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F. R. LINDA ET AL

3,056,665

CHARCOAL BRIQUET CONTAINER AND METHOD OF IGNITING SAME

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3 Sheets-Sheet 1

FIG. 1

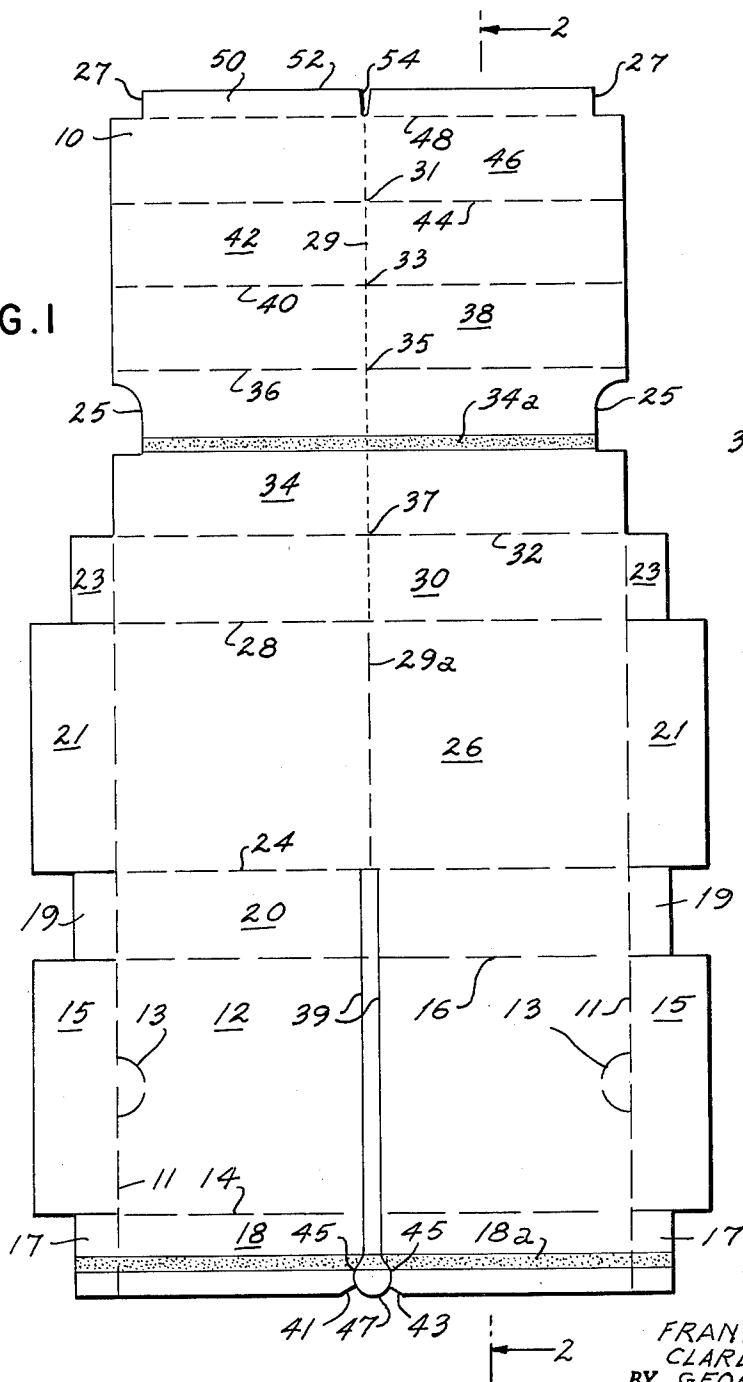
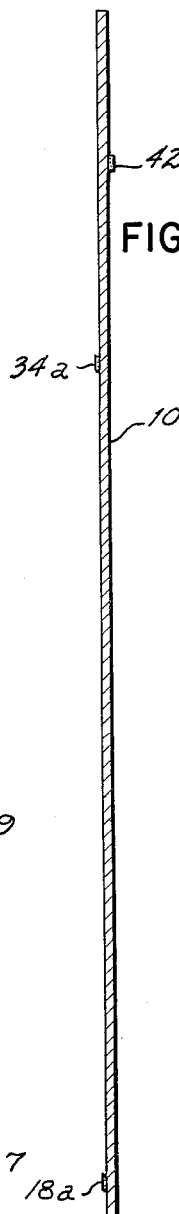


