July 13, 1965 R. D. SCHIBLEY 3,194,148

ROTISSERIE APPARATUS

Filed May 29, 1963 3 Sheets-Sheet 1

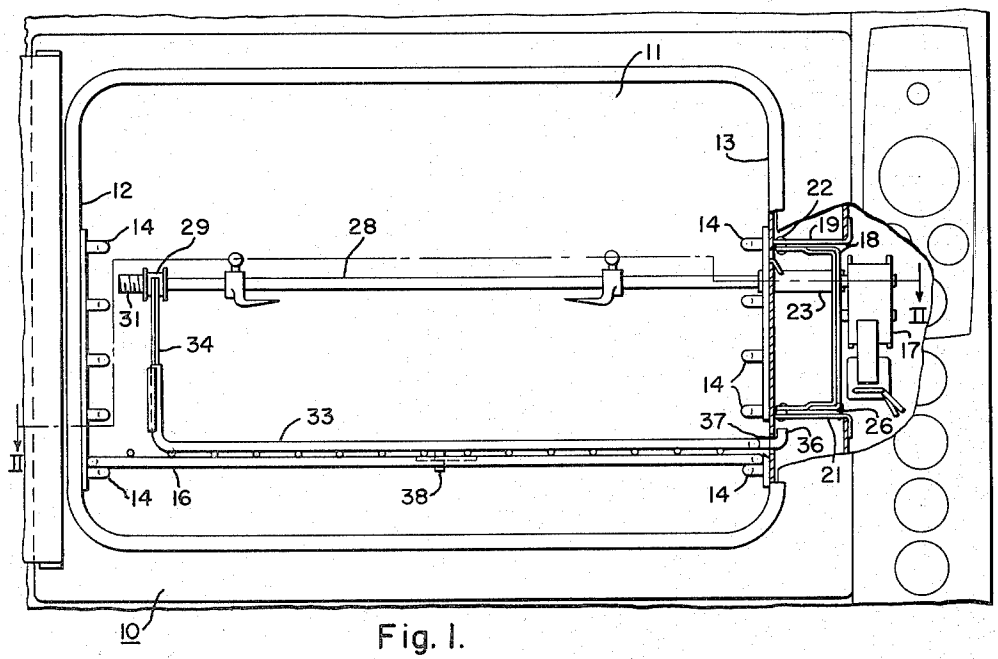


Fig. 1.

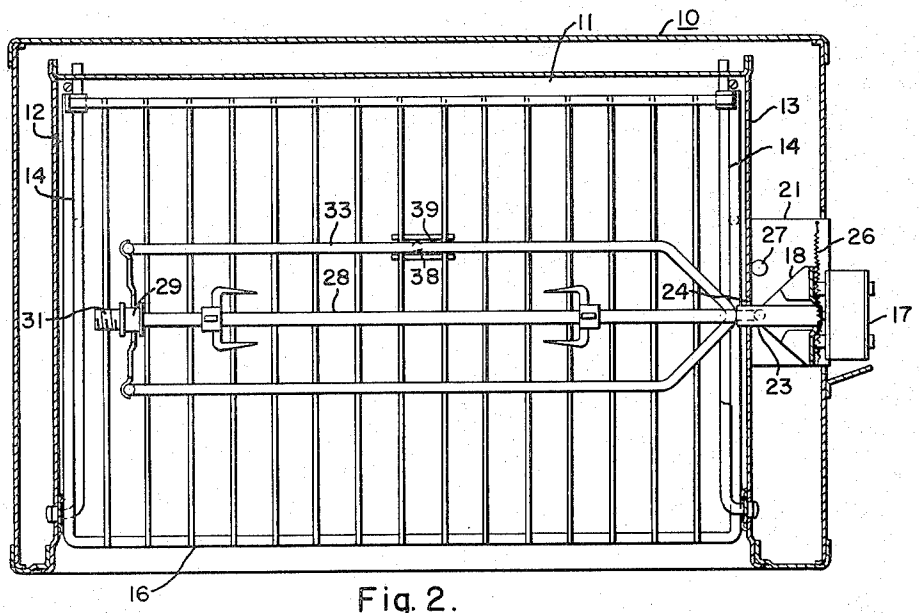


Fig. 2.

