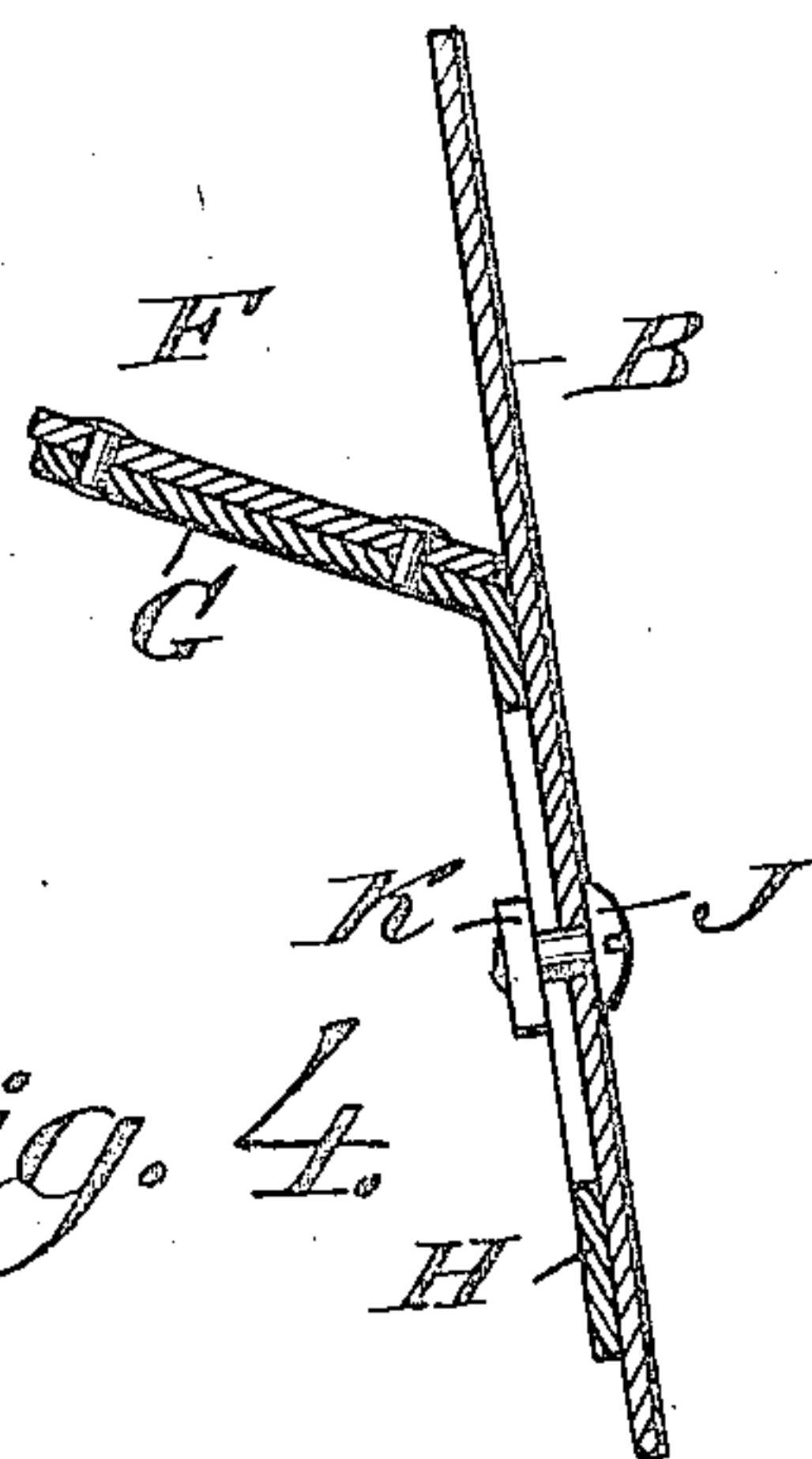
