

(No Model.)

2 Sheets—Sheet 1.

G. W. HINMAN.

CHURN.

No. 333,629.

Patented Jan. 5, 1886.

Fig. 1.

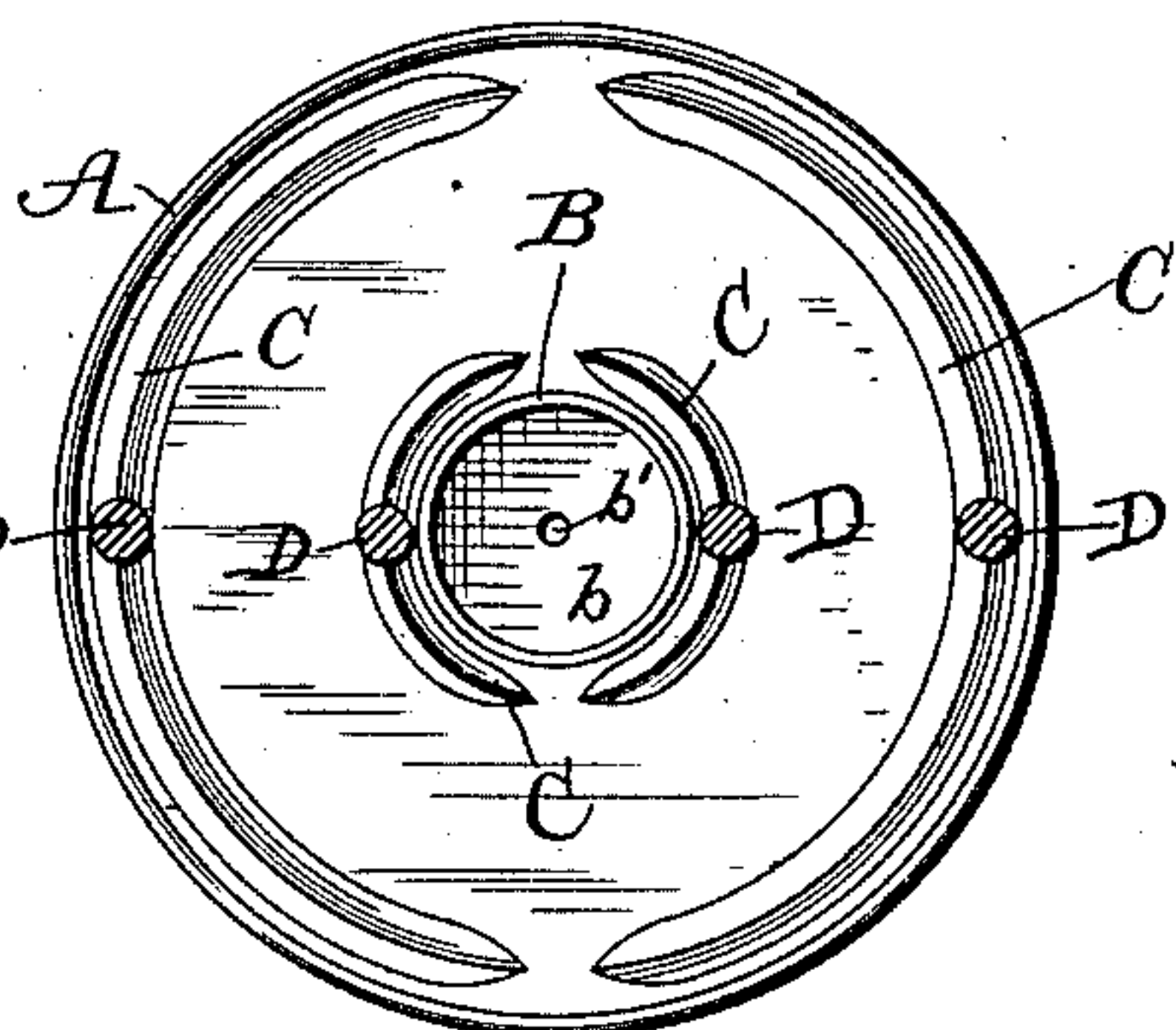


Fig. 2.

