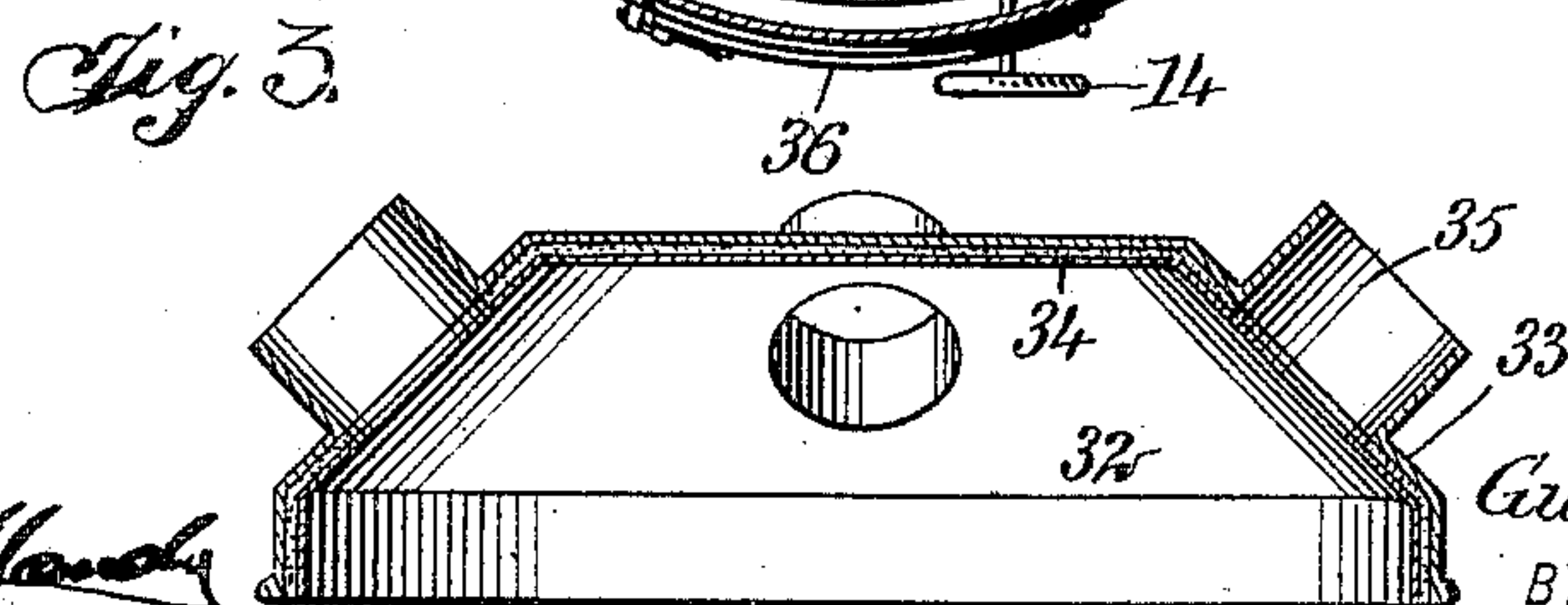
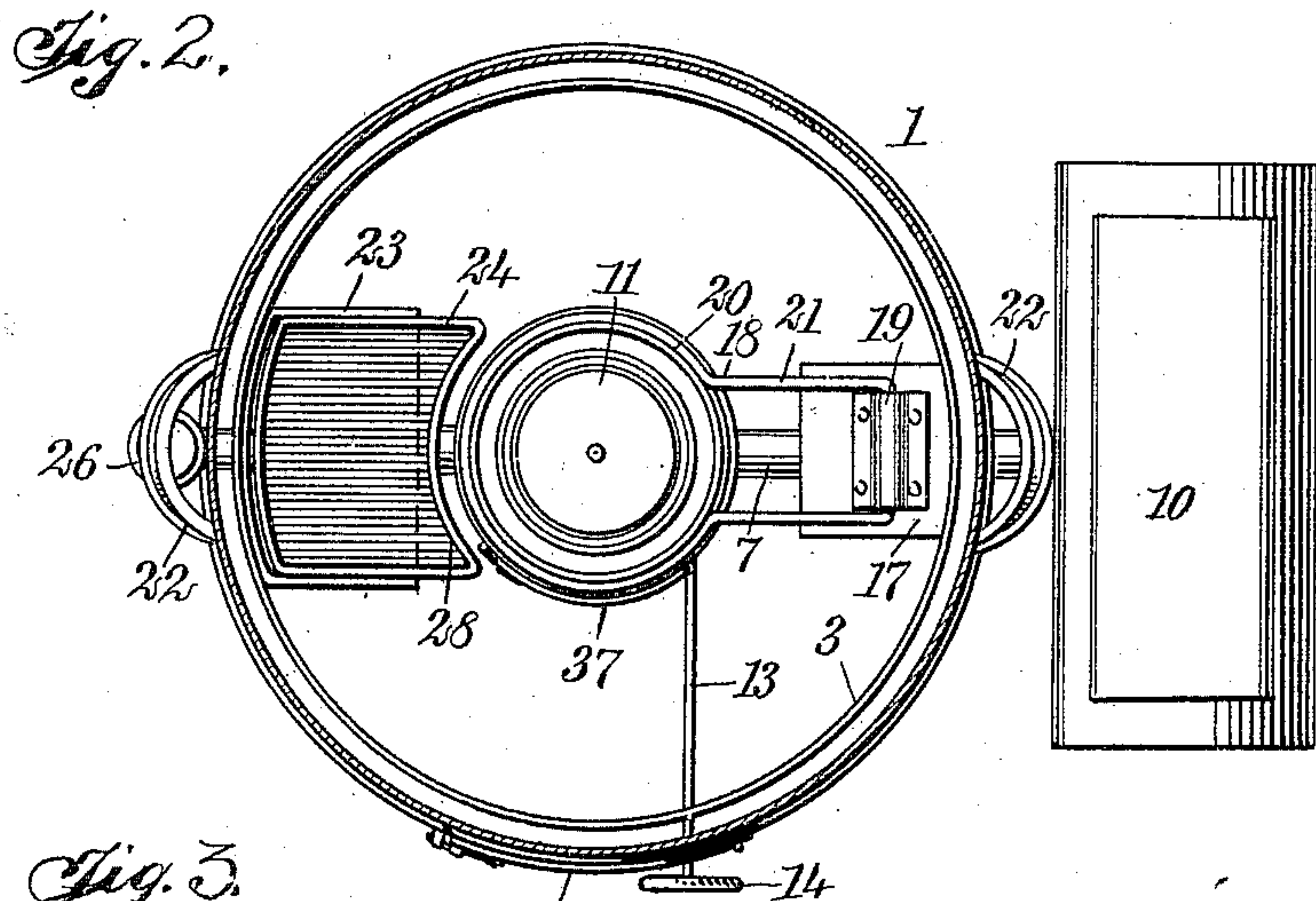
