March 19, 1968 A. L. SHOOK 3,373,731

WILDERNESS CHEF

Filed April 4, 1966

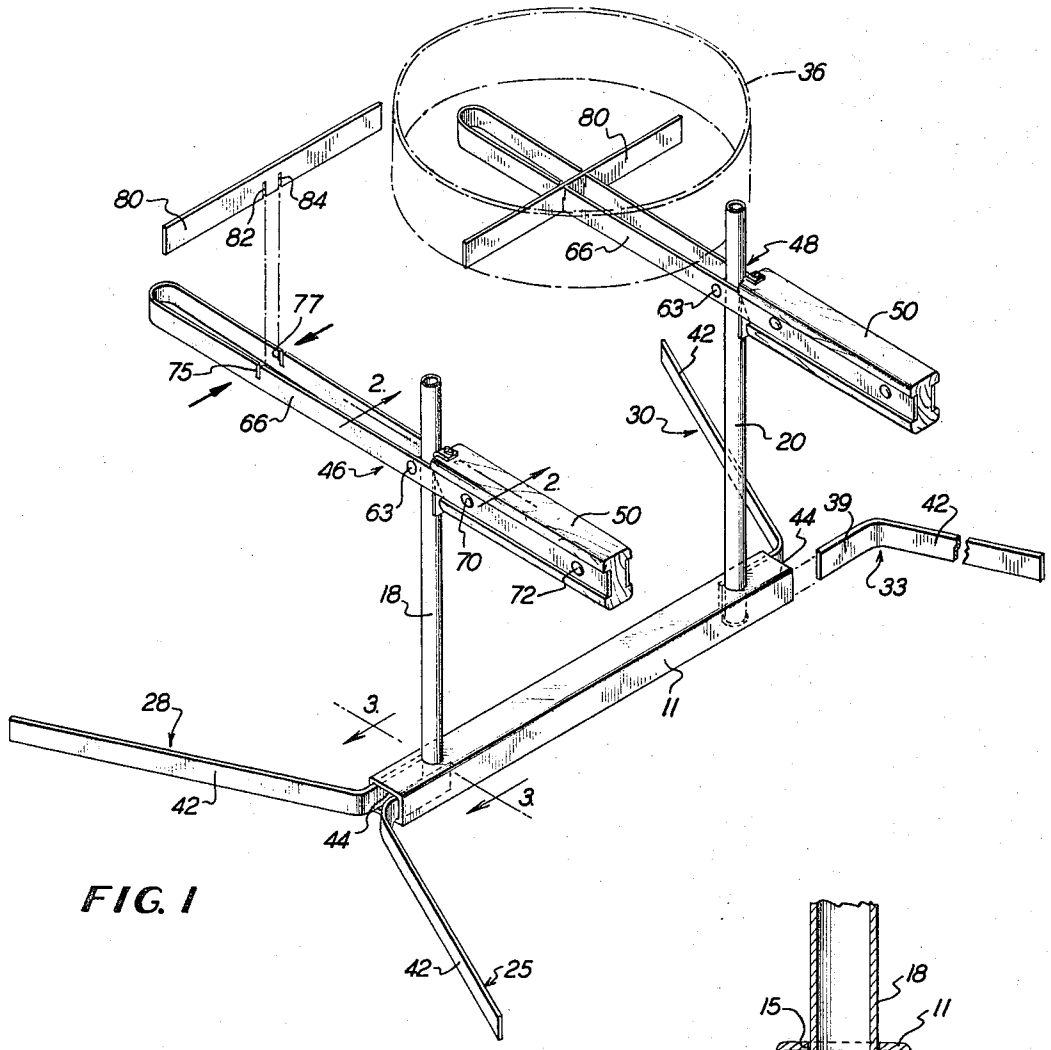


FIG. 1

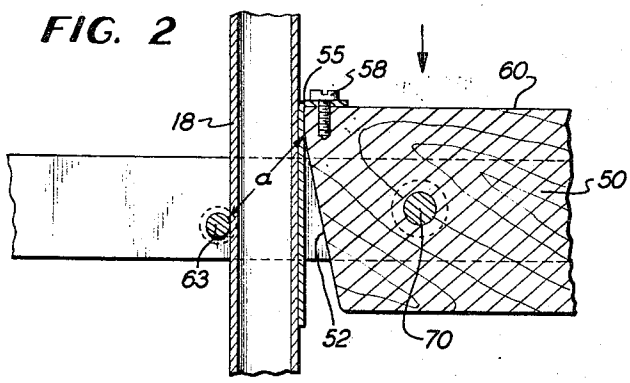


FIG. 2

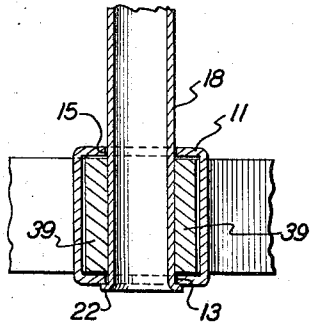


FIG. 3

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United States Patent Office 3,373,731
Patented Mar. 19, 1968

3,373,731

WILDERNESS CHEF

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Filed Apr. 4, 1966, Ser. No. 539,695
9 Claims. (Cl. 126—30)

This invention pertains to apparatus useful in cooking and in particular concerns a demountable, portable, apparatus especially suitable for cooking at a campsite or other remote wilderness area.

While it is conventional for campers to bring to camp with them pots, skillets and other cooking utensils, the weight and bulk of presently available stoves and other cooking apparatus ordinarily makes it inadvisable to include such stoves in a pack which needs to be carried over long distances and frequently over difficult terrain. Thus the camper when he sets out to prepare a meal is forced to rely upon the local supply of movable rocks at the campsite to build himself a stove to support the cooking utensils. This invention provides a substitute for camp stoves or other such cooking apparatus which comprises a readily assemblable combination of essentially linear elements which can be easily demounted and carried in an elongated slender case, e.g. a simple bag.

The assembly is held together completely by the exploitation of gravity and spring biasing forces and requires no piercing-type fasteners—bolts, nuts, screws and the like—whatever, for assembly. The elimination of the need for such fasteners provides a number of advantages to the apparatus of this invention. For one thing, the apparatus can be assembled easily in darkness or semi-darkness. Also, the problem of losing small fastening elements is eliminated. Further, by eliminating piercing-type fasteners the expansion of such fasteners due to heating the apparatus is eliminated, along with a resulting loosening of the entire assembly which can occur with such expansion. It will be readily appreciated that an attempt to tighten such fasteners while they are hot presents a whole series of problems, including that of trying to demount the apparatus after the fasteners have cooled and contracted.

