

Sept. 27, 1932.

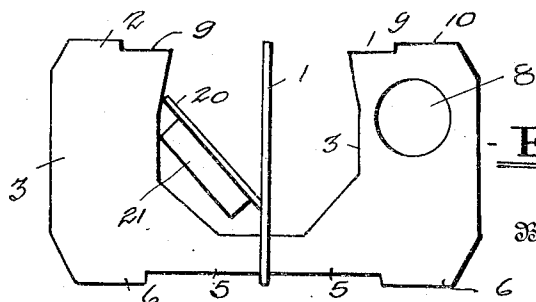
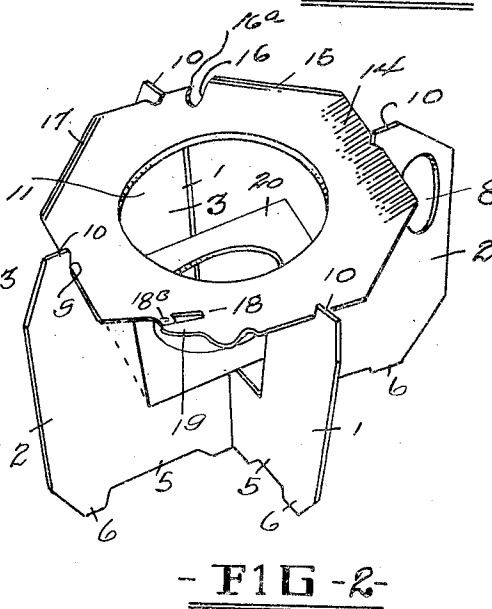
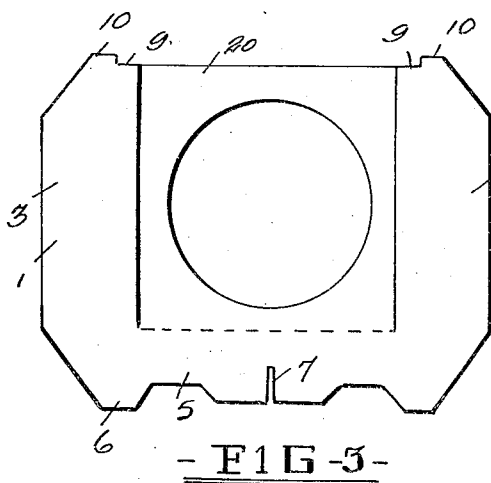
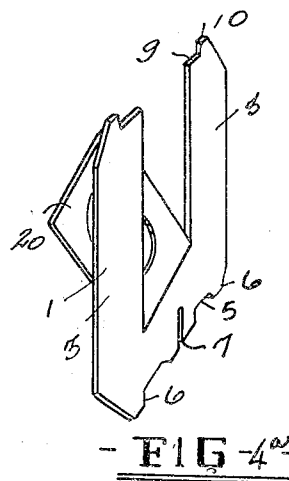
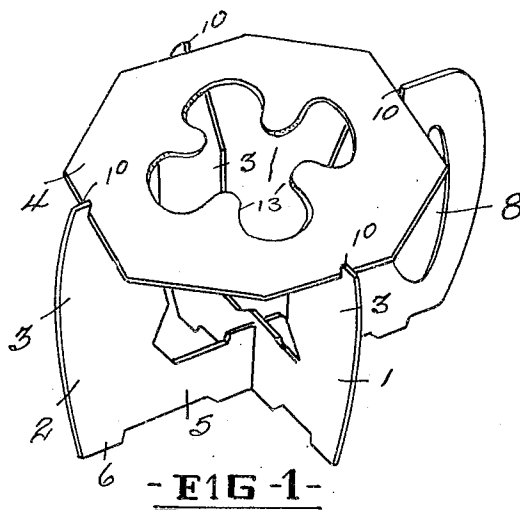
J. H. BIERLICH

