March 23, 1943. T. CORRA 2,314,772

BROILER

Filed Jan. 9, 1942 2 Sheets-Sheet 1

Fig. 1

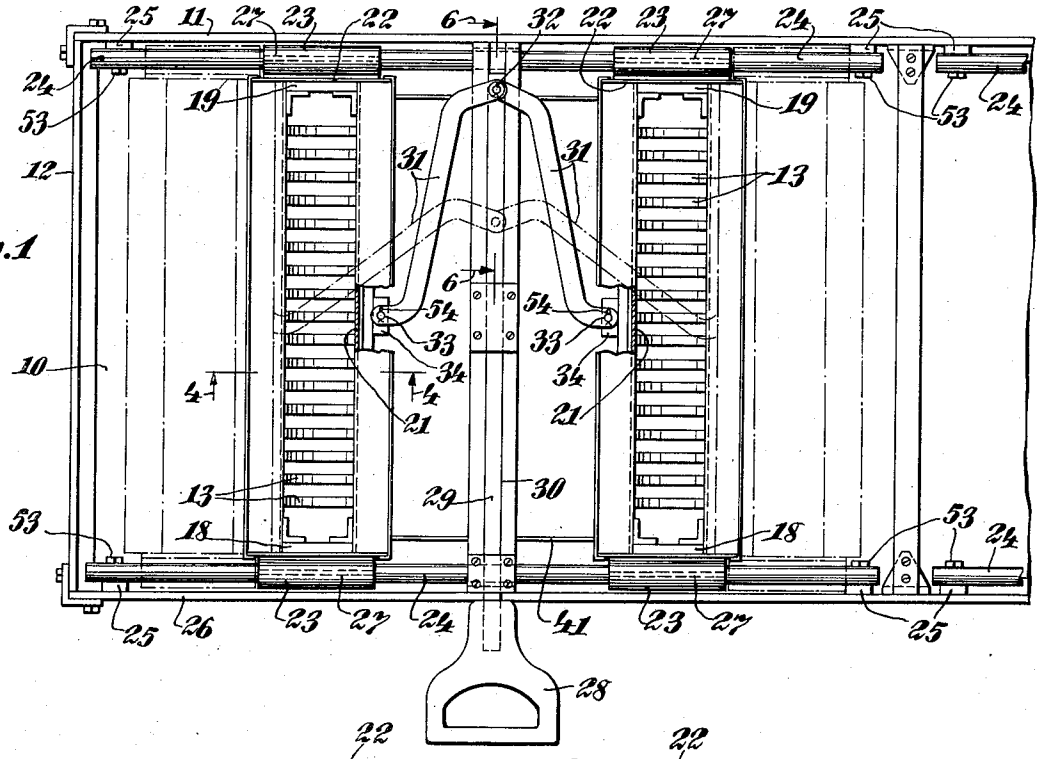
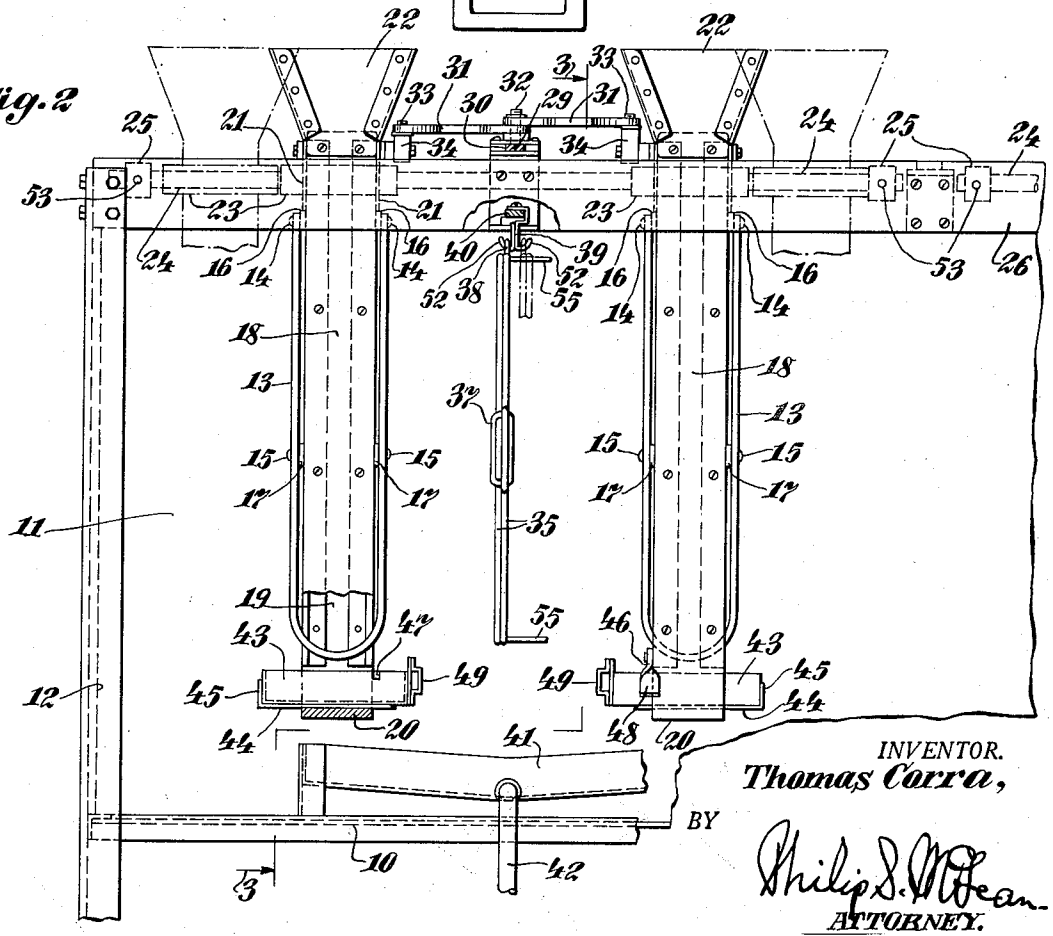


