March 25, 1952 J. M. SKOCIC 2,590,470

BARBECUING MACHINE

Filed Oct. 13, 1949 2 SHEETS—SHEET 1

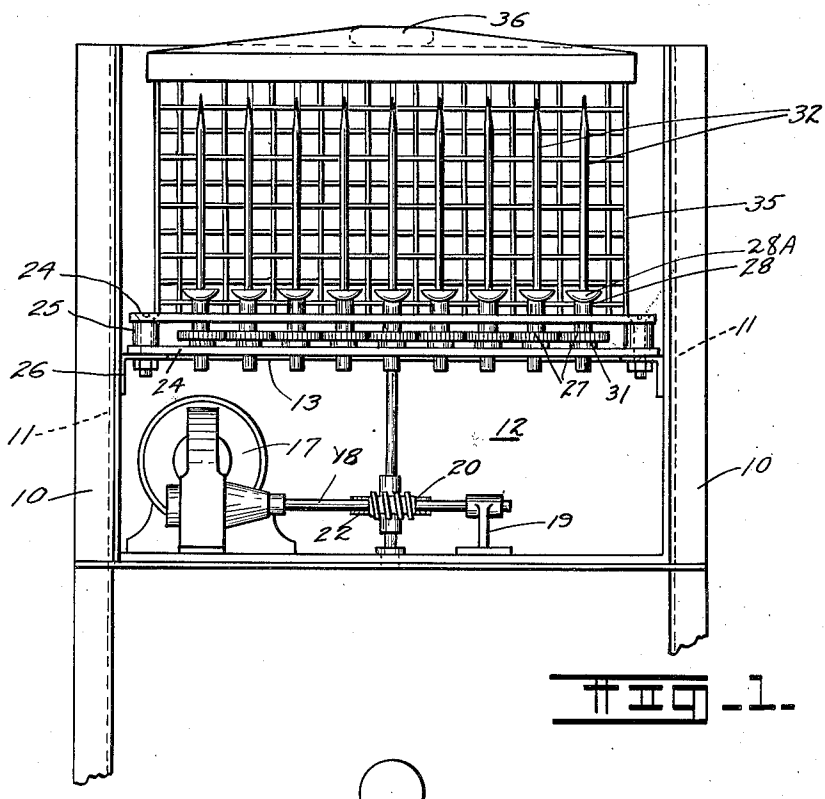


FIG. 1.

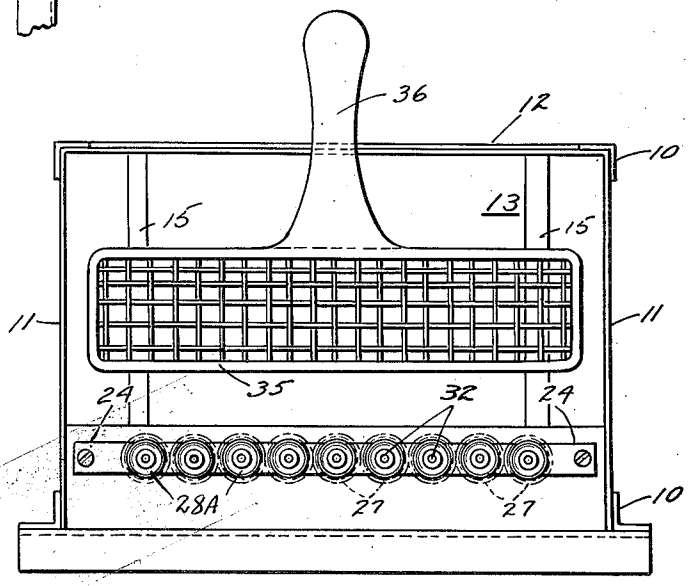


FIG. 2.

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FIG. 4.

