

March 13, 1928.

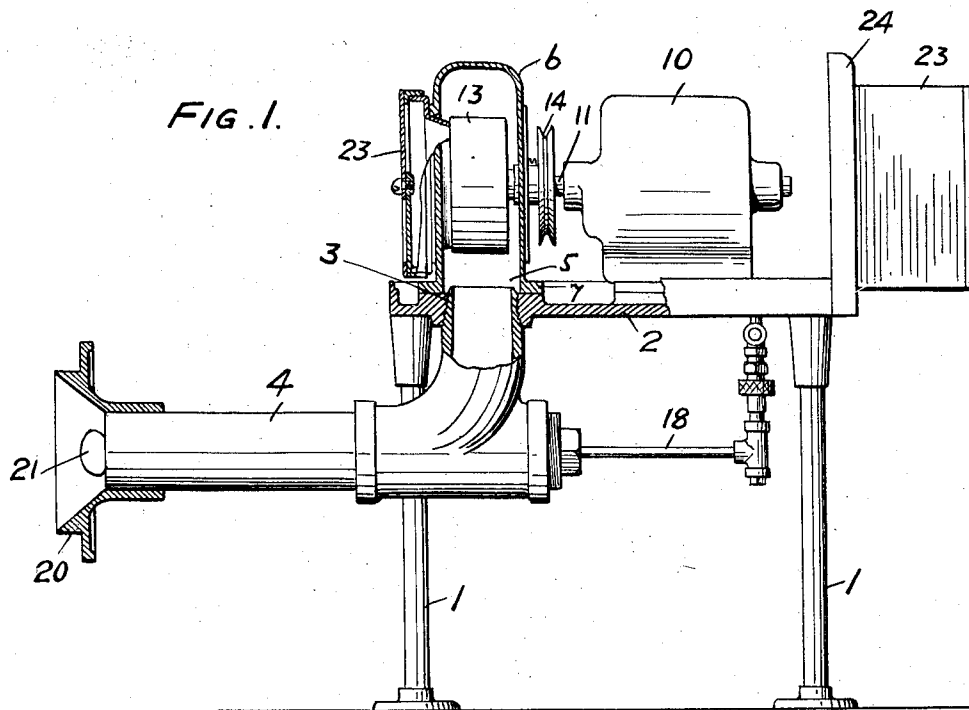
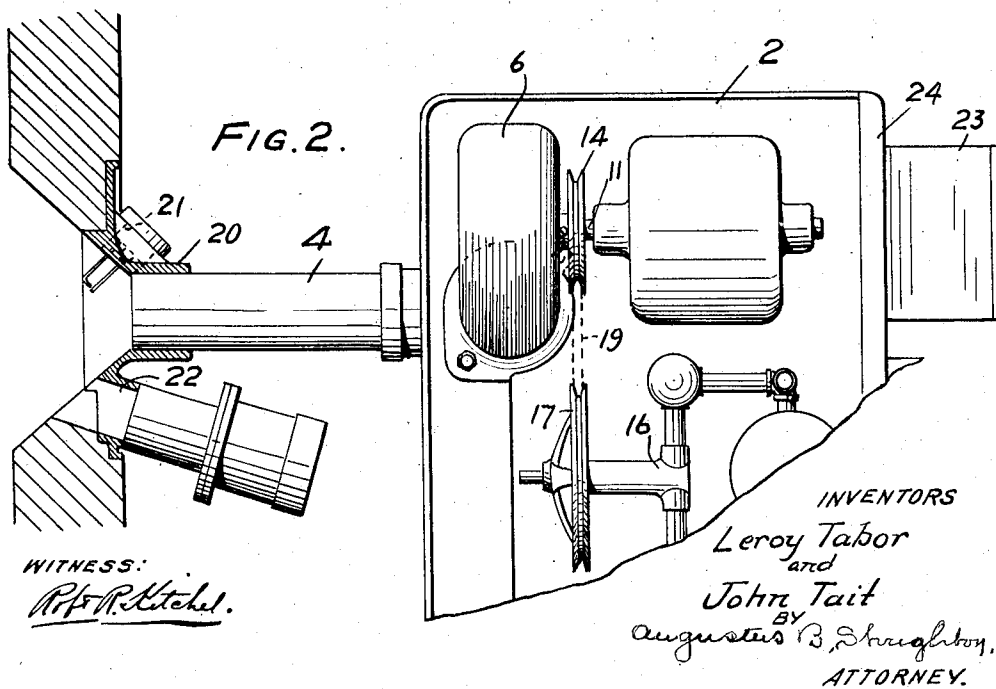
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L. TABOR ET AL

