April 5, 1938. G. A. HALTER 2,113,082

CAMP STOVE

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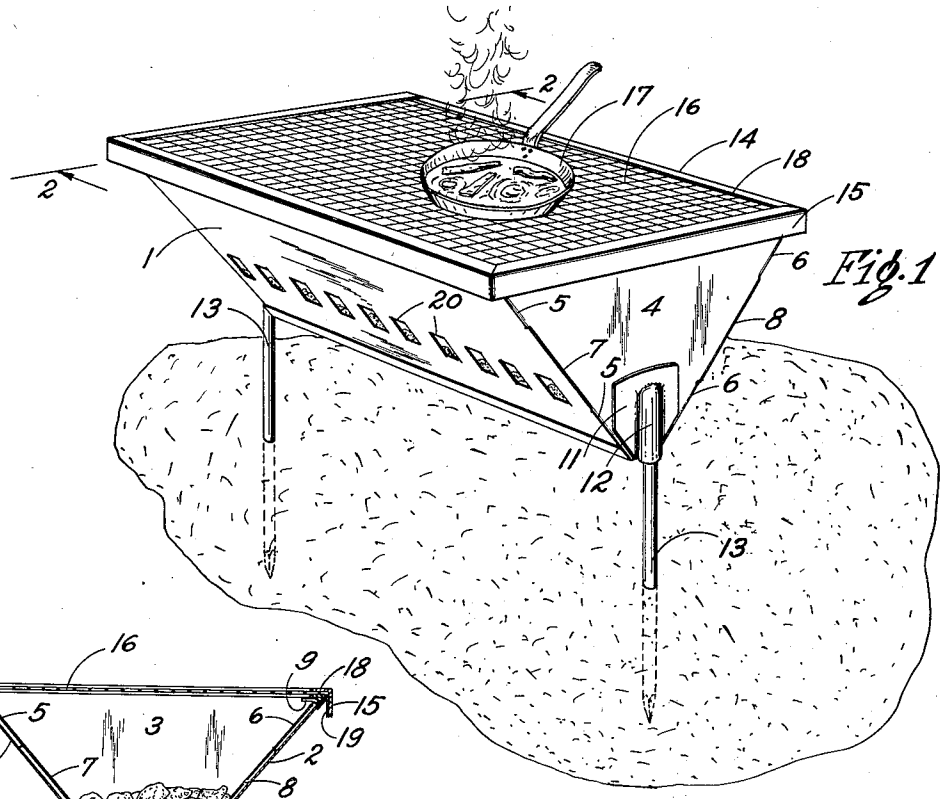


