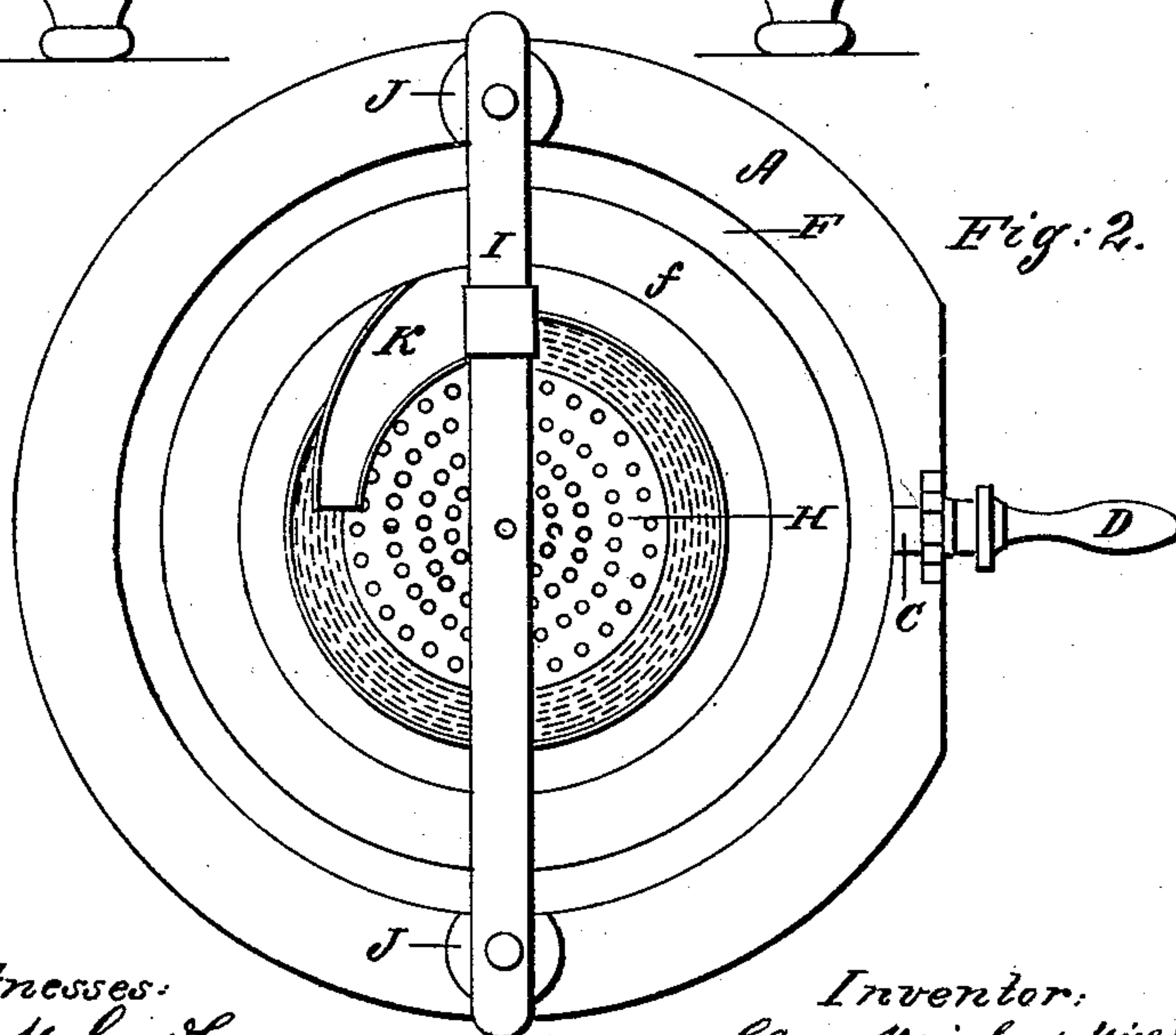
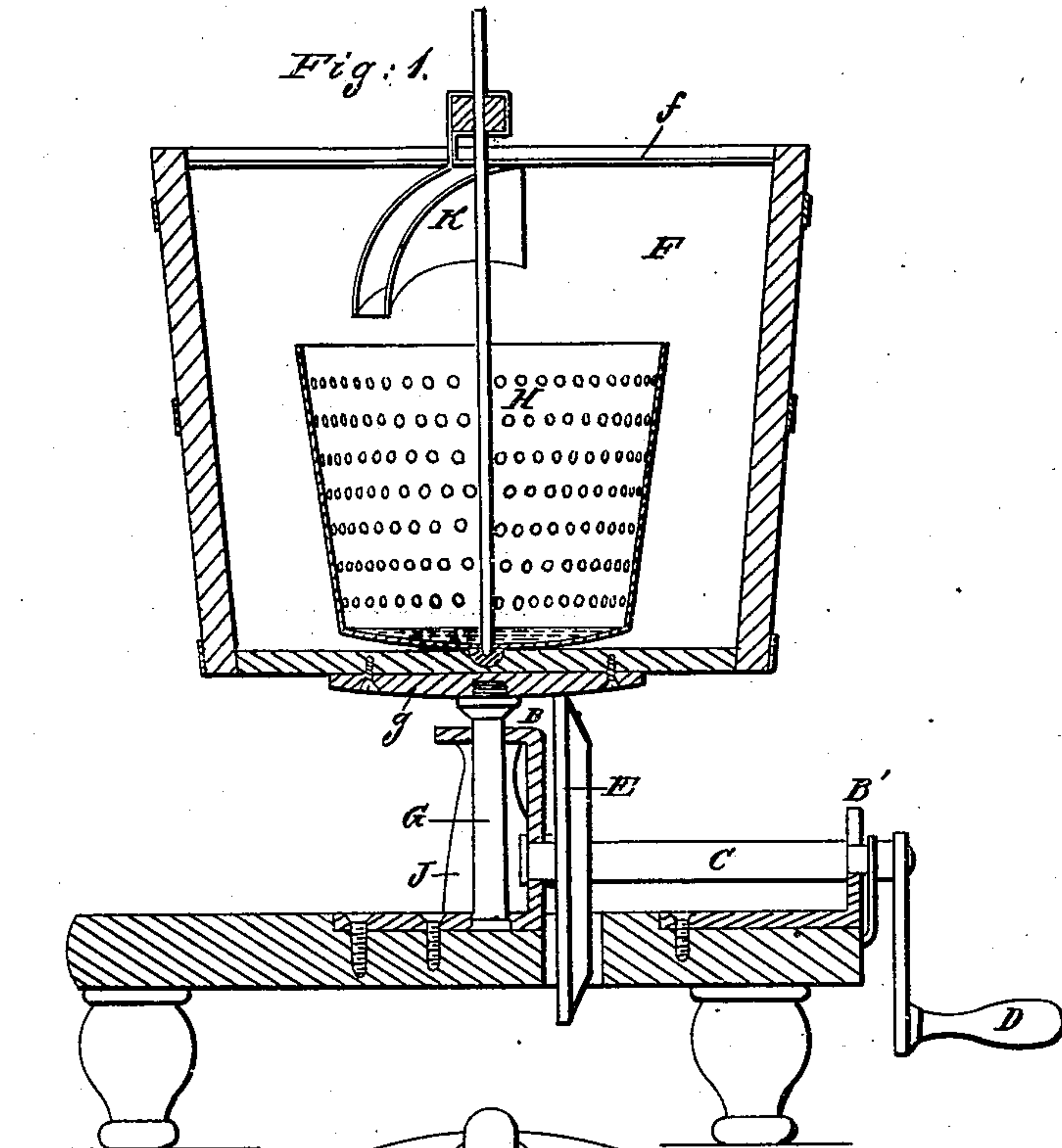


