

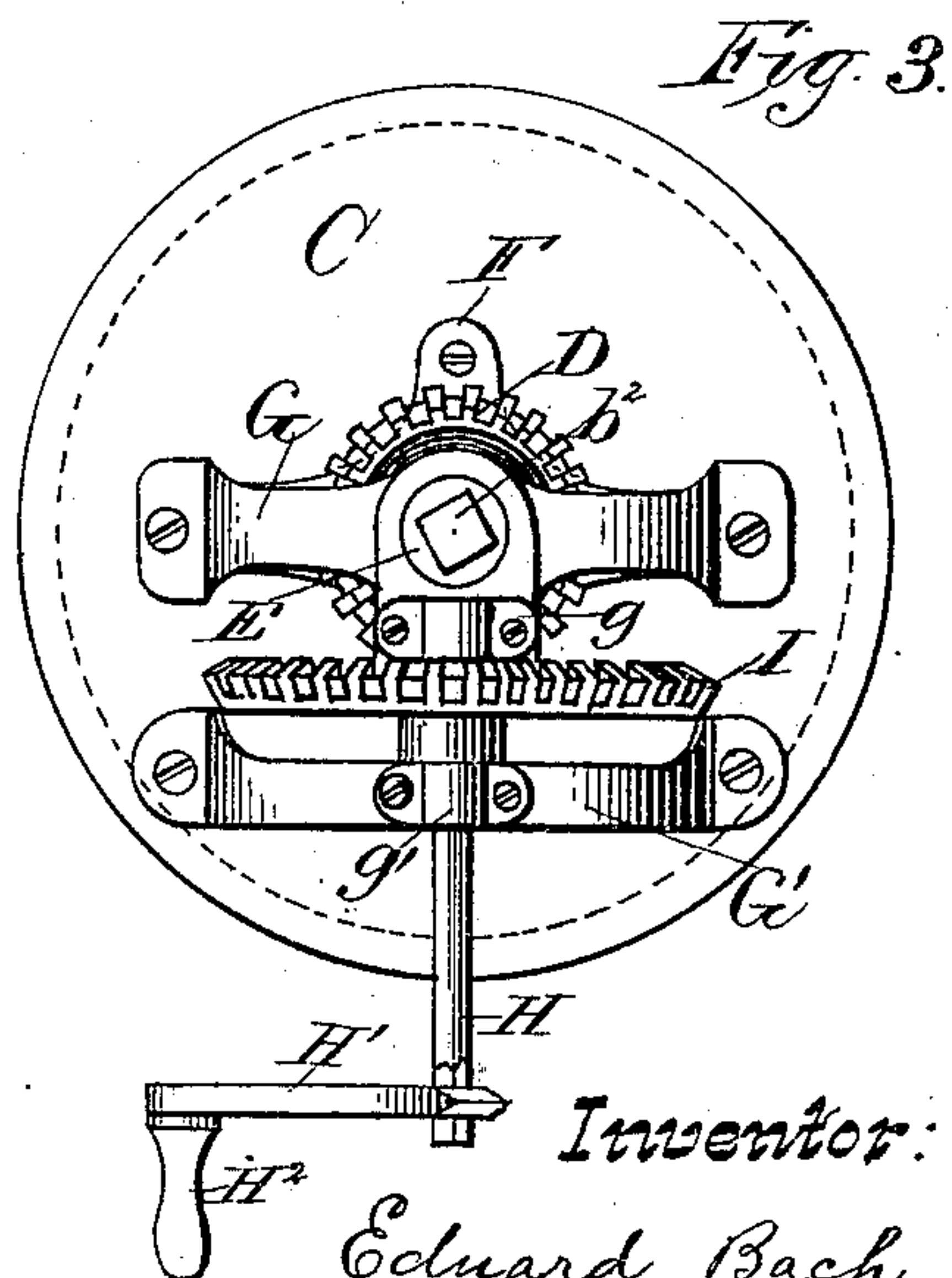
