



PATENT SPECIFICATION

Convention Date (Germany) : Feb. 27, 1920.

159,462

Application Date (in United Kingdom) : Feb. 21, 1921. No. 5842 / 21.

Complete Accepted : Sept. 8, 1921.

COMPLETE SPECIFICATION.

Improvements in or relating to Churns.

We, the Firm BING-WERKE vorm. GEBRÜDER BING A.—G., of No. 16 Blumenstrasse, Nuremberg, Free State of Bavaria, Germany, a firm incorporated under the German law, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

10 There have already become known churns in which the reversing of the direction of rotation of the agitating blade is effected by a driving gear arranged parallel with the lid of the churn and
15 covered by a protecting cap, whereby a low height of construction of the churn is ensured.

The invention relates to churns of this type and it consists in fixing upon the
20 screw lid of the churn a reinforcing plate which permits not only the mounting of the parts of the driving gear but gives further to the protecting cap the required resistance against the shaking
25 movements. This reinforcing plate facilitates further the cleaning of the driving gear, as this driving gear is arranged above the same so that it is easily accessible when the protecting cap
30 is lifted. It acts further as an abutment for the protecting cap.

In the drawing a form of construction of the object of the invention is shown in

35 Fig. 1 in a cross section taken through the churn on line A—A of Fig. 2, and Fig. 2 is a plan view of the same.

A reinforcing plate 3 is connected with the usual screw lid 1 of the churn 2, *e.g.*
40 by soldering, said plate 3 carrying at a certain distance apart a second plate 4 by means of bolts 5, 6 and 7. The toothed wheel gear 8, 9 is mounted between these plates 3 and 4. The small toothed wheel

8 is keyed upon the churning spindle 8^a 45 which is guided in the upper plate 4 and in a bush 10 fixed upon the inner surface of the lid 1, the toothed segment 9 being adapted to oscillate around the fixed axle 7. The toothed wheel 8 bears with a
50 collar upon the plate 3, the toothed segment 9 resting upon the collar 11 of the axle 7. A ring 11^a is mounted between the toothed segment 9, which is narrower than the pinion 8, and the plate
55 4, said ring 11^a being designed to prevent axial displacements of the toothed segment. The rear end of the toothed segment 9 is formed by an arm 12 whose end has threads 14^a designed to receive a
60 wooden handle 13. The different parts of the driving gear are covered by a rotatable cap 14 hinged to the lid 1, said cap embracing the plate 3 tightly. Corresponding to the two end positions of the
65 segment lever the cap 14 has a guide slot 15 whose edges can form at the same time the abutments for the segment lever 12. Other abutment pins could however be used.

70 The operation is effected by simply reciprocating the wooden handle 13 with one hand, the angle of oscillation of the agitating blade being enlarged or reduced at will, the other hand gripping the cap
75 14 which has a smooth upper surface.

The wooden handle is removably screwed on so that it can be stored in the churn for transport.

Having now particularly described and
80 ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. Churn in which the alternating
85 direction of rotation of the agitating blade is effected by a covered driving gear arranged parallel with the lid, charac-

[Price 1/-]

terized in this that upon the screw lid (1)
of the churn (2) a reinforcing plate (3) is
fixed which serves, together with the lid,
for mounting the driving gear and further
5 as abutment for a protecting cap (14)
when the same is in the closed position.

2. Churn as claimed in Claim 1 characterized in this that the driving gear consists of a small pinion (8) keyed upon

the churning spindle (8^a) and of a 10
toothed segment (9) whose arm (12) has
a removable handle (13).

Dated this 21st day of February, 1921.

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[This Drawing is a reproduction of the Original on a reduced scale.]