# WRIGHT & PHELPS.

Churn.

No. 28,802.

Patented June 19, 1860.



Witnesses:  
James H. Gidley  
John W. Chute

Inventor:  
Clark Wright & William Phelps.  
by  
Knight Brothers, Attorneys.

# UNITED STATES PATENT OFFICE.

CLARK WRIGHT AND WM. PHELPS, OF SYCAMORE, ILLINOIS.

## CHURN.

Specification of Letters Patent No. 28,802, dated June 19, 1860.

*To all whom it may concern:*

Be it known that we, CLARK WRIGHT and WILLIAM PHELPS, both of Sycamore, Dekalb county, Illinois, have invented a new and Improved Churn; and we hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

Our said invention consists in a rotary tub, stationary spout and gathering basket combined and operating as hereinafter explained.

In the accompanying drawings Figure 1 is an axial section and Fig. 2 a plan of our improved churn.

E is a frictional driving wheel secured to a shaft C journaled in standards B B' upon the base A. D is a crank by which the said shaft and driving wheel may be rotated.

F is the tub.

G is a spindle journaled in the standard B and surmounted by a disk plate *g*, which is secured to the bottom of the tub F and rests upon the wheel E. The said wheel sustains the entire weight of the tub and is placed sufficiently near the spindle G to impart the requisite speed of motion.

*f* is an annular flange fixed within the tub near its margin to prevent the overflow of cream.

H is a basket pivoted concentrically within the tub F so as to be free to move in either direction or remain quiescent while the tub rotates.

I is a horizontal bar attached to standards J, and affording support to a spout K which occupies a position immediately under the flange *f*, and is adjustable toward or from the axis of the tub.

The operation is as follows: A quantity of cream being placed in the tub F, and the latter rapidly rotated by means of the crank

D and friction wheel E, the cream ascends the sides of the tub by centrifugal force until arrested by the flange *f* and being caught by the spout K is deflected inward and projected in a forcible and continuous stream into the basket H, causing violent agitation in the body of cream as well as friction as it flows out through the apertures in the basket. The effect is to collect the butter in a solid mass within the basket, as fast as it is separated from the milk, while the latter is driven continuously up the sides of the tub, through the spout K into the basket and out through the apertures thereof as long as may be needful to completely separate the butter.

The wheel E being the only vertical support of the tub, it will be seen that the contact between the surfaces, necessary to maintain the efficiency of the apparatus, is not impaired by wear. The periphery of the said wheel is so formed as to present a regular convexity in its transverse section so as to avoid on the one hand the lateral pressure produced by beveled surfaces and on the other hand the friction and consequent loss of power incident to the use of extended flat surfaces revolving in planes perpendicular to each other.

The following is what we claim as new and of our invention as an improvement in churns:

The combination of the rotary tub F stationary spout K and basket H operating substantially as and for the purposes set forth.

In testimony of which invention, we hereunto set our hands.

CLARK WRIGHT.  
WILLIAM PHELPS.

Witnesses:

OCTAVIUS KNIGHT,  
JAMES H. GRIDLEY.