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1,856,478

M. GREENBERG, NOW BY JUDICIAL CHANGE OF NAME S. M. GREEN
HEAT AND DRAFT REGULATOR FOR FURNACES, STOVES, WATER HEATERS, AND THE LIKE
Filed April 15, 1931

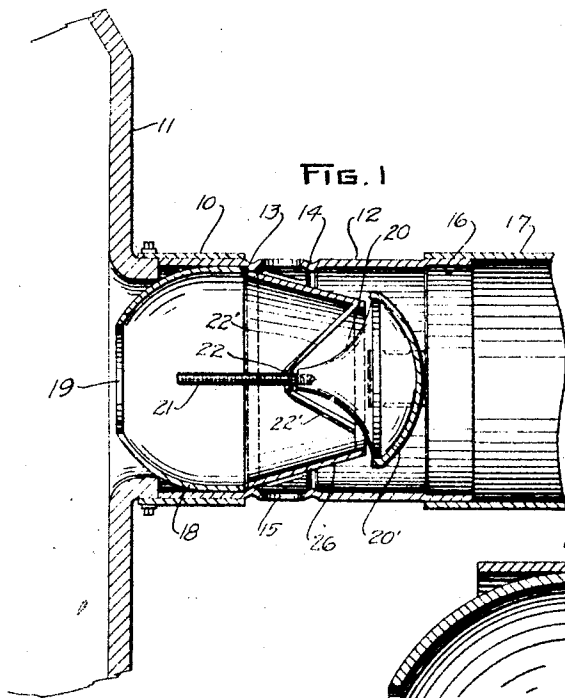


FIG. 1

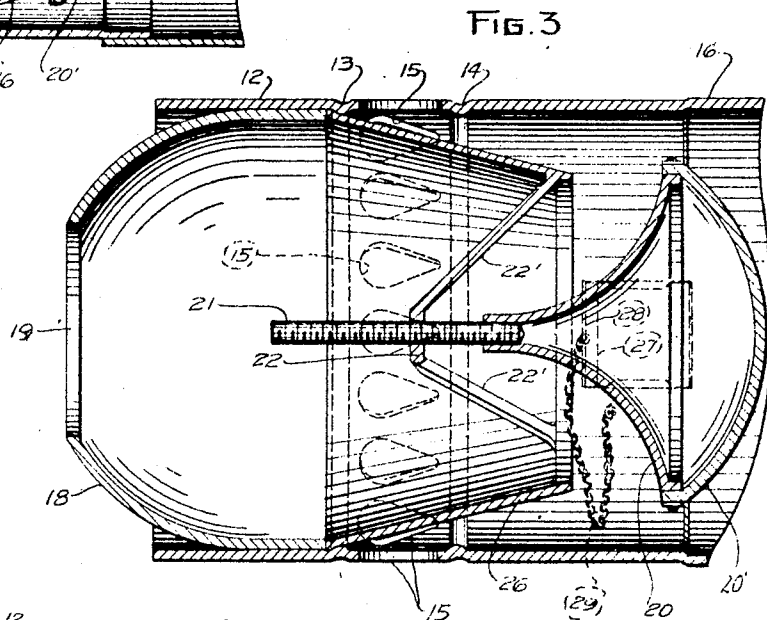


FIG. 3

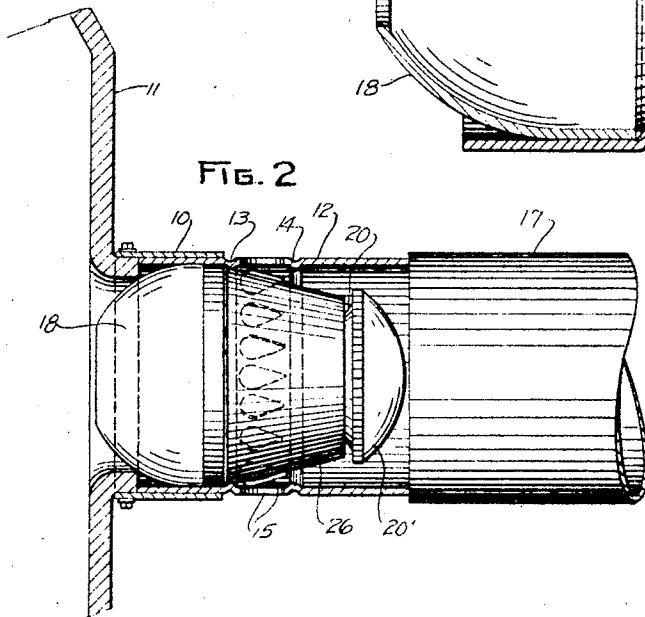


FIG. 2

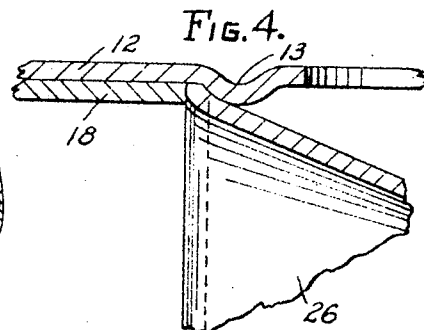


FIG. 4

BY

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UNITED STATES PATENT OFFICE

MAX GREENBERG, NOW BY JUDICIAL CHANGE OF NAME SAY M. GREEN, OF CLEVELAND, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO HEAT AND DRAFT CONTROL, INC., OF CLEVELAND, OHIO, A CORPORATION OF OHIO

HEAT AND DRAFT REGULATOR FOR FURNACES, STOVES, WATER HEATERS, AND THE LIKE

Application filed April 15, 1931. Serial No. 530,233.

The present invention is an improved form of the heat saving attachment for furnaces, etc., described in my pending application, Serial No. 447,885, filed April 28, 1930.

The purpose of the present invention is to increase the efficiency of the device, holding the heat in the heating unit and preventing its escape through the chimney.

A further result of the invention is that it adds breathing to the furnace thereby insuring proper combustion of the fuel; it draws air through holes in the smoke pipe, thereby reducing stack draft; it also stops down draft, the latter wasting itself as it strikes the outer cone.

Furthermore it is a safety device against monoxide or other gases, fumes, or obnoxious odors that may exist in basement, boiler room or kitchen; these gases, fumes, etc. will be carried away by being drawn through the openings provided in the pipe; in other words, it acts as a ventilator.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the several parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawings, in which:

Fig. 1 is a longitudinal section of a smoke pipe with the device installed.

Fig. 2 is a longitudinal elevation partly in section.

Fig. 3 is an enlarged section of the device.

Fig. 4 is a detail in section.

Referring to Figs. 1, 2 and 3 of the drawings:

The smoke pipe indicated at 10 connects to the furnace 11 and contained partly within this pipe 10 is a heat retaining or baffle device comprising the cylinder 12 with grooves 13 and 14 and a plurality of apertures 15. The cylinder 12 extends within the pipe 10 to the first groove 13, and the crimped end 16 of the cylinder 12 is held within the pipe 17. Within the cylinder 12 and forming a fixed part is the baffle shell 18 which has rounded walls with a small opening as shown at 19, and the shell 18 prevents slipping within the cyl-

inder 12 after the shell is mounted within the cylinder.

Abutting on the shell 18 and beaded within the groove 13 is a frustro-conical deflector shell 26, inclined or directed with its small end toward the chimney, and this is surrounded by the ring of holes 15 above referred to.

Mounted within the frustro-conical deflector shell 26 is the screw rod 21 which projects through the center of the inner cross bar or brace 22 which has a plurality of legs 22' attached to the deflector shell 26, at an angle. Mounted upon the screw rod 21 is the adjustable deflector 20 with semi-round end 20' the adjustments being made through the aperture 27 when the shutter 28 is slipped from its position. The shutter 28 may be attached to the pipe by a chain 29.

The holes 15 admit air into the smoke pipe, thereby ventilating a cellar or the like, and they also check the draft in the pipe, thereby assisting the operation of the baffle device referred to in my said pending application. Also down draft or blasts will be obstructed by the deflector 20 and shell 26 and blow out through the holes 15.

By the means described a delayed or slow and even draft is provided, attended with great economy of operation, especially with a gas furnace.

I claim:

1. The combination with a smoke pipe having holes in the wall thereof, of a baffle device in the pipe, in advance of the holes, and a tapered deflector shell in the pipe and adjacent the baffle and opposite said holes, the small end of said shell being directed toward the outlet from the pipe.

2. The combination with a smoke pipe having holes in the wall thereof, of a baffle device in the pipe, in advance of the holes, and a tapered deflector shell in pipe and adjacent the baffle and opposite said holes, the small end of said shell being directed toward the outlet from the pipe, the small end of the shell extending beyond the plane of the holes.

In testimony whereof, I do affix my signature.

MAX GREENBERG. 100