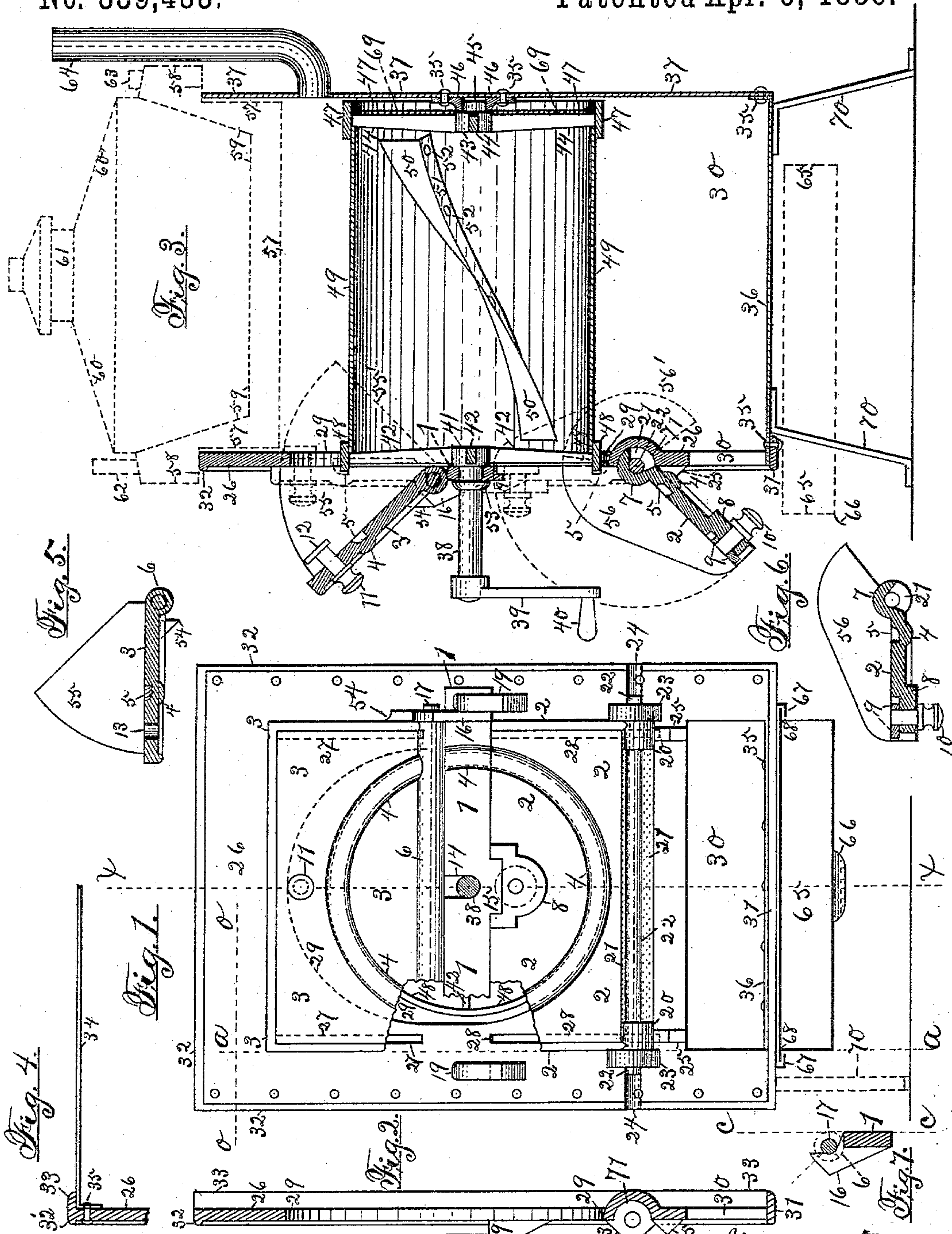


(No Model.)

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PEANUT ROASTER.

No. 339,433.

Patented Apr. 6, 1886.



