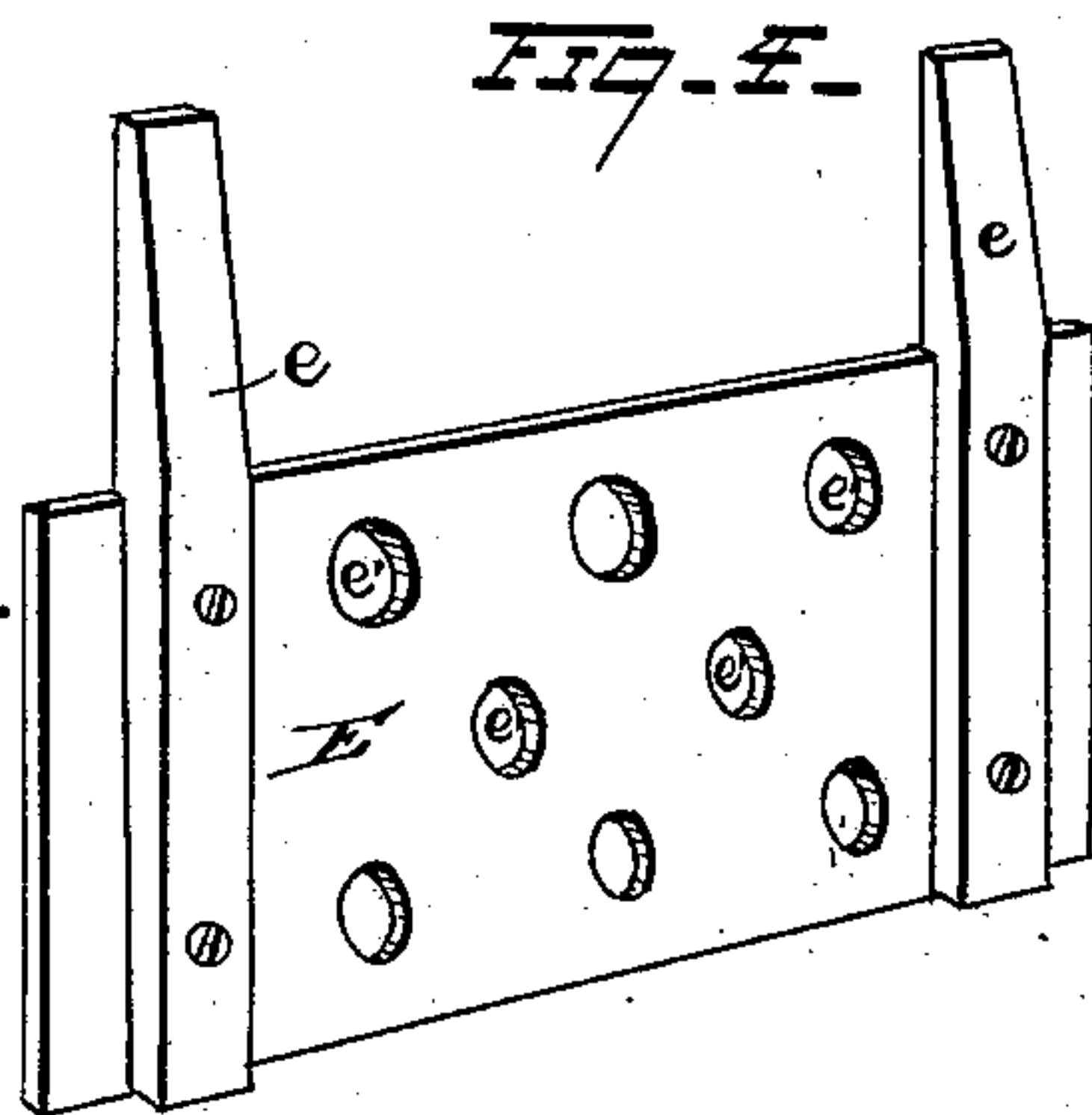
