(No Model.)

B. BITTERMAN & L. H. BERNSTEIN.

BREAD MACHINE.

No. 383,938. Patented June 5, 1888.

Fig. 1.

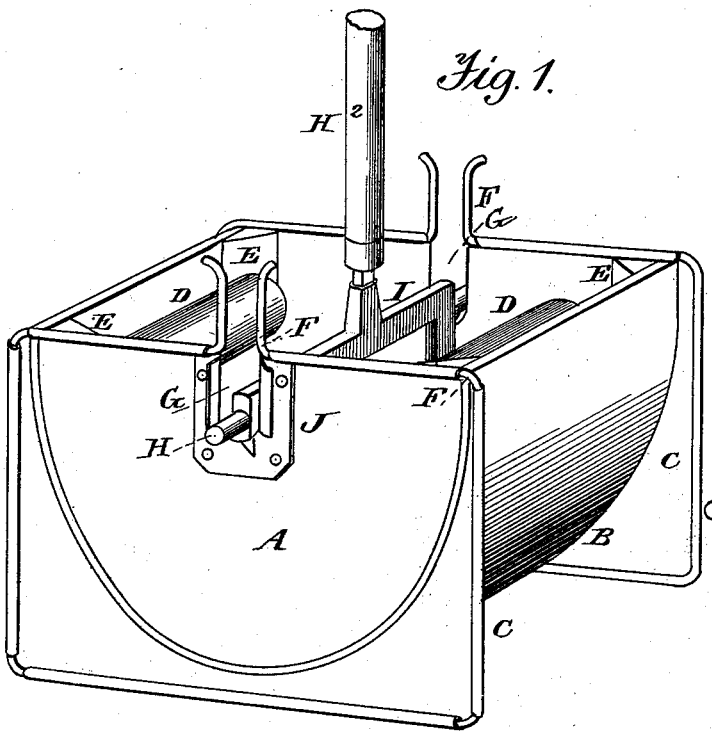


Fig. 4.

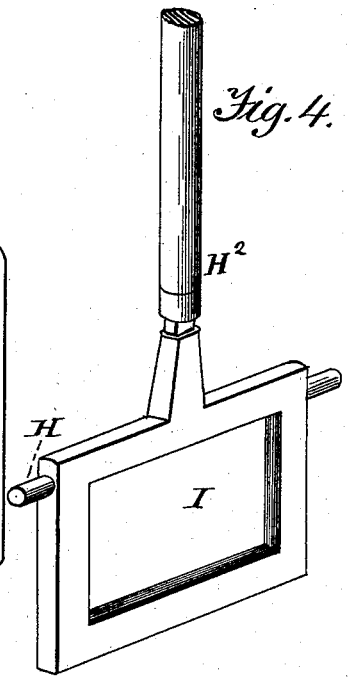


Fig. 2.

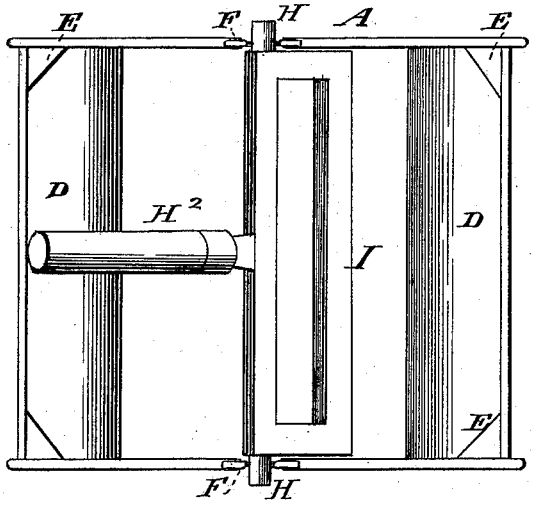
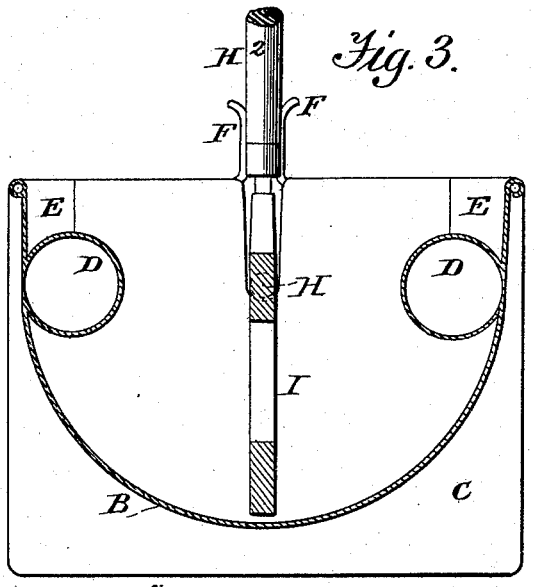


