

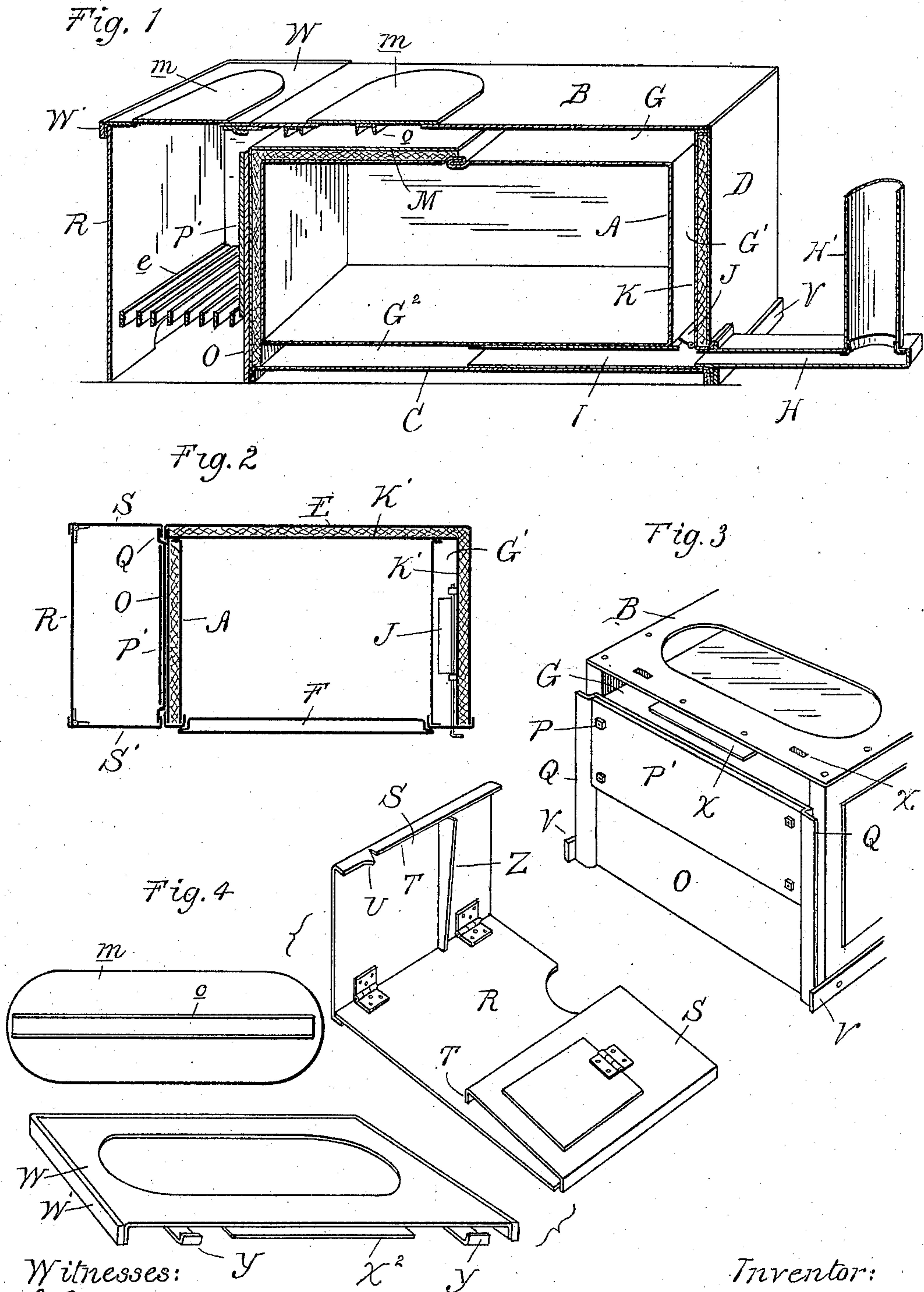
(No Model.)

2 Sheets—Sheet 1.

O. D. HUNT.
CAMP OR ARMY STOVE.

No. 577,619.

Patented Feb. 23, 1897.



