

D. VAN EVERA.
HOT AIR REGISTER AND ATTACHMENTS.
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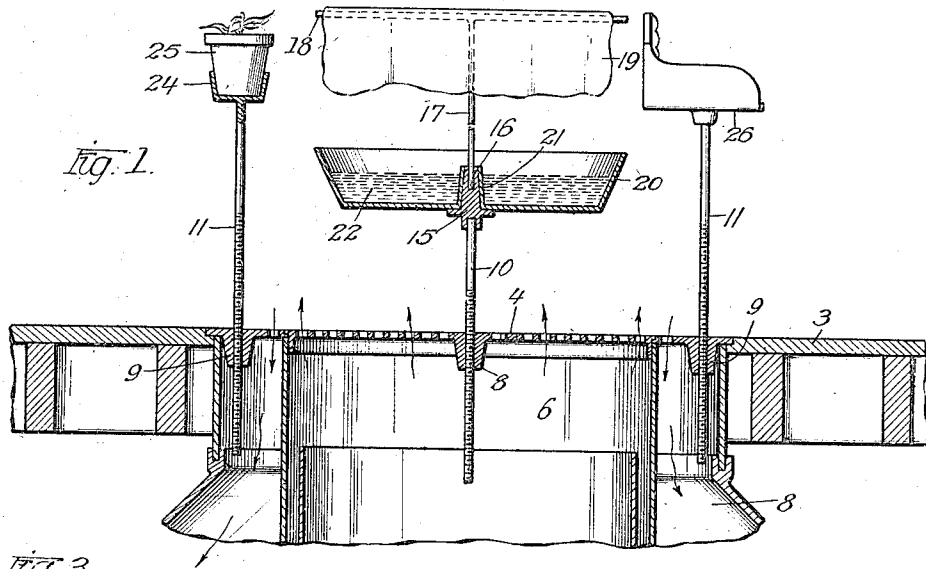
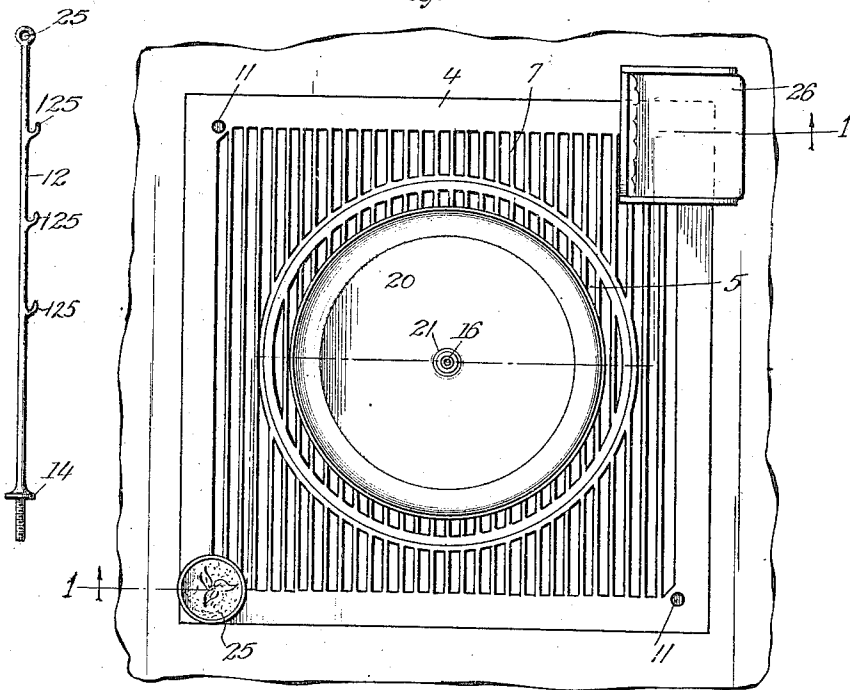


Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

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HOT-AIR REGISTER AND ATTACHMENTS.

1,293,582.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DEWITT VAN EVERA, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hot-Air Registers and Attachments, of which the following is a specification.

My invention relates to improvements in registers or grids and attachments for one-pipe heaters.

One of the objects of my invention is to provide improved foraminous registers, or grids, for hot air furnaces and removable and adjustable attachments therefor, having especial reference to registers for one-pipe hot-air heaters of this character, the register for which is usually located in the floor of a centrally disposed room, of a building to be heated by such device, from which the hot air is distributed to communicating rooms, and through which the relatively cold air is returned to be reheated by the furnace, or heater therebelow.

These registers are usually extensive in size and occupy a relatively large, conspicuous, central space in the floor of a room and are unsightly, devoid of ornamentation or means by which they may be ornamented or decorated. Their only available utility is to provide small latticed openings through which hot air may be delivered into the area to be heated, and a separated zone of other similar openings through which relatively cool air may pass back to the furnace to be reheated.

