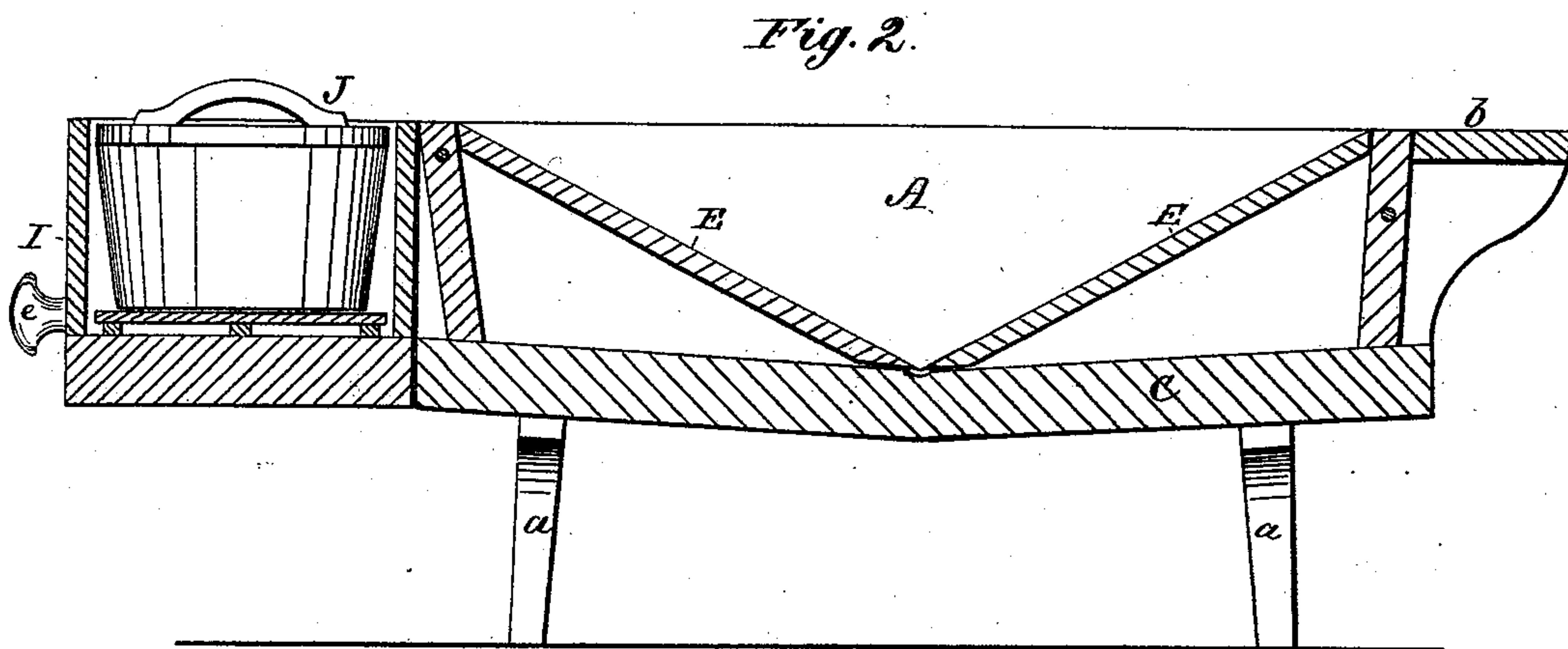
