

Oct. 31, 1950

W. W. EVERY  
CONVERSION OIL BURNER, INCLUDING A VERTICALLY  
ADJUSTABLE FLOAT CHAMBER

2,527,921

Filed Dec. 26, 1947

2 Sheets-Sheet 1

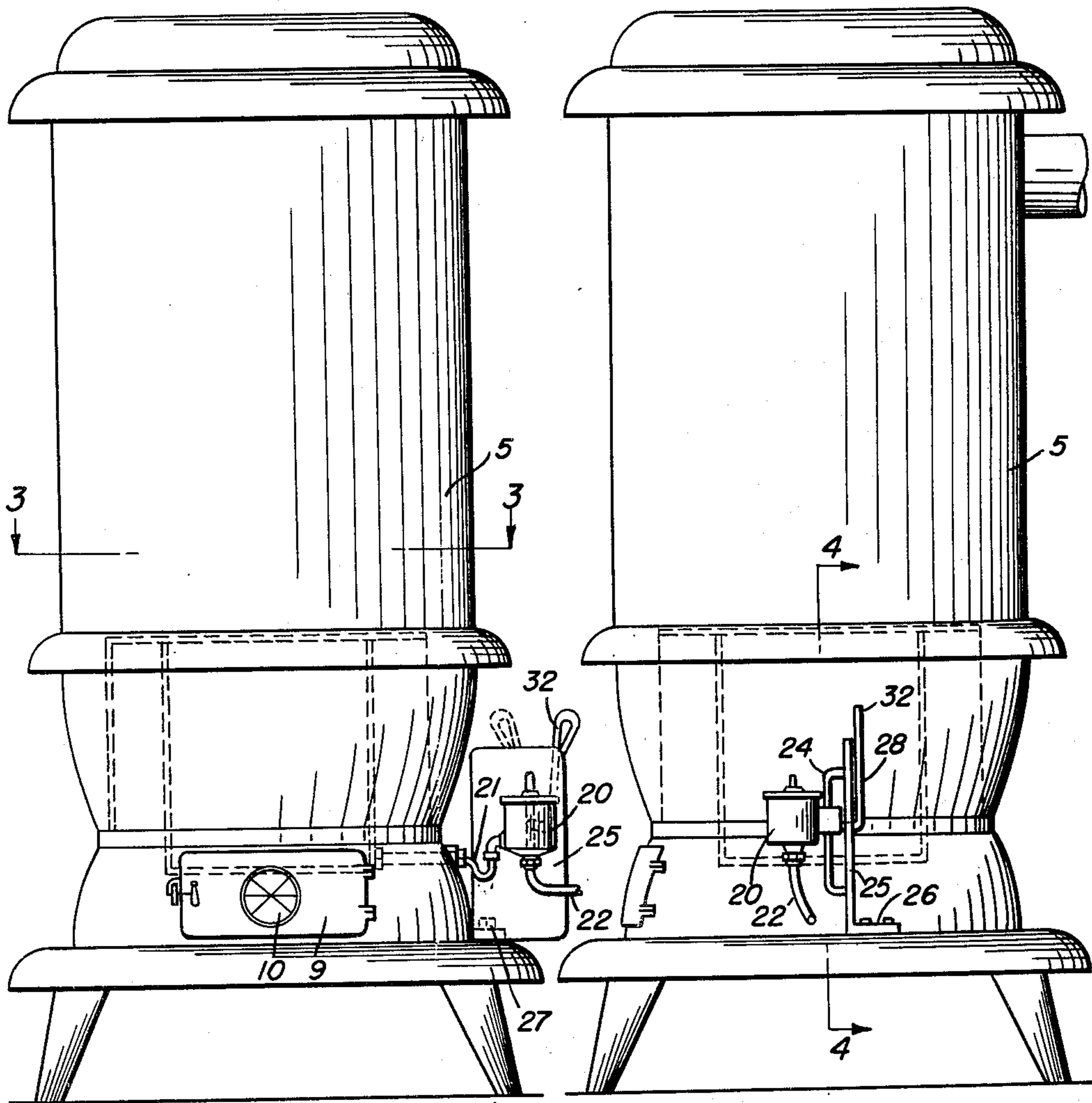


Fig. 1.