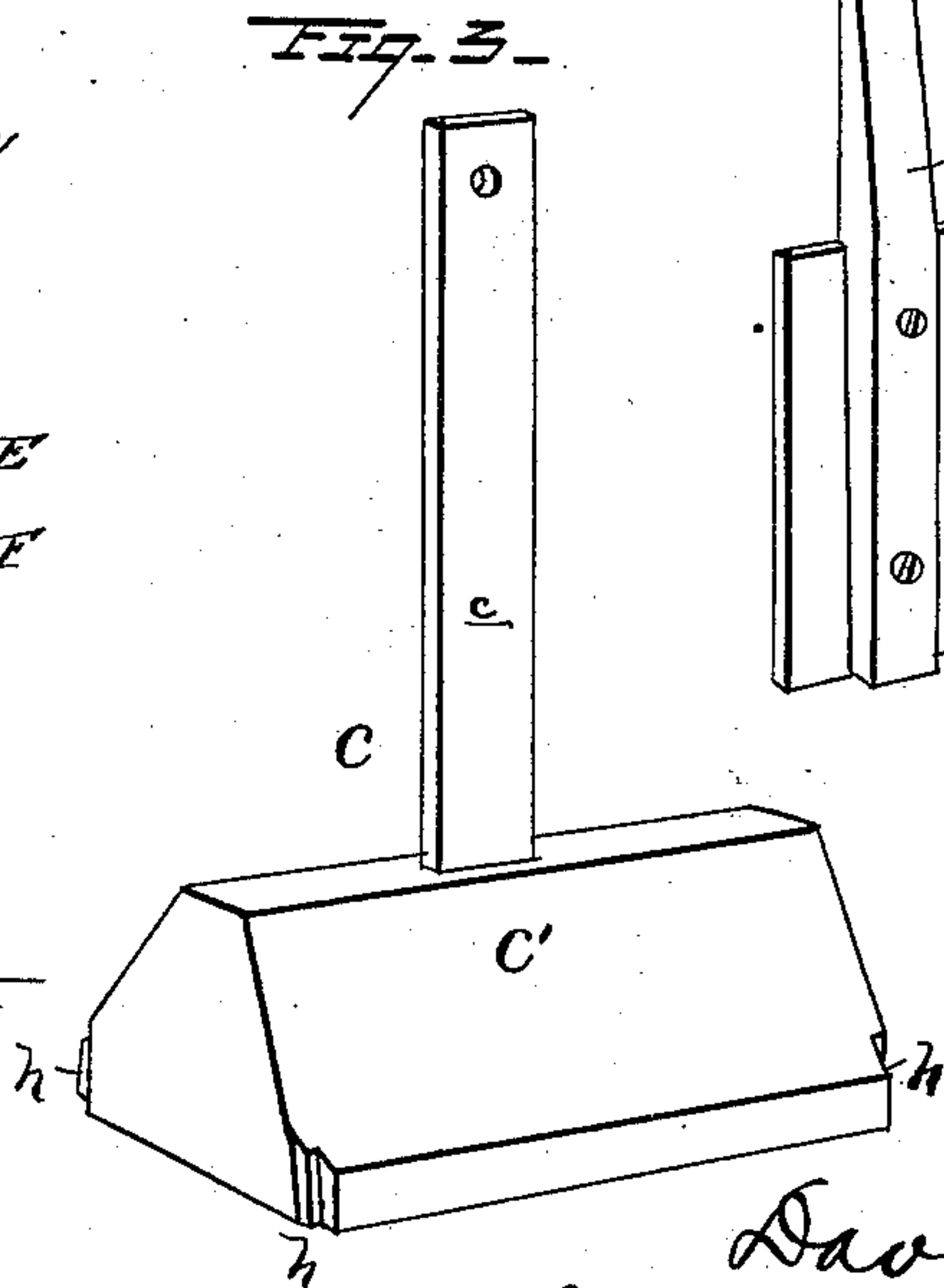
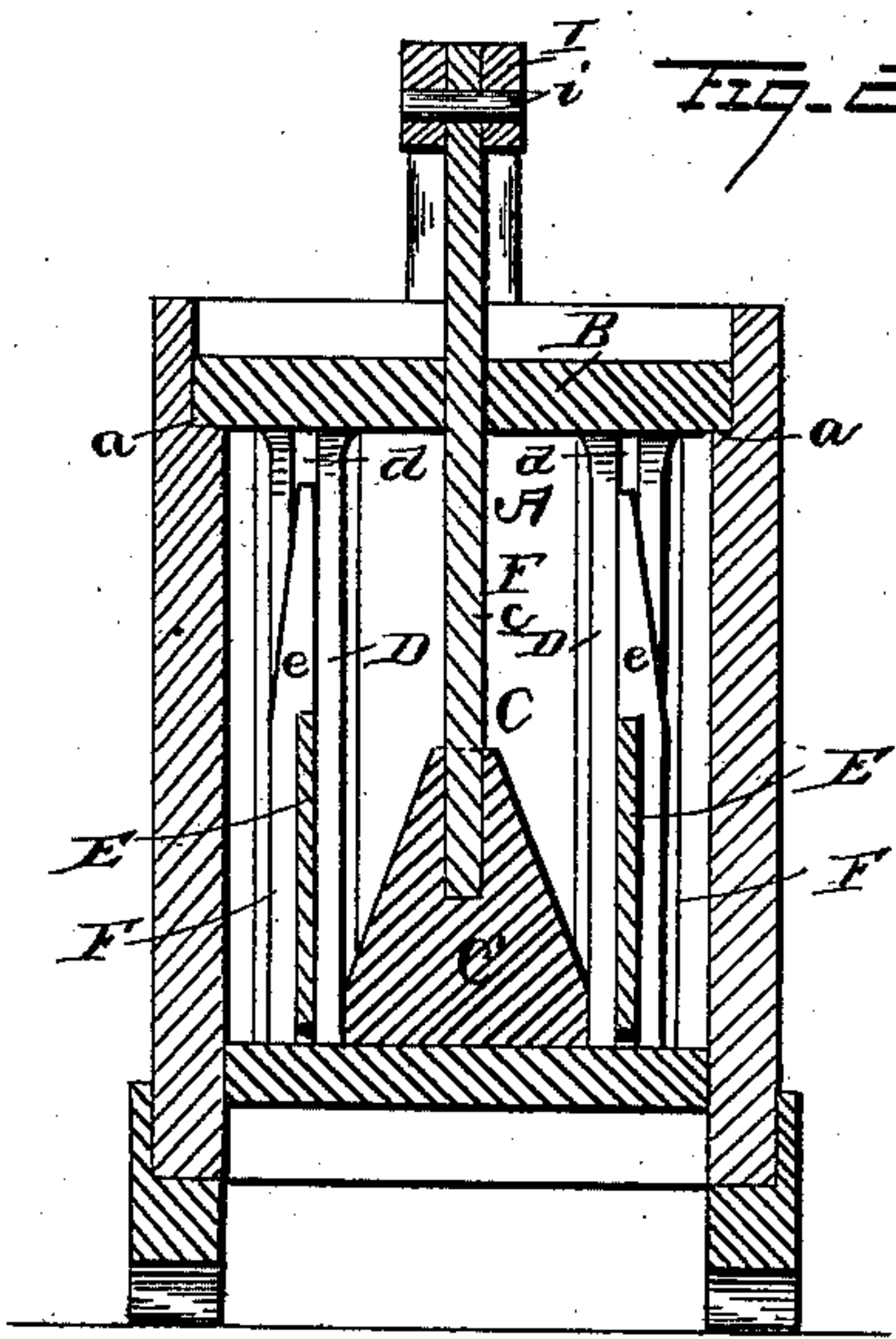
