June 21, 1949. A. T. LEDOUX 2,473,804

DRAFT CONTROL FOR OIL BURNERS

Filed June 5, 1947

FIG. 1

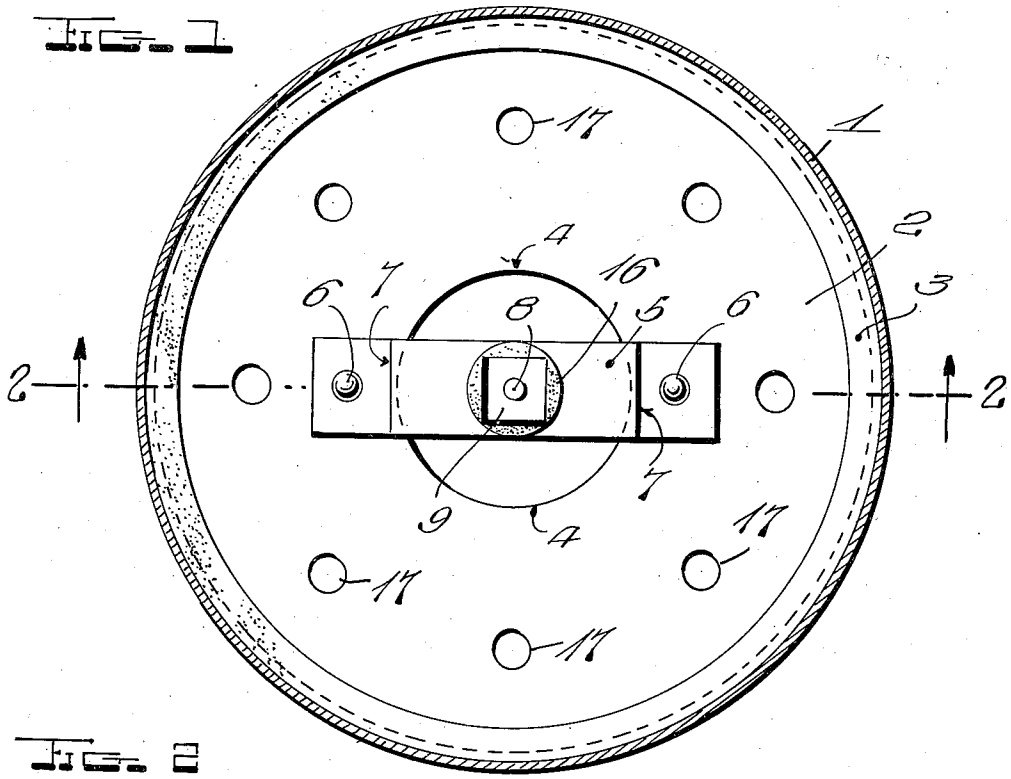
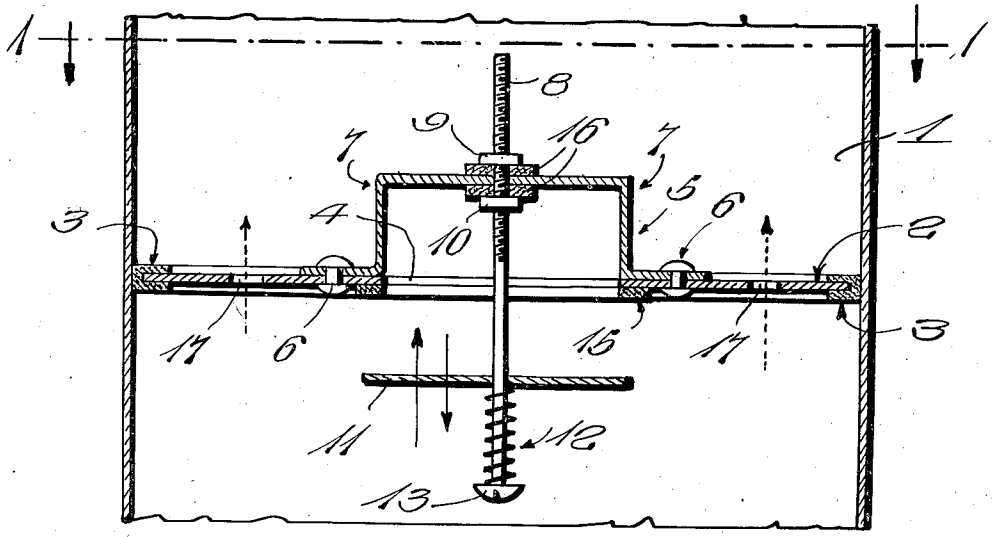



FIG. 2




INVENTOR.

