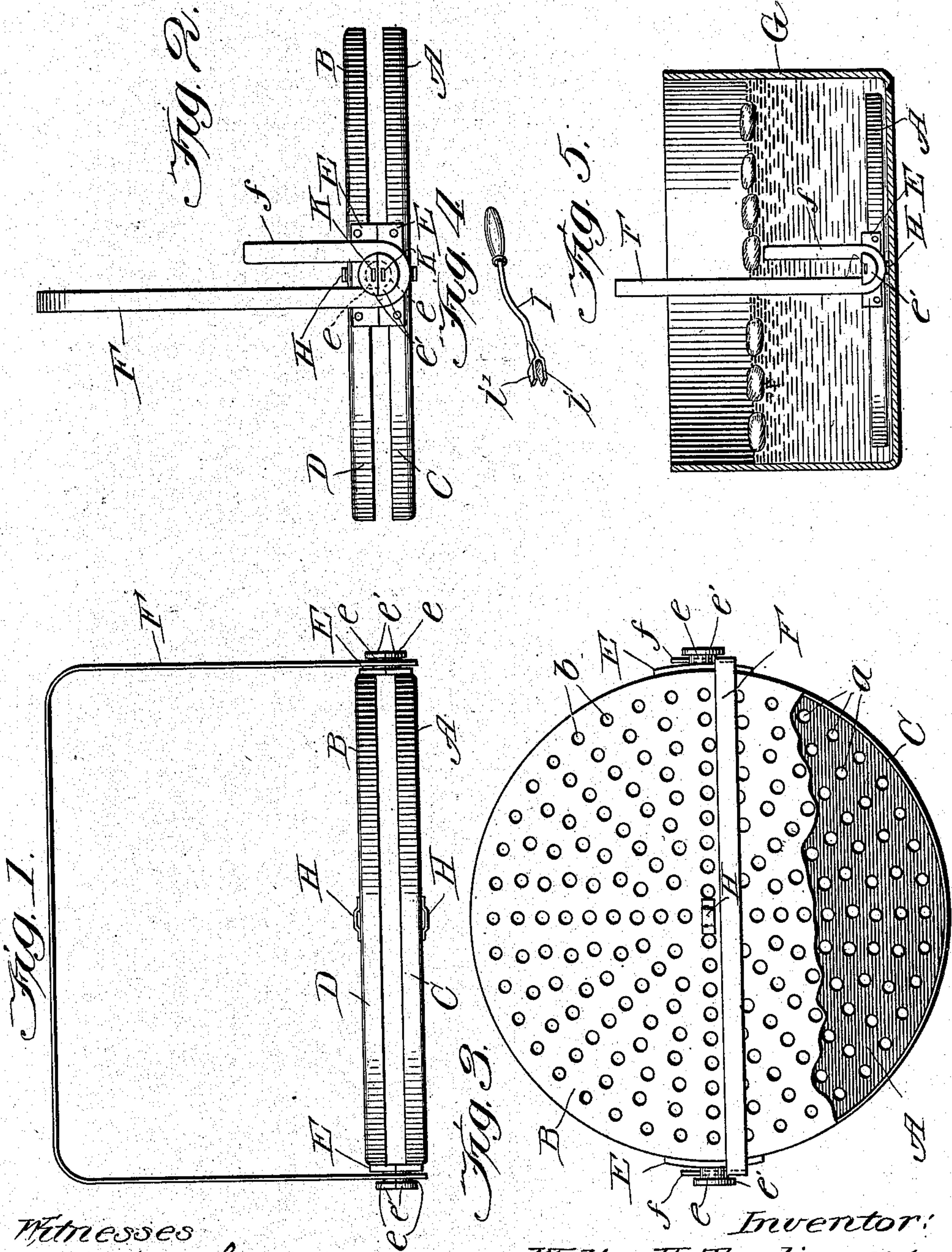


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 APPARATUS FOR TURNING DOUGHNUTS AND THE LIKE.  
 APPLICATION FILED OCT. 28, 1907.

900,235.

Patented Oct. 6, 1908.