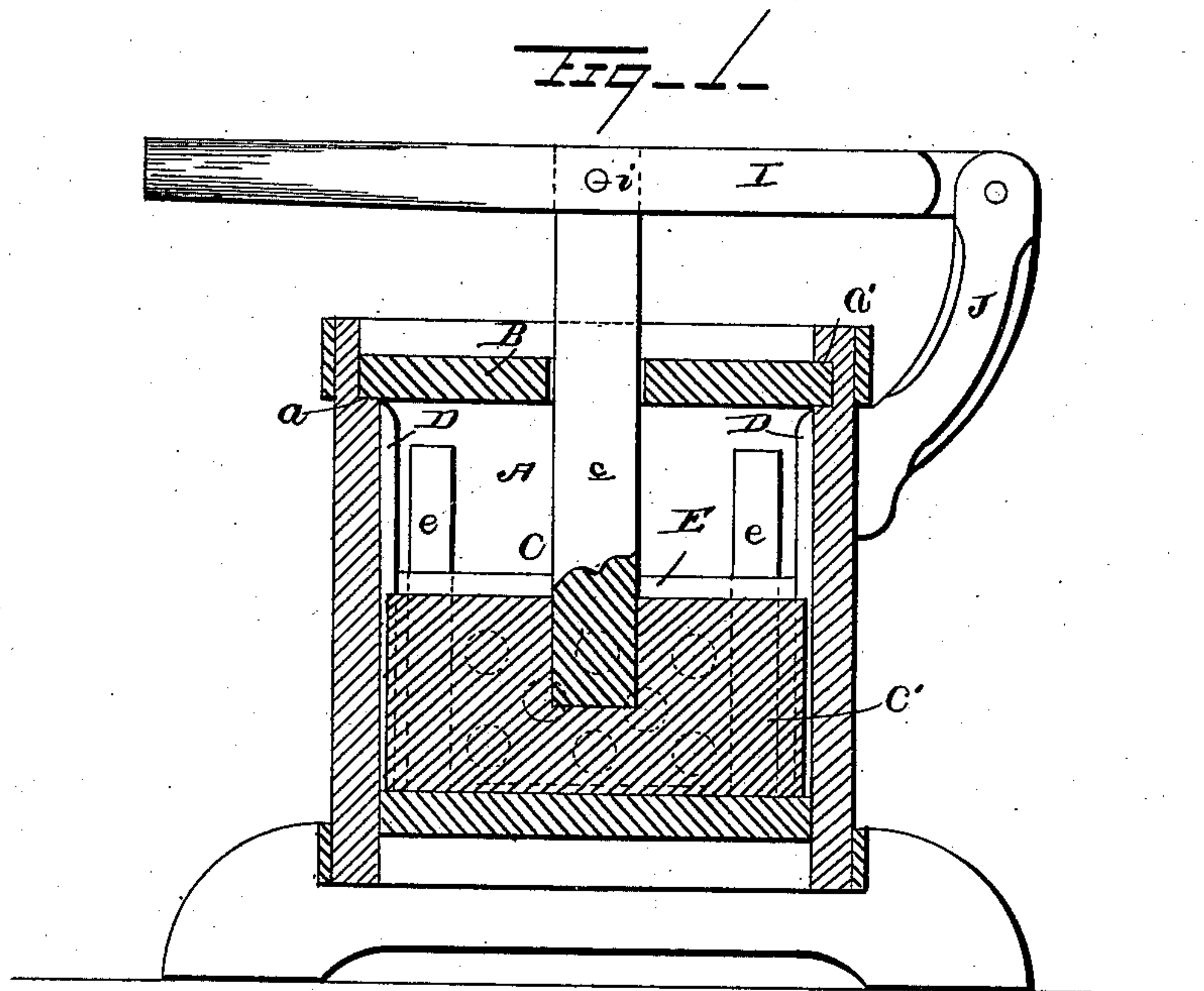


