Sept. 21, 1954 A. PANKEN Re. 23,874

COLLAPSIBLE BROILER AND BARBECUE DEVICE

Original Filed June 7, 1952 3 Sheets-Sheet 1

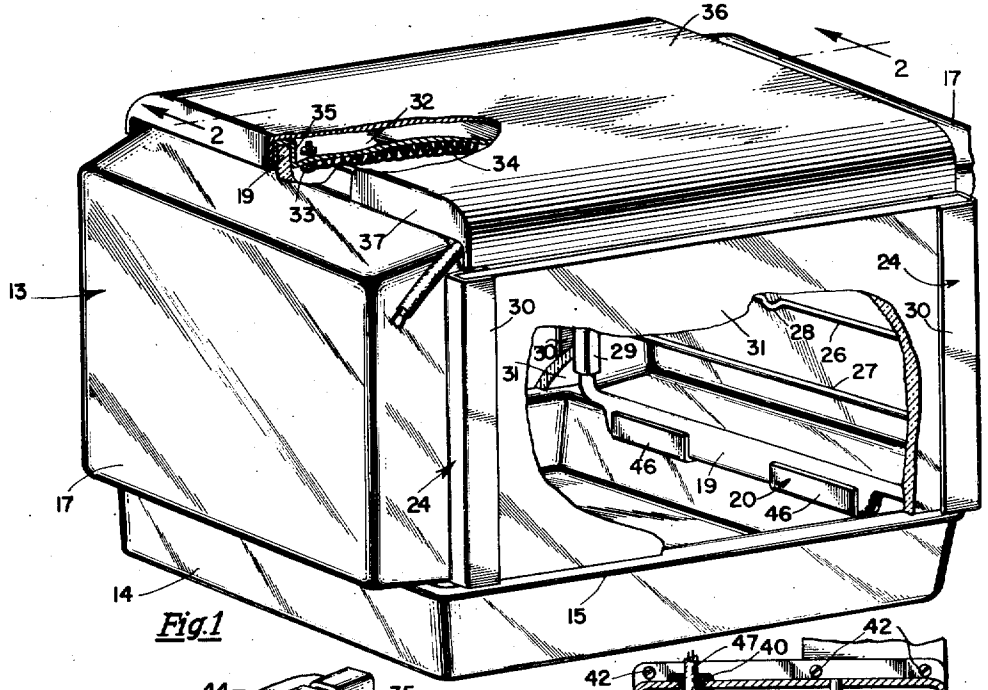


Fig. 1

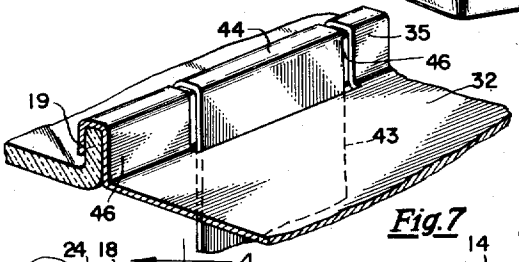


Fig. 7

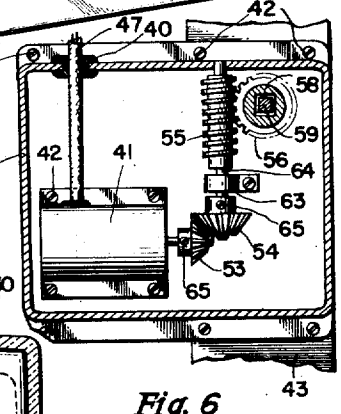


Fig. 6

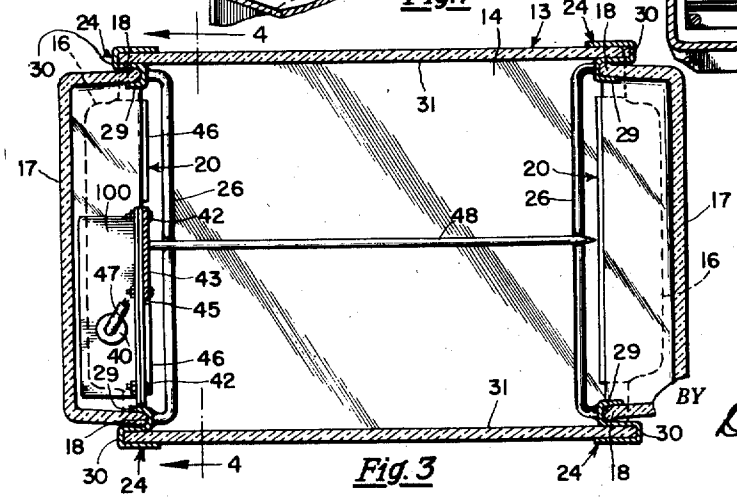


Fig. 3

INVENTOR.
Albert Panken

BY

Attorney

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COLLAPSIBLE BROILER AND BARBECUE DEVICE