WITNESSES:

John L. Chopp

James F. Young

INVENTOR

Raymond D. Schibley

BY

Aubrey C. Brine

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ROTISSERIE APPARATUS

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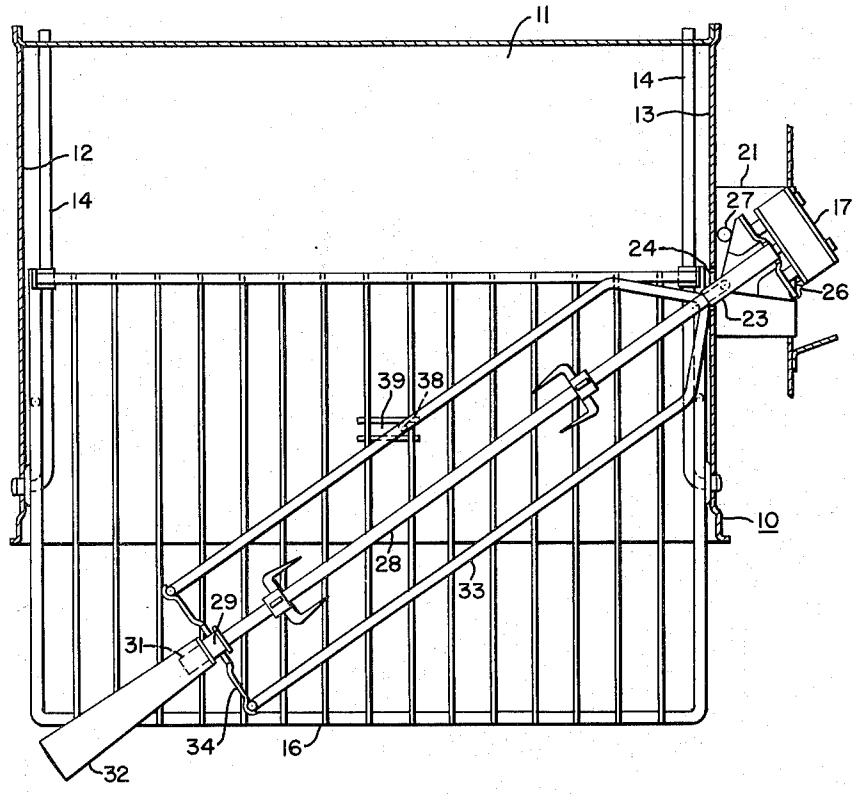