The apparatus of this invention comprises an elongated base support member having a stable, flat bottom and having a vertical channel or channels therein for insertion of one or more elongated vertical standards. The base support member has openings at either end for insertion of radially extending horizontal leg stabilizing elements. Advantageously, the base support member is square or rectangular metal tubing and preferably at least some of the channels for the vertical standards are placed near the open ends so that tongues extending from the horizontal stabilizing legs will fit between the vertical standard and the inside of the base support member.

The usually cylindrical vertical standards support horizontal stove members which have a configuration, at the vertical standard, such that they may be held in place by weight applied to the stove member or by spring biasing when there is no extraneous weight on the stove member. Each stove member is elongated and so mounted on the vertical standard that one end provides a handle while the other end provides a cooking support having an essentially horizontal surface configuration. The novel mounting configuration, whereby gravity or spring biasing holds the stove member in proper vertical displacement from the ground, also permits swinging of the stove member away from the fire when such is desired. The cooking support ends of adjacent stove elements, as mentioned, are horizontal and may be used to support a grating, e.g. for broiling. Advantageously, a cross-member is provided for each cooking support element so that a pot, skillet or other cooking utensil will remain in place with stability on each cooking support. Thus, it is desirable to construct

the cooking support from a loop of sheet metal, and exploit the resilience of this loop to hold the cross-member thereto in the firmly horizontal position.