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PEANUT-ROASTER.

SPECIFICATION forming part of Letters Patent No. 339,433, dated April 6, 1886.

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To all whom it may concern:

Be it known that we, MICHAEL LALLEY, THOMAS J. LALLEY, and WILLIAM A. LANG, of West Covington, and ANTHONY J. STEPHENS, of Covington, and all of the county of Kenton and State of Kentucky, and citizens of the United States, have invented jointly a certain new and useful Improvement in Peanut-Roasters, of which the following is a specification.

Our invention relates to improvements in peanut-roasters, and especially to the front of the box-body and the combination of the front and the roasting-cylinder.

The objects of our invention are to devise a peanut-roaster which shall be simple of construction and not expensive to manufacture, and which will have provision for examining the nuts or introducing them through an opening in the end of the cylinder and a corresponding opening in the body-front, and will also have another opening in the front for emptying the nuts into a pan. These objects are attained by casting the body-front and the parts belonging thereto and constructing the device in the manner fully set forth below.

Figure 1 is a front view of the cast body-front and the parts connected therewith. Fig. 2 is a sectional view of the body-front along the center line $x x$ of Fig. 1, and shows the left half of the front. If the spokes 42 are not placed close to the doors 2 and 3 and the cross-bar 1, then they must be placed far enough away to prevent the nuts being jammed between them and the doors and cross-bar. Fig. 3 is a longitudinal sectional view of a peanut-roaster having our improvements, and in section along the center line $x x$ of Fig. 1. Fig. 4 is a detail view showing a horizontal section of the left corner of the front and of the left side and how the parts are joined together, and the section being along the line $o o$ of Fig. 1. Fig. 5 is a sectional view of the door 3, which closes the opening through which the nuts are introduced, and the section being along the center line $x x$ of Fig. 1. Fig. 6 is a sectional view of the door 2, which closes the opening through which the nuts are withdrawn, and along the center line $x x$ of Fig.

1. Fig. 7 is a sectional view of the cross bar 1 and a view of the lugs in common therewith, the section being along the line $a a$ of Fig. 1.

The dotted vertical line $c c$ corresponds with the front surface of the cast front.

The same numbers indicate the same parts in all of the figures.

26 is the main casting of the front.

29 is an opening in the casting 26 for introducing the roasting-cylinder 49 and for introducing and withdrawing the nuts.

1 is a horizontal cross-bar placed across the front of the casting 26, and is supported by the lugs 19 on the casting 26. The front end of the cylinder 49 is supported at the center of this cross-bar, and the back end is supported in a bearing attached to the back wall of the box-body. The opening in the casting 26 above the cross-bar 1 is closed by the door 3, and that below the bar by the door 2. An opening is made in the casting 26 below the door 2, for inserting and removing the charcoal-grate, which is of the ordinary construction, and hence not shown in the figures.

In Fig. 4, 34 is the left side wall of the box-body, and in Fig. 3, 36 is the bottom and 37 is the back wall of the box-body. The box-body proper consists, then, of the casting 26, the side walls, 34, the bottom 36, and the back 37.

The warmer is shown in Fig. 3 only, and since it is of a construction well known and generally used it is shown in dotted outline, in order that the box-body and the roasting-cylinder to which our improvements appertain may be more clearly illustrated. The warmer rests upon and within the box-body, and is indicated by the dotted lines, numbered 57 to 63, 57 and 58 indicating the water and steam box, 59 the receptacle for the roasted nuts, 60 and 61 the cover, 62 the whistle, and 63 the opening for introducing water into the water-box 57 58.

