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(54) **ROTISSERIE WITH LIGHTING FIXTURE**

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(57) **ABSTRACT**

A rotisserie is disclosed to include a housing, a rotary motor drive provided at one side of the housing and adapted to rotate a rod member and the meat on the rod member for roasting, and a lighting fixture mounted on the motor case of the rotary motor drive and adapted to illuminate the meat under roasting when dark.

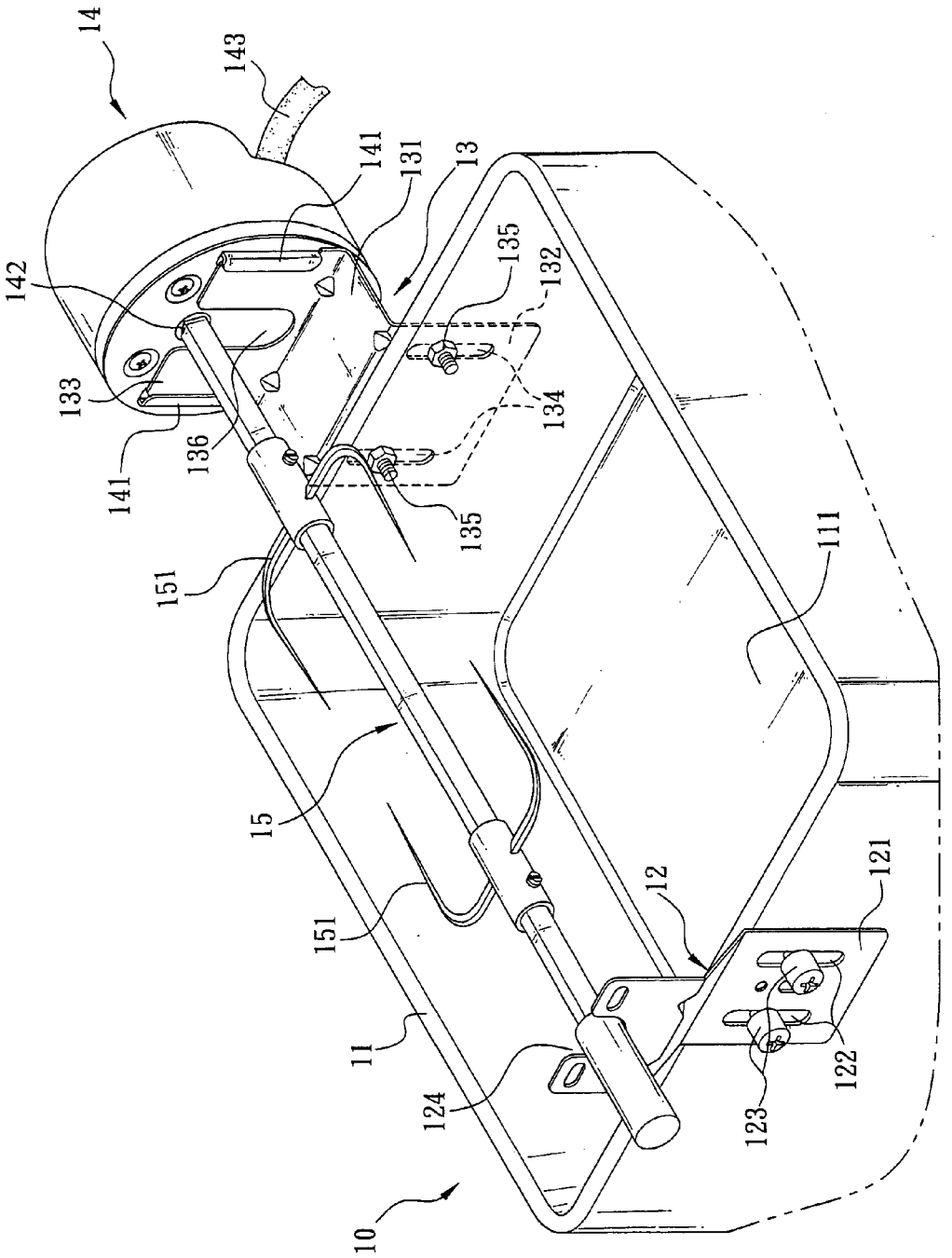


FIG. 1 (Prior Art)