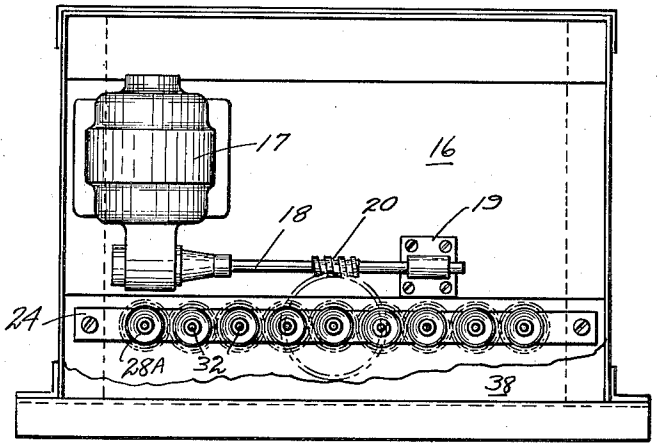


FIG. 3.

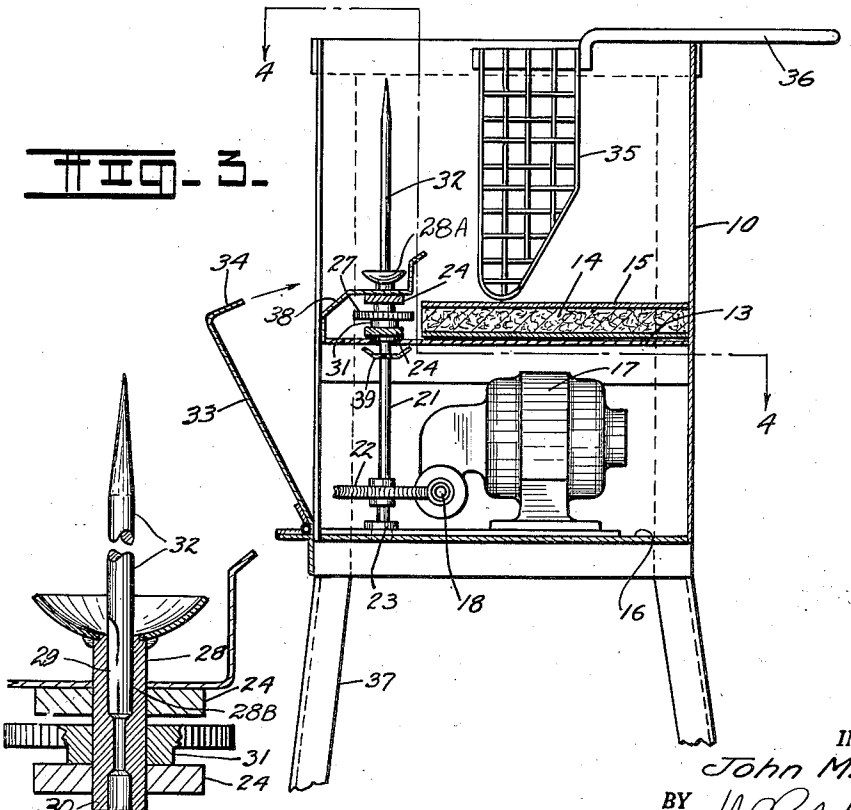


FIG. 5.

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UNITED STATES PATENT OFFICE

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BARBECUING MACHINE

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2 Claims. (Cl. 99—421)

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This invention relates to a barbecuing machine and more particularly to a barbecuing machine in which lubrication of the mechanical parts of the machine is provided by the article or articles being barbecued.

The principal object of the invention is the provision of a barbecuing machine on which various articles may be quickly and desirably barbecued.

A further object of the invention is the provision of a barbecuing machine including a number of removable skewers upon which the articles to be barbecued are impaled.

A still further object of the invention is the provision of a barbecuing machine incorporating a novel means of presenting the articles to be barbecued to the heat source.

The barbecuing machine disclosed herein comprises a simple and efficient mechanism for the rapid barbecuing of such articles as wieners, other meats or food products and comprises a novel arrangement of mechanical means for rotating the food carrying parts of the machine with respect to a heat source which is positioned in the machine for movement toward and away from the food carrying parts thereof. The device is compact and formed of simple construction and is lubricated and self-cleaning in operation and is particularly suited for barbecuing large quantities of meats or food products in a relatively short time.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a front elevation of the machine with the mechanism cover removed.

