No. 809,576. PATENTED JAN. 9, 1906.

H. J. MURPHY.

TOBACCO MOISTENING APPARATUS.

APPLICATION FILED AUG. 15, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

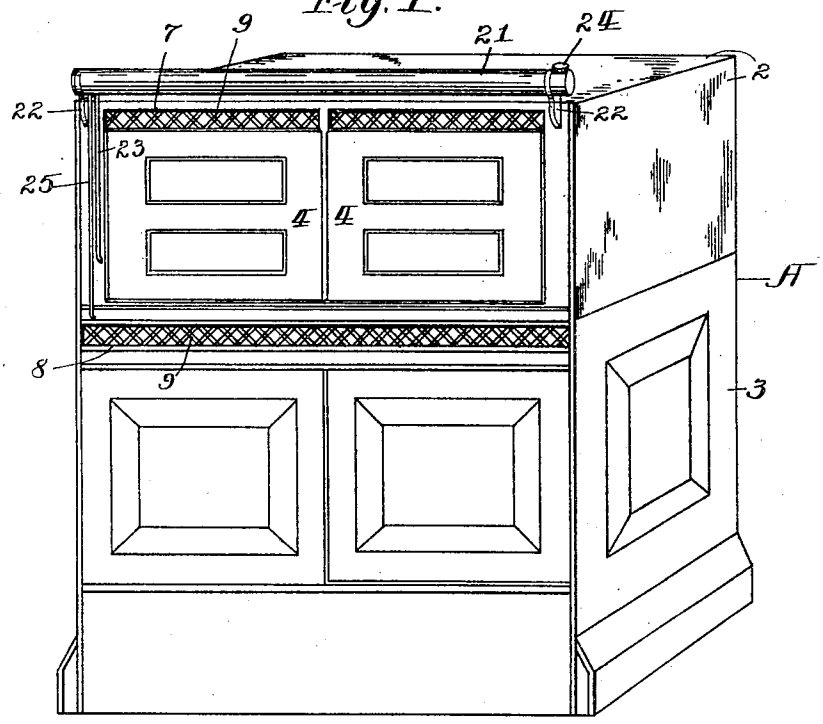


Fig. 4.

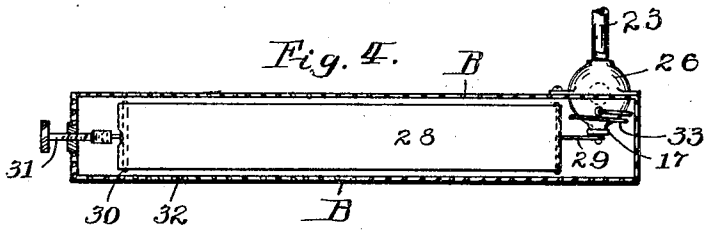
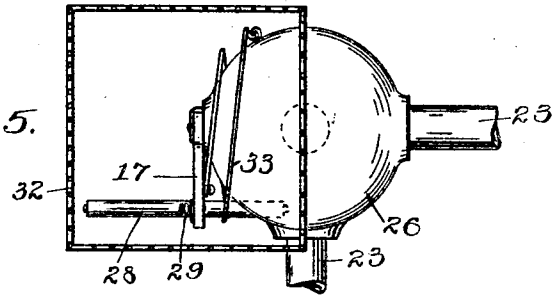


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 2.

