

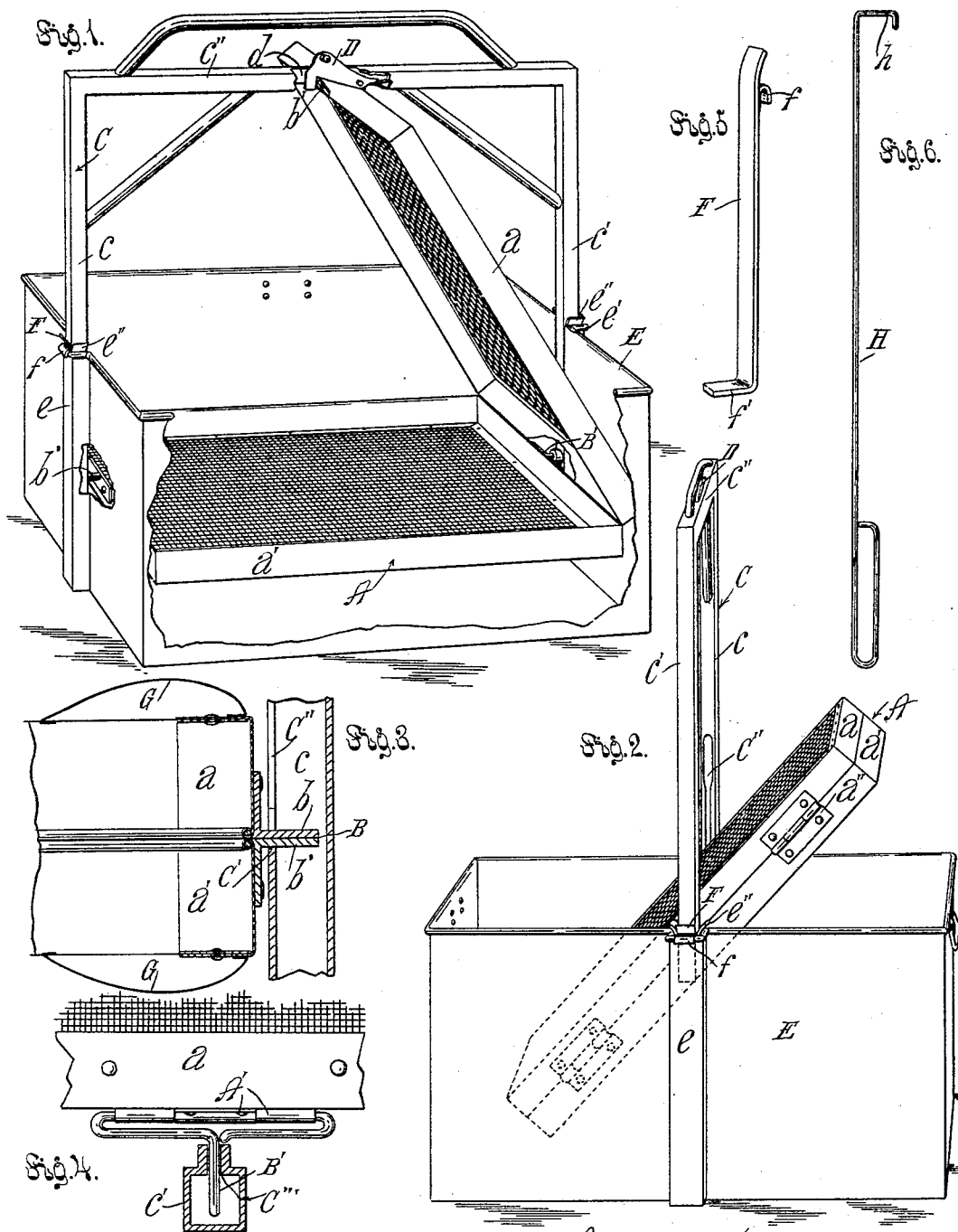
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J. KORBEL.
DOUGHNUT OR FRIED CAKE TURNER.

(Application filed Sept. 13, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JOHN KORBEL, OF LOS ANGELES, CALIFORNIA.

DOUGHNUT OR FRIED-CAKE TURNER.

SPECIFICATION forming part of Letters Patent No. 616,420, dated December 20, 1898.

Application filed September 13, 1898. Serial No. 690,890. (No model.)

