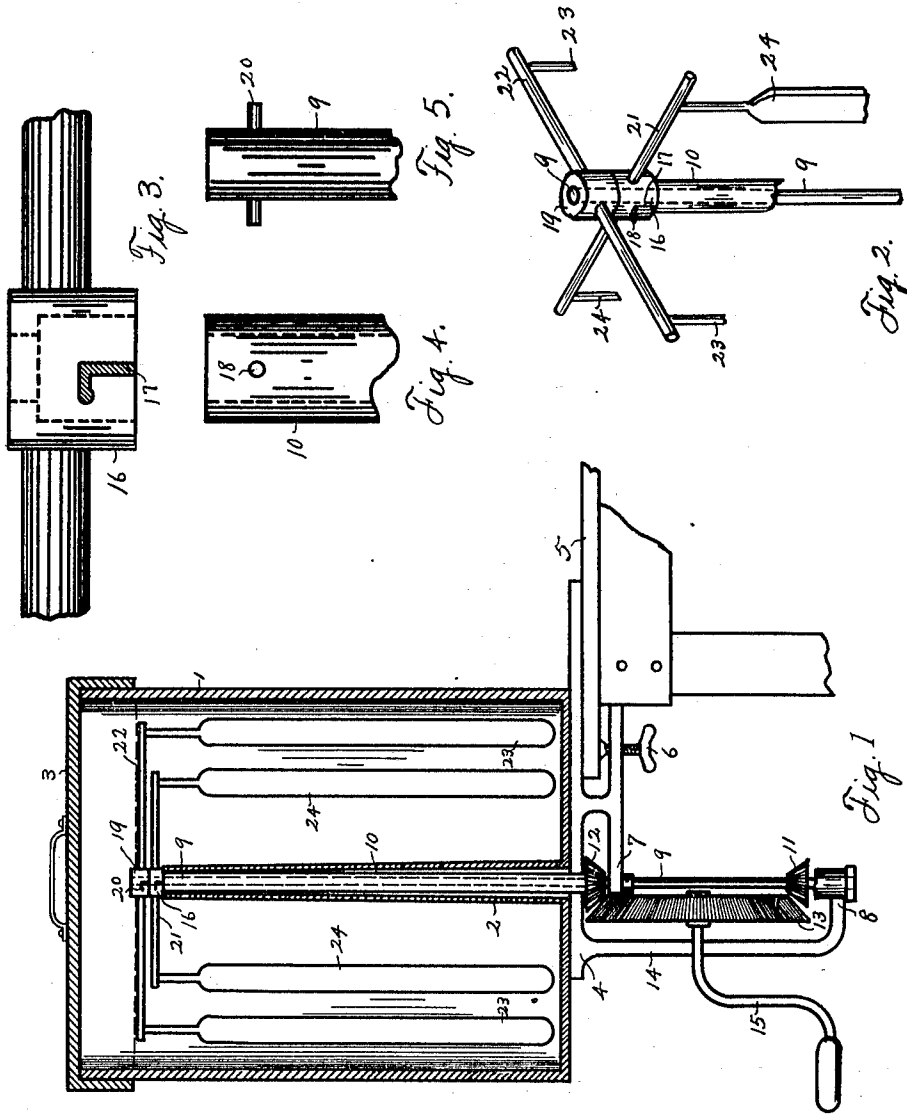


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 OHURN.
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1,055,383.

Patented Mar. 11, 1913.



WITNESSES:

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CHURN.

1,055,383.

Specification of Letters Patent.

Patented Mar. 11, 1913.

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To all whom it may concern:

Be it known that I, HERBERT E. BROWN, a citizen of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Churns, of which the following is a specification.

My invention relates to new and useful improvements in churns.

15 The object of the invention is to provide a device of the character described, having a plurality of rotatable agitators arranged in the milk receptacle and means for rotating said agitators.

15 Another object of the invention resides in the provision of a securing means for securing the agitators to the rotating mechanism whereby said agitators may be readily removed from the receptacle, when it is desired to cleanse the same.