The general description of the roaster having been set forth, a detailed description of our improvements will now be given. The main casting 26, which constitutes the box-body front, is permanently secured to the side walls and the bottom of the box by being riveted

thereto, as clearly shown in Figs. 1, 2, 3, and 4. The casting 26 may have a molding, 32, around its edges for ornamentation and to give it more strength. At each side of the casting 26 there is a flange, 33, cast on the back of said casting, which extends the whole length of the casting, as shown in Fig. 2, and serves, with the wall of the casting, to form an angle within which the side wall, 34, may be secured, the side wall, 34, being flanged inward and secured to the front 26 by means of rivets 35, passed through the said flange and the front 26, as shown clearly in Fig. 4. The opening 29 in the front 26 is semi-circular above and below the axis of the roasting-cylinder; but the semicircles are struck from different centers, which are separated vertically, in order to make the opening oblong vertically, for reasons hereinafter set forth. The horizontal diameter of the opening 29, however, is made as nearly equal to the external diameter of the roasting-cylinder as is practicable. The horizontal cross-bar 1 is supported in the gaps of the projections 19, which are in common with the front 26, and is so placed that the shaft 38 of the roasting-cylinder may be supported in the notched bearing 14 at the center of this bar. The center of the bar 1, where the gap 14 is made, may be strengthened by a projection, 15, on its lower edge, as seen in Fig. 1. The roasting-cylinder 49 has a wheel-shaped casting, 41, 42, 48, 38, at the front end, as shown in Fig. 3, 41 being the center, 42 the spokes, 48 the rim, and 38 an axle or shaft projecting forward. At the back of the cylinder is a wheel-shaped casting, 43, 44, 45, 47, as shown in Fig. 3, 43 being the center, 44 the spokes, 47 the rim, and 45 a short gudgeon projecting backward. The shaft 38 at the front of the cylinder rests and turns in the bearing-gap 14 in the cross-bar 1, as shown in Figs. 1 and 3. The gudgeon 45 at the back runs in a bearing in the flanged projection 46, which is attached to the inner side of the back wall, 37, by means of rivets 35. As seen in Fig. 3, the cylinder may be prevented from moving endwise by the center 43 bearing against the projection 46 at the back end and the center 41 bearing against the inside of the cross-bar 1 at the front end, or by the said center 41 and a collar, 53, bearing on the opposite sides of the cross-bar 1. A crank, 39, and handle 40 are attached to the outer end of the shaft 38, by means of which the cylinder is rotated. The walls of the cylinder are made of sheet-iron and bent into the form of a cylinder and secured within the rims 47 and 48 by friction merely, as shown in Fig. 3, or by means of rivets. The back end of the cylinder is closed by a disk, 69, which is flanged and secured within the back edge of the rim 47 by friction or by riveting. A piece of sheet-iron, 50, shown in Fig. 3, bent into a helicoidal form, and having a flange, 51, is attached by means of the flange 51 and rivets 52 to the inside of the walls of the cylinder, and serves, when

the cylinder is rotated, to work the peanuts toward the front end of the cylinder. Two such pieces are placed in the cylinder opposite each other. The opening 29 in the front 26 is made oblong vertically, as stated, and as shown in Figs. 1, 2, and 3, in order that the front end of the cylinder may be raised up sufficiently to allow the cross-bar 1 to be lifted out of the gaps in the projections 19 on the front and be moved, so that the cylinder may be taken out of the box-body. The cross-bar 1 and the doors 2 and 3 completely cover the opening 29 in the front 26, as shown clearly in Fig. 1, and, coming close to the end of the cylinder 49, serve also to close the front end of said cylinder when roasting nuts.

The peculiar construction of the roasting-cylinder, the cast front 26, the cross-bar 1, and the doors 2 and 3, whereby these parts are so combined that the nuts will be retained in the cylinder when it is rotated; that the door 3 may be opened for examining or introducing the nuts; that the door 2 may be opened for withdrawing the nuts; that the door 3, its side projecting walls, 55, and the front 26 may constitute a hopper for guiding the nuts into the end of the roasting-cylinder, and that the door 2, with its side projecting walls, 56, may constitute a chute for directing the nuts withdrawn from the roasting-cylinder into a pan or other suitable receptacle, will now be fully set forth.