Fig. 1

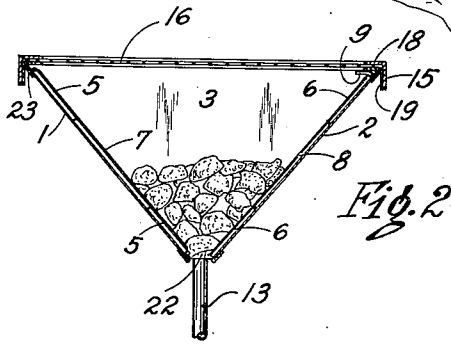


Fig. 2

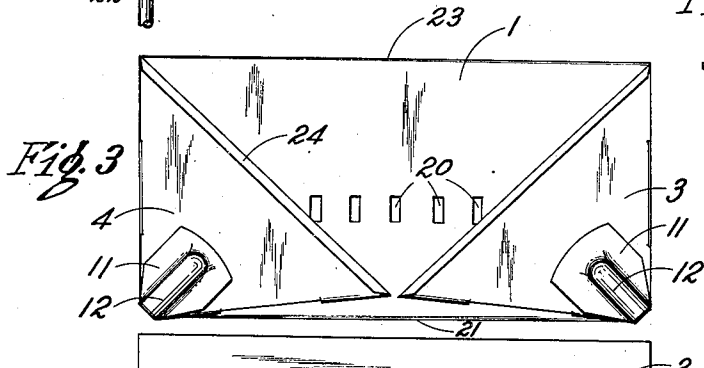


Fig. 3

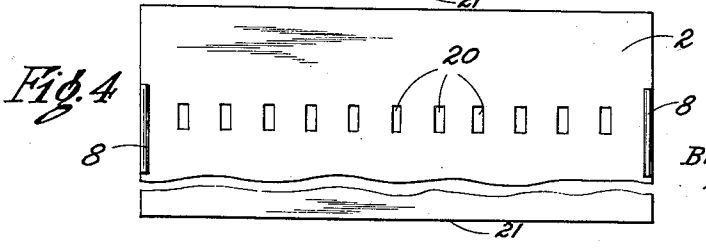


Fig. 4

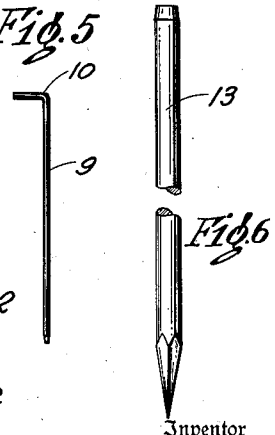


Fig. 5

Fig. 6

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CAMP STOVE

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3 Claims. (Cl. 126—29)

My invention is an improvement in camp stoves and relates more particularly to a collapsible or knock down camp stove.

One of the objects of the invention is the provision of a camp stove which may readily be knocked down for storage and transportation purposes and which may readily be reassembled for use.

Another object of the invention consists in the simplicity of construction of the device and the ease with which it may be set up or taken down.

A further object is to provide a stove of this character which is sturdy in construction and which is well adapted for practical use by virtue of its particular construction, that is, the arrangement of the draft orifices, the ash discharge and the fire box in general which insures an even fire within the fire box.

Other objects and advantages will become apparent from the following description of an embodiment of my invention, reference being made to the accompanying drawing in which like reference characters are employed to designate the like parts throughout the same.

In the drawing:

Figure 1 is a perspective view of an embodiment of my invention shown in use.

Figure 2 is a section taken on line 2—2 of Figure 1,

Figure 3 is a side view of a portion of the stove body and shows the end pieces attached and folded thereagainst,

Figure 4 is a similar view of another portion of the stove body,

Figure 5 is a front view of one of the locking rods, and,

Figure 6 is a broken side view of one of the stakes used to support the stove over the ground.

In constructing a knock down camp stove it is, of course, desirable to maintain simplicity of construction and at the same time to provide rigidity in the assembled stove. It is also desirable to provide such a stove which may be disassembled easily and the parts packed together so that they will occupy the minimum space in transportation and storage. Furthermore, such a stove should be so constructed that it will be practical and economical in use.

It is with these purposes in mind that I have provided my invention and in carrying out the same I will proceed to describe one embodiment thereof as illustrated in the accompanying drawing.

I provide a stove body comprising essentially a fire box which is preferably triangular in cross section and which is supported in use so that one of its triangular sides lies in a substantially horizontal plane. The fire box is constructed preferably of sheet steel of suitable gauge to insure rigidity in use, and comprises a pair of side pieces 1 and 2 and the ends 3 and 4 respectively. In the illustrated embodiment the triangular shaped end pieces 3 and 4 are hingedly carried by the side piece 1 at its respective ends and are adapted to swing inwardly to lie flat against the side piece 1 as shown in Figure 3.

The end pieces may have portions of its side edges rolled as at 5 and 6 into circular cross section to register with similarly rolled edge portions of the side pieces at 7 and 8 to form hinge sections. Hinge pins (not shown) may be permanently carried in the rolled portions 5 and 7 to hingedly connect the adjacent edges of the end plates 3 and 4 and the side plate 1 as shown in Figure 3. Removable hinge pins 9, having one end bent at 10 to provide a grip, are inserted in the aligned rolled portions 6 and 8 when the end pieces are swung outwardly to receive the other side piece 2, as shown in Figures 1 and 2.

At the apex of each of the triangular ends, I have secured a plate 11 having a portion 12 forming with the adjacent end piece surface a socket opening downwardly to removably receive the upper ends of the supporting stakes 13.