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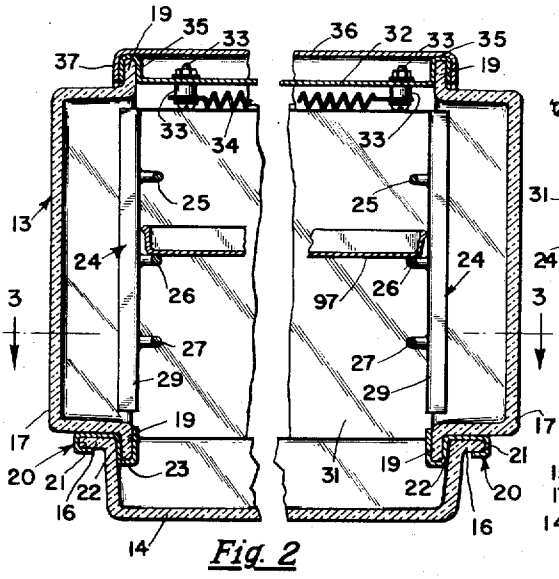


Fig. 2

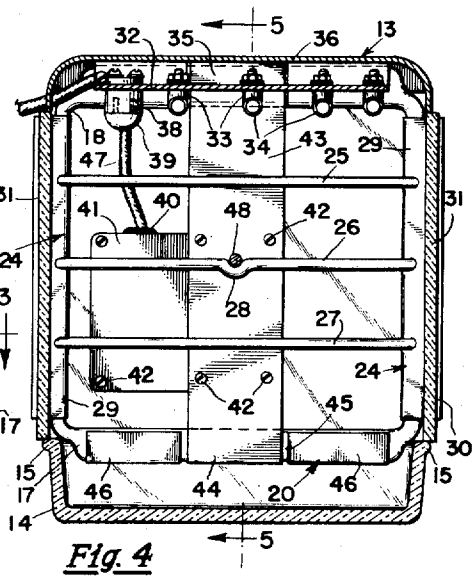


Fig. 4

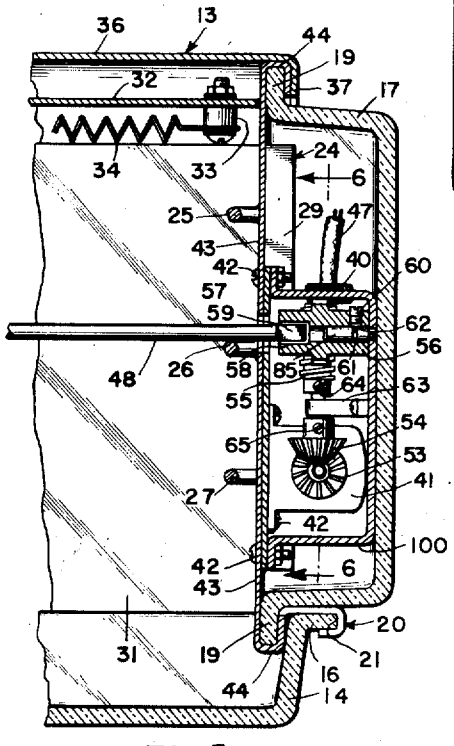


Fig. 5

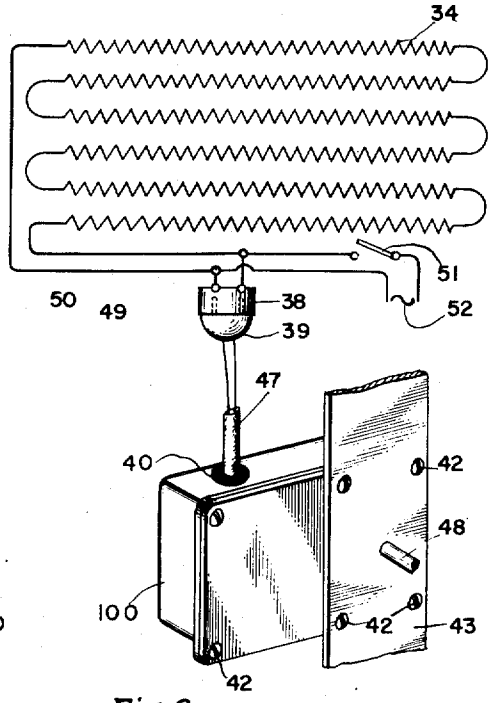


Fig. 8

INVENTOR.
Albert Panken
BY
Attorney

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COLLAPSIBLE BROILER AND BARBECUE DEVICE

