

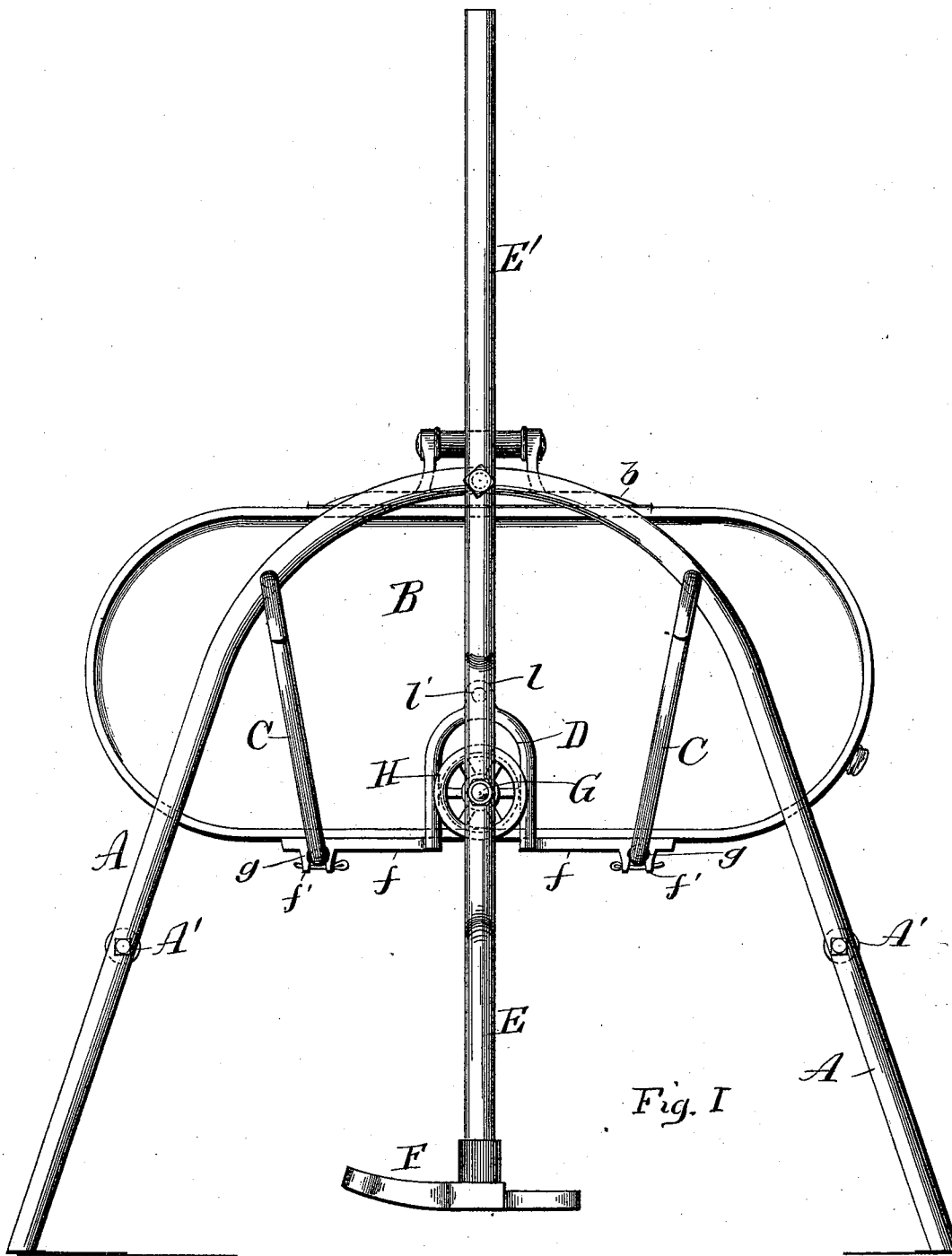
(No Model.)

2 Sheets—Sheet 1.

W. H. CURTICE.
CHURN.

No. 511,404.

Patented Dec. 26, 1893.