In Fig. 1 the cross-bar 1 is shown in place and supported by the projections 19 on the cast front 26. The shaft 38 is shown in section and resting in the gap 14 in the cross-bar 1, and the doors 2 and 3 are shown shut and flush against the cast front 26. On the left the cross-bar 1, the lower corner of the door 3, and the upper corner of the door 2 are shown broken away in order that the construction of the main casting 26 and the relations of the roasting-cylinder, the casting 26, the cross-bar 1, and the doors 2 and 3 may be clearly illustrated.

In Fig. 3 the cross-bar 1 is shown in place, the shaft 38 is shown supported by the said cross-bar, the door 3 is shown opened, as when nuts are to be examined or introduced into the roasting-cylinder, and this door is shown in dotted outline also in its closed position. The door 2 is shown opened, as when nuts are to be withdrawn from the roasting-cylinder, and this door is shown in dotted outline also in its closed position.

Referring now to Figs. 1 and 3, it will be seen that the doors 2 and 3 and the cross-bar 1 have an annular groove, 5, on their inner sides, corresponding in diameter and position to the front rim, 48, of the roasting-cylinder, the said groove being continuous in the said doors and intervening cross-bar. It will be further seen that the front rim, 48, of the roasting-cylinder projects into the said annular groove, and that the inner edge of the said rim comes close to the inner edge of the said

annular groove, and that the spokes 42, which are in common with the rim 48, are parallel with the inner surface of the doors 2 and 3 and the cross-bar 1, and come quite close to the latter, and that the casting-center 41 bears against the inside of the cross-bar 1.

When the doors 2 and 3, the cross-bar 1, and the roasting cylinder are constructed as just set forth, and the doors are closed, the edge of the rim 48 of the roasting cylinder projecting into the annular groove 5, and fitting closely to its inner edge, it is seen that nuts contained within the roasting cylinder 49 cannot fall out of its front end nor work their way between the rim 48 and the edge of the groove 5 and clog the cylinder.

As seen in Figs. 1 and 3, the doors 2 and 3 and the cross-bar 1 have a bead, 4, raised on their front sides corresponding in diameter to the groove 5 on their opposite or inner sides. The object of said raised bead is to give the required thickness to the said parts at the locality of the said groove. The door 3 is shown separate in Fig. 5, and having the inner surface tangent to the rounded part 6, adjacent the hinges 17, which are shown in Fig. 1. Walls 55, in common with the door 3, project inward at right angles to the surface of the door, and are adapted in thickness to move freely within the slots 27. (Shown only in Fig. 1.) The projecting pins 17 (shown in Fig. 1) are cast to the sides of the door 3, and when the door is in place, as in Figs. 1 and 3, they are held in place between the lugs 16, which are cast to the cross-bar 1, as shown clearly in Fig. 7, and the front of the casting 26. The lower and rounded edge, 6, of the door 3 is always in contact with the face of the casting 26. When the door 3 is in the open position shown in Fig. 3, the projecting side walls, 55, project slightly through the slots 27 in the front 26, and the door is supported in that position by the lugs 54, which are cast to the door, resting on the lugs 16, cast on the cross-bar 1, as shown clearly in Fig. 3. When open, the face of the door 3 and the side walls, 55, together with that part of the front 26 exterior to the opening 29, and between the slots 27, as seen in Fig. 1, constitute a hopper which directs the nuts into the open end of the roasting cylinder 49. The inner surface of the door 3 is made tangent to the rounded part 6, adjacent the hinges 17, as stated when referring to Fig. 5, in order that the nuts may not be obstructed in sliding into the cylinder, and that the lower edge of the inner surface of the door may always be in contact with the outer face of the front 26 at the sides of the opening 29, thus preventing nuts sticking between the door and the front. When the door 3 is closed, as shown in dotted outline in Fig. 3, the walls 55 rotate inward about the axis of the door-hinges 17, and through the slots 27 to the position 55' at the sides of the cylinder 49, and the inner face of the door comes flush against the face of the front 26.