Fig. 2.

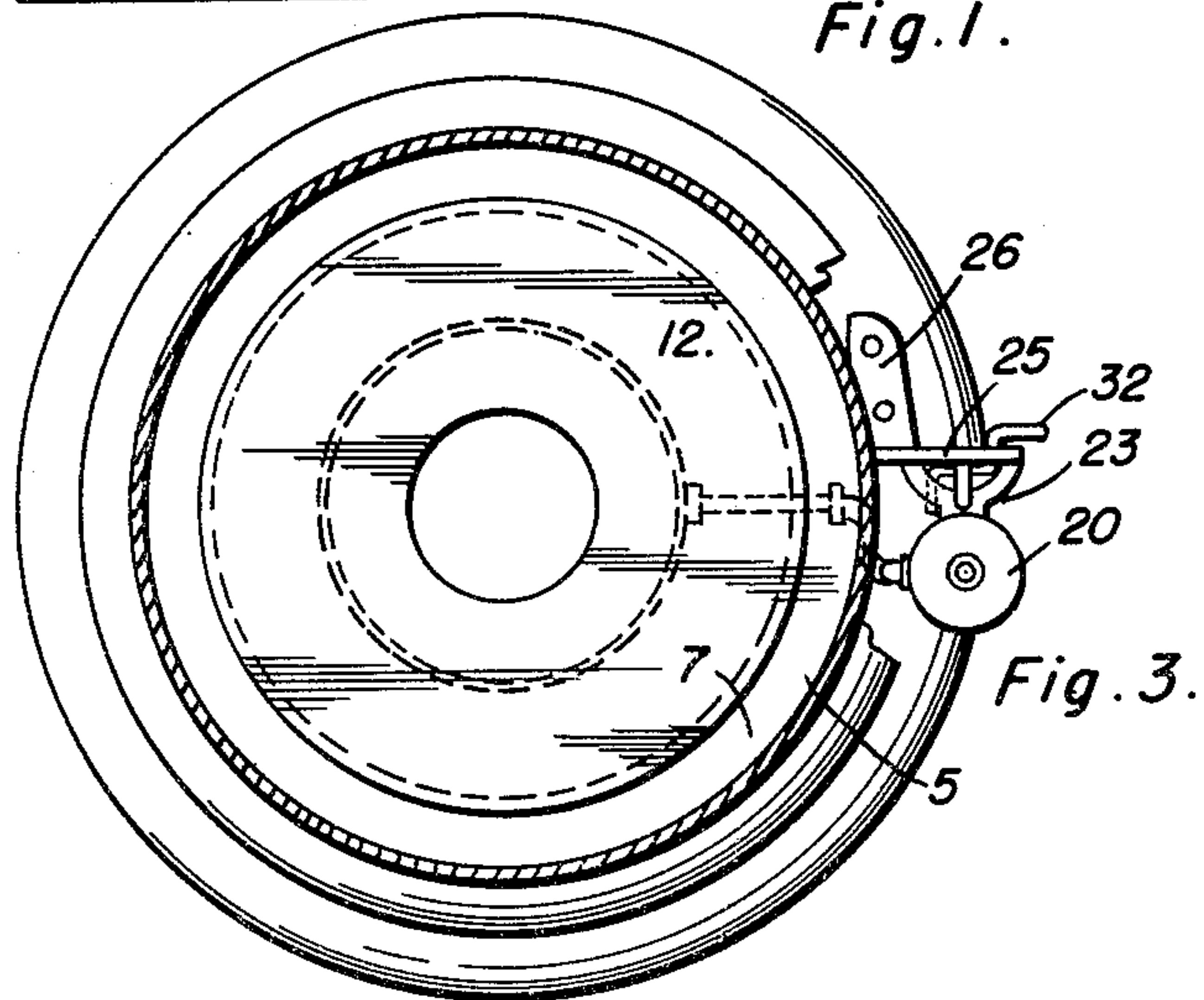


Fig. 3.

