IGNITING DEVICE FOR CHARCOAL GRILLS

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1 Claim. (Cl. 219-32)

This invention relates to charcoal grills and relates more particularly to a novel electrical igniting device for the charcoal and which is built into the fire box structure and remains there during the cooking operation.

The problem of igniting charcoal and bringing it to a broiling temperature is one which has been attempted to be solved by the use of volatile liquid fuels. It has been found, however, that such fire starters are dangerous and have produced many tragic accidents. Also, the electric heating elements which have been placed over or under the charcoal during the igniting period have not been too satisfactory since they require generally about as much time to ignite the charcoal as wood kindling and paper require and if they are inadvertently left in the fire chamber they are burned out and rendered useless.

An important object of the present invention is to provide a novel fire igniter which is permanently installed in the fire box and is so constructed and arranged as to bring the coal up to the broiling temperature in the shortest possible time. In most cases this takes considerably less than ten minutes and when the coals are suitably ignited it is preferred to switch off the electricity which is being fed to the heating element, but even if this is not done this heating element is not damaged by the burning of the coal.

The object is achieved by mounting the heating element, preferably in circular form, in spaced relation to the bed of the fire box. The space between the bed and the element should be about ¼ inch and preferably about ½ inch. The reason for this close spacing is to keep the heating element out of the intense heat zone in which the coal has been found to be not less than ¼ inch above the bed and it continues from there on up a distance depending upon the thickness of the layer of coals. If the diameter of the heating element is .333 inch, a spacing of .200 inch is preferred.

The reason for the spacing is of the greatest importance. If the heating element were to lay in surface contact with the bed, the particles of ashes would tend to form an "insulation" around the lower periphery of the sheathing since they tend to cake and harden and are removed only with difficulty. Thus, if the power to the element is left on during the cooking operation, the heat from the coals and from the heating element would, under ordinary circumstances, bring the temperature of the latter up to about 2600°F, which is a safe temperature without destroying the heating coils. The presence of caked ashes would bring this temperature up to about 3200°F, which would soon burn out the heating element.

Accordingly, novel mounting brackets are employed for maintaining the circular heating element in spaced relation to the bed at about ¼ inch therefrom which prevents the caking of ashes, facilitates the clearing of the ashes, and still does not move the element into the zone of intense heat.

FIG. 1 is a plan view of a brazier type of charcoal broiler embodying the present invention.

FIG. 2 is a broken section taken on line 2—2 of FIG. 1.

FIG. 3 is a broken section taken on line 3—3 of FIG. 1.

The invention is illustrated as applied to a bowl type of grill or brazier, although it may be incorporated equally well into a box type grill with a fire box having a flat bed. The brazier 10 is a round bowl whose lower wall 11 is a spherical surface and in the center it has a fixed sleeve 12 which receives a post which supports a grid on which steaks and other articles may be placed. It is supported on legs, usually of the folding variety although the legs, the post, and the grid are omitted from the drawing.

The fire starting member is a circular heating element comprising an outer sheathing 13 and a heating coil enclosed thereby. The heating element is formed with terminal sections which are spaced apart about one inch and are in the parallel relation. As noted in FIG. 2 these terminal sections 14 are offset downwardly as shown at 15 and have male connectors 16 at their ends which are received in a female plug 17 to which a wire 20 leading to a source of electrical energy is connected.

The bowl has two spaced openings 21 through which these parallel terminal sections 14 pass. The circular heating element is supported in spaced relation to the upper face of the bowl by means of a plurality of brackets 23 which may be stamped out from sheet metal which are shown in detail in FIG. 3. Each bracket has two parallel slots 24 cut longitudinally from one end thereof. No metal need be removed. This provides a generally G-shaped central finger 25 which is raised upwardly and two spaced base fingers 26 which are slightly elevated and the element 13 is received between the raised finger and the base fingers. The bracket is secured to the fire box by means of rivets 27 and three of the brackets generally suffice.

While there have been described herein what are at present considered preferred embodiments of the invention, it will be obvious to those skilled in the art that many modifications and changes may be made therein without departing from the essence of the invention. It is therefore to be understood that the exemplary embodiments are illustrative and not restrictive of the invention, the scope of which is defined in the appended claim, and that all modifications that come within the meaning and range of equivalency of the claim are intended to be included therein.

What I claim is:

1. In a charcoal grill having a fire box provided with a bed, the combination of an electrical heating element for igniting the charcoal mounted within the fire box in spaced relation to the upper face of the bed, the heating element being provided with two generally parallel terminal sections which are displaced downwardly from the general plane of the element and which are provided with electrical connectors, the bed having openings through which said terminals and connectors pass to receive a female connector, and spaced brackets on said upper face for supporting the element, the spacing between the element and the bed being sufficient to allow charcoal residue to pass freely therebetween without caking and the upper surface of the element being not more than ¾ inch above the bed so as to avoid subjecting said element to the zone of intense heat from the burning charcoal.

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