

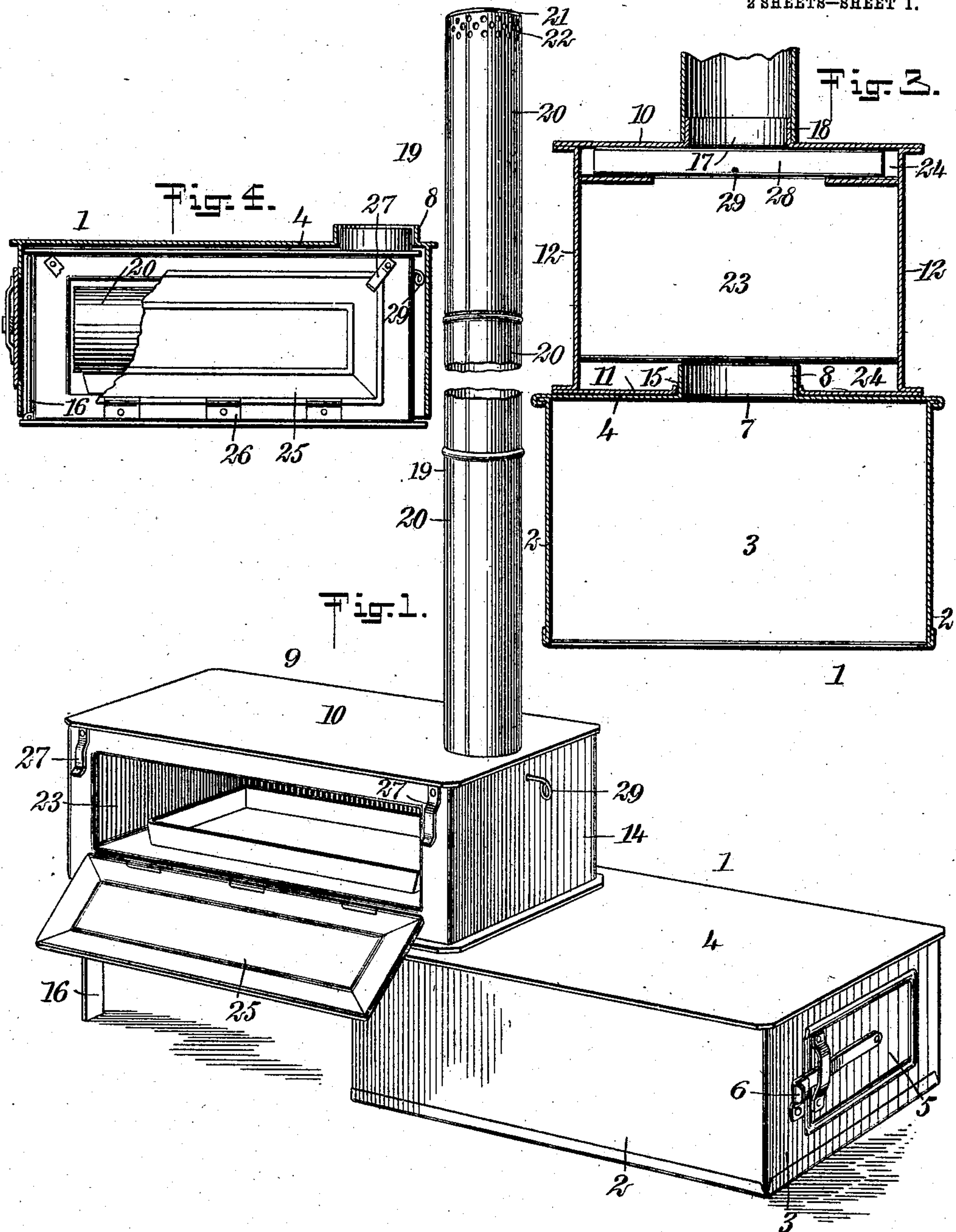
No. 858,872.

PATENTED JULY 2, 1907.

W. B. KIMMEL.
STOVE.

APPLICATION FILED AUG. 11, 1906.

