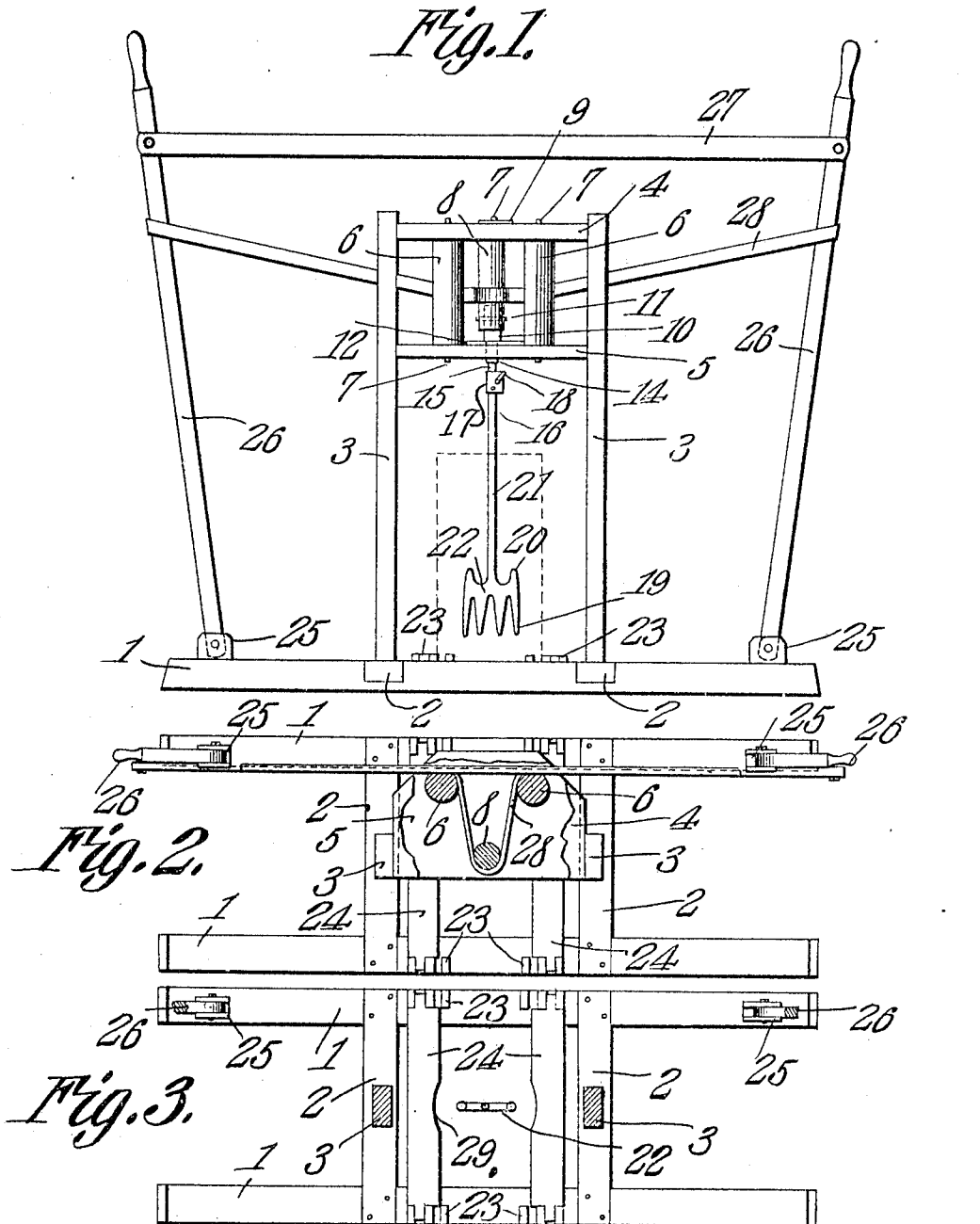


R. F. BOGER.
CHURN.
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UNITED STATES PATENT OFFICE.

REECE F. BOGER, OF CONCORD, NORTH CAROLINA.

CHURN.

950,364.

Specification of Letters Patent.

Patented Feb. 22, 1910.

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To all whom it may concern:

Be it known that I, REECE F. BOGER, a citizen of the United States, residing at Concord, in the county of Cabarrus and State of North Carolina, have invented a new and useful Churn, of which the following is a specification.

The objects of the invention are the provision, in a merchantable form, of a device of the class above specified, which shall be inexpensive to manufacture, facile in operation and devoid of complicated parts.

With these and other objects in view, as will hereinafter more fully appear, the invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain peculiar and distinctive features of the device, it being understood that within the scope of what hereinafter is thus claimed divers changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings:—Figure 1 shows the invention in front elevation; Fig. 2 is a transverse section above the platform 5 of Fig. 1; Fig. 3 is a transverse section below the platform 5 of Fig. 1.