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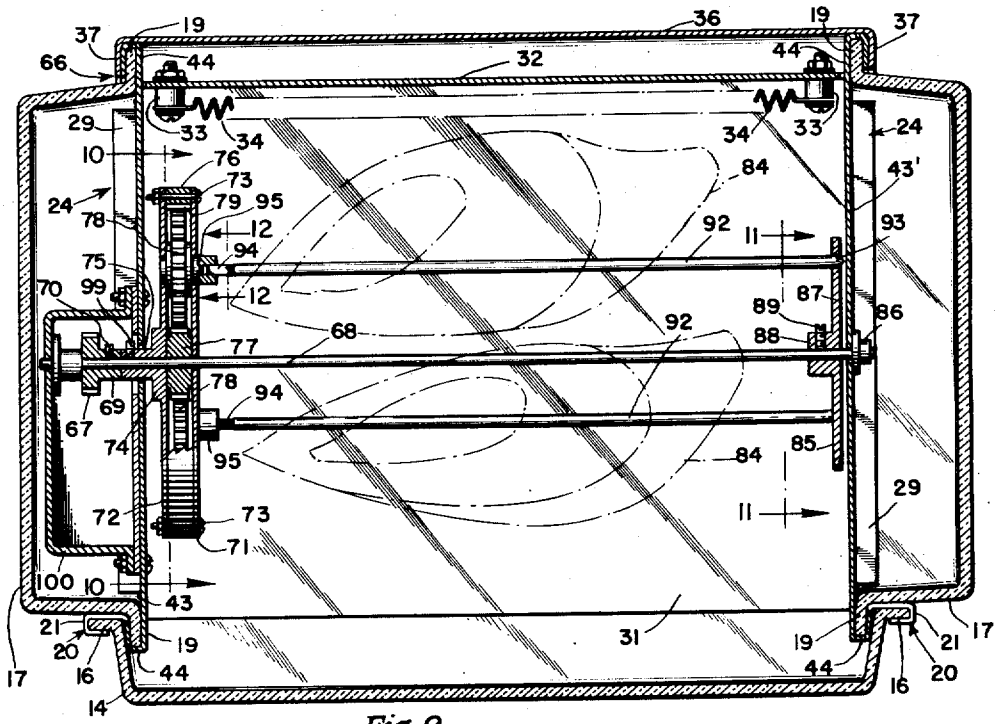


Fig. 9

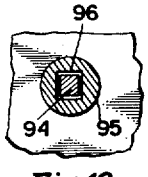


Fig. 12

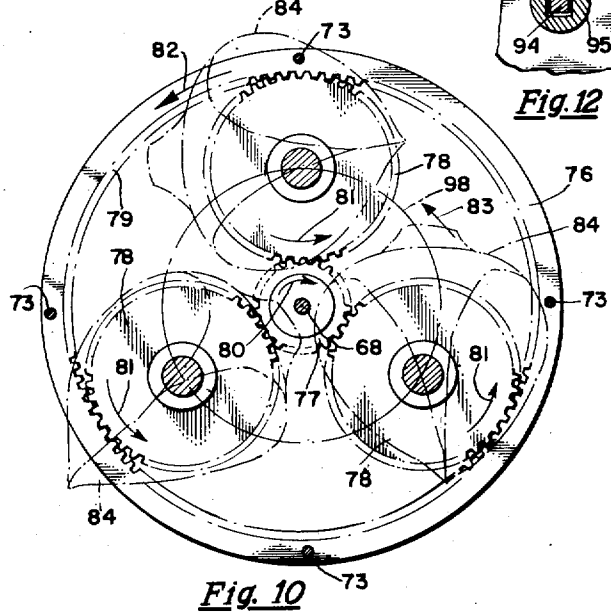


Fig. 10

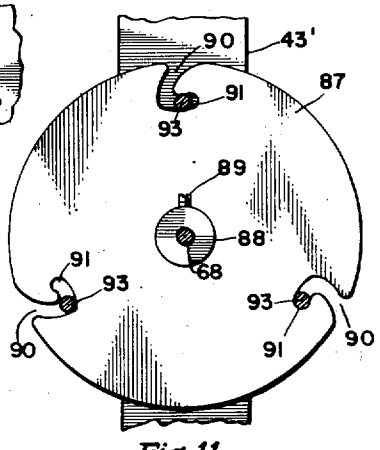


Fig. 11

INVENTOR.
Albert Panken

BY David Manly Hecker

Attorney

Reissued Sept. 21, 1954

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UNITED STATES PATENT OFFICE

23,874

COLLAPSIBLE BROILER AND BARBECUE DEVICE

Albert Panken, Chicago, Ill.

Original No. 2,618,730, dated November 18, 1952, Serial No. 292,269, June 7, 1952. Application for reissue November 16, 1953, Serial No. 392,532

18 Claims. (Cl. 219—35)

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue.

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My invention relates to combination [barbecue] *rotisserie* and broiler devices, having particular reference to the type that is of a knock-down construction and which can be readily assembled for operative purposes.

An important object of my invention is to provide a device of the aforementioned character which is made up of conventional heat resistant glass pans *or the like* assembled together with asembling clip means and motor support means, utilizing preferably, electrical heating unit means, and cover enclosure means for supporting a broiling tray or pan on which food may be broiled; providing at the same time means for supporting the pan at various levels so as to subject it to varied intensities of heat; the said unit also being adaptable to support a meat mounting spit on which meat or fowl may be mounted for barbecuing operations.