Witnesses  
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# UNITED STATES PATENT OFFICE

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## APPARATUS FOR TURNING DOUGHNUTS AND THE LIKE.

No. 900,235.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed October 28, 1907. Serial No. 399,413.

*To all whom it may concern:*

Be it known that I, WALTER H. TOMLINSON, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Apparatus for Turning Doughnuts and the Like, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Where doughnuts are produced in large quantities considerable difficulty is experienced in turning them after one side has been sufficiently cooked; and it often happens, where several dozen doughnuts are being cooked in a single receptacle, that the grease is so hot that the doughnuts cannot be turned quickly enough one at a time to give them uniform color. In fact it is often impossible to prevent some of the doughnuts from being burned. Even where it is possible to so regulate the temperature of the grease that danger of burning the doughnuts is avoided, still the ordinary process of turning each doughnut by itself is a tedious one, and a definite limit is placed upon the number of doughnuts which can be attended to by a single workman.

The principal object of the present invention is to provide simple and novel means whereby a large number of doughnuts or the like may be turned at a single operation.

The various features of novelty whereby my invention is characterized will be hereinafter pointed out with particularity in the claims, but for a full understanding of my invention and of its various objects and advantages reference is to be had to the following detailed description taken in connection with the accompanying drawing, wherein:

Figure 1 is a side elevation of a preferred form of apparatus; Fig. 2 is a view taken at right angles to the plane of Fig. 1; Fig. 3 is a plan view with a portion broken away for the sake of clearness; Fig. 4 is a tool employed in manipulating the apparatus; and Fig. 5 is a cross section through a receptacle such as is ordinarily employed in the production of doughnuts, showing the manner of using my improved apparatus.

Referring to the drawing, A and B represent two trays which are indicated as being made of sheet metal and provided with numerous perforations, *a* and *b*, respectively. Instead of being made of perforated sheet metal these trays may be constructed in any suitable manner which will enable them to act as perforated supports through which grease may drain. Each of the trays is preferably provided with a flange as indicated at C and D, respectively. At diametrically opposed points on each of the trays are brackets E which preferably project laterally from the trays somewhat beyond the flanges. Each of the brackets are provided with a half trunnion *e* having a semi-circular collar *e'* at the end thereof. The parts are so proportioned that when the trays are superimposed upon each other with their flanges directed toward each other the two sets of brackets engage with each other so as to space the trays apart, and the two half trunnions at each side of the trays register with each other so as to form a complete trunnion having an annular collar at the end thereof.

F is a bail of a width slightly greater than the diameter of the trays and having the free ends thereof bent backwardly as at *f* so as to provide open-ended bearings. The distance between the portions *f* and the remainder of the bail is substantially equal to the diameter of one of the trunnions formed by two half trunnions *e*.

The superposed trays may be supported from the bail by slipping the trunnions into the open jaws on the bail. While thus supported the trays may be rotated as a single structure, about their trunnions as axes, without danger of separation, since the supporting jaws at all times serve to maintain the proper relation between the halves of each trunnion.

The size and shape of the trays is made to correspond, as nearly as possible, with the cross section of the kettle or other receptacle in which the doughnuts are to be cooked; and, in practice, one of the trays is hung upon the bail and the whole is inserted within the kettle as indicated in Fig. 5, the kettle being indicated by the reference character G in said figure. The raw doughnuts are then deposited within the kettle without interference on the part of the turning apparatus. As soon as the immersed portions of the



doughnuts appear to have reached the stage which requires that the doughnuts be turned over, the bail is lifted and the tray travels upwardly from beneath the doughnuts and lifts them bodily out of the grease. The other tray is now dropped in position on top of the doughnuts and, after the apparatus with its doughnuts has been lifted clear of the kettle, a quick half turn is given to the super-posed trays and the upper tray (which was formerly the under one) is lifted off and the other tray with its load of doughnuts is again set within the kettle. The uncooked sides of the doughnuts are now on the bottom and the cooking process may be completed without further effort or attention on the part of the baker. When the doughnuts have been completely cooked the bail is lifted and the tray again rises from under the doughnuts and lifts them out of the pot. The doughnuts may be carried in the tray to any desired point and deposited collectively by simply tilting the tray. It will be seen that whenever the doughnuts are lifted out of the grease by means of a tray the surplus grease is drained off.

