

Oct. 24, 1939.

J. V. KORMENDI

2,177,573

HEAT DEFLECTOR

Filed June 24, 1938

2 Sheets-Sheet 1

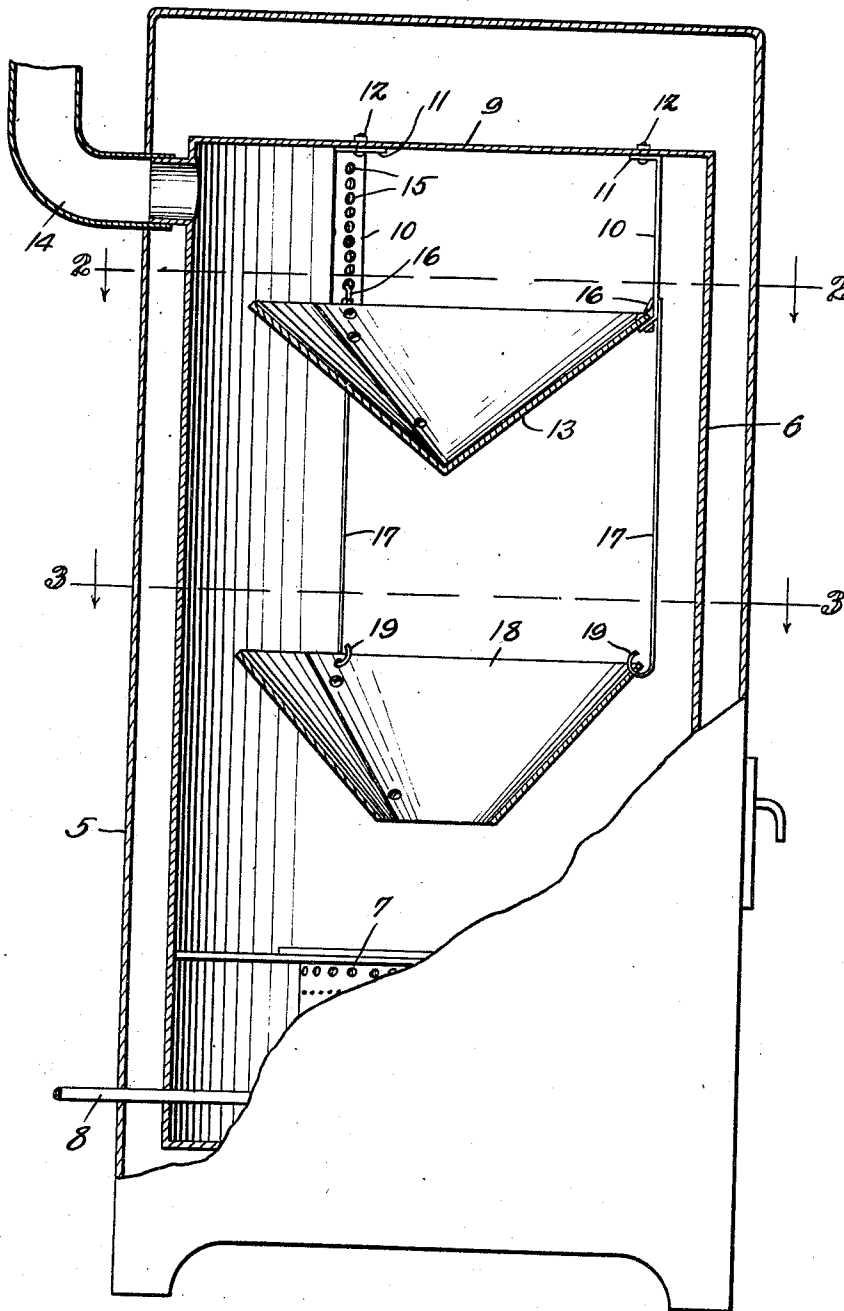


Fig. 1.

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Fig. 2.

