

Nov. 4, 1924.

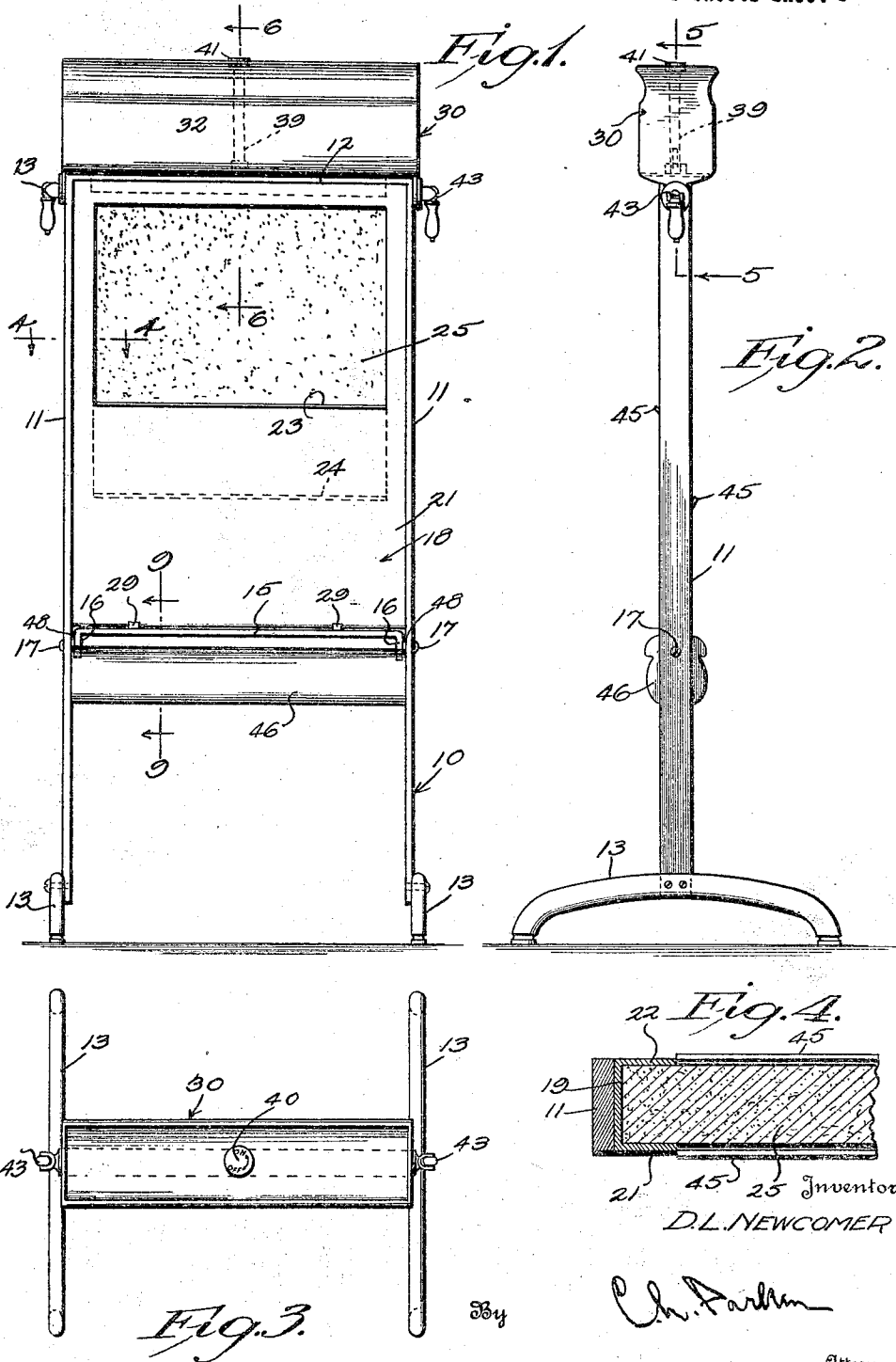
D. L. NEWCOMER

1,514,564

AIR MOISTENER

Filed Sept. 9, 1922

2 Sheets-Sheet 1



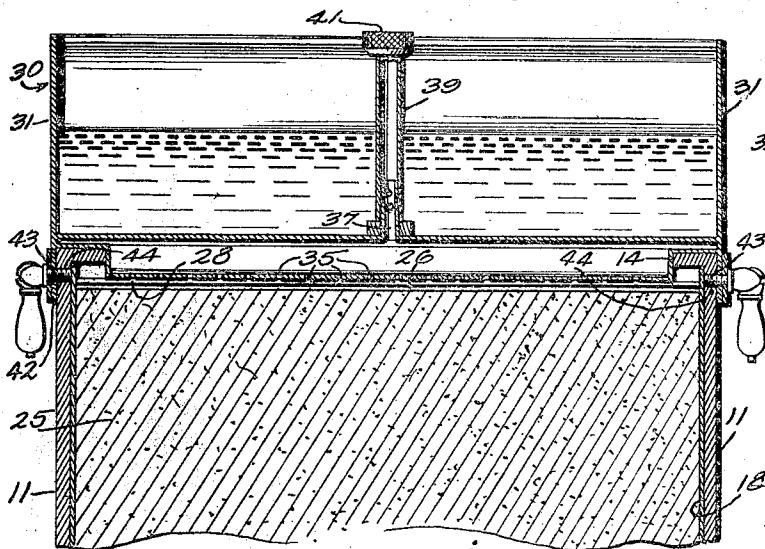