Witnesses:
P. M. Halbert
L. J. Fortune

Inventor:
Oliver D. Hunt
By *Huss & Magnusson* Attys

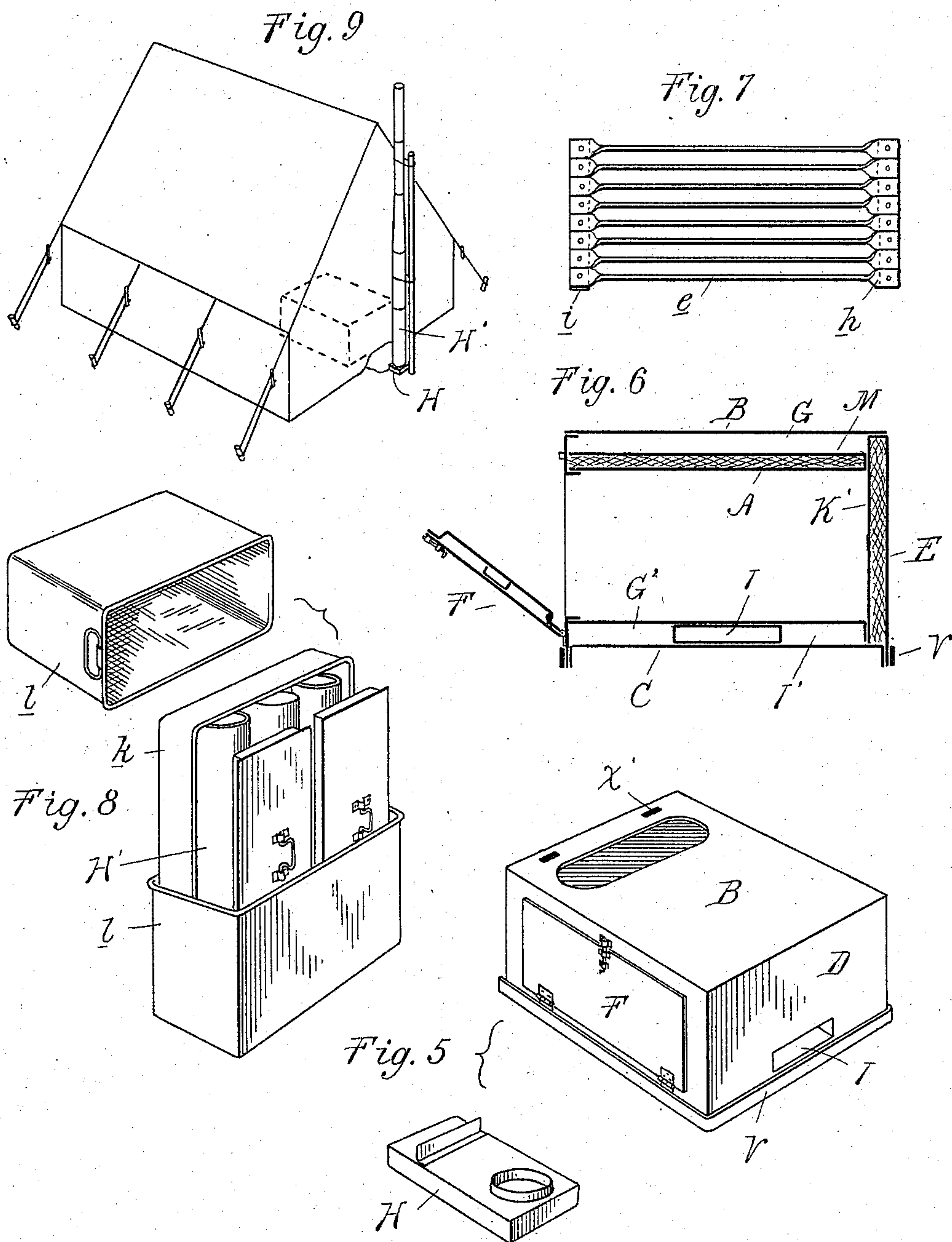
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UNITED STATES PATENT OFFICE.

OLIVER D. HUNT, OF DETROIT, MICHIGAN.

CAMP OR ARMY STOVE.

SPECIFICATION forming part of Letters Patent No. 577,619, dated February 23, 1897.

Application filed August 26, 1896. Serial No. 603,927. (No model.)

To all whom it may concern:

Be it known that I, OLIVER D. HUNT, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Camp or Army Stoves, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates to the construction of a camp-stove; and it consists particularly in the construction of the various parts, as more fully hereinafter set forth.

15 One of the leading features of the invention is the construction of the oven with a double-walled top, forming a flue over the top, with a fireplace or fire-chamber detachably secured to the end of the oven, its upper wall or plate detachably engaging with
20 the upper wall or plate of the open end of this flue.

A further feature of the improvement is the detail construction of the insulation at the point of greatest heat and the construction of this insulation, whereby parts of it
25 liable to burn out may be easily and quickly replaced.

Other features of the invention relate to the construction and arrangement of the flues
30 and smoke-pipe, the connection between the detachable parts, and the construction, arrangement, and combination of the various parts of the apparatus.