My invention is concerned with means for increasing their usefulness and for relieving the severity of outline, by enhancing their artistic appearance.

In the drawings

Figure 1 is a section taken on line 1—1 of Fig. 2.

Fig. 2 is a plan view of the register as it is shown in the floor.

Fig. 3 is an elevation of one of the supports that is to be removably secured to each corner of the register.

3 is the upper surface of the floor of a room in which the register 4 is located. The central zone 5 of the foraminated register is provided with openings through which hot air comes through the conduit 6 of the heater therebelow. Relatively cold air is received and conducted through the outer zone of openings 7, into the cold air space 8, of the

furnace. The arrows show the direction of movement of the hot and relatively cool air through the respective zones of the register.

The register is provided, at each of its corners, and in its center, with a screw threaded hub or perforate boss 8 and 9, respectively. These hubs, or bosses may be, preferably, integral parts of the register, although they may be made separately and attached thereto, and are intended to receive axially adjustable, vertically disposed rods 10, 11 and 12. These rods are shown to be threaded with rather coarse pitch screw threads for a considerable part of their length as a means for adjustment in cooperation with the threaded bosses, and are provided with means for supporting objects on their upper ends. The object of threading the rod is to provide one means to adjust the articles to be supported on the upper ends thereof, in positions more or less remote from the register. The rods 12, however, are provided with shoulders 14 that are intended to be screwed firm upon the upper surface of the register. The central rod 10 is provided, on its upper end, with a hub 15, as shown, having a central perforation 16 for a removable rod 17. This removable rod may have one or more cross rods 18 to provide a clothes-rack or the like, upon which clothing or linen 19 may be supported for quickly drying the same within the house when the weather outside is not favorable for such purpose.

A pan 20, having a central inner hub 21 for overlying the hub 16, may be supported upon the rod 10 and may contain water 22 for the purpose of evaporation to humidify the hot air that passes up through the central region of the register. When the fire in the furnace varies in intensity, the rod 10 may be adjusted to change the elevation of the pan containing the water, to increase or decrease the amount evaporated therefrom. The pan may also be used by the housewife for containing dough, from which bread is to be made to encourage or facilitate rising, preparatory to baking it into loaves and other like purposes. The depending bosses 9 may contain rods 11 upon the upper ends of which are supported holders 24, for flower pots 25, or they may each changeably support a seat 26 for a child, and the height of the seat may be varied by rotating the rod 11 until the altitude of the seat is suitable for the occasion.

The rod 17 and the clothes rack may be at once removed from the socket in the hub 16. It may, however, be used in conjunction with the pan 20, or the pan 20 may be removed when the drier supported by the rod 17 is in use.

The rods 12 are provided with projections 125 so that when four such rods are placed in the respective corner bosses 9 a rope or wire, making a substantially rectangular inclosure, upon which clothing, in larger abundance, may be supported for drying or which may be used as a barrier to prevent children from coming in contact with the hot central zone of the register.

The thrifty housewife will, on occasions, use the attachments to the register for utilitarian purposes, while upon other occasions she may place the attachments thereon to ornament and to embellish its appearance.

In the event that it becomes desirable to use the entire floor, for dancing or otherwise, the rods may be all removed from the register leaving a smooth surface in the same plane with the upper surface of the floor.

Instead of threading the rods 10 and 11, as shown, other means for adjusting the distance which they may project upwardly above the register, may be employed, within the spirit and scope of my invention.

The pan 20, immediately over the hot air zone 5 of the register will serve additionally as a means for spreading the heat that comes from the said area, thereby more thoroughly distributing it through the rooms to be heated, and when the central clothes drier

18 is to be used the pan may be removed so that the hot air will be drier and more directly impinge upon the fabrics or linens supported thereon. When the clothes driers consisting of the four rods 12, and the connecting wires or ropes, are employed, the empty pan may be useful for throwing the heat out directly into contact with the clothing or fabrics that may be hanging therefrom, and the moisture evaporated from the clothing will furnish sufficient humidity.

While I have herein shown and described a single embodiment of my invention, it is manifest to persons skilled in the art that other devices than those specifically referred to may be associated with the register attachments within the scope of the appended claim.

Having described my invention, what I claim is:—

An apparatus of the character described including a register foraminated for the passage of air and having a projection located at the substantial center thereof and formed with a screw threaded aperture therethrough, a rod having a screw threaded part fitting said aperture and adapted to be adjusted relative thereto, a pan supported on said rod, above said register, and forming a water receptacle so as to produce vapor and also forming a deflector for the air passing through said register.

In testimony whereof I hereunto set my hand.

DEWITT VAN EVERA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."