It is not necessary that the trays be spaced just far enough apart so that both will engage with the doughnuts at the same time; and, in fact, they are preferably spaced far enough apart so that the upper tray is out of engagement with the tops of the doughnuts, thereby avoiding injury to the doughnuts. The separation of the flanges when the trays are in operative relation to each other is preferably such, however, that the doughnuts cannot pass between the flanges.

I have found in actual practice that by turning the trays quickly the relative positions of the doughnuts remains practically unchanged, so that they may be replaced within the kettle in inverted condition, while distributed in substantially the same way as they were before their removal.

As the trays become very hot during use, I prefer to provide a detachable handle or tool for manipulating them in order to prevent burning of the fingers. To this end there may be placed on the outside of each tray at the center thereof a small loop or strap H, and a tool, such as I, having a nose *i* which will fit between the strap and the tray may be provided. Each of the half trunnions may also be provided with a slot K into which the nose of the tool may be inserted, the cross section of the slot and nose of the tool taking some other form than that of a circle in order that the tray may be positively turned by turning the handle or tool. If desired, the tool may be provided with a second nose *i'* so related to the nose *i* that each nose may be simultaneously inserted in one of the slots in the end of a trunnion. A double nosed tool of this kind in effect locks the two trays together and they may be

manipulated as a unit. Furthermore the double nose of the tool forms a jaw between which the edge of a tray may be grasped so as to steady the tray or tilt it.

It will be seen that the present invention provides a very simple and reliable means for quickly turning over any number of doughnuts or the like, making it possible for a single person to watch a comparatively large number of kettles. Where more than one kettle is being operated at a time there will, of course, be a tray and a supporting bail for each kettle. There need, however, be only one additional tray, since the tray which is used only during the time a batch of doughnuts is being turned may be carried from kettle to kettle.

While I have described in detail a form of my invention which has been found to be very satisfactory in practice, I do not desire to be limited to this particular form, but intend to cover various other forms as will be apparent from the definitions of my invention which constitute the appended claims.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. An apparatus for turning doughnuts or the like comprising a bail having the ends of its arms turned backwards so as to form bearings open on the side toward the yoke of the bail, a tray provided with diametrically opposed half-trunnions projecting laterally therefrom and arranged in said bearings, and a second tray super-posed upon but disconnected from the first tray and provided with half-trunnions arranged on diametrically opposite sides thereof and resting loosely upon the half-trunnions of the other tray, each of said bearings being of a size to receive through the open side thereof a trunnion formed by placing together two of the afore-said half trunnions and to hold the halves of such trunnion together.

2. An apparatus for turning doughnuts or the like comprising a bail provided at the ends of its arms with bearings open on the side toward the yoke of the bail, a tray provided with diametrically opposed half-trunnions projecting laterally therefrom and arranged in said bearings, and a second tray super-posed upon the first tray and provided with half-trunnions arranged on diametrically opposite sides thereof and resting loosely upon the half-trunnions of the other tray each of said trays having an eye on one side thereof together with a handle fitting said eye.

3. An apparatus for turning doughnuts or the like comprising a bail provided at the ends of its arms with bearings elongated in the direction toward the yoke of the bail and open on the side toward the yoke of the bail, a tray provided with diametrically opposed half-trunnions projecting laterally therefrom and arranged in said bearings, and a second



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the first tray and provided with half trun-  
nions resting loosely upon the half trunnions  
of the other tray, each of said bearings being  
5 of a size to receive through the open side  
thereof a trunnion formed by placing to-  
gether two of the aforesaid half trunnions  
and to hold the halves of such trunnion to-

gether during rotation of the trays in said  
bearings.

In testimony whereof, I sign this specifi-  
cation in the presence of two witnesses.

WALTER H. TOMLINSON.

Witnesses:

WM. F. FRENDENREICH,  
HARRY S. GAITHER.