Disclosed is an outdoor cooking apparatus including a grill having a lower portion and an upper portion. The upper portion of the grill has a metal curved top surface, and is hinged to the lower portion of the grill. The lower portion of the grill is releasably mounted to a support frame, which is in turn releasably mounted to the rearward portion of a vehicle. A metal cover, which contains printed indicia thereon, releasably mounts to the upper portion of the grill. The printed indicia cover overlies the top surface of the upper portion of the grill, and is substantially parallel to the top surface of the upper portion of the grill.
APPARATUS AND METHOD FOR GRILL

1. FIELD OF THE INVENTION

[0001] The present invention relates generally to grill assemblies for tailgating events, and relates more particularly to grill assemblies that include both a vehicle support structure when the grill assembly is attached to the vehicle and an independent support structure when the grill assembly is detached from the vehicle.

2. BACKGROUND OF THE INVENTION

[0002] Tailgate parties at sporting events or other occasions have largely become an American tradition. Grill assemblies toward the rear of a truck or other vehicle are often used at such tailgaters for grilling food for party patrons. Various grill assemblies have been used to offer convenience to tailgaters, including grill assemblies utilized external to the vehicle.

[0003] In the prior art, grill assemblies have been connected to the rear of the vehicle through an arm frame extension assembly that may be connected to the trailer hitch receiver of a truck or sport utility vehicle. This prior version offered the convenience of keeping the grill external to the vehicle at all times, both while driving and when the vehicle is parked. Mounting the grill external to the vehicle saves valuable space inside the vehicle for passengers and for tailgating supplies.

[0004] A need exists in the art, however, for a grill assembly that may serve dual functions of attaching to a truck or vehicle, while at the same time detaching from the vehicle and operating as a stand-alone grill with an independent support structure.

[0005] A need also exists in the art for the aforementioned dual function grill assembly that both attaches and detaches from the vehicle, and including a structure for securing a cover tightly to the top of the grill, whereby the cover may include a printed indicia to provide for an enhanced tailgating experience.

3. SUMMARY

[0006] Disclosed is an outdoor cooking apparatus including a grill having a lower portion and an upper portion. The upper portion of the grill has a metal curved top surface, and is hinged to the lower portion of the grill. The lower portion of the grill is releasably mounted to a support frame, which is in turn releasably mounted to the rearward portion of a vehicle. A metal cover, which contains printed indicia thereon, releasably mounts to the upper portion of the grill. The printed indicia cover overlaps the top surface of the upper portion of the grill, and is substantially parallel to the top surface of the upper portion of the grill.

[0007] Optionally, the grill contains a retainer lip on the upper portion of the grill positioned adjacent an edge of the upper portion of the grill. The printed indicia cover features a hook member which engages the retainer lip. Additionally, a set of leg segments may be mounted on the grill, extending downward below the grill. A set of legs may releasably connect to the leg segments for supporting the grill when the legs are attached to the leg segments, and when the grill lower portion is detached from the vehicle.

4. BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 shows a perspective view of the grill assembly according to the invention.

[0009] FIG. 2 shows a sectional view of the grill assembly of FIG. 1.

[0010] FIG. 3 shows a sectional view of the frame of the grill assembly.

[0011] FIG. 4 shows a side view of the grill assembly with leg supports according to the invention.

[0012] FIG. 5 shows a perspective view of the grill of FIG. 1, including an exploded view of the top portion of the grill.

[0013] FIG. 6 shows a sectional view of a retainer securing the printed indicia cover on the top portion of the grill of FIG. 5.

[0014] FIG. 7 shows a sectional view of a bolt securing the printed indicia cover on the top portion of the grill of FIG. 5.

5. DETAILED DESCRIPTION OF THE INVENTION

[0015] Although the following detailed description contains many specific details for purposes of illustration, anyone of ordinary skill in the art will appreciate that many variations and alterations to the following details are within the scope of the invention. Accordingly, the exemplary embodiment of the invention described below is set forth without any loss of generality to, and without imposing limitations thereon, the claimed invention.

[0016] FIG. 1 and FIG. 2 illustrate a grill assembly 10 according to the invention. Some embodiments of the grill assembly 10 may include a grill 12 mounted to a truck 15 or other vehicle 15 by way of a frame 25. The frame 25 may include a vertical arm 47, a horizontal arm 48, and an extension tube 46 into which the horizontal arm 48 coaxially extends. The frame 25 is preferably mounted to a trailer hitch receiver 42 at the rear of the truck 15. Trailer hitch receiver 42 comprises a square tube with an open rearward end for receiving a trailer ball hitch.

