(No Model.) 2 Sheets—Sheet 1.

R. H. G. KEERAN.

CHURN.

No. 256,329. Patented Apr. 11, 1882.

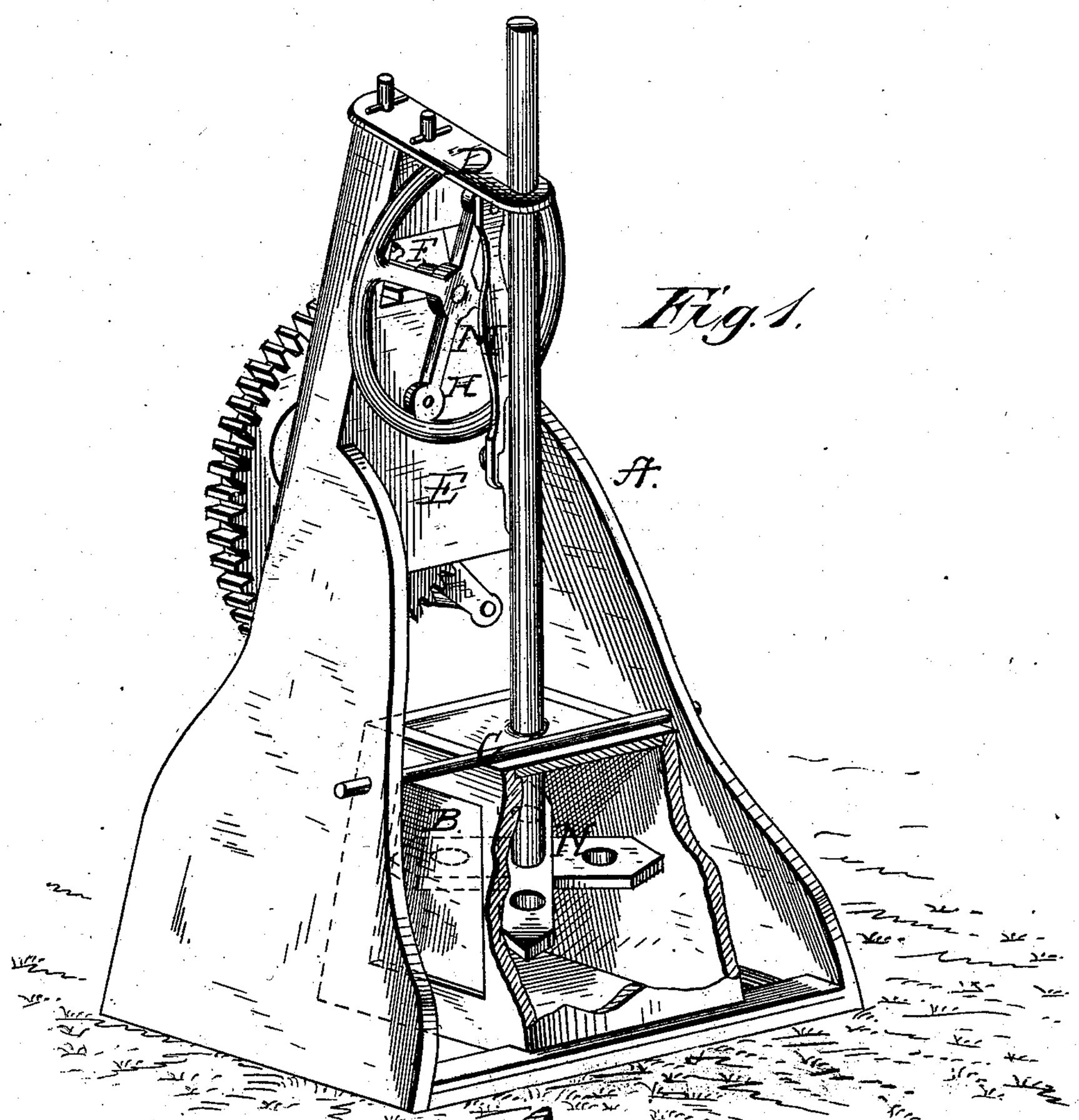

Fig. 1.

