A. ZARELLA.

APPARATUS FOR MOISTENING CIGARS AND TOBACCO.

APPLICATION FILED JUNE 30, 1913.

1,147,775. Patented July 27, 1915.

Fig. 3.

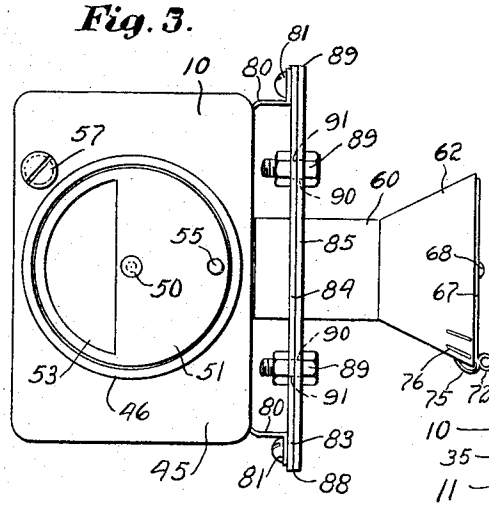


Fig. 1.

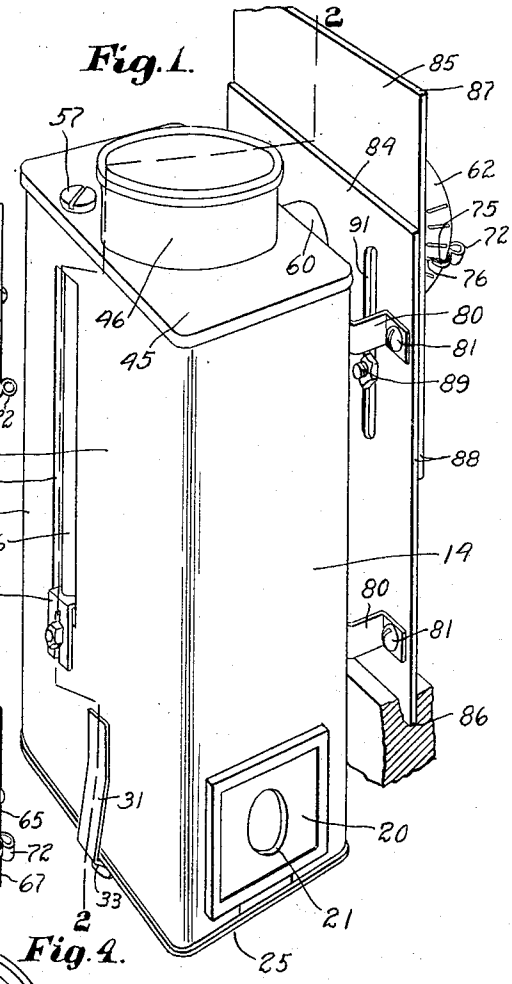


Fig. 2.

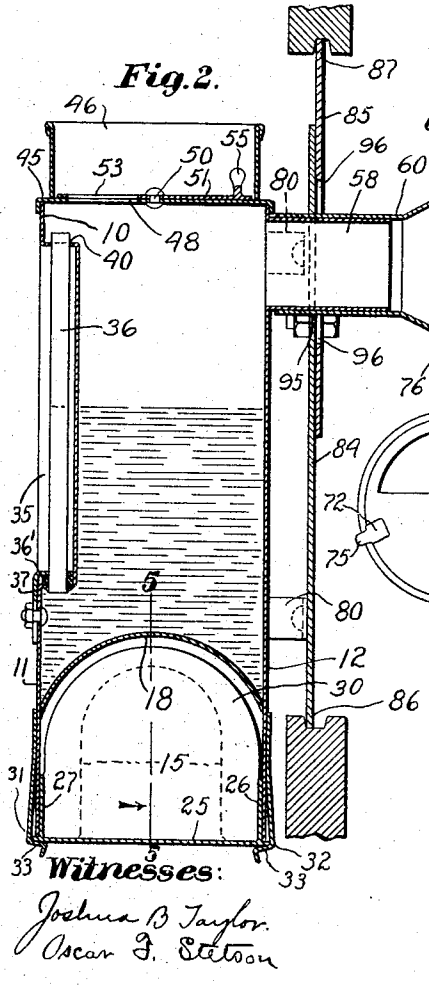


Fig. 4.

