W. P. COOK.

MOISTENER.

APPLICATION FILED DEC. 9, 1907.

912,815.

Patented Feb. 16, 1909.

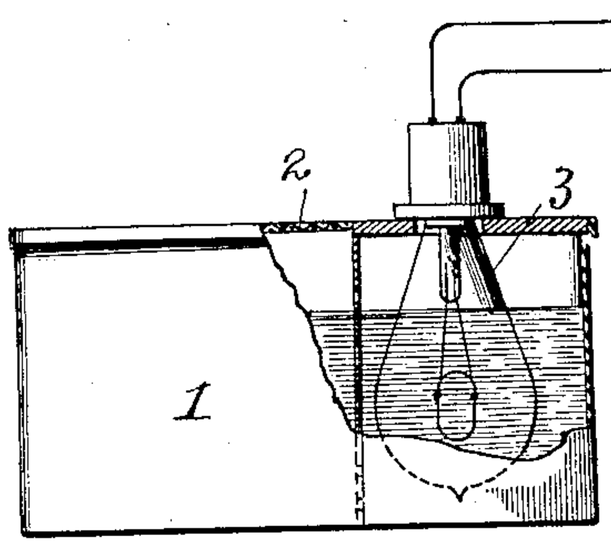


Fig. 1.

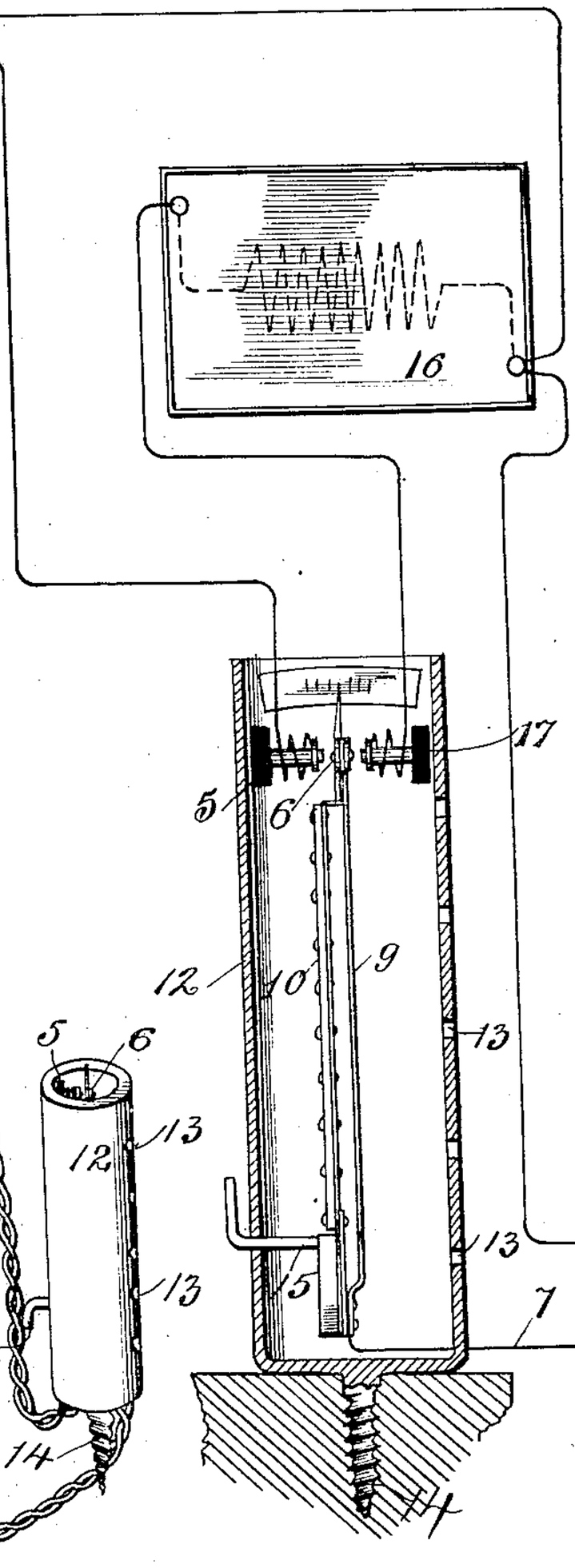
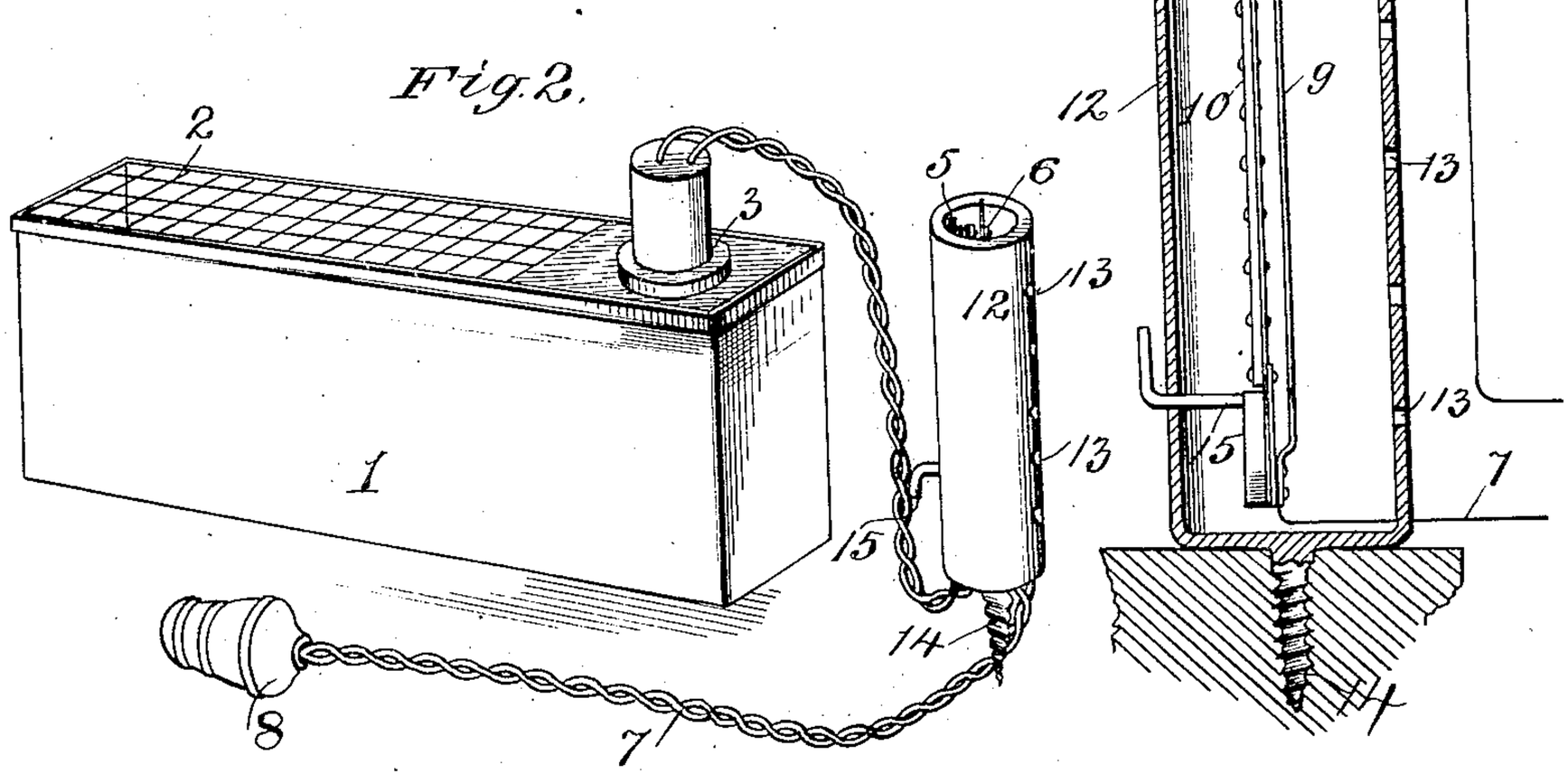