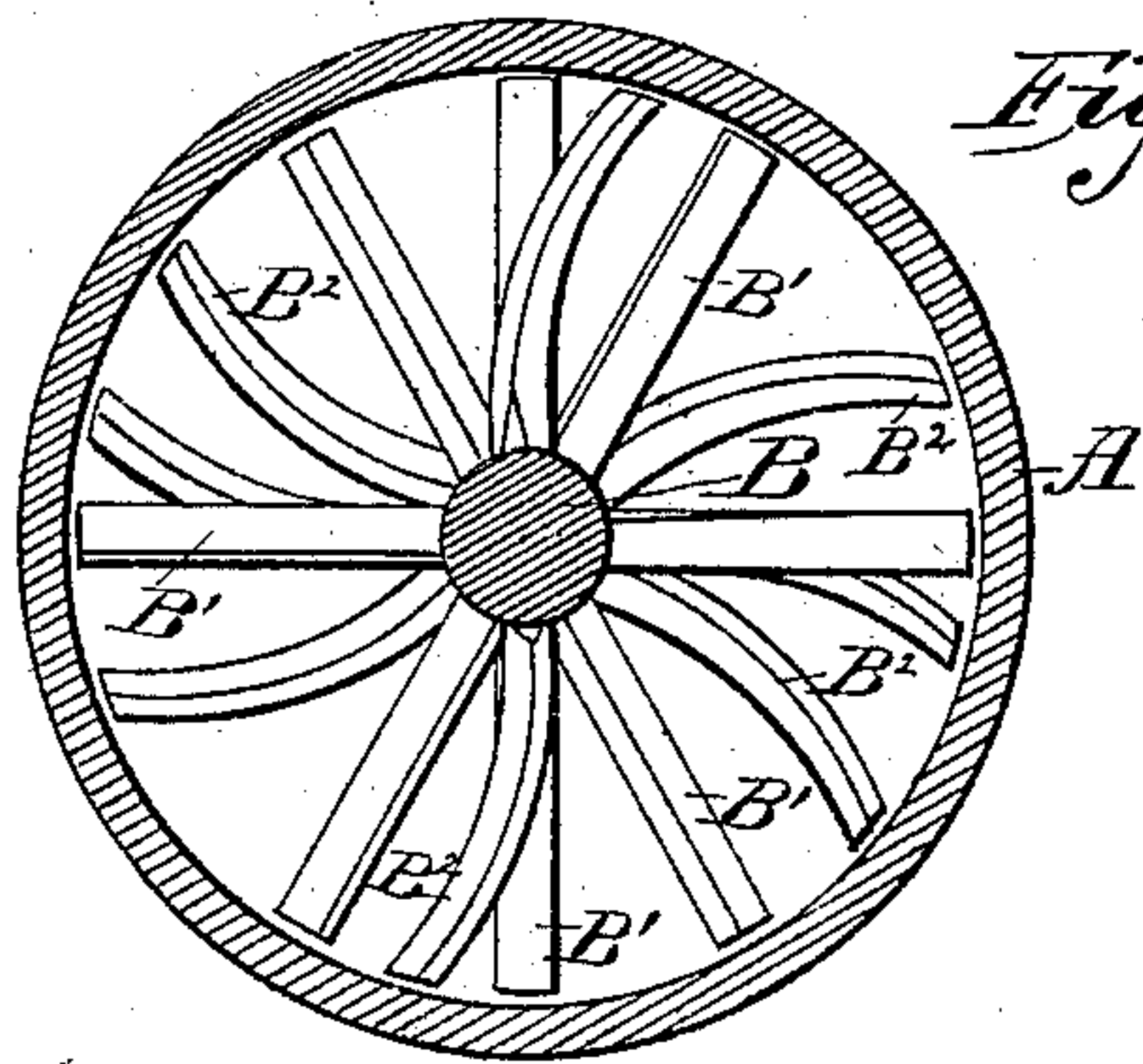