2 SHEETS—SHEET 1.



WITNESSES

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INVENTOR

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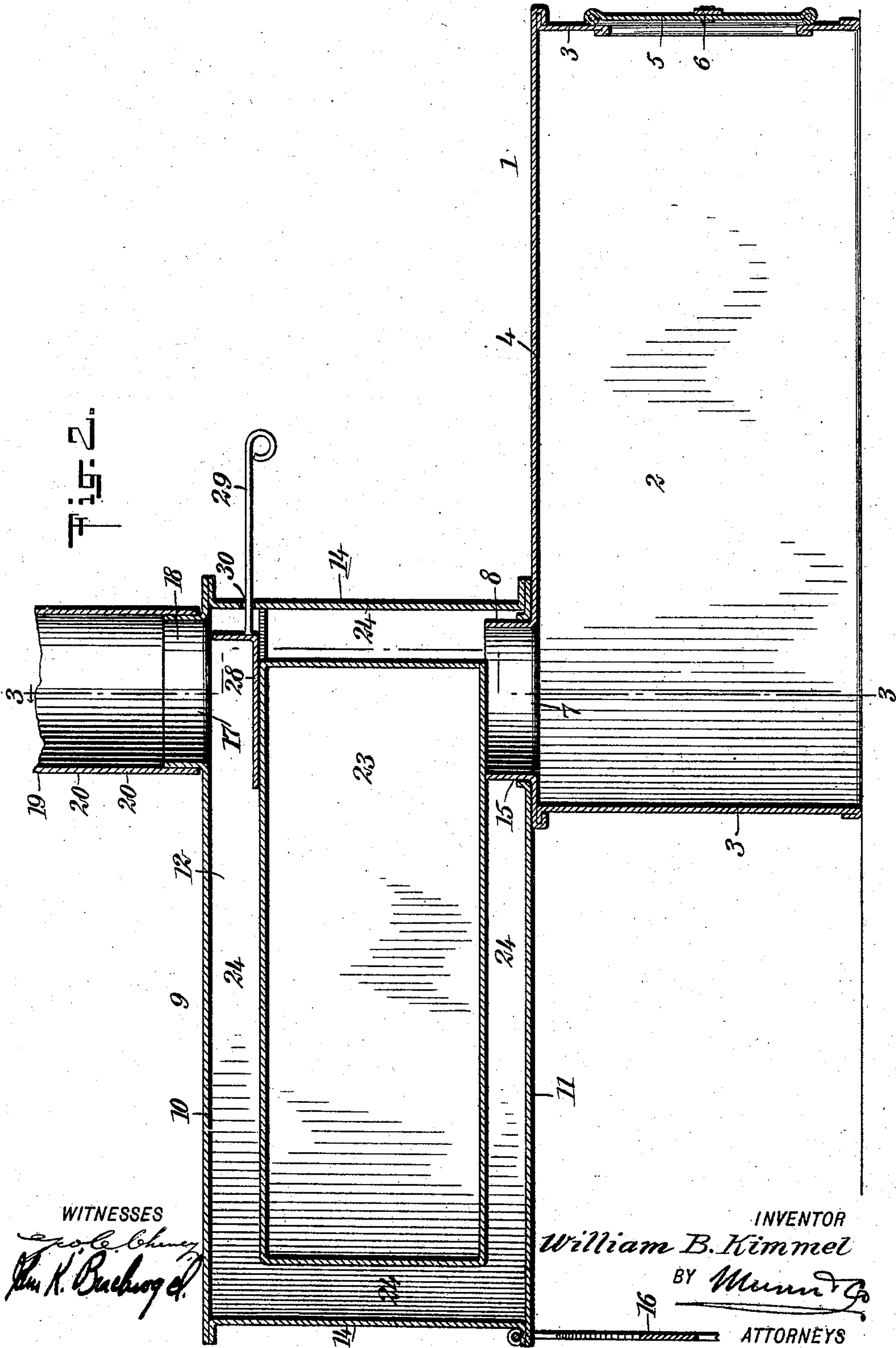
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UNITED STATES PATENT OFFICE.

