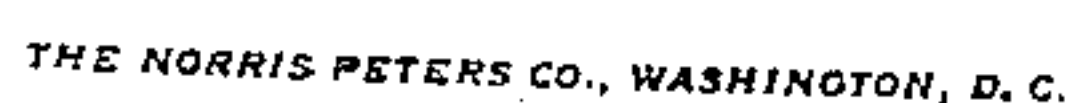


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PATENTED FEB. 5, 1907.

W. DICKS.
MIXER.

APPLICATION FILED JAN. 6, 1906.



UNITED STATES PATENT OFFICE.

WILLIAM DICKS, OF ALBION, NEW YORK.

MIXER.

No. 843,136.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed January 6, 1906. Serial No. 294,949.

To all whom it may concern:

Be it known that I, WILLIAM DICKS, a citizen of the United States, residing at Albion, in the county of Orleans and State of New York, have invented a new and useful Improvement in Mixers, of which the following is a specification.

My invention relates to improvements in mixers, and more particularly to bread and cake mixers.

The objects of my invention are, first, to provide a simple, durable, and efficient clamp and base for holding the mixers; second, to provide a strong bearing for the mixing or kneading rod, and, third, to provide means for firmly and simply holding the cover upon the receptacle.

I attain the objects of my invention by the apparatus shown in the drawings herewith and made a part of this specification, in which—

Figure 1 is a vertical central section of a mixer provided with my improvement. Fig. 2 is a plan view of my clamping and securing device. Fig. 3 is an enlarged detail section of my improved bearing for the mixing-rod, and Fig. 4 is an edge view of the clamping-arm 9.

Like characters of reference indicate corresponding parts in the drawings.

The receptacle 1 is a standard tin pail having a raised bottom 2 and the usual flange 3 at the bottom. It is one of my objects in my clamp construction to provide means which may thus be used in connection with a pail of standard manufacture and form. The pail is provided with a cover 4 and has the regular mixing-rod 5, which is rotated by the crank 6. The ears 7 are of standard construction also.

With the well-known parts of the apparatus thus generally indicated I will first describe my improved clamping and securing device.

The clamp proper consists of the arms 8 and 9, arranged at right angles and centrally secured together by a rivet 10. It will be seen by reference to Figs. 1 and 4 that these clamping-arms 8 and 9 are centrally sprung or dished upwardly and that they rest upon their extreme ends and clear the table or shelf 11 (see Fig. 1) at their center and over their length except at their ends. The arm 8 at its inner end has an upturned hook or grip 12, which engages over the flange 3. At its opposite end it has a downwardly-bent

extension 13, which is secured by rivets to a bracket 14, which has a thumb-screw 15 threaded to it to engage the under side of the table or shelf 11. The bracket 14 is further secured to the arm 8 by means of a long rivet 16, which meets the strain of the thumb-screw 15. The arm 9 has upturned ends or hooks 17 and 18, which also engage over the flange 3, the same as the end 12 of the arm 8. A clamping-piece 19 has an inturned or hook end 20 and is adjustably held by a thumb-screw 21, which is threaded into the bracket 14. The lower end of this clamping-piece bears against the face of the extension 13 of the arm 8, and its hooked upper end is capable of engaging over the flange 3 of the pail.

The operation and object of this part of my invention may now be described. The clamping apparatus is first secured to a table or shelf, as shown in Fig. 1, by the thumb-screw 15. The thumb-screw 21 being well unscrewed, but not freed from its thread in the bracket 14, the clamping-piece 19 will, by means of the play given by the hole in it through which the thumb-screw 21 passes, be released, so that it may be turned to one side of the other to move its hook end 20 out of the way. The receptacle 1 is then slid in, so that the flange 3 engages between the hook ends 17 and 18 of the arm 9, and is finally forced into engagement with the hook end 12 of the arm 8. The clamping-piece 19 is now put in place, so that the hook end 20 engages over the flange 3, and then the thumb-screw 21 is tightened. This of course firmly clamps the receptacle by the flange 3 at four points; but it does more. The strain of the thumb-screw 21 by reason of its leverage against the extension 13 and against the flange 3 tends to straighten out the bend or curve of the arm 8, and as the arm 8 is centrally secured to the arm 9 this tendency extends also to the arm 9. This results in bringing the three ends underneath, 12, 17, and 18, down firmly upon the table or shelf, so that the receptacle is not only clamped to the table or shelf, but is made to rest firmly thereon. Furthermore, the slight spring action thus produced in the arms 8 and 9 tends to prevent loosening of the thumb-screws 21 or 15 when the apparatus is being used.