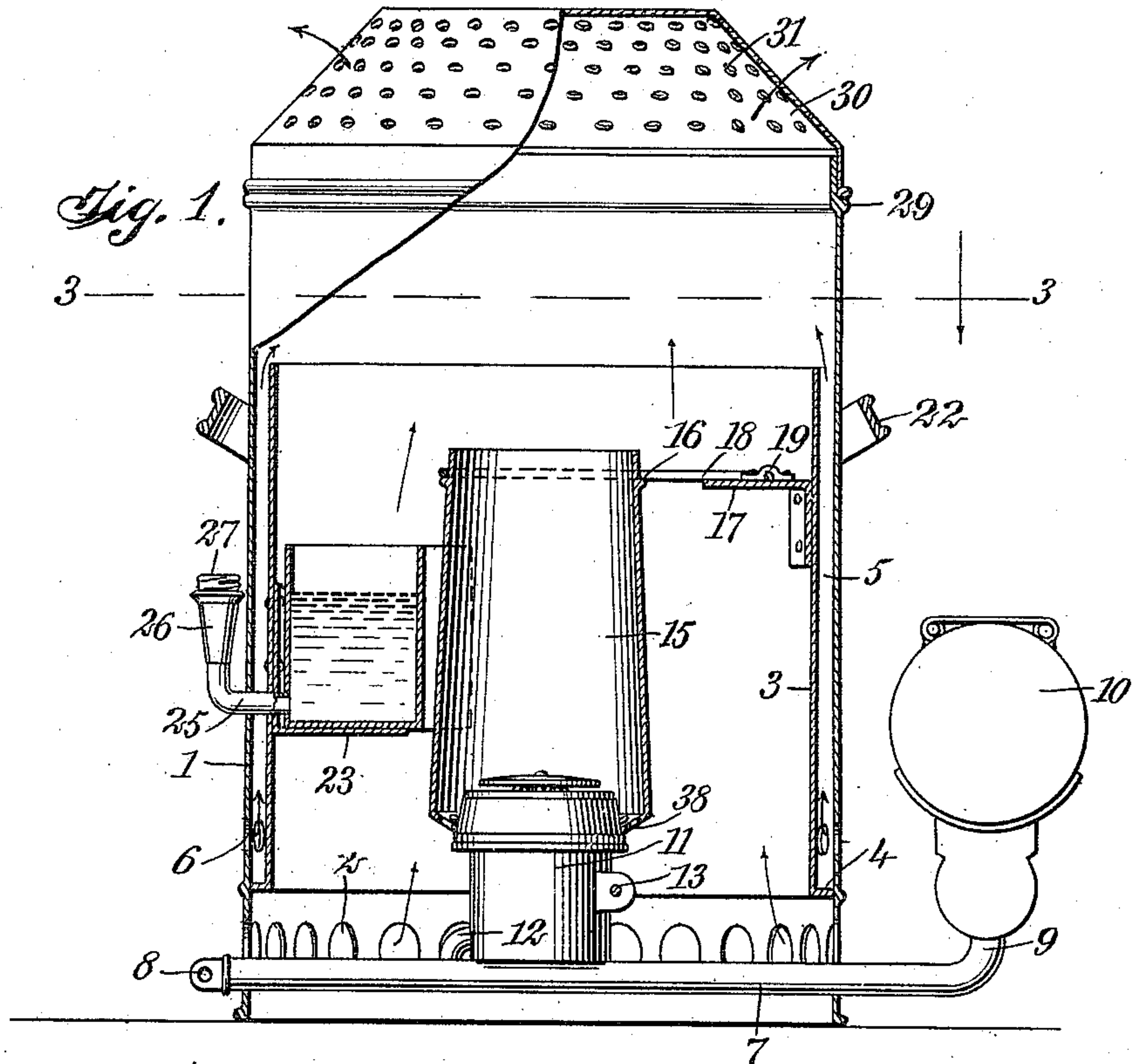