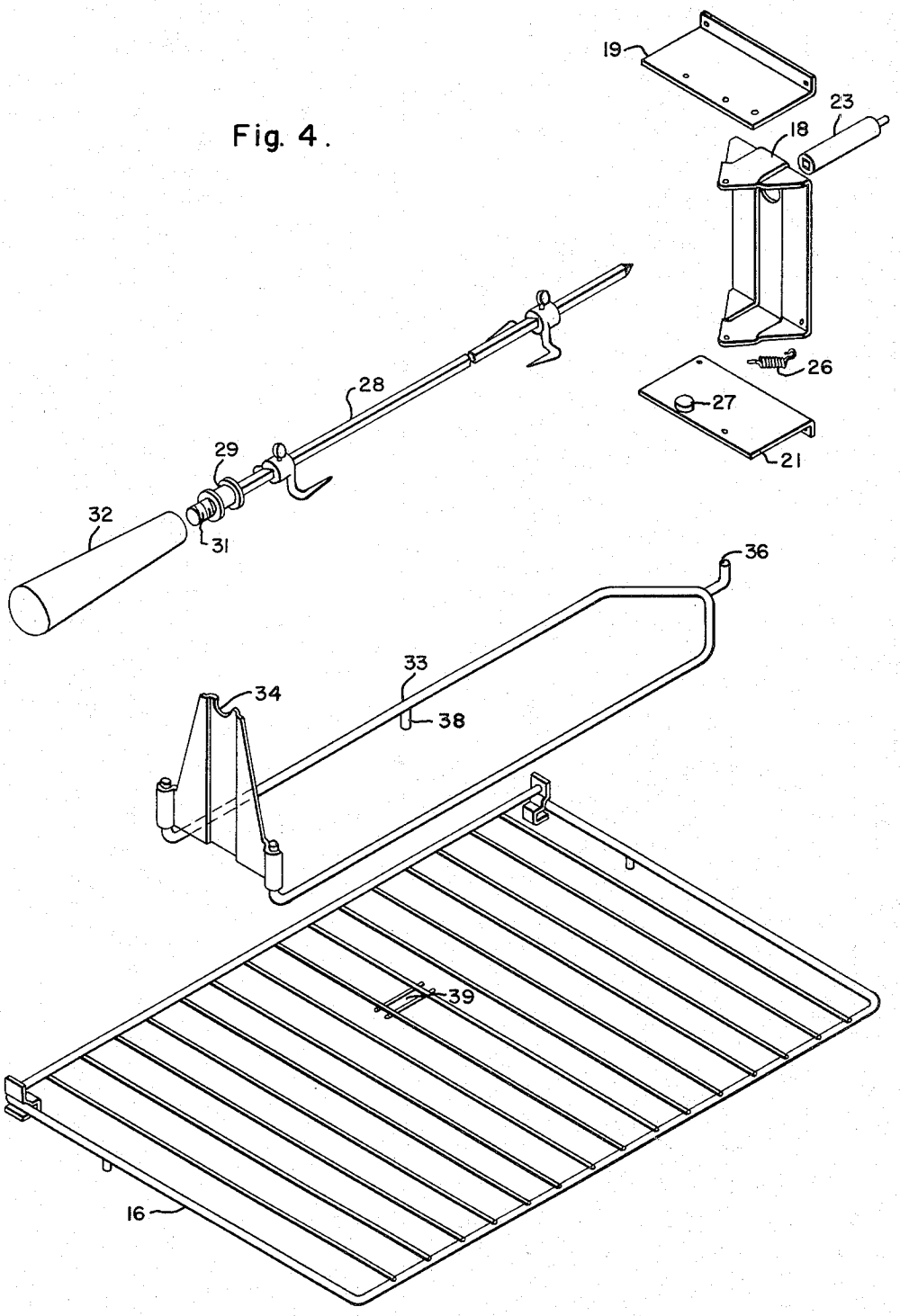
Fig. 3.

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Fig. 4.



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3,194,148

ROTISSERIE APPARATUS

Raymond D. Schibley, Ashland, Ohio, assignor to Westinghouse Electric Corporation, Pittsburgh, Pa., a corporation of Pennsylvania

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4 Claims. (Cl. 99—421)

This invention relates to rotisserie apparatus and more particularly to rotisserie apparatus for use with a domestic oven.

Many domestic ovens today are equipped with means for barbecuing in the oven enclosure. One such arrangement provides a spit, supported from front to back in the oven enclosure, for rotating the meat to be barbecued.

However, an improved arrangement is disclosed in this application of Edmund Filipak, Serial No. 277,946, filed May 3, 1963, now abandoned and assigned to the assignee of the present invention. In this arrangement, the spit member is disposed in the oven enclosure in side-to-side relation to the oven enclosure, thereby more effectively utilizing the available space in the enclosure and facilitating basting of the barbecue. The spit-rotating means is pivotably supported to permit movement of one end of the spit member from a supported position in the enclosure, to a position adjacent the enclosure opening, for removal of insertion of the loaded spit.

The present invention is concerned with the problem of moving the supported end of the spit member to the enclosure opening in a rotisserie arrangement of the type described above.

One object of the invention, therefore, is to facilitate removal and installation of the spit member in a rotisserie having the spit disposed in side-to-side relation to the oven enclosure.

Another object of the invention is to provide a rotisserie having spit support means which is simply constructed and easily manufactured.

These objects of the invention, and other objects which will become apparent as the description proceeds, are achieved by providing a novel spit supporting means for receiving the end of the spit opposite the rotating means. The spit support means is disposed on an oven rack and pivotable about a substantially vertical axis. When the oven rack is moved outwardly from a position in the oven enclosure, the support means moves from a position in the enclosure to a position outside of, or adjacent, the enclosure opening while the spit is in engagement with the spit rotating means.