In the drawings, Figure 1 is a sectional
35 perspective view of my stove. Fig. 2 is a central horizontal section thereof without the smoke-flue. Fig. 3 is a perspective view of the end of the oven, showing the device thereon for attaching the fire-chamber. Fig.
40 4 is a detached perspective view of the parts composing the fire-chamber. Fig. 5 is a detached perspective view of the oven with the smoke-flue detached. Fig. 6 is a transverse section through the oven. Fig. 7 is a plan
45 view of the grate. Fig. 8 is a detached perspective view of the utensils, showing the manner of packing the same, together with the stove-pipe for insertion in the oven. Fig. 9 is a perspective view showing my invention as in
50 use in the tent.

A is the inner wall of the oven. This oven

has an outer wall, which comprises the top B, the end D, the bottom C, and the back E, and at its front side is provided with a double-walled door F. These double walls
55 are so arranged as to form over the top of the oven, between the two upper walls, a flue G, open at one end and at the other end connected into the vertical flue G', which communicates in turn with the flue G² beneath
60 the oven.

In the end wall D, in line with the flue G², is an aperture into which projects the end of the smoke-pipe H, which thus extends out
65 laterally from the bottom of the stove a suitable distance to project clear from the wall of the tent, beneath the lower edge thereof, and at its outer end is adapted to receive the smoke-pipe H', which is preferably made in
70 sections of gradually-decreasing size, so as to telescope one within the other. The smoke-pipe H at its inner end connects into a flue I, which extends backward into the smoke-flue G² more or less, so that the products of
75 combustion coming down the flue G' will pass on each side of the flue I in the passage or flue I' (see Fig. 6) before finding exit to the smoke-pipe at the bottom of the flue. A
80 damper J controls an aperture in the top of the flue I, so that, if desired, the products of combustion may pass directly from the flue G' into the smoke-pipe H for controlling the draft.

To better retain the heat in the stove, I insulate the wall B by arranging the plate K
85 parallel therewith and filling the space with asbestos or other similar material. The back wall E has a corresponding plate K', the two being made in one piece, L-shaped, as shown in Fig. 2.
90

M is an L-shaped plate, of sheet metal, fitting over the end and part of the top of the oven A, arranged a slight distance from the walls thereof and the space between being filled with asbestos, as shown plainly in Fig.
95 1. This serves to protect the wall of the oven proper from the direct heat of the fire at the point where the fire is hottest and preferably extends over about half the length of the oven, as I have shown it in the drawings.
100

On the end of the oven to which the fire-box is attached is a plate O, detachably se-

cured in position by bolts P. The upper part of this plate is preferably reinforced by a second plate P', held in position by the same bolts, this being the point where the greatest heat from the fire will come, and it is so constructed that either the plate P or the plate P' may be renewed by simply loosening the nuts on the bolts P and secure them upon the new plate. At the edge of the plate O are the vertical flanges Q.

The fire-chamber consists of a side R, preferably of sheet metal, and the two ends S S' hinged thereto in such a manner that they can be opened only to a position at right angles to the side R.

At the free edges of the ends S S' are the inturned flanges or hooks T, adapted to engage with the flanges Q to hook the fire-chamber to the oven. Near the top these flanges are provided with the offset portions U, which form a shoulder adapted to rest upon the top of the flanges Q to prevent the downward movement beyond the desired point of the fire-chamber. At the lower edge the ends engage behind the ends of the straps V, which form a reinforcement around the lower edge of the oven, as plainly shown in Fig. 3.

W is the top of the fire-chamber, having marginal flanges W' fitting over the sides and ends S S' R and engaging with the top wall B at its inner edge, being secured thereto preferably in the following manner: On the under side of the edge of the plate B is secured a plate X or ledge projecting slightly outward, as shown in Fig. 3, and at each side of this are apertures X'. On the edge of the top W is a lip X², sufficiently below the top W to engage beneath the plate X, while the edge of this plate will project above that plate.

Y are two hooks projecting from the top W and adapted to engage in the apertures X', as shown. This connection forms not only a rigid connection between the top W and the top section B of the oven, which is adapted to sustain the load of any article put thereon for cooking, but also prevents undue quantity of air from coming in at this joint and also the warping of the metal, which is apt to take place without the reinforcement and interlocking features employed.

Z are ledges on the ends S S', adapted to support the grate, which I have shown in detail in Fig. 7.

The grate comprises the grate-bars e, each formed from a single piece of sheet metal having the end portions h twisted at right angles to the body portion thereof, which body portions extend in a vertical plane. These end portions h are connected together by rivets or otherwise to a connecting-bar i. I find that this type of grate is very light, easily manufactured, and is very satisfactory in use.