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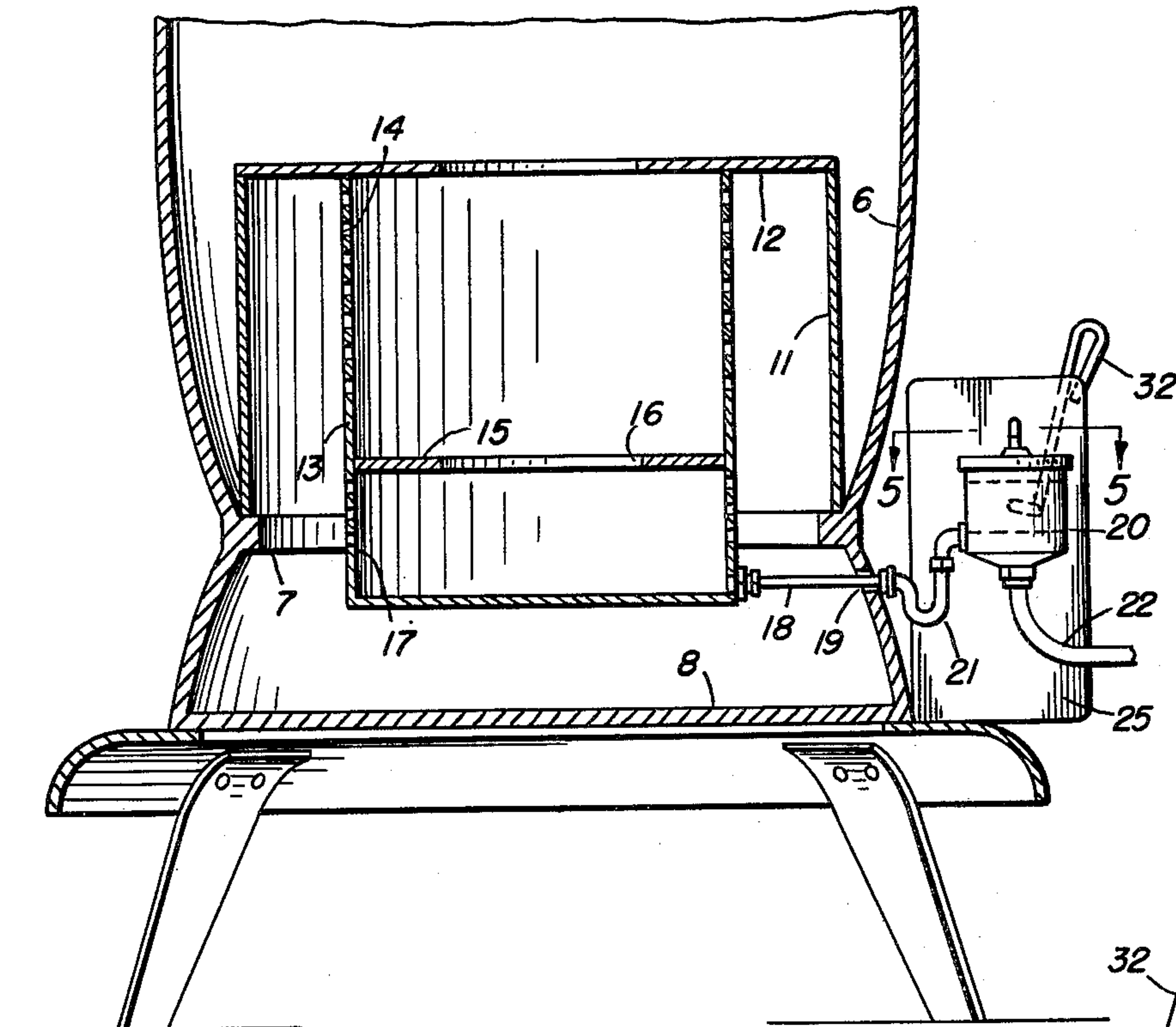


Fig. 4.

