

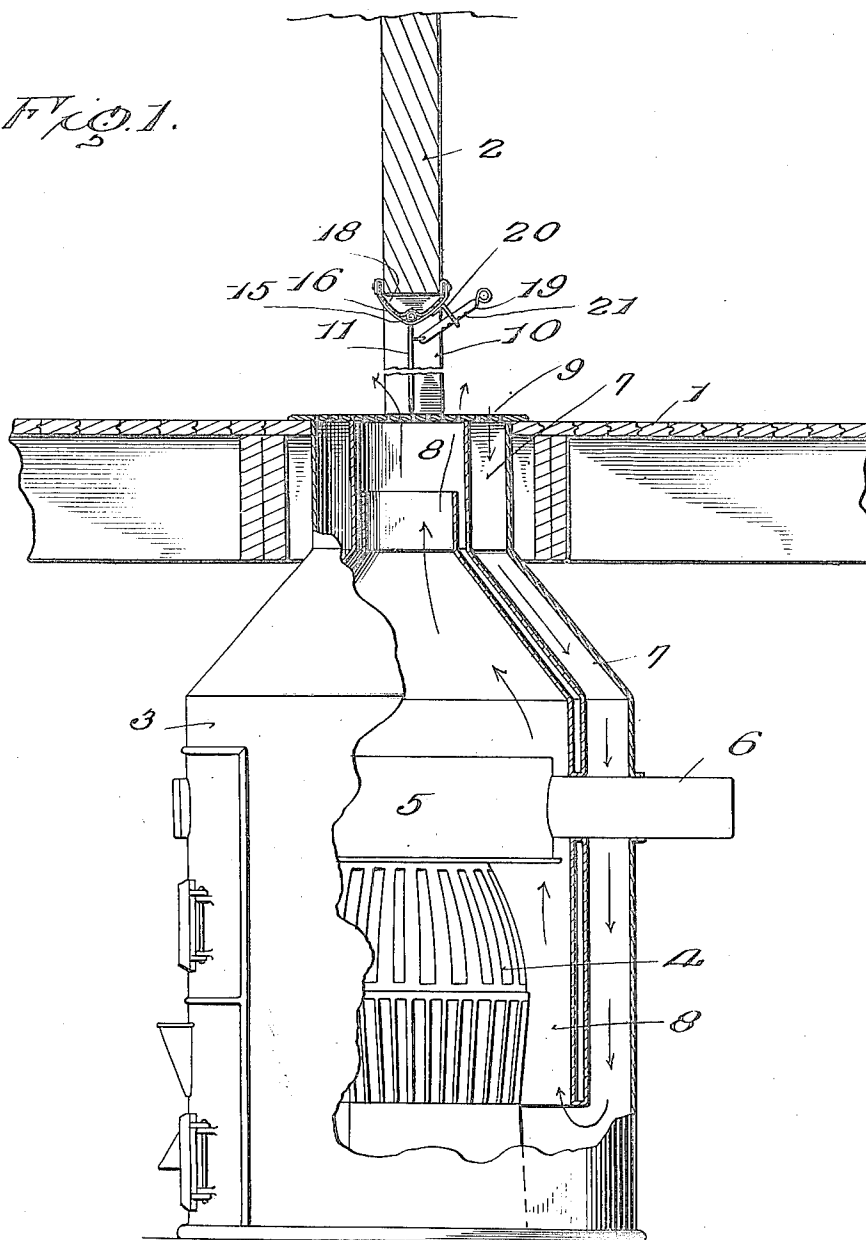
H. BOEHNKE.  
HEAT DISTRIBUTING DEVICE.  
APPLICATION FILED MAR. 5, 1918.

1,302,000.

Patented Apr. 29, 1919.

2 SHEETS—SHEET 1.

FIG. 1.