The apparatus of this invention can provide any number of vertical standards and cooking positions desired, supported by the same base member. Preferably at least two cooking positions are provided and the holes in the base support member and the vertical standards will be spaced sufficiently apart so that there is room for a handle member to swing between adjacent vertical standards.

As mentioned, the stove element is so constructed that the usually cylindrical vertical standard is held between the handle and cooking support portions of the stove element. One of these portions, preferably the handle portion, meets the vertical standard at an angle when the stove member is in horizontal position, while the other portion, preferably the cooking support portion, provides a stop member. The stop member and the point where the angle meets the standard are vertically displaced from each other when the stove element is in horizontal position; thus the distance betwen the stop and the point is greater than the outside diameter of the standard, allowing easy vertical movement of the stove member on the standard by putting the stove element out of its horizontal orientation.

The stove member is held in the horizontal orientation by the weight of the cooking utensil on the cooking support, or, when such utensil is absent, by spring biasing. The spring is strong enough to maintain the stove element in the horizontal position, but yielding enough to allow hand-displacement of the stove element from the horizontal position for assembly and disassembly, and adjustment of the stove element.

This invention will be better understood by reference to the accompanying drawing which is to be considered illustrative only and not limiting and in which:

FIGURE 1 is a perspective view of the wilderness chef assembled and partially exploded and showing a cooking utensil in phantom lines;

FIGURE 2 is a cross-sectional view, partly cut away, along the line 2—2, of FIGURE 1; and

FIGURE 3 is likewise a cross-sectional view, partly cut away, along the line 3—3 of FIGURE 1.

In the drawings, the base support member **11** is shown as a length of square tubing provided with a plurality of lower holes **13** and upper holes **15**. Each set of upper and lower holes provides a vertical channel for a standard **18**, **20**. Advantageously, each such standard is a length of cylindrical tubing having a flared bottom **22** to stop upward movement of the standard during assembly. It may be advantageous, in some situations to swage in the lower holes **13** of the base support member to give a completely flat configuration to the bottom of the assembled apparatus; however, the projection of the flared bottoms **22** of the standards **18**, **20**, etc., usually does not deleteriously effect the stability of the assembled apparatus.

Preferably, as shown in the drawings, four horizontal radially extending leg stabilizing members, indicated generally as **25**, **28**, **30**, **33** are provided. However, in many cases, sufficient stability can be obtained by the use of two horizontal stabilizing legs, e.g., **28** and **30** placed on the same side of the base support member as the cooking utensil **36**. As can be clearly seen from leg **33**, which is exploded out of its functioning position, each horizontal stabilizing leg comprises a length of flat metal rod bent to provide a tongue **39** and a radially extending portion **42**. It has been found that an angle of about 135° between the tongue and the extending portion is sufficient to provide forward, backward and side stability to the assembled apparatus while still providing members which are essentially flat and linear for disassembly and transportation in the disassembled stage. It will be noted in FIGURE 3 that tongues **39** fit rather snugly within the open

ends 44 of the base support member 11 at either side of the end vertical standards, e.g., 18. This provides good stability to the apparatus while still allowing some room for expansion during heating. The fire will be built between the horizontal legs, e.g. between legs 28 and 30 of FIGURE 1.

FIGURE 1 shows two stove elements 46 and 48. Each of these has a handle portion, 50, made of a heat and fire-resistant material of low heat conductivity, advantageously, treated wood. As can be seen more clearly in FIGURE 2, the inside edge 52 of the handle 50 is cut away to provide angular contact with the vertical standard when the stove element is in the normal horizontal position. Maintenance of this horizontal position is assured by the biasing spring 55 which may be fastened to the handle 52 by any convenient relatively permanent fastening means such as the screw 58 mounted on the top surface 60 of the handle 50. The biasing spring 55 assures close contact between the standards 18, 20 and the stop provided by the rivet 63 on the other side of the standard. It also will be observed that the distance "*a*" between the rivet 63 and the inside edge 52 of the handle 50 is greater than the diameter of the standard, allowing easy movement of the stove element on the standard when the handle 50 is depressed in the direction indicated by the arrow in FIGURE 2. Thus, depression of the handle 50 permits ready removal of the stove member from the standard or rotation of the stove member around the standard.