[0017] FIG. 2 shows a sectional view of the grill assembly 10 of FIG. 1, illustrating the structural assembly of the grill 12 to the truck 15. At the bottom portion 20 of the grill 12, a square receptacle 52 extends downward from the grill 12. The receptacle 52 mounts onto a vertical arm 47 of the frame 25. The receptacle 52 receives the top end of the vertical arm 47, and the receptacle 52 is pinned, bolted, or otherwise secured to the vertical arm 47 through a hole 54 extending through both the receptacle 52 and the top end of the vertical arm 47.

[0018] The vertical arm 47 of the frame 25 connects with a horizontal arm 48, which preferably intersect at a right angle. A triangular support piece 56 bridges the vertical arm 47 and the horizontal arm 48 at the junction and offers additional strength to support the grill 12 upon the vertical arm 47.

[0019] Extension tube 46 fits within the trailer hitch receiver 42 at the rear end of the truck 15. The hitch 42 receives the end of the extension tube 46, and the extension
tube 46 is pinned, bolted, or otherwise secured to the hitch 42 through a hole 44 extending through both the hitch 42 and the extension tube 46. The extension tube 46 may include a swivel 43 near the point of contact with the hitch 42. The swivel 43 allows the extension tube 46 to swing laterally from one side of the truck 15 toward the other side of the truck 15 while the extension tube 46 remains at a constant distance from the ground.

[0020] The horizontal arm 48 may extend from the extension tube 46 to position the grill 12 farther from the truck 15, or the extension tube 46 may be removed to position the grill 12 closer to the truck 15. At the end of the extension tube 46, a fastener 50 may screw through a hole at the end of the extension tube 46 and interface with the outer perimeter of the horizontal arm 48 to secure the horizontal arm 48 in place relative to the extension tube 46. The fastener 50 may be a set screw, a T-handle, or other locking apparatus that imparts a locking force against the horizontal arm 48 to secure it in place.

[0021] The extension tube 46 and horizontal arm 48 are preferably rectangular in shape, but may alternatively be pentagonal, hexagonal, cylindrical, or an otherwise suitable shape. The extension tube 46 and the horizontal arm 48 preferably comprise the same shape to ensure proper mating when extending and retracting the horizontal arm 48 from the extension tube 46. The perforated tray 30 may be mounted upon the extension tube 46 for holding an ice chest, cooler, or other tailgate accessory 32. As such, when the extension tube 46 is removed, perforated tray 30 is also removed.

[0022] Some embodiments of the frame 25, as shown in FIG. 3, may feature the horizontal arm 48 secured within the trailer hitch receiver 42, without utilizing the extension tube 46. In this embodiment, the horizontal arm 48 fits within the hitch 42 at the rear end of the truck 15. The hitch 42 receives the end of the horizontal arm 48, and the horizontal arm 48 is pinned, bolted, or otherwise secured to hitch 42 through a hole 44 extending through both the hitch 42 and the horizontal arm 48.

[0023] A perforated tray 30 or other support mechanism may be mounted on the frame 25 in front of the grill 12 for supporting an ice chest, cooler, or other tailgating accessory 32. Additionally, some embodiments of the frame 25 may insert a lock (not shown), for example, through holes 54 and 44. The locks through the holes 54, 44 would allow tailgaters to leave the truck or vehicle 15 periodically for a sporting event or other event without concern that the grill assembly 10 will be stolen.

[0024] The frame 25 extends outward from the truck 15 and supports the bottom portion 20 of the grill 12. The grill 12, as shown in FIG. 1 and FIG. 2, may include a bottom portion 20 and a top portion 22 which opens and closes about hinge 24. The grill 12 may include side handles 27 mounted to bottom side portion 21 and a front handle 28 mounted to top portion 22. In this embodiment, bottom side portion 21 and top portion 22 are semi-cylindrical such that when closed define a barrel with closed side ends.

[0025] On either side of the grill 12, leg supports 35 may be secured to sides 21 of the grill 12. Each leg support 35 comprises a pair of leg segments 37 joined by a cross member 39. Leg segments 37 extend at inclined angles and diverge from each other in a downward direction. Leg segments 37 terminate slightly below the bottom of the bottom portion 20 of grill 12.

[0026] An individual may detach the grill 12 from the frame 25 and utilize the grill 12 as a stand-alone appliance separate from the truck 15. In this manner, an individual may detach the grill 12 from the frame 25 and place the grill 12 on the ground or inside the back end of a truck or other vehicle with the leg supports 35 offering support and balance to the stand-alone grill 12. The leg supports 35 extend downward from the grill 12 past the bottom portion 20 of the grill 12 so that the bottom portion 20 of the grill 12 does not touch the ground or other surface upon which the grill 12 is placed.

