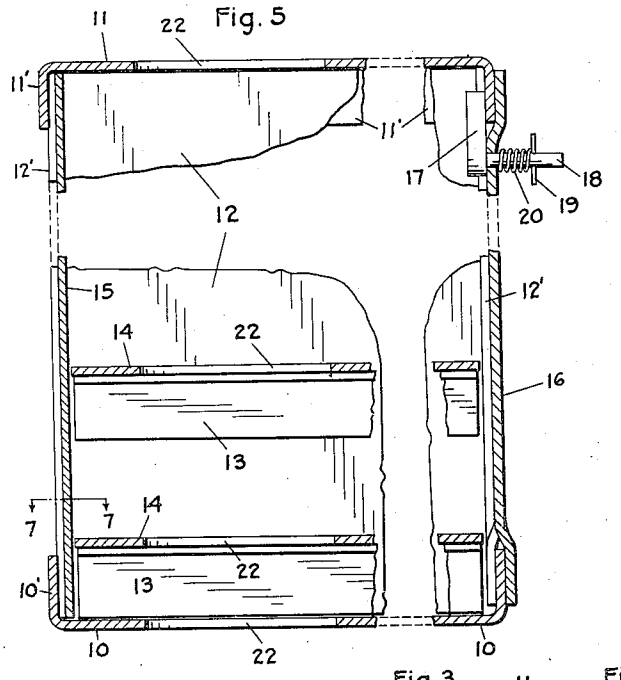
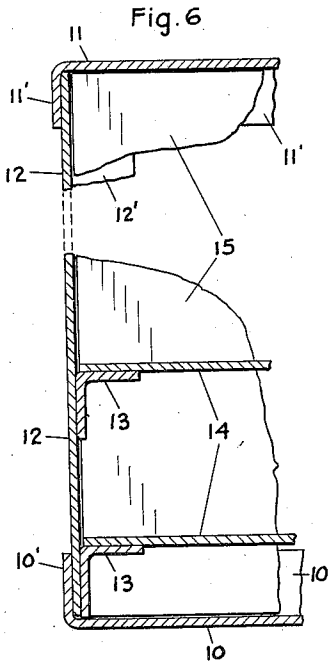
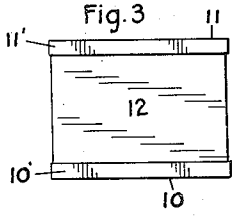
June 7, 1938. W. F. SIVEY 2,119,798

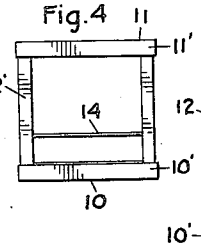
COLLAPSIBLE OVEN

Filed March 4, 1937









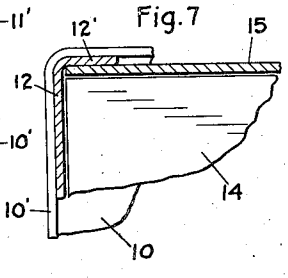
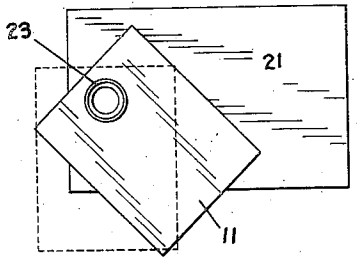


Fig. 1



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2,119,798

UNITED STATES PATENT OFFICE

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COLLAPSIBLE OVEN

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Application March 4, 1937, Serial No. 128,958

1 Claim. (Cl. 126—9)

My invention relates to ovens and more particularly to ovens which are designed for the use of tourists and campers, the oven being made collapsible for the purpose of providing a portable oven.

Another object of the invention is the provision of a collapsible oven which may be assembled or disassembled in the minimum of time and with the minimum of effort.

Another object of the invention is the provision of a collapsible oven which is "self-contained," the top and bottom of the oven when collapsed constituting a box-like receptacle for all of the other parts of the oven which substantially fill the box.

Another object of the invention is the provision of a collapsible oven in which the various parts are interfitted in a manner such that there can be almost no leakage of air through the oven walls while the oven is in use.

Another object of the invention is the provision of a portable oven having an oven door which may be entirely detached from the oven and which is provided with a latch which may be also detached.

A very important object of the invention is the provision of an oven having a very definite relationship to a stove top whereby the oven may be swung on an axis about the flue so as to make available the entire stove top when the oven is out of use and so as to regulate the heat of the oven.

Having in view these objects and others which will be pointed out in the following description, I will now refer to the drawing, in which

Figure 1 is a view in diametric projection showing the use of my oven secured to a stove.

Figure 2 is a diagrammatic plan view showing the swivel of the oven.

Figures 3 and 4 are views in side and front elevation respectively, drawn to the same scale as Figure 2.

Figure 5 is a broken longitudinal section on the center line of my oven, parts of the oven being broken away.

Figure 6 is a sectional view of the rear part of my oven, the section being transverse with respect to the oven.

Figure 7 is a view in section on the line 7—7 of Figure 1 looking in the direction of the arrows.