FIG. 2



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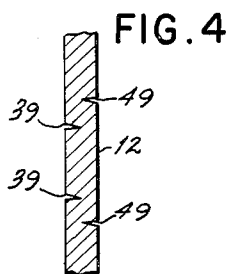
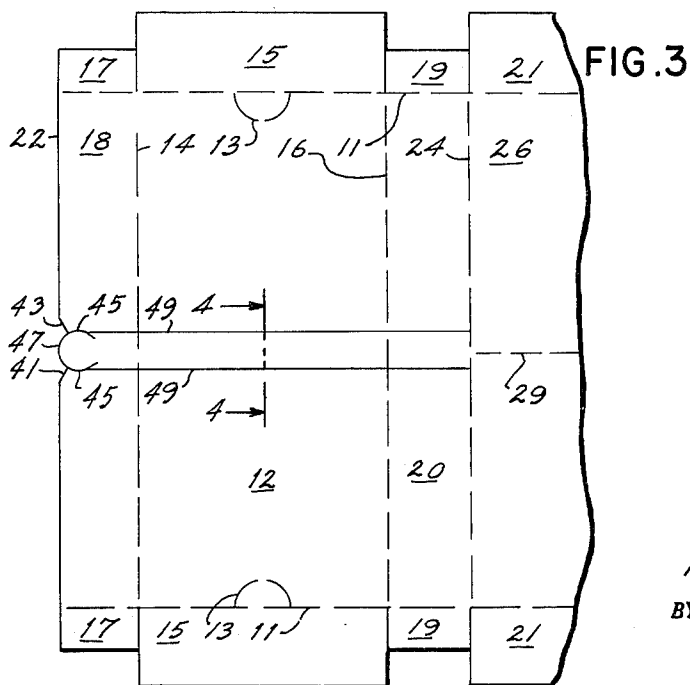
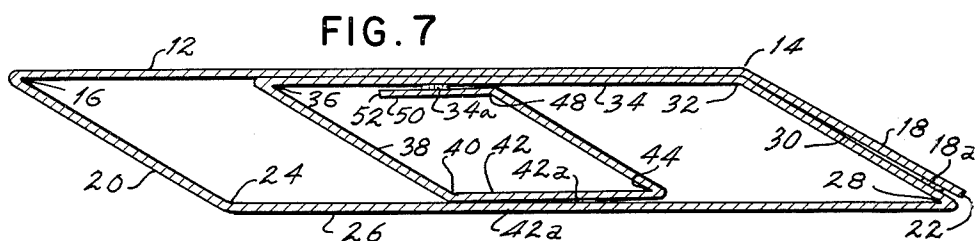
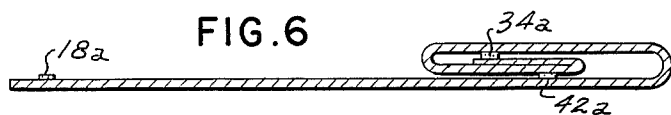
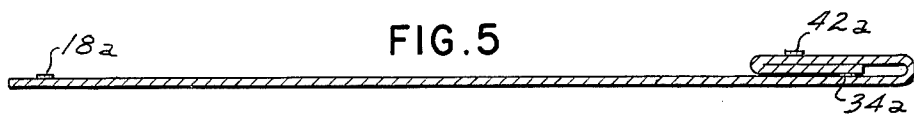
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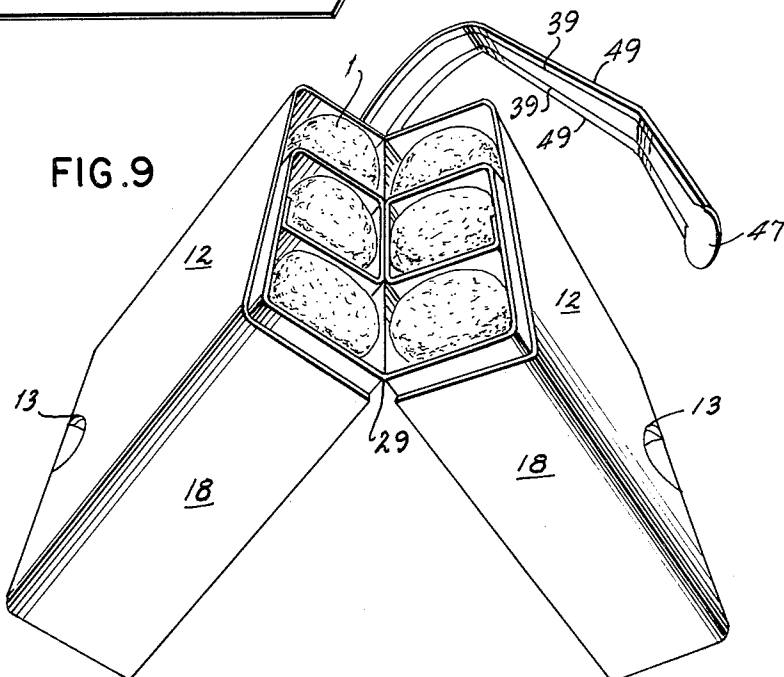
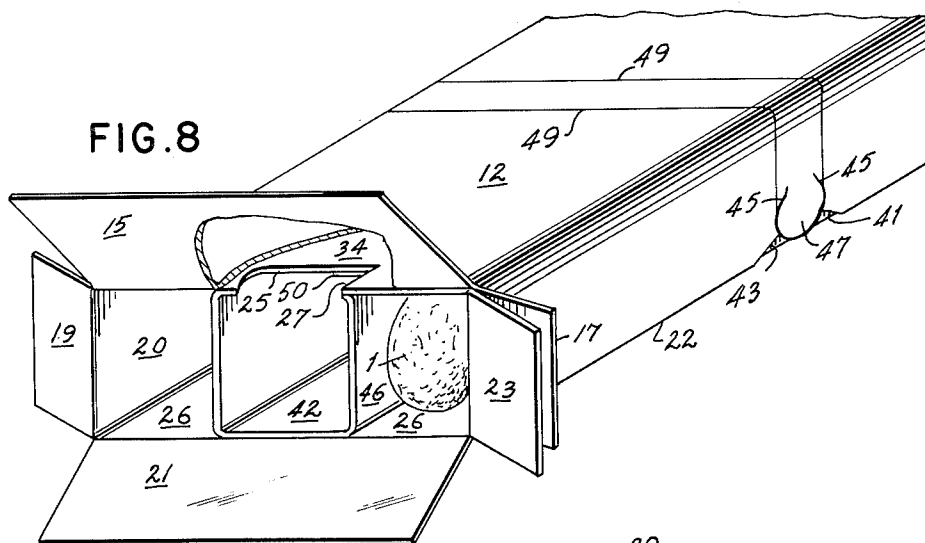
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CHARCOAL BRIQUET CONTAINER AND METHOD OF IGNITING SAME

