H. SACKETT.

HUMIDIFIER.

APPLICATION FILED JULY 16, 1919.

1,352,477. Patented Sept. 14, 1920.

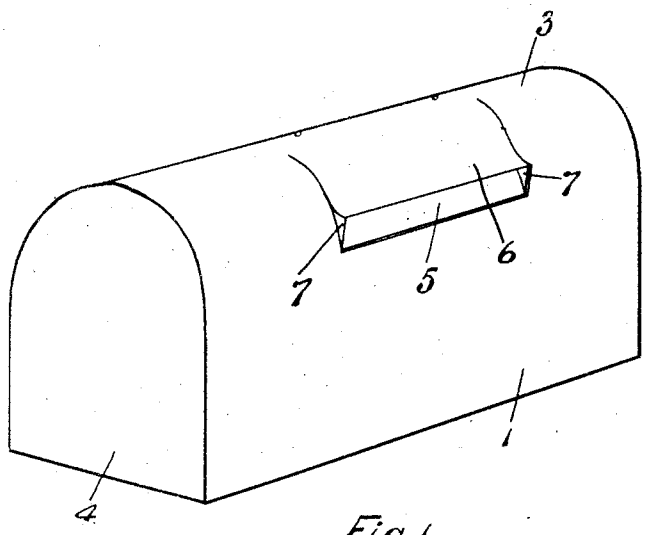


Fig. 1.

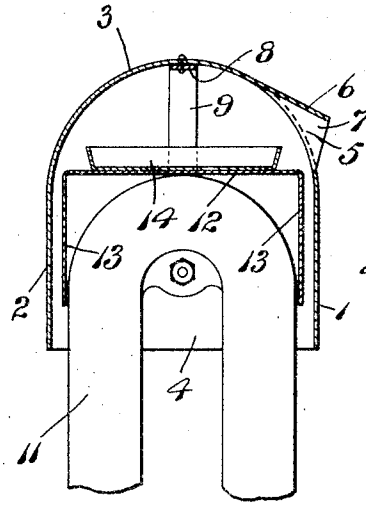


Fig. 2.

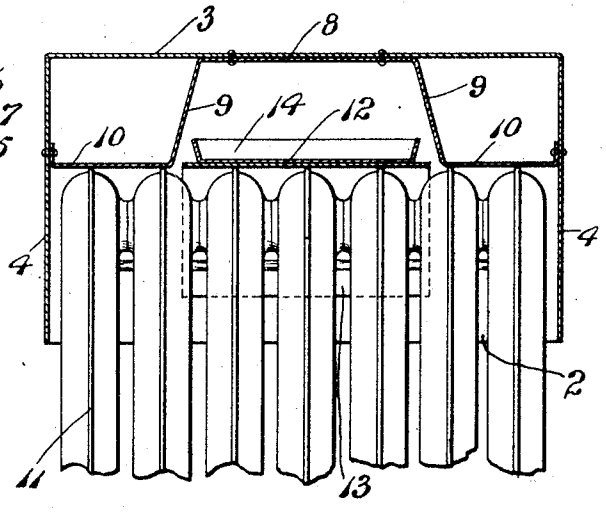


Fig. 3.

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HUMIDIFIER.

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To all whom it may concern:

Be it known that I, HART SACKETT, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Humidifiers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to humidifiers and is particularly concerned with a humidifier which may be very quickly and easily applied to radiators of steam or hot water heating plants and which from its construction is capable of giving to the air of the room heated by said radiator the requisite and necessary degree of humidity. It is an object and purpose of the invention to make a humidifier which contains a member for passing over the upper end of a radiator and which is equipped with means for inclosing a space above the radiator in which air is heated and circulated, the same passing over a pan containing water whereby the heated air absorbs water vapor and is delivered through an opening in said member into the room, supplying the air of the room with water vapor and raising the relative degree of humidity. A further object of the invention is to so construct the device that it can be made at small cost and can be applied to radiators for use without employment of skilled labor and in fact without the use of tools in any way, the humidifier being added without change to the radiator practically instantaneously.

