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G. E. TUBBS

2,120,302

COOKING MACHINE

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Fig. 1

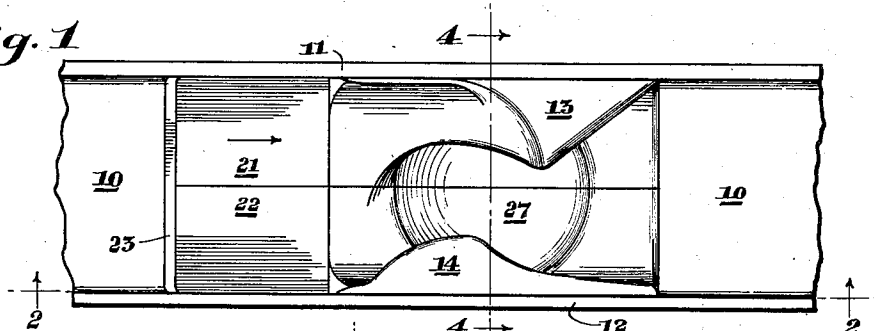


Fig. 2

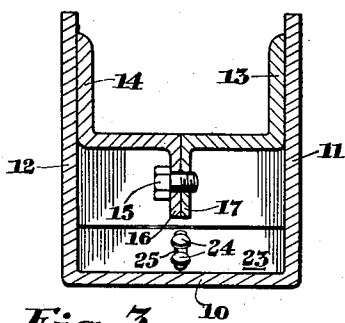
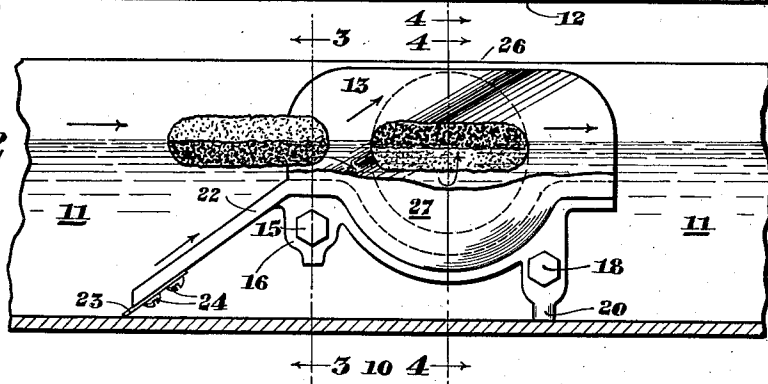


Fig. 3

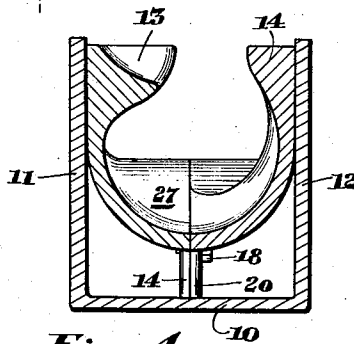


Fig. 4

Witness:
John S. Braddock.

INVENTOR.
George E. Tubbs
BY *Rice and Rice*
ATTORNEYS.

UNITED STATES PATENT OFFICE

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COOKING MACHINE

George E. Tubbs, Hillsdale, Mich., assignor to
F. W. Stock & Sons, Inc., Hillsdale, Mich., a
corporation of Michigan

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9 Claims. (Cl. 53—7)

The present invention relates to cooking machines and more particularly to an inverting device for turning doughnuts as they are progressed in a channel by the flow of a cooking liquid within the channel.

The primary object of the instant invention is to provide an improved form of doughnut turner or inverter, differing in certain respects from turners or inverters heretofore used and more particularly to provide a helical channel having a well in the floor thereof which form of turner effectively and efficiently serves its intended purpose.

An illustrative embodiment of the invention is shown in the accompanying drawing, wherein:—

Figure 1 is a top plan view of the improved form of helical channel;

Figure 2 is a sectional view thereof on line 2—2 of Figure 1;

Figure 3 is a sectional view on line 3—3 of Figure 2; and

Figure 4 is a sectional view on lines 4—4 of Figures 1 and 2.

Referring then to the drawing wherein like parts of the structure shown are designated by the same numerals in the several views, a way 10 provided with vertically spaced side walls 11, 12 is adapted to receive and retain a pair of mutually fitting members 13, 14 which are secured together at their forward under sides by a screw threaded bolt 15 passing through registering screw threaded apertures in depending adjacently disposed tongues 16, 17 and which members are likewise secured together at their rearward under sides by a screw threaded bolt 18 passing through registering screw threaded apertures in depending adjacently disposed legs 19, 20 resting upon the floor of the way 10.

