

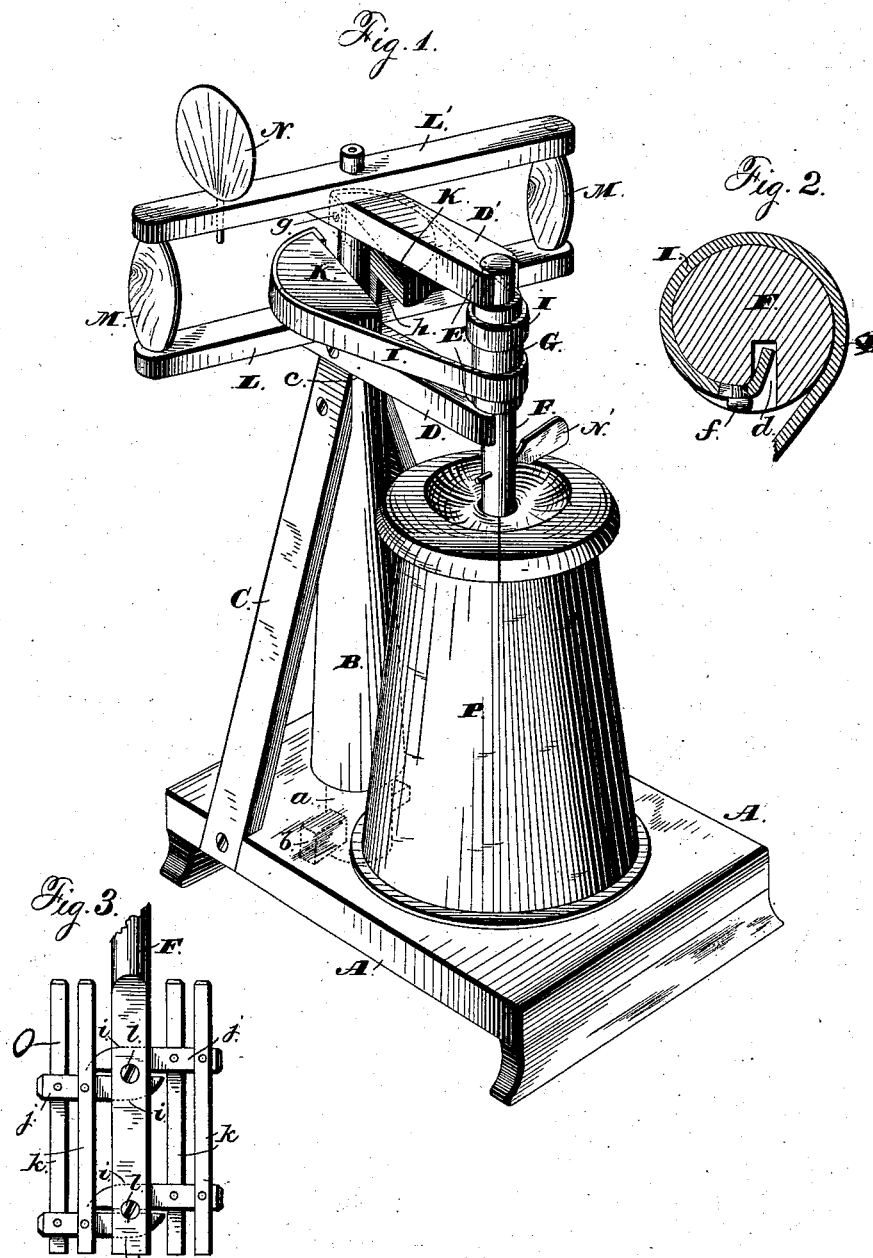
(No Model.)

B. F. ALDRIDGE.

CHURN.

No. 264,598.

Patented Sept. 19, 1882.



WITNESSES

Jas. C. Hutchinson.
S. G. Nottingham

INVENTOR

B. F. Aldridge,
By R. A. Symon,
Attorney

UNITED STATES PATENT OFFICE.

BENJAMIN F. ALDRIDGE, OF HILL SPRINGS, KENTUCKY.

CHURN.

SPECIFICATION forming part of Letters Patent No. 264,598, dated September 19, 1882.

Application filed June 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. ALDRIDGE, of Hill Springs, in the county of Henry and State of Kentucky, have invented certain new and useful Improvements in Churns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to an improvement in churns; and it consists in certain details in construction and combination of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved churn. Fig. 2 is a view of the dasher-rod, showing the manner of securing the operating-straps thereto; and Fig. 3 is a view of the adjustable dasher.

A represents a suitable base, to which the upright standard B is removably secured. This standard B is provided at its lower end with the round tenon *a*, which latter passes through a suitable opening in the said base and is secured therein by the wedge *b*. This standard is strengthened and held in position by the side braces, C, which latter are secured at one end to the sides of the base and at their opposite ends to the sides of the standard B. This standard is provided near the upper end thereof with the two horizontal parallel bars D D', the lower one, D, of which rests on the shoulders *c*, and is secured thereto by screws. These bars rest over the base A and are each provided on their outer ends with the half-bearings E, in which the dasher-rod F rests and moves. This dasher-rod F is provided near its upper end with the circular enlargement or drum G, which latter rests between the bars D and D' and prevents the said dasher-rod from moving vertically, and is also adapted for the attachment of the operating-straps I. This enlarged portion or drum G is provided with the recesses *d*, situated in different horizontal planes, the opposite side walls of which incline in opposite direction, or incline in the direction the respective straps take after they leave the recesses.