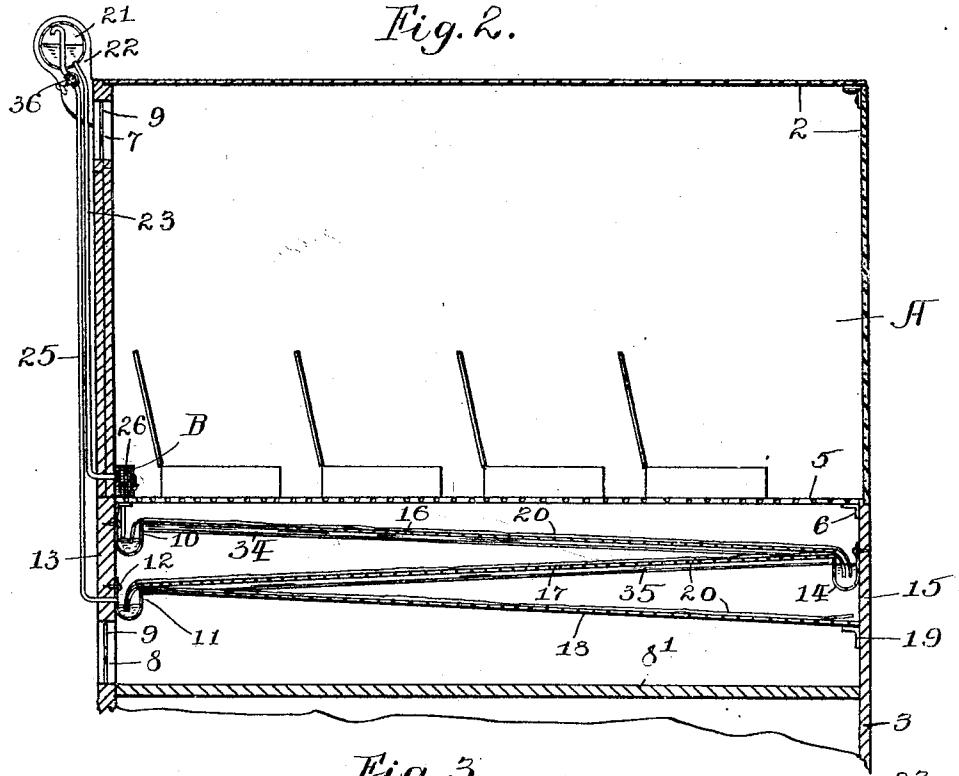
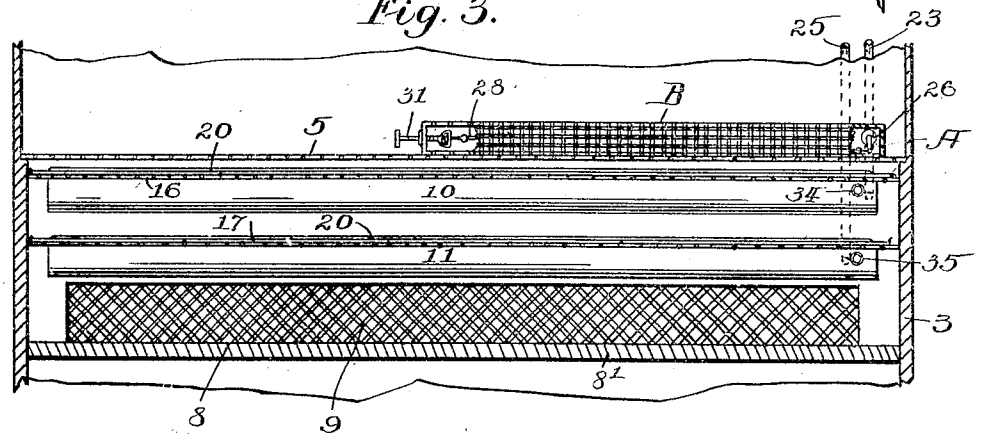


Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY J. MURPHY, OF COURTNEY, NORTH DAKOTA.

TOBACCO-MOISTENING APPARATUS.

No. 809,576. Specification of Letters Patent. Patented Jan. 9, 1906.

Application filed August 15, 1904. Serial No. 220,731.

To all whom it may concern:

Be it known that I, HENRY J. MURPHY, a citizen of the United States of America, and a resident of Courtney, in the county of Stutsman and State of North Dakota, have invented certain new and useful Improvements in Tobacco-Moistening Apparatus, of which the following is a specification.

My invention relates to improvements in tobacco-moistening apparatus.

The object of my invention is to provide means for moistening and preserving tobacco, cigars, bread, and other perishable goods.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of my invention. Fig. 2 is an enlarged detail section. Fig. 3 is another detail sectional view, and Figs. 4 and 5 are views of the regulator for controlling the humidity in the device.

