Jan. 13, 1925. 1,522,755

E. M. SORENG ET AL

HUMIDIFIER

Filed Jan. 17, 1923

FIG. 1

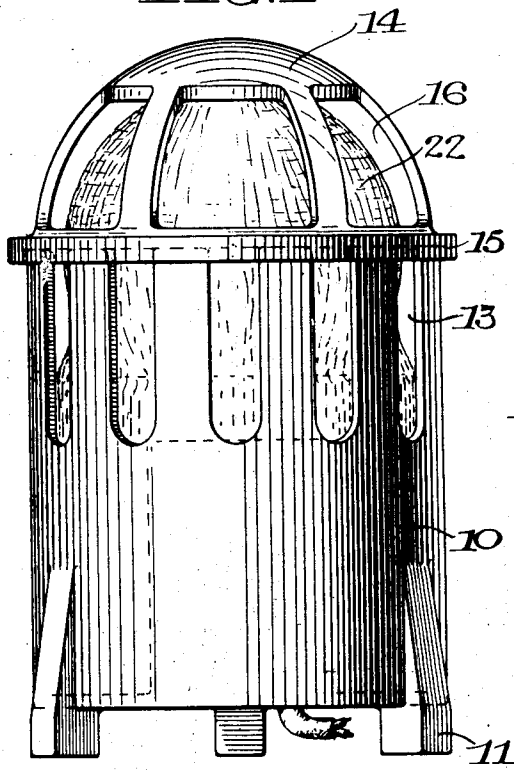


FIG. 2

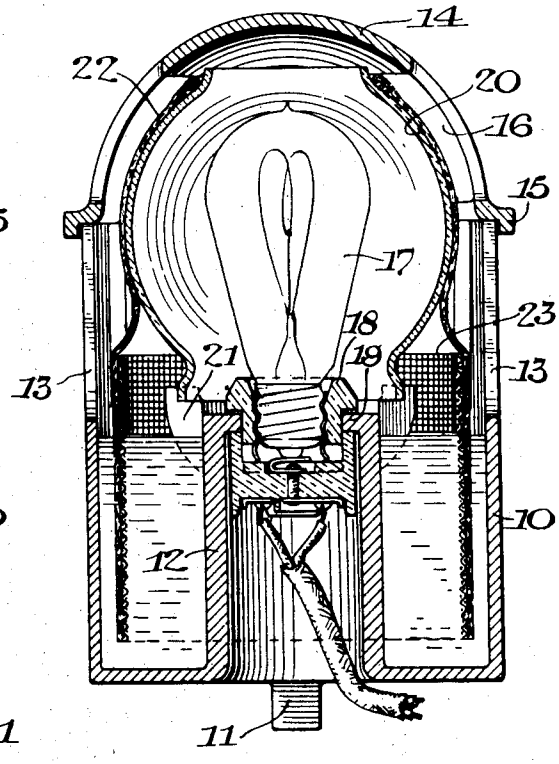


FIG. 3

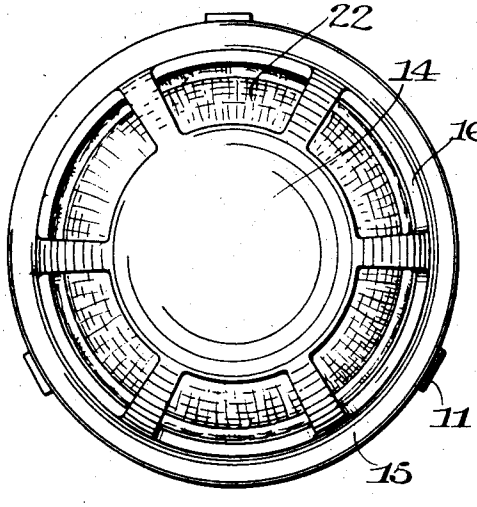
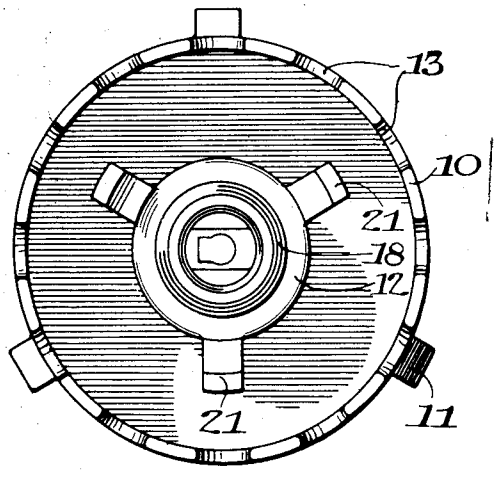


FIG. 4



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Patented Jan. 13, 1925. 1,522,755

UNITED STATES PATENT OFFICE.

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HUMIDIFIER.

Application filed January 17, 1923. Serial No. 613,258.

To all whom it may concern:

Be it known that we, EDGAR M. SORENG and WILLIAM H. COSTELLO, both citizens of the United States, and residents of Chicago, in the county of Cook and State of Illinois, and of Milwaukee in the county of Milwaukee and State of Wisconsin, respectively, have invented new and useful Improvements in Humidifiers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to humidifiers suitable for use in show cases and show windows where cigars or other articles requiring a moist atmosphere are displayed, or for use in dwellings, auditoriums and the like, wherever it is desired to increase the humidity of the atmosphere.