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3,056,665

CHARCOAL BRIQUET CONTAINER AND METHOD OF IGNITING SAME

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2 Claims. (Cl. 44—40)

This invention relates to a fuel container unit and to its role in the ignition and burning of the fuel. More particularly, it relates to a carton suitable for use in packing charcoal briquets or the like and in assuring the complete ignition and even burning of all the packaged fuel by, for instance, the backyard chef.

The problems attendant upon the use, i.e., the packaging, ignition, and burning, of bulk or briquetted charcoal are many and varied. In the first place, charcoal is dusty and dirty and these factors, when unmitigated, discourage its frequent use. Next, it is not particularly easy to ignite charcoal, even when ample drafts are provided by means of chimneys, etc. There are electric ignition aids and foam and fluid igniters, but all of these are time consuming to employ and the foams and fluids are likely to produce malodorous smoke which, even if it dissipates quickly, can taint the food sought to be charcoal cooked or broiled.

There have been several attempts to develop compact charcoal-containing units to both overcome the noted and other problems and meet the demand created by the increased popularity of and for outdoor cooking, whether of the backyard or deep woods variety. Such attempts have brought forth the units commercially available under the trademark "Brix" and covered by U.S. Patent No. 2,933,378 issued April 19, 1960 to Mustin et al., and the units commercially available under the trademark "Neet-Heet." However, it has been found that the units of the patent, having open draft holes designed therein, do not keep their handler from being soiled; that they, being paraffin wax coated, produce objectionable smoke which tends to persist at least until the whole molded wood pulp unit is glowing; and, that the compartments of the units of the patents, when separated from the whole units and spread in the fire place, brazier, or the like, tend to burn so quickly that they not only assure a sufficient ignition of the charcoal they contain to obtain a sustained burning thereof, but also assure an increase in fuel consumption. It has also been found that the molded wood pulp "Neet-Heet" type of charcoal containers suffer from an inability to ignite all the briquets they contain simultaneously and, at most, can achieve only their progressive ignition as the scope of the fire set under the center flues of such containers spreads. Moreover, the design of these containers almost certainly assures that they will be incompletely consumed by the fire and will leave an objectionable ash and black char in the fire place.