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

BERNARD BITTERMAN AND LOUIS H. BERNSTEIN, OF NORTH TOPEKA, KANSAS.

BREAD-MACHINE.

SPECIFICATION forming part of Letters Patent No. 383,938, dated June 5, 1888.

Application filed December 12, 1887. Serial No. 257,659. (No model.)

To all whom it may concern:

Be it known that we, BERNARD BITTERMAN and LOUIS H. BERNSTEIN, citizens of the United States, residing at North Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Bread-Machines; and we do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to that class of bakers' appliances which are used in kneading dough, and are denominated "bread-machines;" and it has for its object to provide a machine of this class which shall be simple and inexpensive, and which at the same time will possess the merits of durability and of general efficiency in operation.

To these ends and to such others as the invention may relate the same consists in the peculiar combination, and in the novel construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly defined in the claim.

In the drawings, Figure 1 is a perspective view, and Fig. 2 a plan view, of a bread-machine constructed in accordance with our invention. Fig. 3 is a central transverse vertical section. Fig. 4 is a detail showing the kneader removed from the bread-trough.

Reference being had to the details of the drawings, A represents the dough-trough, which is made of heavy sheet metal. The bottom B of the trough is curved in the arc of a circle, as shown, and is securely soldered or otherwise secured to the ends C.

D D are fixed rolls secured within the dough-trough and extending longitudinally through the same—one upon each side—and near the top of the trough, as shown. These rolls are preferably made of sheet metal, and are soldered securely to the sides of the trough.

E E are posts or blocks secured within the upper corners of the trough, where they serve the double function of strengthening the machine and of more securely retaining the rolls in position.

The machine is provided at its outer edges with a heavy rod or wire, F, which serves to strengthen the same.

The ends C C are provided at the transverse center of their upper edges with slots G G, which serve as bearings for the pivots H upon the kneader-frame I, the ends of the trough being strengthened at this point by the slotted metallic plates J, which are bolted securely in place upon the ends of the machine.

The wire F, which forms the frame or boundary of the machine ends C of the trough, are extended upward upon each side of the slots G, and the distance between the wires upon the opposite sides of the slot is slightly less than the width of the slot, thus requiring that they should be pressed or sprung apart, in order to admit the pivots upon the ends of the kneader-frame.

The kneader I consists of a heavy rectangular metallic frame, the upper side of which is provided at each end with an extension or pivot, H. The operating-handle H^2 is secured to the upper edge of the same at its longitudinal center, as shown.

From the foregoing description the operation of the machine will be readily understood. The dough to be kneaded is placed within the trough. The wires upon either side of the slots G are sprung apart, so as to permit the kneader to be placed in position. The operator grasps the handle and imparts to the kneader a downward pressure, accompanied by a rocking movement. The dough is thus kneaded against the rolls D D, the contour of which is such as to cause the same to be rolled or turned back again into the trough. This operation is continued until the dough has been properly kneaded.

Having thus described our invention and set forth its merits, what we claim to be new, and desire to secure by Letters Patent, is—

In a bread-machine, the dough-trough having its ends C C formed with vertical slots, and the strengthening-wires F, extended around said ends C and having their ends extended upward upon opposite sides of said slots, and the metallic plates J, secured to said ends C around the slots therein, substantially as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

BERNARD BITTERMAN.
LOUIS H. BERNSTEIN.

Witnesses:
M. M. FLEISCHMANN,
A. C. HALE.