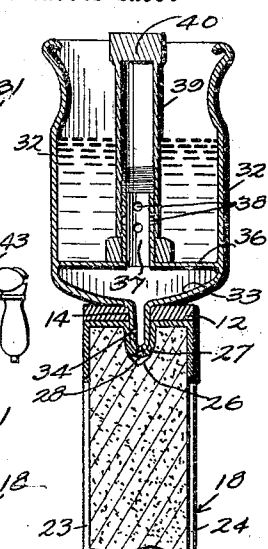
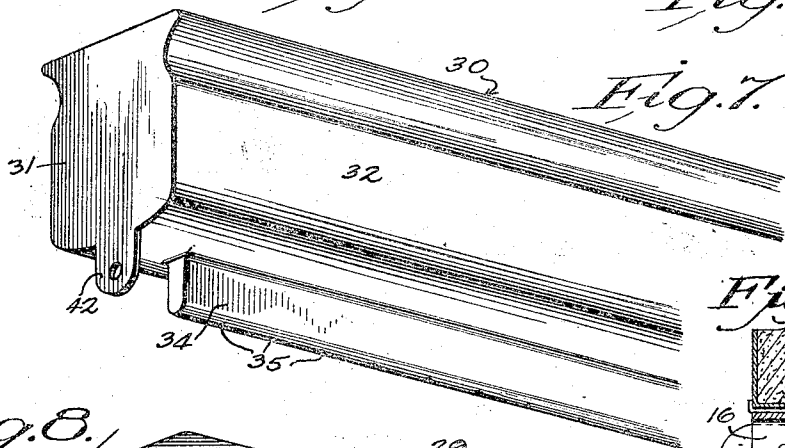
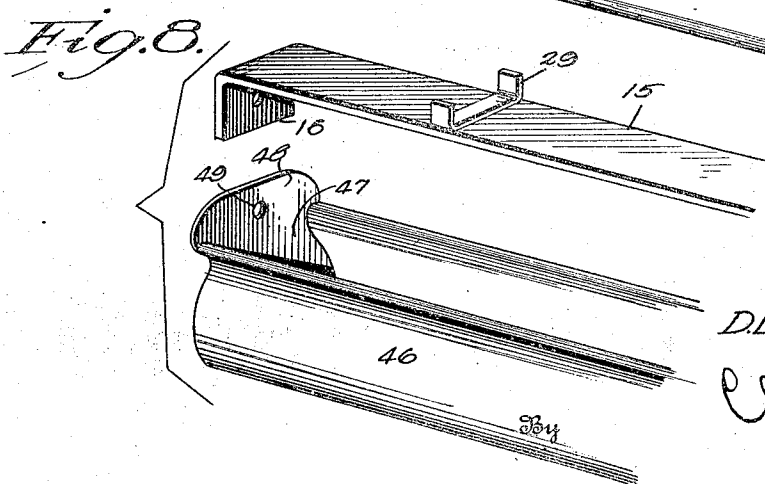
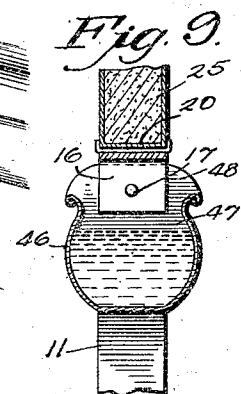
Nov. 4, 1924.