In Fig. 8 I have shown the manner of packing the utensils which go with a stove of this kind, so that they all may be put into the

oven, and thus make the stove self-contained. The baking-pans k may be nested if there are more than one and stowed within the boilers l, being of such length that the boilers may be placed over each end to form, when together, a rectangular hollow chamber of just the right size to fit within the oven. Within these boilers may be placed any other furniture which goes with the stove, together with the pipe-sections H'. The fire-chamber being folded up and the smoke-pipe H stowed in the boilers, it will be seen that when the stove is stored everything will be contained in the oven proper. The lids m, and preferably the top B, I reinforce by channel-bars o, secured to the other side thereof.

When the parts are assembled as shown in the drawings and the fire built in the fire-chamber, the products of combustion rising to the top thereof will find exit through the flue G over the oven, passing down through the flues G' and out through the damper J', or passing upon each side of the flue I to the middle of the oven will pass therethrough into the smoke-pipe H and the stack H'.

By arranging the smoke-pipe H at the base of the stove I am enabled with the stove resting on the top of the ground, so that no hole is required to be dug, (which might collect water in wet weather,) to pass this pipe beneath the wall of the tent without cutting the same in any manner, as plainly shown in Fig. 9. At the same time, combining this with the fire-chamber at the opposite end and the flues as described, I am enabled to get excellent effects from the oven in cooking and to bring the products of combustion over the oven, so that in boiling, frying, &c., I obtain practically all the heat over the top of the stove.

What I claim as my invention is—

1. In a camp-stove, the combination of an oven having two separated top and end walls forming between them a continuous flue across the top, and a fire-box detachably connected to the end of the oven, and having a top detachably connected to and forming a continuation of the outer top wall of the oven, substantially as described.

2. In a camp-stove, the combination with the oven having double top walls of a reinforcing-plate on the edge of the upper wall of the top, a fire-chamber detachably secured to the end of the oven, a top therefor, a corresponding plate below the edge of the top forming a groove between in which the reinforcing-plate is adapted to engage and means for securing the fire-chamber to the oven for the purpose described.

3. In a camp-stove, the combination of an oven having a smoke-flue across the top, of a fire-chamber comprising a side and end walls hinged together, means for detachably connecting it to the end of the oven, and a detachable top for the fire-chamber, substantially as described.

4. In a camp-stove, the combination with an

oven having a double-wall top forming a smoke-flue between, of the reinforcing-plate projecting from the edge thereof and having the apertures X', of a fire box or chamber detachably secured to the end of the oven and extending up to the top wall of the oven, a detachable top W for the fire-chamber, having hooks Y adapted to engage in the apertures X', and a plate or lip X² below the top forming a recess in which the reinforcing-plate X is adapted to engage, substantially as described.

5. In a camp-stove, the combination with an oven having a smoke-flue across the top open at one end, of a fire-box detachably connected to the end of said oven and communicating with said flue at its open end, and the plate O detachably secured on the end of the oven, substantially as described.

6. In a camp-stove, the combination of an oven having a double-wall top forming a smoke-flue between, of the detachable fire-chamber including the end of this smoke-flue and comprising a side and ends hinged thereto, the hooks T on the ends, the detachable plate O on the end of the oven and the flange Q on the end of said plate, over which the hooks T are adapted to engage.

7. In a camp-stove the combination of the oven having the double-wall top forming a smoke-flue between, with L-shaped plate M extending over the end, and part of the top, of the inner wall of the oven and insulating ma-

terial between, and a detachable fire-chamber across that end of the oven.

8. In a camp-stove, the combination of an oven having a smoke-flue crossing the same and terminating at the bottom, a smoke-pipe extending laterally from the bottom of the oven and communicating with said smoke-flue, and a pipe H' at the outer end of the smoke-pipe located a sufficient distance from the stove to permit the wall of a tent to be placed between, substantially as described.

9. In a camp-stove, the combination of the oven having double walls to form a smoke-flue on the top, end and bottom, of the flue I in the bottom smoke-flue and communicating therewith at or near the middle thereof and extending to the outside of the stove and the smoke-exit at the end of the flue I in the base of the stove, substantially as described.

10. In a camp-stove, the combination of the fire-chamber and ledges thereon, of a grate consisting of the flat metal bars *e* set on edge, the end twisted portions *h* arranged at right angles thereto and the connecting-bar *i* to which these twisted portions are connected at each end.

In testimony whereof I affix my signature in presence of two witnesses.

OLIVER D. HUNT.

Witnesses:

M. B. O'DOHERTY,
E. J. FORTUNE.