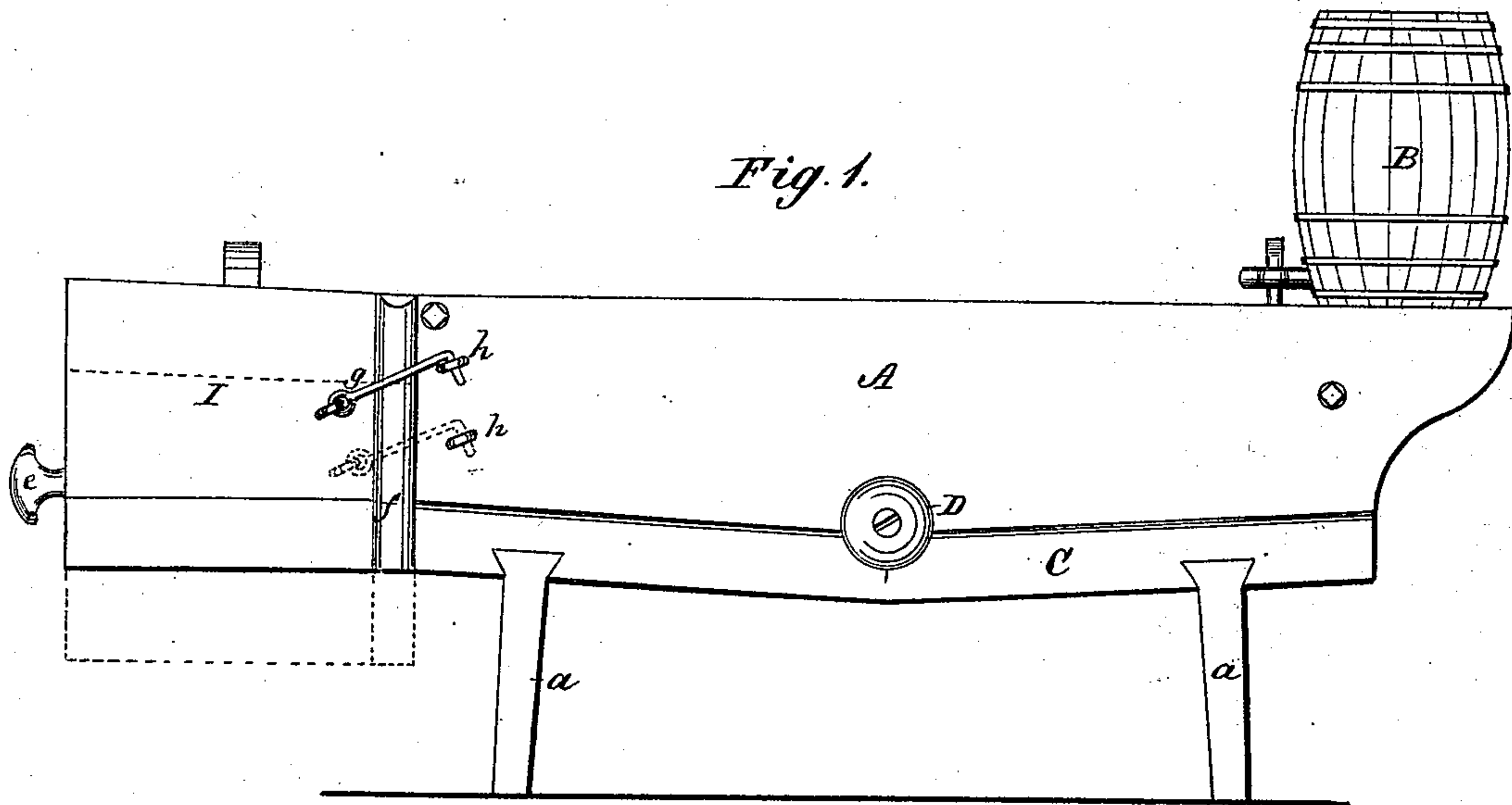