D. L. NEWCOMER

AIR MOISTENER

Filed Sept. 9, 1922

2 Sheets-Sheet 2



Inventor
D.L. NEWCOMER

Ch. Farber

Attorney

UNITED STATES PATENT OFFICE.

DAVID L. NEWCOMER, OF HANOVER, PENNSYLVANIA.

AIR MOISTENER.

Application filed September 9, 1922. Serial No. 587,140.

To all whom it may concern:

Be it known that I, DAVID L. NEWCOMER, a citizen of the United States, residing at Hanover, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Air Moisteners, of which the following is a specification.

This invention relates to air moisteners and more particularly to such a device adapted to be placed adjacent a radiator or other heater whereby the air in a room may be properly humidified.

An important object of the invention is the provision of a device of the above mentioned character which is simple in construction and of ornamental appearance as well as effective in its intended use.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the drawings I have shown one embodiment of the invention. In this showing,

Figure 1 is a side elevation of the device, Figure 2 is an end elevation, Figure 3 is a plan view, Figure 4 is a section on line 4—4 of Figure 1,

Figure 5 is a section on line 5—5 of Figure 2,

Figure 6 is a section on line 6—6 of Figure 1,

Figure 7 is a fragmentary perspective view of the water container,

Figure 8 is a similar view of the drip pan and supporting bracket, and

Figure 9 is a section on line 9—9 of Figure 1.

In the drawings, the numeral 10 designates a frame consisting of substantially vertical members 11 and a cross member 12 connecting the vertical members 11 at their upper ends. The device is supported by legs 13 secured at the lower ends of the vertical members 11 as shown. The cross member 12 is provided with a longitudinal opening 14 for a purpose to be described. Intermediate the ends of the vertical members 11 is a brace 15 having down-turned ends 16 secured to the members 11 by screws 17 or the like.

The numeral 18 designates a casing having closed ends 19 and a closed bottom 20 as shown in Figures 4 and 9 respectively.

The casing 18 also includes front and rear walls 21 and 22, the front wall 21 being provided with a relatively large opening 23 while the rear wall 22 is provided with an opening of substantially the same width but of greater depth as shown in Figure 1. The casing 18 is adapted to contain a pad 25 of absorbent material such as felt or the like. The pad 25 is adapted to substantially fill the casing 18 and is provided in its upper edge with a slot 26 into which extends an internal flange 27 formed in the top of the casing 18. The flange 27, as shown in Figure 6, forms a longitudinal socket in the upper end of the casing 18 and is provided in its lowermost portion with a relatively narrow longitudinal opening 28. The opening 14 and the socket formed by the flange 27 are in alinement as shown in Figure 6. As shown in Figure 1, the casing 18 is mounted within the side members 11 of the frame and is supported upon the bracket 15 by clips 29, the casing and the pad forming a unit which may be removed from its position in the frame.