The door 3 may be maintained closed by means of a turn-buckle, 11, 12, (shown in Fig. 3,) which is adapted to catch behind the edge of the front 26. So long as the cross-bar 1 remains in place in the gaps of the projections 19 the door 3 will be retained in place by the lugs 16, described above, and as clearly shown in Fig. 7. When the cross-bar 1 is removed, the door 3 comes off with it.

The door 2 is shown separate in Fig. 6, and having a curved projection, 7, on the inner side of the bottom edge and concentric with the axis of the door-hinge rod 22, and having a horizontal recess, 21, on its outer side and between the hinge-lugs 20 at the side edges of the door and extending into the projecting part 7 sufficiently to allow the hinge-rod 22 to pass through it and rest in it. The hinge-rod 22, the bottom of the recess 21, and the surface of the projection 7 have a common axis, and the thickness of the part 7 corresponds to that of the door. The cast front 26 has a horizontal curved recess, 71, (shown in Figs. 2 and 3,) of circular cross-section, and the curved projection 7 of the door 2 has the same cross-section and the same axis as the recess 71, and is adapted to turn within the latter. The inner surface of the door 2 is in the plane of the common axis of the hinge-rod 22, the recesses 21 and 71, and the projection 7, and this axis is in the plane of the outer surface of the front 26, so that the inner surface of the door 2 coincides with the outer surface of the front 26 when the door is closed, as indicated in dotted outline in Fig. 3. When the door 2 is opened as far as the position seen in Fig. 3, the curved projection 7, which extends partly around the hinge-rod 22, always remains in contact with the edge of the front 26, coincident with the top of the recess 71, and since the front edge of the cylinder-rim 48 extends forward of the recess 71 the construction and arrangement of the said parts are such that the nuts, in being withdrawn from the cylinder, will fall outside of the hinge-recess 71 and be guided by the curved projection 7 onto the inner side of the door, and hence be prevented from clogging at the hinge-joint, as they would were any other kind of hinge and arrangement of parts employed.

As seen in Figs. 1, 2, and 3, the front 26 has lugs 25 cast on it, against which the door 2 rests when open. The door 2 has side walls, 56, projecting inward at right angles to its inner surface, and the front 26 has vertical slots 28, corresponding in width to the thickness of these walls, and within which the latter project slightly when the door is wide open. When the door is closed, the walls 56 rotate about the axis of the rod 22 inward to the positions 56' at the sides of the cylinder 49.

As shown in Fig. 3, the door proper, 2, with its projecting walls 56, constitutes, when wide open, a chute for conveying the nuts withdrawn from the roasting cylinder 49 into a movable receptacle, by means of which they

are conveyed to the warming-pan 59 at the top of the device. When the door is closed, as indicated by the dotted outline in Fig. 3, it may be held shut by means of the turn-buckle 9 10 catching behind the edge of the cross-bar 1, or the edge of a projection, 15, on the cross-bar.

As seen in Fig. 1, the front 26 has semicircular grooves 24 in line with the horizontal recess 21, and of the same diameter as the hinge-rod 22. These are provided that the hinge-rod 22 may be driven in place or removed.

The rod 22, when in place, may be riveted at its ends, to prevent displacement.

Instead of a continuous rod, 22, and the grooves 24 and the recess 21 being continuous from side to side, a short recess may be made in the door, and one in the front 26, on the side of each hinge 20 23, in which short hinge-rods may be secured, thus leaving the center of the lower edge of the door solid.

As seen in Figs. 1, 2, and 3, there is a space, 30, beneath the roasting-cylinder 49 for a charcoal pan or grate, which, being of the usual construction, is not shown. The cast front 26 has an opening, 30, as seen in Figs. 1, 2, and 3, beneath the horizontal recess 71, through which the charcoal-grate may be inserted. The front of the grate is designed to completely close the said opening in the front 26.

A pan, 65, (shown by solid lines in Fig. 1 and by dotted outline in Fig. 3.) has side projections, 68, arranged to slide under the bottom 36 of the box-body in angle-strips 67, which are fastened to the bottom of the box-body. The pan 65, when drawn out, catches the nuts as they fall from the open door 2 and serves as a means of transferring the nuts to the warming-pan 59.