Referring now to the second feature of my invention, the proper provision of a bearing for the rod 5 has been heretofore a source of expense and trouble, since it has to be secured to the tin cover 5, which is lacking in strength

and rigidity. I meet this difficulty in the following simple but effective manner: I employ a cup-shaped casting or stamping 22, a plate or strip of heavy tin 23, and a bearing-tube 24. The cup-shaped piece 22 is bored centrally to receive the tube 24, and the tin 23 is centrally stamped to receive the end of the tube 24. The top and bottom peripheries of the tube 24 are then flanged, as clearly shown in Fig. 3, thus firmly securing the three parts, and then the tin plate 23 is soldered to the under side of the cover 4. In this manner the use of rivets to secure the periphery of the cup 22 is dispensed with, machining of parts obviated, and a strong bearing for the rod 5 insured. The use of the plate 23 serves to reinforce the cover 4 and overcome its inherent weakness.

Referring now to the third feature of my invention, it is desirable in this class of devices that means be provided for positively securing the cover down closely over the receptacle. By a modification of the bail I make it serves the double purpose of affording a handle and also means for fastening down the cover. 25 represents the bail in Fig. 1, the two broken ends of which are shown and which will be understood as parts of a single-wire bail. The ends are bent inwardly, as shown at 26, and then outwardly in nearly a straight line, as shown at 27. These straight portions engage through the ears 7 and bear down upon the cover 4, holding it down in place. The bail is readily removed by pressing one of the ends inwardly and is thus easily removed and replaced and, as stated, affords both carrying and securing means without addition of parts or added cost of manufacture.

Having thus described my invention and its method of operation and use, what I claim is—

1. In combination with the receptacle, a clamp for holding the same comprising two arms arranged and secured transversely of each other, hooked ends on said arms to engage said receptacle peripherally at three points, a bracket and means for attaching said clamp to a table or shelf, and a clamping-piece adjustably secured to said bracket to engage said receptacle at a fourth point.

2. In combination with the receptacle, a clamp for holding the same comprising arms arranged and secured transversely of each other and centrally bent or dished upwardly,

hooked ends on said arms to engage said receptacle peripherally at three points, a bracket and means for attaching said clamp to a table or shelf, and a clamping-piece adjustably secured to said bracket and means for forcing said clamping-piece into engagement with said receptacle at a fourth point and tending to overcome the bend or dish of said arms.

3. In combination with the receptacle, a clamp for holding the same comprising arms arranged and secured transversely of each other and centrally bent or dished upwardly, hooked ends on said arms to engage said receptacle peripherally at three points, a bracket secured to one end of one of said arms, a thumb-screw in said bracket for securing said clamp to a table or shelf, a thumb-screw threaded to said bracket, a clamping-piece taking over said thumb-screw and having one end capable of engaging the periphery of said receptacle at a fourth point and fulcrumed against said bracket.

4. In combination with the receptacle, a clamp for holding the same comprising arms arranged and secured transversely of each other and centrally bent or dished upwardly, hooked ends on said arms to engage the flange on said receptacle peripherally at three points, a bracket secured to one end of one of said arms, a thumb-screw in said bracket for securing said clamp to a table or shelf, a thumb-screw threaded to said bracket, a clamping-piece taking over said thumb-screw and having one end capable of engaging the periphery of said receptacle at a fourth point fulcrumed against said bracket, and a reinforcing-rivet securing said arm and the horizontal part of said bracket.

5. In combination with the cover and the mixing-rod, a bearing comprising a cup-shaped casting or stamping, a plate and a tube constituting the bearing proper for said mixing-rod, said tube being flanged or upset over the outer end of said casting or stamping and in and over said plate to rigidly secure said cup, tube, and plate together and said plate secured to said cover.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

WILLIAM DICKS.

Witnesses:

J. W. CORNELL,
G. T. S. FOOTE.