It is an object of the present invention to provide a fuel container unit which is suitable for transport and commerce in that it allows handling of the fuel contained without soiling of hands or clothing; in which the container can itself be readily ignited to emit a controlled maximum heat in an inappreciable time after ignition; wherein there are a maximum number of flues, chimneys, and vents to effect an appreciable surface ignition of the fuel contained; which, before, during, and after the container's ignition, produces a desirable pyramiding of the fuel contained without additional stoking; and, which, when it is opened, positioned in the fire place, and ignited, produces a cook-ready fuel bed without the use of ignition aids or starter foams or fluids.

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Accordingly, the present invention comprehends a one-piece container blank of a combustible material such as paper board and the compartmented container made from the blank, alone or filled with fuel, e.g., charcoal briquets. It also includes the methods of making up the container from the blank and filling it and of building a fire suitable for cooking or heating generally by an adaptation and the ignition of the container. For a clearer understanding of the invention, reference should be had to the attached drawings in which:

FIGURE 1 shows a plan view of the inside of a preferred embodiment of the fuel container blank of the present invention;

FIGURE 2 shows a cross-section of the blank of FIGURE 1 taken along line 2—2;

FIGURE 3 shows a plan view of a portion of the outside of the blank of FIGURE 1;

FIGURE 4 shows a cross-section of the portion of the blank depicted in FIGURE 3, taken along line 4—4;

FIGURE 5 shows a first stage of a preferred manner of folding the blank of FIGURE 2;

FIGURE 6 shows a second stage of the preferred manner of folding the blank of FIGURE 2;

FIGURE 7 shows a third stage of the preferred manner of folding the blank of FIGURE 2;

FIGURE 8 shows an isometric view of a container having one end still open made from the blank of FIGURE 1; and

FIGURE 9 shows an isometric view, taken from the side, of the container of FIGURE 8 in which the container ends are closed and the container has been adapted for use in preparing a fire.

FIGURE 1 depicts that side of a substantially rectangular box blank 10 made in accordance with the present invention which forms the inside of the container that will be erected therefrom. Box blank 10 includes exterior top panel 12 defined and bounded on its ends by foldlines 11 and on its sides by foldlines 14 and 16 and provided with substantially semicircular, preferably partial, cut scores 13 inwardly of and centrally disposed along the ends of panel 12. End panels 15 are hingedly connected at one of their ends to the ends of panel 12 along foldlines 11 and can be provided on their surfaces with box end fastening means such as adhesive stripes or patches (not shown), while exterior side panels 18 and 20 are, on one of their sides, defined and bounded by and hingedly connected along foldlines 14 and 16, respectively, to the sides of panel 12. End flaps 17 and 19 are hingedly connected to the ends of panels 18 and 20, respectively, along foldlines 11. Edge 22 and foldline 24 define and bound the other sides of such panels. Box side fastening means 18a such as the adhesive strip depicted in FIGURES 1 and 2 are preferably disposed between the ends of flaps 17 and panel 18 inwardly of and parallelly to edge 22.

Box blank 10 also includes exterior bottom panel 26 defined and bounded on its ends by foldlines 11 and on its sides by foldlines 24 and 28. End panels 21 are hingedly connected at one of their ends to the ends of panel 26 along foldlines 11 and can be provided along the other ends or on their surfaces with box end fastening means, e.g., adhesive strips or patches (not shown). Exterior side panel 20 and interior side panel 30, which is defined and bounded on its ends by foldlines 11 and on its sides by foldlines 28 and 32, are hingedly connected to panel 30 along foldlines 24 and 28, respectively, while end flaps 23 are hingedly connected at one of their ends to the ends of panel 30 along foldlines 11.