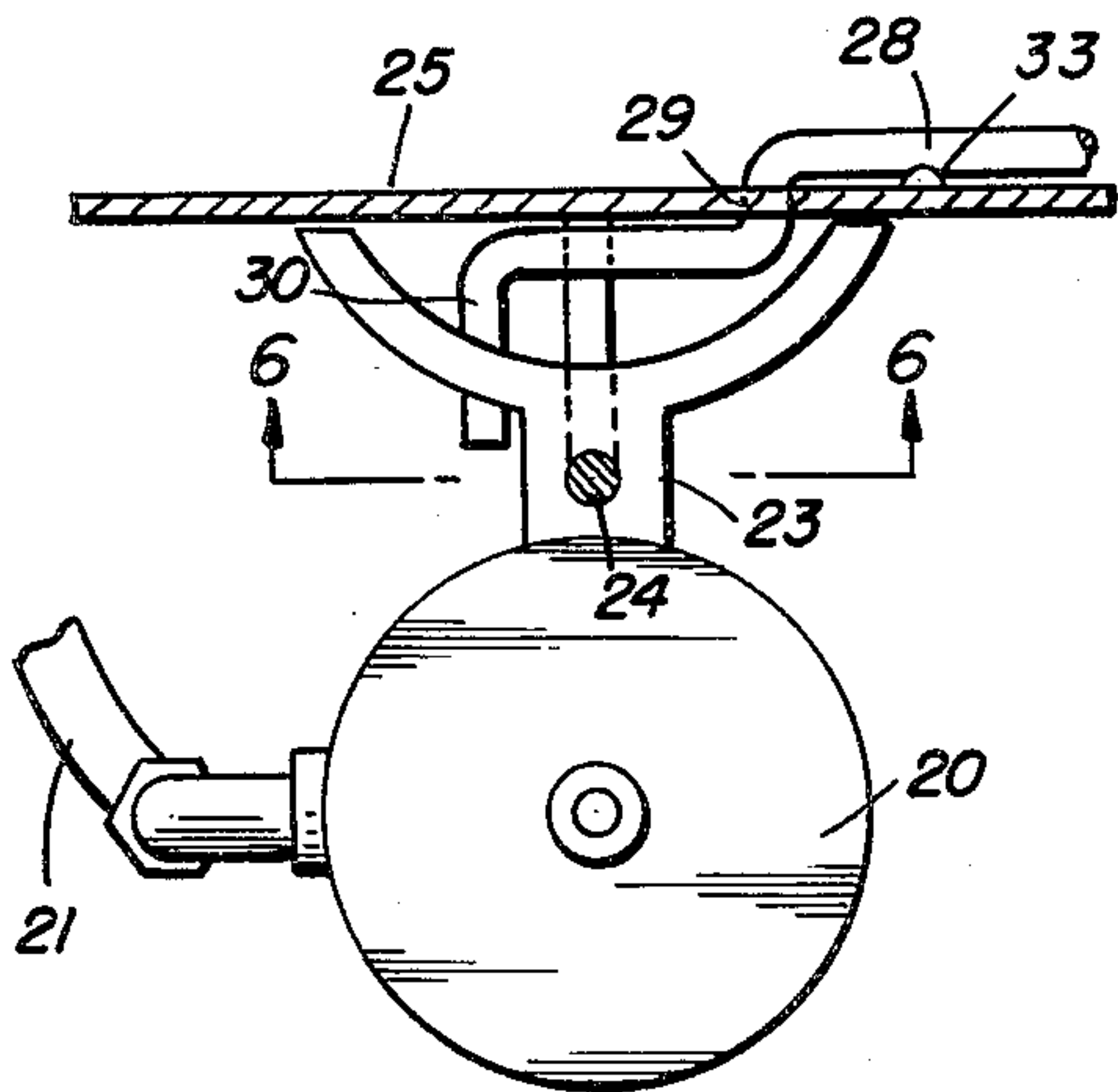


Fig. 5.