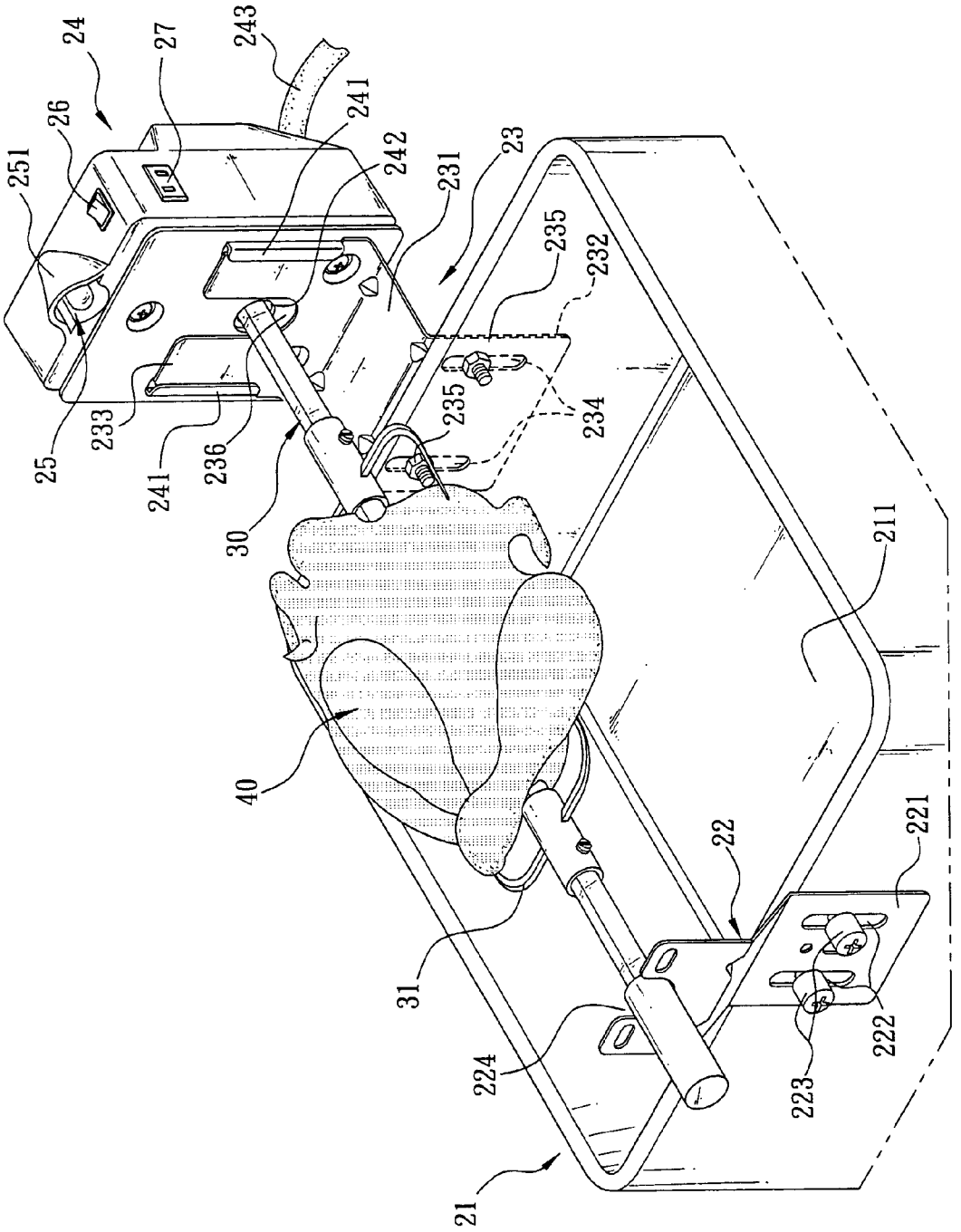

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FIG. 2

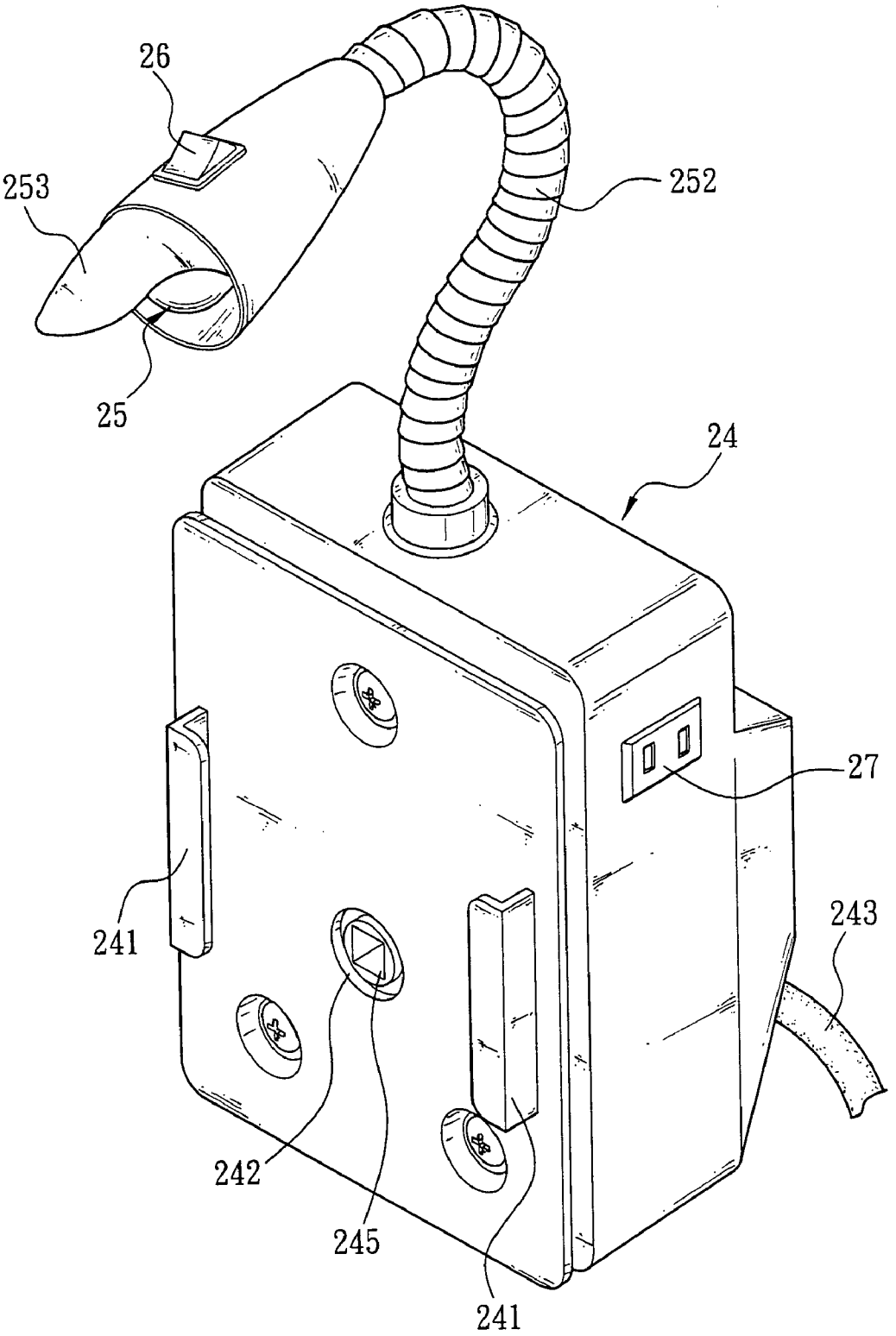