WILLIAM BLANCHARD KIMMEL, OF BOISE, IDAHO.

STOVE.

No. 858,872.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed August 11, 1906. Serial No. 330,214.

To all whom it may concern:

Be it known that I, WILLIAM BLANCHARD KIMMEL, a citizen of the United States, and a resident of Boise, in the county of Ada and State of Idaho, have invented a new and Improved Stove, of which the following is a full, clear, and exact description.

This invention relates to stoves, and is especially useful in connection with devices of this character designed for military or camping uses and the like.

10 The object of the invention is to provide a stove which is strong, light and durable in construction, and inexpensive to manufacture, and which can be packed into a small compass by placing certain of the parts within other parts.

15 A further object of the invention is to provide a stove of the character described, which has an oven exceptionally well adapted for the cooking of food through being provided with chambers for the circulation of hot gases from the fire.

20 The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, in which

Figure 1 is a perspective view of the stove set up and ready for use; Fig. 2 is an enlarged longitudinal vertical section of the stove when ready for use; Fig. 3 is a vertical cross section on the line 3—3 of Fig. 2; and Fig. 4 is a partial vertical cross section of the device when packed for transporting or storing, showing a part broken away.

Referring more particularly to the drawings, I provide a fire-box 1, formed of sheet steel or other similarly suitable material, and having sides 2, ends 3, and a top 4. The fire-box has no bottom, and is adapted to be set directly upon the ground at a point at which the fire is to be built. In order to allow of the feeding and regulation of the fire, an end 3 of the fire-box is provided with a door 5, of the usual construction, hinged to the side and provided with the usual latch 6. The top 4 is provided with an opening 7, near an end of the fire-box, the opening having an upwardly projecting flange or collar 8. With the exception of the opening 8 the top 4 is level and imperforate and adapted to serve as an ordinary stove top for frying, cooking and the like, when a fire has been kindled within the fire-box. I prefer to construct the fire-box of strong sheet metal as it not only must be able to resist the direct contact of the flame, but it serves also as a case in which the remaining parts of the device may be packed, as will appear hereinafter.

The stove includes an oven 9 that is exceptionally well adapted for baking and the like, and is formed

from sheet iron or similarly suitable material. Like the fire-box, the oven is preferably substantially rectangular in form and has a top 10, a bottom 11, sides 12, and ends 14 joined in the usual manner employed in sheet metal work. The bottom 11 is provided with an opening 15, near one end of the oven, said opening 15 being adapted to register with the opening 7 of the fire-box when the oven is mounted thereupon, as shown most clearly in Fig. 2. In order to prevent the accidental displacement of the oven from the fire-box, the collar 8 is adapted to fit securely within the opening 15, as shown most clearly in Fig. 2. To support that part of the oven which is not mounted upon the fire-box, I provide the oven with a foldable support or leg 16, pivoted at that end of the oven remote from the opening 15. The support is adapted to rest upon the ground and hold the oven in a substantially horizontal position. The top 10 of the oven is provided with an opening 17, having an upwardly projecting collar or flange 18. To carry off the smoke I provide a removable smoke-pipe 19, consisting of a plurality of sections 20, the ends of which are adapted to fit into the ends of adjacent sections when the stove-pipe is set up. The lowermost one of the sections is adapted to fit upon the collar 18, as shown most clearly in Fig. 2. The uppermost stove-pipe section 20 is provided with a top 21, and a plurality of perforations 22, through which the smoke may escape, but which prevent the exit of cinders or burning particles of fuel, and thereby obviates the danger, for instance, of setting fire to a tent.