OIL BURNER EQUIPMENT

Filed Dec. 5 1927

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

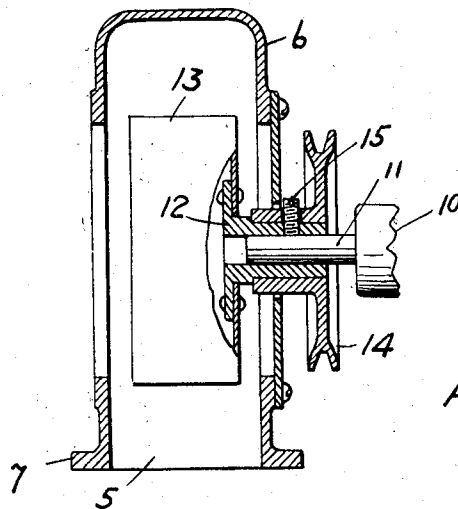


FIG. 3.

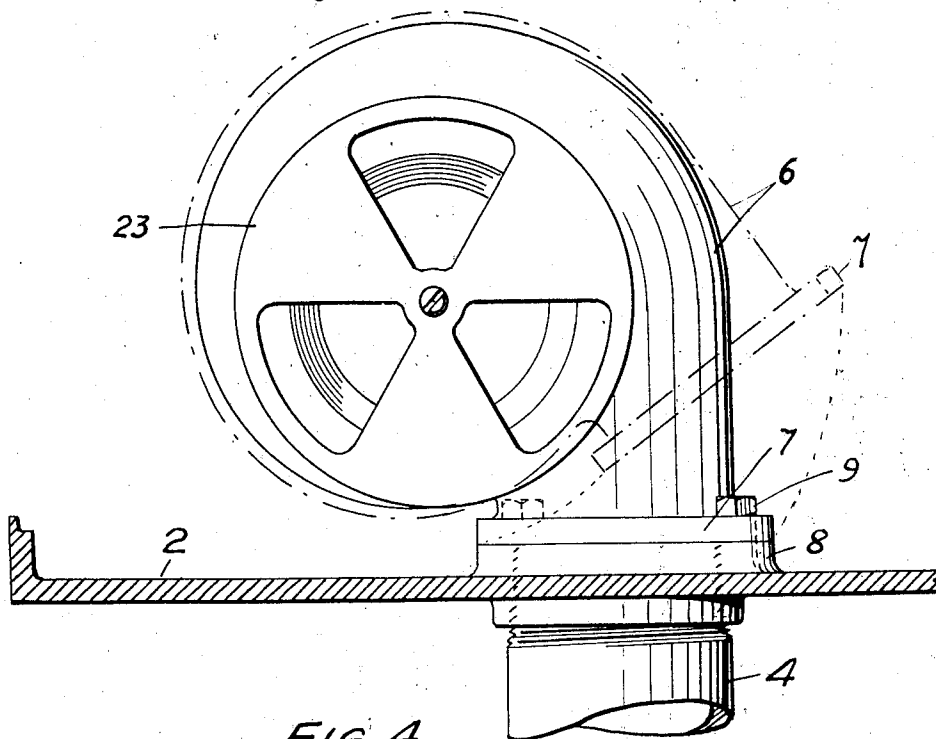


FIG. 4.

WITNESS:

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UNITED STATES PATENT OFFICE.

LEROY TABOR, OF RIVERTON, AND JOHN TAIT, OF PALMYRA, NEW JERSEY, ASSIGNORS TO THE TABOR ENGINEERING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE.

OIL-BURNER EQUIPMENT.

Application filed December 5, 1927. Serial No. 237,656.

The principal objects of the present invention are to provide oil burner equipment which can be assembled into the form of a unitary structure which can be transported and installed ready for use, and to provide for the use of a standard stock motor for driving both the blower and pump from a single motor shaft extension, while at the same time providing for belt renewal without removing the motor or any other members of the group from the assembly of the motor shaft.

Other objects of the invention will appear from the following description at the end of which the invention will be claimed.

In the following description reference will be made to the accompanying drawings forming part hereof and in which

Figure 1 is a side elevational view partly in section illustrating portable unitary burner equipment embodying features of the invention.

Fig. 2 is a top or plan view of the same partly in section.