Figure 2 is a top plan view of the device shown in Figure 1.

Figure 3 is a side view of the device shown in Figures 1 and 2.

Figure 4 is a horizontal section taken on line 4—4 of Figure 3.

Figure 5 is a detail of one of the removable skewers and the mounting means therefor.

By referring to the drawings and Figures 1, 2 and 3 in particular it will be seen that a barbecuing machine has been disclosed which comprises a rectangular box-like frame 10 having side and back walls 11—11 and 12, respectively, and divided into two superimposed compartments by a horizontal partition 13 which is secured at its corners to the rectangular frame 10 and provides support for an insulating member 14 having a pair of skids 15 on the uppermost surface thereof. The surface of the skids is elevated with respect to the insulating member 14. The rectangular frame 10 also has a bottom section 16 therein

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which supports a combination motor and gear reduction unit 17 in operative relation to a transverse shaft 18 which is journaled at its outermost end in a bearing 19 and provided intermediate its ends with a worm gear 20.

Located midway between the sides 11—11 and near the front of the lower one of the two superimposed compartments formed in the machine, as heretofore described, there is a vertical drive shaft 21 which carries a worm wheel 22 thereon in engagement with the worm gear 20 heretofore referred to. The lower end of the vertically positioned drive shaft 21 is journaled in a bearing 23 and the upper end extends through the horizontal partition 13 by way of a suitable opening therein. A pair of housing bars 24—24 are positioned transversely of the machine and immediately above the horizontal partition 13 heretofore referred to and secured at their outermost ends in superimposed spaced relation to one another by a spacing boss 25 and the bars 24—24 are mounted on brackets 26 carried on the rectangular frame 10. The housing bars 24—24 are provided with a plurality of longitudinally spaced openings and a plurality of gears 27 are positioned in longitudinal arrangement between the housing bars 24—24. Each of the gears 27 has a vertically extending boss thereon engaging the aligned openings in the housing bars 24—24.

A detail of one of the gears 27 may be seen by referring to Figure 5 of the drawings and it will be observed that the upwardly extending boss 28 thereon has a squared socket 29 therein while the downwardly extending boss 30 has a shoulder 31 formed thereon to form a suitable bearing surface on the upper surface of the lower one of the housing bars 24—24. The upwardly extending boss 28 on each of the gears 27 extends upwardly through the uppermost one of the housing bars 24—24. Cups 28A are formed one on each of the upwardly extending bosses 28 and vertically formed channels 28B in each of the bosses 28 and communicate with the cups and are provided to convey fat downwardly through the bosses to a drip pan 39 located beneath the partition 13. A plurality of skewers 32 having squared lower ends longitudinally extending portions of which are cut away to form passageways are positioned one in each of the squared sockets 29 in the upwardly extending bushing 28 of each of the gears 27.

By referring to Figure 4 of the drawings it will be observed that the gears 27 are all in engagement with one another and the centermost one of the plurality of gears 27 is positioned on the uppermost end of the vertical drive shaft 21 heretofore referred to. Thus, rotating motion imparted to the vertical drive shaft 21 by the motor and gear reduction unit 17 through the worm gear 20 and worm wheel 22, as heretofore described, will rotate each and every one of the gears 27. It will be observed that the rotation of each gear is in a direction opposite to that of its adjacent gear.

By referring to Figure 3 of the drawings it

will be seen that the lower squared end of each of the skewers 32 lies on a plane immediately above the plane of the skids 15 and in the uppermost one of the superimposed compartments of the barbecuing machine. It will also be seen that the plurality of skewers 32 are thus transversely positioned with respect to the barbecuing machine and near the front section thereof which is open with respect to the uppermost one of the superimposed compartments.