(No. Model.)

D. SAVAGE.
CHURN.

No. 351,655.

Patented Oct. 26, 1886.



Witnesses

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UNITED STATES PATENT OFFICE.

DAVID SAVAGE, OF BLOOMSBURG, PENNSYLVANIA.

CHURN.

SPECIFICATION forming part of Letters Patent No. 351,655, dated October 26, 1886.

Application filed April 29, 1886. Serial No. 200,582. (No model.)

To all whom it may concern:

Be it known that I, DAVID SAVAGE, a citizen of the United States; residing at Bloomsburg, in the county of Columbia and State of Pennsylvania, have invented a new and useful Improvement in Churns, of which the following is a specification.

My invention relates to improvements in reciprocating churns; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claim.

The object of my invention is to provide an improved churn which shall be very simple and strong in construction; which shall secure a violent agitation of the cream in the receptacle, to effect the operation of churning in a very short space of time; to provide an improved dasher which can be operated with great ease and a minimum of power, and thus lighten the labor of the operator; to provide means for easily and readily cleansing the churn after the churning operation has been completed.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view, through a churn embodying my invention, on the line *x x* of Fig. 2. Fig. 2 is a transverse sectional view thereof on the line *y y* of Fig. 1. Figs. 3 and 4 are detached perspective views of the dasher and one of the removable partitions.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the body or vessel of a churn embodying my invention, which is preferably square or rectangular in cross-section, and provided at or near its upper edges with an inwardly-projecting flange or ledge, *a*, on which a removable cover or lid, B, rests, and is thereby adapted to close the open upper end of the vessel or body A, one edge of the cover being fitted beneath an inwardly-projecting flange, *a'*, that is arranged a short distance above one of the ledges *a* on one of the side walls of the churn-body, as will be readily seen by reference to Fig. 1 of the drawings, whereby the cover is prevented from accidental displacement by the action of the contents of the vessel or the vertically-movable dasher C, that reciprocates therein. The vessel or body A is further provided on