The bottom or base 10 of the oven and having vertical flanges at 10' is in the form of a tray. The top 11 with its vertical flanges 11', is identical with the bottom and the two may in fact be used interchangeably. The two side walls 12 are seated within the side flanges 10' and 11' and these also are provided with flanges 12' which seat against the forward and rear flanges 10' and 11'. The side walls 12 carry angle iron brackets 13 which are spot welded or otherwise secured to the side walls to serve as supports for the shelves 14. The back wall 15 of the oven has no flanges whatever and it seats between the rear flanges 12' and the ends of the brackets 13.

The door 16 is best shown in Figures 1 and 5, reference being made also to Figure 4 showing the door frame. The lower portion of the door 16 is forked as shown in Figure 1 to straddle the forward flange 10'. The door is bent at its upper and lower ends to the form shown in Figure 5, so that it is flush against the outer surfaces of the forward flanges 12', the upper and lower end portions of the door bearing against the outer surfaces of the forward flanges 10' and 11' with the body of the door in the plane of these two flanges. The door is also provided with a latch 17 having an axis 18 for turning the latch into or out of latching position. The axis is provided with an aperture for receiving a pin 19 for convenience in turning, as well as the spring 20 for the compression of the latch in order to position the latch 17 against the rear of the forward flange 11'.

Since the oven is to be collapsible and compact in form, the relative dimensions of the various parts must be such that the parts may be properly nested. The bottom 10 and the top 11 are to serve as covers for all of the other parts of the oven. For this reason the top and bottom are made identical, so that the edges of the flanges 10' and 11' may be positioned in contact with each other to form an enclosed box for containing the other parts. The two side walls 12 are placed together with their surfaces opposing each other and with the brackets 13 overlapping, so that the combined thickness of the two side walls when collapsed is only slightly greater than the width of one of the brackets 13. The shelves 14 and the back wall 15 are flat and occupy very little space when stored inside the box. For storage, the latch 17 with its operating parts must be removed from the door in order to prevent injury to these parts. The pin 19 and spring 20 are readily removable so that the latch 17 may be withdrawn and thrown into any convenient space in the box. Figures 2, 3, and 4 show the relative dimensions of the various parts, making possible the use of the box formed by the top and bottom to hold all the other parts of the oven.

The oven in the present instance is designed for use with a stove **21** or for any other stove having a flat top. The top, bottom, and shelves of the oven are provided with apertures **22** in vertical alignment with each other. The diameter of these apertures is such as to accommodate the flue **23** from the stove **21**. The oven is turnable on its support and about the axis of the flue **23** into any desired position from that shown in Figure 1 to a position diametrically opposite that of Figure 1. The oven itself may have several functions, but in every case the swivel relationship of the oven to its support is important. The heat in the oven is derived from the heat in the stove **21** and the heat in the flue **23**, so that considerable variation in the oven heat may be had by turning the oven to the desired position with reference to the top of the stove **21**. The position shown in Figure 1 gives the full heat effect but it is obvious that if the oven is turned to one of the positions indicated in Figure 2, the heat from the stove top going into the oven will be less than the heat when the parts are in the Figure 1 position. If the oven is swung from its Figure 1 position through a full two quadrants, the oven heat will be at its minimum since almost its only heat comes from the flue **23**. In this position the oven serves as a warming oven. This is also the position which the oven should occupy when the entire surface of the stove is needed for other purposes.

The above described oven is designed with special reference to my stove **21** with its flue **23** as more fully described in my copending application. Both the stove and the oven are designed to meet the needs of tourists, campers, and others requiring a portable oven. The oven is compact and it occupies very little space in the automobile or trailer. The assembling of the various parts requires only a few minutes' time and effort. It is almost instantly available as an oven and it is just as easily disassembled and packed when the time comes for breaking camp. When used with my stove, the stove itself is collapsible so that the oven may be inclosed within the collapsed stove so that the two together will occupy very little space. The oven may, however, be used with any flat and heated surface having a flue projecting upwardly. This is important because many camps and picnic grounds have improvised stoves made by placing a sheet of iron on stones or similar supports with a flue for conducting the smoke. The present improvised stove does not provide for the baking and roasting of foods, but my oven will readily supply this need since it is adapted for use on almost any kind of stove. The oven is, moreover, so readily portable and so easily assembled and disassembled that it will be found useful on nearly all picnic and camping trips.

Having thus described my invention in such full, clear, and exact terms that its construction and utility will be readily understood by others skilled in the art to which it pertains, what I claim as new and desire to secure by Letters Patent of the United States is:

A collapsible oven having a tray-like top and bottom with inturned flanges on all of the edges thereof, side walls with lateral inturned flanges, shelf brackets secured to said side walls and terminating short of said side wall flanges, a rear wall seated between the inner surfaces of the flanges of said side walls and the extremities of said shelf brackets, shelves on said shelf brackets, a door for detachably engaging the forward flange of said bottom and a detachable latch for holding said door in closed position, the arrangement being such that said rear and side walls and said shelves and said door may be stored in the space between the said tray-like top and bottom in parallelism with said top and bottom.

WILLIAM F. SIVEY.