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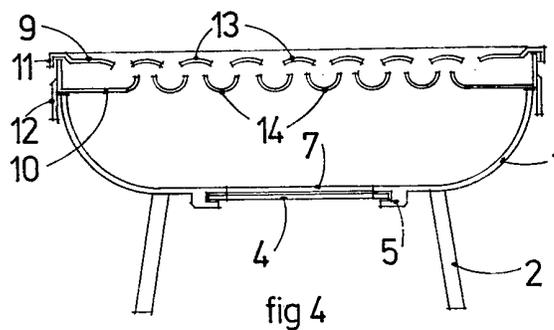
(56) Documents cited
GB 1319920 GB 0459764 EPA2 0099551
WO 8000654

(58) Field of search
A4D

(54) Barbecue grilling apparatus

(57) This invention provides a grill bar, for grilling apparatus, in the form of two open frames (9,10) intended to overlie each other, each frame having a set of spaced, parallel bar members (13, 14) extending thereacross. The bar members of the sets are shaped and spaced with respect to each other such that, in one normal cooking position, the bars of the upper frame (13) are in a staggered, overlapping relationship with the bar members of the lower frame (14), the lower bar members providing channels, and the arrangement being such that direct heat from the heat source is prevented from contacting food on the grill by the overlapping relationship of the two frames, whilst juices and other liquids from cooking drip into the channels of the lower bar members.

The two frames may be moved relatively to each other to adjust the respective bar members between said staggered overlapping relationship, and a coincident, totally overlapping relationship, to permit direct heat of the food when required, e.g. for searing.