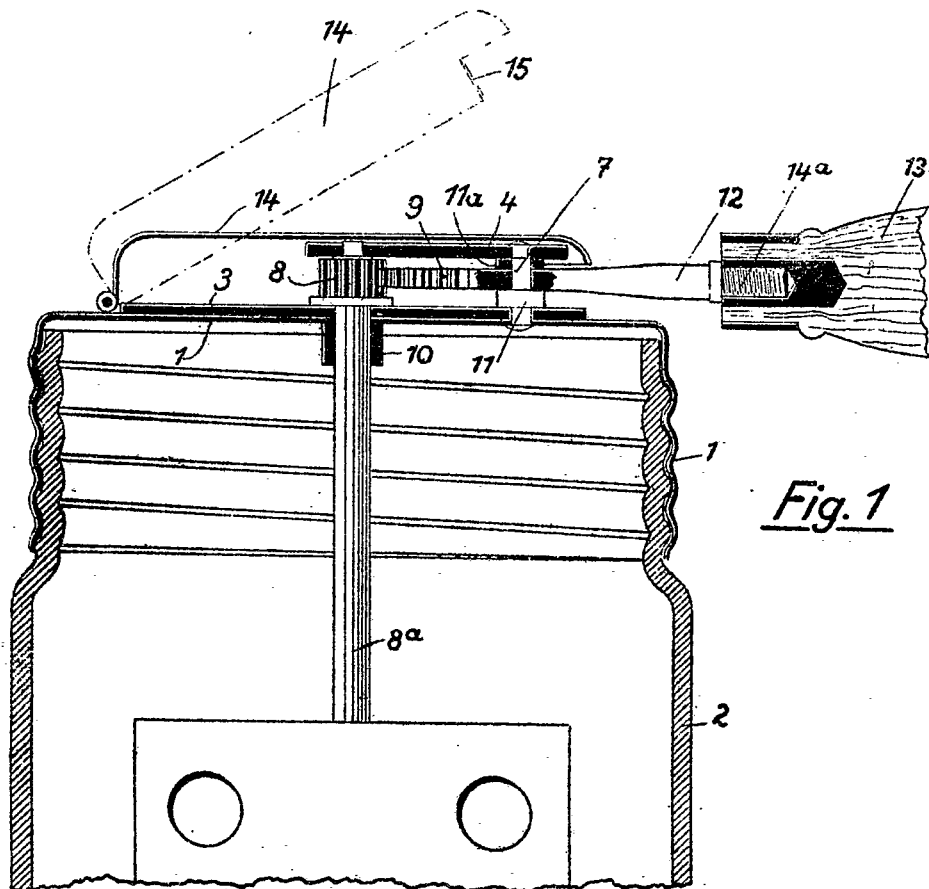


Fig. 1

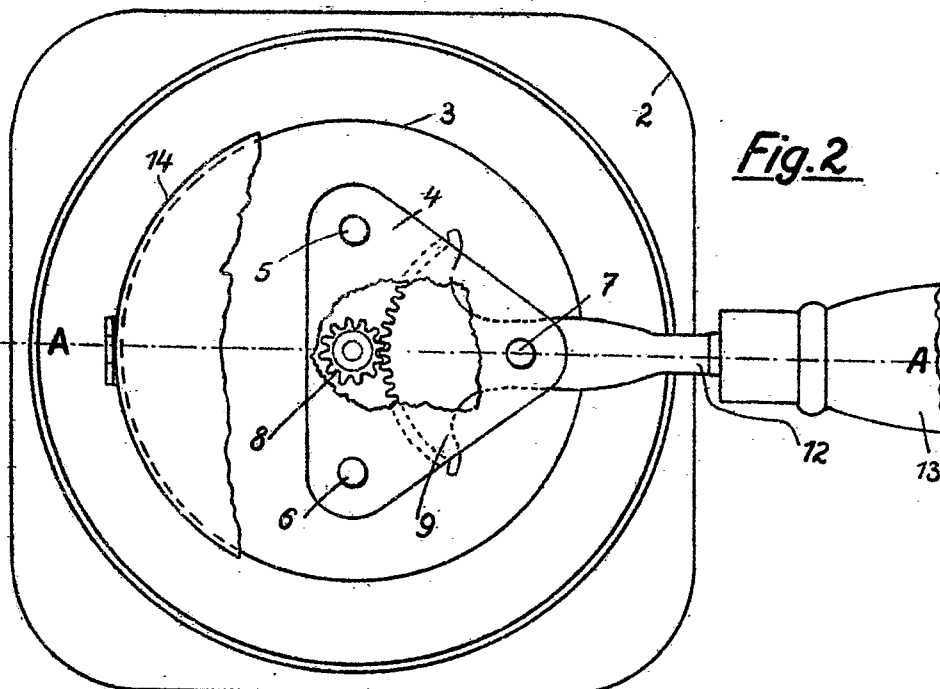


Fig. 2