(No Model.)

E. H. ROBERTS.

CHURN.

No. 465,030. Patented Dec. 15, 1891.

FIG. 1.

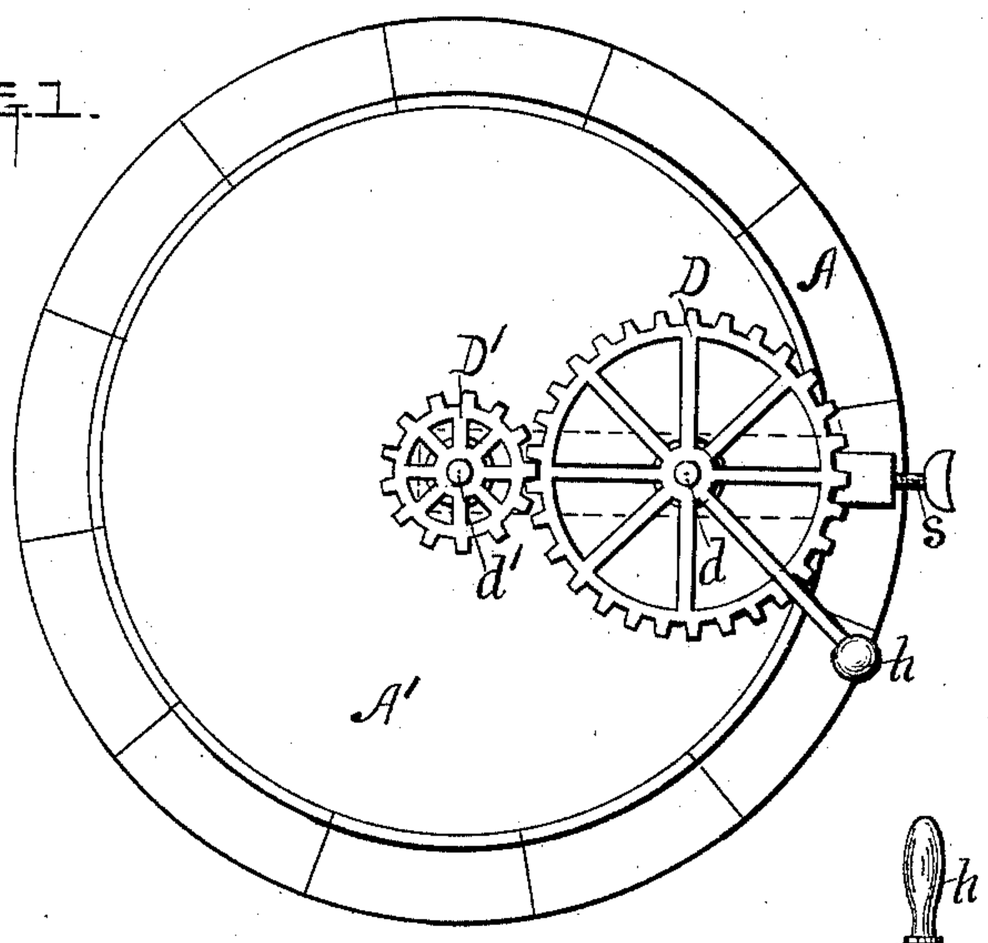
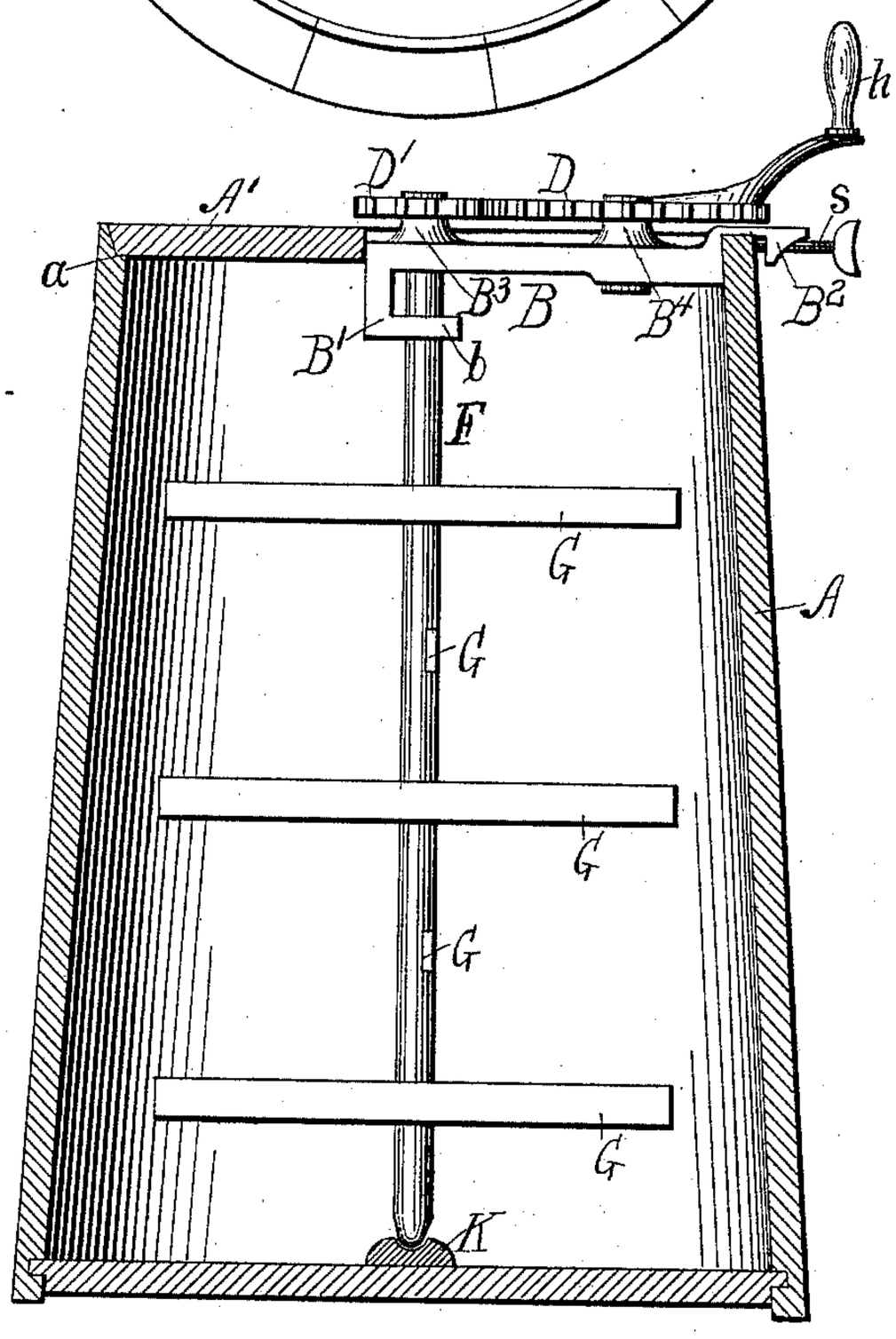