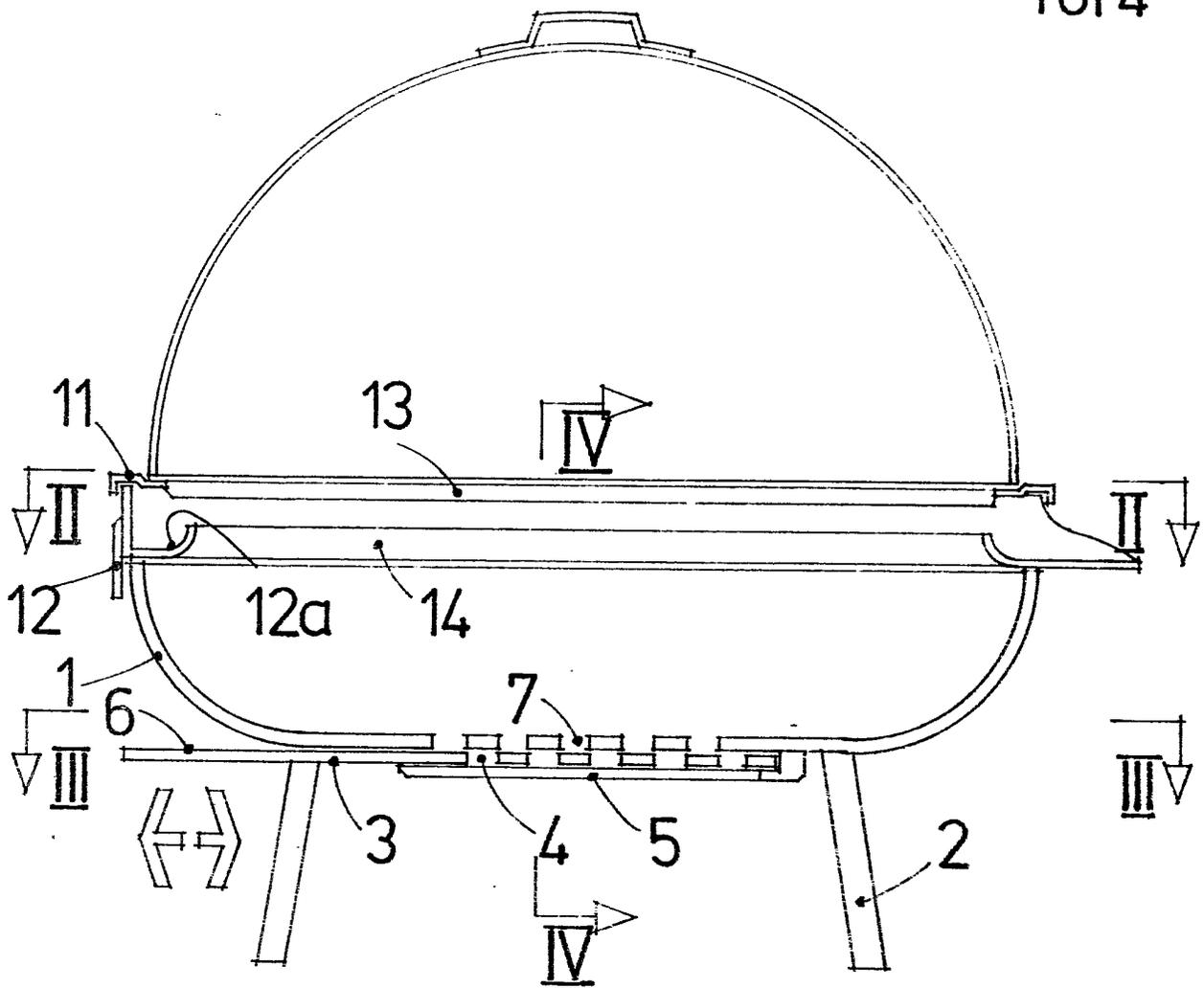


fig 1

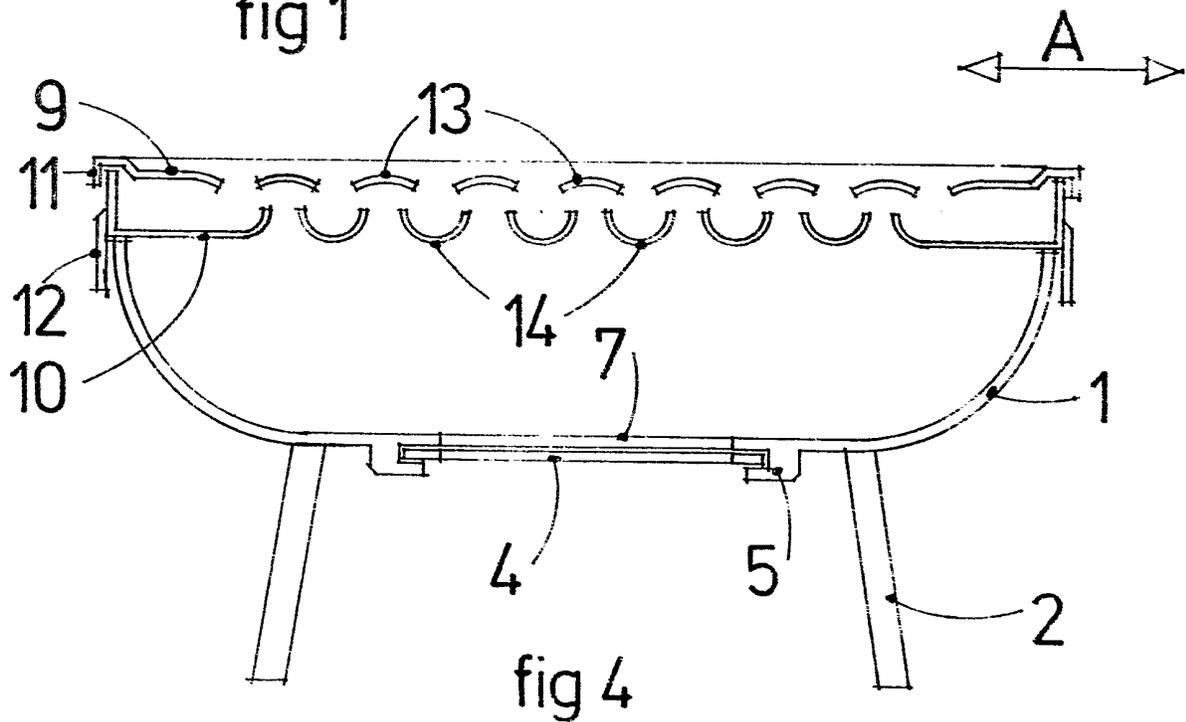


fig 4