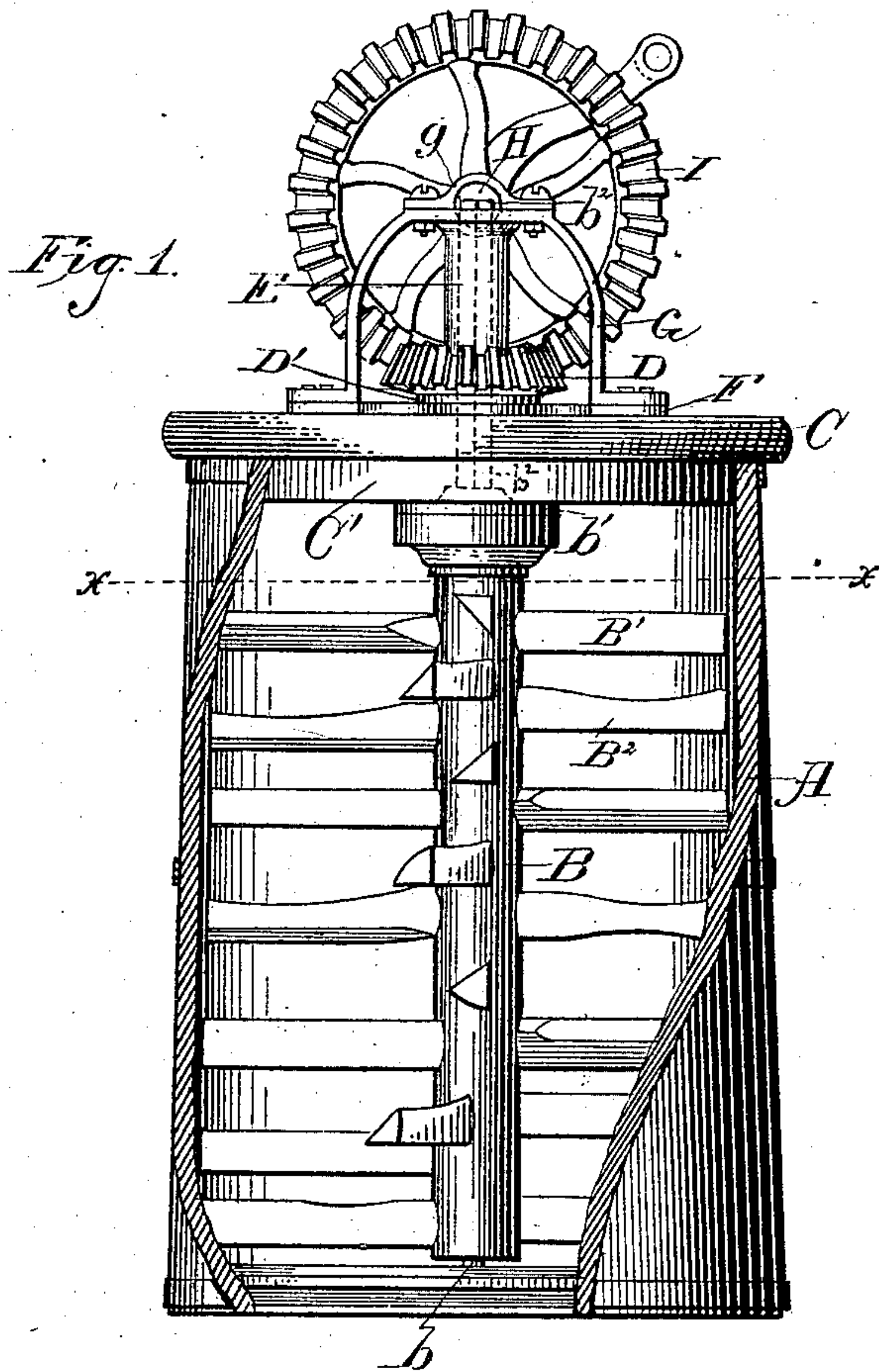
(No Model.)