20 With the above and other objects in view, the invention has particular relation to certain novel features of construction, operation and arrangement of parts, an example of which is given in this specification and illustrated in the accompanying drawings, wherein—

30 Figure 1 is a side elevation of the complete device, showing the milk receptacle in section. Fig. 2 is a fragmentary perspective view of the agitators secured to the rotating means. Fig. 3 is a diagrammatic fragmentary view of the agitator support, and Figs. 4 and 5 show, respectively, the upper ends of the agitator rotating means.

35 Referring now more particularly to the drawings wherein like numerals of reference designate similar parts in each of the figures, the numeral 1 refers to a milk receptacle, whose bottom has a central orifice, surrounding which is the upstanding sleeve 2, which is secured to the bottom of the receptacle and which projects upwardly into the same. The milk receptacle has a suitable covering 3.

40 The milk receptacle is designed to rest upon a suitable platform 4, preferably formed of cast metal and this platform is designed to be secured to a table or other suitable support 5 by means of the hand screw 6, in the ordinary and well known manner. Depending from the platform 4 and cast integral therewith are the bearings 7 and 8 vertically alined with each other and rotatable in said bearings is the vertical shaft 9 which extends upward through the

sleeve 2. Resting upon the bearing 7 and surrounding the shaft 9, within the sleeve 2, is the hollow shaft 10. Rigidly secured upon the lower end of the shaft 9 is the pinion 11 and rigidly mounted upon the shaft 10 is the pinion 12 and meshing with said pinions is the bevel gear wheel 13 mounted in a suitable bearing in the casting 14 which depends from the platform 4 and supports the bearing 8. This bevel gear wheel is provided with a crank 15 through which the same is rotated. The rotation of the bevel gear wheel 13 imparts relative rotation to the pinions 11 and 12, but in opposite directions.

45 The numeral 16 refers to a socket member which is designed to fit over the upper end of the hollow shaft 10 and which is provided with a vertical slot 17 whose upper end has a lateral extension. The pin 18 carried by the upper end of the shaft 10 passes up the slot 17 and engages in the lateral extension of the upper end thereof and the socket member 16 is thus secured on said shaft while the shaft rotates, but may be readily detached therefrom. A socket member 19 is also provided which fits over the upper end of the shaft 9 and which engages in a similar manner with the pin 20 carried by the upper end of said shaft. The socket members 16 and 19 are provided with horizontal rods 21 and 22 which extend each way therefrom and from the free ends of which depend the respective agitators 23, 23 and 24, 24 which are paddle shaped members and which extend almost to the bottom of the milk receptacle.

50 It is obvious, when the crank 15 is turned, the shafts 9 and 10 will be rotated in the opposite direction through the gear wheel 13 and the pinions 11 and 12 and the agitators 23, 23 and 24, 24 will accordingly sweep around through the milk receptacle in opposite directions and will thoroughly agitate the milk, with the result that the butter will be quickly separated therefrom.

55 While I have shown only one form of this device, it is apparent that various changes may be made in the mechanical construction thereof and I hereby reserve the right to vary the construction thereof, so long as I do not depart from the principle as set forth in the appended claims.

What I claim is:—

1. A device of the character described including a suitable support and a milk recep-

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tacle mounted thereon, the bottom of said receptacle being provided with a central orifice, a sleeve secured to said bottom and surrounding the orifice and extending upwardly within said receptacle, two shafts, one of which is hollow and surrounds the other, rotatably mounted in suitable bearings depending from said support and extending up through said receptacle sleeve and being rotatable independent of each other and of said sleeve, means for rotating said shafts in opposite directions, a rod detachably secured to the top of each shaft and an agitator secured to each end of each rod and depending therefrom.

2. A device of the character described, including a suitable supporting platform and a plurality of aligned shaft bearings depending therefrom, two shafts rotatably mounted in said bearings, one of which is hollow and surrounds the other, a pinion carried by the lower end of each shaft and a bevel gear

wheel meshing therewith and arranged to rotate said pinions and shafts in opposite direction, a receptacle mounted upon said platform whose bottom is provided with a central orifice through which said shafts project, a sleeve secured to said bottom and projecting up within the receptacle and surrounding said shafts, an agitator detachably secured to the top of each shaft, said agitator including a central bearing member and rods integral therewith and projecting each way therefrom, and a paddle shaped agitator secured to and depending from the free end of each rod.

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

HERBERT E. BROWN.

Witnesses:

MAY MONTGOMERY,
J. W. YEAGLEY.

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