[0027] FIG. 4 shows a side view of the grill 12 with leg supports 35 and leg extensions 60. The leg extensions 60 slide into each end of the leg segments 37 to raise grill 12 to a convenient height for use apart from frame 25. Leg supports 35 and leg extensions 60 may be secured to the grill 12 to provide stability to the grill 12 if an individual desires to detach the grill 12 from the frame assembly 10 and utilize the grill 12 as a stand-alone appliance separate from the truck 15. In this manner, an individual may detach the grill 12 from the frame assembly 10 and place the grill 12 on the ground or inside the back end of a truck or other vehicle with the leg supports 35 and legs 60 offering support and balance to the stand-alone grill 12.

[0028] The extended support legs 60 may be necessary for optimizing user convenience. For example, if an individual desires to stand while using the grill 12 for cooking or cleaning, the extended support legs 60 enable the grill 12 to rise to the most convenient height for the user. The extended support legs 60 may comprise various lengths intended for use by individuals of various heights. Shorter individuals may attach shorter length extended support legs 60 to the leg supports 35 to raise the grill 12 to a convenient height. Taller individuals may attach longer extended support legs 60 to the leg supports 35 similarly for their convenience.

[0029] The leg supports 35 extend downward parallel to the side of the grill 12. The leg supports 35 may widen at an angle B as they extend downward from the grill 12. Also, the extended support legs 60 may widen at an angle B when extending downward from the leg supports 35. The widening of the leg supports 35, 60 ensures stability when the center of gravity of the grill 12 shifts due to the opening and closing of the top portion 22 of the grill 12 about hinge 24. In this manner, the leg supports 35, 60 preferably widen to a width W such that the grill 12 will not tip over when the top portion 22 of the grill 12 is fully opened about hinge 24.

[0030] FIG. 5 shows a perspective view of the grill 12 of FIG. 1, including an exploded view of the top portion 22 of the grill 12. The top portion 22 of the grill 12 is shown closed upon the bottom portion 20 of the grill 12. A retainer 65 may be mounted on the front end of the top portion 22 of the grill 12, near the point where the top portion 22 interfaces with the bottom portion 20 when the grill 12 is closed. The retainer 65 is used to secure the printed indicia cover 40 tightly against the top portion 22 of the grill 12.

[0031] On the back of the top portion 22 of the grill 12, a series of bolts 67 may be inserted through a series of holes 68. The bolts 67 extend through the back end of the printed
indicida cover 40 and into the holes 68 to secure the printed indicia cover 40 tightly against the top portion 22 of the grill 12.

[0032] Several holes 29 may also be positioned on the front and sides of the grill 12 for receiving the handles 28, 27. The front handle 28 provides for convenient opening and closing of the top portion 22 of the grill 12 upon the bottom portion 20 of the grill. The side handles 27 are utilized for lifting the entire grill 12 from the frame 25 when an individual desires to detach the grill 12 from the frame 25 of the grill assembly 10 and use the grill 12 as a stand-alone appliance.

[0033] A cover 40 may be secured to the top portion 22 of the grill 12 which features a printed indicia to enhance the tailgating experience. FIG. 6 shows a sectional view of a retainer 65 securing the printed indicia cover 40 onto the front end of the top portion 22 of the grill 12 of FIG. 5. The retainer 65 is preferably welded to the top portion 22 of the grill 12, but may alternatively be bolted, pinned, or otherwise mounted onto the grill 12. The retainer 65 is a flat strip secured to convey an open space near the front edge of the grill 12. The bottom part of the retainer 65 is offset from the grill 12, creating a space 70 between the retainer 65 and the top portion 22 of the grill 12. The printed indicia cover 40 is introduced into the space 70 between the retainer 65 and the grill 12.

[0034] The printed indicia cover 40 preferably surrounds the top portion 22 of the grill 12. The cover 40 is a sheet preferably made from steel or aluminum, or other flexible material capable of withstanding heat from the grill 12. The front end portion of the printed indicia cover 40 has a tab 41 that fits underneath and inside the retainer 65. The tab 41 of the printed indicia cover 40 forms a hook shape, thus intruding into the space 70.

[0035] As illustrated in FIG. 7, several bolts 67 secure the printed indicia cover 40 onto the back end of the top portion 22 of the grill 12 of FIG. 5. The printed indicia cover 40 curves over the top metal portion 22 of the grill 12, from the retainer 65 at the front end to the bolts 67 at the back end. The end portion of the printed indicia cover 40 is preferably bolted to the grill 12, but may alternatively be fastened or otherwise mounted onto the grill 12. The inside face of the bolts 67 and the outside of the grill 12 exert a pressure force against the sides of the printed indicia cover 40 to secure the cover 40 between the bolts 67 and the grill 12.