The oven is provided with an inner compartment 23, forming double walls at the top, bottom and ends, with continuous chambers 24 between these double walls. The compartment 23 extends from one side to the other of the oven, and there are thus no double side walls and no chambers at the sides. One of the side walls of the oven is provided with a door 25 having hinges 26 and latches 27 of the usual construction. This door, it will be understood, gives access directly to the inner compartment which is adapted to be used for baking and the like. The hot gases from the fire escape from the fire box through the opening 7 into the chambers 24 of the oven and circulate therein and find an outlet through the opening 17 and the smoke pipe 19. It will be understood that in this way the oven is completely surrounded by the products of combustion. It is thereby heated in a regular and constant manner, thus providing excellent means for baking and the like. In order to insure that the heated gases circulate entirely around the inner compartment of the oven and do not pass directly between through the end chamber into the smoke-pipe, I provide a damper 28, consisting of a flat plate having a laterally disposed end, which is adapted to slide on the top of the inner compartment and to close the opening between the

upper chamber 24 and the end chamber 24 over the opening 7. In order to manipulate the damper, it is furnished with a handle rod 29 attached to the laterally disposed end and projecting through an opening 30 in the end of the oven. The damper 28 may be used to regulate the draft and to insure that the oven is completely surrounded with heated gases, or if the oven is not in use it may be moved inwardly to allow the escape of the gases directly from the opening 7 through an end chamber into the smoke-pipe of the oven. As the oven is movably mounted upon the fire-box, it may be placed in a plurality of positions with reference to the same as the circumstances require. For instance, if it is used in a tent in which the room is limited, it may be placed directly upon the fire-box with the bottom 11 of the oven resting upon the top 4, thereby dispensing with the support 16. Further than this, the oven may be placed at right angles or at any angle with reference to the fire-box.

In order to pack the stove for storing or shipping the smoke-pipe is removed from the oven and separated into its sections. These are placed within the inner compartment 23 of the oven. The oven is then removed from the fire-box and the support 16 is folded upwardly against the end of the oven and the oven is then placed within the fire-box, as appears most clearly in Fig. 4. The collar 18 of the oven is so formed that it fits within the collar 8 of the fire-box.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A stove, comprising a fire-box open at the bottom and having an opening in the top near one end surrounded by a projecting collar, an oven adapted to be mounted upon said fire-box in a plurality of positions and having double walls forming a chamber therebetween, said oven having an opening in the bottom thereof adapted to register with said opening of the fire-box, and an opening in the top thereof surrounded by a projecting collar, and a removable smoke-pipe adapted to communicate with said top opening of said oven, said smoke-pipe being adapted to be placed within said oven, and said oven being adapted to be placed within said fire-box when the stove is not in

use, the collar on the top of the oven being constructed to fit within the collar of the fire box.

2. A stove comprising a fire box open at the bottom and having an opening in the top near one end thereof surrounded by an upwardly extending flange, an oven having an inner compartment spaced from the outer wall of the oven at the top, bottom and ends and forming communicating chambers, the oven being provided with alined openings near one end thereof in the top and bottom walls, the opening in the top wall being surrounded by an upwardly extending flange, said oven being adapted to be removably mounted upon said fire box with its bottom opening registering with said opening of the fire box and in alinement with the chamber at said end of the oven, a removable smoke pipe made in sections and adapted to communicate with said top opening of said oven and a damper slidably mounted on the top of said inner compartment of the oven at the top of the said end chamber and between the said openings in the top and bottom of the oven, the removable smoke pipe being adapted to be placed within said oven, and said oven being adapted to be placed within said fire box when the stove is not in use, the flange surrounding the opening in the top of the oven being constructed to fit within the flanged opening in the top of the fire box.

3. A stove comprising a fire box open at the bottom and having an opening in its top near one end thereof surrounded by an upwardly projecting flange or collar, and an oven having double walls, and alined openings in the top and bottom walls near one end, the opening in the top wall being surrounded by an upwardly projecting flange or collar, said oven being adapted to have the said end removably mounted upon said fire box with the opening in the bottom of the oven registering with said opening in the top of the fire box, the oven having a foldable support pivoted to the other end of the oven at the bottom thereof, the said support, when the stove is not in use, being adapted to fold upwardly against the end of the oven, and the said oven being adapted to be placed within said fire box, the collar on the top of the oven being of smaller diameter than the collar on the top of the fire box and adapted to fit therein when the oven is within the fire box.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM BLANCHARD KIMMEL.

Witnesses:

GEO. M. KURTZWEIL,
ALBERT F. WILLIAMS.