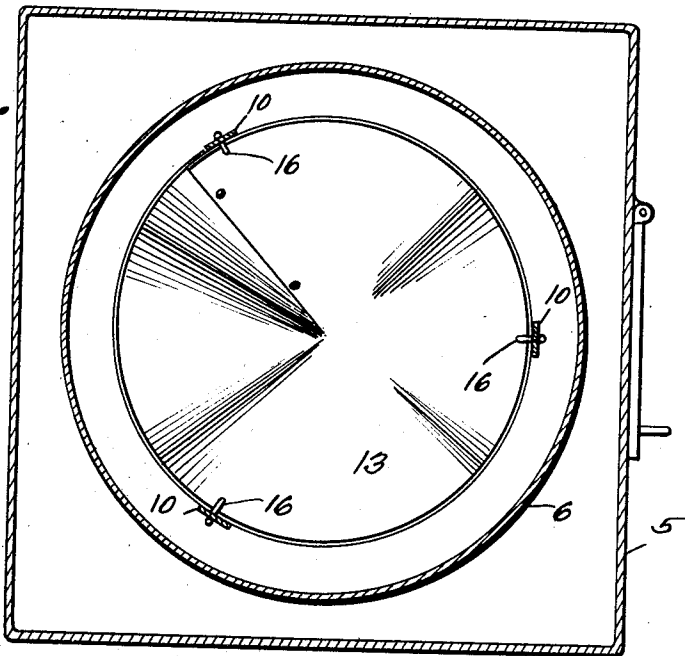
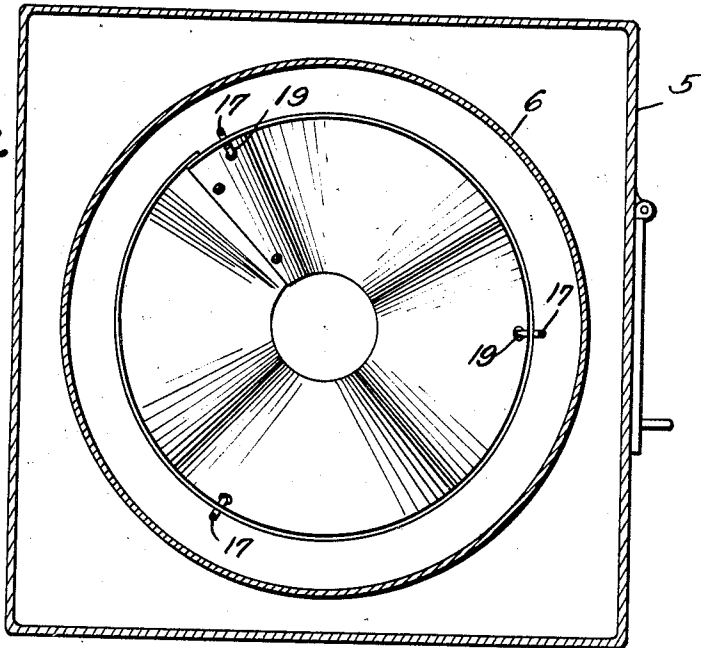


Fig. 3.



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UNITED STATES PATENT OFFICE

2,177,573

HEAT DEFLECTOR

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Application June 24, 1938, Serial No. 215,682

1 Claim. (Cl. 126—83)

This invention relates to heating apparatus, the primary object of the invention being to provide means whereby the products of combustion from the burner of a heating plant will be spread outwardly to contact with the wall of the combustion chamber, and heat chamber, thereby increasing the efficiency of the apparatus.

An important object of the invention is to provide a device of this character which may be readily and easily installed, eliminating the necessity of making alterations in the construction of the combustion chamber or heat chamber to install the device.

Another object of the invention is to provide a deflector which may be adjusted vertically, to the end that the baffles may be properly located with respect to the burner, to insure the efficiency of the apparatus.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein described, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is a fragmental sectional view through the combustion chamber of a heating apparatus equipped with baffles constructed in accordance with the invention.

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

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

Referring to the drawings in detail, the reference character 5 designates the body portion of the furnace with which the baffles or deflectors, forming the subject matter of the present invention, are used.

Mounted within the body portion 5, is a heat chamber 6, the lower portion thereof or combustion chamber housing the oil burner 7, which is fed with oil through the pipe 8.

Secured within the heat chamber 6 and depending from the top 9 thereof, are supporting bars 10 that have right angled upper ends 11 secured to the top 9 by means of the bolts 12.

These bars 10 have their lower ends secured to the inverted cone-shaped baffle 13, the largest

diameter of which is less than the diameter of the heat chamber 6 providing an annular space or passageway around the baffle 13 to allow products of combustion to pass upwardly and exhaust through the pipe 14.

Formed in the supporting bars 10, are openings 15 that are arranged in vertical spaced relation with each other, the openings being designed to receive the hooks 16 formed at the upper ends of the supporting rods 17 that hang from the bars 10. Thus it will be seen that due to the construction of the bars 10, the rods 17 may be adjusted vertically to adjust the baffle 18 with respect to the baffle 13 and burner 7.

The baffle 18 is of inverted frusto-conical construction and formed with openings to receive the hooks 19 formed at the lower ends of the rods 17. This baffle 18 is also of a diameter to provide a space between the largest diameter thereof and wall of the heat chamber so that heat from the burner 7, may circulate freely around the baffle 18 and pass upwardly through the heat chamber.

From the foregoing it will be seen that due to the construction shown and described, heat from the burner 7, which in the present showing is of the oil burning type, will pass upwardly contacting with the inclined surface of the baffle 18, where it is directed laterally into contact with the wall of the heat chamber 6. Portions of the products of combustion passing through the baffle 18, will contact with the baffle 13, and will also be directed laterally into contact with the wall of the heat chamber 6, thereby increasing the efficiency of the heating apparatus by causing the heat or products of combustion to heat the wall of the heat chamber and preventing the products of combustion from passing directly through the heat chamber.

I claim:

A heating apparatus including a heating chamber, supporting bars depending from the top of the heating chamber, said bars having vertically spaced openings, a baffle supported by said bars and spaced from the wall of the heat chamber, a baffle supported below the first mentioned baffle, rods connected with the latter baffle, hooks on the upper ends of the rods and adapted to be hooked into the openings of the supporting bars adjustably supporting the latter baffle with respect to the first mentioned baffle.

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