Fig. 2



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Filed Jan. 9, 1942 2 Sheets-Sheet 2

Fig. 3

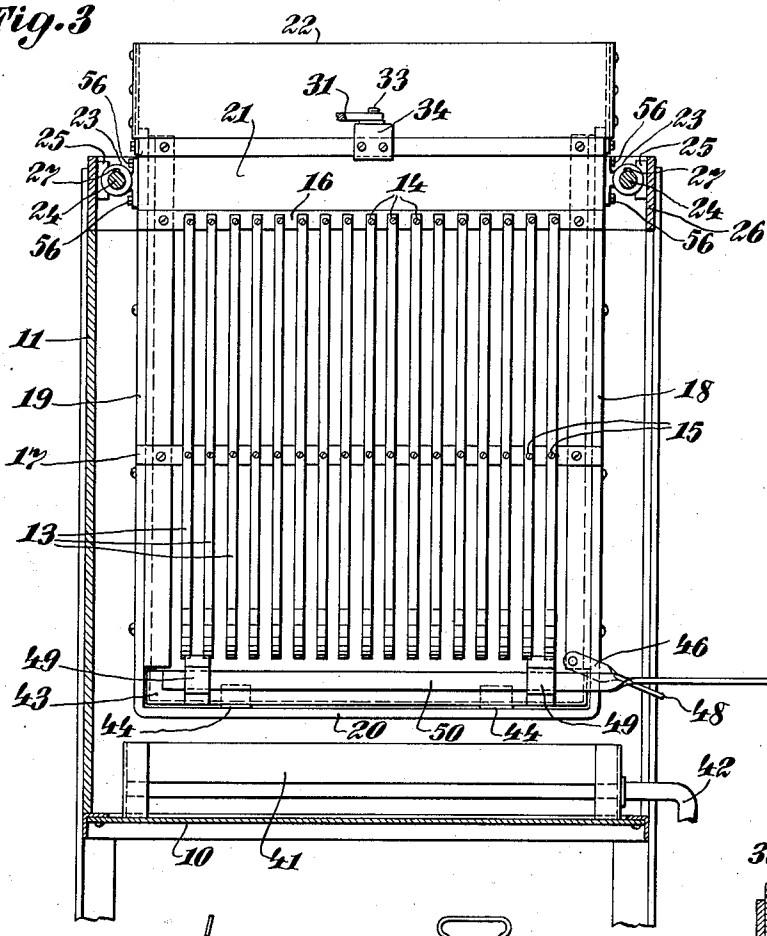


Fig. 4

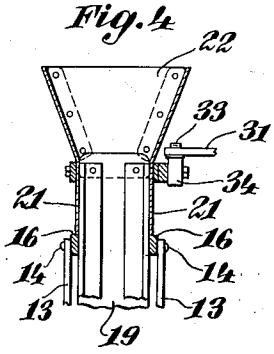


Fig. 5

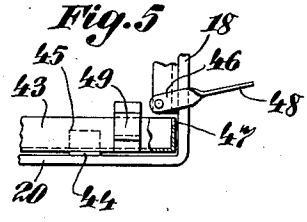


Fig. 6

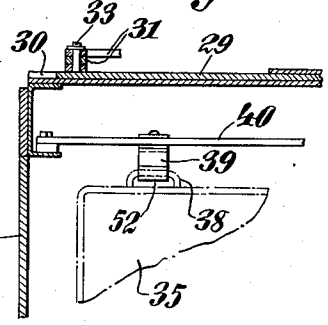


Fig. 8

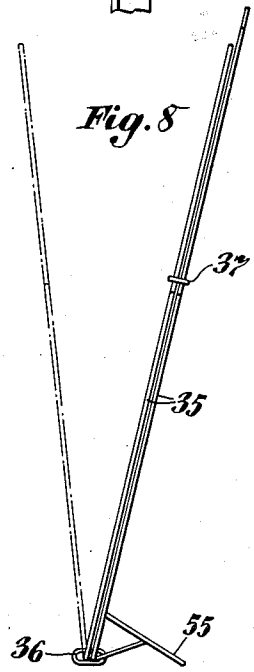
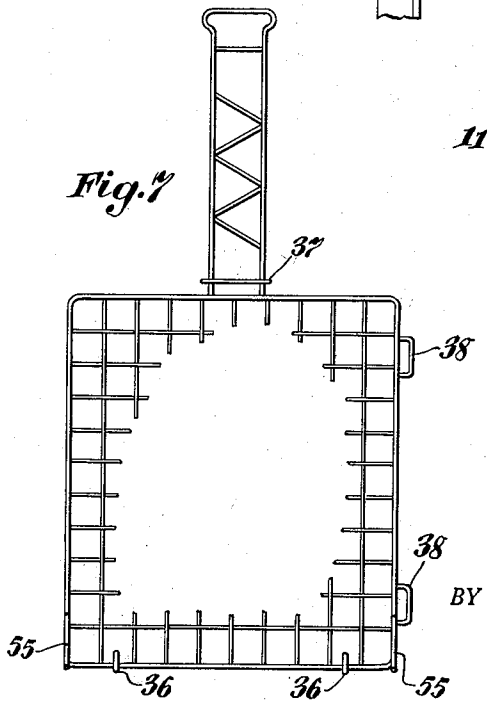


Fig. 7



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UNITED STATES PATENT OFFICE

2,314,772

BROILER

Thomas Corra, New York, N. Y.

Application January 9, 1942, Serial No. 426,132

4 Claims. (Cl. 126—14)

The invention here disclosed relates to the broiling of foodstuffs.

Special objects of the invention are to provide for the cooking and particularly the broiling of such foods as steaks and chops suspended vertically between upright charcoal burners; to provide for the ready adjustment of such burners toward and away from each other and the easy placing and removal of the food material; to provide apparatus which will answer such purposes, practical in form and construction, readily kept clean and sanitary and designed to permit easy replacement or repair of parts.

Other desirable objects and the novel features of the invention by which all objects are attained are set forth or will appear in the course of the following specification.

The drawings accompanying and forming part of the specification illustrate one simple commercial embodiment of the invention. Structure, however, may be modified and changed as regards this particular illustration, all within the true intent of the invention as hereinafter defined and broadly claimed.