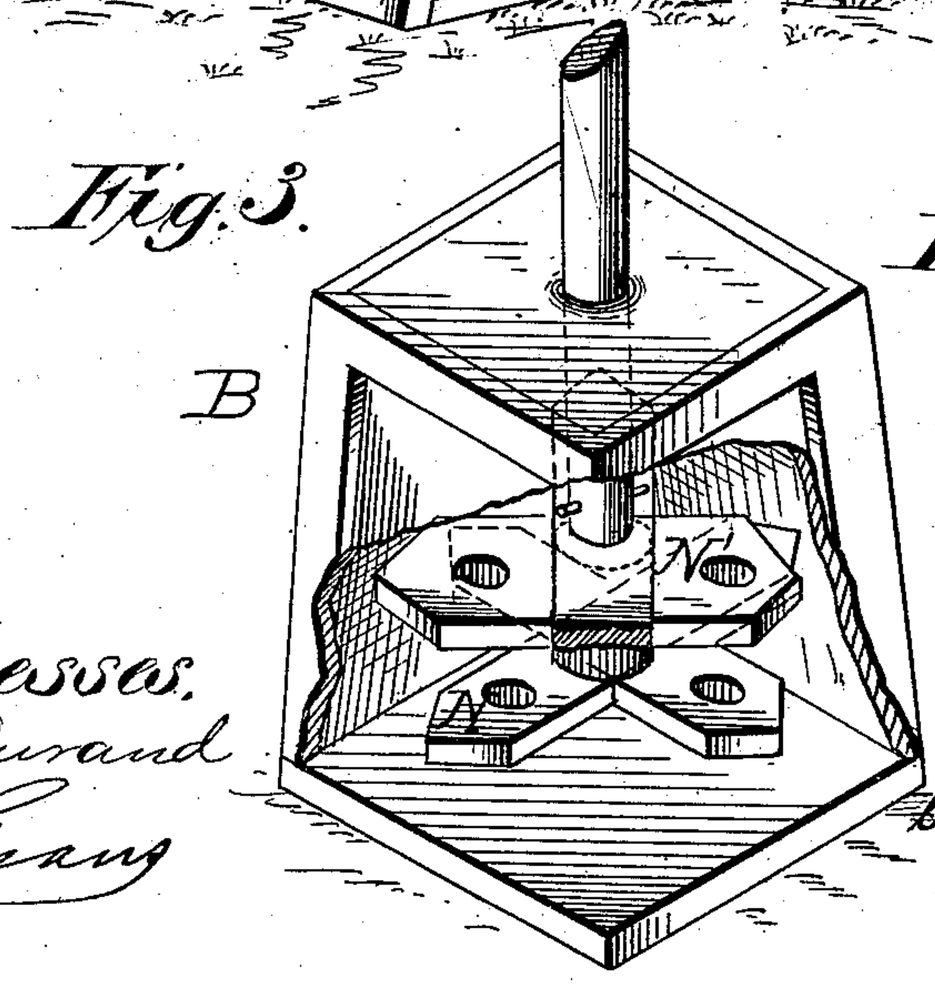

Fig. 3.

Fig. 4.

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(No Model.) 2 Sheets—Sheet 2.

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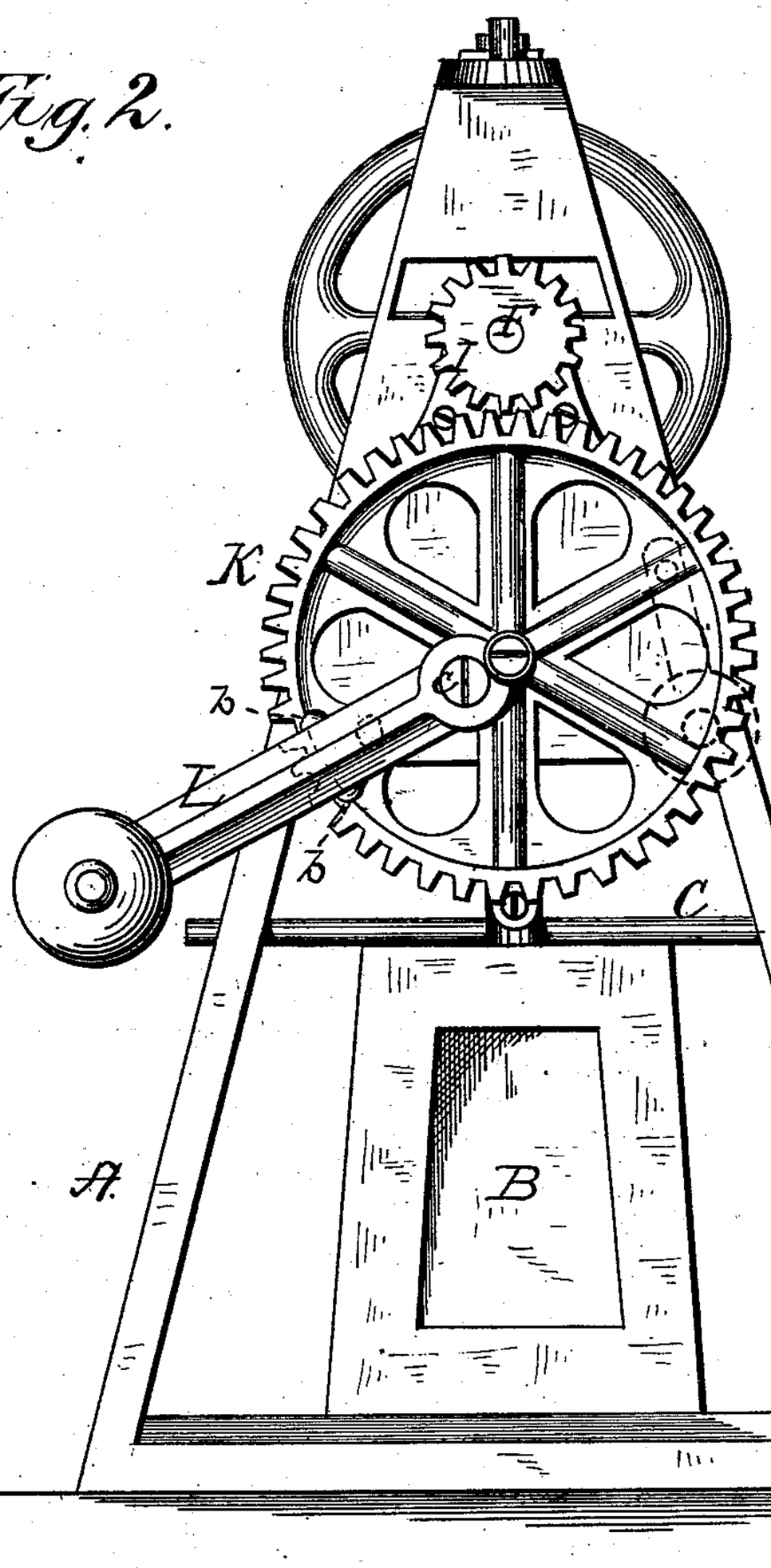
Fig. 2.