In the drawings let A represent a display-case for cigars and tobacco provided with my invention and having glass sides and top 2, base 3, and sliding doors 4. A horizontal shelf 5, resting upon the brackets 6, is made of woven wire or other suitable open-work material to permit air to circulate through the ventilating-openings 7 and 8, respectively above and below the shelf. The portion of the case below the opening 8 is closed by the wall 8′. Open-mesh work, such as wire-netting 9, is placed in each of said openings. Horizontal troughs 10 and 11 are fastened by screws 12 on the back wall 13 below the tray and above the opening 8, and the trough 14 is also fastened upon the front wall 15. Open trays 16, 17, and 18, made of wire or other suitable material, are inclined from the edge of the trough 10 to the edge of the trough 14 and from the edge of the trough 14 to the edge of the trough 11 and from the edge of the trough 11 to the bracket 19 on the front wall of the case. Cloths 20, of absorbent material, are placed on the trays 16, 17, and 18, and edges of these cloths lap into the troughs to soak up the water in the troughs and diffuse it in the case. Sheets of corrugated and perforated blotting-paper, it is obvious, may be substituted for the cloths, or other suitable material may be used to accomplish the same results. These cloths also feed the water from the trough 10 into the trough 14 and from the trough 14 into the trough 11 until the atmosphere in the case is dampened. Water is fed into the upper trough by means of the reservoir or supply-tank 21, which is carried by the brackets 22 near the top of the case and filled through an opening which is stopped by the cap 24. The tank has a feed-pipe 23, which connects with the trough 10 and is air-tight, except that an overflow-pipe 25, extending into the upper part of the tank and communicating with the lower trough 11, admits air into the tank when the water in the lower trough is below the inlet of said overflow-pipe. A stop-cock 36 is connected with the overflow-pipe to close the same when the tank is filled. A valve 26 is connected with the feed-pipe and serves to regulate the amount of water admitted into the troughs. This valve is of ordinary construction and is provided with the operating-arm 27. To operate this valve and admit water into the troughs when the air in the case is dry or below the humidity desired, a hygrometer B is placed in the case and connected to the operating-arm of the valve. This hygrometer consists of a strand of catgut 28 or other suitable material, which is fastened by the cord 29 on one end to the operating-arm of the valve. Its opposite end is provided with a cross-piece 30, which is pivotally attached to the adjusting-screw 31, threaded through the walls of the inclosure 32. This inclosure is made of wire-netting or other suitable open-work material to permit the air to circulate freely around the strand 28 within. The valve 26, as shown in Fig. 4, is mounted on the walls of the inclosure 32, and a spring 33 is connected with the operating-arm and the body of the valve to close the valve when the strand 28 stretches.

In operation the tank 21 is filled with water or any suitable solution and closed by the cap 24. The stop-cock 36 in the air-pipe 25 is closed to prevent water from running over and is reopened after the tank is filled. When the air in the case is dry, the strand 28 contracts and swings the operating-arm 17, thereby opening the valve and allowing water to flow into the trough 10. The cloth on the upper tray 16 draws the water by capillary attraction from the upper trough and conducts it down into the trough 14. From the trough 14 the water is carried by the cloth on the tray 17 into the lower trough 11. The water in the lower trough gradually wets the cloth on the lowest tray. When the water in the lowest trough 11 reaches a level above the inlet of the pipe 25, it seals the feed-tank by closing its air-inlet and

stops the flow of the water into the upper trough. Air passes freely through the openings 8 and 9 and circulates through the cloths in the case, thus diffusing the water and moistening or tempering the tobacco or other goods in the case. When the air in the case is too damp, the strand 28 expands and closes the valve by means of the spring 33. Overflow-pipes 34 and 35 connect the trough 10 with the trough 14 and the trough 14 with the trough 11 for the purpose of preventing the water overflowing into the case.

It is obvious that this device may be used without a hygrometer, if desired, and that the valve 26 may remain open when the device is used. Water is then fed into the troughs (except when the air passage-way leading into the supply-tank from the lower trough is sealed) and diffused in the case continuously. It is further obvious that this invention may be used for preserving and moistening bread or perishable goods of similar character without departing from the spirit of this invention, and I do not wish to confine myself to the specific construction specified.

Having described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. Apparatus of the class set forth, comprising an inclosing case, means for permitting a current of air to pass through said case, a series of troughs in the case, a water-supply tank, means for feeding water from said tank to said troughs, means for regulating the feed-supply, means for preventing the water overflowing said troughs, a series of trays in said case, and diffusing-cloths on said trays and projecting into said troughs.

2. A device of the class set forth, consisting, in combination, of an inclosing case, means for permitting a current of air to circulate in said case, a trough in the case, a water-supply tank, a feed connection between said tank and trough, means controlled by the humidity in said case for regulating said feed connection, means for preventing the water overflowing said trough, a tray in said case, and a diffusing-cloth on said tray and lapping into said trough.

3. Moistening apparatus, comprising an inclosing case, a source of liquid-supply, a trough in said case, a feed connection between said source of liquid-supply and trough, means affected by the humidity in said case for automatically regulating the feed-supply, means for permitting a current of air to pass through said case to diffuse the liquid therein, means for checking the supply of liquid to said trough, a tray provided with openings passing therethrough, and a diffusing-cloth on said tray and lapping into said trough.

4. A device of the class set forth, consisting, in combination, of an inclosing case, a series of trays having openings passing therethrough, troughs in said case adjoining said trays, diffusing-cloths resting on said trays and lapping into said troughs, a water-supply tank, a feed connection between said tank and troughs, and means for checking the supply of water to said troughs, for the purposes specified.

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

HENRY J. MURPHY.

Witnesses:
W. H. WILLIAMS,
E. M. BOESEL.