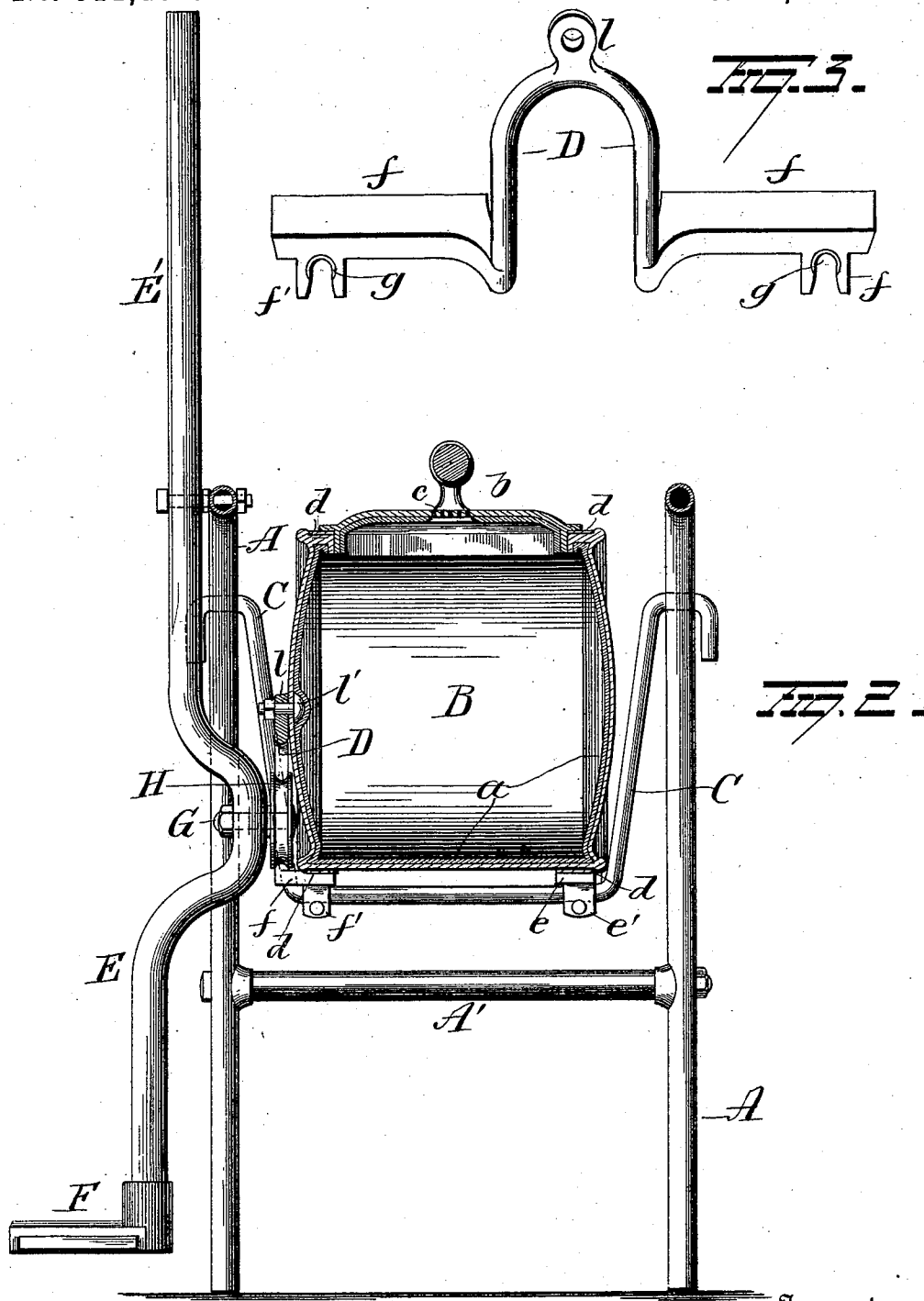
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UNITED STATES PATENT OFFICE.

WILLIAM H. CURTICE, OF EMINENCE, KENTUCKY.

CHURN.

SPECIFICATION forming part of Letters Patent No. 511,404, dated December 26, 1893.

Application filed October 18, 1893. Serial No. 488,514. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. CURTICE, of Eminence, in the county of Henry and State of Kentucky, 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 an improvement in churns and more particularly to swinging body churns,—the object of the invention being to produce a simple and efficient means for operating the churn by combined hand and foot power, and to so construct and arrange said operating devices that the friction between the parts will be reduced to a minimum.