The invention further has for its object to provide a humidifier comprising a wick for conducting water or other liquid with which it is desired to charge the atmosphere and means for heating the wick to facilitate the evaporation of the water.

Another object of the invention is to utilize an incandescent electric lamp as the heating means in such a humidifier and to so arrange and combine the parts as to produce a neat and attractive appearance and a structure that is inexpensive.

With the above and other objects in view the invention consists in the humidifier as herein claimed and all equivalents.

Referring to the accompanying drawings, in which like characters of reference indicate the same parts in different views,

Fig. 1 is an elevation of a humidifier embodying this invention;

Fig. 2 is a sectional view thereof;

Fig. 3 is a plan view, and

Fig. 4 is a plan view of the base.

In these drawings, 10 indicates a base consisting of a cylindrical body preferably mounted on suitable legs 11 and having an open central upstanding tubular projection 12 so that the interior of the base around the projection forms a circular well for containing water or other liquid to be evaporated. Preferably the upper part of the base is provided with a number of vertical slots 13, as shown, extending to its edge, thus leaving a number of upstanding spaced fingers to constitute the rim of the base. Upon this rim of the base is seated a dome or cover 14 having a shouldered flange 15 to engage the base in the manner shown in Fig. 2. This dome or cover is also provided with openings 16 so that there is free access for the air to the interior. An incandescent electric light bulb 17 is threaded in a lamp socket 18, which is clamped to the inwardly turned flange 19 at the upper end of the tubular projection 12, higher than the lower ends of the slots 13 and therefore above the water level. A glass globe 20 surrounds the lamp bulb and rests in seats formed for it by notched arms 21 extending radially from the tubular projection 12. Stretched over this spherical globe 20 is a tubular wick 22, preferably of knitted fabric, which extends down into the circular well and is preferably also stretched over a cylindrical spreader 23 of woven wire fabric.

In operation the humidifier is placed in a humidor, or wherever it is desired to impart moisture to the atmosphere, and the lamp is lighted. The wick serves to lift the water or other liquid from the circular well by capillary attraction and conducts it to the surface of the globe 20, where it is exposed to ascending currents of air entering through the slots 13 and passing out through the openings 16, the heat of the lamp serving to heat the water in the wick and to induce the air currents referred to and thus facilitate the evaporation. Not only does the evaporation take place in this manner but the air within the globe heated by the lamp passes out at the upper end of the device and air is drawn through the moistened wick to take its place, so that it becomes saturated with the moisture in passing through the wick and consequently adds to the effectiveness of the operation.

The device is simple in its construction and inexpensive and pleasing in its appearance, making it suitable for use in display windows and show cases, and it is particularly attractive when combined with a flasher or automatic means for intermittently extinguishing the light. It also has the advantage of showing the need for water when the supply is exhausted because the wick as seen through the openings with the light behind it presents a different appearance when dry.

It is obvious that where the illumination provided by the incandescent lamp is not desired, an electrical heating element may

be substituted therefor and the term "incandescent lamp" as herein used is intended to include such alternatives.

It will be noted that an important advantage for the humidifier constructed in accordance with this invention is that, because of the relatively great amount of evaporating surface, the evaporation takes place at a relatively low temperature as compared with other machines relying entirely upon evaporation from the surface of heated water.

What we claim as new and desire to secure by Letters Patent is:

1. A humidifier comprising a liquid container, a suitably mounted incandescent lamp, a globe surrounding the lamp, and a wick surrounding the globe and extending into the liquid container.

2. In a humidifier, a liquid receptacle having a central projection, an incandescent lamp mounted on the projection above the liquid level, a globe mounted on the projection and surrounding the lamp, a wick surrounding the globe, and means for spreading the wick within the liquid receptacle.

3. In a humidifier, a base forming a liquid receptacle with openings in its sides and a central projection extending above the liquid level, an incandescent lamp mounted on the said projection, a globe mounted on the projection and surrounding the lamp, and a wick stretched over the globe and extending into the liquid receptacle.

4. A humidifier comprising a base having slotted edges and forming a liquid receptacle with a central projection extending above the liquid level, an incandescent lamp mounted on the said projection, a globe surrounding the lamp and mounted on the projection, a wick surounding the globe and extending within the liquid receptacle, a wire screen forming a spreader for the wick within the liquid receptacle, and a cover for the base provided with openings.

5. A humidifier comprising a base having slotted edges and forming a liquid receptacle with a central projection extending above the liquid level, a lamp socket secured to said projection, an incandescent lamp mounted therein, a globe mounted on the projection and surrounding the lamp with openings at its top and bottom for the passage of air, a wick surrounding the globe and extending into the liquid receptacle, and a cover for the base provided with openings.

6. A humidifier comprising a liquid receptacle, a suitably mounted incandescent lamp, a globe surrounding the lamp and provided with openings at its top and bottom for the passage of air, and a wick surrounding the globe and extending into the liquid receptacle whereby the upward current of air through the globe induced by the heat of the lamp will be drawn through the wick.

In testimony whereof we affix our signatures.

EDGAR M. SORENG.
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