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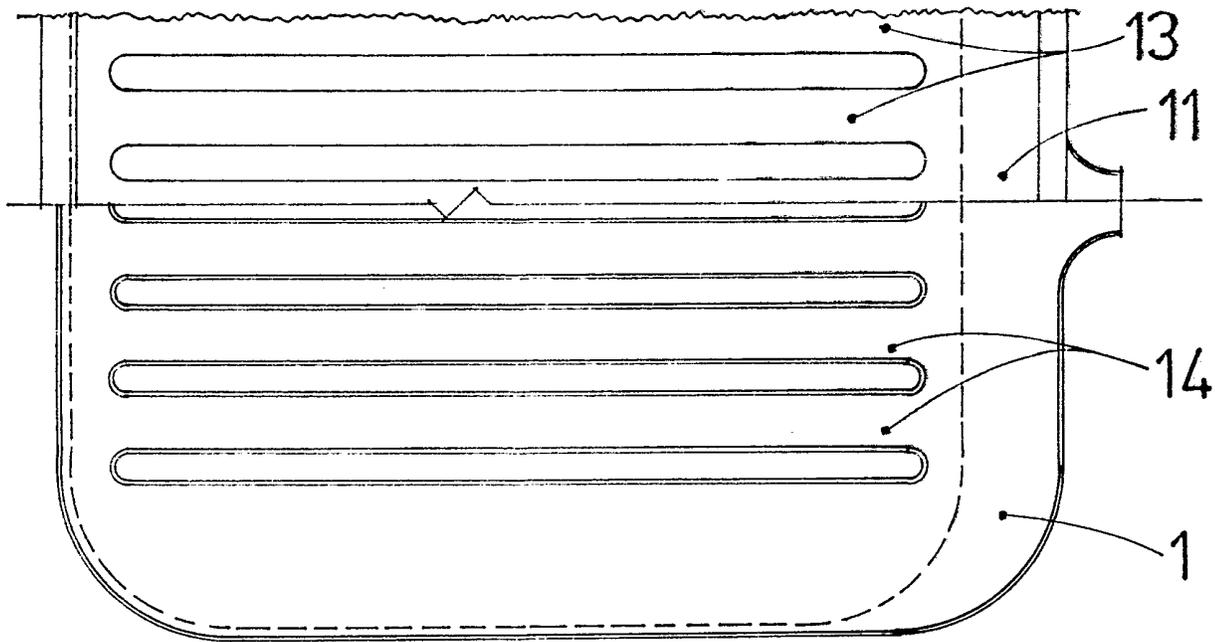