E. BACH.

CHURN.

No. 275,747.

Patented Apr. 10, 1883.



Witnesses:

E. G.asmus.
J. C. Bowne

Inventor:

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By
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UNITED STATES PATENT OFFICE.

EDUARD BACH, OF RICHFIELD, WISCONSIN.

CHURN.

SPECIFICATION forming part of Letters Patent No. 275,747, dated April 10, 1883.

Application filed September 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDUARD BACH, of Richfield, in the county of Washington, and in the State of Wisconsin, have invented certain new and useful Improvements in Churns; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to churns; and it consists in certain peculiarities of construction, as will be more fully set forth hereinafter.

In the drawings, Figure 1 is a side elevation of my device, partially broken away to show the construction of the dash or shaft and the arrangement of the paddles or stirrers thereon. Fig. 2 is a horizontal cross-section on the line *x x* of Fig. 1, and Fig. 3 is a plan view.

A is the cylinder of the churn, constructed of either wood or metal, or of any material desired, and preferably of tapering form, as shown, with the greatest diameter at the base, to facilitate the removal of the dash in emptying or cleaning the churn.

B is the dash or vertical shaft of the paddles or stirrers *B'* *B*², the said shaft being stepped or journaled, at *b*, in the bottom of the cylinder, and having flange *b'* on top, on which the bottom *C'* of the double lid or cover *C C'* rests, while from the flange the operating-shank *b*² rises. This shank is square in cross-section, and passes up through a perforation in the lid or cover, and also through squared perforations in the horizontal bevel-gear wheel D and sleeve E. The said horizontal bevel-wheel has a downward-projecting hub, *D'*, which is journaled or supported in a perforated plate, F, secured directly on the upper surface, C, of the double lid *C C'*, and from this plate there rises the arched bracket G, perforated at top to receive the upper end of the sleeve E, as best shown in Fig. 3, while the top of the arch is extended toward the handle, and recessed to receive the shaft H, operated by crank-arm *H'* and handle *H*². Another arched bracket, *G'*, is secured on and rises from the upper surface of the lid, nearer its outer circumference than the bracket G, and is also recessed on top to receive and support the described shaft H. *g g'* are caps secured to the brackets G and *G'*, respectively, after the shaft H has received the vertical bevel-gear wheel I and been put in place, the said wheel I being thus supported between the two arched brack-

ets and in mesh with the horizontal bevel-wheel D.

The lid, as shown, is composed of two sections, the lower one, *C'*, fitting snugly within the top of the cylinder A and resting on the described flange *b'* of the dasher-shaft, while the upper section, C, to which the operating mechanism is secured, is fastened rigidly to the lower section, but extends above and all around and over the top of said cylinder. The said lid is made very thick and heavy, so as to afford a firm support to the machinery, as well as always to tightly close the churn without the necessity of any fastenings, and by its weight to guard against the accidental upsetting of said churn, no matter how rapidly the crank may be revolved.

The paddles or stirrers attached to the vertical shaft B are of two kinds, as shown in Figs. 1 and 2. They are all triangular in cross-section; but the stirrers *B'* are straight, while the stirrers *B*² are curved, and they preferably extend entirely through the said upright shaft, perforated at intervals to receive them, and thus practically become integral therewith, and are thus stronger and more lasting than if otherwise attached or secured thereto.

The operation of my device is so obvious from the foregoing description of its construction as to render a detailed description unnecessary, while by reason of its great simplicity and small number of parts it is readily kept clean and in good order.

The lid and its attachments can be lifted wholly up off from the churn-cylinder, and then the dasher and its stirrers can also be wholly lifted out, and hence the operations of emptying or cleansing the churn, or removing the butter or buttermilk therefrom, will occupy the briefest time possible—a great advantage over many churns now in the market operating in a somewhat similar manner.

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

1. In combination with the churn-cylinder A and double lid *C C'*, carrying the operating mechanism, the vertical shaft B, having the horizontal stirrers *B'* *B*², extending through said shaft, the stirrers *B'* being straight and the stirrers *B*² being curved, and being so disposed that every stirrer shall occupy a differ-

ent vertical line from the one immediately above and below it, substantially as shown and described.

2. The described churn, consisting of the cylinder A, upright shaft B, having both straight and curved horizontal stirrers extending there-through, double lid C C', resting on flange b' and serving as a support for the arched brackets G G', bevel-gears D and I, crank-shaft H, vertical sleeve E, perforated plate F, squared shank

b², and handle and crank-arm, all connected together and adapted to operate substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, on this 5th day of 15 August, 1882, in the presence of two witnesses.

EDUARD BACH.

Witnesses:

S. S. STOUT,

HAROLD G. UNDERWOOD.