The box blank of the invention then includes means for the compartmentation of the box that will be made therefrom. In the preferred embodiment of the blank depicted in FIGURE 1, these means are integral with the

blank and include interior top panel 34 defined and bounded on its sides by foldlines 32 and 36, provided on its ends and between its longitudinal centerline and foldline 36 with means defining first rabbets 25, provided between its centerline and foldline 36 and between rabbets 25 with box compartmentation fastening means 34a such as the adhesive stripe depicted in FIGURES 1 and 2, and hingedly connected to panel 30 along foldline 32; first compartment panel 38 defined and bounded on its sides by foldlines 36 and 40 and hingedly connected to panel 34 along foldline 36; interior bottom panel 42 defined and bounded on its sides by foldlines 40 and 44, provided between its ends, between foldlines 40 and 44, and on its outside surface with box compartmentation fastening means 42a such as the adhesive stripe depicted in FIGURE 2, and hingedly connected to panel 38 along foldline 40; second compartment panel 46 defined and bounded on its sides by foldlines 44 and 48 and hingedly connected to panel 32 along foldline 44; and interior top flap 50 defined and bounded on its sides by foldline 48 and edge 52, provided on its ends with means defining second rabbets 27, provided midway along edge 52 with means defining notch 54, and hingedly connected to panel 46 along foldline 48. It will be noted that the ends of the panels and flap making up the depicted compartmentation means lie within extensions of parallel foldlines 11 of the box blank proper and that rabbets 25 and 27 are disposed inwardly thereof.

In addition, FIGURE 1 shows a line of weakness, i.e. perforations 29 positioned across or transverse to second compartment panel 46, interior bottom panel 42, first compartment panel 38, interior top panel 34, and interior side panel 30, midway between their ends and perpendicularly to their sides, i.e., foldlines 48, 44, 40, 36, 32 and 28. It also shows cut scores 31, 33, 35 and 37 positioned along line 29 at its intersections with foldlines 44, 40, 36 and 32, respectively. Preferably, a foldline 29a extends across or transverse to panel 26 midway between its ends and perpendicularly to its sides, i.e. foldlines 28 and 24. Next, it shows a pair of parallel partial, i.e., not completely through the blank material, tear strip cut scores 39 positioned across or transverse to the inside surfaces of exterior side and top panels 20, 12 and 18, and perpendicularly to their sides and edge, i.e. foldlines 24, 16, 14 and 22. Partial cut scores 39 are connected to the apices of means defining notches 41 and 43, which are centrally disposed along edge 22 of panel 18, by cut scores 45. Cut scores 45 also serve to define tear strip tab 47 and to make possible its separation from panel 18.

As is shown in FIGURE 3, which depicts the outside surface of one end of the blank of the invention, the preferred tear strip means are integral with the blank and comprehend a pair of parallel partial, i.e., not completely through the blank material, cut scores 49 on such surface, as well as partial cut scores 39 on the inside surface, notches 41 and 43, cut scores 45, and tab 47. They also comprehend a different degree of spacing apart of partial cut scores 39 and partial cut scores 49, so as to limit the weakening effect of such scores on the container ultimately formed from the blank, one embodiment of which is reflected in FIGURE 4.

As already noted, FIGURE 1 shows a preferred form of the blank of the invention. The basis of this preference is that the blank's container compartmentation means made of panels 34, 38, 42 and 46 afford, when panel 34 is about two-thirds the width of panels 12 or 26 and when panels 38, 42, and 46 are each about one-third the width of panels 12 or 26 (i.e. about as wide as panels 18, 20 or 30), a container having three compartments of about equal cross-section running the container's length, as shown in FIGURES 8 and 9. These means also afford a simple and, therefore, preferred method of forming the erect, though still open, container. This method, which is illustrated in part in FIGURES 5 to 7, includes a first folding along foldline 44 wherein flap 50 and panel 46

