2 Sheets. Sheet. 1.

T. Haines,

Bread Machine.

No. 109,050. Patented Sep. 6. 1870.

Fig. 1.

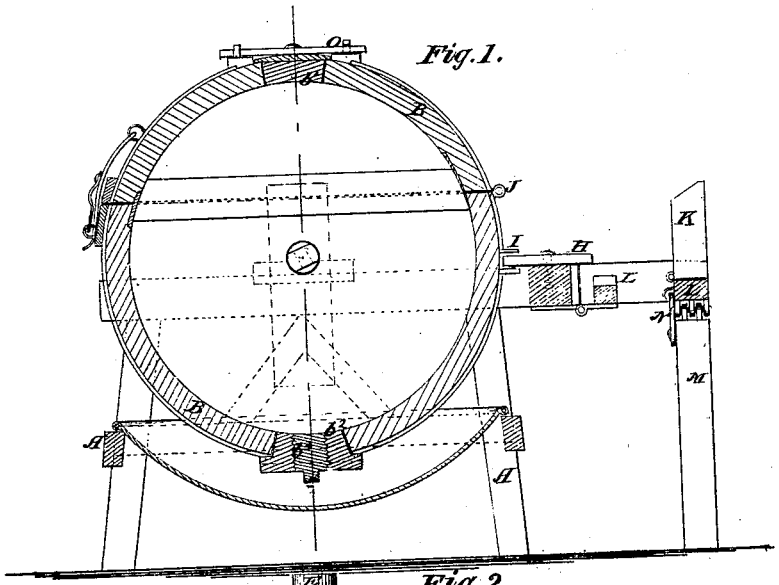
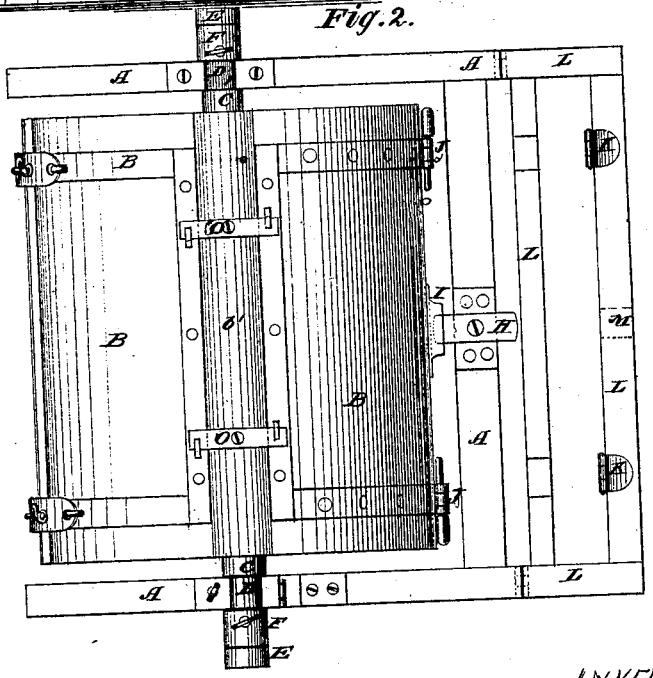


Fig. 2.



WITNESSES.
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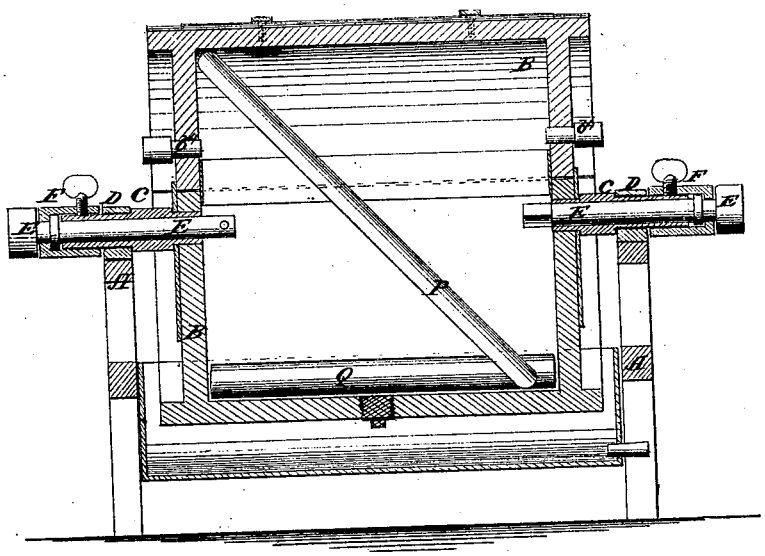
T. Holmes,

2 Sheets, Sheet 2.

Bread Machine.

No. 107,050. Patented Sept. 6. 1870.

Fig. 3.



WITNESSES.
P. C. Dieterich
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INVENTOR.
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United States Patent Office.

THOMAS HOLMES, OF WILLIAMSBURG, NEW YORK.

Letters Patent No. 107,050, *dated September* 6, 1870.

IMPROVED DOUGH AND CAKE-MIXER.

The Schedule referred to in these Letters Patent and making part of the same

To all to whom it may concern:

Be it known that I, THOMAS HOLMES, of Williamsburg, in the county of Kings and State of New York, have invented a new and useful Improvement in Revolving Dough and Cake-Mixer; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1, Sheet I, is a detail vertical cross-section of my improved machine.

Figure 2, Sheet I, is a top view of the same.