Fig. 1 in the drawings is a broken plan view of one of the broilers, portions appearing in section.

Fig. 2 is a broken front view with parts shown in section.

Fig. 3 is a broken transverse sectional view, as on the line 3—3 of Fig. 2.

Fig. 4 is a broken sectional detail of the upper portion of one of the charcoal burners, substantially on the plane of line 4—4 of Fig. 1.

Fig. 5 is a broken part sectional detail showing one of the latches for locking the ash trays in position in the bottom of the burners.

Fig. 6 is a broken vertical sectional detail as on line 6—6 of Fig. 1.

Figs. 7 and 8 are front and side views of one of the grills.

The body of the grill is indicated in Figs. 1, 2 and 3 as made up of a bottom 10, back 11 and end walls 12 providing a boxlike enclosure open at the top and front. The length of this enclosure, as indicated in Fig. 1, may vary, depending upon the number of broiler units desired in the one installation.

In the illustration, one complete broiler unit is illustrated, consisting of two upright charcoal burners or baskets mounted for relative approaching and separating movement in respect to an intermediately suspended food supporting grill.

The charcoal holders are shown as in the form of thin flat openwork baskets made up of U-bent strips, straps, rods, wires or tubes 13 secured vertically in closely spaced substantially parallel relation by screws 14, 15 at the upper ends and intermediate portions to horizontal strips or bars 16, 17, extending between the front and back end plates 18, 19. These front and back plates are connected across the bottom by the horizontal portions 20 and they are connected at the top by side plates 21 extended upwardly on divergent lines to form the hopper-like troughs 22 for the charcoal.

Attached to the front and back walls of the holders, near the upper ends of the same and approximately at the coolest portions of such holders, at the hopper troughs, are the horizontally disposed sleeves 23. These have easy sliding engagement over horizontally extending rods 24 supported at the ends on brackets 25 spaced inwardly away from the front top panel 26 and the back wall 11. This spacing allows for upward air circulation to keep the supporting rods 24 relatively cool and the sleeves 23 free to slide easily thereover at all times. The sleeves are shown as internally grooved at the top at 27 to receive graphite or other lubricant which will facilitate smooth sliding movement of the sleeves over the supporting rods.

Movement of the suspended upright charcoal burners is effected in the illustration by a handle 28 which may be of heat insulating material and which through a rod or bar 29, sliding in the front to back guideway 30, imparts spreading and collapsing movements to a pair of links 31 pivoted at their inner ends on the bar at 32 and pivoted at 33 at their outer ends to brackets 34 on the inner sides of the burners, at or near the level of the sliding sleeve supports.

Suitable stops may be provided to limit the movement of the baskets toward and away from each other and in the illustration the mounting brackets 25 may serve as the stops for limiting the extent of spreading or separating movement.

The grill for holding the food to be cooked is shown as made up of wirework sides 35 hingedly caught together at one end at 36 and with the handles at the opposite end looped together at 37. Suspension loops 38 are shown provided at one side of the frame of the grill for easy engagement over the hooks 39 on the supporting bar 40 extending from the front to the back of the apparatus at an intermediate point between the two burners.

A drip pan 41 is shown supported on the bottom of the broiler beneath the grill suspension rod 40 and of a width to take in the expanse between

the burners in their closely approached position, Fig. 2, said pan being sloped to drain off the grease through piping 42.

To collect ashes from the combustion of the charcoal, each burner is shown equipped with a tray 43 resting on the bottom bar 20 and wide enough to extend beyond the U-bars at opposite sides of the burner, thus to collect anything that may drop between the mesh of the bars. To support these trays in laterally slidable relation bars 44 are shown mounted transversely on the front to back bottom portions 20 of the burner frames to serve as tracks for such trays, these tracks being bent up at the outer ends at 45 to definitely locate the trays in proper supported position. For securing the trays in such position, pivoted gravity latches are shown at 46 on the front portions of the burner frames adapted to drop down into notches 47 in the front edges of the trays and having forward handle extensions 48, Fig. 5, by which they may be released from the trays.

Loops 49 are shown provided on the inner side walls of the trays to receive a bar 50, which by means of a handle extension 51, may be inserted when desired to remove the trays for emptying collected ashes.