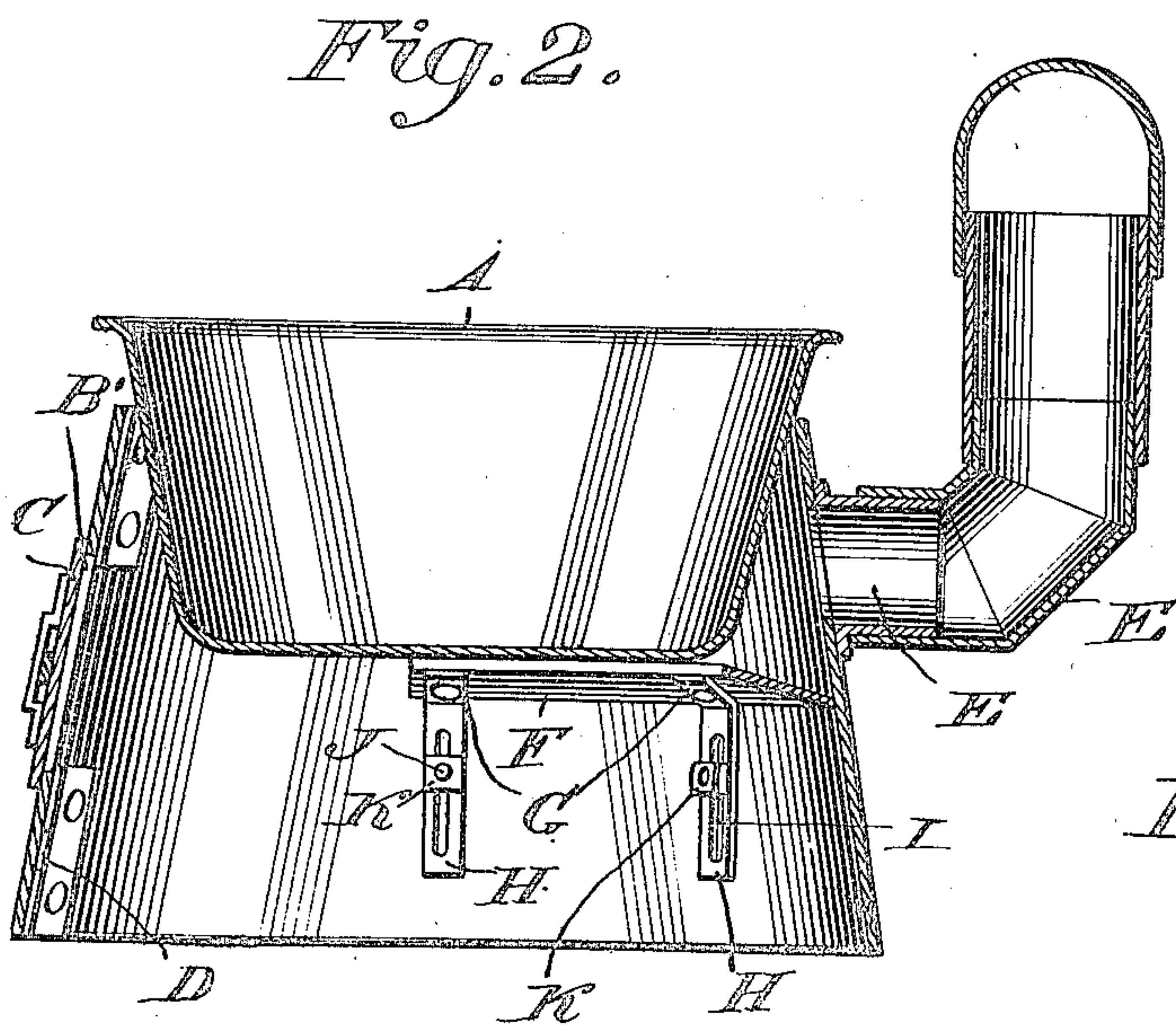