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM P. COOK, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-FOURTH TO WILLIAM S. PEARNE.

MOISTENER.

No. 912,815. Specification of Letters Patent. Patented Feb. 16, 1909.

Application filed December 9, 1907. Serial No. 405,762.

To all whom it may concern:

Be it known that I, WILLIAM P. COOK, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Moisteners; 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.

The primary object of this invention is to provide an improved, simple and highly efficient automatically-controlled moistener, capable of being located wholly within a cigar-case, or the like.

A further object is to provide means for taking up all surplus moisture so that a practically uniform humidity may be maintained. And a further object is to provide a moistener which will be inexpensive, both as to construction and maintenance, and one which will not be liable to readily get out of order.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a diagrammatic view, with parts broken away and other parts omitted. Fig. 2 is a view in perspective.

Referring to the drawings, 1 designates a water-containing tank or vessel, preferably about the size of a cigar-box. The top or cover 2 of this vessel, throughout the major portion of its length, is perforated, while the imperforate portion supports an ordinary incandescent lamp-bulb 3, the space in which the latter is located being preferably separated from the remaining portion of the vessel by a perforated partition 4. The lamp is electrically-connected with a contact 5 with which is designed to coöperate a circuit closer 6 which is electrically-connected through wiring 7 to the source of supply. In Fig. 2 I have shown such wiring as provided with an ordinary plug 8 for insertion in a lamp socket. The circuit closer is mounted on the upper end of a spring plate 9, and in close juxtaposition to the latter is a hygrometer 10 composed, preferably, of a piece of vulcanized fiber and a piece of metal, rivated together. The expansion of the fiber will cause the hygrometer to bend so as to bear against plate 9 and by its pressure effect a break between circuit closer 6 and contact 5. This hygrometer, together with the circuit closer and contact, are positioned within a tubular body 12, open at its upper end and preferably formed with perforations 13. From the lower end of this tubular body extends a screw 14 to enable the hygrometer, and its inclosing body, to be readily positioned within a cigar case, or the like, by screwing into the floor or a separate block located therein. Extending through the inclosing body 12 is a screw 15 by which the hygrometer may be controlled by regulating its travel, and thus make its operation dependent upon more or less moisture, as desired.

