Dec. 11, 1962 D. D. LUCAS 3,067,734

PORTABLE BARBECUE

Filed March 28, 1960

FIG. 1.

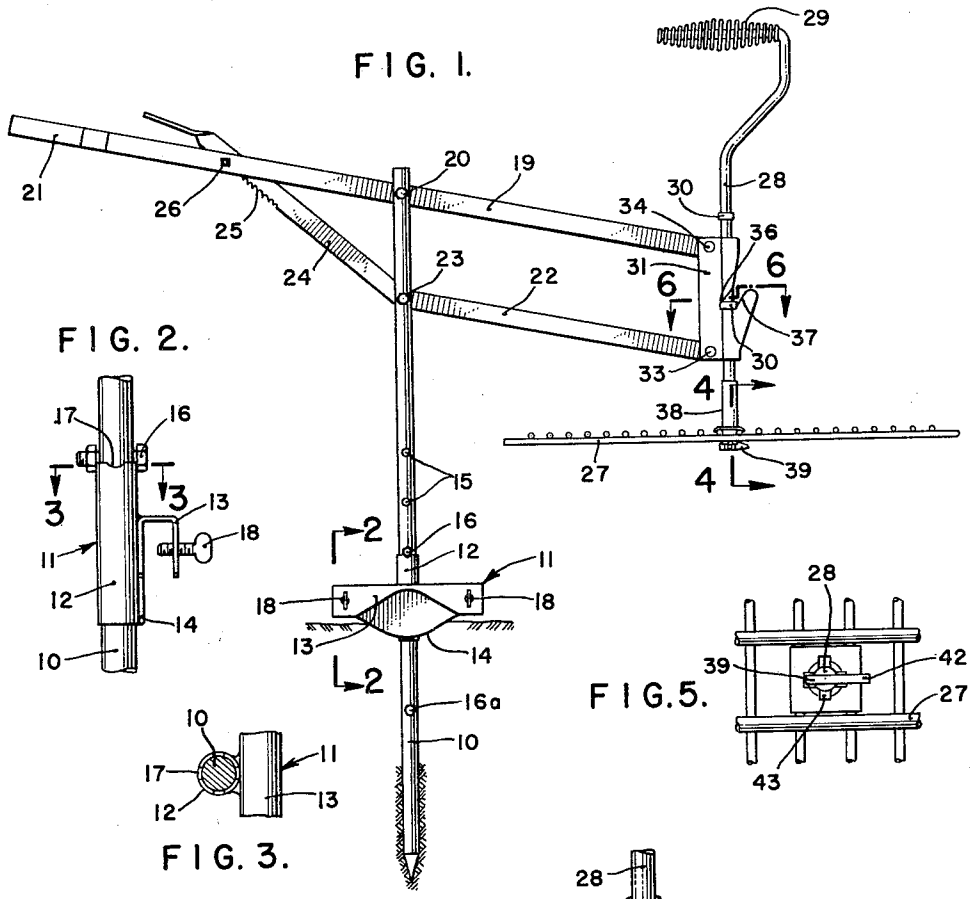


FIG. 2.

FIG. 3.

FIG. 5.

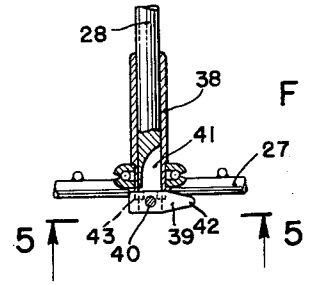


FIG. 4

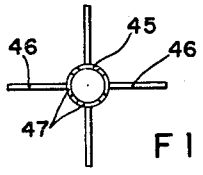


FIG. 7.

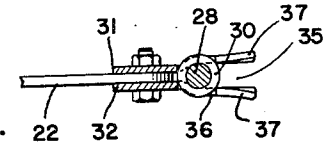


FIG. 6.

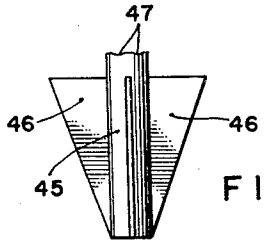


FIG. 8.