1,879,837

COLLAPSIBLE STOVE AND COOKING UTENSIL

Filed Nov. 13, 1930

2 Sheets-Sheet 1



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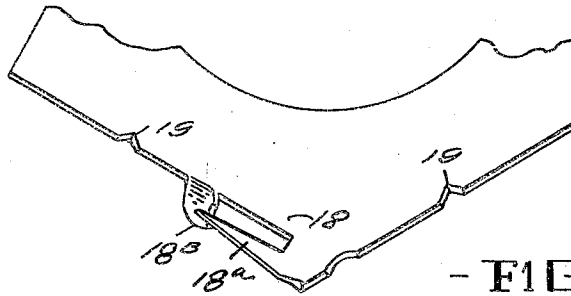
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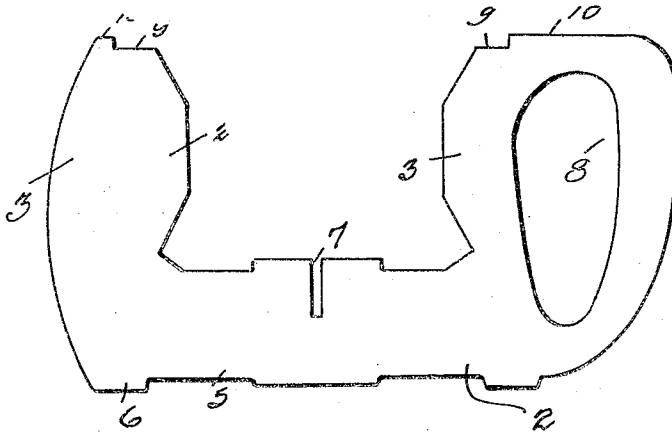
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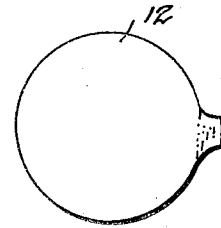
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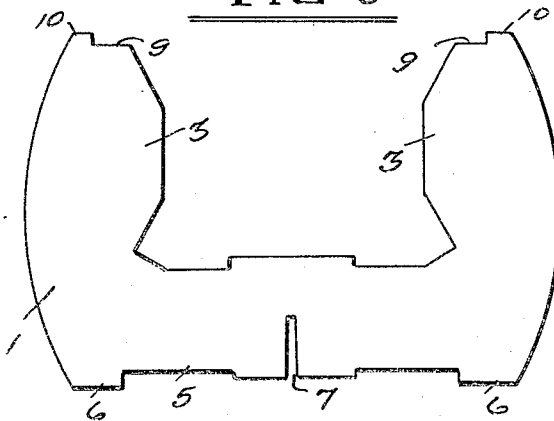
- FIG-5-



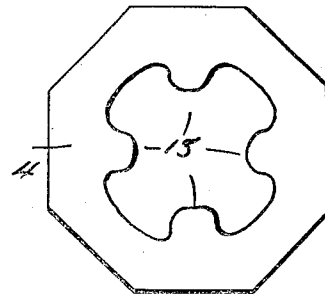
- FIG-6-



- FIG-9-



- FIG-7-



- FIG-8-

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UNITED STATES PATENT OFFICE

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COLLAPSIBLE STOVE AND COOKING UTENSIL

Application filed November 13, 1930. Serial No. 495,453.

My present invention, in its broad aspect, has reference to improvements in knock-down or collapsible sheet metal stoves for use in burning what is known as solidified alcohol fuel or canned heat, and more particularly it is my purpose to provide a stove of this character which combines structure adapted to be used as a can-opener, vegetable knife, bottle and jar opener, match striker, and the like. One of the main purposes of my invention is to form a stove of sheet metal; the parts of which are similar metal stampings, as for instance the two elements constituting the frame of the stove, and wherein the stamped out parts are utilized to form other parts of the stove, and wherein the quantity of sheet metal used to manufacture the stove is greatly reduced, the operations of manufacture reduced, and the resulting price for which the stove may be manufactured and sold greatly reduced. It is also my aim and object to provide a stove which may be knocked down quickly to be packed in a small space, and which may be set up with facility by one unfamiliar with mechanics, such for instance as a house wife or the like, which cannot get out of order, and which cannot be readily broken or bent out of shape.

Furthermore it is my purpose to provide a stove which may be readily lit and extinguished, and wherein the receptacle for solidified alcohol fuel is properly retained so that it will not be affected by jars or bumps, and so that the stove can be moved about and the like without the fuel container becoming misplaced, although the container may be readily fixed or removed. My stove also affects economies in material, tools, dies, waste stampings and the like, and its structure is such that the flame always gets a proper draft of air so that its effectiveness is increased.

In practice the shape, form and size of the various parts may be varied without departing from the main principle of the invention, and for that reason the right to make minor changes to conform with variations in practice is reserved provided such changes fall within the scope of what is claimed.

In the drawings wherein the preferred form and several modifications of my invention is illustrated:—

Figure 1 is a perspective view showing the principal embodiment of my invention set up; 55

Figure 2 is a perspective view showing a form of my invention combining in the top part various kitchen utensils, such for instance as a can opener, a vegetable knife, a match striker et cetera. This view is also in perspective, with the stove set up and the fuel retainer in place. 60

Figure 3 is a view of the blank of one frame element of the stove, the other frame element being similar in size, shape and form. 65

Figure 4 is a view of the fuel retainer which is struck out of the waste of the frame element in Figure 3.

Figure 4a is a perspective view of the frame element and fuel support or retainer. 70

Figure 5 is a fragmentary view of the top of the stove shown in Figure 2, and shows the notches for engaging the frame elements, and the formation of the can opener. 75

Figure 6 is a view of one of the frame elements used in the form shown in Figure 1, and has the part serving as the finger grip or handle.

Figure 7 is a view of the other frame element used in the form shown in Figure 1, and 80

Figure 8 is a view of the top part of the type of stove shown in Figure 1.

