(No Model.)

W. F. WATERS.

BUTTER WORKER.

No. 301,540. Patented July 8, 1884.

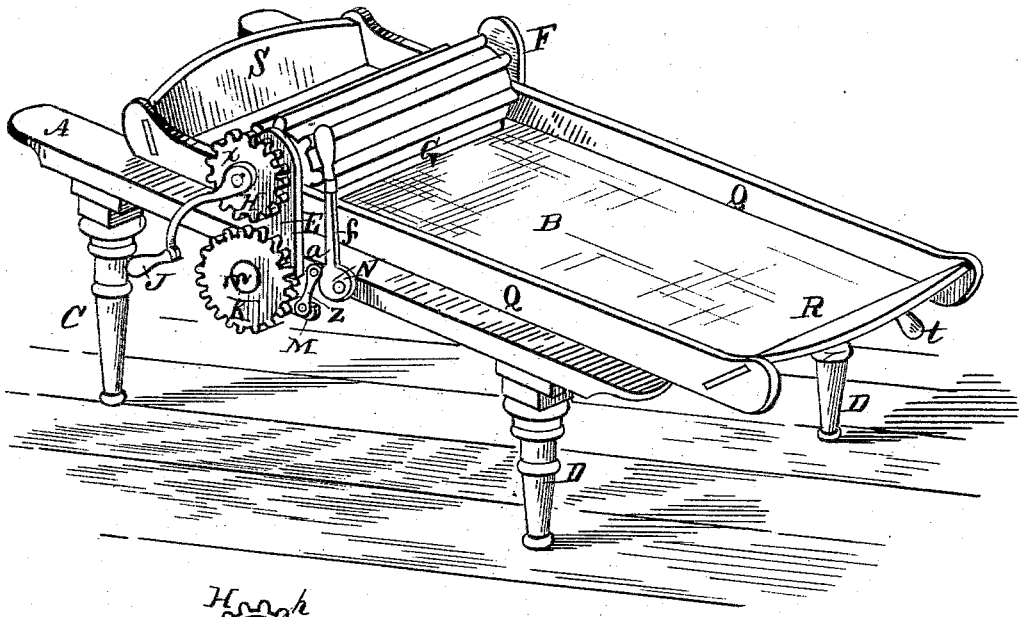
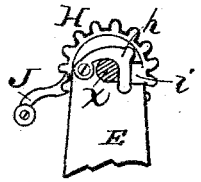


Fig. 1.



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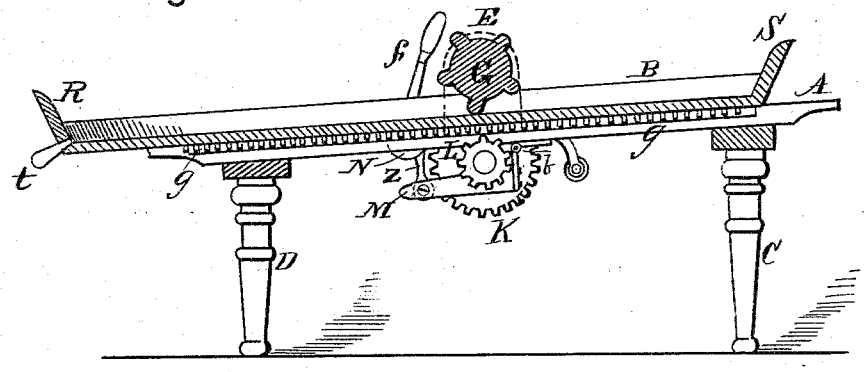

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

WADSWORTH F. WATERS, OF JOHNSON, VERMONT.

BUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 301,540, dated July 8, 1884.

Application filed October 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, WADSWORTH F. WATERS, of Johnson, in the county of Lamoille, State of Vermont, have invented a certain new and useful Improvement in Butter-Workers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view of my improved butter-worker; Fig. 2, a vertical transverse section of the same, and Fig. 3 a sectional view.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of butter-workers in which the butter is submitted to the action of a corrugated roller in a movable or traversing trough or tray; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a simpler, cheaper, and more effective device of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the body or table of the machine, and B the trough or tray, the body being supported at one end by the legs C, and at the opposite end by the legs D. Attached to one side of the body A there is a vertically-arranged standard, E, and to the opposite side a corresponding standard, F, and journaled horizontally on the shaft *x*, disposed in the upper ends of the standards, there is a fluted or corrugated roller, G, preferably composed of hard wood, the shaft being provided at one of its ends with the gear H and crank J. The standards project below the body A; and journaled in parallelism with the shaft *x*, in the lower ends of the same, beneath the table, there is a shaft, *m*, carrying at one of its ends the gear K, adapted to intermesh with the gear H on the shaft *x*. A toothed segment or rack, *g*, is centrally attached to the under side of the trough B, running nearly its entire length; and disposed on the shaft *m* there is a pinion, L, arranged to intermesh with said rack. The end of the shaft *m* carrying the gear K works in a slot (not shown) in the lower end of its supporting-standard E in such a manner as to be moved vertically a sufficient distance to disengage the pinion L and rack *g* when desired. A lever, M, pivoted at *l* to the body, is disposed horizontally beneath the shaft *m*, near the gear K; and pivoted to the side of the body A there is a bell-crank lever, N, the short arm *a* of said lever being jointed to the outer end of the lever M by the link *z*, and the long arm *f* extending above the trough B. The trough is provided with vertically-arranged sides Q and inclined ends R S, the end R having a plug, *t*, for drawing off the buttermilk. The width of the trough between its sides is slightly greater than the length of the roller G, the roller being arranged in reference to the body or table in such a manner as to permit the trough to pass freely under the same, but in close contact therewith. To enable the roller to be placed in the trough when the trough is in position on the table, the standard E is provided with the lateral slot *i*, through which the shaft *x* may be inserted, the shaft being kept in position by the pivoted hook or clasp *h*.

In the use of my improvement the arm *f* of the lever N is moved as far as possible from the roller G, thereby causing the pinion L to intermesh with the rack *g* and the gear K with the gear H, by raising the shaft *m*. The butter is then placed in the trough and the crank J turned, causing the roller G to revolve, the trough to traverse, and the butter to be worked, in a manner which will be readily understood without a more explicit description. When the trough has passed under the roller until one of its ends is brought nearly or quite into contact with the same, the lever N may be moved to disengage the gear K from the gear H and the pinion L from the rack *g*, thereby permitting the roller G to be

revolved and the butter worked at the ends of the trough, while the latter remains stationary. The trough may also be stopped in like manner at any other point in its course, if desired, by depressing the lever M.

The legs D are constructed slightly shorter than the legs C, thereby elevating the end S of the trough B, and causing the buttermilk to gather at the lower end R, where it may be drawn off by the plug *t*.

Having thus explained my invention, what I claim is—

The combination, with the body A, having standards E F, reciprocating trough B, provided with rack *g*, crank-shaft *x*, roller G, shaft *m*, carrying pinion L, and gears H K, of a pivoted lever, M, extending under the shaft *x*, a lever, N, and a link, *z*, connecting the levers N and M, substantially as described.

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Witnesses:
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