G. P. WOLFF.
LIQUID FUEL STOVE OR HEATER.
APPLICATION FILED MAR. 29, 1907.

983,105.

Patented Jan. 31, 1911.



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UNITED STATES PATENT OFFICE.

GUSTAVE PAUL WOLFF, OF BLOOMVILLE, OHIO.

LIQUID-FUEL STOVE OR HEATER.

983,105.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed March 29, 1907. Serial No. 365,240.

To all whom it may concern:

Be it known that I, GUSTAVE P. WOLFF, a citizen of the United States, and a resident of Bloomville, in the county of Seneca and State of Ohio, have invented a new and Improved Liquid-Fuel Stove or Heater, of which the following is a full, clear, and exact description.

This invention relates to burners or heaters for liquid fuel such as coal oil, alcohol and similar hydrocarbons.

The object of the invention is to produce a heater of this class which is simple in construction, which will be portable, and which can be readily adapted to throw the heat developed immediately into the room in which the heater is located, or arranged to distribute the heat into other rooms or apartments.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth 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.

Figure 1 is a vertical central section through the stove or heater, a portion of the upper part of the heater being shown in elevation; Fig. 2 is a cross section on the line 3—3 of Fig. 1; and Fig. 3 is a vertical section through a bonnet used in connection with the invention.

Referring more particularly to the parts, 1 represents the body or shell of the heater, and this shell is of cylindrical form, as indicated; it is provided near its lower end with a plurality of inlet openings 2 for air, the same being arranged circumferentially. In the interior of the shell or body 1 I provide a liner 3, which is also of cylindrical form and of slightly less diameter than the outer shell. The lower extremity of this liner is formed with an outwardly projecting flange 4 which rests against the inner face of the outer shell, and closes the lower portion of the annular heating space 5 which is formed between the liner and the shell. Air is admitted into the lower portion of this space 5 through a plurality of openings 6 disposed circumferentially around the shell just above the flange 4.