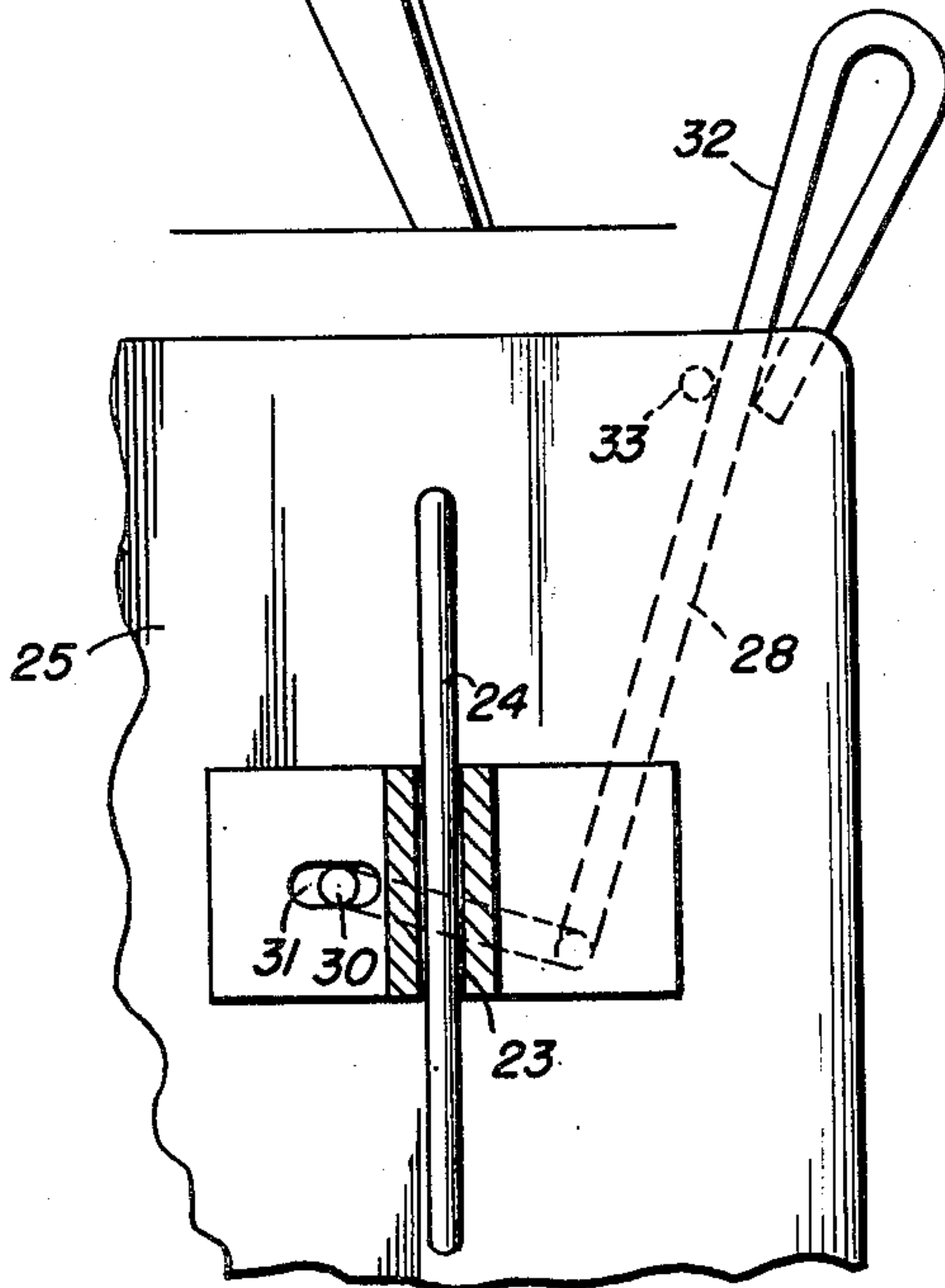


Fig. 6. William Ward Every  
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## UNITED STATES PATENT OFFICE

2,527,921

CONVERSION OIL BURNER, INCLUDING  
A VERTICALLY ADJUSTABLE FLOAT  
CHAMBER

William Ward Every, Clinton, Mich.

Application December 26, 1947, Serial No. 793,813

3 Claims. (Cl. 158—42)

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The present invention relates to new and useful improvements in oil burners and more particularly to a conversion oil burner for installing in wood burning heating stoves.

An important object of the invention is to provide an oil burner which may be easily and quickly installed in a conventional wood burning heating stove without necessitating any changes or alterations in the construction thereof to convert the stove to the burning of oil.

A further object of the invention is to provide float control fuel supply means for the burner together with means for regulating the level of the liquid maintained in the burner.

A still further object is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view of a stove with the oil burner installed therein.

Figure 2 is a side elevational view showing the support for vertically adjusting the float chamber.

