June 12, 1923. 1,458,586

J. T. McCROSSON

METHOD OF PACKING AND PRESERVING CIGARS, CIGARETTES, AND SMOKING TOBACCO

Filed Oct. 2, 1922

Fig. 1.

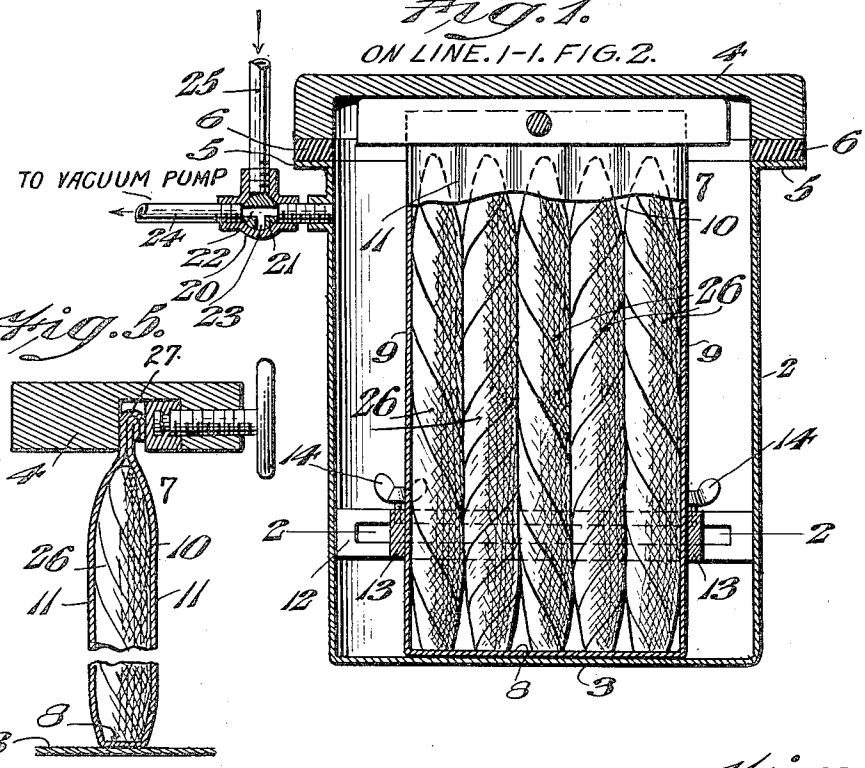


Fig. 5.

Fig. 2.

ON LINE. 2-2. FIG. 1.

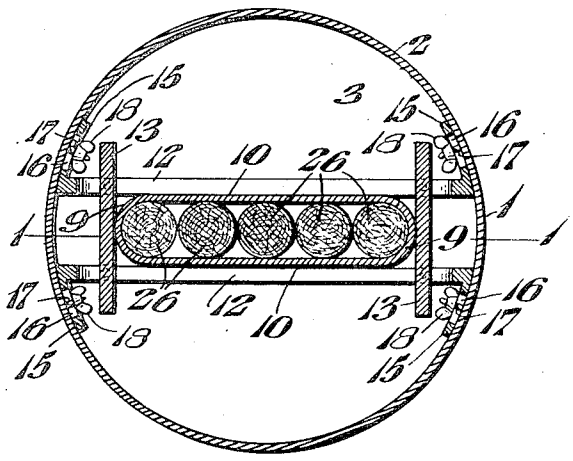


Fig. 3.

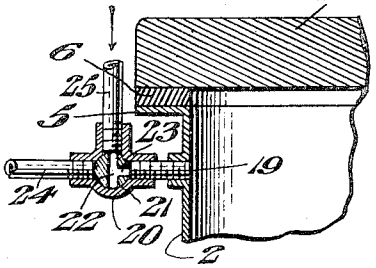
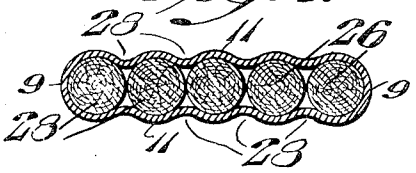


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN T. McCROSSON, OF HONOLULU, TERRITORY OF HAWAII, ASSIGNOR OF ONE-HALF TO EUGENE S. COCHRAN, OF NEW YORK, N. Y.

METHOD OF PACKING AND PRESERVING CIGARS, CIGARETTES, AND SMOKING TOBACCO.

Application filed October 2, 1922. Serial No. 591,700.

To all whom it may concern:

Be it known that I, JOHN T. McCROSSON, a citizen of the United States, residing at Honolulu, Hawaiian Islands, have invented a new and useful Method of Packing and Preserving Cigars, Cigarettes, and Smoking Tobacco, of which the following is a specification.

My invention consists of a novel method of packing and preserving cigars, cigarettes, smoking tobacco and other articles, and also consists of a novel apparatus whereby my novel method can be carried out.

It further consists of novel means for exhausting the air from a container and of novel means for admitting an inert gas under atmospheric pressure into said container prior to the hermetical sealing or crimping of the edges of said container, by which means I avoid the liability of atmospheric pressure entering the hermetically sealed container in case of an accidental leak therein, thus preserving the contents of the container fresh and in their original condition.

In carrying out my invention, I preferably employ a very thin, flexible container made of tin foil, lead or other material, of such thickness and ductility, that when the outer meeting edges of the container are drawn together and afterwards crimped or otherwise interlocked after the air has been exhausted therefrom and the charge of inert gas has been admitted to the container, the contents of the latter will be hermetically sealed and preserved indefinitely in the same condition as they were originally packed.