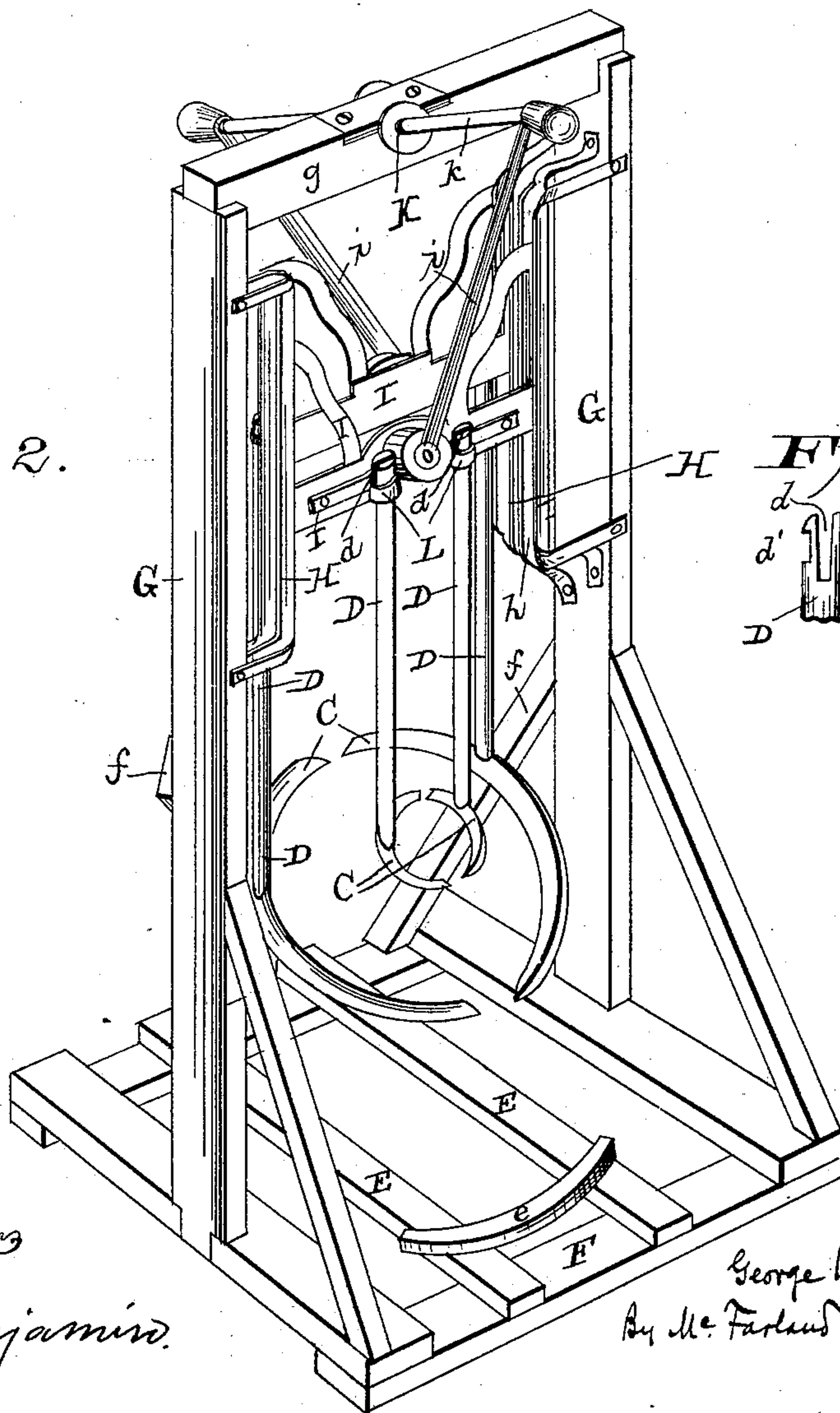
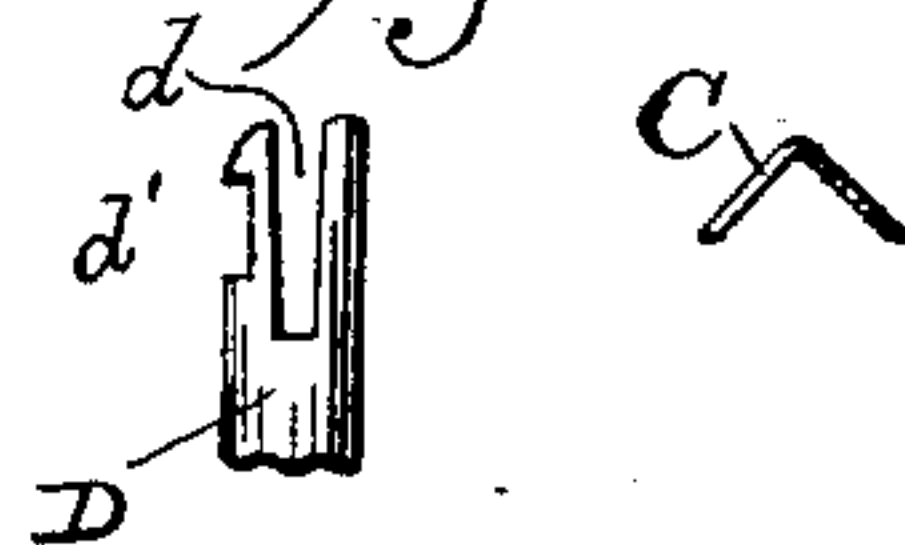