FIG. 3

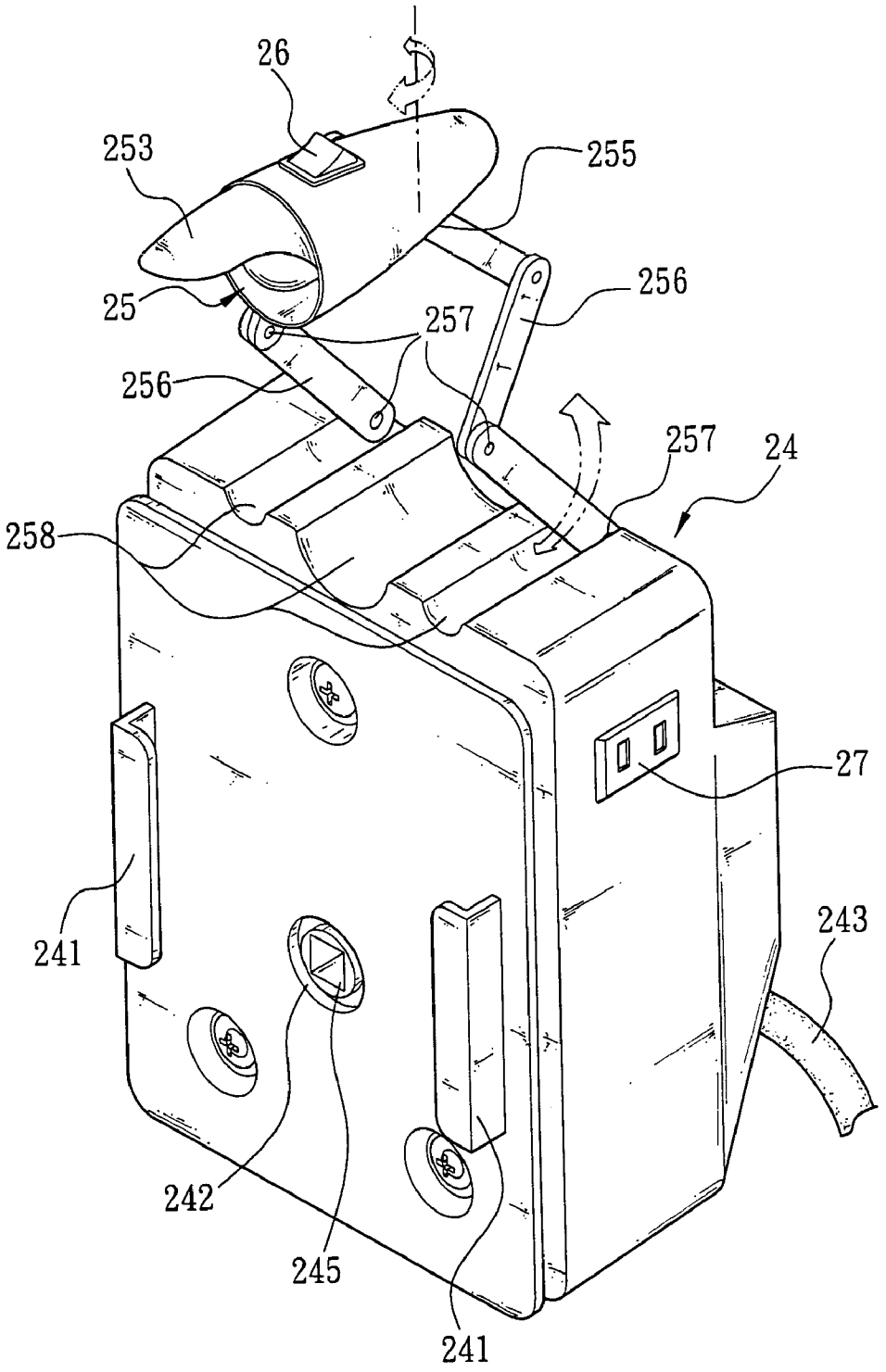


FIG. 4

ROTISSERIE WITH LIGHTING FIXTURE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a rotisserie and, more specifically, to such a rotisserie, which is equipped with a lighting fixture.