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UNITED STATES PATENT OFFICE.

ROBERT H. G. KEERAN, OF CHILLICOTHE, MISSOURI.

CHURN.

SPECIFICATION forming part of Letters Patent No. 256,329, dated April 11, 1882.

Application filed September 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. G. KEERAN, a citizen of the United States of America, residing at Chillicothe, in the county of Livingston 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvement in churns; and the novelty consists in the construction of the attachments as will be hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved churn, showing the box in section to illustrate the dasher. Fig. 2 is a view of the same, showing the operating-gearing. Fig. 3 is a perspective view of the dasher, and Fig. 4 is a view of the dasher.

The letter A represents the frame, composed of a base-board with a depression to receive the base of the churn-box, the converging sides with transverse blocks near and at the upper ends, affording bearings and guides for the journals of the gearings and the dasher-rod, respectively.

The churn-box B is secured in position to the frame, and from upward (in fact from lateral) displacement also, by means of the transverse rod C, passed over the churn and through the sides, substantially as shown, thereby keying down the churn-box firmly in place. At the upper end of the converging sides is arranged a transverse bar, D, extending forward over the churn-box, through which the upper end of the dasher-rod moves and is guided vertically. Between the converging sides, near the upper end, is arranged the block E, affording a journal-bearing for the axle F, to which the crank-wheel H for operating the dasher-rod is attached. To the other or rear end of the axle F is keyed or otherwise secured a pinion, I, engaging with a larger gear-wheel, K, suitably journaled to an axle secured to the rear side of the block E, substantially as seen in Fig. 2 of the drawings. This gear-wheel K, which serves also as a driving-wheel, is formed with two lugs or studs, *b*, between which is arranged the crank-handle L, made fast at its end by means of the screw *c*. This wheel is provided with two or more holes in the arms for the adjustments. The inner end of the handle (see Fig. 2) is made concave both longitudinally and transversely, so as to fit the convexity of the arms of the driving-wheel, and by having the concave running in both directions a short or long leverage can be secured for propelling the dasher at a slow or rapid speed. The crank-wheel H is provided with two perforations, arranged in the opposite arms and at unequal distances from the axis of rotation, to secure either a short or long stroke to the dasher-rod.

The letter M represents the pitman making the necessary connection between the dasher-rod and the crank-wheel.

To the lower end of the dasher-rod is fastened the dasher N, composed of two perforated bars, halved and crossed, and at a short distance above this dasher N is arranged a similar dasher, limited in its upward movements or vertical movements by a shoulder or its equivalent. This dasher N′ has its perforations or holes bored at an angle, so as to impart a rotary motion to the dasher as it is moved through the body of the cream.

The advantages of a churn constructed on this principle are obvious to those skilled in the art.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a churn, the combination of a driving gear-wheel provided with a plurality of adjusting-holes and steady-lugs *b b*, and an adjustable crank-lever arranged between the steady-lugs and made fast to the said wheel by means of set-screws, substantially as described, and for the purpose set forth.

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

ROBERT H. G. KEERAN.

Witnesses:

JAMES L. DAVIS,

JAMES E. CADLE.