fig 2

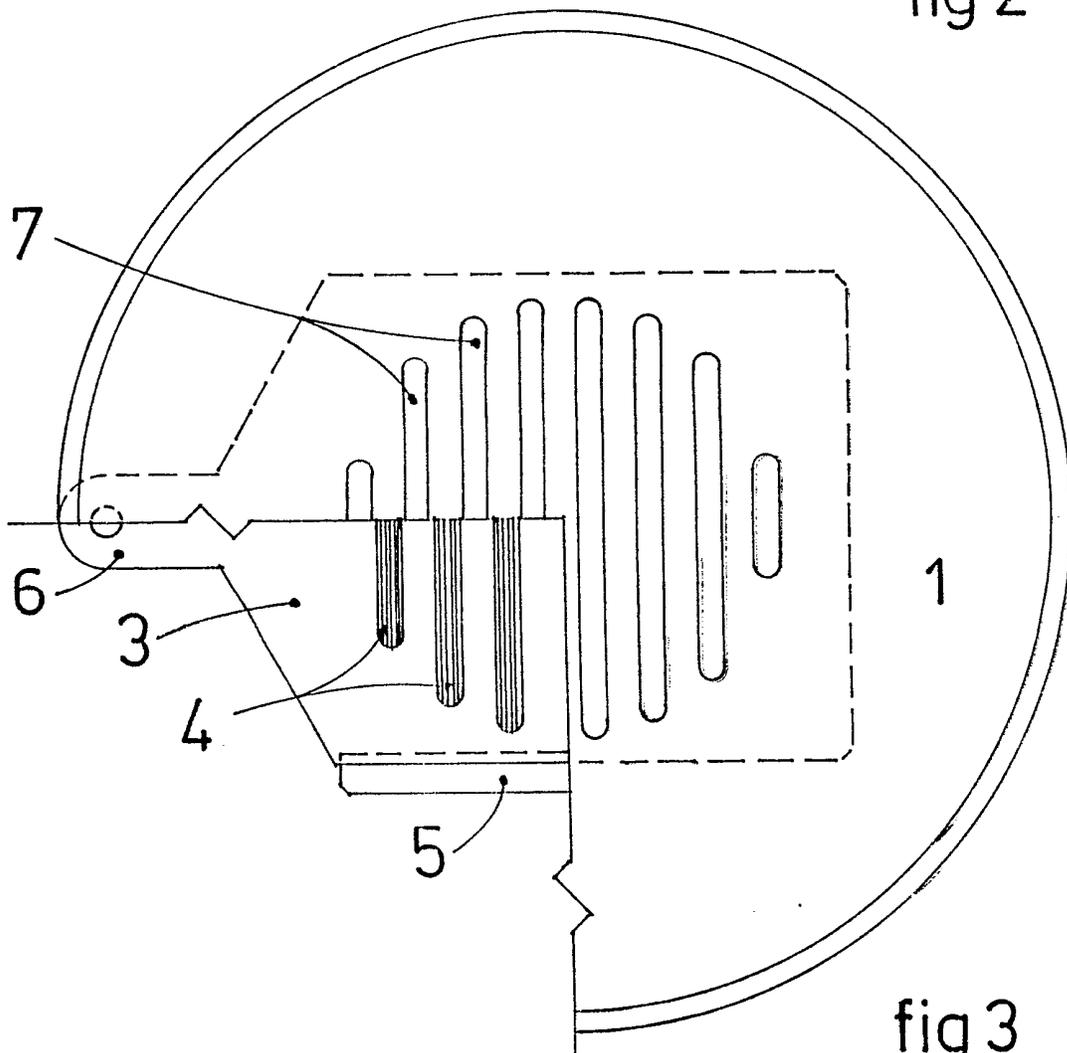


fig 3

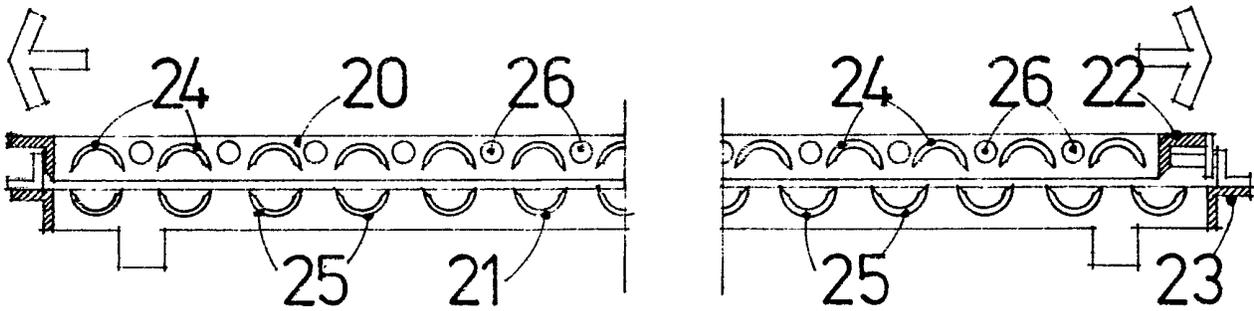


fig 5

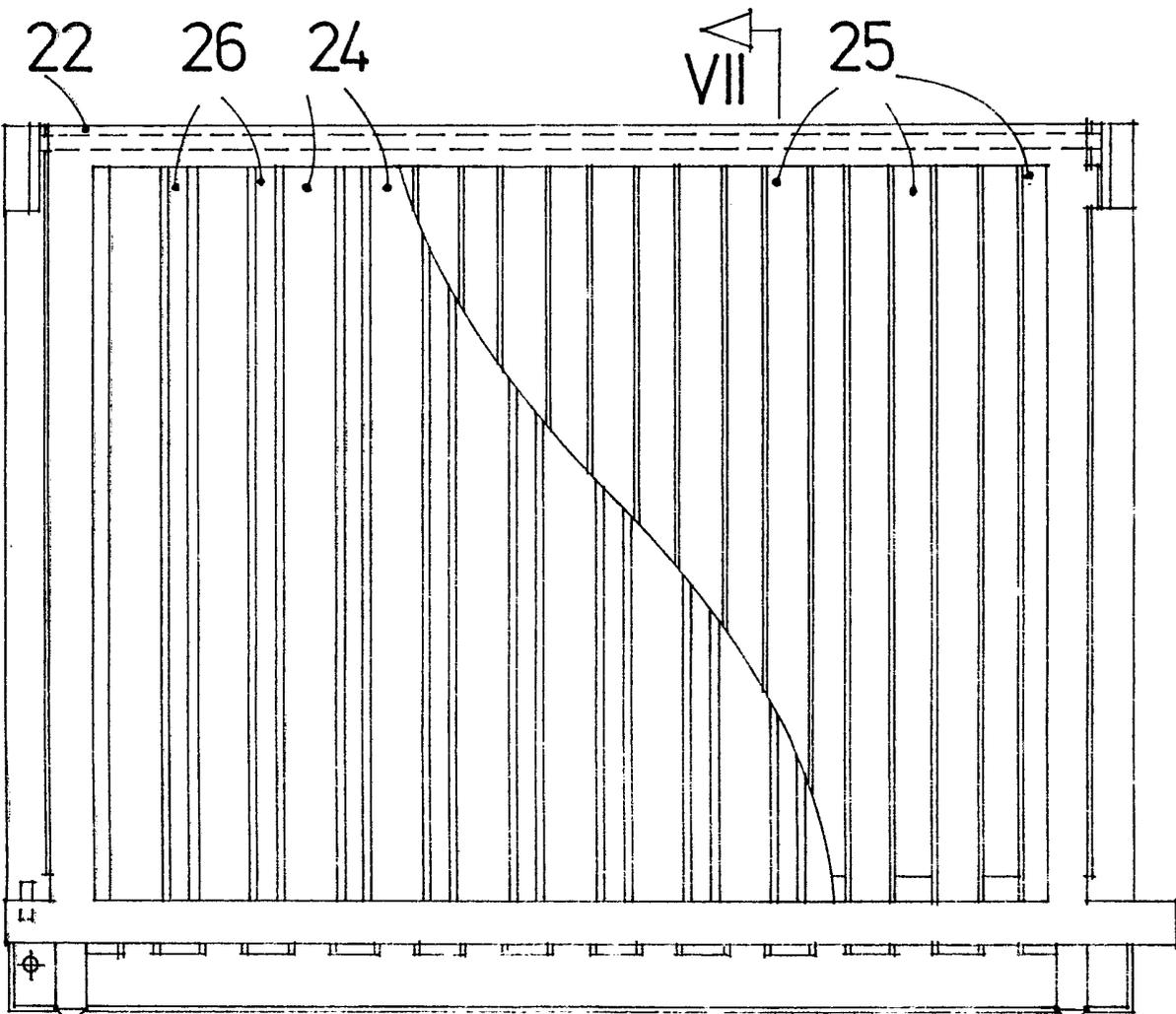


fig 6



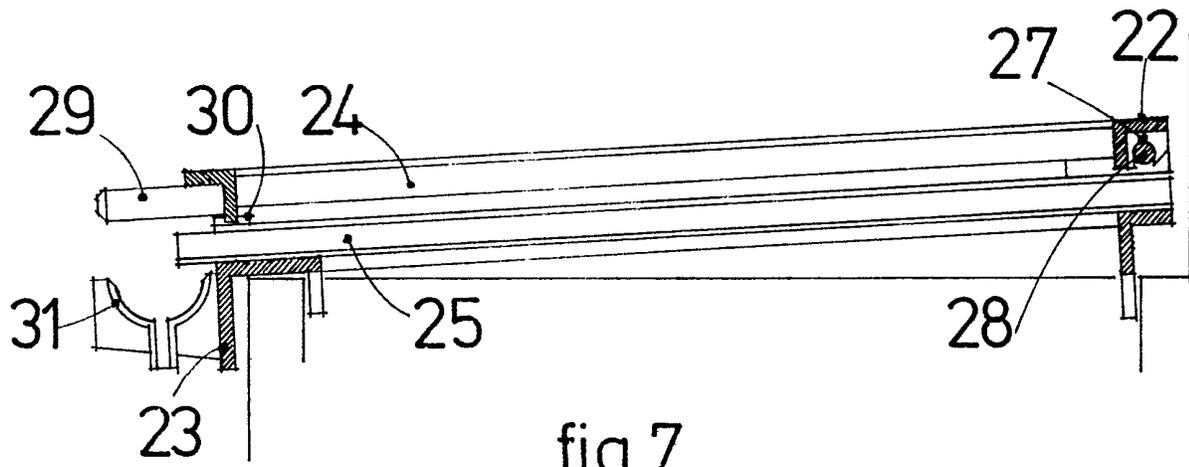


fig 7

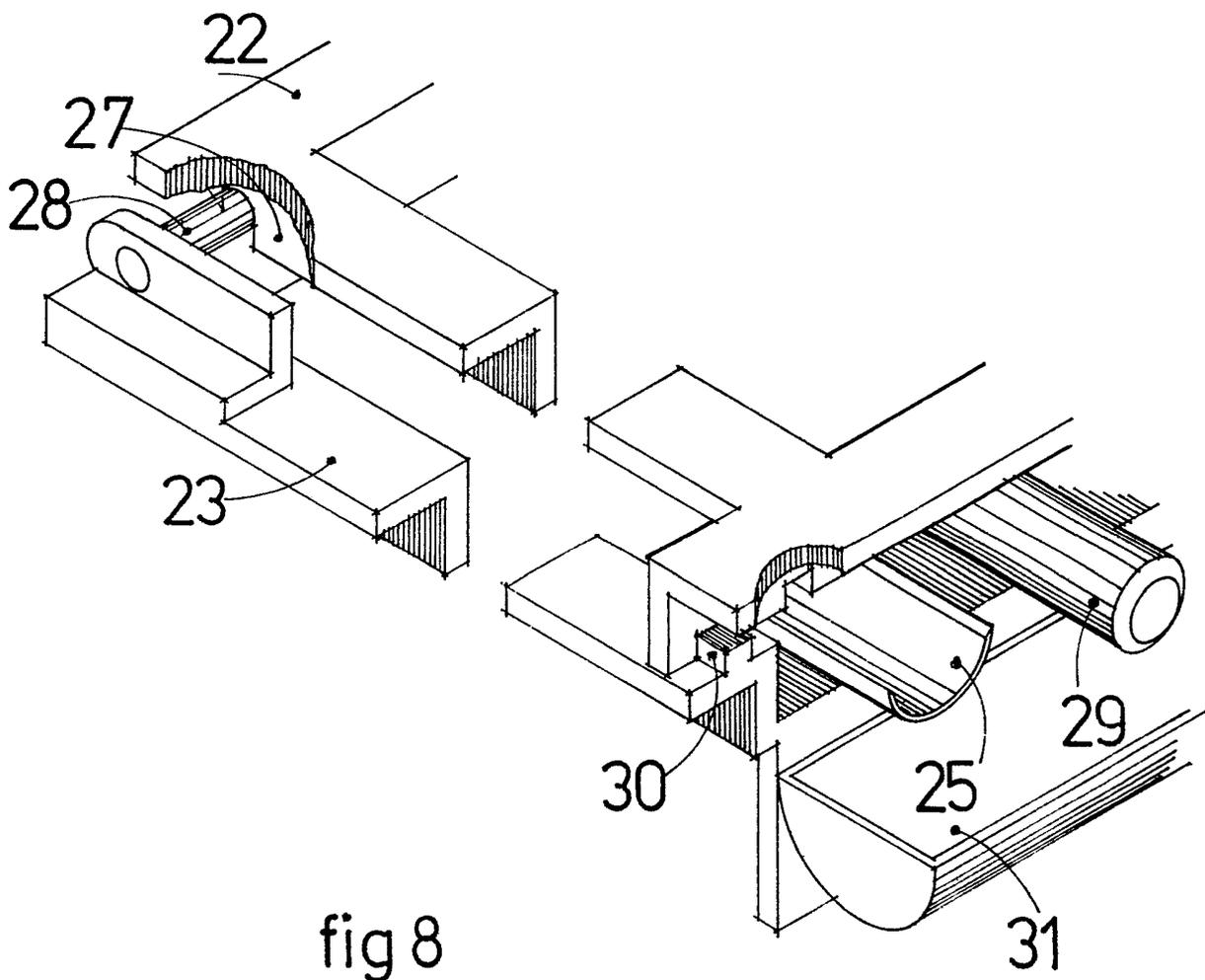


fig 8

SPECIFICATION

Barbecue grilling apparatus

5 This invention relates to food grilling apparatus for barbecues and the like and is particularly concerned with grill bars and such apparatus.

In conventional grilling apparatus the grill bar is normally in the form of an open frame across which a number of spaced, parallel rods or bar members extend for supporting the food to be cooked. With such a grill bar the food is open, between the rods or bar members, to be directly contacted by heat from the heat source under the grill bar and hence unintentional burning can occur and, more importantly, cooking juices, cooking oils and fats etc. drip directly onto the heat source, e.g. charcoal, and can cause dousing and/or flaring-up of the heat source.

