

This invention relates to improvements in means for holding operating mechanism upon the edges of open receptacles—such, for instance, as buckets, tubs, or the like.

The supporting means is so constructed that an operating mechanism may be removably secured in position upon the rim or edge of an open receptacle by springing the same into place, and while it is adapted for use in connection with various mechanisms it is especially useful in holding a dough-mixing apparatus in position upon a bucket or receptacle.

The invention comprises certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a vertical central section through a dough-mixing apparatus, showing the bar thereof provided with my improved means for holding a mixing apparatus in place. Fig. 2 is a top plan view of the same. Fig. 3 is a detail sectional view showing the securing-clamp open and in readiness for engaging the edge of the bucket.

Although, as above intimated, this invention is applicable to various structures where it is necessary to suspend an operative mechanism in the open end or upon the rim or edges of an open receptacle, I preferably use the same in connection with a dough-mixing apparatus, and for the sake of illustration and a proper setting forth of the invention I have illustrated the invention in connection with a dough-mixer.

As set forth in the drawings, 1 indicates a receptacle—as a bucket, tub, or the like—the upper edge thereof being preferably turned outwardly and provided with a bead or rounded edge, as 2. The mechanism-supporting device is rested upon the edges 2 and extends dimetrically across the receptacle.

Such support is made up of a cross-bar 3, having rim-engaging portions formed in each end thereof. At one end of the bar or cross-head the material thereof is preferably split or spread to form arms 4 and 5, which are separated at their outer free ends and turned downwardly to form rim-engaging hooks 6. The hooks 6 are so formed that they will extend sufficiently far beneath the bead 2 to prevent the cross head or bar 3 from being lifted from the said bead and the edge of the bucket when the opposite end of the cross-bar is held downwardly. The manner of securing the opposite end of the bar over the hooks 6 to the edge of a bucket or receptacle forms an important feature of the invention.

The end of the bar opposite to the hooks 6 is extended beyond the flange or edge of the bucket and is turned downwardly a sufficient distance to give the locking means, now to be described, a proper relation to the rim or edge of the bucket. The locking or securing means comprises a pivoted member or catch 7, which is carried by the end of the cross-head or bar 3. The end of said bar is preferably bifurcated, as at 8, to accommodate the said catch, and eyes are formed in the downturned ends of said bifurcated portion for receiving a pintle or pivot-pin 9, which pin extends also through the end of the catch or locking member 7. The locking member or catch 7 is formed with a head having a notch or recess 10 a short distance from the pintle or pivot-pin 9, the said notch or recess being shaped so as to fit upon the edge or rim of the bucket or receptacle. The catch extends a considerable distance beyond the notch formed on the pivoted end thereof, so as to form an operating arm or lever 11, by which the head may be moved and by which it may be locked in place after it has been made tight upon the edge of the bucket. A turn-button 12, preferably one having a spiral surface 13, may be mounted adjacent to the point occupied by the inner end of the lock member or catch when it is in its closed or secured position. By turning this turn-button so as to force its wedge-shaped edge beneath the end of the lock member the said lock member may be prevented from being depressed, and thus release its grip upon the edge of the bucket. By reference to Fig. 1 in the drawings it will be seen that the thickened portion of the lock member or catch is

depressed almost entirely below the surface of the cross-bar, and the pivot-point of the said catch is so far depressed below the surface of the bar that when the catch is in its locked position the pull at the recess 10 will be in a line a little above the plane of the direct pull between the hooks 6 and the pin or pintle 9. When the catch is thrown downwardly at its inner end, as shown in Fig. 3, the end of the cross head or bar 3 will be elevated above the rim of the bucket and the said catch will release its hold upon the rim.

In placing the holding means in position upon the rim of a bucket the hooks 6 are first fitted upon the rim of the bucket upon one side, the other end of the cross-head being somewhat elevated above the bucket. The catch is then brought into its depending position, so as to engage the rim of the bucket on the opposite side from the hooks 6, as shown in Fig. 3. The catch end of the cross-bar is then forced downwardly, so that the catch is pushed to a position slightly above the cross-bar, as shown in Fig. 1. This brings the recess 10 above the line of pull, and the said cross-bar will be tightly held in position. To further secure the parts in their position and prevent the accidental depression of the catch, the wedge-shaped turn-button may be moved so as to slip beneath the end of the catch and prevent its falling from its position.

When the catch is clamped upon the rim of the bucket, it is limited in its upward movement by the engagement of the rim with the under side of the cross head or bar 3. The curvature of the recess 10 is sufficient to underlie the rim to some extent and prevent the catch from being lifted, especially when the parts are drawn taut, as they are when clamped upon the bucket.