FIG. 2.



Witnesses.
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E. B. Champion

Inventor
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UNITED STATES PATENT OFFICE.

ELBERT HARDIN ROBERTS, OF MEXICO, MISSOURI.

CHURN.

SPECIFICATION forming part of Letters Patent No. 465,030, dated December 15, 1891.

Application filed May 7, 1891. Serial No. 391,860. (No model.)

To all whom it may concern:

Be it known that I, ELBERT HARDIN ROBERTS, a citizen of the United States, residing at Mexico, in the county of Audrain and State of Missouri, have invented certain new and useful Improvements in Churns; 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.

My invention relates to certain new and useful improvements in churns; and it has for its main object the provision of a casting which is adapted to support the driving mechanism and to hold the churn-top securely in place and which can be applied to any churn having a vertical dasher-shaft without regard to the shape or size of the churn-vessel or its cover.

Other objects and advantages of the invention will appear in the following description, and the novelty thereof will be particularly pointed out in the claims.

The invention is illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan of a churn embodying my invention; and Fig. 2 is a longitudinal section of the same, partly in side elevation.

Like letters of reference refer to like parts throughout the several views.

A is the cream-vessel or churn-body, the sides of which are shouldered, as shown at *a*, to receive the cover or top A′, which rests on said shoulder. The cover A′ is recessed radially from its perimeter to a point slightly beyond its center for the reception of the casting B. The casting is made of a single piece of metal, and consists, preferably, of a practically oblong body part, having an L-shaped extension or bracket B′ at its inner end, a bracket B^2 at its outer end, and raised bearing-faces B^3 B^4. These bearing-faces are bored for the reception of the spindles *d* and *d′* of the gear-wheel D and the pinion D′. The gear-wheel D is driven by the handle *h*, which may be made integral with the wheel or removably secured thereto, as desired, and meshes with the teeth of the pinion D′, causing the pinion to rotate, and with it the dasher-shaft F, secured to the spindle *d′*. The dasher-shaft passes through an opening in the arm *b* of the bracket B′ of the casting, and sidewise movement of said shaft is thus rendered impossible. A step-bearing K may be provided, however, for the lower end of the shaft, if desired. Beaters of any suitable number and construction—such as the blades G—are secured to the dasher-shaft and revolve therewith. The inner end of the casting B is placed against the end wall of the recess in the cover A′ and the bracket B^2 falls outside the upper edge of the side of the churn. Through a screw-threaded hole in this bracket the binding-screw *s* passes and binds against the side of the churn, holding the inner end of the casting firmly against the end wall of the recess.

By the arrangement above described I am enabled to use the casting B on any churn having a vertical dasher-shaft, as the distance between the body of the casting and the bracket may be of any desired length. By passing the dasher-shaft through the arm *b* of the bracket B′ a steady rotation of the shaft is assured, even when a step-bearing is not provided for the lower end of said shaft.

I do not wish to be understood as limiting myself to the use of my casting for the support of horizontally-placed gear-wheels, as it is evident that these might be replaced by other forms of driving mechanism, such as band-wheels and belting, bevel-gearing, &c.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination with a churn, a device for supporting the driving mechanism and dasher, consisting of a casting adapted to bind at one end against the end wall of a radial recess in the churn-cover and at the other end against the side of the churn, substantially as described.

2. A churn consisting of a cream-receptacle, a cover therefor having a radial recess, a casting adapted to bind at one end against the end wall of said radial recess and at the other against the side of the churn, driving mech-

anism mounted on said casting, and a dasher operated by said driving mechanism, substantially as described.

3. In combination with a churn, a device for supporting the driving mechanism and dasher, consisting of the casting B, adapted to bind at one end against the end wall of a radial recess in the churn-cover and at the other end against the side of the churn and having a perforated bracket B′, bearing-faces B^3 B^4, screw-threaded bracket B^2, and binding-screw *s*, substantially as described.

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

ELBERT HARDIN ROBERTS.

Witnesses:

C. T. MANSFIELD,

JOHN T. MOBRY.