R. W. BARNARD.
Butter-Worker.

No. 196,859.

Patented Nov. 6, 1877.



WITNESSES:

W. W. Hollingsworth
E. de W. Byrnes

INVENTOR:

R. W. Barnard

BY

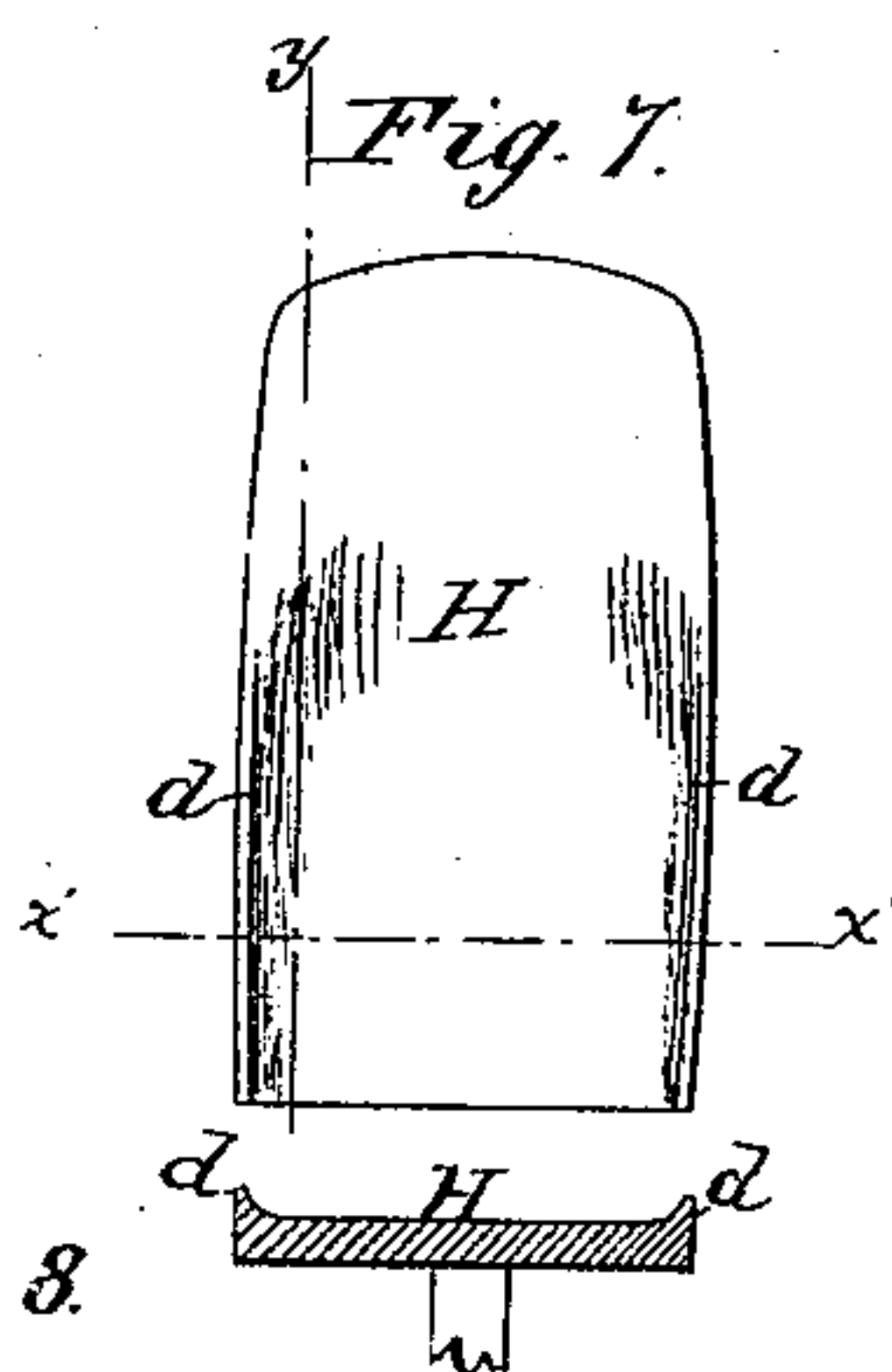