[0003] 2. Description of the Related Art

[0004] Following the development of the present era, people care more about the taste and style of personal recreational life. Therefore, the activity of barbecue that fits all members of every family and their relatives and friends has become more and more popularly accepted. Various barbecue grills and the like have been commercialized. However, these apparatus are commonly simple in shape, neither humanized nor practical in use. When selecting a grill from two similar products having a reasonable price, humanization and practical use are the key points to consider. In order to survive in the competitive market, barbecue apparatus manufacturers must try hard to improve their products in humanization and practical use. Without humanization and practical use, one's barbecue products will be defeated in the free market.

[0005] **FIG. 1** shows a prior art rotisserie available in the market. According to this design, the rotisserie **10** comprises a housing **11** defining a cooking chamber **111** for holding cooking implements such as burners, cooking grid, coals (not shown). The housing **11** comprises a first rack **12** and a second rack **13** at two opposite sides of the cooking chamber **111**. The first rack **12** comprises a flat mounting frame **121** and a top notch **124**. The mounting frame **121** has a plurality of through holes **122** for the mounting of screws **123** to fix the first rack **12** to the housing **11**. The second rack **13** is a zigzag plate member having a vertically extended top bearing wall **133**, a vertically extended bottom mounting wall **132**, and a middle connecting wall **131** horizontally connected between the vertically extended top bearing wall **133** and the vertically extended bottom mounting wall **132**. The bottom mounting wall **132** has a plurality of through holes **134** for the mounting of screws **135** to fix the second rack **13** to the housing **11** opposite to the first rack **12**. The top bearing wall **133** has a top notch **136** disposed above the housing **11** corresponding to the top notch **124** of the first rack **12**.

[0006] The rotisserie further comprises a motor case **14** fastened to the top bearing wall **133** of the second rack **13** to hold a reversible motor (not shown) on the inside. The motor case **14** comprises two coupling elements **141** bilaterally located on the back wall thereof and respectively coupled to the top bearing wall **133** of the second rack **13** and stopped at the connection area between the top bearing wall **133** and the middle connecting wall **131** to secure the motor case **14** to the second rack **13**, and an axle hole **142** in the back wall between the coupling elements **141** corresponding to the top notch **136** of the second rack **13**. The rotisserie also comprises a rod member **15** supported in the top notch **124** of the first rack **12** and the top notch **136** of the second notch **13** and inserted through the axle hole **142** and axially coupled to the output shaft of the motor inside the motor case **14**. The rod member comprises two movable forks **151** adapted to hold the food to be roasted. Further, a power cord **143** extends to the outside of the motor case **14** for connection to external power source.

[0007] The aforesaid rotisserie is functional, however it still has drawbacks. When roasting meat in the housing **11** of the rotisserie **10** in the daylight or under sufficient illumination, the user can check the roasting status of the meat with the eyes, and know accurately when the meat is well done. However, when roasting meat in the dark, the user may not be able to see the roasting status of the meat well, and have to cut a small piece of the meat under roasting and then eat the cut piece so as to inspect the roasting status of the meat. It is not hygienic to examine the roasting status of the meat in this way because the user may eat not well-cooked food. It is harmful to the user when the user ate food that is not well cooked. Therefore, this conventional rotisserie is not perfect in design, not humanized, and not practical in use. Improvements on this design are necessary.

[0008] Therefore, it is desirable to provide a humanized and practical rotisserie that enables the user to visually check the roasting status of the food.

SUMMARY OF THE INVENTION

[0009] The present invention has been accomplished under the circumstances in view. It is one object of the present invention to provide a rotisserie, which is equipped with a lighting fixture for providing illumination when cooking in the dark. It is another object of the present invention to provide a rotisserie, which has a power jack for power output.

[0010] According to one aspect of the present invention, the rotisserie comprising a housing defining a cooking chamber, a rod member adapted to hold food in the cooking chamber for roasting, and a rotary motor drive provided at one side of the housing and adapted to rotate the rod member in the cooking chamber, wherein the rotary motor drive comprises: a motor case holding a motor, the motor case having an axle hole into which the rod member is inserted and coupled to the motor; coupling means adapted to secure the motor case to one side of the housing; and a lighting fixture mounted on the motor case and adapted to illuminate the cooking chamber. According to another aspect of the present invention, a power jack is provided at the motor case and electrically connected to the power cord of the motor case for power output.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] **FIG. 1** is an elevational view of a rotisserie according to the prior art.