Another object of my invention is to provide a device of the aforementioned character which is transparent on [five] *several* of its six surfaces, thus permitting constant inspection and supervision of the food that is being broiled or barbecued.

A still further object of my invention is to provide in an article of the aforementioned character a number of elements which may be readily assembled or knocked down for transportation purposes, and readily assembled when desired *without requiring auxiliary assembling means such as screws, bolts or the like.*

A still further object of my invention is to provide a modified structure of the aforementioned character which will support a multiplicity of spit means so that a larger number of food items may be barbecued thereupon.

A still further object of my invention is to provide a device of the aforementioned character, in which the multiple spit means is, preferably, arranged in triangular relationship, providing planetary gearing for driving the said spit means, so that the food items mounted on each individual spit will rotate about a circular orbit on each individual spit, yet will rotate also about the axis of the triangular formation hereinbefore referred to, so that each food item will rotate upon its respective spit means, and present a different surface of the said food item to the heating element for each cycle of rotation of the entire combined multiple spit holding unit.

A still further object of my invention is to provide a device of the aforementioned character which is readily assembled or knocked down, which is made up of conventional glass pans,

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which may, incidentally, also be used for their individual purposes, and an article which is capable of use as a broiler, or as a barbecue or *rotisserie* device, which is made up of simple elemental parts so that it may be manufactured economically in quantity production.

A still further object is to provide novel clip and channel elements adapted to join together wall and bottom members to form a broiler and rotisserie enclosure.

Other objects and advantages inherent in my invention will become apparent from an examination of the accompanying drawings, bearing further elucidation in the ensuing description, where like symbols are used to designate like parts, and in which;

Fig. 1 is a perspective view of one form of my invention.

Fig. 2 is a cross-sectional view taken, substantially, on the lines 2—2 of Fig. 1.

Fig. 3 is a cross-sectional view taken, substantially, on the lines 3—3 of Fig. 2.

Fig. 4 is a cross-sectional view taken, substantially, on the lines 4—4 of Fig. 3.

Fig. 5 is a cross-sectional view taken, substantially, on the lines 5—5 of Fig. 4.

Fig. 6 is a cross-sectional view taken, substantially, on the lines 6—6 of Fig. 5.

Fig. 7 is an enlarged perspective view showing the clearance cut-out portion in the clip elements to permit assembling the same to the glass pan means hereinbefore referred to.

Fig. 8 is a perspective view showing the motor or prime mover unit, also showing schematically a wiring diagram connecting the prime mover means optionally to the heat element means circuit[, an essential feature of my invention].

Fig. 9 is a cross-sectional view, similar to Fig. 5, showing a slight modification of my invention, wherein a multiple spit supporting unit is indicated, and a number of spits removably and rotatably secured thereto.

Fig. 10 is a view looking in the direction of arrows 10—10 of Fig. 9.

Fig. 11 is a view looking in the direction of arrows 11—11 of Fig. 9.

Fig. 12 is a view looking in the direction of arrows 12—12 of Fig. 9.

Referring to the various views, my invention is generally designated 13, and consists of a number of heat resistant glass pans designated 14 for the bottom pan, and 17 for the two end pans mounted removably thereto. The pan 14 is provided with a beaded portion 15, and a lip or handle portion 16 on each end thereof. Likewise, the pans 17

are provided with beaded portions 18 on opposite sides thereof and lips 19 at the other two ends thereof.

The pans are assembled to form a tri-lateral U-shaped arrangement as indicated in Fig. 1 by virtue of the clip elements generally designated 20. The clip elements 20 are provided with a channel portion 21 for engaging the lip element 16 of the bottom pan 14. They are also formed to supply a right-angularly and downwardly bent portion 22 to form a channel portion 23 in right-angular relationship to the channel portion 21.

In the channel portion 23 the lip 19 of pan 17 is frictionally and firmly retained. Thus it can be seen that the end pans 17 are firmly but removably assembled to the bottom pan 14. The top lips 19 are held together by the heating element support plate *or housing* 32 which is provided with channelled portions 35 engaging frictionally and firmly the upper lips 19 thus forming a rigid assembly.

Over the entire arrangement a cap element 36 having a flange portion 37 is secured also frictionally and removably so that the same can be readily dismantled. On the heating element support plate 32 are mounted a series of binding posts 33 to which are connected the Nichrome wire heating elements 34 which afford proper resistance so that when an electric current is passed therethrough they will become incandescent and furnish the heat necessary.

Although a specific type of heating element has been described hereinabove, it should be obvious that any suitable electrical heating device may be utilized in my broiler rotisserie appliance without departing from the spirit and scope of my invention.

The beaded portions 18 of the pans 17 have secured thereto, the clip elements 24 which have the channelled portions 29 to fit the beaded portions 18 and are also provided with opposed channelled portions 30 for securing removably therein glass window panes 31, so that the entire unit is completely enclosed except for the corners near the cap element 36 which afford some ventilation and circulation of air currents.