A water container 30 is mounted above the frame 10. The container 30 embodies end walls 31 and side walls 32 which merge into bottom walls 33 as shown in Figure 6. An extension 34 is carried by the bottom 33 and is received within the opening 14 and the groove formed by the flange 27 as shown. The lower end of the extension 34 is provided with a plurality of openings 35 which register with the slot 28 in the flange 27. Arranged above the bottom 33 is a false bottom 36 spaced thereabove and provided with an upwardly extending externally screw-threaded pipe 37 having perforations 38 therein. A sleeve 39 surrounds the pipe 37 in screw-threaded engagement therewith and is closed at its upper end as at 40. The closed upper end of the sleeve 39 may be enlarged and knurled as at 41 for convenience in operation. The container 30 is provided at opposite ends with depending ears 42 adapted to fit snugly against the ends of the frame 10 as clearly shown in Figure 2. Bolts 43 are mounted in openings in the ears 42 and engage within openings 44 in the vertical members 11 of the frame whereby the container is held in proper position upon the frame. It will be apparent that the casing 18 has no rigid connection with the frame 10 in it-

self but is maintained in position therein by engagement of the projection 34 within the groove formed by the flange 27. It will also be apparent that when the bolts 43 are removed and the container raised upwardly, the casing 18 may be swung forwardly or rearwardly a slight distance at its upper end whereupon it may be withdrawn from the clips 29 and frame 10. The casing 18 may be provided at the lower edges of the openings 23 and 24 with slightly out-turned lips 45 as shown in Figures 2 and 4.

A drip pan 46 is arranged beneath the bracket 15 as shown in Figure 1. The pan 46 is provided with end walls 47 having upward projections 48 having openings 49 therein through which the screws 17 are adapted to pass to support the drip pan between the vertical members 11 of the frame.

The operation of the device is as follows:

The container 30 is filled or partially filled with water as shown in Figure 5, and the sleeve 39 revolved to uncover one or more of the perforations 38. Water will flow through the pipe 37 into the space formed between the bottom 33 and false bottom 36 from whence it will drain downwardly into the absorbent member 25 through openings 35 and slot 28. The entire absorbent member 25 will become saturated with water which will be evaporated into the atmosphere of the room in which the device is placed through openings 23 and 24 in the casing 18. The device is placed with the side 21 having the opening 23 therein, adjacent a radiator or other heating unit whereby heat is generated within the absorbent member 25 to assist in the vaporization of the moisture therein. Excess water is prevented from overflowing the openings 23 by means of the lips 45 when the device is first placed in operation and before the lower end of the pad becomes saturated. The rate of passage of water through the openings 38 is governed by the sleeve 39 according to the rate of vaporization from the pad 25. If water is fed too rapidly to the pad 25 it may overflow through openings 23 and 24, being collected in the drip pan 46.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having described my invention, I claim:

1. A device of the character described comprising a frame including a cross member at the top thereof, said cross member being provided with a longitudinal opening, a casing mounted in said frame and provided in its upper end with a longitudinal groove registering with the opening in the cross member of said frame, said casing being provided with an opening in said groove and having a relatively large opening in one side thereof, an absorbent member mounted in said casing, and a water container mounted above said frame, said container having a perforate extension adapted to be disposed within the opening in the cross member of said frame and the groove in said casing.

2. A device of the character described comprising a frame including a pair of vertical members and a cross member at the top thereof, said cross member being provided with a longitudinal opening, a bracket connected between the vertical members of said frame below said cross member, a casing mounted in said frame and supported upon said bracket, said casing being provided in its upper end with a longitudinal groove registering with the opening in the cross member of said frame, said casing being provided with an opening in said groove and having a relatively large opening in one side thereof, an absorbent member mounted in said casing, and a water container mounted above said frame, said container having a perforate extension adapted to be disposed within the opening in the cross member of said frame and the groove in said casing.

3. A device of the character described comprising a frame including a cross member at the top thereof, said cross member being provided with a longitudinal opening, a casing mounted in said frame and provided in one side with a relatively large opening, an absorbent member mounted in said casing, and a water container mounted above said frame, said container having a longitudinal perforate extension adapted to be disposed within the opening in said cross member and having the perforations thereof arranged within said casing.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID L. NEWCOMER.

Witnesses:

HARRY L. MILLER,
OSCAR R. BOWMAN.