Figure 3, Sheet II, is a detail vertical longitudinal section of the same, taken through the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of my improved dough-mixer, patented June 15, 1869, and September 21, 1869, and numbered, respectively, 91,335 and 95,021, so as to make it more convenient and effective in use; and

It consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A is the frame of the machine.

B is a cylindrical vessel, to the central parts of the ends of which are attached hollow or tubular gudgeons, C, which revolve in bearings, D, attached to the side bars of the frame A.

The upper part of the bearings D are hinged at one end, and secured at the other by a hand-screw, as shown in fig. 2, so that the said part may be unfastened and turned back, to allow the vessel B to be removed from the frame A when required.

E are spindles that pass in through the hollow gudgeons C, and which are made of such a length that their inner ends may project into the interior of the vessel B sufficiently to receive and carry the beaters and scrapers.

F is a sleeve, to the outer end of which is swiveled the spindle E, as shown in fig. 3, and the inner end of which receives and fits upon the outer end of the tubular gudgeon C, to which it is secured by a set-screw.

G is the crank, which fits upon the outer end or head of the spindle E, to which it is secured by a set-screw, so that the beaters may be revolved by said crank. The crank G may also be secured to the sleeve F, so as to revolve the cylindrical vessel B. Or the crank-socket may be so adjusted as to overlap, and be secured to the adjacent ends of the said spindle-head and sleeve, so as to revolve both the vessel and beater at the same time.

In the case of large machines, the gudgeons need not be made hollow, but solid pivots may be used.

The vessel B may be kept from revolving, and held stationary, when desired, by the button H, pivoted to the frame-work A, and entering a keeper, I, attached to the rear side of said vessel.

The vessel B is divided longitudinally into two unequal parts, which are secured to each other at one edge by staples, hasps, and hooks, and are hinged to each other at their other edges.

The pivoting-pins of the hinges J are made detachable, so that they may be conveniently withdrawn when desired, to allow the upper or smaller part of the vessel B to be detached when desired.

The upper or hinged part of the vessel B, when turned back, rests upon the upper ends of the short studs K, which are hinged, at their lower ends, to the frame L, the forward side of which is hinged to the main frame A, and which is provided with a leg, M, hinged to its outer part, to support it when extended into a horizontal position.

When not required for use, the studs are folded down, the leg M folded up, and the entire frame turned down into a vertical position.

The leg M, when extended, is secured in position by a hook and staples, N, as shown in fig. 1.

In the middle part of the upper or smaller part of the vessel B is formed an opening, closed by a strip, b^1, which is secured in place by the lock-bars O, pivoted, at their centers, to the said strip b^1, and shutting into catches attached to the body of the said part.

By detaching the strip b^1, the scraper can be inserted without its being necessary to raise the upper or hinged part of the vessel B.

A similar opening is made in the middle of the lower or larger part of the vessel B, which is closed by the strip b^2, secured in place by pivoted lock-bars, in the same manner as the strip b^1.

By removing the strip b^2, the dough may be allowed to run out through the opening, and may be received in any suitable receptacle.

In the center of the strip b^2 is formed an opening, closed by a screw-plug, b^3, as shown in figs. 1 and 3.

By removing the screw-plug b^3, the dough may be allowed to run out through the opening closed by said plug.

In the ends of the upper or smaller part of the vessel B are formed holes, closed by the plugs b^4, which plugs may be removed when the flour and water are mixed together in warm weather, as the mixture would otherwise heat, and make the dough soft, and the bread will not be so good. In cold weather it is immaterial whether the said holes be opened or not.

P is a rod or bar, which may be round, oval, or flattened, and which is made of such a length as to extend diagonally across the center of the cylindrical vessel B, with its ends resting in the angles between the ends and sides of said vessel. The rod or bar P

can change its position freely while the machine is being used; that is to say, its ends are free to move around the circles of the ends of said vessel B; but it can never get into any other position than passing diagonally across the said cylinder.

G is a small roller, of such a length as to work freely between the ends of the vessel B, as shown in fig. 3. The roller Q is placed in the bottom of the vessel B, so that the lower end of the rod or bar P may rest against it, and, when the said vessel is revolved, the said bar and roller, by their movements, will keep the dough stirred up.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The combination of the loose roller Q with the diagonal bar or rod P and revolving cylindrical vessel B, substantially as herein shown and described, and for the purpose set forth.

2. The combination of the hollow or tubular gudgeons C, spindles E, and sleeve F, provided with a set-screw, with each other and with the revolving cylindrical vessel B, to enable the said vessel and the beaters or scraper to be revolved together or independently, as may be desired, substantially as herein shown and described.

3. The detachable strips b^1 b^2, either or both, in combination with the openings in the upper and lower parts of the revolving cylindrical vessel B, substantially as herein shown and described, and for the purpose set forth.

4. The combination of the screw-plug b^3 with the opening formed in the middle part of the detachable strip b^2, placed in the opening in the lower or larger part of the cylindrical vessel B, substantially as herein shown and described, and for the purpose set forth.

5. The combination of the hinged studs K, hinged frame L, and hinged leg M, with the frame A and hinged upper or smaller part of the revolving cylindrical vessel B, substantially as herein shown and described, and for the purpose set forth.

The above specification of my invention signed by me this 2d day of July, 1870.

THOMAS HOLMES.

Witnesses:

T. B. MOSHER,

JAMES T. GRAHAM.