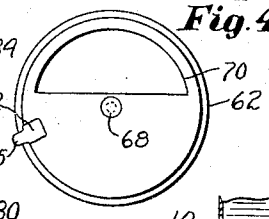
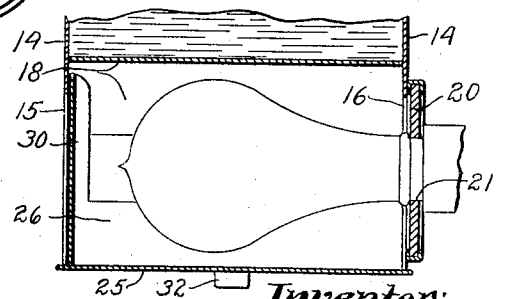


Fig. 5.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR MOISTENING CIGARS AND TOBACCO.

1,147,775. Specification of Letters Patent. Patented July 27, 1915.

Application filed June 30, 1913. Serial No. 776,472.

To all whom it may concern:

Be it known that I, ANTONIO ZARELLA, a citizen of the United States, and a resident of Charlestown, county of Suffolk, State of Massachusetts, have invented an Improvement in an Apparatus for Moistening Cigars and Tobacco, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to an apparatus for moistening cigars and tobacco and pertains more particularly to an apparatus of this class having provision or means for vaporizing water and the like, which is driven off into a tobacco case as distinguished from a moistening device wherein a natural evaporation is relied upon to carry the moisture from the device to the cigar case.

In order to illustrate my invention I have shown in the accompanying drawing one embodiment thereof, wherein:—

Figure 1 is a perspective view of a device embodying my invention. Fig. 2 is a vertical section on line 2—2 of Fig. 1 looking in the direction of the arrow. Fig. 3 is a plan of my invention. Fig. 4 is the detail of the valve on the end of the vapor conduit. Fig. 5 is a detail vertical section on line 5—5 of Fig. 2.

The terms employed herein are used in the generic and descriptive sense and because of such use are not in of themselves limitations. For example, the word "tobacco" is intended to mean cigars, smoking tobacco, cigarettes, chewing tobacco and all products of the tobacco leaf as well as the leaf and is not intended to mean the leaf tobacco only.

In the drawing 10 represents a receptacle of any suitable size and shape and adapted to contain water to be vaporized. Herein for example, I have shown the receptacle 10 as being rectangular but it may be round or square whichever shape is most preferable. At the top of the receptacle are depending sides 11 and 12. These sides may extend around the ends or partially around the ends 14 if desired. Preferably however, I cut away a portion 15 and 16 for a purpose to be hereinafter described. At the bottom of the receptacle 10 I provide an upwardly curved crown sheet 18 against which is directed any suitable heating agent. For example, I may use an upwardly projecting gas pipe having a burner on the end of the pipe and directed at the crown sheet 18 so that the flame from the said burner will play against the said crown sheet and heat the water. In the drawing I have shown an incandescent electric light bulb placed horizontal beneath the crown sheet between the depending sides 11 and 12. Secured to one end of the receptacle and extending over one of the cut away portions 15 or 16 separating the sides 11 and 12 I provide an electric insulating member 20 having an orifice 21 therethrough to receive the screw threaded end of an electric light bulb so that the lamp proper may extend between the said sides while the socket of the said lamp may be on the exterior of the device. This electric insulating member 20 may be over either cut away portion 15 or 16, from whichever side it is desired to have the lamp inserted. This depends upon the location of the nearest electric fixtures to which a flexible cord may be attached to the lamp socket. At the bottom of the sides 11 and 12 I provide a cover 25 having upwardly extending flanges 26 and 27 extending within and between the aforesaid sides. The cover 25 is provided with an upwardly extending plate 30 at one end thereof in order to cover the cut away portions 15 or 16 whichever is not provided with an insulating member 20 in order to close the said orifice. In the drawing the said plate 30 is shown as covering the cut away portion 15 opposite the cut away portion 16. The cover 25 is held in position by means of spring latches 31 and 32 secured in any suitable manner to the sides 11 and 12. The said spring latches are provided with horizontal extensions 33 that project beneath the lower surface of the cover 25, thus holding the same upward. When it is desired to remove the cover 25 the said latches 31 and 32 are pushed outward from the sides 11 and 12 withdrawing the said extensions 33 from beneath the cover 25 so that the same may be pulled down from between the said sides. In the front face of the receptacle 10 I provide a recess 35 within which and protecting the same is a gage glass 36. The said gage glass is secured to the receptacle 10 at the bottom of the recess 35 and within said recess in any suitable manner. Herein it is inserted through an orifice at the bottom of said recess and projects into the said receptacle so that water has access to said gage glass. Packing 36′ surrounds said glass at the bottom and is held in place by any suitable

