

(No Model.)

A. R. BEAM.
CHURN MOTOR.

No. 466,317.

Patented Jan. 5, 1892.

Fig. 1.

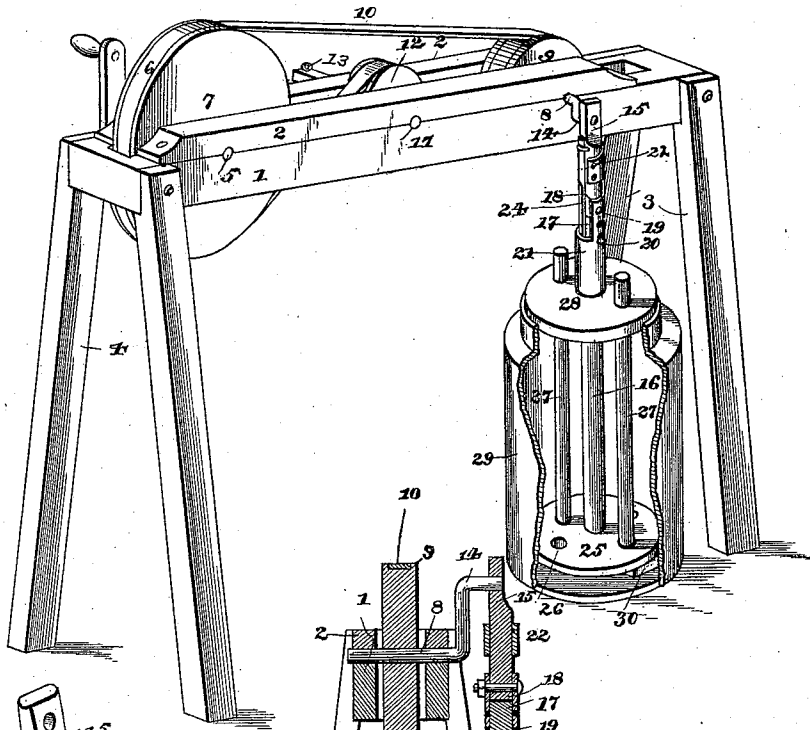


Fig. 3.

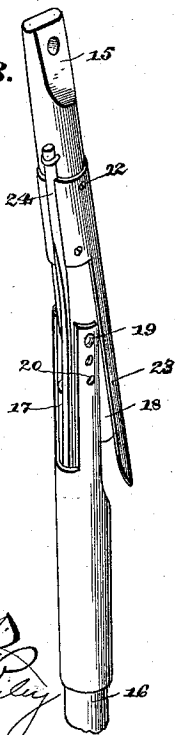


Fig. 2.

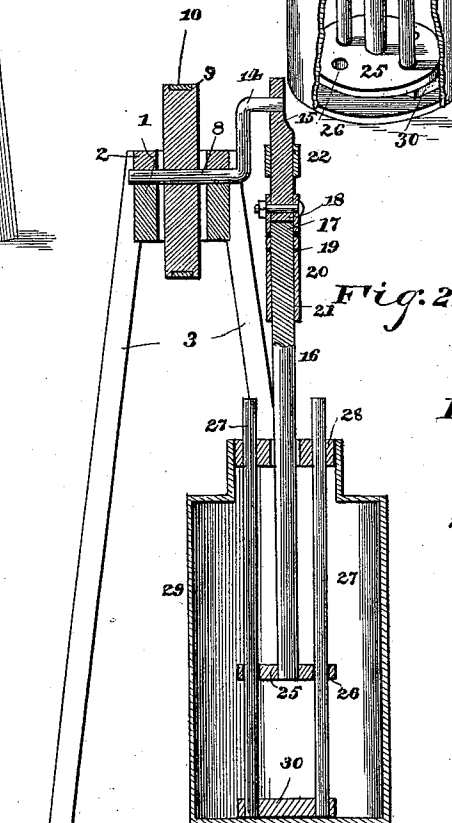
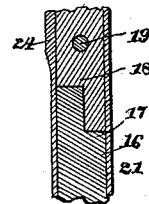


Fig. 4.



Witnesses

B. S. Obar
A. H. Wiley

Inventor

By his Attorneys,

Aaron R. Beam,

Chas. Snow & Co.