The clip elements 24 are assembled in pairs by the support wires *or rods* 25, 26 and 27 which are used to hold a broiling pan 97 removably thereupon, so that meat or other food to be broiled can be broiled thereupon. The broiling pan 97 may be positioned at different levels indicated on the support rods 25, 26 and 27 which are riveted or spot welded, to a pair of clips 24 so that varied heat intensity may be imparted to the foods to be broiled within the pan 97. *It should be noted that any force vector such as a weight exerted at any point intermediate of the length of the support rods 25, 26 and 27 tends to draw the clip elements 24 together, thereby more securely locking said elements on the pans 17.*

The central rod element 26 is provided with an arcuately formed locating portion 28 which acts as a bearing for the spit 48 mounted thereon. The other end of the spit is equipped with a square portion 59 which fits into the enlarged square holes 58 so as to facilitate the positioning and removal of the spit 48.

At least one of the [The] clip elements, generally, designated 20 are provided with a cut-out portion 45 to provide a clearance for mounting the channelled portion 44 of the motor support bracket 43; leaving portions 46 for attachment to lip 19; the bracket 43 is secured in straddling

relationship on one pan to the lower lip 19 and the upper lip 19. The heating element support plate 32 is similarly cut out at 46 in order to clear the channelled portion 35, so as not to impede the assembly of the said element and also form a smooth streamlined structure to receive the flange 37 of the cap element 36.

The motor support bracket 43 has secured thereto a housing 100, the motor 41 being secured to the motor plate 43 by screws 42 as shown. The motor unit 41 has a bevel driving pinion 53 which is in mesh with the bevel gear 54, each secured by set screws 65 and further supported in the bearing 63 fitted on the reduced extension 64 of the worm 55; the said worm is in meshing relationship with a worm gear 56 which has a hub 57 in which the square hole 58, which is somewhat enlarged, receives the square end 59 of the spit 48.

The worm gear 56 is mounted on a stub shaft 85 secured to the casing 100, and the said shaft 85 is provided with a groove 61 in which a shank 62 of the set screw 60 maintains it rotatably on the said stub shaft 85.

The electrical connection 47 emanates at 49 and is connected to the motor 41 and as seen in Fig. 8 is provided with a male plug 39, which can be optionally connected to an outlet 38 connected in parallel with the electrical circuit 49 and 50 in which the heating elements 34 are connected in series to a source of supply 52, and a switch element 51 is connected in the series circuit so as to afford a convenient control for an operator.

The spit is removably mounted by virtue of the square shoulder 59 fitting into the enlarged square hole 58 of the worm wheel 56, which is driven by the worm 55, receiving its motivation from the meshing bevel gears 54 and 53. *As a matter of fact, this construction enables the spit to be assembled with the rotisserie mechanism in operational position or removed therefrom even during actual operation. Hence, the broiler may be readily converted to a rotisserie or vice versa without requiring any inoperative interval.*

Thus items may be broiled in a pan 97 as shown in Fig. 2, or fowl, [or barbecued] beef, [or] spareribs, *or the like* may be mounted on the spit 48, and then rotated so as to provide a uniform and even heating circumferentially thereof, by virtue of the heating means 34. When broiling, the plug 39 is disconnected from the outlet 38. When barbecuing on spit 48, the motor connection is effectuated by virtue of the plug 39 and 38 being assembled to close the parallel circuit operating the motor unit 41.

A modified form of my invention is illustrated in Figs. 9, 10, 11 and 12 and the structure depicted *therein* [thereon] is generally designated 65, the worm wheel 67 is driven by similar transmission as indicated in Figs. 5 and 6. The said worm wheel is equipped with a hub 69 secured to a central mounting shaft 68 by virtue of the set screw 70. The planetary gearing consists of plates 71 and 72 confining therein a ring gear 76 and is secured by screws and nuts or fastenings 73. The ring gear 76 is of an internal type and has teeth 79 therein in meshing relationship with the driven gears 78 arranged in triangular relationship, and simultaneously in meshed relationship with the idler gear 77 which is mounted on the supporting shaft 68, and is connected to the planetary assembly by virtue of the hubs 74 and 75 which will rotate with the shaft 68.

The outer ring gear 76 is driven in the direction

of the arrow **82** by the shaft **68** which in turn imparts rotation to the driven gears **78** in direction of arrow **81** held in meshing relationship centrally by virtue of the idler gear **77** motivated idly in the direction shown by arrow **80**. In this particular instance I also provide a support **43'** which is secured in the same manner as the motor support **43**, so as to furnish extra support to the multiple number of spits, and the weight of the food commodities mounted thereupon, in this particular instance being fowl **84**. The hub **75** is secured to shaft **68** by set screw **99**.

The supporting plate **43'** has secured thereto a bearing **86** which supports the other end of the mounting shaft **68**, and the same is secured to the auxiliary spit mounting plate **87** provided with a hub **88** and secured to the mounting shaft **68** by means of the set screw **89**.