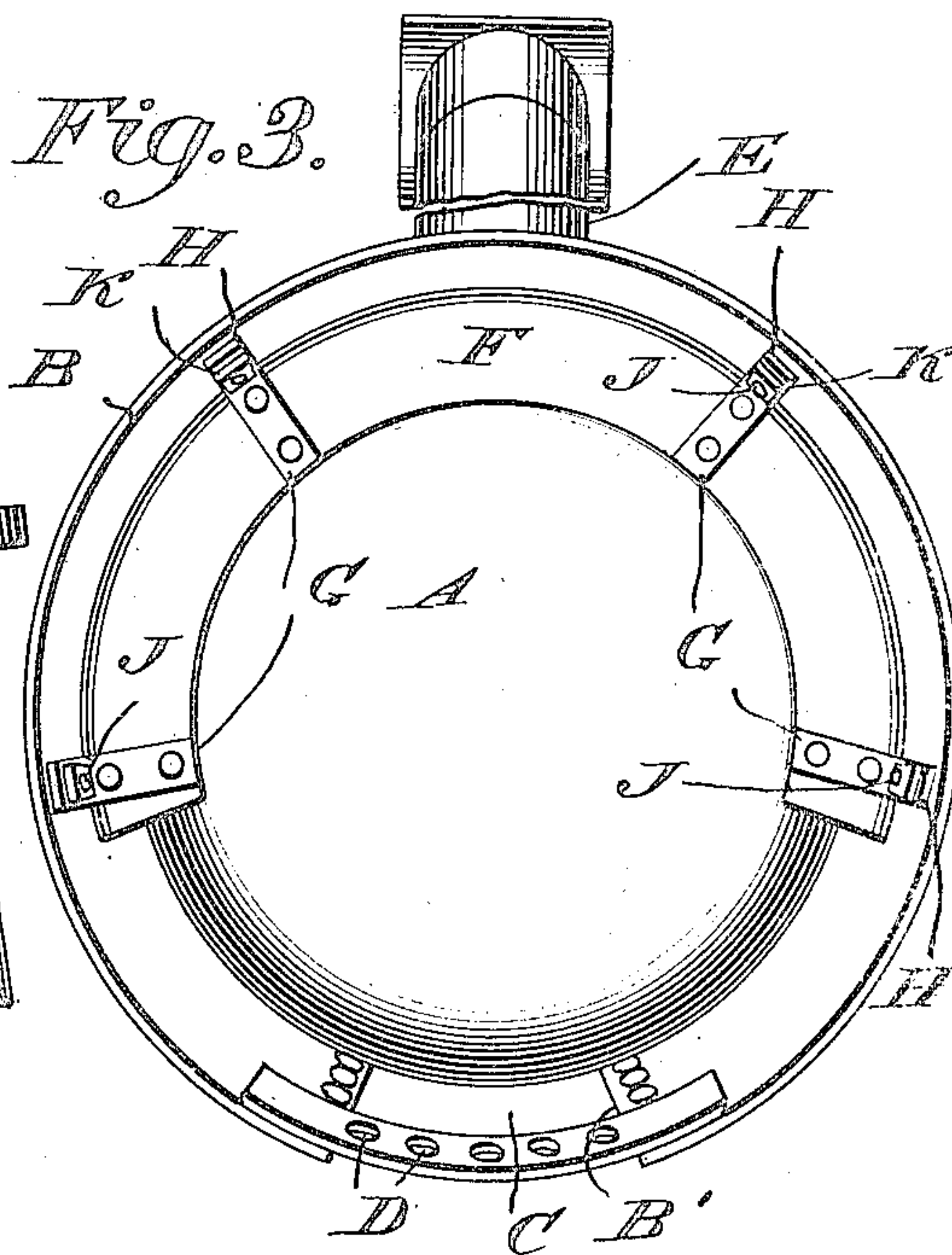