its inner faces with vertically-arranged ways or cleats D, that are suitably secured in place against the inclosing walls of the churn, opposite to each other. These ways or cleats are arranged in pairs, and the ways or cleats of each pair are arranged a short distance from and parallel with each other, to provide an intermediate space or groove, *d*, in which slides or fits one edge of a removable partition; E. I provide four pairs of these cleats or ways D, and two pairs of ways are provided for each of the partitions E, and the partitions are arranged within the inclosing-vessel, near the side walls thereof, to provide a central large chamber, F, and two auxiliary chambers, F', at opposite sides of the vessel or body. These partitions are provided with handles *e*, that project above the same, so that the partition can be very readily removed or detached from the vessel to clean the latter and the partition; and the said partition is provided, further, with a series of openings or apertures, *e'*, which permit of the free passage of the cream from the main chamber F into the auxiliary chambers, and serve to collect and retain the butter.

C designates the reciprocating dasher, which is arranged to move vertically between the pairs of ways and within the main chamber F of the churn-body. This dasher comprises the vertical rod *c* and the beater or blade C', that is made of a shape at its lower end to completely fill the space between the removable partitions E, the upper edge of the blade or beater being inclined or made wedge shape in cross-section, so that the dasher can be elevated very easily, and thus adapt the churn to be operated with a minimum of power. The ends of the dasher-beater C' are notched to provide the guiding-shoulders *h*, which bear against the edges of the ways or cleats D, and prevent the dasher from lateral or sidewise play or movement and compel it to move in a straight line up and down. The upper end of the dasher-rod passes through a suitable opening or slot in the cover B, and is pivotally connected to an operating lever or handle, I, by means of a transverse removable pin, *i*, and the lever is fitted at one end between the bifurcated arms of a bracket or standard, J, and pivoted therein by a detachable pin, the free end of the lever being adapted to be operated by hand, and the standard

being secured to the churn body or vessel in any suitable manner.

This being the construction of my invention, the operation thereof is as follows: The cream
5 is first placed in the main chamber F of the body of the vessel, and the dasher is then adjusted therein, so that its shoulders bear against the ways or cleats, after which the cover B is fitted in place, the lever pivoted to the stand-
10 ard or bracket J, and the dasher-rod connected to the lever, when the machine is ready for use. The free end of the handle-lever is now moved up and down to reciprocate the dasher vertically, and the beater thereof acts upon the
15 cream in the main chamber F, and forces the same through the perforated partitions, which thereby creates a violent agitation in the vessel, and serves to gather the particles of the butter thereon, whereby the churning operation will be very quickly and easily accom-
20 plished. After the churning has been completed the parts are removed to gather the butter, and the perforated partitions are detached, to clean the same and permit free access to the vessel to clean the latter.

My improved churn is very simple and strong in construction, and can be manufactured at a reduced cost, thus making it an inexpensive and desirable article.

30 I am aware of Patents Nos. 46,202 and 175,043, which show a churn provided with two perforated partitions to provide chambers or spaces in which reciprocate the dashers; but my invention differs from these devices
35 from the fact that I arrange my partitions between parallel cleats, so that they are very

firmly held in place, and employ a single dasher, which is arranged in the space between the two partitions and notched at its corners, so that the dasher will impinge against the
40 cleats and be guided thereby in its vertical movements to prevent any side play. My improved dasher is also beveled or inclined on its upper surface, so that it will move freely
45 through the cream on its upstroke to lighten the labor of the operator.

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

In a churn, the combination of the body, the
50 vertical strips D, secured to the body and arranged parallel and out of contact with each other to provide the intermediate grooves, *d*, the perforated partitions E, fitted in the said grooves and arranged near opposite sides of
55 the body to provide the main and auxiliary compartments, a solid dasher working in the main compartment, and having the inclined or beveled upper side, and the notched corners *h* bearing against the cleats D, which serve to
60 guide the dasher, and a pivoted lever connected to the dasher-staff for reciprocating the dasher, all arranged and combined substantially as described, for the purpose set forth.

In testimony that I claim the foregoing as
55 my own I have hereto affixed my signature in presence of two witnesses.

DAVID SAVAGE.

Witnesses:

AMOS SAVAGE,
JACOB JOHNSON.