Figure 9 is a view of the top, cover.

In the drawings wherein like characters of reference are used to designate like or similar parts throughout the several views;— 85

The numeral (1) designates one frame element of the form shown in Figure 1, and (2) other frame element. Both of these frame elements are one-piece metal stampings, each having two spaced, relatively parallel up standing supporting legs (3) for supporting the top of the stove (4), shown in Figure 8, and a transverse part (5) adjacent the bottom; each element has extensions (6) forming feet, and midway the length of each transverse part is a slot (7); the slot (7) of element (1) is directed up from the bottom edge to a point past midway of the breadth of 100

the part (5), and the other slot (7) of the element (2) is directed down from the top edge to a point midway the breadth of part (5). In practice the elements (1) and (2) are assembled by crossing the transverse parts and interfitting the slots, so that the remaining unslotted part of each transverse part is gripped in the slot of the other part, in which position the upper and lower edges of the parts 5 are in the same relative plane.

As shown the element (2) has one upstanding leg enlarged and stamped with an opening (8) therein constituting a finger grip or handle. The upper edge of each upstanding leg is cut away as at (9) to form a seat for the top part (4) shown in Figure 8, there being left an upstanding lug (10) on each leg so that when the top (4) is fitted in the seats (9) it will be properly supported and held in place. The top (4) is an octagonal metal stamping having a center opening (11) to permit passage of heat therethrough, which may be provided with a cover (12) if desired. Also the opening (11) may be irregular in shape to form opposed extensions (13), or it may be simply circular as shown in Figure 2.

At any rate, my stove is formed of but three separate parts, i. e. the top (4), and the interfitting frame elements (1) and (2).

Referring now to Figures 2, 3, 4 and 5; it will be seen that while the frame elements (1) and (2) are similar to those shown in conjunction with Figure 1, that the top (4) is quite different; the octagonal shape is retained but the edges are so formed that they may be used for kitchen implements or utensils. The part (14) is ribbed or serrated to provide a match striker; edge (15) is sharpened to form a knife edge; a recess and engaging lip, respectively (16) and (16a) are provided to form a bottle or cap remover; edge (17) is sharpened to form a vegetable knife, and a can opener (18) is provided on the remaining edge. The can opener (18) contemplates a penetrating knife edged extension (18a) and a depending lug (18b) to engage the peripheral edge of a can top so that the part (18a) may be inserted to cut around the top in the usual manner. The top (4) furthermore is notched as at (19) at four opposed points to engage the upstanding lugs (10) to more firmly hold it in place.

It will be noted on reference to Figures 3, 4 and 4a, that a fuel container support (20) is formed by striking out a rectangular (or other shaped) part having a center opening from between the supporting legs; this member is then bent over along the dotted line shown in Figure 3, and a fuel container for solidified alcohol, or "canned heat" is inserted in the opening; the container is designated (21). It may be of any suitable size, shape or form.

An electric hot plate is also within the contemplation of my invention; such a hot plate

is especially desirable where a source of current is at hand, as for instance in small apartments, or the like, or for heating up a baby's bottle during night feedings and the like.

While it is believed that the form, shape, size, structure and operation of my invention is clearly apparent from the foregoing description, together with its advantages, it is pointed out that all parts may be packed away in a flat box, one on top of the other to take up very little space, making it ideal for camping trips, and touring, and the cost is commensurate with the type of fuel used, and the nature of its practical application. The frame elements are simply fitted together, and the fuel container placed in its support and lighted; the top serving to provide all the necessary kitchen utensils for a camping trip. However that may be, it is again desired to emphasize that interpretation should only be conclusive when made in the light of the subjoined claims.

I claim:—

1. A knock-down stove formed of three pieces, two of said pieces interfitting to relatively support each other to provide a frame for the stove, the third piece resting on the tops of the other two pieces and forming the top of the stove, one of said first mentioned pieces having formed integrally therewith a member bent outwardly therefrom at an angle, said member being formed to support and carry fuel for the stove.

2. A knock-down stove comprising a pair of substantially U-shaped members of substantially the same size and configuration, said U-shaped members crossed at their bases and interfitting to relatively support each other to provide a frame for the stove, and having notched upper ends, a top plate resting on the notched ends of the members, and one of said frame members having an integral part bent outwardly at an angle therefrom and toward the other U-shaped member when said members are interfitting, said part formed to carry fuel for the stove.

3. A sheet metal knock-down stove, comprising a pair of substantially U-shaped sheet metal parts cut to interfit at their bases to relatively support each other to provide a frame for the stove, and one of said U-shaped parts having an integral extension struck from the material between its upstanding legs, and bent outwardly and at an angle to the base thereof, and toward the other U-shaped member when said members are in interfitted relationship, said extension formed to carry a supply of fuel for the stove.

In testimony whereof, I affix my signature hereunto.

JOHN H. BIERLICH.