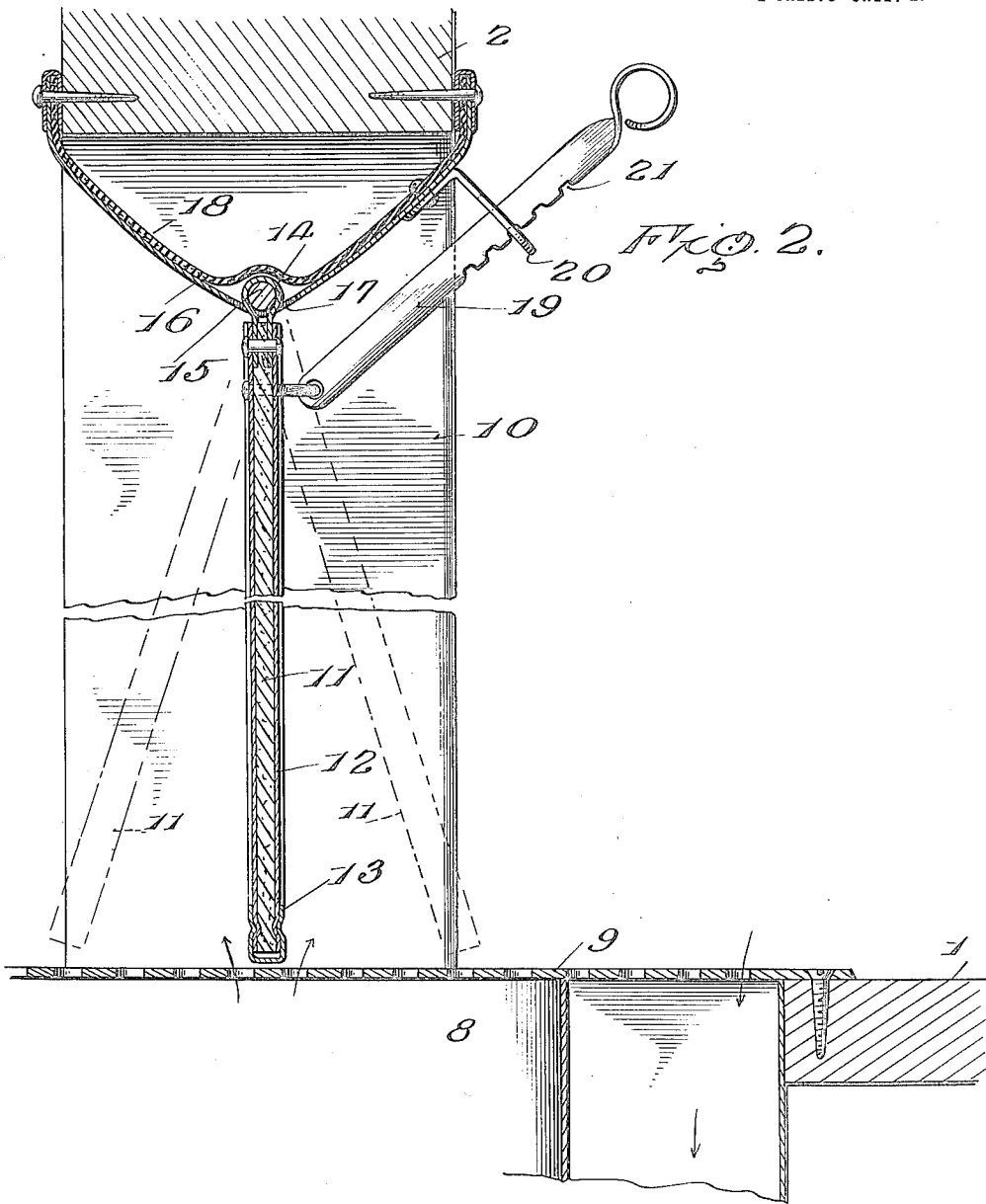
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Henry Boehnke

By *Lacey & Lacey*, Attorneys

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Inventor

*Henry Boehnke.*

By

*Lacey & Lacey,*

Attorneys

# UNITED STATES PATENT OFFICE.

HENRY BOEHNKE, OF KRAMER, NORTH DAKOTA.

## HEAT-DISTRIBUTING DEVICE.

1,302,000.

Specification of Letters Patent.

Patented Apr. 29, 1919.

Application filed March 5, 1918. Serial No. 220,613.

*To all whom it may concern:*

Be it known that I, HENRY BOEHNKE, a citizen of the United States, residing at Kramer, in the county of Bottineau and State of North Dakota, have invented certain new and useful Improvements in Heat-Distributing Devices, of which the following is a specification.

This invention relates to heating systems of that type which employ what is known as "one-pipe" heaters and the object of the invention is to provide means whereby the hot air rising from the furnace may be directed to either side when the force of strong winds tends to effect an unequal distribution of the heat. The object of the invention is attained in such a device as is illustrated in the accompanying drawings, and the invention resides in certain novel features which will be particularly pointed out in the claims following the detail description.

In the drawings:

Figure 1 is a view partly in section and partly in elevation of a heating system having my improvement embodied therein.

Fig. 2 is an enlarged section of the heat distributor.

Referring particularly to the drawings, the reference numeral 1 indicates the floor dividing the first story of a building from the cellar and 2 indicates a wall or partition erected on said floor. The furnace 3 comprises a fire pot 4 at the upper end of which is a radiator or drum 5 from which the smoke pipe 6 leads to the chimney or escape flue. The outer shell or casing of the furnace presents a cold air flue or passage 7 which extends down to a point near the base of the furnace where it communicates with a hot air chamber or flue 8 surrounding the fire box and the drum 5 and extending up to the top of the casing or shell. It will be noted that the upper ends of both the cold air flue 7 and the hot air flue 8 are flush with the floor 1 and a register 9 is set in or on the floor over the said flues.