[0012] **FIG. 2** is an elevational view of a rotisserie according to a first embodiment of the present invention.

[0013] **FIG. 3** is an elevational view of a rotisserie according to a second embodiment of the present invention.

[0014] **FIG. 4** is an elevational view of a rotisserie according to a third embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0015] Referring to **FIG. 2**, a rotisserie is shown comprising a housing **21** defining a cooking chamber **211** for holding cooking implements such as burners, cooking grid, coals

(not shown). The housing **21** comprises a first rack **22** and a second rack **23** at two opposite sides of the cooking chamber **211**. The first rack **22** comprises a flat mounting frame **221** and a top notch **224**. The mounting frame **221** has a plurality of through holes **222** for the mounting of screws **223** to fix the first rack **22** to the housing **21**.

[**0016**] The second rack **23** is a zigzag plate member having a vertically extended top bearing wall **233**, a vertically extended bottom mounting wall **232**, and a middle connecting wall **231** horizontally connected between the vertically extended top bearing wall **233** and the vertically extended bottom mounting wall **232**. The bottom mounting wall **232** has a plurality of through holes **234** for the mounting of screws **235** to fix the second rack **23** to the housing **21** opposite to the first rack **22**. The top bearing wall **233** has a top notch **236** disposed above the housing **21** corresponding to the top notch **224** of the first rack **22**.

[**0017**] A motor case **24** is fastened to the top bearing wall **233** of the second rack **23** to hold a reversible motor (not shown) on the inside. The motor case **24** comprises two coupling elements **241** bilaterally located on the back wall thereof and respectively coupled to the top bearing wall **233** of the second rack **23** and stopped at the connection area between the top bearing wall **233** and the middle connecting wall **231** to secure the motor case **24** to the second rack **23**, and an axle hole **242** in the back wall between the coupling elements **241** corresponding to the output shaft **245** (not shown) of the reversible motor inside the motor case **24** and the top notch **236** of the second rack **23**.

[**0018**] A lighting fixture **25** is provided at the motor case **24**. As illustrated in **FIG. 2**, the lighting fixture **25** comprises a lampshade **251** formed integral with the top wall of the motor case **24**. At least one switch **26** is installed in the motor case **24** for controlling the operation of the lighting fixture **25** and/or the motor inside the motor case **24**. When roasting meat or the like in the cooking chamber **211** in the dark, the user can switch on the switch **26** to turn on the lighting fixture **25**. Under sufficient illumination, the user can see the cooking status of the roasting meat. Further, a power cord **243** extends out of the motor case **24** for connection to external power source to obtain the necessary working voltage to the motor inside the motor case **24** and the lighting fixture **25**.

[**0019**] The rotisserie further comprises a rod member **30** supported in the top notch **224** of the first rack **22** and the top notch **236** of the second notch **23** and inserted into the axle hole **242** and axially coupled to the output shaft of the motor inside the motor case **24**. Two forks **31** are horizontally mounted on the rod member **30** to face each other for holding the food **40** to be roasted. The forks **31** can be moved axially along the rod member **30** relative to each other subject to the size of the food **40** to be roasted. However, the forks **31** are prohibited from rotary motion relative to the rod member **30** (prohibiting the forks **31** from rotary motion relative to the rod member **30** can easily be achieved by conventional techniques, for example, the use of holding down screws).

[**0020**] As indicated above, when roasting food **40** in the housing **21** in the dark, the lighting fixture **25** can be turned on to illuminate the cooking area so that the user can conveniently visually check the cooking status of the food **40**.

[**0021**] Referring to **FIGS. 3 and 4**, except the aforesaid coupling elements **241**, axle hole **242**, power cord **243** and output shaft **245** on the motor case **24**, the aforesaid lighting fixture **25** may be variously embodied. **FIG. 3** shows an alternate form of the lighting fixture **25**. According to this embodiment, the lighting fixture **25** comprises a bellows support tube **252** (formed of a flexible insulating tube and a metal coil around the insulating tube) upwardly extended from the top side of the motor case **24**, and a lampshade **253** at the end of the bellows support tube **252**. Further, the switch **26** is installed in the lampshade **253**.