An object of this invention is to provide a grill bar for grilling apparatus which will prevent cooking juices, oils, fats etc. from falling onto the heat source, and instead will collect these liquids.

According to this invention a grill bar for grilling apparatus is in two parts in the form of two open frames adapted to overlie each other, each frame having a set of spaced, parallel bar members extending thereacross, the bar member sets being shaped and spaced with respect to each other such that, in one normal cooking position, the bars of the upper frame are in a staggered, overlapping relationship with the bar members of the lower frame, and the lower bar members are channel shaped, the arrangement being such that direct heat from the heat source is prevented from contacting food on the grill bar by the overlapping relationship of the two frames, whilst juices and other liquids from cooking drip into the channels provided by said lower bar members.

Conveniently, the bar members of the upper frame are arcuate and provide concave support surfaces for the food, whilst acting to encourage cooking liquids to drain into the channels of the lower bar members.

Advantageously, the two frames can be mounted to be moved relatively to each other to adjust the respective bar members between said staggered overlapping relationship, and a coincident, totally overlapping relationship, to permit direct heating of the food when required, e.g. for searing.

Other convenient and advantageous features will be appreciated from the following description of two exemplary embodiments taken in conjunction with the accompanying drawings, in which:—

Figure 1 is a cross-section through the first embodiment, which is suitable for domestic barbecues,

Figure 2 is a sectional part plan on the line II-II of Figure 1,

Figure 3 is a section part plan on the line III-III of Figure 1, and

Figure 4 is a section of the line IV-IV of Figure 1.

Figure 5 is a section of the grill bar of the second embodiment, which is suitable for commercial barbe-

cues,

Figure 6 is a part plan view of the grill bar,

Figure 7 is a full section on the line VII-VII of Figure 6, and

Figure 8 is a perspective fragmentary view of the grill bar of Figures 5 to 7.