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PORTABLE BARBECUE

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1 Claim. (Cl. 126—30)

This invention relates to improvements in portable barbecues, and may be considered as an improvement over the construction disclosed in my United States Letters Patent No. 2,844,139, issued July 22, 1958, and over the construction disclosed in my United States Letters Patent No. 2,912,973, issued November 17, 1959.

In both of the above-mentioned patents a portable barbecue is disclosed consisting essentially of a stake adapted to be driven into the ground or otherwise suitably supported. An adjustable grille-suspending means is mounted on a sleeve which telescopes over the stake after the stake has been driven and which is capable of rotating thereon to swing the grille onto or off of the fire. In the above patented constructions, if the stake is hammered prior to the application of the grille-suspending means repeated pounding of the stake is apt to cause its upper end to be peened, upset, or otherwise enlarged so that when the sleeve carrying the grille-suspending means is applied to the stake the enlargement at the top of the stake may interfere with its application or with its turning.

One object of the present invention is to provide an improved construction of portable barbecue in which the grille-suspending means is applicable to the stake below its upper end and by means other than a sleeve which telescopes over the stake. In this manner, if the stake is pounded into the ground repeatedly and has its upper end peened or otherwise enlarged as a result of the pounding, this will not in any way interfere with the application or detachment of the grille-suspending means or its movements in adjusting the vertical position of the grille.

Another object of the invention is to provide an improved portable barbecue in which there is a ground-engaging member that is telescopically mounted on the stake and which is adapted to engage the surface of the ground in such a manner that it will not rotate relative to the ground sympathetically with the stake when the stake is rotated. The top of the ground-engaging member is notched and provision is made on the stake for engaging the notches to hold the stake and the structure supported thereby in oriented position relatively thereto so that the grille can be caused to remain in a position either over or off of the fire as desired even though the stake is not necessarily absolutely vertical.

Another object of the invention is to provide a simplified means for supporting the grille-suspending rod on the adjusting device of the portable barbecue which is so designed that it may be easily and economically manufactured from stampings and the grille-suspending rod will be maintained in a vertical position even though the grille itself may be unevenly loaded. At the same time the grille-suspending rod can be easily and quickly removed whenever so desired.

Another object of the invention is to provide a portable barbecue wherein a novel, simple, and advantageous connection is provided between the grille-suspending rod and the grille enabling these parts to be easily and quickly adapted to or separated from each other, and enabling the grille to be turned readily by the grille suspending rod.

With the foregoing and other objects in view, which will be made manifest in the following detailed description and specifically pointed out in the appended claim, reference is had to the accompanying drawings

for an illustrative embodiment of the invention, wherein:

FIGURE 1 is a view in side elevation of the portable barbecue embodying the present invention;

FIG. 2 is a partial view taken substantially upon the line 2—2 upon FIG. 1 in the direction indicated;

FIG. 3 is a horizontal section taken substantially upon the line 3—3 upon FIG. 2;

FIG. 4 is a partial view in vertical section taken substantially upon the line 4—4 upon FIG. 1;

FIG. 5 is a partial view taken substantially upon the line 5—5 upon FIG. 4 in the direction indicated;

FIG. 6 is a horizontal section taken substantially upon the line 6—6 upon FIG. 1;

FIG. 7 is a top plan view of an alternative form of ground-engaging member which may be employed; and

FIG. 8 is a view in side elevation of the ground-engaging member shown in FIG. 7.

Referring to the accompanying drawings wherein similar reference characters designate similar parts throughout, the improved portable barbecue consists of a generally cylindrical stake **10** preferably pointed at its lower end to facilitate its being driven into the ground. This stake has a ground-engaging member generally indicated at **11** telescopically slidable and rotatable thereon.

The ground-engaging member consists of a sleeve **12** to one side of which there is secured an inverted channel **13**. One side of this inverted channel, namely that side secured to the sleeve **12**, is extended downwardly as indicated at **14** effectively forming a blade that is designed to penetrate slightly the surface of the ground to hold the ground-engaging member **11** against rotation relatively to the ground sympathetically with the stake **10** when stake **10** is rotated.