UNITED STATES PATENT OFFICE.

AARON R. BEAM, OF WACO, NORTH CAROLINA.

CHURN-MOTOR.

SPECIFICATION forming part of Letters Patent No. 466,317, dated January 5, 1892.

Application filed July 28, 1891. Serial No. 400,914. (No model.)

To all whom it may concern:

Be it known that I, AARON R. BEAM, a citizen of the United States, residing at Waco, in the county of Cleveland and State of North Carolina, have invented a new and useful Churn-Motor, of which the following is a specification.

The invention relates to improvements in churn-motors.

The object of the present invention is to provide simple and efficient means for operating churns, whereby cream may be quickly converted into butter.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a churn-motor embodying the invention. Fig. 2 is a transverse sectional view. Fig. 3 is a detail perspective view of the joint between the pitman and the dasher-rod. Fig. 4 is a detail sectional view of the joint.

Referring to the accompanying drawings, 1 designates a frame consisting of parallel side bars 2 and legs or standards 3 and 4, supporting the parallel side bars and arranged at the ends of the same, and journaled in suitable bearings of the side bars near one end of the frame is a shaft 5, carrying at one end a crank-handle 6, by which the churn is operated, and intermediate its ends a drive-wheel 7. At the opposite end of the frame is journaled a shaft 8, upon which is mounted a wheel 9, which receives motion from the drive-wheel 7 by a belt or band 10, and the wheels 7 and 9 are provided in their peripheries with grooves to receive the belt or band 10. A shaft 11 is journaled in suitable bearings at a point intermediate the ends of the side bars, and carries a grooved pulley 12, over which passes the belt or band, and it is provided at one end with a clip 13, designed to receive and secure to the shaft a fly-brush, fan, or the like, to keep flies from the person operating the churn and from the latter. The shaft 8 carries at one end a crank 14, which is arranged on the sides of a frame opposite that on which the crank 6 for operating the motor is arranged, and to which is connected a pitman

15, the latter having its other end pivotally secured to the upper end of a dasher-rod 16. The upper end 17 of the dasher-rod and the lower end 18 of the pitman have their opposed faces rabbeted, and the recess portions are adapted to fit into each other, so that the pitman will form a continuation of the dasher-rod. The pitman is connected with the dasher-rod by a bolt 19, which passes through perforated extensions 20 of a socket 21, fitting on the upper end of the dasher-rod, and the pitman is provided with a socket 22, having an extension 23, arranged on the outer face of the pitman and adapted to prevent the lower end of the pitman swinging through the extensions 20 of the socket 21 of the dasher-rod, whereby the pitman and dasher-rod are held in alignment. On the side of the pitman opposite that on which the extension 23 is arranged is secured a spring 24, which is arranged within the socket 22, and extends downward and has its free end arranged within the socket 21 of the dasher-rod, whereby the dasher-rod and pitman are caused to remain in alignment when not forced out of such by the crank 14. By this construction a direct downward stroke is given to the dasher-rod, which has been found exceedingly advantageous, as by it cream is quickly converted into butter.

At the lower end of the dasher-rod, which reciprocates vertically, is arranged a dasher 25, which is perforated and provided with openings 26, in which are arranged guide-rods 27 having their upper ends secured in openings of a cover 28 of a churn-body 29, and having their lower ends secured to a cross-bar 30, arranged on the bottom of the churn-body. The dasher-rod is arranged in a central opening of the cover 28, and it has a direct easy vertical reciprocation, it being guided in its movements by the rods 27.

It will be seen that the churn-motor is simple and comparatively inexpensive in construction, strong and durable, easy to operate, it requiring very little force, and the cream is quickly churned.

What I claim is—

In a churn-motor, the combination of a crank, a pitman connected to the crank and provided at its lower end with a socket hav-

ing an extension 23, depending below the pitman, a dasher-rod carrying a dasher and provided at its upper end with a socket having oppositely-disposed perforated extensions 20,
5 pivotally connected to the pitman, and a spring secured to the pitman and engaging the dasher-rod, substantially as and for the purpose described.

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

AARON R. BEAM.

Witnesses:

J. W. GIDNEY,
J. L. WEBB.