For a better understanding of the invention reference should be had to the accompanying drawings, wherein:

FIGURE 1 is a front elevational view of a domestic oven having the invention employed therein; a portion of the oven front wall structure being broken away to more clearly show the invention.

FIG. 2 is a horizontal sectional view taken along line II—II of FIG. 1;

FIG. 3 is a sectional view similar to FIG. 2, showing the elements of the invention in a changed position during use; and

FIG. 4 is an exploded perspective view showing various elements of the invention in detail.

Although the principles of the invention are broadly applicable to rotisserie apparatus in general, it has been herein illustrated employed in a rotisserie apparatus of a domestic oven, and will be so described.

Referring to the drawings, especially FIGS. 1 and 2, there is shown a domestic oven **10** having an enclosure **11** formed by the oven walls, including side walls **12** and **13**. A plurality of glide members **14** are disposed adjacent the side walls **12** and **13** for slidably receiving, and supporting, oven racks such as rack **16** shown.

The oven **10** is further provided with spit rotating means in the form of an electric motor **17** assembled on a channel shaped mounting plate **18** which is pivotally fastened to angle members **19** and **21** by hinge pins **22**. A drive socket **23** operatively connected to the motor **17** extends through a hole in the mounting plate **18**, and through an opening **24** in the wall **13**. Tension spring **26** is connected between the angle member **21** and the mounting plate **18** and serves to bias the mounting plate toward a cylindrical stop **27** on the angle member, as best shown in FIG. 3.

Referring again to FIGS. 1 and 2, there is shown in the oven enclosure **11** a spit member **28** having one end in axially interfitting engagement with the drive socket **23**. Adjacent the opposite end of the spit member **28** there is disposed a journal **29** and a threaded terminal portion **31** which portion is adapted to be received by the spit handle **32** shown in FIGS. 3 and 4. A support member **33** rests on the rack **16** and is provided with a bearing surface **34** (FIG. 4) for rotatably receiving the journal **29** in support relation. At one end of the support member **33**, there is an upwardly extending pivot pin **36** (FIG. 1) which is loosely received in the wall **13** through a hole **37** of greater diameter than the pivot pin. A downwardly projecting guide pin **38** is received in a slotted opening **39** which is provided in the oven rack **16**, said slotted opening **39** having a substantial extent in a direction transverse of the oven.

When it is desired to use the range oven **10** for barbecuing, the above described structure cooperates to function in the following manner.

With the oven rack **16** positioned in the oven enclosure **11** as shown in FIG. 3, the support member **33** is installed by holding the one end carrying the bearing surface **34** above the rack **16** and engaging the pivot pin **36** in the hole **37**, after which the support member may be rested on the rack with the guide pin **38** received in the slotted opening **39**.

Without a force applied to the socket **23**, the motor **17** remains positioned as shown in FIG. 3, the tension spring **26** exerting sufficient force to hold the mounting plate **18** against the stop **27**.

The spit member **28**, loaded with the food to be barbecued, is placed in engagement with the drive socket **23**, and the journal **29** of the spit is rested on the bearing surface **34** of the support member **33**. The spit handle **32** is removed from the spit **23**, and a drip pan (not shown) may be placed between the support member **33** and the food to be barbecued. The oven rack **16** is now moved into the oven enclosure **11**, carrying with it the support member **33** and the end of the spit **28** carried by the journal **29**. During this inward sliding movement of the rack **16** from the extended position of FIG. 3 to the retracted position of FIG. 2, the spit swings from the angular position of FIG. 3, to the transverse position of FIG. 2, where it is fully housed in the oven. It should here be noted that the weight of the loaded spit **28** is sufficient to overcome the tension in the spring **26** and the spit remains in side-to-side relation in the oven enclosure **11** with the motor **17** in operation during the barbecue process.