[0036] The invention has several important advantages. The invention provides the ability to attach the grill assembly 10 to the trailer hitch receiver 42 of a truck or other sport utility vehicle. In addition, the printed indicia cover 40 enables for an enhanced tailgating experience. The flexible tabs 41 on the cover 40 provide for a secure fit in the space 70 within the retainer 65. Further, if the user desires to change from one cover 40 to a different cover 40, the retainer 65 on the grill easily enables an individual to replace an existing cover 40 and employ a new cover 40 in its place. The legs 60 that attach to the leg supports 35 enable the user to detach the grill 12 from the frame 25 and utilize it remote from the vehicle as a stand-alone grill.

[0037] Although some embodiments of the present invention have been described in detail, it should be understood that various changes, substitutions, and alterations can be made hereupon without departing from the principle and scope of the invention. Accordingly, the scope of the present invention should be determined by the following claims and their appropriate legal equivalents.

That which is claimed is:

1. An outdoor cooking apparatus, comprising:
   a grill lower portion;
   a grill upper portion hinged to the grill lower portion, the grill upper portion having a metal curved top surface;
   a support frame for releasable mounting to and rearward from a vehicle, the grill lower portion being releasably mounted to the support frame; and
   a printed indicia metal cover releasably mounted to the grill upper portion, the printed indicia cover overlying the top surface of the grill upper portion and being substantially parallel to the top surface of the grill upper portion, the printed indicia cover containing printing thereon.

2. The apparatus of claim 1, further comprising a retainer lip on the grill upper portion adjacent an edge of the grill upper portion, and a hook member on the printed indicia metal cover that engages the retainer lip.

3. The apparatus of claim 1, further comprising a fastener that secures the printed indicia metal cover to the grill upper portion adjacent an edge of the grill upper portion.

4. A cooking apparatus, comprising:
   a grill for cooking a food element;
   a set of leg segments mounted on and extending downward below the grill;
   a set of legs releasably connected to the leg segments for supporting the grill when the legs are attached to the leg segments and when the grill is detached from a vehicle; and
   a support frame for releasable mounting to and rearward from a vehicle, the grill being releasably mounted to the support frame, the support frame supporting the grill when the grill is attached to the vehicle and when the legs are detached from the leg segments.

5. The apparatus of claim 4, wherein the grill comprises:
   a grill lower portion;
   a grill cover hingeably connected to the grill lower portion, the grill cover having a metal curved top surface; and
   a printed indicia metal cover mounted on and overlying the top surface of the grill cover.

6. The apparatus of claim 4, wherein each leg segment extends downward and at an angle from the vertical.

7. The apparatus of claim 4, wherein each leg extends downward from each leg segment and at an angle from the vertical.

8. The apparatus of claim 4, wherein the support frame comprises a horizontal brace and an upright post onto which the grill is mounted.

9. The apparatus of claim 4, further comprising a perforated tray mounted to the support frame forward of the grill.

10. The apparatus of claim 4, wherein the support frame comprises:
a substantially horizontal brace with a forward end for mounting to the vehicle;
an upright post onto which the grill is mounted; and
an extension brace that selectively mounts to the substantially horizontal brace in alignment with the substantially horizontal brace for extending the grill from the vehicle.

11. The apparatus of claim 4, further comprising a post and a receptacle on a lower portion of the grill for mounting to the support frame.

12. The apparatus of claim 4, wherein the leg supports comprise a pair of tubular members, each of the tubular members being on a side of the grill, and each of the tubular members having a pair of downward facing members joined by a substantially horizontal member.

13. A cooking apparatus, comprising:
a grill lower portion;
a grill upper portion hinged to the grill lower portion, the grill upper portion having a metal curved top surface;
a printed indicia metal cover releasably mounted to the grill upper portion, the printed indicia cover overlying the top surface of the grill upper portion and being substantially parallel to the top surface of the grill upper portion, the printed indicia cover containing printing thereon;
a retainer lip on the grill upper portion adjacent an edge of the grill upper portion, and a hook member on the printed indicia metal cover that engages the retainer lip;
a fastener that secures the printed indicia metal cover to the grill upper portion adjacent an edge of the grill upper portion;
a set of leg segments mounted on the grill lower portion and extending downward below the grill lower portion;
a set of legs releasably connected to the leg segments for supporting the grill lower portion when the legs are attached to the leg segments and when the grill lower portion is detached from the vehicle; and
a support frame for releasable mounting to and rearward from a vehicle, the grill being releasably mounted to the support frame, the support frame supporting the grill when the grill is attached to the vehicle and when the legs are detached from the leg segments.

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