Referring to Figures 1 to 4 a barbecue apparatus, which is particularly suitable for domestic use, comprises a dish-shaped grill body 1 for charcoal supported clear of the ground on legs 2 and having a movable shutter 3 with slots 4 which can be adjusted along rails 5 via a handle 6 to control the flow of air through slots 7 in the base of the body 1, the body having a hood 8 with adjustable air vents 9.

Referring particularly to Figures 2 and 4, in accordance with the invention, the grill bar comprises a pair of grill frames 9 and 10, each comprising a peripheral locating ring 11, 12 each ring supporting a set of spaced parallel bar members 13 and 14 respectively across the mouth of the body 1. In this embodiment, spacing of each set of bar members is such that the bars of each set are in a staggered-overlapping relationship as shown clearly in Figure 4. Also, as shown in this Figure, the bar members 13 of the upper grill frame 9 are arcuate and arranged to provide convex bearing surfaces for food placed thereon, whilst the members 14 of lower grill frame 10 are deeply curved. It will be appreciated that, in use, heat radiating upwardly from a heat source in the grill body 1 cannot be in direct contact with food on the bar members 14. Also due to this arrangement, juices from the food, or liquids poured onto the food during cooking cannot drop into the heat source, and thereby douse the heat, but instead is drained by the arcuate bar members 13 to drip into and be collected by the bar members 14: Also, fats coming out of the food cannot fall onto the heat source to cause "flare-ups".

It will be appreciated that the above arrangement could be modified to permit limited relative movement between the two grill frames in the direction of the double arrow A (see Figure 4) so that if required, the user can adjust the bars to allow passage for some degree of direct heat (e.g. for searing) to the food. The bar members 14 of the lower frame can be slightly bent along their length to enable fats, oils, juices etc. collected by them to drain into a collecting gutter 12a defined around the locating ring 12.

Referring now to Figures 5 to 8, for a more robust, commercial barbecue apparatus, the two grill parts 20, 21 comprise upper and lower frames 22, 23 of channel section (see Figure 5) across which respective sets of bar members 24, 25 extend. In this embodiment, both sets of bar members are deeply curved (see Figure 5) and can be moved relatively to each other between a coincident, overlapping position (as shown to the left of Figure 5), to permit direct heat onto the food, and a normal, staggered-overlapping relationship (to the right of Figure 5) so that direct heat cannot reach the food. Also, in this embodiment, additional food support rods 26 are provided between adjacent bar

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The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patent Rules 1982.

members 24 of the upper grill frame 22. Referring to Figure 6, the grill frames 22 and 23 are shown in their normal, staggered relationship, with the right hand side of the Figure cut-away to show the lower grill part

5 21.

Referring to Figure 7 and 8, it can readily be seen that the rear edge of the upper grill frame 22 is hinged and loosely supported via brackets 27 on a guide shaft 28. Thus, relative movement of the grill frames is

10 effected by the user lifting the front edge of the upper grill frame 22 via handles 29 to release a locating arrangement 30 (Figure 8) and then sliding the upper grill frame bodily sideways along the guide shaft 28. It will also be seen that the grill frames 22, 23 are inclined

15 downwardly from their rear edges and that the bar members 25 of the lower grill frame extend beyond the front edge of said frame. This is to facilitate collecting of juices from the food, or other liquids poured onto the food during cooking, these liquids

20 being collected in a gutter 31 running along the front edge of the lower grill frame 23.

It will be appreciated from the foregoing that the invention provides the following advantages:—

(i) Because the grill bar is in two parts, the lower part of which provides a series of channels which allow fat, oils and juices to be collected and the upper part of which overlaps the lower grill so that the fats, oils and juices cannot drip directly onto the heat source, this arrangement avoids the fats, oils and

30 juices saturating the heat source, and also enables them to be drained into an appropriate container.

(ii) The grill bar parts can be stripped and cleaned while hot or cold.

(iii) The grill bars can be readily adjusted to cook

35 on direct heat source when required.

(iv) The upper grill part can be removed or replaced in an appropriate position, as required, to give a high heat and a larger exposed cooking aperture between the two grill bar parts.

(v) Since this grill bar arrangement does not allow oil to burn onto the heat source the cooking smoke can be reduced by approx. 80%.

(vi) The barbecue apparatus described with reference to Figures 1 to 4 can also be used in conjunction with an ovenette, and can be used as a conventional oven instead of a grill, by means of suitable adjustment to the air slots 7 at the bottom of the grill body, and also to the air vents 9 on the hood 8.