To the above ends, my invention consists of the novel hereindescribed process and a novel apparatus for carrying out my process, all as will be hereinafter described.

For the purpose of illustrating my invention, I have shown in the accompanying drawings, forms thereof which are at present preferred by me, since the same will give in practice satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists may be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a sectional view of a novel apparatus wherein my novel process can be carried out, certain of the parts being shown in elevation.

Figure 2 represents a section on line 2—2 Figure 1.

Figure 3 represents a sectional view of the upper portion of a casing, showing the three-way cock or valve seen in Figure 1, in the position it occupies when the inert gas is admitted to the container prior to the hermetical sealing of the latter.

Figure 4 represents a horizontal, sectional view of the container, somewhat similar to Figure 2. but showing the sides of the container as being longitudinally corrugated, so as to retain the cigars in longitudinal parallelism.

Figure 5 represents a sectional view, of the sealed container and its contents.

Similar numerals of reference indicate corresponding parts.

Referring to the drawings:—

1 designates a tank having the sides 2, which tank may be of circular or any other contour, provided with a closed bottom 3 and open top, which is closed by the cover 4, which may be secured to the flange 5 in any suitable manner, a suitable gasket as 6 being employed between the flanges 4 and 5 so as to ensure the requisite tight joint between the said flanges.

Within the tank 2, I locate the container 7 for the cigars or the like, the same being of trough shape, open at its top and provided with the closed bottom 8, curved end walls 9 and the sides 10, which may be straight as seen in Figure 2, or longitudinally fluted or grooved, as seen at 11 in Figure 4.

The bottom of the container 7 rests upon the bottom of the tank 3, and in order to retain the container and its contents in upright position, I stand the same within a rack composed of the slotted sides 12 and the transverse end pieces 13, which slide in the slots of said sides and are secured in the desired position by the wing nuts or the like 14.

The ends of the side pieces 12 are provided with terminal flanges 15 having slots 16 therein, through which project the studs 17, upon which the wing nuts 18 are mounted, it being apparent that there are four of these devices as seen in Figure 2, and by loosening the wing nuts or the like 18, the side bars 12 can be moved towards or away from each other, thus accommodating the

racks for containers of different thicknesses.

By moving the end pieces 13 toward and away from each other, the rack can be adapted for supporting containers of varying sizes, as is evident.

For the purpose of exhausting the air from the tank 2 and from the container 7, I provide the pipe 19, which communicates with the interior of the tank 2 and has a valve casing 20, in which is located a three-way cock or valve 21, provided with the port 22, which extends diametrically through the valve and the port 23, which extends at a right angle to the port 22.

The valve casing 20 is provided with a pipe 24 which leads to a vacuum pump (not shown), which may be of any suitable or conventional type, and 25 designates a pipe leading into the casing 20 at an angle to the pipe 24 for conveying an inert gas under atmospheric pressure, such as nitrogen, from a suitable source of supply into the tank 2, when desired.

When the valve 21 is in the position seen in Figure 1, and a suction is created through the pipe 24, it will be apparent that a vacuum will be created within the tank 2, there being no communication between the pipe 25 and the tank 2. When a vacuum has been created in the tank 2 and within the container 7, the valve 21 is turned into the position seen in Figure 3,—and it will be apparent that the nitrogen or other inert gas is permitted to flow at atmospheric pressure through the pipe 25 and port 23 into the interior of the chamber 2, and thence into the container 10, which contains the cigars or the like 26. The upper open edges of the container 7 containing the cigars 26 and the inert gas aforesaid are next folded, interlocked or crimped by any suitable mechanism old in this art, which I have deemed it unnecessary to describe in detail, so as to be hermetically sealed so as to appear as seen at 27 in Fig. 5. The container now appears as seen in Fig. 5, and it will be evident that the cigars or other contents will be kept fresh for an indefinite period, and the presence of the inert gas in the container will prevent the ingress of atmospheric air, in case of injury to the container.

The container may be made of material of sufficient thickness, so that its sides will be unaffected by the vacuum and will appear as seen in Fig. 2, or said material may be of such thinness and ductility or flexibility, that its sides will collapse under the vacuum and appear as seen in Fig. 4, wherein the container is shown as provided with longitudinal corrugations 28, which serve to retain the cigars in longitudinal parallelism.

If desired, the walls of both the containers, seen in Figs. 2 and 3, may be made of such thickness as to be unaffected by the vacuum.

While I preferably employ nitrogen as the inert gas introduced into the pipe 25 at atmospheric pressure, any other element or gas possessing the characteristics of nitrogen may obviously be employed.

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

1. A process of packaging cigars, cigarettes and the like, which consists in enclosing the same in a container, exhausting the air from said container, filling said container with inert gas, and then hermetically sealing said container.

2. A process of packaging cigars, cigarettes and the like, which consists in enclosing the same in a flexible container, exhausting the air from said container, filling said container with inert gas of atmospheric pressure, and then hermetically sealing said container.

3. A process of packaging cigars, cigarettes and the like, which consists in enclosing the same in a flat, flexible container, exhausting the air from said container, filling said container with an inert gas of atmospheric pressure, and then hermetically sealing said container, the volume of the charge of inert gas being such that the sides of the container will tend to lie close to the cigars, when the sealed package is exposed to atmospheric pressure.

JOHN T. McCROSSON.

Witnesses:
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