By easy back and forward sliding movements the handle 28 can be shifted to open or to close the burners or to set them at different desired distances from the grill. The supporting bar 40 is shown equipped with an extra set of oppositely extending hooks 52, Fig. 2, enabling a second grill to be hung between the burners, if that be desired.

The U-bent rods or strips forming the body portions of the burners are individually releasible and removable so that any of these burning out, breaking or becoming injured, can be readily removed and replaced. In some instances it may be found desirable to replace certain of these rods with wider, U-bent sheet metal straps or portions, which will close up the sides of the burners to the extent of the width of such members and this is easily possible by reason of this removable feature.

If desired, the burners may be removed as complete units, in the illustration, by simply taking out the bolts 53 which secure the ends of the supporting rods to their mounting brackets 25, the cotter pins 54 or other retainers for the ends of the adjusting links 31 being removed at such times. Also, or as an alternative, the complete burner units may be removably attached to the sliding sleeves 23, as by means of readily accessible bolt or screw fastenings at 56, Fig. 3.

The grills may be relatively large and heavy and for that reason may be made as shown in Figs. 7 and 8 with angularly projecting feet extensions 55 on one side section which will support that side in a more or less upright position while the other side section is released and swung open to receive the material to be cooked.

While particularly designed for cooking more or less flat material such as steak, fish and separated portions of fowl, it is realized that the structure may be utilized as a rotisserie for cooking whole fowl, game and the like, and in which event, provision is made for journalling the spit or other holder in the intermediate position between the burners. Further, it is contemplated that for such a purpose the spit could be journalled in supports hung on the hooks 38, 52 provided on the front to back supporting bar 40, such a construction enabling the apparatus to be quickly converted from one use to the other.

The open structure of the apparatus enables it to be easily kept clean and sanitary. The burners can be widely separated to facilitate such cleaning operations and to fully open up the apparatus for locating or removing the grill. The long and practically uninterrupted vertical slots provided by the spaced and parallel U-bent elements of the burners provide free circulation of air and constant automatic release of any ashes thus to provide hot clean fire.

What is claimed is:

1. A broiler comprising upright charcoal burners supported in suspended, substantially parallel relation facing each other, means for effecting relative adjustment of said suspended upright charcoal burners toward and away from each other, a grill, means for suspending said grill in position between said charcoal burners, a drip pan extending below both said charcoal burners and removable ash trays at the bottom of and carried by said burners, above said drip pan.

2. In a broiler, end supports, spaced horizontally extending substantially parallel rods carried by the upper portions of said end supports at the front and back of the broiler, upright charcoal burners suspended from and movably supported by said rods, handle means connected with the upper portions of both said burners for effecting simultaneous relative approaching and separating adjustments of said burners on said rods and means separate from said burners for removably and independently supporting a grill in position between said upright charcoal burners.

3. A broiler, comprising an upright frame, parallel horizontally extending rods at the top of said frame and extending along the front and back portions of the broiler, sleeves slidingly engaged on said rods, upright charcoal burners suspended from said sleeves, a handle slidingly mounted on the frame between said charcoal burners and movable from front to back of the frame, links pivotally connected to said front and back sliding handle and pivotally connected with the suspended charcoal burners and whereby by pushing in or pulling out said handle, the burners will be slid toward or away from each other, a stationary supporting bar on the frame below said sliding handle and extending from front to back of the frame and means carried by said stationary bar for supporting a grille or the like between said burners.

4. A broiler, comprising a broiler frame having horizontally extending parallel supports at the upper, front and back portions of the same, charcoal burners extending from front to rear of said frame and having sleeve elements at the upper front and back portions of the same slidingly engaged on said horizontal supports, a handle movably mounted on the upper portion of the frame between said burners and having links connected with said burners, whereby operation of said handle will effect sliding movements of said burners toward and away from each other, a stationary front to back support on said frame between said burners for supporting a grille or the like, removable ash trays slidably mounted in the bottom of said burners and means for removably securing said ash trays in position and for holding said ash trays against slipping out of position when said burners are shifted toward or away from each other.

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