Fig. 3.



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Attys.

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Fig. 4.

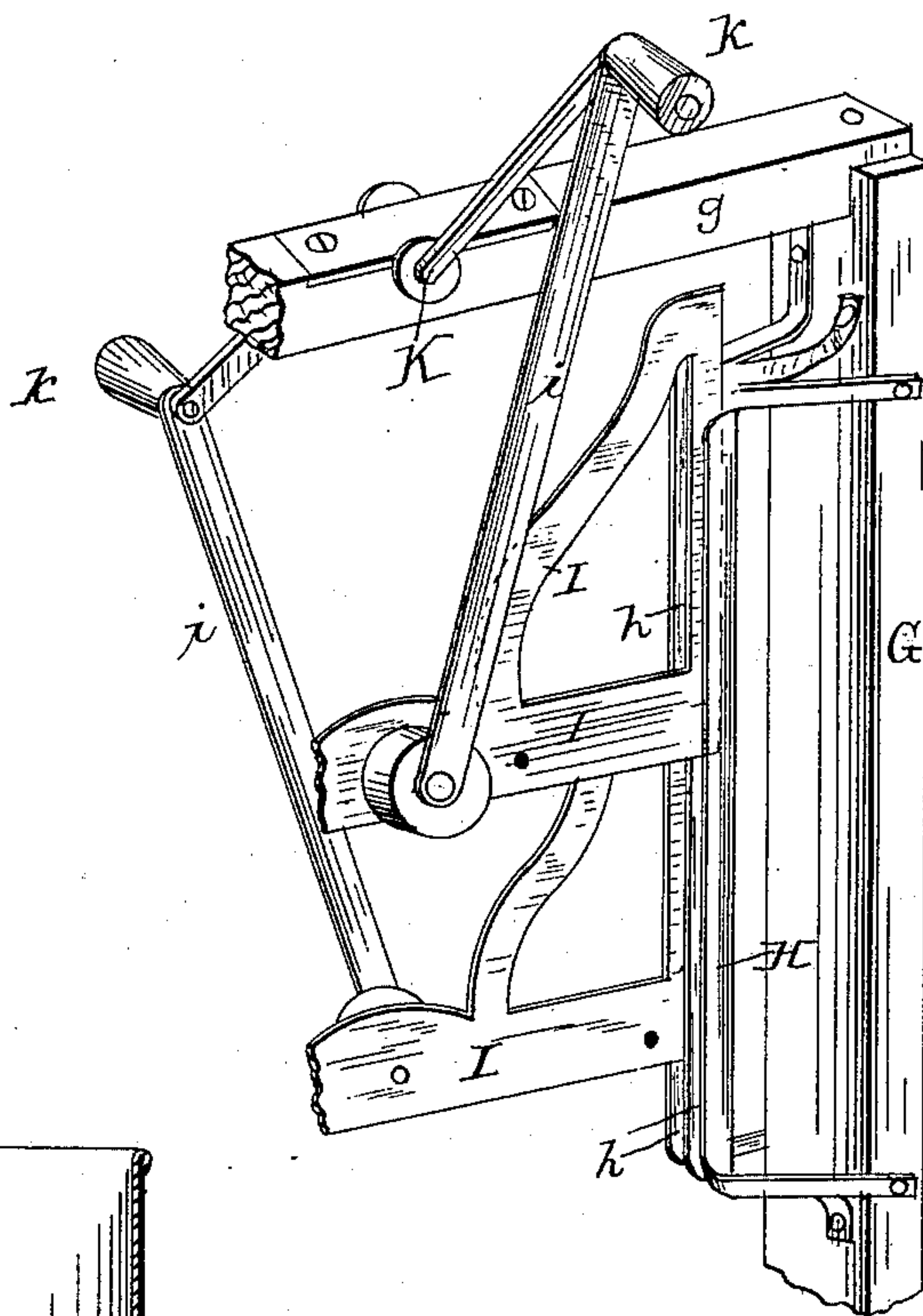
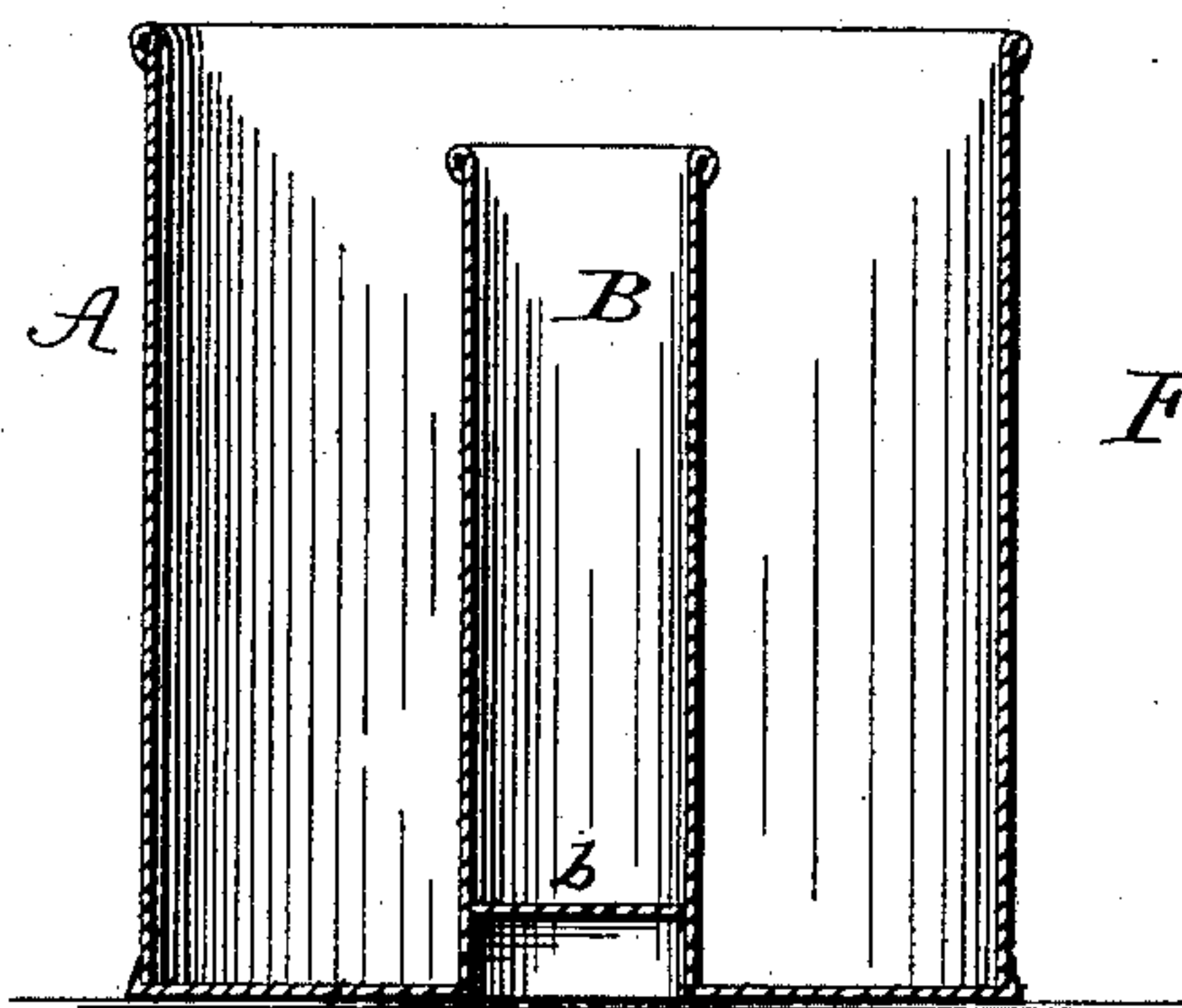


Fig. 5.