move through an arc of about 180°; a second folding (see FIGURE 5) along foldline 36 wherein flap 50 and panels 46, 42 and 38 move through an arc of about 180°, the outside of flap 50 is brought into contact with fastening means 34a on the inside of panel 34, and rabbets 27 on flap 50 register with rabbets 25 on panel 34; a third folding (see FIGURE 6) along foldline 28 wherein flap 50 and panels 46, 42, 38, 34 and 30 move through an arc of about 180° and fastening means 42a on the outside of panel 42 are brought into contact with the inside of panel 26; a preliminary or partial folding (suggested by FIGURE 7) along foldline 14 wherein panel 18 moves in a small arc about foldline 14 toward panel 12; and, a fourth folding (shown in FIGURE 7) along foldline 16 wherein panels 18 and 12 move through an arc of about 180°, fastening means 18a on the inside of panel 18 are brought into contact with the outside of panel 30, and semicircular cut scores 13 on panel 12 register with rabbets 25 on panel 34 and rabbets 27 on flap 50. However, it should also be understood that modifications of the compartmentation means affixed to the container body are within the scope of the invention. Such modifications can include dimensioning panels 34 and 38 about equally and so as to measure about one-half the width of either panel 12 or panel 26, eliminating panels 42 and 44 entirely, and hingedly connecting flap 50 to panel 38, whereby a blank is afforded that is adapted to supply containers having two compartments of approximately equal cross-section running their entire lengths.

The container made from the blank of FIGURES 1 to 7 is shown with one of its ends open and partially filled with charcoal briquets 1 or the like in FIGURE 8. It is again shown, though this time with its ends closed and completely filled, in FIGURE 9. In FIGURE 9, however, the container has been reopened by means of the removal of its tear strip, its inherent facility for being broken at least partially in half, and the vent holes afforded when pressure is applied to the unnumbered hinged tabs defined by lines of weakness or mobility, i.e., foldlines 11 and semicircular cut scores 13, on panel 12.

Thus, in preparing a fire, the fuel-filled container of the invention is first opened by a tear stripping which is begun, in effect, by cut scores 45 and furthered by manually pulling tear strip tab 47 in a direction which parallels partially cut scores 45 on the container's outside surface (upwardly in FIGURE 8); by a breaking of the container generally along the line exposed by the tear stripping and facilitated by notch 54 in flap 50, perforation line 29, and cut scores 31, 33, 35 and 37, so that panel 26 is made to bend upon itself, preferably with the half of foldline 29a and the container takes on an inverted V cross-section; and, by an opening of the aforementioned unnumbered displaceable tabs by means of finger or thumb pressure. Then, the container is placed on the floor of the fire place, etc., on the corner edges (foldlines 11) thereof formed by panel 26 and flaps 21 and is ignited at the vent holes. In such position, the container's compartmentation means afford flues by means of which drafts surprisingly effective in uniformly and thoroughly igniting the charcoal briquets 1 are achieved and, in addition, dispose the charcoal briquets in such a manner that, when the container has itself been consumed by the fire, they are pyramided for most effective use as a cooking or heating medium.

What is claimed is:

1. A combustible fuel container unit comprising charcoal briquets disposed within a container comprising an exterior top panel, pressure displaceable tab means integral with the exterior top panel and disposed along its ends, exterior side panels each on one side hingedly connected to a side of the exterior top panel along a foldline and positioned perpendicularly to the exterior top panel, tear strip means integral with the exterior top and side panels and disposed transversely thereto about midway between their ends, an exterior bottom panel on one side hingedly connected to the other side of one of the exterior

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side panels along a foldline and positioned parallelly to the exterior top panel and perpendicularly to the exterior side panels to define therewith the container body, foldline defining means on the exterior bottom panel disposed transversely thereto about midway between its ends, container side fastening means disposed on the other exterior side panel, an interior side panel on one side hingedly connected to the other side of the exterior bottom panel and positioned within the container body and abuttingly to the container side fastening means, container compartmentation means integral with the interior side panel hingedly connected to the other side of the interior side panel along a foldline and positioned within the container body, line of weakness defining means integral with the interior side panel and the container compartmentation means disposed transversely thereto about midway between their ends and positioned parallelly to and in registry with the tear strip means, and end closure means integral with some of the exterior and interior top, side, and bottom panels hingedly connected to some of the ends thereof along foldlines and positioned perpendicularly to the exterior and interior top, side, and bottom panels.

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2. The method of preparing a fire with the combustible fuel container unit of claim 1 comprising a first step of removing the tear strip, a second step of breaking the container open along the line of weakness and bending it about the foldline on the exterior bottom panel disposed transversely thereto about midway between its ends, to give the container an inverted V cross-section, a third step of pushing in the pressure displaceable tabs to provide vent holes on the exterior top panel of the container, a fourth step of positioning the ends of the exterior bottom panel of the container on a fireplace floor, and a fifth step of igniting the container at the vent holes.

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