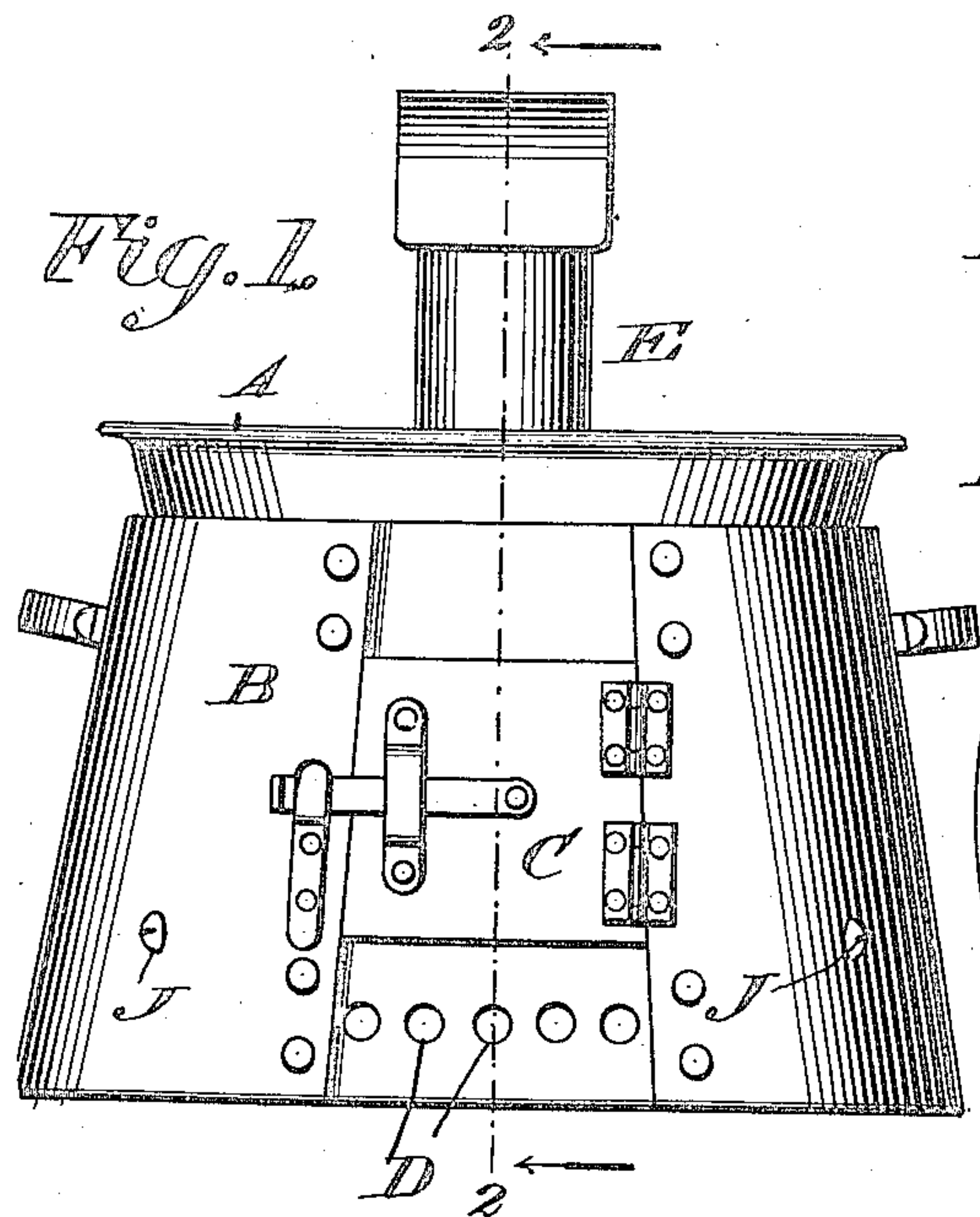