The cooking support portion of the stove members 46 and 48 is indicated as 66. As illustrated, each cooking support advantageously comprises a horizontally-extending loop of vertically-oriented sheet metal. The sides of this loop are conveniently held together by an suitable fastening means, for example, the already-mentioned rivet 63 and rivets 70 and 72 which also may serve to hold in place the handle 50. As can readily be seen, the upper edge of each loop defines an essentially horizontal surface for support of a cooking utensil such as the pan 36. Preferably the cooking supports 66 are provided, for example, about ⅔ of the distance from the standard to their extremeties, with the aligned upper vertical slots 75 and 77. Cross-members 80 also are provided with lower vertical slots 82 and 84 near their center. Advantageously, the vertical slots 82 and 84 of cross-members 80 are closer together than the sides of the loops 66 and the slots 75 and 77. Thus, the loops 66 will be squeezed slightly in the direction indicated by the arrows of FIGURE 1 in order to mate slots 82 and 84 with slots 75 and 77. The resilience of the loops 66, therefore, will serve to hold the cross-members 80 in strict horizontal position during use of the apparatus, to give increased stability to the cooking utensil during turning or vertical adjustment of the stove element.

As mentioned, the cooking apparatus of this invention clearly contemplates the provision of more or less cooking stations than the two illustrated in FIGURE 1, as well as the provision of a grate supported by adjacent stove elements 46 and 48 and a grate, if desired, across adjacent legs such as 28 and 30 to support fuel in an advantageous combustive position. Such grate or grates can be longitudinally folding so that they may fit in the same narrow elongated carrying case or bag as the other elements of the apparatus when disassembled.

What is claimed is:

1. An apparatus of the type described comprising an elongated horizontal base support member having a flat bottom and providing a vertical channel having a vertically extending standard passing therethrough and open ends from which horizontal stabilizing legs extend radially, and a horizontal stove member supported by said standard and vertically displaced from said base support, said stove member comprising a handle portion on one side of the standard and a cooking support portion on the opposite side of said standard, one of said portions meeting said standard at an angle when the stove member is in horizontal position, the other of said portions providing a stop member, and spring biasing means holding said stop member against said standard but yieldable to allow displacement of said stop from contact with said standard, said cooking support providing an essentially horizontal surface.

2. The apparatus of claim 1 in which two horizontal legs extend in different radial directions from each open end of said base support member.

3. The apparatus of claim 1 in which a horizontal leg has a tongue portion which fits snugly within said open end between the lower side of the said standard and the inside of said base support.

4. The apparatus of claim 1 in which said standard has a flared bottom to stop movement through said channel.

5. The apparatus of claim 1 in which said handle portion meets said standard at an angle and supports said biasing means.

6. The apparatus of claim 1 in which said cooking support portion is provided with a horizontal cross-piece.

7. The apparatus of claim 1 in which said cooking support comprises a horizontally-extending loop of vertically-oriented sheet metal.

8. The apparatus of claim 7 in which said cooking support is provided with an upper slot on each side of the loop and supports at said slots a horizontal cross-piece having mating lower slots, the slots on said cross-piece being closer together than the slots on each side of said loop when said loop is in its relaxed position.

9. The apparatus of claim 1 in which the base support member is provided with a plurality of vertical channels and standards, each said channel being spaced apart from other channels by a distance at least equal to the length of said handle portion.

References Cited

UNITED STATES PATENTS

2,584,310	2/1952	Weinberg	248—125
2,698,726	1/1955	Howe	248—46
2,914,283	11/1959	Jorgensen	248—125
3,095,869	7/1963	Swenson	126—29 X
3,224,719	12/1965	Beckman et al.	248—188.7 X
3,329,041	7/1967	Moss	248—125 X
3,344,780	10/1967	Anderson	126—30

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