The invention comprises a pair of parallel sills denoted in the several figures by the numeral 1. Intermediate their ends these sills 1 are united by transverse braces 2, which may be mortised into the sills. Rising from the braces 2 are standards 3, united near their upper terminals by platforms 4 and 5, spaced apart. These platforms 4 and 5 are laterally extended upon one side beyond the standards 3, and between the platforms, in the extended portions thereof, are journaled for rotation a pair of guide rollers 6. Each of these rollers 6 is terminally provided with bearings 7 which extend through the platforms 4 and 5. The drive roller 8 is disposed between the guide rollers 6, but out of alinement with them, so that it is disposed between and in substantial alinement with the standards 3. Mounted upon

the upper surface of the upper platform 4 is a bearing plate 9 having an aperture to receive the pin 7, which is mounted in the upper terminal of the drive roller 8. The lower end of the drive roller 8 is provided with an axial opening, in which is mounted a bearing member 10. This bearing member 10 may be assembled with the drive roller 8 by means of a pin 11 passing transversely through the member near the lower end of the drive roller. Mounted upon the upper surface of the lower platform 5 is a bearing plate 12, having an aperture to receive the reduced lower end 14 of the bearing member 10. The lower extremity 15 of the portion 14 is rendered polygonal in cross section.

The dasher comprises a blade 22, from which rises a shank 21, and this shank 21 at its upper terminal 16 is rendered polygonal in cross section. The portion 16 of the dasher carries a clamp 17, designed to engage the portion 15 of the bearing member, the clamp being actuated by means of a set screw 18. The blade 22 of the dasher is flat and preferably is formed integral with the shank. The blade upon its lower edge is notched to form depending arms 19, which, in the present instance, are four in number. The upper edge of the blade is notched upon either side of the shank to form upstanding arms 20, and these arms 20 are shown as two in number.

Mounted upon the sills 1 between the braces 2 upon either side of the device, are cleats 23. Transverse jaws 24 are shown and designed to extend across the space between the sills 1, and being provided with reduced terminals to register in the cleats 23. Intermediate their ends and upon their adjacent faces these jaws 24 are cut away as denoted by the numeral 29 to receive a can of any approved type, indicated in dotted line in Fig. 1.

Mounted upon one of the sills 1 near its ends, are upstanding ears 25, and between each pair of these ears is pivoted at its lower end, a lever 26. These levers 26 are united near their upper ends by a tie rod 27, which is terminally pivoted to the said levers. A flexible element 28 has its terminals connected with the levers 26 below the tie rod 27, the flexible element, intermediate its ends, being passed about one of the guide rollers 6, thence around the drive roller 8, and thence around the other guide

roller 6, the particular disposition of the flexible element 28 just described being most clearly shown in Fig. 2.

The operation of the device is thought to be obvious from the foregoing description. However, it may be stated that, after the can has been placed between the jaws 24, the said jaws may be moved in the cleats 23 to firmly engage the said churn. The dasher is then introduced into the churn and assembled with the operating mechanism of the device by means of the clamp 17. The levers 26 are then reciprocated, causing the flexible element 28 to pass to and fro over the guide rollers 6 and over the drive roller 8, whereby the dasher will be rotated. The rod 27 serves to space apart the levers 26 and to hold the flexible element 28 taut. The tie rod furthermore forms a rigid connection between the levers, so that they may be simultaneously operated. The particular disposition of the levers 26 shown in the drawings makes it possible for two persons working together to operate the churn without being in each other's way. The drive roller 8, since it carries the dasher, is subjected to more severe strain than are the guide rollers 6, and for this reason the drive roller is disposed between and in alinement with the standards 3. This disposition of the drive roller 8 furthermore centers it between the sills 1 and between the jaws 24. The levers 26 are mounted upon one of the sills 1 at the side of the device, and, in order that the guide rollers 6 may be in substantial alinement with the levers 26, the platforms 4 and 5 are laterally extended upon one side, as shown.

The device, although simple in construction, furnishes a means whereby the churning operation may be carried on with despatch and with a minimum of physical effort.

Having described the invention, what is claimed is:—

1. A device of the class described comprising a pair of sills; spaced braces uniting the sills; cleats mounted upon the sills between the braces; a pair of jaws having reduced ends to register removably between the cleats; standards rising from the braces; a platform uniting the standards; a roller

carried by the platform; a dasher removably assembled with the roller and disposed above and between the jaws; and means for operating the roller.

2. A device of the class described comprising spaced upper and lower platforms; bearing plates mounted upon the upper faces of the platforms; a roller disposed between the plates and apertures axially in its lower end; a bearing member inserted in the aperture of the roller and adapted to rest upon the bearing plate of the lower platform, the bearing member being provided with a reduced terminal to extend through the lower platform and the bearing plate thereof; a pin mounted in the upper end of the roller and extended through the upper platform and the bearing plate thereof; a dasher removably assembled with the reduced terminal of the bearing member; means for operating the roller; and means for assembling the bearing member with the roller.

3. A device of the class described comprising spaced upper and lower platforms; bearing plates mounted upon the upper faces of the platforms; a roller disposed between the plates and apertured axially in its lower end; a bearing member inserted in the aperture of the roller and arranged to rest upon the bearing plate of the lower platform, the bearing member being provided with a reduced terminal to extend through the lower platform and the bearing plate thereof, the terminal of the bearing member being rendered polygonal below the lower platform; a pin mounted in the upper end of the roller and extended through the upper platform and the bearing plate thereon; a dasher removably assembled with the polygonal portion of the bearing member; means for operating the roller; and means for assembling the bearing member with the roller.

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

REECE F. BOGER.

Witnesses:

OLLIE FISHER,
W. A. OVERCASH.