No. 875,216.

PATENTED DEC. 31, 1907.

G. E. RUHMANN.
PORTABLE FURNACE.

APPLICATION FILED AUG. 13, 1907.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

GUSTAVE E. RUHMANN, OF SCHULENBURG, TEXAS.

PORTABLE FURNACE.

No. 875,216.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed August 13, 1907. Serial No. 388,349.

To all whom it may concern:

Be it known that I, GUSTAVE E. RUHMANN, citizen of the United States, residing at Schulenburg, in the county of Fayette and State of Texas, have invented new and useful Improvements in Portable Furnaces, of which the following is a specification.

My invention pertains to furnaces and more particularly to portable furnaces for use in combination with pots and kettles; and it consists in the peculiar and advantageous portable furnace hereinafter described and particularly pointed out in the claims appended.

In the drawings, accompanying and forming part of this specification: Figure 1 is a front elevation showing the furnace constituting the preferred embodiment of my invention, and also showing a kettle as properly positioned in and supported by the furnace. Fig. 2 is a vertical, cross section, taken in the plane indicated by the line 2—2 of Fig. 1. Fig. 3 is an inverted plan view of the furnace, showing the flue strip thereof and the relation of said strip to a kettle. Fig. 4 is a detail elevation, on an enlarged scale, illustrating the manner in which the flue strip is connected to the casing of the furnace.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is what is known as a sugar kettle, and B is the casing of my novel furnace. The said casing B is preferably, though not necessarily, made of sheet steel, is circular in form, and is tapered or gradually reduced in diameter toward its upper end, whereby it is adapted to fit plain makes of cast-iron wash pots or sugar kettles of various sizes. In its front portion the casing B is provided with an opening B' for the introduction of fuel, which opening is controlled by a door C; and the casing is further provided at a point below the opening B' with a plurality of apertures D designed to admit sufficient air to properly support combustion.

Leading from the upper portion of the casing B at a point diametrically opposite the opening B' is an uptake E which may be of the construction illustrated or of any other construction compatible with the purpose of my invention.

F is a flue strip arranged in the casing B and extending through more than half of a circle and disposed with its ends at opposite

sides of the opening B'. The said flue strip is arranged close against and disposed at an approximate right angle to the inner side of the casing B and is carried by angular brackets G having depending arms H. In these depending arms H are slots I through which and the casing B extend bolts J which have nuts K at their inner ends.

As will be readily understood by reference to Figs. 1 and 2 of the drawings, the flue strip F is susceptible of being adjusted vertically and adjustably fixed at various heights, and from this it follows that the flue for the upward conduct of products of combustion against the pot or kettle in casing B may be arranged in accordance with the size of the pot or kettle and the position the same occupies in casing B. In other words, the flue strip F may be located as desired relative to the pot or kettle in the casing B to determine the size of the flue for the upward passage of products of combustion from the lower portion of casing B to the smoke outlet.

In the practical use of my novel furnace, a fire is built and maintained in the lower portion of the casing B, when, as will be readily understood, the products of combustion will pass rearward and upward, and bringing up against the flue strip F will be deflected inward against the pot or kettle, and will then pass upward between the flue strip and the pot or kettle to the smoke pipe.

As will be readily gathered from the foregoing, my novel furnace may be conveniently moved from place to place, and is simple and inexpensive in construction and yet well adapted to withstand the rough usage to which portable furnaces are ordinarily subjected.

The construction herein shown and described constitutes the best embodiment of my invention at present known to me, but it is obvious that in the future practice of the invention such changes or modifications may be made as fairly fall within the scope of my invention as defined in the claims appended.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. The combination in a furnace, of a casing having an inlet in its lower portion for the admission of air to support combustion, a smoke conduit leading from the upper portion of the casing at a point opposite to the

said inlet, and a flue strip extending inward at an angle from the inner side of the casing and also extending around the inner side of the casing from a point above and at one side of and adjacent to the air inlet to a point at the opposite side of and adjacent to said air inlet; the said flue strip being connected with and arranged to be adjusted bodily up and down on the casing.

10 2. The combination in a furnace, of a casing tapering or gradually diminished in diameter upward and having an opening and a door controlling the same and also having an inlet for air disposed below said opening, a
15 smoke conduit leading from the upper portion of the casing at a point opposite said opening and air inlet, and a flue strip extending around the inner side of the casing from a point at one side of and adjacent to the
20 opening to a point at the opposite side of and adjacent to said opening and disposed at an angle to the casing; the said flue strip being connected with and arranged to be adjusted bodily up and down on the casing.

25 3. The combination in a furnace, of a cas-

ing tapering or gradually diminished in diameter upward and having an opening and a door controlling the same and also having an inlet for air disposed below said opening, a smoke conduit leading from the upper portion of the casing at a point opposite said opening and air inlet, a flue strip extending around the inner side of the casing from a point at one side of and adjacent to the opening to a point at the opposite side of and adjacent to said opening and disposed at an angle to the casing, angular brackets connected to the said flue strip and having depending, slotted arms, and bolts extending through the slots of the bracket arms and the casing and equipped with nuts, whereby both brackets and flue strip may be adjustably fixed at various heights.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GUSTAVE E. RUHMANN.

Witnesses:

CH. BAUMGARTEN,
E. R. VOGT.