Looking at Fig. 11, it will be seen that the auxiliary support disc or plate **87** is provided with angularly formed cutouts **90**, with undercut pocket portions **91** to hold the pointed ends of the spits **93** rotatably confined therein, preventing the escape thereof during the barbecuing operation. *Each of the* [The] other ends of the spits **92** are provided with a reduced square shoulder **94** fitted into the enlarged square hole **96** of the hub **95**, three of such hubs being provided on the plate **71**, so that the spits can be readily inserted into the multiple support unit **66**, or readily removed from the said support unit, whenever the operation of barbecuing has been completed.

It will be noted, especially in referring to Fig. 10, that the ring gear **76** rotates in the direction indicated by arrows **82**; the driven gears **78** rotate in the direction of arrows **81**. The entire assemblage as indicated, by the center line **98** rotates in the direction of arrow **83**, however, there is a relative variation of motion and speed indicated by the arrow **83** with reference to that of arrow **82** so that although the entire unit rotates about the shaft **68**, each individual spit **92** rotates in an independent orbit simultaneously as indicated by arrows **81** about the spit as an axis for the orbit of operation in the direction shown by arrow **81**. The number of teeth on gear **76** are not an exact multiple of the number of teeth on each of the gears **78**.

Thus, when the operation of barbecuing takes place, a different portion of each chicken **84**, after each cycle of rotation as indicated by arrow **82**, will be presented to the heat rays emanating from the heating element **34**.

In operation, if it is desired to broil or barbecue, the unit is first assembled by assembling the pan **14** to the two pans **17** by virtue of clips **20** as hereinbefore described. The heating support plate **32** supporting the heating element **34** is then mounted on the top lips **19** of the pan **17**. The cap **36** is placed thereover, the rear glass pane **31** is inserted, and the pan **97** is placed on the proper supporting rod **25**, **26** or **27** and food placed thereon, and the operation is ready to continue when the circuit is closed by switch **51**. In this instance the plug **39** and outlet **38** are not connected inasmuch as the operation of the motor is unnecessary. The front pane of glass **31** is then inserted, the said panes also being of heat-resistant glass prevents breakage thereof and also permits viewing the operation of broiling. When the broiling is completed the food pan **97** is removed and the contents consumed.

When it is desired to barbecue fowl, [or] meat,

or sausages, the said fowl, [or] meat *or sausages* is mounted on spit **48**, and the spit is then placed in engagement with the driving worm **56** and the plug **39** is connected to the outlet **38**, in which event the motor also operates; the operation may also be carefully guarded or watched in order to determine the completion of cooking to a desirable result of the fowl **84**.

If the unit shown in modification of Figs. 9 to 12 is utilized, then each spit **92** has mounted thereon a fowl **84**, or meat, or other foods, that it is desired to barbecue, and the motor is permitted to operate in a parallel circuit with the heating element **34** and thus the food is barbecued.

The device can be readily knocked down for transporting purposes, or for shipment by the manufacturer, and the pans **14** and **17** being of conventional construction may be individually purchased by the person purchasing the other elements of construction, or the entire device may be sold in a knocked-down arrangement, suitably crated and shipped to points of distribution.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

Having thus disclosed and revealed my invention, what I claim as new and desire to secure by Letters Patent is:

1. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a bottom pan and a pair of side pans all mounted in "U-shaped" formation, each of the said pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said side pans engageable removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pane means mounted removably in the said open channel portions, and cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a food cooking pan thereupon.

2. Combination knockdown and erectable [boiler] *broiler* and [barbecue] *rotisserie* means, comprising a bottom pan and a pair of side pans all mounted in "U-shaped" formation, each of the said pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said side pans engageable removably by the said verti-

cal channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pane means mounted removably in the said open channel portions, cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portions of one of the said side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear having a polygonal central opening therein, electrical connection means connecting the said prime mover means in parallel to the said first-mentioned electrical connection means, one of the said support wires being provided with a semi-circular spit supporting portion, and spit means having [a pointed] *an* end resting in the said semi-circular spit supporting [position] *portion*, its other end having a reduced polygonal shoulder portion adapted to fit loosely in the said polygonal central opening.

3. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a tarnsparent bottom pan and a pair of transparent side pans all mounted in "U-shaped" formation, each of the said transparent pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said transparent bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said transparent side pans engageably removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said transparent side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said transparent side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pane means mounted removably in the said open channel portions, and cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a transparent food cooking pan thereupon.

4. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a transparent bottom pan and a pair of transparent side pans all mounted in "U-shaped" formation, each of the said transparent pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said transparent bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said transparent side pans engageable removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said transparent side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said transparent side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pane means mounted removably in the said open channel portions, cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a transparent food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portions of one of the said transparent side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear having a polygonal central opening therein, electrical connection means connecting the said prime mover means in parallel to the said first-mentioned electrical connection means, one of the said support wires being provided with a semi-circular spit supporting portion, its other end having a reduced polygonal shoulder portion adapted to fit loosely in the said polygonal central opening.

5. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a bottom pan and a pair of side pans all mounted in "U-shaped" formation, each of the said pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said transparent side pans engageably removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said side pans by virtue of the channel

portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pane means mounted removably in the said open channel portions, cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portions of one of the said side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear having a polygonal central opening therein, electrical connection means connecting the said prime mover means in parallel to the said first-mentioned electrical connection means, one of the said support wires being provided with a semi-circular spit supporting portion, and spit means having a pointed end resting in the said semi-circular spit supporting portion, its other end having a reduced polygonal shoulder portion adapted to fit loosely in the said polygonal central opening, the horizontal channel portions of the said primary clip means being cut away at the central portion thereof a magnitude equivalent to the width of the said motor support bracket means.

6. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a transparent bottom pan and a pair of transparent side pans all mounted in "U-shaped" formation, each of the said transparent pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said transparent bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said transparent side pans engageable removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said transparent side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said transparent side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pane means mounted removably in the said open channel portions, cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a transparent food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portions of one of the said transparent side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear having a polygonal central opening therein, electrical connection means connecting the said prime mover means in parallel to the said first-mentioned electrical connection means, one of the said support wires being provided with a semi-circular spit supporting portion, and spit means having a pointed end resting in the said semi-circular spit supporting portion, its other end having a reduced polygonal shoulder portion adapted to fit loosely in the said polygonal central opening, the horizontal channel portions of the said primary clip means being cut away at the central portion thereof a magnitude equivalent to the width of the said motor support bracket means.

7. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a bottom pan and a pair of side pans all mounted in "U-shaped" formation, each of the said pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said transparent bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said pans engageable removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pan means mounted removably in the said open channel portions, and cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portions of one of the said side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear having a polygonal central opening therein, electrical connection means connecting the said prime mover means in parallel to the said first-mentioned electrical connection means, one of the said support wires being provided with a semi-circular spit supporting portion, and spit means having a pointed end resting in the said semi-circular spit supporting portion, its other end having a reduced polgonal shoulder portion adapted to fit loosely in the said polygonal central opening.

8. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means comprising a transparent bottom pan and a pair of transparent side pans all mounted in "U-shaped" formation, each of the said transparent pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said transparent bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said transparent side pans engageable removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said transparent side

pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said transparent side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pan means mounted removably in the said open channel portions, cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a transparent food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portions of one of the said transparent side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear having a polygonal central opening therein, electrical connection means connecting the said prime mover means in parallel to the said first-mentioned electrical connection means, one of the said support wires being provided with a semi-circular spit supporting portion, and spit means having a pointed end resting in the said semi-circular spit supporting portion, its other end having a reduced polygonal shoulder portion adapted to fit loosely in the said golygonal central opening.

9. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a bottom pan and a pair of side pans all mounted in "U-shaped" formation, each of the said pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said transparent side pans engageably removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pan means mounted removably in the said open channel portions, cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portions of one of the said side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear having a polygonal central opening therein, electrical connection means connecting the said prime mover means in parallel to the said first-mentioned electrical connection means, one of the said support wires being provided with a semi-circular spit supporting portion, and spit means having a pointed end resting in the said semi-circular spit supporting portion, its other end having a reduced polygonal shoulder portion adapted to fit loosely in the said polygonal central opening, the horizontal channel portions of the said primary clip means being cut away at the central portion thereof a magnitude equivalent to the width of the said motor support bracket means, the said heating element support means having its channelled portions cut away at the central portion thereof a magnitude equivalent to the width of the said motor support bracket means.

10. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a transparent bottom pan and a pair of transparent side pans all mounted in "U-shaped" formation, each of the said transparent pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said transparent bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said transparent side pans engageable removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said transparent side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said transparent side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, transparent pan means mounted removably in the said open channel portions, cap means secured removably over the said heating element support means defining a vented enclosure, corresponding pairs of the said support wires being adapted to support a transparent food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portions of one of the said transparent side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear having a polygonal central opening therein, electrical connection means connecting the said prime mover means in parallel to the said first-mentioned electrical connection means, one of the said support wires being provided with a semi-circular spit supporting portion, and spit means having a pointed end resting in the said semi-circular spit supporting portion, its other end having a reduced polygonal shoulder portion adapted to fit loosely in the said polygonal central opening, the horizontal channel portions of the said primary clip means being cut away at the central portion thereof a magnitude equivalent to the width of the said motor support bracket means, the said heating

element support means having its channelled portions cut away at the central portion thereof a magnitude equivalent to the width of the said motor support bracket means.

