

M. D. WELLS.
Churn.

No. 13,281.

Patented July 17, 1855.

Fig. 1

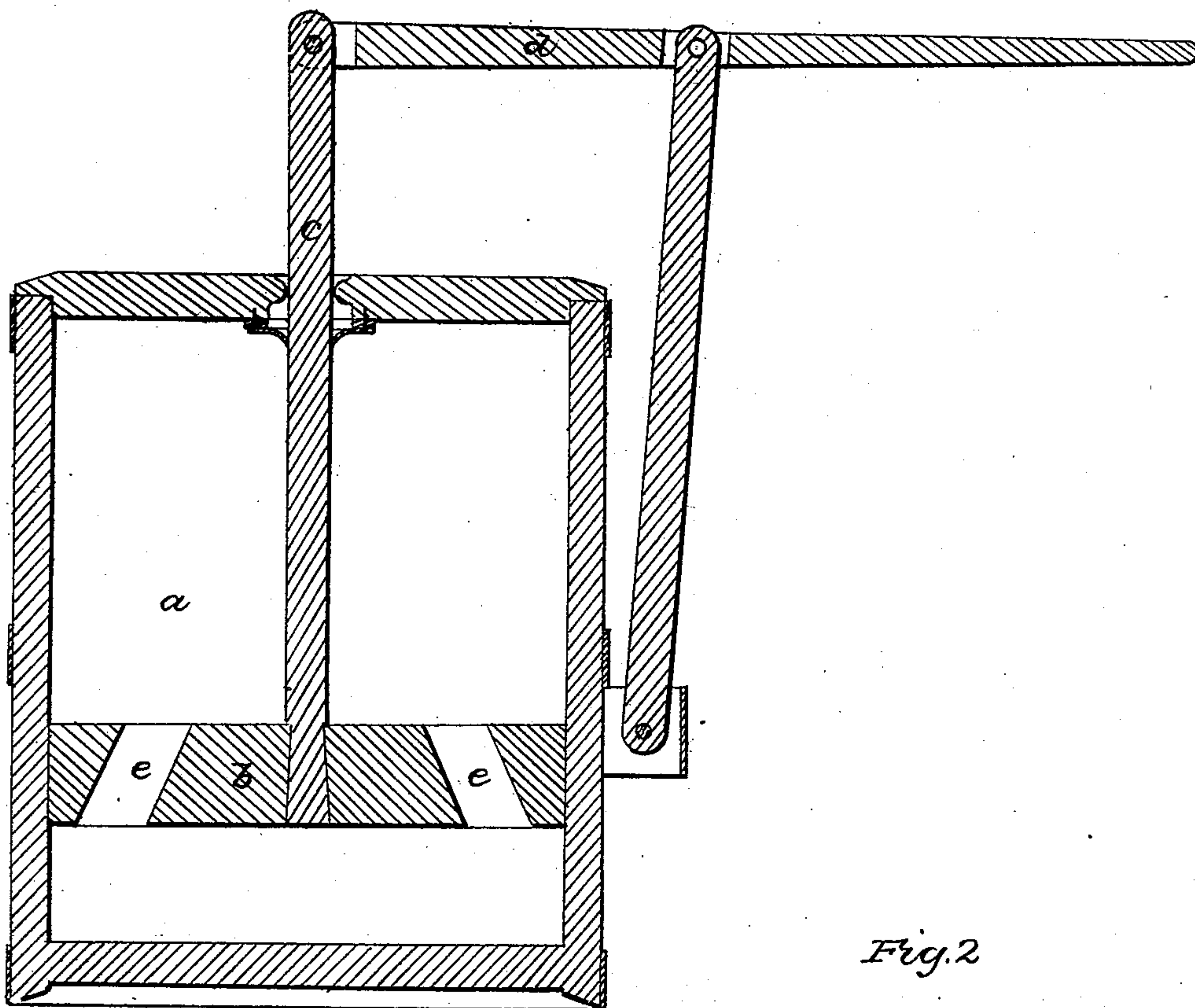
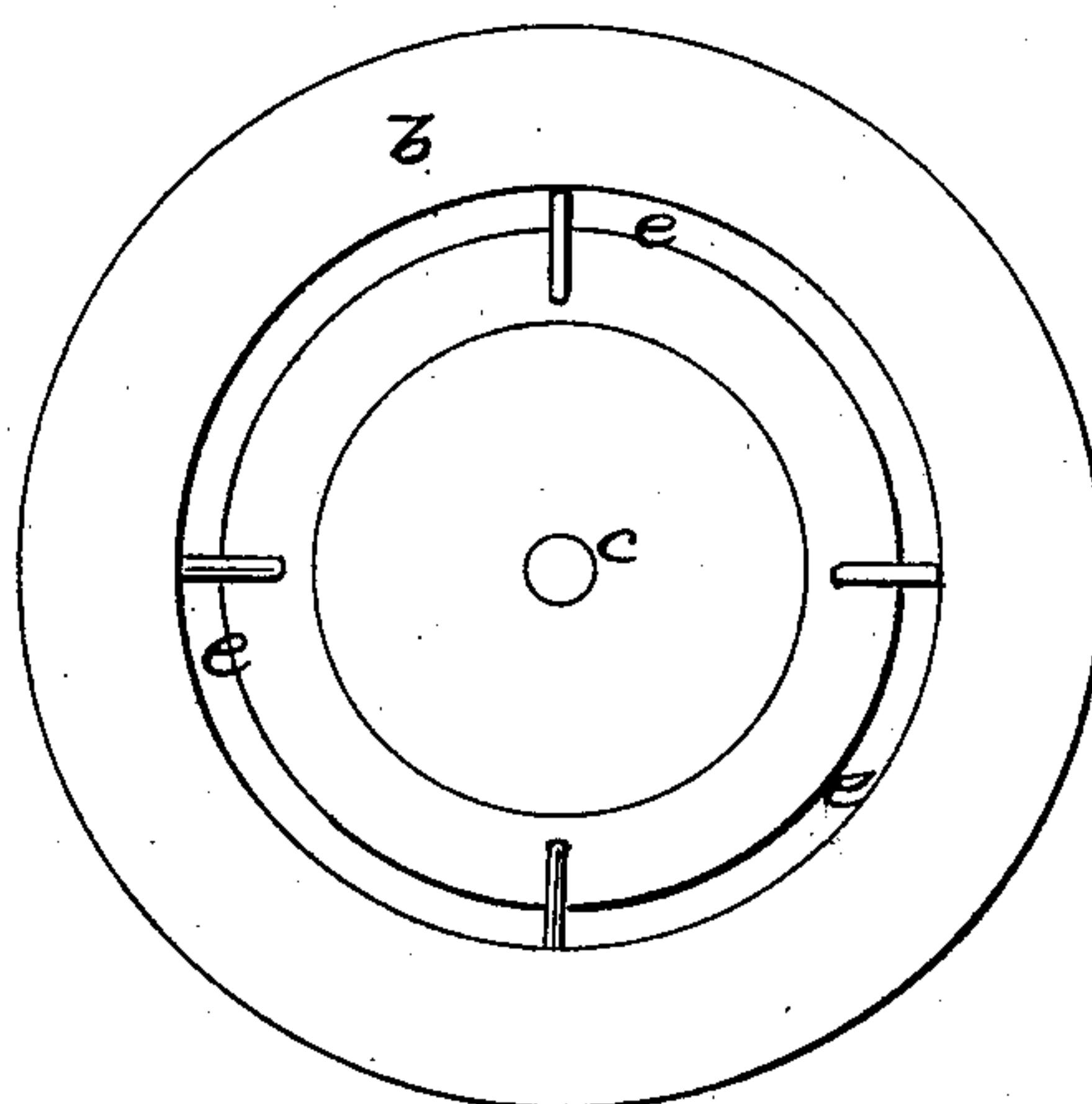


