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## VAPORIZING DEVICE FOR HOT AIR REGISTERS.

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## United States Patent Office.

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## VAPORIZING DEVICE FOR HOT-AIR REGISTERS.

SPECIFICATION forming part of Letters Patent No. 736,659, dated August 18, 1903.

Application filed November 15, 1902. Serial No. 131,571. (No model.)

To all whom it may concern:

Be it known that I, Lewis C. Wilcox, a j citizen of the United States of America, and a resident of Cincinnati, in the county of 5 Hamilton and State of Ohio, have invented certain new and useful Improvements in Vaporizing Devices for Hot-Air Registers, of which the following is a specification.

My invention relates to a certain improve-10 ment in vaporizing devices for hot-air registers; and its object is to provide a vessel of this character of an improved and simplified nature and of a strong, light, convenient, durable, and comparatively inexpensive construc-15 tion which shall be well adapted for use in moistening the heated air arising from a furnace floor-register and making it better for breathing and other indoor purposes.

The invention consists in certain novel fea-20 tures of the construction and arrangement of the several parts of the improved vaporizer whereby many important advantages and results are attained and the device is made simpler, cheaper, and is otherwise better adapted 25 and more convenient for use, it being preferably portable, than various other forms of hotair-register vaporizers heretofore devised or employed, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In the accompanying drawings, which serve to illustrate my improvements, Figure 1 is a perspective view showing my invention as it 35 appears in position for use on the floor over a hot-air register; Fig. 2, a transverse section taken on the line x x of Fig. 3 toward the left-hand end of the device, but showing additional side holes or vents in the apex of the 40 vessel; and Fig. 3, a plan view showing one corner of the vessel broken partially away to

expose part of its bottom and the register. A represents the floor of a room, and Ba hotairregisterorgrating therein, set and arranged 45 as customary or in any suitable manner.

1 represents a substantially closed vessel or pan supported by corner-legs 2 a suitable distance above and over said register, whereby the heated air arising from the furnace 50 through the open register may strike the vessel's bottom and be retarded and spread or

deflected laterally thereby over the floor and lower portion of the room. The vessel 1 is preferably "Gothic pitch" in form, comprising a horizontal bottom 3, rectangular slop- 55 ing sides 44, and depressed or back-set triangular ends 5 5, all properly connected together. In the apex 6, at the top of the sides 4, is pierced a series of vent-holes 7, and in the same apex is constructed a detachably- 60 capped orifice or opening 8, whereby the vessel is charged with the water or fluid to be vaporized.

In Fig. 2 I have shown extra holes or vents 9, made in the sides 4.4 just below the apex 65 of the vessel, thus providing for the escape of a desired greater volume of vapor than when but the apex series 7 is present. All the vent-holes are minute in size, so that an over saturation or supply of moisture to the 70 surrounding air is avoided, and eyelets or linings 10 may be applied thereto, as seen in Fig. 3, to impart a finish and cover possible ragged edges in the punchings.

In the operation and use of my device it is 75 duly charged with water and placed over a register, its bottom being half a foot, more or less, above the latter, so that the heated air is deflected or spread sidewise, as shown by the lower arrows in Fig. 2, over the floor and 80 lower portion of the room. Said heated air accumulating and contacting on the bottom of the vessel soon heats the fluid within and resultant vapor arises therefrom, which escapes through the vent-holes in the top, as 85 shown by the upper arrows in Fig. 2, spreading throughout the room and moistening the atmosphere therein and especially the current of heated air from the register.

It is obvious that the vessel or pan being 90 practically closed (except for the vent-holes) will enhance the high heating of the water and the retention of the heat therein for an extended time and that the contracted upper portion thereof concentrates the generated 95 hot steam at the top or apex, whenceforth said hot steam best passes in a series of thin jets that do not at once condense but pass into the atmosphere for condensation just beyond the range of falling on said vessel.

For fumigating, disinfecting, and similar sanitary and medicinal purposes the vessel is

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obviously very useful for vaporizing other fluids than water placed therein and liberated or sprayed into the heated atmosphere.

The hot vessel or pan acts to a considerable extent as a radiator, the heat from its sides and ends passing off into the atmosphere and thus utilizing all the rising heat from the register.

It will be readily seen that any possible condensation of moisture on the outer faces of the vessel's sides will run down and have to pass over the part heated by the hot water therein contained, and thus be vaporized.

pable of some modification, if desired, without departing from the principles and spirit thereof, and for that reason I do not wish to be understood as limiting myself to the precise form of construction of the vessel and arrangement of the vents therein—as, for instance, it could be made pyramidal in form, with a

water-charging orifice in the central apex and vent-holes made in the sides surrounding said

apex, but slightly below it.

25 I claim—

1. A vaporizing device, adapted to be placed over a hot-air register, said device consisting of a receptacle, adapted to contain a liquid,

and provided with supports, and further provided with vent-apertures for the escape of vapor, said receptacle being formed with a bottom, and upwardly-extending sides and ends, said sides sloping from the bottom to a common vertex whereby any moisture which may collect on the top of said receptacle and 35 run downward will be compelled to pass over that part of the receptacle containing the liquid and thus vaporized.

2. As a new article of manufacture, a portable vaporizing vessel or water-pan having minute vent-holes therein, and comprising a horizontal base or bottom supported on legs, a pair of rectangular sides sloping inwardly or converging to an apex or rise above said bottom, triangular ends or fillings for said 45 bottom and sides, and a detachably-capped filling-orifice, the whole being adapted to be placed over a hot-air register or the like, with an intervening space, substantially as set forth.

Signed at Cincinnati, Ohio, this 12th day of November, 1902.

LEWIS C. WILCOX.

Witnesses:

L. M. Jones, John Elias Jones.