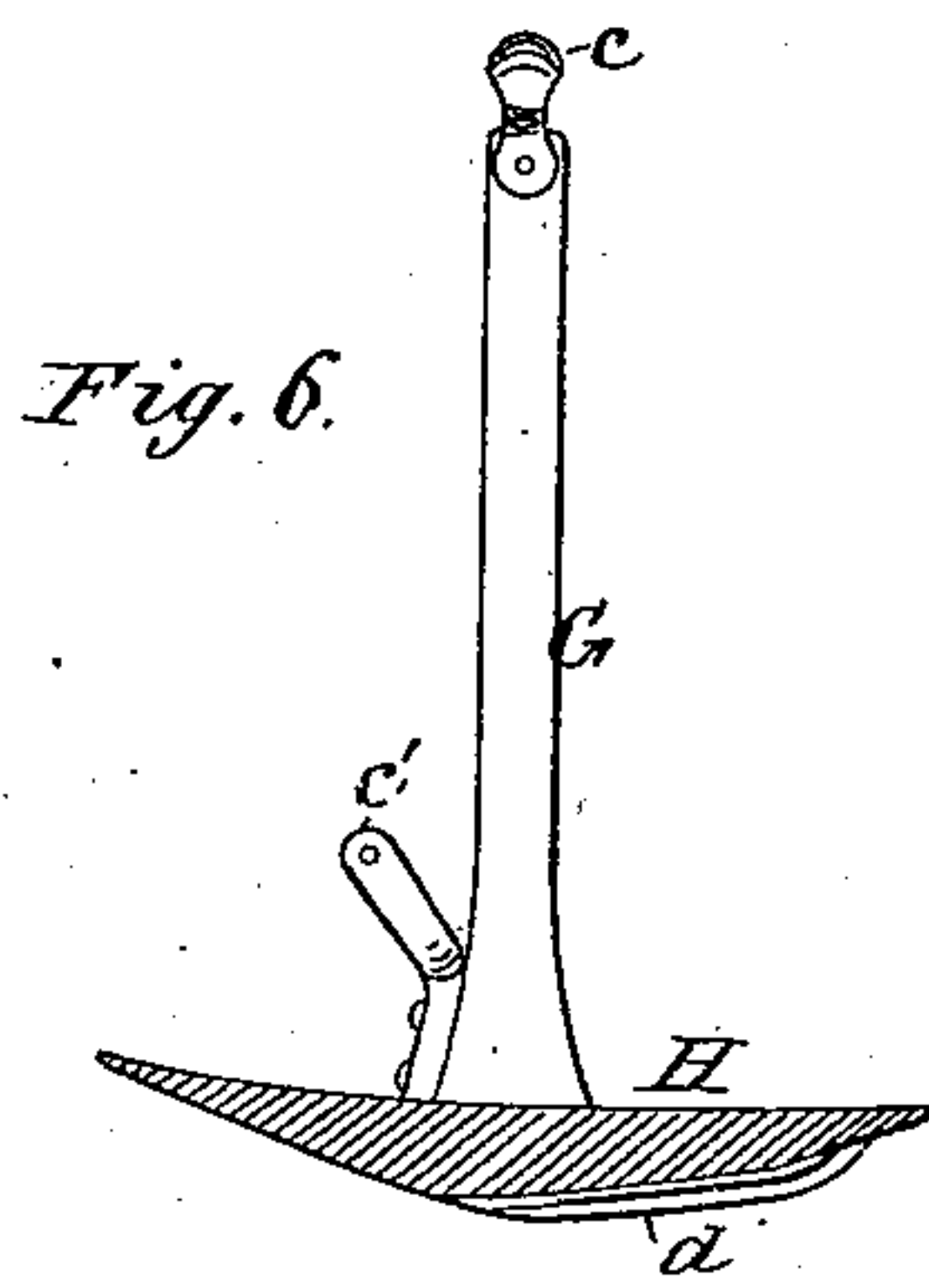
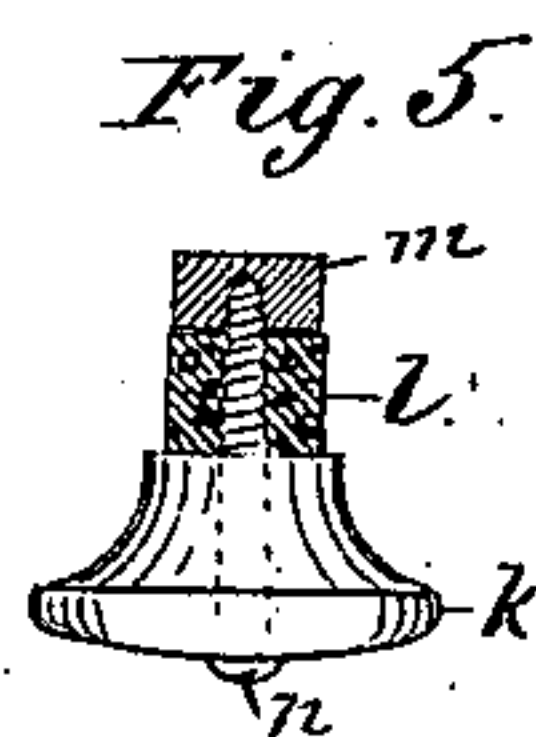