ARTHUR T. LEDOUX,

BY

ATTORNEY

Patented June 21, 1949

2,473,804

# UNITED STATES PATENT OFFICE

2,473,804

## DRAFT CONTROL FOR OIL BURNERS

Arthur T. Ledoux, Littleton, N. H.

Application June 5, 1947, Serial No. 752,719

1 Claim. (Cl. 236—45)

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This invention is directed to a draft control designed particularly for use with oil burners for domestic use and serving to reduce the amount of fuel consumed, while at the same time increasing the heat delivered by the stove.

The primary object of the present invention is the production of a self-regulating type of oil stove draft control which is quickly and readily applicable and removable to and from operative relation with the stove pipe for efficient use.

A further object of the invention is the production of a draft control in which the government of the up-current of air is automatically and commensurately reduced and particularly capable of being entirely cut off if the velocity of such up-current should prove to be found excessive.

The invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a horizontal section on the line 1—1 of Fig. 2, showing the draft control in position in the stove pipe.

Fig. 2 is a central vertical section of the same, taken on the line 2—2 of Fig. 1.

The improved draft control member is designed for use with a stove pipe 1, and more particularly for use with an oil burner, not shown, and includes a support disk 2 of a diameter to fit frictionally within the stove pipe, with the edge of the disk bound with asbestos at 3 to protect and provide effective frictional adherence of the disk 2.

The support disk is formed with a central opening 4, and is provided with an upstanding saddle 5, including a flat relatively narrow plate equalling the diameter of the opening 4, and having depending side walls 7, extended laterally and riveted at 6 to the support disk 2.

The side walls 7 of the saddle center the saddle about centrally of the pipe 1 when applied, and the upper plate of the saddle provides a carrier for a rod 8, adjustably supported centrally of the saddle by nuts 9 and 10, cooperating with the saddle rod above and below the saddle.

The rod 8 extends below the support disk 2 through the central opening 4, and carries a main control member 11, freely slidable on the rod 8, with a spring 12, underlying the control member 11 and bearing against a head 13 on the rod.

The lower edges of the side wall 7 of the saddle, and the adjacent edge of the hole 4 in the support disk 2, are provided with an asbestos gasket to serve as a sound deadener and the saddle may be similarly provided at the contact edges of the nuts 9 and 10, as at 16.

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The support disk 2 is provided with holes 17, forming gas escapes and similar gas outlets are formed in the saddle and elsewhere if found desirable and necessary.

The automatic draft control is placed in the pipe 1, and in preferably the second section of the stove pipe, just beyond the usual bend therein. The support disk 2 fits snugly in the pipe and is frictionally held therein without other fastenings. The outgoing pressure of the draft will operate to wholly or partially close the main control member 11 to thereby prevent any unnecessary combustion of the fuel with excessive heat passing out of the pipe. The gas fumes are permitted free and uninterrupted escape at all times.

The draft control means results in a saving of the amount of fuel consumed and thereby, and by the automatic control of out-going air permits full heat combustion and distribution of the heat within the room.

Having thus described the invention, what is claimed is:

An automatic draft control for burners having a vertical flue section, including a support disk positioned within said flue section, said disk having an aperture therein for the passage of flue gases, means frictionally maintaining said disk in a horizontal position within said flue section, a saddle carried by said disk and having a portion extending over and spaced from said aperture, a rod carried by said saddle and extending downwardly through said aperture, a valve member mounted on said rod below said aperture for free vertical movement toward said aperture on increase in burner draft, and a spring carried by said rod below said valve member to limit downward movement of said valve member on decrease in burner draft.

ARTHUR T. LEDOUX.

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