Dec. 21, 1937. O. C. NILSON 2,103,171

FIREPLACE AIR BLASTING

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Fig. 1.

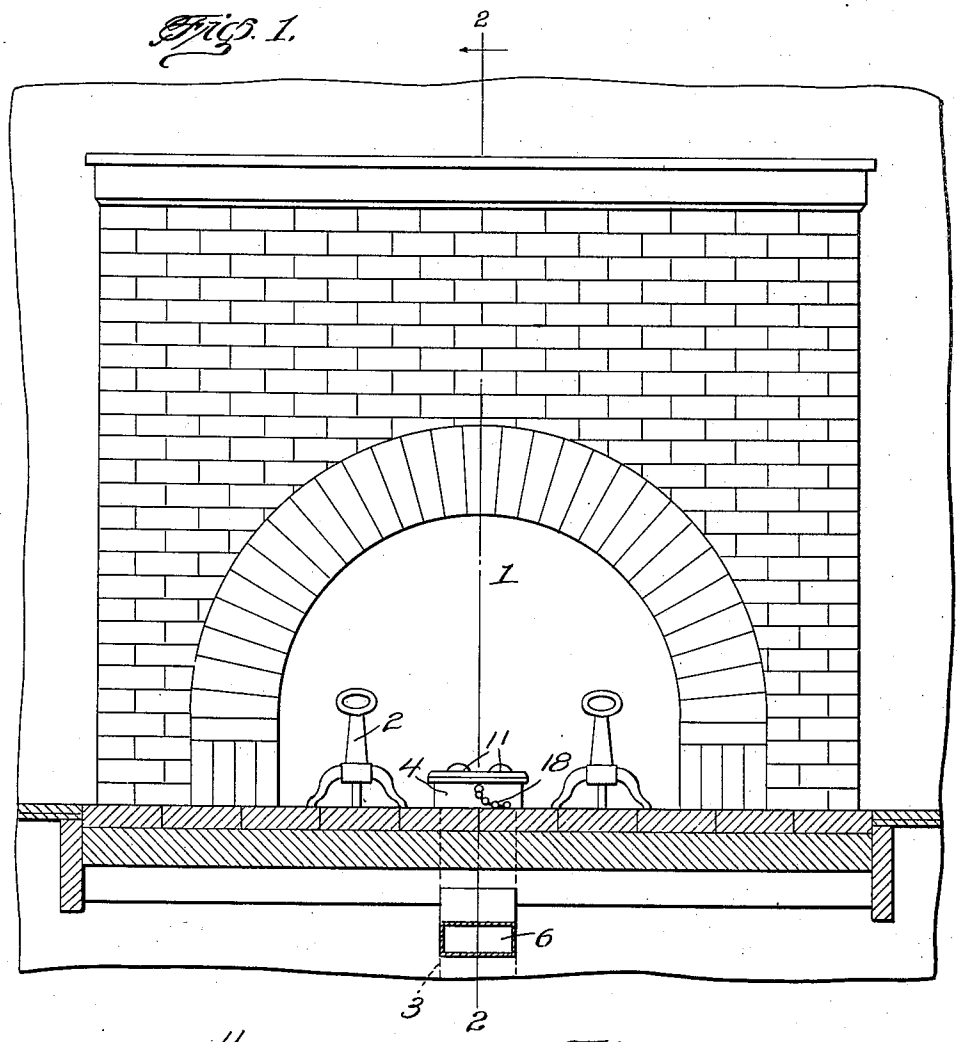
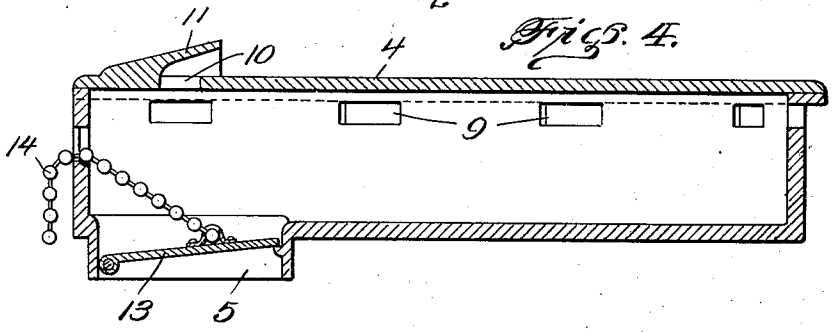


Fig. 4.