[**0022**] **FIG. 4** shows another alternate form of the present invention. According to this embodiment, the lampshade **253** of the lighting fixture **25** is pivoted to the top pivot end **255** of a folding support **256**, which is pivoted to the top side of the motor case **24**. The folding support **256** has joints **257** through which the user can bend the folding support **256** to adjust the elevation and angle of the lighting fixture **25**. Further, the motor case **24** has a recessed receiving portion **258** in the top side for the resting of the lighting fixture **25** when the folding support **256** collapsed.

[**0023**] Referring to FIGS. **2~4** again, a power jack **27** is provided at one side of the motor case **24** for power output. The user can cannot a portable electric apparatus to the power jack **27** to obtain the necessary electricity.

[**0024**] A prototype of rotisserie with lighting fixture has been constructed with the features of FIGS. **2~4**. The rotisserie with lighting fixture functions smoothly to provide all of the features discussed earlier.

[**0025**] Although particular embodiments of the invention have been described in detail for purposes of illustration, various modifications and enhancements may be made without departing from the spirit and scope of the invention. Accordingly, the invention is not to be limited except as by the appended claims.

1. A rotisserie comprising a housing defining a cooking chamber, a rod member adapted to hold food in said cooking chamber for roasting, and a rotary motor drive provided at one side of said housing and adapted to rotate said rod member in said cooking chamber, wherein said rotary motor drive comprises:

a motor case holding a motor, said motor case having an axle hole into which said rod member is inserted and coupled to said motor;

coupling means adapted to secure said motor case to one side of said housing;

a lighting fixture mounted on said motor case and adapted to illuminate said cooking chamber; and

wherein said lighting fixture comprises a bellows support tube, said bellows support tube having a bottom end fixedly fastened to said motor case and a top end, and a lampshade fastened to the top end of said bellows support tube.

2. The rotisserie as claimed in claim 1, wherein said motor case comprises a power cord adapted to obtain external power supply for said motor and said lighting fixture.

3-4. (canceled)

5. The rotisserie as claimed in claim 1, wherein said motor case has a power jack electrically connected to said power cord for power output.

6. The rotisserie as claimed in claim 5, wherein said motor case comprises switch means adapted to control the operation of said motor and said lighting fixture, said light fixture comprises a lampshade.

7. The rotisserie as claimed in claim 1, wherein said housing comprises a first rack disposed at a first side thereof and a second rack disposed at a second side thereof opposite to said first rack and adapted to support with said first rack said rod member; said coupling means couples said motor case to the second rack of said housing.

8. A rotisserie comprising a housing defining a cooking chamber, a rod member adapted to hold food in said cooking chamber for roasting, and a rotary motor drive provided at one side of said housing and adapted to rotate said rod member in said cooking chamber, wherein said rotary motor drive comprises:

a motor case holding a motor, said motor case having an axle hole into which said rod member is inserted and coupled to said motor;

coupling means adapted to secure said motor case to one side of said housing;

a lighting fixture mounted on said motor case and adapted to illuminate said cooking chamber; and

a lighting fixture comprises a folding support, said folding support having a bottom end pivoted to said motor case, a top end, and a plurality of joints between said top end and said bottom end, a lampshade pivoted to the top end of said folding support, and an on/off switch mounted in said lampshade; said motor case has a recessed receiving portion in a top side thereof adapted to accommodate said lampshade when said folding support collapsed.

9. The rotisserie as claimed in claim 8, wherein said motor case comprises a power cord adapted to obtain external power supply for said motor and said lighting fixture.

10. The rotisserie as claimed in claim 8, wherein said motor case has a power jack electrically connected to said power cord for power output.

11. The rotisserie as claimed in claim 8, wherein said housing comprises a first rack disposed at a first side thereof and a second rack disposed at a second side thereof opposite to said first rack and adapted to support with said first rack said rod member; said coupling means couples said motor case to the second rack of said housing.

12. The rotisserie as claimed in claim 8, wherein said motor case comprises switch means adapted to control the operation of said motor and said lighting fixture, said light fixture comprises a lampshade.

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