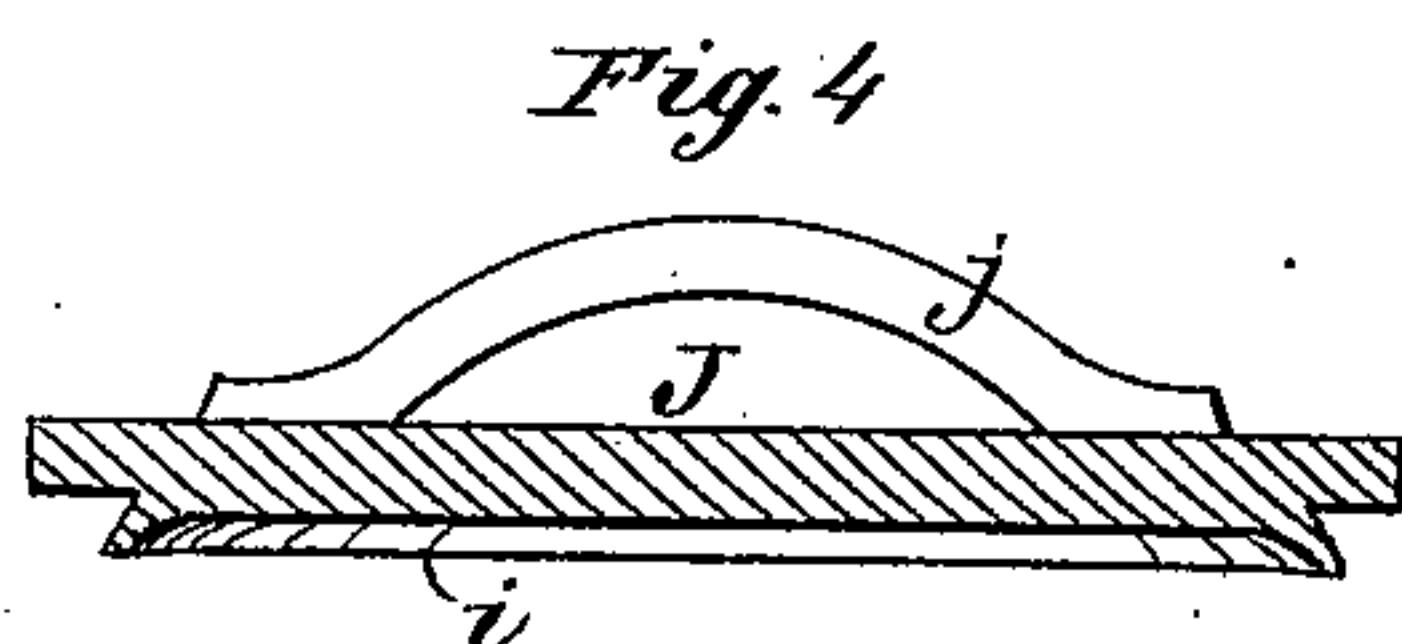
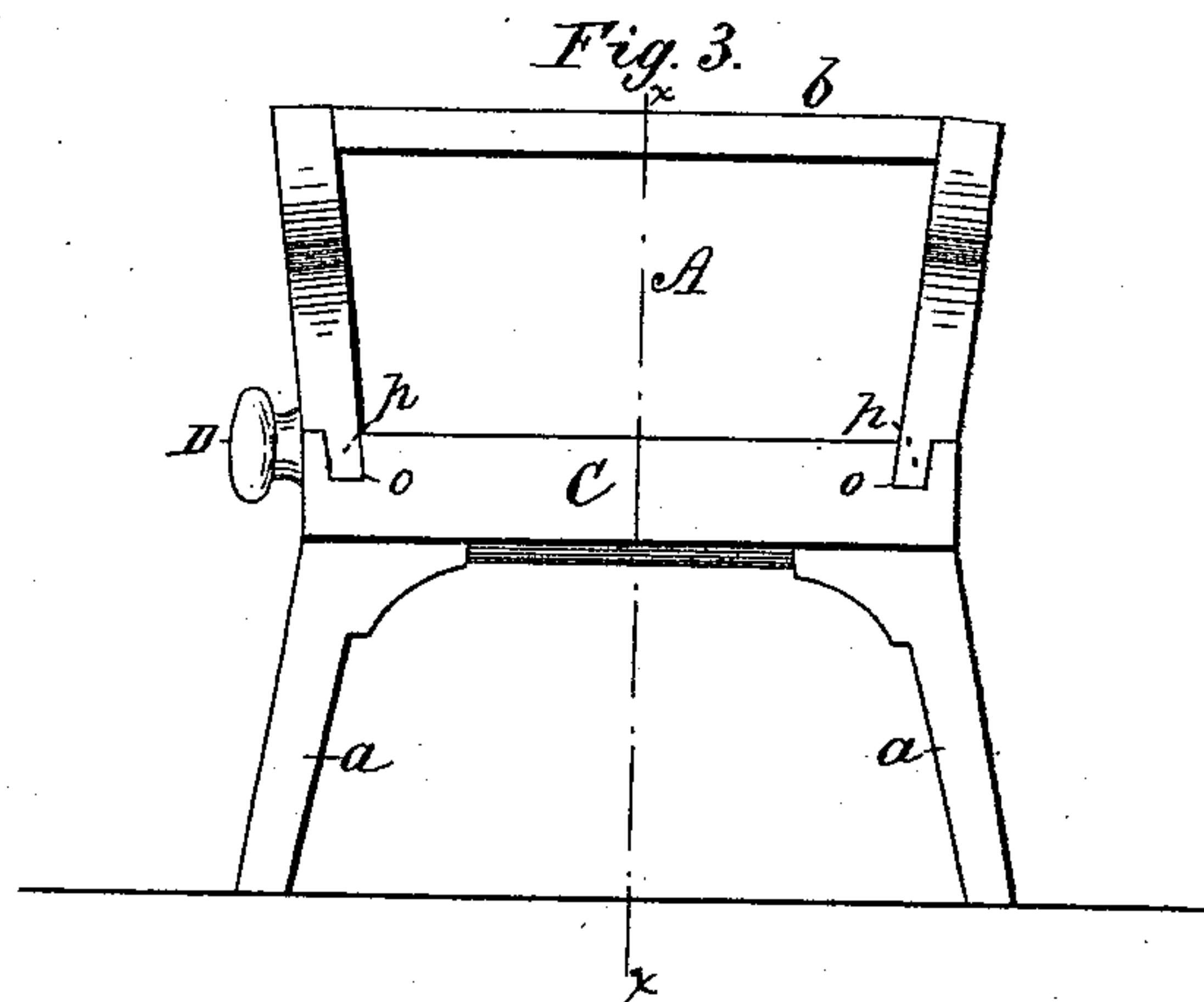
Samuel L.