To all whom it may concern:

Be it known that I, JOHN KORBEL, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Doughnut or Fried-Cake Turners, of which the following is a specification.

So far as I am aware no satisfactory device has ever been produced for simultaneously turning a large number of doughnuts while frying. It is the ordinary practice to turn each cake separately, which is not only very hot and disagreeable work, but also, when a large number of cakes are being fried at once, results in some of the cakes being burned or being turned before sufficiently cooked. It is almost impossible to secure an even product by such methods.

The object of my invention is to provide a device whereby large numbers of doughnuts or similar articles may be rapidly, easily, and uniformly fried.

My invention comprises the various features of construction and combinations of parts hereinafter fully set forth and claimed.

The accompanying drawings illustrate my invention.

Figure 1 is a fragmental perspective view of a device embodying my invention. In this view the device is shown in the position which it occupies when the cakes are frying. Fig. 2 is a perspective view of the device with the cake-holder in the act of rotating upon its pivots to turn the cakes. Fig. 3 is a fragmental sectional view of the cake-holder, the split pivot, and the supporting-frame. Fig. 4 is a fragmental view of the rear or supporting pivot, showing the frame in cross-section to reveal the hinged pivot-socket. Fig. 5 is a perspective view of one of the gages whereby the height of the holder is regulated within the pan to suit the quantity of grease within the pan. Fig. 6 is a side elevation of the wand or rod whereby the cake-holder is rotated, the sides of the holder are raised and lowered, and various other acts incidental to cake-frying are performed.

In the drawings, A represents a cake-holder, which comprises a foraminous box consisting of two parts or halves a a' , secured together at one edge by means of hinges a'' . This box or holder is preferably covered with wire-

cloth in order to permit the ready passage of the grease or oil therethrough while the cakes are being fried. Perforated sheet-metal plates will serve the same purpose; but I prefer to use wire-cloth. The front side of the holder is provided with a split pivot B, one half of which, b , is secured to one part of the holder, a , and the other half of which, b' , is secured to the other part, a' , of the holder. At the rear or hinged side of the holder is arranged a hinged pivot B' to support the rear portion of the holder and yet permit either side of the holder to be raised into the position shown in Fig. 1. Ears A' hinge the pivot to the holder, or the holder to the pivot, as the case may be.

C is a supporting-frame whereby the cake-holder is supported in the pan or kettle. This frame comprises two side arms or standards c c' , connected together only at the top by a cross-arm c'' , which is suitably braced. One of the standards c is provided near its bottom with a pivot-seat C', from which a slot C'' opens upwardly, so that that half of the split pivot which is secured to the top half of the holder may swing upward out of such seat when it is desired to open the holder, as shown in Fig. 1. The other standard c' is provided with a pivot-socket C''', within which the pivot B' snugly fits, as indicated in Fig. 4. In the cross-arm c'' I provide a catch D, which is arranged within a socket d , which is adapted to receive that half of the split pivot which is secured to that portion of the holder which is uppermost. The catch engages with the half of the pivot and temporarily retains the upper half of the holder in its elevated position. The hinges which hinge the halves of the holder to open and close have their axes arranged at right angles with the axes of the journals or pivots upon which the holder rotates, so that when it is desired to open the holder the half of the holder which is opened holds the other half of the holder steady and prevents it from rotating upon its pivots. Also when the pivot is by the catch thus held in the socket the holder is prevented from tipping on its pivotal support, and therefore may be conveniently handled by the operator without danger of spilling the cakes from the holder.

E is an improved pan or kettle which is de-

signed to coöperate with the other parts of my device to produce the most satisfactory results in cake-frying. This pan or kettle is provided on opposite sides with guide-slots or guideways $e e'$, the upper ends of which
 5 slots are provided with outwardly-flaring lips e'' , adapted to guide the standards easily into the guide-slots. These slots are of such depth that when the device is in position in the pan,
 10 as shown in Figs. 1 and 2, the standards are chambered within the guideways and do not project into the pan.

