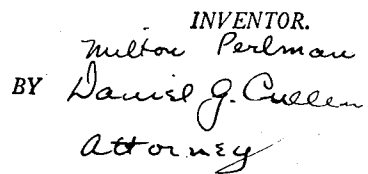


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HUMIDIFIERS HAVING SLOPING WALL ADJUSTMENT

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Original application April 21, 1951, Serial No. 222,240, now Patent No. 2,709,427, dated May 31, 1955. Divided and this application August 20, 1954, Serial No. 451,104

3 Claims. (Cl. 137—408)

This application relates to tiltable pan humidifiers, an example of which is shown in the patent to Perlman 2,588,567 of March 11, 1952.

This application is a division of application Serial No. 222,240, filed April 21, 1951, now Patent No. 2,709,427 of May 31, 1955, entitled Humidifier, in turn a continuation in part of application Serial No. 150,880, filed March 21, 1950, and now Patent No. 2,588,567 of March 11, 1952.

One object of the invention is to provide a tiltable pan humidifier which is easily and readily installed in off vertical as well as vertical furnace walls and ducts to level the pan in any slope of wall.

Other objects of the invention will become apparent by reference to the following detailed description taken in connection with the accompanying drawing in which:

Fig. 1 is a longitudinal vertical sectional view of a humidifier embodying the invention mounted on and through a vertical wall.

Fig. 2 is a fragmentary horizontal view taken substantially on the line 2—2 of Fig. 1.

Fig. 3 is a section view as if on line 3—3 of Fig. 1.

Fig. 4 is an elevation view but showing the humidifier mounted in a sloping or off vertical wall.

Referring to the drawing, it will be observed that it shows a support 10 in the form of a hollow box having open forward and rear ends, with the open forward end being closed by a removable snap-on cover 11.

The vertical sides of the box are formed with lugs 12 whose upper edges provide pivotal bearings for V-shaped formations 14 of the horizontal flange 15 of a water pan or reservoir 16 whereby the latter is removably and pivotally mounted in the support 10 on a horizontal transverse axis between the longitudinally spaced ends of the pan.

At 17, is shown a nozzle of a water supply line connected to the top wall of the support forward of the pivotal axis 12—14.

The pan 16 tilts and balances itself on its pivot axis 12—14 according to the quantity of water in the rear end of such pan and when the pan is full, a stopper 18 in the forward end of the pan engages the lower end of the nozzle 17 of the inlet line to close it. Conversely when the pan is not adequately filled, water pressure in the line 17 will tilt the pan counterclockwise to open the nozzle and admit water. This is characteristic of the action of a tilting pan humidifier.

It will be observed that the pan is removably mounted within the box support on its pivot axis 12—14, with access into the box support for such purpose being provided by the removal of the snap-on cover 11 closing the forward open end of the box.

An adjustable means is provided which is adapted to be secured by screws 19 against a wall 20 of a furnace or duct and for thus mounting the support in a hole of that wall. Such adjustable means, hereafter known as a mounting means, comprises a U-shaped mounting plate 21 extending along the bottom and sides of the box sup-

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port 10 and having lugs 22 connected to the sides of the box by screws 23 in slots 24 of lugs 22 with the free ends of the U-shaped plate extending above the box support.

The top edges of the sides of the support are formed with a plurality of longitudinally spaced detents 26 for cooperation with an anchor plate 27 which is connected to the upper ends of the sides of the mounting plate 21 by screws 23 and thus clamps the support to the mounting plate in any adjusted position whereby the mounting plate may be tilted forwardly and rearwardly with respect to the support for level mounting of the support in the mounting plate regardless of the slope of the wall to which the mounting plate is secured.

The interior of the box is visible when cap 11 is removed to expose to view a plumb bob 36 suspended on a pivot point 37 on a side of the box and cooperating with a target mark 38 in the box for indicating that the support 10 is truly level regardless of the slope of the wall 20 and of the adjusted position of the mounting plate 21 with respect to the support 10.

Now having described the construction herein disclosed, reference should be had to the claims which follow.

I claim:

1. In a humidifier, a support having an open rear end, means for mounting it horizontally part way through a wall comprising a U-shaped mounting plate extending along the bottom and sides of said support and pivotally mounting it therein with the free ends thereof extending above said support, a portion of said support having a plurality of longitudinally spaced detents formed therein along the top thereof, and an anchor plate disposable in selected detents at the top of said support including means for securing said anchor plate to said U-shaped mounting plate, a longitudinally extending open top reservoir, horizontally disposed in said support and having a forward end and a rearward end and pivotally supported and balanced between its ends in said support on a horizontal axis transverse to the longitudinal axis passing through its ends to pivot downwardly at its forward end when relatively empty and upwardly at its said forward end when filled, a nozzle disposed through the top of the forward end of said support over the forward end of said reservoir through which water under pressure is continuously available from a water supply to fill said reservoir, stopper means in said reservoir forward end for contacting said nozzle and shutting off water supplied to the reservoir therethrough responsive to the upward tilting of the forward end of said reservoir when said reservoir is filled.

2. In a humidifier of the tiltable pan type, a hollow box support, having open forward and rear ends, a water pan pivotally mounted therein on a horizontal transverse axis between its ends, a water supply line connected to said support forward of said axis and an adjustable support mounting means adapted to be secured against a wall and to said support and thus mounting said support in a manner to tilt forwardly and rearwardly with respect to said support for level mounting of said support in said mounting means regardless of the slope of said wall and of said mounting means, and means for detachably securing said mounting means to said wall and also to said support in adjusted position, said mounting means comprising a U-shaped plate surrounding said box and a separate bridging plate positioned to connect the ends of the U of the mounting plate, and detents formed on the box support for selectively receiving the bridging plate and clamping the box in adjusted position therein.

3. A construction of the character described in claim 2 including a visible plumb bob and target permanently mounted on the support for visibility indicating whether

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or not the support is truly level or horizontal when mounted in the mounting plate, and thus facilitating level mounting of the support.

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