The stake **10** has a series of diametrically extending apertures **15** formed therein any one of which is adapted to receive a bolt, rivet or the like indicated at **16**, which is adapted to rest on the top surface of the sleeve **12** and selectively engage notches **17** formed therein to hold the stake in oriented position with relation to the ground-engaging member **11**. The ends of the inverted channel **13** are preferably provided with thumb screws **18** that are adapted to be tightened against the walls of a brazier or other container in which the fire may be built if such is employed. The stake **10** is also preferably equipped with a bolt or rivet **16***a* below the ground-engaging member **11** which serves not only to keep the ground-engaging member assembled with the stake, but also facilitates removal of the ground-engaging member from the ground when the stake is withdrawn.

Adjacent the upper end of the stake **10** there is a lever **19** that is adapted to be pivotally mounted on the stake such as by a removable bolt **20**. This lever and its bolt are located a short distance below the top of the stake. One end of the lever is equipped with a handle **21**. A short distance below the lever there is a link **22** that is pivotally mounted on the stake, such as by a removable bolt **23**. This bolt may also serve to pivotally mount on the stake **10** a ratchet bar **24** having ratchet teeth **25** engageable with a bolt or stop **26** on the lever **19**.

It will be appreciated that by lifting the ratchet bar the lever **19** can be swung in a vertical plane by means of the handle **21** and by lowering the ratchet bar the lever **19** can be releasably held in any adjusted position.

A grille **27** is provided which is suspended by means of a suspending rod **28** having a handle **29**. This suspending rod has one or more shoulders **30** formed thereon. A feature of the present construction concerns the manner in which the suspending rod **28** is removably mounted on the outer ends of lever **19** and link **22** but

which causes the suspending rod to remain vertical in all positions of adjustment. To this end, two plates 31 and 32 are provided which are applied to opposite sides of the lever 19 and the link 22 and which are pivotally connected thereto such as by bolts 33 and 34. The outer ends of these plates are bent outwardly so as to in effect cause the plates to cooperate to form a vertically grooved member having the vertical groove 35. This groove in width is substantially equal to the diameter of the suspending rod 28. Intermediate the tops and bottoms of the two plates 31 and 32 upwardly open crotches 36 are formed which are in horizontal alignment with each other. These crotches present downwardly and inwardly inclined surfaces 37 which serve to engage and cam either of the enlargements 30 to the backs of the plates 31 and 32 and thus urge the suspending rod 28 to engage the back of the groove 35 both above and below the point where the enlargement 30 rests on the bottoms of the crotches. The inclined edges 37 cooperate to serve to maintain the enlargement 30 and the suspending rod 28 in its vertical position in the back of the groove 35 even though the grille 27 is unequally loaded. Thus, if the grille has a heavy load on the right-hand side thereof as viewed in FIG. 1, tending to swing the suspending rod 28 in a clockwise direction, this movement of the suspending rod is resisted by the engagement between the enlargement 30 with the inclined edges 37 and the fact that the suspending rod below the enlargement 30 is engaging the back of the groove 35. Conversely, if the inner or left-hand side of the grille as viewed in FIG. 1 is heavily loaded tending to swing the suspending rod in a counterclockwise direction this is resisted by the enlargement 30 engaging the inclined edges 37 and the fact that the suspending rod 28 above the enlargement 30 is engaging the back of the groove 35. Either enlargement 30 is receivable in the crotches 36.

Another feature of the present construction resides in the manner in which the suspending rod is detachably fastened to the grille 27. In accordance with the present invention the grille has an upstanding sleeve 38 secured thereto at its center and in which the lower end of the suspending rod 28 is receivable. The bottom of the suspending rod 28 is bifurcated and has a latch 39 pivotally secured, such as by a rivet 40. Above the bifurcated portion the suspending rod is grooved on one side as indicated at 41 to receive the end 42 of the latch. When the end 42 of the latch occupies the groove 41 the latch is confined practically entirely within the contour of the suspending rod 28 and can consequently be passed downwardly through the sleeve 38. After the latch has passed through the bottom of the sleeve 38 due to the fact that the latch 39 is heavier in the end 42 than on the opposite end, the latch will fall outwardly automatically by gravity into the position shown in FIG. 4. The bottom of the sleeve 38 is notched with notches 43 into which the latch is receivable so that when the grille is on the suspending rod 28, as shown in the position illustrated in FIG. 4, the grille is retained on the suspending rod and is held against rotation relatively thereto. This enables the grille to be turned by handle 29 whenever rotation of the grille is desired. The grille can readily be detached from the suspending rod merely by elevating the grille slightly swinging the end 42 into the groove 41 and then withdrawing the suspending rod 28 through the sleeve 38.

