V. W. PICKETT.

Churn.

No. 162,098. Patented April 13, 1875.

Fig 1

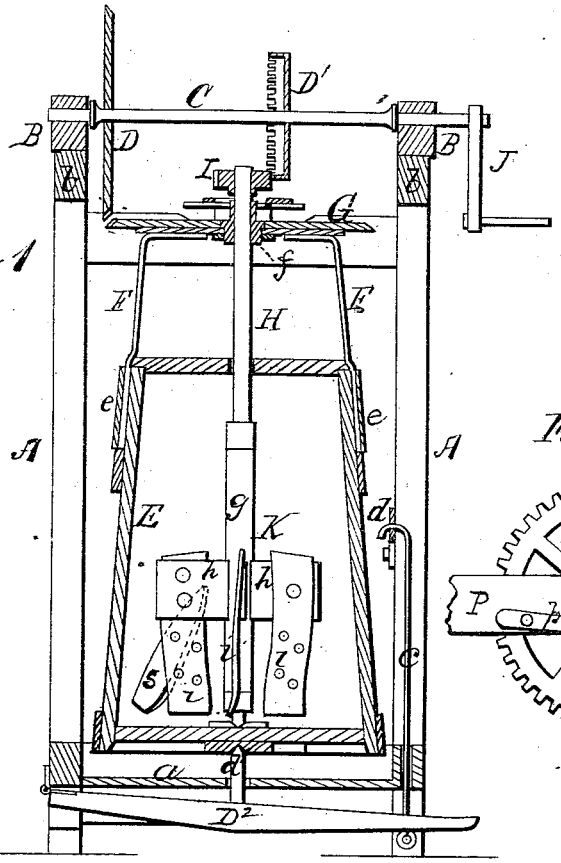



Fig 3

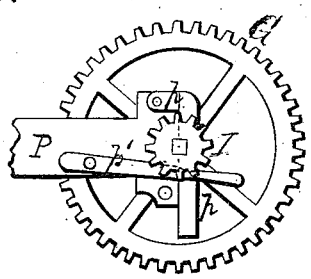



Fig 2

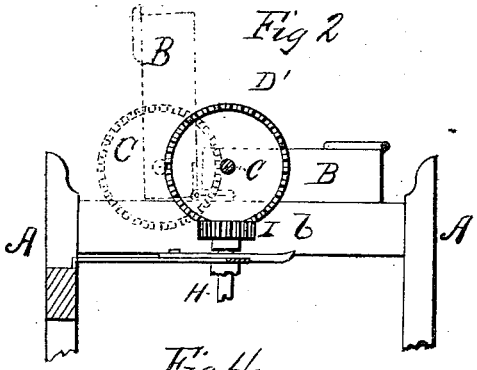
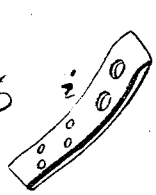
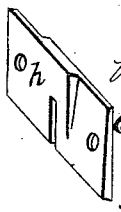



Fig 4




WITNESSES

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# UNITED STATES PATENT OFFICE.

VALENTINE W. PICKETT, OF BALDWIN, IOWA.

## IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. **162,098**, dated April 13, 1875; application filed November 7, 1874.

*To all whom it may concern:*

Be it known that I, VALENTINE W. PICKETT, of Baldwin, in the county of Jackson and State of Iowa, have invented a new and valuable Improvement in Churns; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a horizontal vertical section of my churn. Figs. 2, 3, and 4 detail views of the same.

This invention has relation to churns of the rotary kind, wherein the dash and the dash-case are rotated in opposite directions in the act of churning butter.

The object of this invention is to work the dash with or without working the case thereof.

In the annexed drawings, A designates an upright rectangular frame supporting near its lower end a platform, *a*. The upper ends of this frame are suitably braced by beams *b*, to and upon the upper side of which are hinged blocks B, which afford bearings for a horizontally-rotating shaft, C, upon which are suitably keyed cog-wheels D $D^1$, for a purpose which will hereinafter appear. $D^2$ indicates a treadle, which is hinged to the lower part of the churn-frame, extending through to the other side thereof, preferably under the floor. The free end of this treadle is connected by a rod, *c*, to a vertically-vibrating lever, *d*, having its fulcrum upon one of the uprights of the frame A, and it is provided with a stud, *d'*, which passes, vertically, a suitable distance upward through a central perforation in the platform *a*. This stud is in the nature of a bearing, and sustains upon its upper rounded end a rotating dash-case, E. This tub or case is preferably of cylindrical form, and is provided at its upper edges with sockets *e*, into which are received the lower bifurcated ends of two upright L-shaped arms, F, the upper or short arms of which are rigidly secured in any suitable manner to a horizontal bevel-wheel, G, the teeth of which are adapted to engage with those of cog-wheel D, under circumstances hereinafter to be explained. The bevel-wheel G is centrally perforated for the reception of a shouldered sleeve, *f*, which is the upper bearing of the dash-shaft H, of which the lower bearing is in a metallic non-corrodible plate in the bottom of the tub. I designates a pinion, which is secured upon the upper end of the dash-shaft, and which is of considerable thickness and is in practice at all times engaged with the cog-wheel D'; hence, if the crank-arm J on the end of the main actuating-shaft be operated, motion will at all times be communicated to the churn-dash shaft, and consequently to the dash K; but when I wish to rotate the tub, the lever *d* must be raised, thereby raising the treadle, and through it the tub, thereby causing an engagement of the bevel-wheel G with its actuating cog-wheel D, and rotating the same simultaneously with, and in an opposite direction to, the dash-shaft, thereby violently agitating the cream, and rapidly separating the oily parts from the watery and other elements of cream. The churn-dash consists of a hub, *g*, through which is passed the shaft H, and into which are rigidly secured flat radial arms *h*, to the outer ends of which are secured blades *l*, having their lower ends bent in the same direction, as shown in Fig. 1, and likewise perforated. In the interior of the tub two slanting lugs or strips, *s*, are secured, up and over which the cream is violently dashed by the scooping function of the strips *l* of the dasher, thus further accelerating the formation of butter. The churn-dash shaft is maintained in a vertical position in the churn-case by means of a metallic plate, P, projecting inward from the frame, the inner end of which is provided with a semicircular notch into which is received the upper end of the shaft below the pinion, thus affording it a half-bearing, the other half-bearing being in a vibrating arm, *p*, pivoted to the said plate and adapted to be swung inward around the shaft, its engagement therewith being maintained by a notched spring-catch, *p'*, also secured to the plate P.

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

The lever $D^2$, having the stud $d'$, and connected with the lever $d$, by the rod $c$, in combination with the churn E, provided with pinion I, and beveled wheel G, and gear-wheels D $D^1$, whereby the dasher and churn may be made to revolve in opposite directions, or the dasher only be made to rotate, substantially as described.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

VALENTINE WOLF PICKETT.

Witnesses:

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