The mutually fitting members 13, 14 are each provided at their forward ends with adjacently disposed downwardly and forwardly inclined runways 21, 22 and a plate 23 slidably adjustably secured to the under side of each runway, as by screws 24 passing through a slot 25 in the plate 23, provide means for adjustably angularly tilting the mutually fitting members 13, 14 when they are secured together in their assembled relation within the way 10.

These mutually fitting members when thus secured together in their assembled relation form an open top twisted duct or helical channel in which doughnuts 26 or the like may be progressed therethrough by means of the flow of a hot cooking liquid flowing in the direction of the arrow shown in Figures 1 and 2 which doughnuts dur-

ing their travel through the twisted duct or helical channel are caused to be inverted or turned over as shown in Figure 2 to thereby insure uniform and thorough cooking.

This open top helical channel or twisted duct is provided with a well 27 in the floor thereof substantially medially of its length within which well currents set up by the flow of the hot cooking liquid through the twisted duct or helical channel, result in a rotary motion of the cooking liquid within the well 27. Doughnuts thus progressed by the flowing liquid are caused to be turned from the horizontal to the perpendicular whereupon the lower half of the vertically disposed doughnut drops into the well whose rotary current of cooking liquid turns the doughnut to a reversed horizontal position from which position it continues its travel out of the turner to be cooked on its opposite side.

It will thus be seen that the twisted duct or helical channel and cooking liquid well of the instant invention are an improvement over the inverters or turners of prior use, and while but one specific embodiment of the invention has been herein shown and described, it will be understood that certain details of the construction shown may be altered or omitted without departing from the spirit of this invention as the same is defined by the following claims.

I claim:

1. A turner for doughnut machines in which doughnuts may be progressed along a way by means of the flow of a cooking liquid, said turner comprising a twisted duct disposed in said way through which the cooking liquid is adapted to flow, said duct having a well at the bottom thereof.

2. A turner for doughnut machines in which doughnuts may be progressed along a way by means of the flow of a cooking liquid, said turner comprising a twisted duct disposed in said way through which the cooking liquid is adapted to flow, the floor of said duct at the vicinity of the center thereof having a well.

3. A turner for doughnut machines in which doughnuts may be progressed along a way by means of the flow of a cooking liquid, said turner comprising a trough formed with a twisted channel disposed in said way through which the cooking liquid is adapted to flow, said trough bottom having a well therein.

4. A turner for doughnut machines in which doughnuts may be progressed along a way by means of the flow of a cooking liquid, said turner comprising a trough formed with a twisted chan-

- nel disposed in said way through which a cooking liquid is adapted to flow, said trough being open at the upper portion thereof to give access to said channel from above and the floor of said trough having a well therein. 5
5. A cooking machine of the class described, a helical channel for a flowing cooking liquid and food floated therethrough comprising lateral portions separately formed and connected in mutually fitting relation, the floor of said channel having a well therein. 10
6. A cooking machine of the class described, a helical channel for a flowing cooking liquid and food floated therethrough comprising lateral portions separately formed and each provided with a forwardly-downwardly inclined runway, said portions being secured together in mutually fitting relation, and means for adjustably tilting the mutually fitting secured portions. 15
7. A cooking machine of the class described, a helical channel for a flowing cooking liquid and food floated therethrough comprising lateral portions separately formed and each provided with a forwardly-downwardly inclined runway, said portions being secured together in mutually fitting relation, and means for adjustably tilting the mutually fitting secured portions comprising a plate slidably forwardly-rearwardly secured to the forward end of the adjacently secured runways. 5
8. In a cooking machine of the class described, a non-tubular channel open at its top for a flowing cooking liquid and for food floated therein whose floor is provided with a well, said floor having a forwardly-downwardly inclined runway, and means for adjustably tilting the channel. 10
9. In a cooking machine of the class described, a non-tubular channel open at its top for a flowing cooking liquid and for food floated therein whose floor is provided with a well, said floor having a forwardly-downwardly inclined runway, and means for adjustably tilting the channel comprising a plate slidably forwardly-rearwardly secured to the forward end of the runway. 15 20

GEORGE E. TUBBS.