means as for example a retaining member 37 in order that water may not leak out between the glass and the said orifice at the bottom of the said recess. The top of the gage glass projects through an orifice 40 into the interior of the receptacle 10 so that the pressure through the top of the said glass will be the same as the pressure at the top of the receptacle and the water in said gage glass will register the true height of the water within the receptacle 10.

The receptacle is provided with a top 45 having an upwardly extending circular collar 46 which acts as a retaining wall so that liquid may be poured into the top and allowed to run down into the interior of the said receptacle. Within the confines of the circular collar 46, the top 45 has a semi-circumferential opening 48 through which the liquid can descend from to the interior of the receptacle. Pivoted at 50 to the top 45 is a circular valve 51 having therethrough a semi-circumferential opening 53 adapted at times to register with the opening 48 in the top 45. A handle 55 is provided on the circular valve 51 in order that the same may be grasped by the hand to rotate the aforesaid valve so that the opening 53 may be turned in any position of opening or to a position diametrically opposite the opening 38 thus cutting off the entrance to the interior of the receptacle. The head 45 is provided with a screw plug 57 directly over the gage glass 36. If the gage glass 36 is broken the said screw plug 57 is unscrewed from the head 45 and after the packing 36 is removed the said gage glass can be drawn up through the head 45 and a new gage glass can be inserted in place of the broken one and the said plug and packing are replaced.

At or near the top of the receptacle 10 is a conduit 58 preferably projecting at right angles from the top of the said receptacle. The transverse cross section of the conduit is much smaller than the transverse section of the receptacle for a purpose hereinafter described. The said conduit is preferably central of the body of the receptacle 10 and extends therefrom in any suitable degree or desired distance. The conduit may be continuous and provided with an enlarged end opposite the receptacle or an enlarged end may be upon a second conduit member forming part of the conduit. Preferably I employ a slidable conduit member 60 telescopically mounted upon the conduit 58. The slidable conduit member 60 is provided at its outer end with an enlarged head 62 and provided thereon with an expansion chamber 63 for a purpose hereinafter described. The end 65 of the enlarged head 62 is provided with an orifice 66 herein shown as semi-circumferential. A valve 67 is pivoted at 68 to the head 65 and said valve has a corresponding semi-circumferential opening 70 adapted to register at times with the opening 66. The valve 67 is provided with a handle 72 that may be grasped to turn the valve about its pivot 68. Upon said valve is pointer 75 that may be brought into alinement with graduations 76 on the edge of the expansion head 62. Said graduations consist of nicks indentations or the like adapted to be engaged by the said pointer so that the valve 67 will be retained in whatever position it may be when the said pointer engages with a graduation.

The entire vaporizing device is adapted to be secured outside of a show case containing tobacco in any form. This is preferable inasmuch as the heat from the receptacle would rapidly dry out the moisture from said case if the radiating heat from said receptacle could enter the said case.

The receptacle is also preferably insulated from the tobacco case. By "insulated" I mean that the receptacle is so arranged that the heat therefrom cannot be communicated to the walls of the case. In carrying out this object I provide an air circulating device about the receptacle by supporting the same by means of thin narrow legs or the like 80 secured in any suitable manner to the receptacle and preferably bolted at 81 to a supporting plate 83.

The supporting plate 83 is composed of the members 84 and 85 the ends 86 and 87 respectively are adapted to engage with the slide grooves or the like of a tobacco case such as usually employed to display cigars and the like. The edges 88 and 89 of the members 84 and 85 are in alinement so that there are no projections upon one or the other. When the member 85 is mounted upon the member 84 said edges 88 and 89 will present straight unbroken surfaces. One of said edges engages with the edge of the stationary wall of the tobacco case while the sliding door at the back of the tobacco case engages the opposite edge.