The central portion of the cross head or bar 3 is provided with a bearing 14, which receives a vertical shaft 15, the said shaft extending above and below the bearing. The lower end of the shaft is provided with a head 16, through which extends a rod or bar 17. The bar 17 is extended beyond the head 16 unequal distances upon each side thereof, and their outer ends are turned downwardly to form curved kneading-arms 18 and 19. These arms are curved so that when the shaft 15 is rotated they will be dragged over the dough or other material placed in the bucket.

1. The outer end of the shaft 15 projects a sufficient distance above the bearing 14 to receive an operating-handle 20, by which the shaft may be turned. Of course it will be apparent that the operative mechanism carried by the cross head or bar 3 may be of any desired type for operating in or upon contents placed within the receptacle.

In using the device the hooks 6 are placed upon the overhanging edges 2 of the bucket, the catch or clamp member 7 being depressed

below the cross head or bar 3. The end carrying said clamp member or catch is then depressed until the curved surface of the recess 10 engages the rim of the bucket. By pressing upon the end of the cross head or bar 3 adjacent to the catch the said catch will be sprung into its locked position, as shown in Fig. 1, and will draw the cross head or bar tightly in place upon the upper edge of the bucket, and the catch or clamp member 7 will spring upwardly as far as the cross head or bar will permit or until the rim is in contact with the under surface of the cross head or bar. Since the rim-engaging recess of the catch springs a little above the plane of pull across the bucket, the catch will retain the position in which it has been sprung without further fastening means. In order, however, not to have the inner end of the catch accidentally depressed by its being struck by something, it is usually best to give the turn-button 12 a slight movement to bring its edge beneath the end of the catch 7. The end of the said catch is preferably raised or bent upwardly slightly for receiving the said button, as shown at 21, though of course the entire catch may be spread, if preferred. Of course it will be understood that any changes in minor details of construction are considered within the spirit of my invention.

It will be observed by reference to the drawings that the curved recesses formed upon the catch are preferably made by thickening the catch upon its under side or forming a depending shoulder, the shoulder producing an abutment to bear against the rim or edge of the bucket.

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

1. A mechanism-support for open receptacles, comprising a cross-head having a pivoted member extending inwardly from one of its ends and formed with a receptacle-engaging socket capable of locking the said cross-head upon the receptacle when brought to a position approximately parallel with said cross-head.

2. A mechanism-support for receptacles, comprising a cross-head having rim-engaging means at one end, an inwardly-extending catch pivoted at its outer end upon the opposite end of the cross-head, the said catch extending inwardly from its pivotal point and having a socket for receiving the rim of the receptacle, the locking means being brought to a position approximately in the plane of the cross-head for binding the same in position.

3. A mechanism-support for receptacles, comprising a cross-head having rim-engaging hooks at one end and a rim-engaging locking means at the other end, said locking means comprising a pivoted member pivoted at its outer end to the outer end of the cross-head

and extending inwardly from the rim of the receptacle, the said pivoted member having a socket for receiving the rim of a receptacle and binding the cross-head in position when the said member is brought between the rim and its pivotal connection with the cross-head.

4. A mechanism-support comprising a cross-head having an end capable of overhanging a receptacle, and a vertically-movable lock pivotally mounted upon said overhanging end of the cross-head and normally wedged between said end and the rim of the receptacle for gripping said rim.

5. A mechanism-support for receptacles, comprising a cross-head having one end adapted to project beyond the end of the receptacle, a pivoted latch pivotally connected with the projecting end of said cross-head and extending backwardly to the rim of the receptacle for locking the cross-head in place.

6. A mechanism-support for receptacles, comprising a cross-head having one end projecting beyond the receptacle and depressed below the same, a pivoted latch carried by the said depressed end and extending back to the rim of the receptacle therefrom and a lever for operating the same.

7. A mechanism-support for receptacles comprising a cross-head having one end projecting beyond the receptacle and depressed, a pivoted catch having a head pivotally se-

cured to said depressed end of the cross-head and formed with a rim-receiving recess, the cross-head being locked in place when the catch is moved to bring the rim-receiving recess thereof slightly above the plane of the line of pull between the ends of the cross-head.

8. A mechanism-support for receptacles, comprising a cross-head having an overhanging end portion extending a little beyond the rim of the receptacle, a catch pivotally connected with the said overhanging end and engaging the rim, the cross-head, where it extends over the rim of the receptacle being limited in its downward movement by the said rim at a proper point to hold the catch in a locked position.

9. A mechanism-support for receptacles comprising a cross-head having a bifurcated end overhanging the rim of the receptacle, and a vertically-movable lock pivotally mounted upon the bifurcated end of the cross-head and capable of being wedged between said end and the rim of the receptacle, for binding the support in position.

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

JOSEPH A. REAMS.

Witnesses:

W. E. PERKINS,

L. A. DAUGHERTY.