Through the lower portion of the body a fuel pipe 7 extends diametrically, and this pipe is provided at one side with a remov-

able plug 8 which enables it to be attached to a source of supply. The other end of the pipe projects from the heater and is formed with an upwardly extending neck 9 upon which there is attached a fuel reservoir 10. Seated on the fuel pipe 7 at the center of the body 1, I provide a burner 11, said burner being supplied through a curved elbow 12 which communicates with the fuel pipe, as indicated in Fig. 1. A horizontal stem 13 extends from the burner through the wall of the body, and is provided with a small hand wheel 14 by means of which the flame of the burner may be regulated. Upon the burner there is seated a chimney 15, which is of slightly conical form, tapering upwardly as indicated; near its upper end it is provided with a circumferentially disposed bead 16, and at the level of this bead on the inner side of the liner 3 a bracket 17 is attached. On the upper side of this bracket a chimney holder 18 is pivotally attached at 19, the said holder consisting simply of a frame formed of wire and having a substantially circular body 20 which extends around the upper end of the chimney and rests upon the bead 16. From this body 20 a bifurcated tongue 21 extends, which is attached to the bracket as described. On the outer side of the body suitable handles 22 are attached, to facilitate the moving of the heater from place to place as desired. On the side of the burner opposite to the point of attachment to the bracket 17, I provide a socket 23 which is attached to the inner face of the liner as indicated. This socket supports a cup 24 which is intended to receive water. In order to enable the cup to be filled when desired, the lower portion of the cup is provided with an outwardly projecting nipple 25 which extends upwardly at the exterior of the body, and is formed with a funnel 26, said funnel having a cap 27 adapted to be removed to enable the water to be poured in. The inner face 28 of the water cup 24 is formed concave so as to conform to the curvature of the chimney, as indicated in Fig. 2.

Near the upper end of the body or shell 1, a circumferential bead 29 is formed, which projects outwardly and forms a seat for the lower end of a hood 30, as shown in Fig. 1. This hood has the form of the frustum of a cone, and its conical surface is provided with a plurality of openings 31 through which the hot air may pass out of the heater

into the interior of the room in which the heater is placed.

Where it is desired to use the heat in other apartments, I provide a bonnet 32 having the construction shown in Fig. 3. This bonnet has the same general form as the hood 30, but is not provided with openings. It is, however, formed with a double wall 33, between the layers of which a layer of asbestos 34 is placed, or a layer of a similar non-conducting material. At a suitable point the conical surface of this bonnet is provided with outwardly extending sleeves 35 which facilitate the attachment of hot air pipes which may lead to any point desired.

In order to enable the burner to be lighted, the shell or body 1 is provided with a hinged door 36, and the chimney 15 is provided with a similar door 37, the said doors being opposite each other, so that when they are both open, a lighted match or taper may be readily inserted. The presence of the cup 24 close to the chimney 15 insures the evaporation of a sufficient quantity of water to overcome the undesirable tendency to extreme dryness which results under ordinary conditions with the use of a burner such as that described.

When the burner is lighted, oxygen is supplied to the burner through the openings 2 and the openings 38 in the lower portion of the chimney. As the hot air passes upwardly within the liner, air is also drawn in through the openings 6, and this air passes upwardly in the annular space 5 and mixes with the air coming from the liner. When the hood 30 is in use, all of this heated air then passes outwardly through the openings 31, but when the bonnet is in use the

heated air then passes through the sleeves 35 and the hot air pipes connected therewith, to the other apartments.

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

1. A stove or heater, comprising a cylindrical body having two series of openings arranged in the lower portion, one above the other, a cover for the upper end of the body, said cover having inlets therein, a cylindrical liner arranged in the body in spaced relation thereto and provided at its lower end with a flange engaging the inner face of the body between the two series of openings, a fuel pipe in the lower portion of the body, a burner seated on and connected with the fuel pipe, a chimney on the burner, the body and chimney being provided with oppositely arranged doors, and a water cup held in the body adjacent to the chimney.

2. In a stove or heater, a body having a lining, a burner in the lower portion of the body, a chimney on the burner and having a bead adjacent to its upper end, a bracket secured to the lining of the body, and a chimney holder having a circular body and a bifurcated tongue pivoted to the said bracket, the body of the holder extending around the chimney and seated on the bead thereof.

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

GUSTAVE PAUL WOLFF.

Witnesses:

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HARRY SWIGERT.