In order to meet the requirements necessitated by the various heights of doors of tobacco cases the member 85 is vertically slidable on the member 84 and is held in position thereon by means of bolts 89 passing through holes 90 in the member 85 and engaging slots 91 in the member 84. By this means the member 85 can be raised or lowered until it securely engages within the top groove in which the door of the tobacco case slides. The member 84 rests in the bottom groove and thus the support 83 is securely held in place and supports the receptacle 10. The member 84 is provided with an orifice 95 to permit the conduit 58 and sliding conduit member 60 to pass therethrough to the interior of the tobacco case. The member 85 is cut away at 96 as shown in dotted lines, Fig. 1, to correspond with

the orifice 94. Said cut away part 96 being elongated so as to permit the member 85 to move upward or downward without interfering with the aforesaid conduits.

The operation of my invention is as follows:—The support 83 being secured to a cigar case with the enlarged or expansion head 62 projecting into the interior thereof, water is introduced through the openings 48 and 53 in top 45 and valve 51. The valve 51 is then rotated so that the opening 53 on the valve 51 will be directly opposite the opening 48. Heat is then applied to the crown sheet 18 and when the water is heated to the proper temperature, vapor will rise from the surface of the water. The vapor will pass to the conduit 58 which being of a restricted nature will cause the vapor to occupy less space in traveling therealong so that any entrained water will drop to the bottom of the conduit to be returned to the receptacle 10. The finer vapor passes along the conduit 58 and slidable conduit member 60 enters the expansion head 62 and the particles of vapor are allowed to separate to greater distance or in other words to expand in the air in said head so that there will be a proper commingling of air and vapor. The valve 67 is so positioned so that the opening 70 therethrough registers with the opening 66 to such degree as may be required to allow the proper amount of vapor at all times to pass through the opening to the interior of the tobacco case. By means of my invention I separate entrained water from the vapor. This is necessary as the low steaming qualities of a "humidor" are such that the vapor particles are relatively large and heavy, being under practically no pressure other than atmospheric pressure and being directly in contact with the body of water from which it is given off. Such vapor is known as saturated steam. I then eliminate as much as possible of the larger particles of water by passing the vapor through a relatively small conduit and the slower vibratory periods of saturated steam will cause the heavier particles of the vapor to commingle and drop to the bottom as entrained water while the smaller particles of vapor will pass directly through to the expansion chamber 63 where they will be further separated from adjacent particles and be thoroughly commingled with the air in said expansion head. It will also be noted that as hereinbefore stated that no part of the heat radiating from the body of the receptacle 10 will in any way communicate with the tobacco case as the air about the receptacle 10 will carry off the radiating heat and will also keep the supporting plate 83 at a low temperature. The slidable conduit member 60 may be straight throughout its length or it may be provided with an upturned end so that the enlarged head 62 will stand at right angles to that shown in the drawing. When desired and necessary I may rotate the valve 51 so that the opening 53 will wholly or partially permit of the vapor passing through the opening 48 and escape to the atmosphere so that a smaller quantity of vapor will flow through the conduit 58 to the tobacco case as described above.

I have described herein one embodiment of my invention; but it is to be understood that the latter is not essentially limited to the specific details of construction and organization of said embodiment, since the same may be varied without departing from the proper scope of the claims.

Claims.

1. In a vaporizing device, a receptacle adapted to contain a liquid, a supporting plate comprising two members adjustable one relative to the other to vary the area of support, means to secure the said members in adjusted relation, legs connecting one member of the supporting plate with the receptacle, a vapor conducting conduit extending from said receptacle and adapted to enter a tobacco storage chamber and means for supplying heat to said receptacle.

2. In a vaporizing device, a body member comprising a chamber for liquids and a heat chamber, a supporting plate comprising two members adjustable one relative to the other to vary the area of support, means to secure the said members in adjusted relation, legs to support the said body on said supporting plate, a vapor conducting conduit extending from said receptacle, a slidable conduit member adapted to be adjusted relative to the first mentioned conduit and coöperating therewith, said slidable conduit being provided with an enlarged end having an outlet orifice and a valve to regulate the amount of opening of said orifice.

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

ANTONIO ZARELLA.

Witnesses:
WILLIAM H. ADSIT,
EDWIN T. LUCE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."