CLAIMS

50 1. A grill bar for grilling apparatus, characterised in that said bar comprising two open frames adapted to overlie each other, each frame having a set of spaced, parallel bar members extending thereacross, in that the bar members of the lower frame member provide

55 channels, and in that the bar members of the upper frame are spaced with respect to the bar members of the lower frame such that the two frames can be set relatively to each other in a position for normal cooking in which the bars of the upper frame are in a

60 staggered, overlapping relationship with the bar members of the lower frame, the arrangement being such that, in use of the grill bar, direct heat from the heat source is prevented from contacting food thereon by the staggered overlapping relationship of the bar

65 members of the two frames, whilst juices and other

liquids from cooking may drip from the upper bar members into the channels provided by said lower bar members.

2. A grill bar according to Claim 1, characterised in that at least upper parts of the bar members of the upper frame are arcuate in cross-section to provide convex support surfaces for the food, which act to encourage cooking liquids to drain into the channels of the lower bar members.

75 3. A grill bar according to Claim 1 or 2, characterised in that the lower bar members are arcuate in cross-section to provide concave surfaces which constitute said channels.

4. A grill bar according to any one of Claims 1 to 3, characterised in that the two frames are mounted to be moved relatively to each other to adjust the respective bar members between said staggered overlapping relationship, and a coincident, totally overlapping relationship, to permit, in use, direct heating of the

85 food when required, e.g. for searing.

5. A grill bar according to any one of the preceding Claims, characterised in that in addition to said bar members, the upper frame is provided with additional support rods for food.

6. A grill bar according to Claim 5, characterised in that the support rods are provided between adjacent bar members.

7. A grill bar according to any one of Claims 1 to 6, characterised in that the upper frame is hinged to the lower frame via brackets spaced along one edge of the upper frame which brackets are provided with a guide surface which locate on a co-operating guide member.

8. A grill bar according to Claim 7 when dependent upon Claim 4, characterised in that the guide members are in the form of a shaft whereby the upper frame can be adjusted between its two positions by sliding said guide surfaces along said shaft.

9. Grilling apparatus having a grill bar according to any one of Claims 1 to 8.

10. Grilling apparatus according to Claim 9 and having a grill bar according to Claim 7 or 8, characterised in that said one edge of the grill bar is positioned at the rear of the apparatus, in that said sets of bar members extend from the rear to the front of their respective frames, and in that a gutter extends across the front of the apparatus positioned so that, in use, juices from the channels of the lower frame bar members are collected in the gutter.

11. A grill bar or grilling apparatus having a grill bar constructed, arranged and adapted for use substantially as hereinbefore described with reference to, and as shown in, the accompanying drawings.

New claims or amendments to claims filed on 14 May 1985.

Superseded claims 1-11.

New or amended claims:—

CLAIMS

1. A grill bar for grilling apparatus, characterised in that said bar comprises two open frames adapted to overlie each other, each frame having a set of spaced, parallel bar members extending thereacross, in that the bar members of the lower frame member provide channels, in that the bar members of the upper frame are spaced with respect to the bar members of the

lower frame such that the two frames can be set relatively to each other in a position for normal cooking in which the bars of the upper frame are in a staggered, overlapping relationship with the bar members of the lower frame, and in that the two frames are mounted to be moved relatively to each other to adjust the respective bar members between said staggered overlapping relationship, and a coincident, totally overlapping relationship, the arrangement being such that, in use of the grill bar, when said bar members are in staggered overlapping relationship direct heat from the heat source is prevented from contacting food thereon whilst juices and other liquids from the cooking may drip from the upper bar members into the channels provided by said lower bar members, whereas when said bar members are in said totally overlapping relationship direct heat can contact said food, e.g. for searing.

2. A grill bar according to Claim 1, characterised in that in addition to said bar members, the upper frame is provided with additional support rods for food.

3. A grill bar according to Claim 2, characterised in that the support rods are provided between adjacent bar members.

4. A grill bar according to any one of Claims 1 to 3, characterised in that the upper frame is hinged to the lower frame via brackets spaced along one edge of the upper frame which brackets are provided with a guide surface which locate on a co-operating guide member.

5. A grill bar according to Claim 4, characterised in that the guide members are in the form of a shaft whereby the upper frame can be adjusted between its two positions by sliding said guide surfaces along said shaft.

6. Grilling apparatus having a grill bar according to any one of Claims 1 to 5.

7. Grilling apparatus according to Claim 6 and having a grill bar according to Claim 4 or 5, characterised in that said one edge of the grill bar is positioned at the rear of the apparatus, in that said sets of bar members extend from the rear to the front of their respective frames, and in that a gutter extends across the front of the apparatus positioned so that, in use, juices from the channels of the lower frame bar members are collected in the gutter.

8. A grill bar or grilling apparatus having a grill bar constructed, arranged and adapted for use substantially as hereinbefore described with reference to, and as shown in, the accompanying drawings.