In FIGS. 7 and 8 an alternative form of ground-engaging member is provided consisting merely of a sleeve 45 that is telescopically receivable over the stake 10. This sleeve has a plurality of radial tapered ribs 46 extending outwardly therefrom which are adapted to be driven into the surface of the ground in much the same manner as the blade 14. The top surface of the sleeve 45 is notched as at 47 to receive the ends of the bolt 16 to hold the stake in an oriented position with relation to the ground-engaging member.

It will be appreciated from the above-described construction that the stake 10 can be driven into the ground either before or after the application of the lever 19, link 22, and ratchet bolt 26 thereto. This may be done by pounding directly on the top of the stake. If the top of the stake becomes peened, upset, or enlarged, such peening or enlargement in no way interferes with the swinging movement of the lever 19. After the stake has been driven into the ground approximately the correct depth the ground-engaging member 11 is then forced into the top surface of the ground, causing the blade 14 to enter the ground a sufficient distance to hold it against turning relatively thereto. The removable bolt 16 is then applied to the aperture 15 next above the top surface of sleeve 12 and the stake may be additionally pounded to lower the bolt 16 until it engages with the top surface of sleeve 12 and is selectively receivable in the notches 17. By disengaging the ratchet bar 24 the lever 19 can be adjusted to the proper height by tilting it relative to the stake. During such movement of the lever 19 the socket formed by the two stampings 31 and 32 is maintained in a vertical position by reason of its forming one side of a parallelogram formed by the lever 19, link 22, and the stake 10. The suspending rod 28 occupying the socket will consequently always be maintained in a vertical position regardless of the adjustment, and even though the grill 27 is unequally loaded, the grille will consequently always be maintained in a horizontal position as previously explained. Whenever it is desired to remove the grille entirely this is easily accomplished by merely lifting the handle 29 to remove the seated shoulder 30 through the crotches 36. In this form of construction it will be observed that it is not necessary to seat both shoulders on the suspending rod in the socket as in my prior patents, but that only a single shoulder need be seated in the horizontally aligned crotches 36.

It will be appreciated also from the above-described construction that the parts can be readily disassembled and stored in a small space during traveling or when the barbecue is stored. Ordinarily it is merely necessary to detach the grille from the suspending rod 28, remove the suspending rod from the socket and remove bolts 20 and 23. These parts can then be positioned more or less in side by side relationship and packed in a relatively small space considered volumetrically.

The form of ground-engaging member illustrated in FIGS. 7 and 8 is advantageous in that the load on the stake transmitted to the notches or undulating surface at 47 tends to continually drive the ground-engaging member into the ground as the stake is rotated. This downward driving of the tapered ribs tends to assist in maintaining the stake in an upright position even though the stake and structure supported thereby are rotated repeatedly relatively to the ground-engaging member without the ground-engaging member having been reset or its location changed.

Various changes may be made in the details of conconstruction without departing from the spirit and scope of the invention as defined by the appended claim.

I claim:

In a portable barbecue, a stake, a lever pivotally mounted thereon, a parallel link pivotally mounted on the stake, means providing an outwardly open, vertically grooved member having upwardly open, horizontally aligned crotches intermediate the top and bottom of the grooved member, a grille, and a grille-suspending rod receivable between the sides of the vertically grooved member and having one or more shoulders thereon each of which is selectively receivable in the crotches, said crotches presenting downwardly and inwardly inclined edges engageable with the shoulder urging the grille-suspending rod against the back of the vertically grooved member both above and below the crotches.

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