When it is desired to remove the loaded spit **28** from the enclosure **11**, the user is not required to reach into the enclosure. By grasping the front portion of the rack **16** and moving it outwardly through the front opening of the enclosure **11**, the support member **33** is caused to pivot about a substantially vertical axis provided by the pivot pin **36**. As the support member **33** pivots about the pin **36**, the journal end of the spit member **28** is swung to a position adjacent the front opening in the oven enclosure **11**. The same movement of the spit member **28**

causes the motor 17 to pivot about a vertical axis provided by the hinge pins 22. By aligning the hinge pins 22 with the pivot pin 36, there is little relative movement between the support member 33 and the spit member 28 during movement of the support member and spit.

As will be apparent upon comparison of FIGS. 2 and 3, the transverse extent of the slot 39 in the rack 16 is sufficient to permit the limited lateral movement necessary for the pin 38.

With the structure disposed as shown in FIG. 3, the handle 32 is assembled to the spit member 28 outside the oven enclosure 11, and the spit may now be easily removed from engagement with the drive socket 23.

It will be noted that removal of the spit 28 is accomplished in a convenient manner, with the spit supported outside the oven enclosure 11, and a drip pan, if used, remaining under the barbecue during the removal operation.

From the foregoing, it should be obvious that the invention facilitates the removal and installation of the spit member in a rotisserie of the type described. It should further be evident from the foregoing, that the ease of installation and removal of the spit member is accomplished by providing a spit support means which is simply constructed and easily manufactured.

Further, the rack 16 functions as a conventional oven rack when the rotisserie is not being utilized.

While the invention has been described in but one form, it will be obvious to those skilled in the art that it is not so limited, but is susceptible of various changes and modifications without departing from the spirit thereof.

What is claimed is:

1. An oven enclosure having a pair of spaced side walls and a front opening

a rotatable spit member disposed between said side walls,

spit rotating means adjacent one of said side walls having one end of said spit received in axially interfitting engagement therewith for supporting and rotating said spit about its longitudinal axis,

a rack slidably supported between said side walls for movement through said front opening,

support means disposed on said rack and engaging the opposite end of said spit member adjacent the other of said side walls, and

means interengaging said rack and said support means for pivoting said support means on said rack when said rack is moved through said opening,

said rotating means being pivotably supported and said support means being pivotably engaged adjacent said one side wall for turning about a common, substantially vertical axis,

such that said opposite end of said spit member is movable from a position within said enclosure to a position adjacent said front opening while said spit member is in supported engagement with said rotating means when said rack is moved from said enclosure through said front opening.

2. An oven enclosure having a pair of spaced side walls and a front opening,

a rotatable spit member disposed between said side walls,

spit rotating means adjacent one of said side walls engaging and supporting one end of said spit member for rotating said member about its longitudinal axis,

said rotating means being pivotably supported for turning about a substantially vertical axis,

a rack slidably supported between said side walls for movement through said front opening, and

support means engaging the opposite end of said spit member,

said support means being pivotably engaged by and disposed on said rack and pivotably engaged adjacent said one side wall for turning about a pair of substantially vertical axes,

such that said opposite end of said spit member is moved from a position within said enclosure to a position adjacent said front opening while said spit member is in engagement wth said rotating means, when said rack is moved outwardly from said enclosure through said opening.

3. An oven enclosure having a pair of spaced side walls and a front opening

a rotatable spit member disposed in said enclosure in side-to-side relation having one end adjacent one of said side walls and the opposite end adjacent the other of said side walls,

spit rotating means adjacent said one side wall engaging said one end of said spit member for rotating said member about its longitudinal axis,

a rack slidably supported between said side walls for movement through said front opening and having a slotted opening provided therein,

a support member disposed on said rack in support relation with said opposite end of said spit member and pivotally engaged adjacent said one side wall for turning about a substantially vertical axis,

said support member further having a portion extending into said slotted opening such that movement of said rack through said front opening causes movement of said opposite end of said spit member to a position adjacent said front opening, and

said spit rotating means being pivotally supported for movement when engaged to said spit member from a first position wherein said spit member is in side-to-side relation in said enclosure to a second position wherein said opposite end of said spit member is adjacent said first opening.

4. The structure of claim 3 further characterized by

a spring member provided on said spit rotating means,

said spring member functioning to bias said spit rotating means to said second position.

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ROBERT E. PULFREY, *Primary Examiner.*

LAWRENCE CHARLES, *Examiner.*