Figure 3 is a transverse sectional view taken substantially on a line 3—3 of Figure 1.

Figure 4 is an enlarged fragmentary vertical sectional view taken on a line 4—4 of Figure 2.

Figure 5 is an enlarged horizontal sectional view taken on a line 5—5 of Figure 4, and

Figure 6 is a vertical sectional view taken on a line 6—6 of Figure 5.

Referring now to the drawings in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention the numeral 5 designates a conventional heating stove which includes a combustion chamber 6 at the lower portion of which is an internal annular flange 7 for normally supporting a grate (not shown) thereon for burning solid fuel, such as wood in the stove. An ash pit 8 is provided below the flange 7 and provided with a door 9 having a conventional draft opening 10 therein.

The conversion oil burner forming the subject of the present invention comprises a supporting collar 11 resting on the flange 7 with a ring 12 resting on its upper edge and having a substantially cup-shaped oil pot or combustion chamber

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13 welded or otherwise suitably secured to the underside of the ring to support the combustion chamber in a suspended position from the ring. The walls of the combustion chamber are perforated as shown at 14 to provide the necessary air draft for combustion purposes, the combustion chamber extending downwardly below the flange 7 and spaced inwardly from the walls of the collar 11.

10 An annular partition 15 is positioned in the combustion chamber 13 with a central opening 16 therein, the partition forming a fuel chamber 17 in the lower portion of the combustion chamber.

15 A fuel supply pipe 18 is connected to the lower portion of the fuel chamber 17 and extends outwardly through an opening 19 in the ash pit 8 of the stove, the outer end of the pipe 18 being connected to a float chamber 20 by flexible tubing 21. A flexible tubing 22 is also connected to the bottom of the float chamber leading from a suitable source of supply and positioned in the float chamber is a conventional float controlled valve (not shown) to regulate the level of liquid admitted to the float chamber.

25 A substantially yoke shaped slide 23 is suitably secured to the float chamber 20 for vertical sliding movement on a vertical supporting rod 24 having its ends welded or otherwise suitably secured to an upstanding bracket 25 secured to the base portion of the stove 5 by a flange 26 and bolts and nuts 27.

30 A lever 28 is pivoted in an opening 29 in the bracket 25 and is formed with a crank 30 at its lower end engaged in a slot 31 in one arm of the yoke 23. The upper end of the lever 28 is formed with a handle 32 which projects upwardly above the bracket 25.

35 In the operation of the device and by reference to Figure 4 of the drawings it will be seen that by swinging the lever 28 toward the left the float chamber 20 will be lowered and by swinging the lever toward the right the float chamber will be raised, fuel from the float chamber being supplied by gravity to the fuel chamber 17 of the burner and the raising and lowering of the float chamber thus regulating the level of liquid in the fuel chamber 17.

40 The float chamber 20 is held in its raised position by a rounded button 33 past which the lever 28 is moved to hold the lever against lowering movement.

45 In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the de-

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vice will be quite apparent to those skilled in the art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A conversion oil burner for stoves having an internal annular flange and comprising a burner pot supported on the flange, a feed line for the pot, and liquid level control means for the pot and including a fixed bracket, a guide rod on the bracket, a float chamber connected to the feed line and including a yoke vertically slidable on the guide rod and coacting with said bracket to prevent the float chamber from turning on said rod, and a lever pivoted on the bracket and connected to the yoke for raising and lowering the float chamber.

2. A conversion burner for a stove comprising a burner pot for liquid fuel supported in the stove, and liquid level control means for the pot including a fixed bracket, a vertical guide rod on the bracket, a float chamber comprising a yoke vertically slidable on the guide rod and coacting with said bracket to prevent the float chamber from turning on the rod, and a lever pivoted on the bracket and connected to the yoke for sliding the same to raise and lower the float chamber.

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3. A conversion oil burner for stoves, having an internal annular flange and comprising a burner pot supported on the flange, a feed line for the pot, and liquid level control means for the pot including a fixed bracket, a guide rod on the bracket, a float chamber connected to the feed line and including a yoke vertically slidable on the guide rod and coacting with the bracket to prevent the float chamber from turning on the rod, and means mounted on the bracket and connected to the yoke for operation to raise and lower the float chamber.

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