WITNESSES

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INVENTOR

George W. Hinman
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His Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE W. HINMAN, OF PADUCAH, KENTUCKY.

CHURN.

SPECIFICATION forming part of Letters Patent No. 333,629, dated January 5, 1886.

Application filed July 19, 1884. Serial No. 138,220. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. HINMAN, a citizen of the United States, residing at Paducah, in the county of McCracken and State of Kentucky, have invented certain new and useful Improvements in Churns; and I do 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 ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

15 This invention relates, chiefly, to improvements in churn-bodies, and its principal object is to obtain a suitable temperature for the operation of churning. This I accomplish by forming a vertical tube in the center of
20 the churn-body to hold hot or cold water, as may be required, and shaping, arranging, and working the dashers to make room for the tube described without interference with efficient operation.

25 In the accompanying drawings, wherein like letters refer to like parts, Figure 1 is a top plan of the churn-body, showing the forms, combination, and relative arrangement of the churn-body, water-tube, and dash-
30 ers; Fig. 2, an oblique front perspective of the operating mechanism with the necessary frame-work, the churn-body being removed to show the dashers and staffs more plainly; Fig. 3, a small detached view of some of
35 the details, and Fig. 4 a separate view of operating parts not sufficiently shown in Fig. 2. Fig. 5 is a vertical section of the churn-body through the center, showing the water-tube.

40 A is a circular churn-body, having a round vertical tube, B, formed in its center and reaching from the bottom nearly to the top of the body. This tube is open at the upper end for the reception of hot or cold wa-
45 ter, according to the temperature desired, within the churn, and it is provided with a bottom, *b*, and an orifice, *b'*, worked by an ordinary spigot, to discharge waste-water from the tube.

The churning is effected by four crescent- 50 shaped dashers, C, made in pairs as to size, and arranged concentrically about the water-tube and concaved on the under side, as shown in sections at C, in Fig. 3 so as to carry down air and circulate it in the body of the cream. These 55 dashers are rigidly attached to staffs D, in the upper ends of which are vertical notches *d*, which may be suitably provided with springs to expand the sides of the notches after they have been squeezed to get the staffs fastened 60 to the operating machinery. The staffs have other notches, *d'*, on their sides, to form shoulders to keep them from slipping up or down in their sleeve-fastenings.

When ready for working, the churn-body 65 is placed upon skids E, which rest upon joists F, and the body is held steady by a clamp, *e*, and the braces *f*. From each standard G project inwardly a pair of parallel brackets, H, provided with grooves *h*, and in these grooves 70 fit two parallel sliding frames, I. These frames are moved by the levers *i*, pivoted at their lower ends to the cross-bars of the frames and at their upper to the cranks *k*, which are formed in opposite directions upon 75 the ends of the journal K, borne in and through the cross-bar *g* of the standards. By turning the crank-handles the frames I alternate up and down, and it is evident that the motion may be reversed as often as desired for the 80 greater agitation of the contents of the churn. Sleeves L are attached to the sliding frames to receive and vertically hold the staffs D after the churn has been placed in position 85 upon the skids.

Having thus described my invention, what I claim to be new and useful, and desire to secure by Letters Patent, is the following:

1. The combination of a stationary churn-body having a vertical water-tube in the 90 center thereof, with vertically-acting dashers arranged concentrically around said water-tube, in the manner herein described, for the purpose of providing means for regulating the temperature of the cream to be churned, as 95 hereinbefore set forth.

2. The combination, in a churn, of stand-ards G, having a cross-bar, *g*, with the brack-

ets H, having grooves *h*, the sliding frames I, having the levers *i*, the journal K, having cranks *k*, the sleeves L, the staffs D, having notches *d d'*, and the dashers C, in the manner herein described, for the purpose of suitably agitating the contents of a stationary churn-body when provided with a vertical water-tube in the center thereof, as hereinbefore set forth.

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

GEORGE W. HINMAN.

Witnesses:

J. SPENCE,
JOHN ROGERS.