11. Combination knockdown and erectable broiler and [barbecue] *rotisserie* means, comprising a bottom pan and a pair of side pans all mounted in "U-shaped" formation, each of the said pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said side pans engageable removably by the said vertical channel portion, heating element support means provided with channelled portions removably secured to the remaining lip portions of each of the said side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reversed channel portions, a multiplicity of support wires interconecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and [barbecue] *rotisserie* means, pane means mounted removably in the said open channel portions, cap means secured removably over the said heating element support means defining a vented enclosure, pairs of the said support wires being adapted to support a food cooking pan thereupon, motor support bracket means provided with channel portions removably secured to the lip portion of one of the said side pans, auxiliary support bracket means provided with channel portions removably secured to the lip portions of the other of the said side pans, prime mover means equipped with reduction gearing mounted on the said motor support bracket means and provided with a driving gear, multiple spit supporting means including a rotating shaft coextensively connected to the said driving gear, planetary gearing mounted on the said driving shaft, multiple driving hub means radially disposed on the said planetary gearing and each equipped with a polygonal driving opening centrally thereof, disc means supported on the said rotating shaft and provided with a multiplicity of angularly formed cut out portions terminating in spit retaining pocket portions, and a multiplicity of spit means, each individual spit having its joint portion resting rotatably in one of the said pocket portions, and further provided on its driving end with a reduced polygonal shoulder portion loosely fitted within the said polygonal driving opening.

12. Combination knockdown and erectable broiler and rotisserie means, comprising a bottom pan and a pair of side pans all mounted in "U-shaped" formation, each of the said pans being provided with lip portions on two opposed edges thereof, primary clip means each provided with horizontal and vertical channel portions, the lip portions of the said bottom pan engageable removably by the said horizontal channel portions, one lip portion of each of said side pans engageable removably by the said vertical channel portion, heating element support means mounted between said side pans, heating element means mounted on the said heating element support means, electrical connection means connecting the said heating element means to a source of electrical supply, secondary clip means each including a pair of clip elements each equipped with reverse channel portions, a multiplicity of support wires interconnecting each pair of said clip elements, each of said clip means being removably secured to the free edges of the said side pans by virtue of the channel portions thereof resulting in open channel portions on each side of the said broiler and rotisserie means, and transparent pane means mounted removably in the said open channel portions.

13. In an appliance of the character described having a plurality of separable side members, a bottom member, a top member and an electrical heating unit; a pair of primary clip members each provided with reversely opening horizontal and vertical channels adapted to join together in removable relationship at least two of said side members with said bottom member thereby affording a "U-shaped" formation, and a pair of secondary clip members each comprising a pair of reverse channel clips joined together in spaced parallel relationship by a plurality of parallel horizontally disposed support wires spaced one from the other, said secondary clip members adapted to join together in removable relationship said last-mentioned side members with additional side members to afford an enclosure, said heating unit and top member supported by said side members.

14. The appliance of claim 13 in which said heating unit includes a flat horizontal hot plate.

15. The appliance of claim 13 in which at least one spit member is horizontally positioned within said enclosure and a rotisserie motor is mounted at one end of said enclosure, said spit member operationally connectable to said motor for rotation thereby.

16. In an appliance of the character described, a bottom member having a pair of side members removably joined thereto in "U-shaped" formation, a pair of clip members each comprising a pair of clip elements each equipped with reverse channel portions, a plurality of parallel horizontally disposed support wires spaced one from the other and interconnecting said clip elements in spaced parallel relationship, each of said clip members being removably secured to the free vertically-positioned marginal edges of said side members by virtue of said channel portions resulting in open channel portions on each side of said appliance, additional side members removably supported by their marginal edges in said latter-mentioned open channel portions to form an enclosure, an electrical heating unit supported by said side members and a cover member likewise supported by said side members.

17. In an appliance of the character described, a plurality of separable side members, a bottom member, a top member and an electrical heating unit; a pair of primary clip members each provided with horizontal and vertical channels adapted to join together in removable relationship at least two of said side members with said bottom member thereby affording a "U-shaped" formation, a pair of secondary clip members each comprising a pair of reverse channel clips joined together in spaced parallel relationship by a plurality of support wires, said secondary clip members adapted to join together in removable relationship said last-mentioned side members with additional side members to afford an enclosure, said heating unit and top member sup-

ported by said side members, and a rotisserie mechanism including a spit, an electric motor and suitable gearing actuated by said motor to rotate said spit, said rotisserie mechanism suitably supported within said enclosure.

18. In an appliance of the character described having a plurality of separable side members, a bottom member, a top member and an electrical heating unit, each of said members having lip portions on at least two opposed edges thereof; a pair of primary clip members each provided with horizontal and vertical channels adapted to join together in removable relationship at least two of said side members with said bottom member thereby affording a "U-shaped" formation, the lip portions of said bottom member removably engageable by said horizontal channel and one lip portion of each of said side members removably engageable by said vertical channel, and a pair of secondary clips joined together in spaced parallel relationship by a plurality of support wires, said secondary clip members adapted to join together in removable relationship said last-mentioned side members with

additional side members to afford an enclosure, said heating unit and top member supported by said side members.

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