A grille comprising a rectangular frame 14 having a depending peripheral flange 15 and an open or coarse mesh wire supporting surface 16, is adapted to be placed over the open upper portion of the fire box. This grille is fully removable for storage or transportation purposes and serves as a support for pans or the like 17 over the fire within the fire box. In order to insure a strong construction I prefer to weld certain of the parts together. For instance, the grille may be made sturdy and rigid by welding the wire mesh 16 along its edges to the inwardly extending flanges 18 of the frame 14 and angle strips 19 may be welded at points to the wire mesh and to the inner surfaces of the flanges 15 and 18 as shown in Figure 2.

It is to be noted that each of the side pieces 1 and 2 is provided with a series of draft openings 20 located sufficiently above the bottom edges 21 of these pieces to permit the ready entrance of fresh air to the body of fuel within the fire box. As illustrated in Figure 2 it will also be noted that a bottom air inlet and ash discharge opening 22 is formed between the adjacent spaced bottom edges of the side plates 1 and 2.

Each of the side and end plates is preferably reinforced along its edges by bending the edge portions such as at **23** and **24** back upon the main portions of these members.

In use, the camp stove is easily assembled in the following manner. The unit shown in Figure 3 is opened by swinging the hinged end pieces **3** and **4** outwardly at approximately 90° to the plane of the side piece **1**. The opposite side piece **2** is then placed, as in Figures 1 and 2, so that the rolled hinge members **8** and **6** are in alignment. When so adjusted the hinge pins **9** are inserted therethrough lengthwise to hold the parts together. The spacing of the stakes **13** is determined and the stakes are driven into the ground sufficiently to form a solid support for the assembled fire box. The fire box may now be supported on the stakes by inserting the upper ends of the stakes in the sockets **12** as shown in Figure 1. Suitable fuel is placed in the open top of the fire box to the desired depth and the cover or grille **14** is then placed over the top opening as indicated in Figures 1 and 2. The device is then ready for use.

Some of the advantages of a device constructed in accordance with my invention are its rigid but simple construction, the ease with which it may readily be set up or disassembled for storage or transportation, and the ability of the device to maintain an even, hot bed of coals within the fire box. The downwardly converging side walls **1** and **2** cause the ashes to settle adjacent the elongated opening or slot **22** where they may be removed easily by inserting the end of a stick or poker within the slot and running it along the same from one end to the other. As the ash is removed the coals will settle in the fire box toward the lower angular extremity thereof. The particular arrangement of the opening **22**, the converging side walls **1** and **2** and the series of draft openings **20** all contribute to the easy maintenance of an even, hot fire within the box.

Various changes may be made in the details of construction or arrangement of parts without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. A camp stove including a fire box of triangular cross section comprising a pair of side walls and a pair of end walls, said end walls being hingedly attached to one of said side walls and movable relative thereto through an arc of approximately 90°, means for removably attaching the end walls to the other of said side walls, a support for the fire box, and a fully removable cover therefor, said side walls having draft openings therein, and converging at the bottom of the box to form an ash discharge opening.

2. A camp stove including a fire box of triangular cross section comprising a pair of side walls and a pair of end walls, said end walls being hingedly attached to one of said side walls and movable relative thereto through an arc of approximately 90°, means for removably attaching the end walls to the other of said side walls, a support for the fire box, and a fully removable cover therefor, said cover comprising a metallic frame and a heavy mesh grid within the frame.

3. A knock down camp stove comprising a pair of downwardly converging side members, end members hingedly carried by one of said side members and adapted to be folded against said one side member when the stove is disassembled, said end members and said other side member having adjacent portions rolled for interfitting engagement one with the other, and locking pins removably insertable in said adjacent interfitting rolled portions to hold the parts rigidly together when assembled, said end members having sockets formed therein and a pair of stakes removably engageable with the sockets for supporting the stove above the ground, said side members having a series of air inlets therein and being spaced apart at their lower edges to form an elongated ash discharging opening therebetween.

GEORGE A. HALTER.