A further object is to produce a working body churn which shall be simple in construction, cheap to manufacture and effectual, in every respect, in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings: Figure 1 is a side view of a churn embodying my improvements. Fig. 2 is a sectional view. Fig. 3 is a detail view.

The frame of the machine comprises two inverted U-shaped frames A, preferably of gas pipe, connected by tubular cross bars A', and between these U-shaped frames the body B of the churn is located and adapted to swing. The body B of the churn is preferably elliptical in form and is made of sheet metal lined with iron granite ware *a*. In the cover *b* of the churn I prefer to locate a permanent perforated plate *c*. The edges of the body B are preferably bound with metallic straps *d*, which are secured thereto in any suitable manner. At one edge of the body B at the bottom thereof, brackets *e* having ears *e'* are secured at opposite sides of the center of said body. At the diametrically opposite edge of the body B, a bracket *f* is located and provided with lugs or ears *f'*. Bails C are bent into hook-shape at their upper ends and

passed loosely through perforations in the frames A, said bails being adapted to enter between the lugs or ears *e'* and *f'*, said bails bearing against bearings *g* of leather or other suitable material inserted between the lugs or ears. From this construction and arrangement of parts it will be seen that the body B will be suspended by the bails C and will be permitted to have a swinging movement when power is applied thereto, the leather bearings *g* serving to prevent noise and insuring the easy working of the parts.

The central portion of the bracket *f* is bent outwardly and then upwardly to form an elongated frame D, the metal constituting this frame being made round in cross section.

Pivoted at a point between its ends to one of the inverted U-shaped frames A and adapted to extend some distance above the same, is a lever E, the upper portion of which constitutes a handle E'. At a point below its connection with the frame A, the lever is bent into U-shape and at its lower end is provided with a treadle F, disposed parallel with the churn body B. Secured to the U-shaped portion of the lever E, is a short shaft G which projects therefrom at right angles toward the churn body. On this shaft a grooved wheel H is loosely mounted, said grooved wheel being disposed within the frame D and adapted to run thereon when the churn is operated. In order to secure the frame D in place, it is provided with a lug or ear *l* through which a bolt *l'* is passed, said bolt being secured to the churn body B.

From the construction and arrangement of parts above described it will be seen that the body of the churn can be readily swung by hand and foot simultaneously, and that, owing to the connection of the lever E with the churn body as above described, the friction between said parts will be reduced to a minimum, the wheel H moving up and down in the elongated frame D as the device is operated.

My improvements are very simple in construction, easy to operate, cheap to manufacture and they are effectual, in every respect in the performance of their functions.

Slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its

scope and hence I do not wish to limit myself to the precise details of construction herein set forth; but,

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

10 1. The combination with a frame and a swinging body suspended therein, of a lever pivoted at a point between its ends to said frame, and a sliding connection between said lever and the churn body, substantially as set forth.

15 2. The combination with a frame and a churn body suspended therein, of a lever pivoted at a point between its ends to the frame, said lever extending a distance above the frame to constitute a handle, a treadle at the lower end of said lever, and a sliding connection between said lever and the churn body, substantially as set forth.

20 3. The combination with a frame and a churn body suspended therein, of a lever pivoted at a point between its ends to the frame, an elongated frame carried by the churn body, and a wheel carried by the lever and adapted to operate in said elongated frame, substantially as set forth.

4. The combination with a frame and a

churn body suspended therein, of a lever pivoted at a point between its ends to the frame, 30 an elongated frame secured to the churn body and a grooved wheel carried by the lever and adapted to operate in said elongated frame, substantially as set forth.

35 5. The combination with a frame and a churn body, of a bracket located at one edge of said body and bent between its ends to produce an elongated frame parallel with one side of the churn body, ears or lugs projecting from said bracket, brackets having ears 40 at the opposite edge of the body, bails pivotally connected to the main frame and adapted to enter between said ears or lugs, a lever pivoted to the main frame adapted to constitute a handle at its upper end and a treadle 45 at its lower end, and a wheel carried by said lever and adapted to operate in said elongated frame, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 50

WILLIAM H. CURTICE.

Witnesses:

O. D. TODD,

J. S. TURNER.