In the use of such a heater as has been briefly described, the hot air rises through the central portion of the register and escapes directly into the room from the furnace while the cold or chilled air is drawn from the room into the cold air flue and again passes through the furnace to be heated, the circulation thus set up serving to carry the heated air through the entire building. It has been found that more effi-

cient results are attained by locating the register in the vertical plane of a wall or partition and forming an opening, indicated at 10, in the lower portion of the wall directly over the register so that the hot air may pass simultaneously into the rooms at opposite sides of the wall. Should a strong wind be blowing, however, the room exposed directly to the force of the wind will obviously need more heat than the room on the far side of the wall, inasmuch as the draft tends to carry all heat into the far room. To overcome this tendency, I provide a deflecting device which is located in the opening and may be shifted to one or the other side as circumstances may require so that a greater proportion of the hot air may be directed into the room requiring greater heat. This heat distributor consists of a plate 11 which may be faced with asbestos 12 and reinforced along its edges by a rim 13 crimped onto the plate and its asbestos facing. This deflecting plate is provided at its upper edge with suspending eyes 14 through which a hinge pin 15 is inserted, said pin being held within the trough of a V-shaped plate or hanger 16 which is disposed at the upper end of the opening and has its edges secured in any convenient manner to the opposite faces of the wall 2 as shown. This plate 16 is provided with notches or openings 17 to receive the eyes 14 and may be lined with asbestos 18 so as to minimize the liability of damage to the wall, the asbestos or other heat-resisting lining preventing scorching of the woodwork of the partition and the V-shaped structure of the hanger presenting diverging deflecting surfaces which will positively turn aside the rising heated currents so that they will not come into direct contact with the wood finish of the wall or partition. Near the upper end of the deflecting plate, I pivotally attach thereto an adjusting lever 19 which extends through a loop or bracket 20 secured to the hanger 16, the lever being provided with a series of notches 21 adapted to engage the loop or bracket so as to hold the deflector in any position in which it may be set.

It is thought that the operation will be readily understood from the foregoing description, taken in connection with the accompanying drawings. When the wind is quiet, the deflecting plate is disposed in a vertical position so that it will lie in the central plane of the furnace and will be

midway the opening 10, the heated currents being then directed equally into the rooms at the opposite side of the wall or partition.

When, however, a strong wind is blowing, the deflector is shifted, as indicated by dotted lines in Fig. 2, so that a greater proportion of heat will be directed toward that side of the building against which the wind may be blowing. It has been found that by the use of the device in the stated manner a very efficient and uniform distribution of the heat is effected.

Furthermore, fuel is saved as the use of the device avoids the necessity of forcing the fire in order to make the more exposed room comfortable.

Having thus described my invention, what I claim as new is:

1. The combination with a floor, and a partition erected on the floor and having an opening through its lower portion immediately at the floor, said opening being uncovered at both sides, of a register fitted in the floor and extending through said opening in the partition, a heat distributor pivotally suspended at its upper end upon the partition and within the opening therein and depending to but terminating short of the register, and means for holding said distributor in a set position.

2. The combination with a floor, and a partition erected on the floor and having an opening through its lower portion immediately at the floor, said opening being uncovered at both sides, of a register fitted in the floor and extending through said opening in the partition, a bracket secured to the

partition at the top of and extending through the opening therein and having a heat-resisting lining, a deflector pivotally hung on said bracket and depending centrally therefrom and terminating short of the register, and means carried by the bracket and the deflector for holding the deflector in a set position.

3. The combination with a floor, and a partition erected on the floor and having an opening through its lower portion immediately at the floor, said opening being uncovered at both sides, of a register fitted in the floor and extending through the opening in the partition, a V-shaped bracket secured to the partition at the top of and extending through the opening therein, a deflector having eyes at its upper end extending through said bracket, a pintle engaging said eyes and resting in the trough of the bracket, the deflector depending to but terminating short of the register, and means for holding the deflector in a set position.

4. The combination with a floor, and a partition erected on the floor and having an opening through its lower portion immediately at the floor, said opening being uncovered at both sides, of a register fitted in the floor and extending through the opening in the partition and covering a central hot air flue and a cold air flue disposed concentrically about the hot air flue, and a deflector pivotally hung at its upper edge upon the partition and depending to but terminating short of the register.

In testimony whereof I affix my signature.  
HENRY BOEHNKE. [L. s.]