Fig. 2



UNITED STATES PATENT OFFICE.

MOSES D. WELLS, OF MORGANTOWN, VIRGINIA.

CHURN.

Specification of Letters Patent No. 13,281, dated July 17, 1855.

To all whom it may concern:

Be it known that I, MOSES D. WELLS, of Morgantown, in the county of Monongalia and State of Virginia, have invented
5 a new and useful 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 drawing,
10 forming part of this specification, in which—

Figure 1 is a vertical section of the churn taken through the axis of dasher. Fig. 2 is a plan of dasher.

15 Similar letters of reference in the several figures denote the same part of the churn.

My invention relates to the construction of the dasher, which is composed of a central disk connected by braces with a concentric annular portion fitting loosely the cylindrical body of the churn; the two portions of the dasher being separated by a passage or channel whose sides incline inward and upward, toward the dasher shaft,
20 and continuous with the exception of the braces; the details of construction and operation being as follows.

In the drawing *a* is the body of the churn, and *b* the dasher, connected by the shaft *c*
30 with the lever *d* which gives it a vertical movement. Through the dasher passes the aperture *e* which is concentric with the periphery of the dasher and endless with the exception of the connection necessary for
35 sustaining the two portions of the dasher. This aperture runs obliquely toward the dasher shaft as seen in Fig. 1. The other portions of the churn will not need particular description and will readily be understood from the drawing.
40

The operation of my improved churn is as follows. The dasher is moved vertically by lever *d*, and is at each upward stroke lifted above the surface of the cream. Its descent
45 causes a rush of cream through the channel *e*, which current taking the direction of the

sides of the channel, forms a continuous hollow column of cream, running upward toward the shaft *c*, where it meets and incloses the body of air which has been drawn
50 down by the disk portion of the dasher. This air in bursting through its inclosure as the dasher continues its descent, scatters the cream in a foam toward the inner surface of the body of the churn, causing it to in-
55 close the column of air drawn down by the annular portion of the dasher. This column in its turn breaks through the cream and adding to the agitation already produced scatters it upward in a mass of foam. This
60 action of the atmosphere is repeated at each down stroke of the dasher, producing the speedy transformation of the cream to butter.

The superior atmospheric action of this
65 churn is due to the formation in the dasher of the passage *e* whereby a continuous column of cream is thrown up for inclosing the air, the effect of the down stroke being altogether different from that of any other
70 perforated dasher. In constructing this passage the precise form of dasher here described need not be strictly followed, as any form in which a passage having the effect described can be constructed, will serve
75 the same purpose.

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

The construction of the dasher with an inclined continuous channel *e* substantially
80 as set forth, for producing the upward flow of a continuous hollow column of cream, at each down stroke of the dasher, and thus favoring atmospheric action as specified.

In testimony whereof, I have hereunto
85 signed my name before two subscribing witnesses.

MOSES D. WELLS.

Witnesses:

E. MATHERS,
P. C. RUDL.