The box-body is supported upon legs 70. (Shown in Fig. 3 and in dotted outline in Fig. 1.)

Since room must be left at the front end of the box-body, between the cylinder and the water-pan 57, for raising the front end of the cylinder in removing the cross-bar 1, as has been fully set forth, the corresponding space at the back end of the box-body has been chosen for a pipe-hole for the chimney 64. (Shown in Fig. 3.)

Instead of constructing the back end of the roasting-cylinder as previously described, and as illustrated, a sheet-iron end may be attached directly to the cylinder-walls 49, and have a gudgeon attached by a flange and rivets to its center, and thus dispense with the back casting, 43 44 45 47. Evidently the lugs 19 might extend above the cross-bar 1, and the hinge-pins 17 of the door 3 might turn behind them, in which case the lugs 16 on the cross-bar 1 could be dispensed with. Again, any or all of the cast lugs 16, 19, and 23 might have substituted therefor similar recessed fastening devices made of wrought or malleable iron, which could be attached by screws or rivets, and which could be easily and cheaply

replaced in case of breakage. It is also evident that a front having holes 29 and 30, slots 27 and 28, and grooves 71 and 24 could be made of sheet metal stamped or cut out by tools or machinery, and have suitable recessed fastening devices, as 16, 19, and 23, riveted thereto. The doors 2 and 3 might also be partly or entirely made of sheet metal cut out or stamped into proper shape, and where the inwardly side projecting walls, 55 and 56, could be formed by simply bending over the metal at the sides of the doors and making the side edges of the doors in line with the slots 27 and 28; but it is believed preferable to cast the doors and the front.

We claim—

1. In a peanut-roaster, a front for the box-body, having a central opening adjacent to and corresponding in size to the end of the roasting-cylinder, half-doors closing corresponding portions of the said opening and having a circular groove, and a roasting-cylinder open at the end adjacent the said doors and having its end adapted to turn within the said groove, substantially as and for the purposes set forth.

2. In a peanut-roaster, the combination of a cast front for the box-body, having a central opening adjacent to and corresponding in size to the end of the roasting-cylinder, a horizontal cross-bar over the center of the said opening removably attached to the said cast front, a door covering the opening above the said cross-bar, and another door covering the opening below the bar, substantially as and for the purposes set forth.

3. In a peanut-roaster, the combination of a front for the box-body, having a central opening, 29, adjacent to and corresponding in size to the end of the roasting-cylinder, and vertical slots at the sides of the said opening, and a chute-door closing the corresponding part of the said opening and having side walls adapted to rotate through the said vertical slots and hinged to turn about an axis in or near its lower edge, substantially as and for the purposes set forth.

4. In a peanut-roaster, the combination of a front for the box-body, having a central opening, 29, adjacent to and corresponding in size to the end of the roasting-cylinder; and a cross-recess, 71, below the said cylinder-opening, and a chute or delivery door closing the corresponding part of the said opening and hinged to turn about an axis in or near its lower edge and in or near the said cross-recess 71, and the said door having a curved projection or a curved lower edge adapted to turn within the said recess 71, substantially as and for the purposes set forth.

5. The cross-bar 1, having a central bearing-gap, 14, and hinge-lugs 16, in combination with the cast box-body front 26, having a central opening, 29, and the door 3, having laterally-projecting hinge-pins 17, turning within the said hinge-lugs 16 on the cross-bar 1.

6. In a peanut-roaster, the combination of

5 a front for the box-body, having a central opening, 29, adjacent to and corresponding in size to the end of the roasting-cylinder, a bar across the said opening and removably held in suitable recessed fastening devices cast in common with the said front or attached thereto, and the bar having a bearing for the corresponding end of the roasting-cylinder, and a roasting-cylinder open at the end adjacent

the said cross-bar, substantially as and for the purposes set forth.

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