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UNITED STATES PATENT OFFICE.

ROYAL W. BARNARD, OF FAYETTE, IOWA.

IMPROVEMENT IN BUTTER-WORKERS.

Specification forming part of Letters Patent No. **196,859**, dated November 6, 1877; application filed August 13, 1877.

To all whom it may concern:

Be it known that I, ROYAL W. BARNARD, of the city and county of Fayette, and State of Iowa, have invented a new and Improved Butter Worker and Packer; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a side elevation of the working and packing tanks and the brine-keg. Fig. 2 is a vertical longitudinal section of the same; Fig. 3, an end view of the working-tank; Fig. 4, a sectional detail of the finishing-cover; Fig. 5, a sectional detail of the stopper or outlet-plug. Fig. 6 is a side view of the combined worker and packer, with the foot cut through line *y y* of Fig. 7. Fig. 7 is a face view of the foot, and a cross-section of same through line *x' x'*. Fig. 8 is a detail of a false bottom, which takes the place of the inclined boards in Fig. 2.

The object of my invention is to provide an improved device for washing, working, purifying, and packing butter.

It consists, mainly, in a combined worker and packer formed in the shape of a foot, provided with a handle, one portion of which foot is made flat for packing, and the other portion provided with flanged edges or lips, which scrape down the butter from the sides of the tank, and prevent the grinding of the grain of the butter.

The invention also consists in the construction of the tank, the stopper or plug for the same, the arrangement of an adjustable receptacle for the firkin while being filled or packed, and in a flanged cover for finishing the surface of the butter after packed in the firkin, as hereinafter more fully described.

In the drawings, A represents the tank or trough in which the butter is worked. It is made of wood in rectangular shape, and is supported upon suitable legs *a*, which, as shown, are detachably connected with the bottom of the tank by means of dovetailed grooves. The said tank is constructed with a table or shelf, *b*, at one end, upon which rests the keg or receptacle B, for the brine with which the fresh butter is washed, purified, and salted, and with which alone the

butter is treated in the several steps of washing, working, and packing.

The bottom C of the tank is made with a double incline to the center, and at this central lowest point a groove is formed, from which the liquid is drawn off from time to time through a hole in the side of the tank, closed by a special form of plug or stopper, D. This stopper consists (see Fig. 5) of a porcelain or metal knob, *k*, a cork, *l*, a wooden plug, *m*, and a screw, *n*. By turning the screw the wooden plug will be drawn to the porcelain knob and the cork expanded.

This form of plug is specially adapted to a butter-worker, for the reason that it is easily cleaned, and may be made always to fit its orifice, and be retained therein in spite of the lubrication which the greasy butter affords.

In constructing the bottom of the tank, a single straight piece of thick board is sawed partially through in transverse direction on the upper side, about the middle of the length of the board, as shown in Figs. 1 and 2. The board is then bent up at each end, to bring the cut or sawed edges together, and give the double inclination.

In fastening the parts of the tank together with brine-tight joints, the upper sides of the bottom upon each side are provided with (see Fig. 3) grooves *o*, and the sides which conform to the double inclination of the bottom are provided with corresponding tongues *p*, which fit into the grooves, and form a tight joint. The end pieces of the tank are also fitted into grooves in the sides to form tight joints, and are made wider at the top, so as to give to the sides a certain degree of flare. The object of the flare is twofold: first, it enables the workman to scrape down the sides of the tank without leaning over; and it also permits a tighter joint to be made between the sides and the removable bottoms which I employ.

E E are two boards arranged inclinedly, and extending from the groove or lowest point of the bottom up to the top edge of the end piece. These inclined boards constitute one of the removable bottoms, while F, Fig. 8, is the other, the latter being a simple horizontal board. Both these removable bottoms leave a space beneath the same, which may be filled with ice,

and for this reason they are especially adapted to working soft butter. The inclined boards E E also facilitate the removal of the butter from the tank, the butter being simply pushed or slid up the incline by the butter worker or packer to the point of delivery, instead of being lifted out bodily.