A projecting lug, *f*, is secured in the inclined side wall of each recess, but does not project up above the true circumference of the drum so as to interfere with and wear away the oper-

ating-straps which are secured thereto. These operating-straps I (two in number) are secured respectively to the operating-levers, while the opposite ends thereof pass around the drum in opposite directions, and are secured thereto by the lugs *f*. The outer or free ends of these straps are first introduced into their respective recesses, which completely protects the said ends, while they are secured to the said dasher-rod by the lugs *f*, which latter pass up through openings near the end of the straps. This construction serves to protect the end of the straps and prevents them from turning or doubling up, which would not only stretch the straps, but would also give an irregular or jerking motion to the dasher, which is not desirable. These straps pass around the drum on the dasher-rod in opposite direction, and are secured to the peripheries of the semicircular disks K by the screws *g*. These semicircular disks K are situated in different horizontal planes, the upper being in a plane with the top-strap attachment on the dasher-rod, while the lower one is in a plane with the lower-strap attachment on the dasher-rod. These dasher-rod attachments and semicircular disks are separated sufficiently so as to prevent the straps from rubbing or interfering with each other during the operation of the machine.

L and L' are horizontal operating-levers, pivotally secured to the standards B and connected together by the loose handles M. The lower lever, L, rests on the bar D, while the upper lever, L', is situated above the bar D' and rests on a shoulder (not shown) formed near the upper end of the standard B. The upper end of the standard B passes centrally through the two levers L and L', and the two semicircular disks K are secured to the said lower lever, L, on opposite sides of the said standard. The lower semicircular disk is secured directly to the lever L, while the upper semicircular disk K is rigidly secured to a bearing-block, *h*, which latter is secured directly to the lever L'. As the two levers L L' are connected together by the vertical handles M, it follows that as the handles are moved in the arc of a circle around the standard B both levers L L' are also caused to move simultaneously therewith in the same direction. This construction forms a solid and substantial frame and prevents the handles M from being

bent or broken off, while the connections between the said levers and standard are such that there is little or no friction produced while operating the machine.

5 The straps I are so connected to the drum that when one is wound thereon the other is unwound, and as the vibrating motion is continued the straps are successively wound and unwound on the drum.

10 A fan, N, is secured to the top lever, L', to fan the operator while the churn is in operation, and a second fan or brush, N', is secured to the dasher-rod, just above the head of the churn, to prevent dust or dirt from falling into
15 the said head, and also to keep off insects and flies. The lower part of the dasher-rod is formed square, which not only assists in converting the cream into butter, but affords increased bearings for the extensible dashers,
20 which are secured thereto.

The dasher-rod F is provided with two openings, *i*, through the same, through which the horizontal bars *j* of the dasher O pass. These bars *j* are provided with the horizontal beaters *k*, secured on opposite sides of the said bars,
25 as shown, so as to present as much beating-surface as possible. The inner ends of the bars *j* are adapted to pass through the openings *i* from opposite sides of the dasher-rod, and rest one above the other, and are secured
30 in the position by the screws *l*, which pass through one side of the dasher-rod and between the two bars *i*, and act as a wedge which holds them securely in position. By simply
35 removing the screws *l* the dasher can be increased or decreased in width, so as to suit the churn P, which can be of any size and construction.

40 The horizontal bars can be elevated, so as to accommodate churns of different sizes, and the standard B can be secured to any suitable base in any suitable manner. The construction

previously described, however, answers all the necessary purposes.

My improvement is simple in construction, 45 is strong and durable in use, and can be manufactured at a small initial cost.

It is evident that slight changes in the construction and relative arrangement of parts might be resorted to without departing from the 50 spirit of my invention; and hence I would have it understood that I do not limit myself to the exact construction of parts shown and described, but consider myself at liberty to make such changes and alterations as come within 55 the spirit and scope of my invention.

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

1. In a vibrating churn, the combination, 60 with a standard having two operating-levers pivoted thereto, handles connecting the said levers at opposite ends, and two semicircular disks rigidly secured to one of said levers on opposite sides of the standard in different hori- 65 zontal planes, of a dasher-rod provided with a drum, and operating-straps placed in different horizontal planes and adapted to connect the said semicircular disks with the said drum, substantially as described. 70

2. The combination, with the dasher-rod provided with two openings, of a two-part dasher, the horizontal bars of which are adapted to pass through said openings and rest one 75 above the other therein, and screws adapted to pass between said horizontal bars and hold them together, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

BENJAMIN FRANKLIN ALDRIDGE.

Witnesses:

HIRAM A. GRIDER,

H. J. PAGE.