In practice, when the circuit closer 6 is in engagement with contact 5 the lamp 3 will be lighted, and the heat thereof will raise the temperature of the water above that of the surrounding atmosphere, thereby creating moisture throughout the entire case. An increase in the humidity sufficient to affect the hygrometer to an extent to break contact will extinguish the lamp, but as soon as the humidity lowers the lamp will be relighted and evaporation renewed.

In Fig. 1 I have shown, in addition to the elements hereinbefore described, an electrically-controlled drier 16, which may be of any preferred construction, and which is in circuit with a second contact 17 with which circuit closer 6 is designed to engage, under the action of the hygrometer, when forced from engagement with contact 5. In this way, when the lamp is out of circuit, the drier may be in circuit. Thus, by alternately placing in circuit the lamp and the drier, a practically uniform humidity may be maintained within a cigar-case or the like. It is not necessary, however, that the drier be employed, but in some instances its use is desirable.

The advantages of my invention will be apparent from what has been stated. It is manifest that all of the parts thereof may be located wholly within a single case, and that the humidity within such case may be kept practically uniform. It will also be observed that the device may be set to deliver a greater or less volume of moisture by simply turning the adjusting screw 14. No moisture is generated, except when the lamp is burning, and the lamp burns only when moisture is needed. Likewise the drier takes up the moisture only when there is an excess

thereof. The device is entirely automatic in operation, and may be used in vaults with highly satisfactory results.

I claim as my invention:

1. A moistener comprising a water-containing vessel designed to be located within a case the humidity of which is to be controlled, a heater submerged in said vessel to effect the evaporation of the water, and means for controlling such heater.

2. A moistener comprising a water-containing vessel designed to be located within a case the humidity of which is to be controlled, an incandescent electric lamp-bulb submerged in said vessel to effect the evaporation of the water, and means for controlling the current supply to said lamp-bulb.

3. A moistener comprising a water-containing vessel designed to be located within a case the humidity of which is to be regulated, electrically-controlled means for effecting the evaporation of the water, and means for automatically cutting on and off the current to such electrically-controlled means.

4. A moistener comprising, in combination, a water-containing vessel designed to be located within a case the humidity of which is to be controlled, a heating element for the water, means for controlling such heating element, and a hygrometer for actuating such controlling means.

5. A moistener comprising, in combination, a water-containing vessel, an electrical heating element, a circuit closer, and a hygrometer for actuating such closer, all of said elements being constructed and arranged to be located wholly within a cigar-case, or the like.

6. A moistener comprising, in combination, a water-containing vessel, an electric lamp-bulb surrounded by the water in said vessel, a circuit-closer, and a hygrometer for actuating such closer.

7. A moistener comprising, in combination, a water-containing vessel, an electric lamp-bulb surrounded by the water in said vessel, a circuit-closer, and a hygrometer for actuating such closer, all of said elements being constructed and arranged to be located wholly within a cigar-case, or the like.

8. A moistener comprising, in combination, a water-containing vessel designed to be located within a cigar-case, or the like, an electrical heating element, a circuit-closer, a hygrometer for actuating such closer, a tube inclosing such hygrometer, and means for supporting such tube.

9. A moistener comprising, in combination, a water-containing vessel designed to be located within a cigar-case, or the like, an electrical heating element, a circuit-closer, a hygrometer for actuating such closer, a tube inclosing such hygrometer, means for supporting such tube, and an adjusting screw mounted in said tube and designed to control the movement of said hygrometer.

10. A moistener comprising, in combination, a water-containing vessel, an electric heating element, a circuit-closer, a hygrometer for actuating such closer, a tube inclosing such hygrometer, and means for supporting such tube, all of said elements being constructed and arranged to be located wholly within a cigar-case, or the like.

11. In combination with a moistener, and an electrically-operated heating element, of an electrically-controlled drier, and a hygrometer for controlling the circuit to the heating element and drier.

12. In combination with a moistener, and an electrically-operated heating element, of an electrically-controlled drier, and a hygrometer for alternately placing the heating element and drier in circuit.

13. In combination, a water-containing vessel, an electric lamp-bulb therein, a hygrometer, a circuit-closer actuated by the latter, a tube inclosing such hygrometer, and a plug electrically connected to said circuit-closer.

14. In combination, a water-containing vessel, an electric lamp-bulb therein, a hygrometer, a circuit-closer actuated by the latter, a tube inclosing such hygrometer, a drier in circuit with said lamp-bulb, and a plug electrically connected to said circuit-closer, said hygrometer alternately placing the lamp-bulb and drier in circuit.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

WILLIAM P. COOK.

Witnesses:
CARL W. ANDERSON,
E. M. CORWIN.