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Fig. 2.

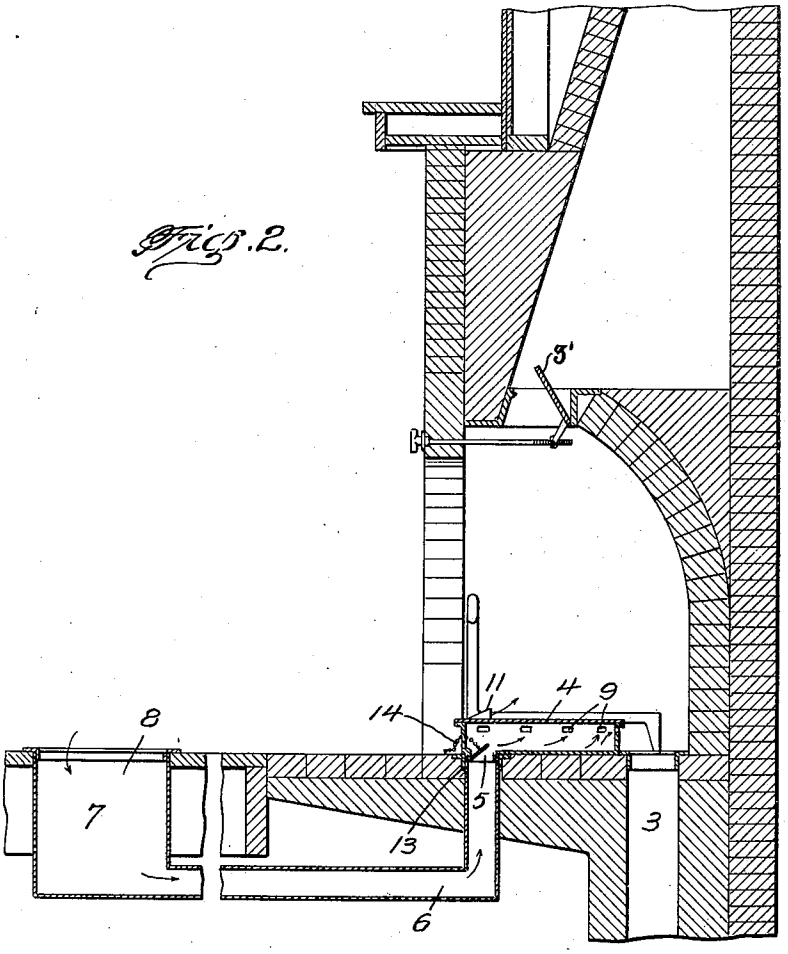
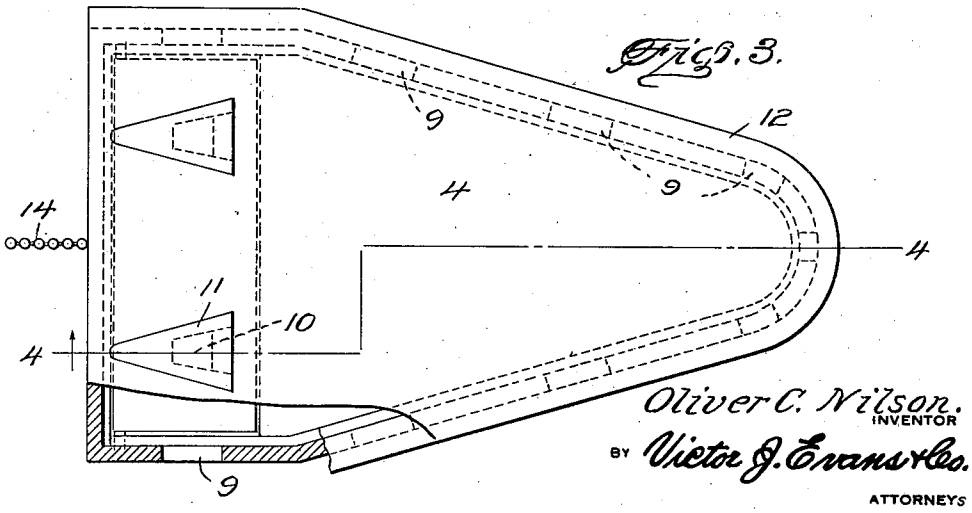


Fig. 3.