Figs. 6 and 7 shows the combined worker and packer. It consists of a handle, G, having hand-holds *c c'*, and carrying below a foot, H. The said foot is in general outline of a flat curved shape of any suitable dimension, but preferably about six inches wide and twelve inches long. The outer face of this foot is formed upon one side of the handle into a plain surface terminating in an edge, which part of the foot constitutes the packer, and is used for lifting or scraping the butter out of the tank to the firkin, and for packing it therein. The opposite side of the foot is formed upon its outer face with two lips or flanges, *d d*, at its edges, which constitute the butter-worker.

The merit of these flanges is as follows: In scraping down the butter from the sides of the tank they operate as knives to cleanly remove the butter adhering to the sides without mashing, smearing, and bursting the grain or globules of the butter, as is the case with ordinary implements. In working the butter, also, these flanges act as rockers, which rest upon the bottom of the tank, and by receiving the force applied prevent the breaking of the grain of the butter, which would be produced by the abrasion of the surface of the worker against the bottom.

The combined butter worker and packer, as thus described, may be made either with straight sides, as shown, for rectangular tanks, or one or both sides may be curved to adapt it to the curved sides of a tub, when the butter is worked therein.

To the opposite end of the tank from the shelf or table *b* is adjustably fixed a supplemental tank, I. This latter is designed to receive the firkin or tub into which the butter is to be packed, and is preferably made with a false bottom, upon which the firkin rests.

In packing the butter into the firkin, a quantity of brine is first placed therein, and the butter then packed in the brine to secure a more perfect preservation of the same; and as the butter becomes packed at the bottom, the brine rises to the top, further washing and purifying the butter, and when the firkin is packed full the brine runs over the edge into the supplemental tank I and passes beneath the false bottom, whence it is drawn off through

a hole in the side of the tank closed by a plug, *e*, similar to that first described.

In transferring the butter from the tank A to the firkin it is desirable that the edge of the latter should be on a level with the top of the inclined board E, and as the firkins vary in height the supplemental tank I is made vertically adjustable to preserve the level for the different sizes.

In securing the adjustment the tank I is made to move over the tank A by means of guides *f*, and the tank I is supported and held to its adjustment by means of hooks *g*, that fasten into eyes *h*.

J, Fig. 4, is the finishing-cover for the firkin, which consists of a simple cover with an outwardly-flared marginal flange, *i*, and handle *j*. After the firkin is filled and packed with butter the cover J is applied and forced down, which has the effect to force the flange *i* down around the edge of the butter in the firkin and tuck the butter down. This may be done either before the linen cloth is applied or afterward.

To the inner side of the cover J, I also propose to apply a mold for a trade-mark, which, in the finishing process, will impress the trade-mark into the butter.

Having thus described my invention, what I claim as new is—

1. The combined worker and packer, consisting of the foot H, provided with a suitable handle, and having its face smooth and tapered upon one side, and provided with lips or flanges *d d* on the other, substantially as and for the purpose described.
2. The combination, with the tank A, having flared sides, double-inclined bottom, and central outlet, of the removable inclined boards E E, as and for the purpose described.
3. The combination, with the tank A, having eyes *h*, of the vertically-adjustable tank I, having guides *f* and hooks *g*, as and for the purpose described.
4. The finishing-cover J, having an outwardly-flared flange, *i*, adapted to pass inside the firkin and tuck down the butter, for the purpose described.
5. The combination, with a butter-worker having an outlet-orifice, of a plug or stopper, D, consisting of the knob *k*, cork *l*, wooden plug *m*, and screw *n*, as and for the purpose set forth.

R. W. BARNARD.

Witnesses:

EDWD. W. BYRN,
 SOLON C. KEMON.