For an understanding of the invention and the construction which attains these results as well as many others not specifically stated at this point, reference may be had to the following description taken in connection with the accompanying drawing, in which,

Figure 1 is a perspective view of the humidifier hood.

Fig. 2 is a partial vertical section and end elevation, the section being taken through the humidifier transversely thereof.

Fig. 3 is a longitudinal vertical section through the humidifier, the radiator to which it is applied being shown in side elevation.

Like reference characters refer to like parts in the different figures of the drawing.

In construction, an inclosing hood having a front side 1 and a rear side 2 spaced apart are connected by an integral curved top 3 and has ends 4, all made, preferably from sheet metal. The under side is open so that the hood may be passed over the upper end of the usual radiator used in steam or hot water heating installations. At the upper portion of the front side 1 and practically at the point where it joins with the curved top 3 a central opening 5 is made and the metal is pressed from the hood so as to form a downwardly and outwardly inclined top or cover 6 over the opening, the ends between the said cover and the remainder of the hood being closed by end pieces 7.

A supporting bar of metal is fixed within the hood and disposed lengthwise thereof, it including a central section 8 which lies directly against the under side of the top 3 and from which, at each end, sections 9 are bent downwardly for a distance and thence horizontally, as indicated at 10, until the ends 4 of the hood are reached, being permanently connected to said ends 4 by rivets or other suitable permanent connections.

The hood is adapted to be passed over the upper end of a radiator 11 until the horizontal sections 10 are brought to rest against the upper end of the radiator. This leaves a considerable space between the upper end of the radiator and the hood as is evident. Before placing the hood over the radiator a saddle comprising an upper horizontal plate 12 with depending front and rear sides 13 is placed over the radiator at about its middle point between its ends, this making a support for a shallow pan 14 which may be inserted through the opening 5 and placed on the saddle. This pan is adapted to be filled with water and is practically in direct contact with the radiator from which it receives heat which raises it to a relatively high degree of temperature.

It is obvious that the hood may be made of different lengths for different lengths of radiators. Furthermore the saddle may be made longer if desired and a longer pan placed thereon or more than one opening 5 may be made at the front of the hood and a pan 14 be placed back of each. In all cases, the heated air within the hood passes over

the pan and water therein, absorbing the water vapor and carrying it with the air out through the opening 5. The top 6 over the opening has the function of directing the air downwardly out of the hood and causing it to pass over the water, thus making the absorption of vapor more sure and rapid.

The humidifier has been in extensive practical service and has proven thoroughly efficient. The air heated within the inclosure has a tendency to escape from the hood and carry the vapor with it, new cold air coming up from beneath into the hood. There is a continuous circulation and the heated air is directed downwardly from the hood and thus circulates throughout the entire space in the room, carrying its supply of vapor. The vapor rises readily from the shallow pan 14 and is quickly absorbed by the heated air. The construction is very economical to manufacture, and has proven exceptionally efficient in tests and service.

I claim:

1. In combination, a hood having spaced front and back sides and vertical ends, an integral connecting top joining the front, back and ends, said front side having an opening therein with metal pressed from the hood over said opening in a downward and outward incline, a bar attached to the upper side of the hood at its middle portion and formed with downwardly bent sections for a distance and then terminating in horizontal sections extending to the ends of the hood, and means connecting the bar to the hood at its ends and at its middle portion, substantially as and for the purposes described.

2. In combination, a hood having spaced front and back sides and vertical ends, an integral connecting top joining the front, back and ends, said front side having an opening therein with metal pressed from the hood over said opening in a downward and outward incline, and means connected to and within the hood and extending downwardly from the top of the hood near each end thereof to serve as a support for the hood when placed over a radiator, the intermediate portion of the hood being unobstructed, substantially as described.

In testimony whereof I affix my signature.

HART SACKETT.