A hinged closure 33 is provided for closing the front of the lower one of the superimposed compartments in the barbecuing machine. The hinged closure 33 is provided with an inturned flange 34 which moves into engagement with a guard 38 positioned transversely of the machine and over the gears 27 to form a closure with respect to the lower compartment as it overlies the horizontal partition 13 heretofore referred to.

A charcoal basket 35 is provided as a heat source for the barbecuing machine and comprises a relatively tall enclosure of a width less than the width of the machine and has a rather shallow depth. The lower portion of the back of the basket 35 is inclined toward the front thereof so that charcoal positioned in the basket will form a vertically disposed heat source, the principal radiating surface of which will be adjacent the plurality of vertically standing skewers 32 as heretofore described. The basket 35 rests on the skids 15 and stands in vertical position freely in the approximate center of the uppermost one of the two compartments of the barbecuing machine by reason of a rearwardly extending handle 36 formed on the uppermost edge of the basket. The handle 36 rests on the upper edge of the back wall 12 of the device. Thus the basket may be readily moved forwardly toward the skewers 32 or backwardly away therefrom by simple manual movement imparted to the handle 36. The rapidity of barbecuing meats or other articles positioned on the skewers 32 is thus under the control of the operator.

The entire machine is preferably supported on suitably spaced legs 37 which may be integrally formed with the rectangular frame 10, if desired, so that it provides a convenient machine for the indicated purpose.

It will be seen that meat or other food products may be positioned on the skewers 32 in advance of the actual barbecuing action. The several skewers 32 positioned in the sockets 29 formed in the bushings 28 on the gears 27 and the motor and gear reduction unit 17 are energized to cause the same to revolve. Meat barbecued on the skewers 32 in the machine may be easily removed therefrom or may be served while on the skewers. Additional meat or other food products may be continuously presented to the barbecuing heat of the machine due to the flexibility of the device occurring from the provision of the plurality of skewers and their removable positioning with respect to their supporting and rotating means.

The vertical standing position of the skewers 32 in the machine will be seen to provide for the automatic draining away of the fat from the meat or other meat products being barbecued as the same will run down the skewers 32 and be received in the cups 28A and thence drained through the channels 28B despite the presence of the heat source adjacent thereto. The machine is very easily cleaned as the skewers are removed therefrom for separate cleaning and the bushings and cups themselves may be easily removed for individual cleaning, if desired, by loosening the means normally spacing the housing bars 24—24 which will permit the several gears to be removed from the machine.

The device as disclosed thus meets the several objects of the invention.

Having thus described my invention, what I claim is:

1. In a barbecuing machine having a frame, a pair of apertured housing bars positioned horizontally in said frame and in vertically spaced relation to one another, the apertures in one bar being in vertical alignment with the apertures of the other bar, a plurality of horizontally disposed, longitudinally aligned, intermeshed gears positioned between said housing bars, upwardly and downwardly extending bosses on said gears, said bosses registering in said vertically aligned apertures in said housing bars, the upwardly extending bosses terminating above the uppermost one of the said pair of housing bars, cups integrally formed on the uppermost portions of said upwardly extending bosses, vertical passageways through said bosses and solid longitudinally grooved skewers removably positioned in said passageways and extending vertically thereabove, and means in said frame for rotating at least one of said gears.

2. In a barbecuing machine having a frame, a pair of housing bars removably positioned horizontally in said frame and in vertically spaced relation to one another, each of said housing bars having longitudinally spaced openings therethrough, a plurality of horizontally disposed, longitudinally aligned, intermeshed gears removably positioned between said housing bars, upwardly and downwardly extending bosses on said gears, said bosses registering in said openings in said housing bars, the upwardly extending bosses terminating above the uppermost one of said pair of housing bars, cups integrally formed on the uppermost portions of said upwardly extending bosses, vertical passageways through said bosses and gears and solid skewers each having a longitudinally extending groove near its lower end removably positioned one in the upper end of each of said passageways and extending vertically thereabove, said longitudinally extending groove in the lower end of said skewers forming secondary passageways communicating with said passageways.

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