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FIREPLACE AIR BLASTING

Oliver C. Nilson, Carthage, Mo.

Application January 19, 1937, Serial No. 121,349

4 Claims. (Cl. 126—120)

This invention relates to an air blast for fireplaces and has for the primary object the provision of a device of this character which may be easily built into a fireplace to direct air into the burning fuel and which creates a forced draft to bring about thorough combustion of the fuel so that maximum heat will be derived therefrom and which may receive the air from the room in which the fireplace is located or from the basement or some other remote place to said fireplace.

With these and other objects in view, this invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which

Figure 1 is a front elevation, partly in section, illustrating a fireplace equipped with an air blast constructed in accordance with my invention.

Figure 2 is a transverse sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a plan view, partly in section, illustrating the head of the air blast.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3.

Referring in detail to the drawings, the numeral 1 indicates a conventional type of fireplace having andirons 2 for supporting fuel in a burning position within the fireplace. However, a grate or similar device may be employed in lieu of the andirons. A hand controlled damper 3' is provided for the fireplace. The base or bottom of the fireplace is equipped with a chute 3 leading to the basement of a building in which the fireplace is located so that ashes may be directed downwardly through said chute into a collecting receptacle. The foregoing description relates to a well-known construction of fireplaces to which my invention is adapted.

Arranged on the bottom of the fireplace is a distributing head 4 tapering towards one end, as clearly shown in Figure 3, and is provided with an inlet opening or neck 5 to which is connected an air pipe 6. The air pipe 6 leads to an air chamber 7, the latter having communication with the room in which the fireplace is located or, if desired, may be located in the basement or some other remote place to the fireplace. A suitable grating 8 may be positioned over the air receiving receptacle 7. The sides of the head are provided with air openings 9 and a pair of air openings 10 are located adjacent the front of the head and in the top wall thereof and have disposed thereover hoods 11 acting to direct the air escaping from the openings towards the rear end of the head or the rear portion of the fireplace. Marginal flanges 12 are formed on the head and overlie the openings 9 to bring about spreading of the air escaping from the openings.

Hinged within the neck 5 of the head is a damper 13 for the regulating of the passing of air from the pipe 6 into the head. A control element 14 is connected with the damper for regulating the position thereof and is preferably of a flexible link construction operating through a key hole slot in the front wall of the head.

In operation, the fire is built upon the andirons or grate and the air passing through the chamber 7, pipe 6 and head will create a forced draft to the fire, thereby assuring complete combustion of the fuel and also will aid in the burning of green or unseasoned fuel. The air being taken from the room, as shown in Figure 2, will bring about a complete circulation of air within a room so that the entire room will become heated from the fireplace.

Having described the invention, I claim:

1. In combination with a fireplace having a fuel supporting means, an air discharge head located in the fireplace below the fuel carried by the fuel supporting means, said head tapering towards the rear wall of the fireplace and having air discharge openings formed in the sides thereof and the top wall adjacent the front end, hoods formed in the top wall over the openings thereof, and means for admitting air to said head.

2. In combination with a fireplace having a fuel supporting means, an air discharge head located in the fireplace below the fuel carried by the fuel supporting means, said head tapering towards the rear wall of the fireplace and having air discharge openings formed in the sides thereof and the top wall adjacent the front end, hoods formed in the top wall over the openings thereof, an air intake neck formed on the head, an air pipe connected to said neck and having communication with the atmosphere within a room.

3. In combination with a fireplace having a fuel supporting means, an air discharge head located in the fireplace below the fuel carried by the fuel supporting means, said head tapering towards the rear wall of the fireplace and having air discharge openings formed in the sides thereof and the top wall adjacent the front end, hoods formed in the top wall over the open-

ings thereof, an air intake neck formed on the head, an air pipe connected to said neck and having communication with the atmosphere within a room, and an adjustable damper located within the air inlet neck.

4. In combination with a fireplace having a fuel supporting means, an air discharge head located in the fireplace below the fuel carried by the fuel supporting means, said head tapering towards the rear wall of the fireplace and having air discharge openings formed in the sides thereof and the top wall adjacent the front end, hoods formed in the top wall over the openings thereof, an air intake neck formed on the head, an air pipe connected to said neck and having communication with the atmosphere within a room, and an adjustable damper located within the air inlet neck, said head having marginal flanges overlying the openings in the sides of said head to cause spreading of air escaping from said last-named openings.

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