F F are gages fitted in the guideways, each gage being provided with a hook f to hook
 15 upon the upper edge of the guideways and having a shoulder f' at the bottom to receive and support the standards of the frame C. A number of pairs of gages of different lengths may be provided in order that the height of
 20 the holder may be adjusted with relation to the bottom of the pan and to the quantity of grease in the pan—that is to say, when the frying is first begun there is a large quantity of grease in the pan, and consequently the
 25 holder, which should only be a couple of inches below the top of the grease, is comparatively high in the pan; but as the grease is consumed in frying the position of the holder is successively changed by changing the gages,
 30 longer gages being used as the grease grows less, and thus enabling one to fry cakes continuously as long as there is sufficient grease in the pan.

G G represent loops which are secured upon
 35 the halves $a a'$ of the holder on opposite sides of the split pivot, and at the mid-length of the side of the holder upon which they are arranged these loops serve to receive the hook
 40 h of the rod or wand H when it is desired to raise or lower either one of the sides of the holder.

In practice it is my intention to provide two or more cake-holders and frames for each pan or kettle, so that one holder may be filled with
 45 raw cakes while the other holder is being used to turn those cakes in the act of frying. When the raw cakes are in place in the holder, the frame, with the holder in the position shown in Fig. 1, is placed in the kettle with the
 50 standards in the guideways and resting upon the outturned bottom ends of the gages which have been previously inserted into the guideways. When the upper or open portion of the holder is in this position, the cakes are free
 55 to float upon the top of the grease and properly fry. When they have become sufficiently browned, the catch D is released and the upper portion of the holder is lowered until the cakes are inclosed in the holder. The frame
 60 and the holder are elevated, as indicated in Fig. 2, and the holder is rotated upon its pivots to bring the other side of the holder and the contained cakes uppermost. When this
 65 has been done, the frame and the holder are again lowered and the upper side of the holder (which is the side which was previously undermost) is raised by means of the rod H until

the catch D engages with the half of the split pivot, and thus holds the holder elevated. When the cakes are done, the frame and the holder are lifted from the kettle and a previously-filled holder is placed therein.

With the machine which I have constructed three dozen doughnuts can be fried at one time, and the entire number can be turned as quickly and with much greater ease than can be four doughnuts by the old method. Absolute evenness of product is insured, since all the cakes are fried exactly the same length of time.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a doughnut-frier, the combination set forth of a flat foraminous holder comprising two parts hinged together at one edge: a split pivot arranged at the front edge of the holder and having one half secured to one part of the holder, and having the other half secured to the other part of the holder: the pivot hinged to the hinged side of the holder: and the frame provided on one side with an upwardly-opening seat to receive the split pivot, and provided on the other side with the socket to receive the hinged pivot.

2. A doughnut-frier comprising a supporting-frame; a foraminous holder having one side hinged to open and close, the holder being journaled to rotate in the frame when closed; the axis upon which the hinged half of the holder swings in opening and closing being arranged transverse the axis upon which the holder rotates.

3. A doughnut-frier consisting of a foraminous holder comprising two parts hinged together at one side and provided on the other side with a split pivot, one half of said pivot being secured to one part of the holder and the other half of the pivot being secured to the other side of the holder: a pivot hinged to the hinged side of the holder: a supporting-frame provided on one side with a slotted pivot-seat to receive the split pivot, and provided on the other side with a socket to receive the hinged pivot: and a catch arranged to hold one half of the holder temporarily elevated.

4. In a doughnut-frier, the combination set forth of a kettle or pan having in its sides vertical guideways: a frame to fit within the guideways: a foraminous holder removably secured in the frame, comprising two parts hinged together: means for pivoting one side of the holder to the frame: a split pivot pivoting the other side of the holder to the frame: an upwardly-opening slot leading from the split-pivot seat: a socket in the upper part of the frame to receive the half of the split pivot of the opened side of the holder: and a catch to hold the half of the split pivot in the socket.

5. A doughnut-frier comprising a foraminous holder provided with a pivot hinged to one side of the holder, and a split pivot having its two halves secured respectively to the

two parts of the holder: a frame provided on one side with a socket to receive the hinged pivot, and provided on the other side with an upwardly-opening socket to receive the split pivot: and means for temporarily securing one part of the holder in an open position.

6. A doughnut-frier comprising a supporting-frame; a foraminous holder hinged to open and close and journaled to rotate in the

frame; the axis of the hinges and the axis of the journals being arranged at right angles with relation to each other; and a catch upon the frame adapted to engage and temporarily hold the open half of the holder in its open position.

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