Fig. 3 is a view drawn to an enlarged scale and showing in central section the motor shaft extension illustrated in Fig. 1, and

Fig. 4 is an end view partly in section of the blower illustrating in dotted lines provisions for the application of a driving belt.

In the drawings there is a frame or support shown as of the general form of a table or bench and it includes legs 1 and a top or table proper 2, and the part 2 will be referred to as a table or table top. The table top 2 is provided with an opening 3 through which the burner air pipe 4 communicates with the outlet or mouth 5 of the blower 6.

It may be remarked that the burner pipe 4 is carried by the table 2 and the outlet or mouth 5 of the blower is provided with a flange 7 adapted to cooperate with a flange 8 on the table 2, and these flanges may be coupled and uncoupled by bolts or screws 9 for a purpose to be hereinafter described. 10 is a motor which may well be a stock or standard electric motor, and it is mounted on the table 2. The drive shaft 11 of the motor is provided with an extension 12, Fig. 3, which carries the impeller 13 of the blower and also the hub of the driving pulley 14. These parts are connected together for rotation by means, of which the set

screw 15 is an example. The shell or housing of the blower is turnable around the motor shaft as a center, as indicated in dotted lines in Fig. 4, for a purpose to be presently described. Secured to the table 2 is an oil pump, generally indicated at 16, and driven by the pulley 17. The pump and its accessories such as the burner oil line 18 and other piping are secured to and carried by the table 2. The oil line 18 extends through the burner air pipe as indicated in Fig. 1. The pulleys 14 and 17 are interconnected by a belt 19 which requires renewal, replacement or adjustment. It is a feature of this invention that the belt 19, which of course is what is called an endless belt, may be put on and taken off the pulleys 14 and 17 while in the form of an endless loop. For this purpose the blower casing is turned into the position indicated by dotted lines in Fig. 4, so that the belt may be passed under and over it from left to right in Fig. 1. The burner air tube 4 at its outer end is provided with a fitting 20 adapted for mounting in the furnace wall, and this fitting is provided with chambers 21 and 22 respectively adapted for the accommodation of a spark plug and a protostat, and with a flaring mouth. 23 is a housing mounted upon the bracket 24 fixed to the table 2, and the housing is adapted to receive switches, control elements and the like.

The entrance or intake of the blower is of such size that when the air shutter 23 is in position to provide the maximum opening the blower may work at full capacity, and by adjusting the air shutter the intake may be reduced.

From the foregoing description it will be evident that the equipment provided is capable of assembly at a factory, of transportation as a unit, and of ready application to a furnace or combustion chamber. Furthermore the equipment is such that its parts, more especially the motor, are standard and is such that belts may be readily renewed without disassociation of the assemblage.

We claim:

1. Oil burner equipment including a table top having therethrough a burner air pipe opening, a motor mounted on the table top and having a motor shaft, an extension on

- the motor shaft, a blower mounted on the extension and having its casing turnable into connection with said opening and away therefrom to provide space, a driving pulley 5 on the extension and arranged between the motor and blower, an oil pump mounted on the table top and having a pulley aligned with said driving pulley and arranged above the table top, a belt for said pulleys intro- 10 ducable and removable through said space, and a burner air pipe extending from under the table top and mounted in said opening.
2. Oil burner equipment including a table top having therethrough a burner air pipe 15 opening, a motor mounted on the table top and having a motor shaft, an extension on the motor shaft, a blower mounted on the extension and having its casing turnable into connection with said opening and away 20 therefrom to provide space, a driving pulley on the extension and arranged between the motor and blower, an oil pump mounted on the table top and having a pulley aligned with said driving pulley and arranged above 25 the table top, a belt for said pulleys introducable and removable through said space, a burner air pipe extending from under the table top and mounted in said opening, and a fitting mounted on the end of said burner air pipe and having a flaring mouth and 30 chambers for a spark plug and for a protectostat.
3. Oil burner equipment including a table top having therethrough a burner air pipe opening; a motor mounted on the table top 35 and having a motor shaft, an extension on the motor shaft, a blower mounted on the extension and having its casing turnable into connection with said opening and away therefrom to provide space, a driving pulley 40 on the extension and arranged between the motor and blower, an oil pump mounted on the table top and having a pulley aligned with said driving pulley and arranged above the table top, a belt for said pulleys intro- 45 ducable and removable through said space, a burner air pipe extending from under the table top and mounted in said opening, and an oil line extending from the pump into the burner air pipe and carried by said table 50 top.

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