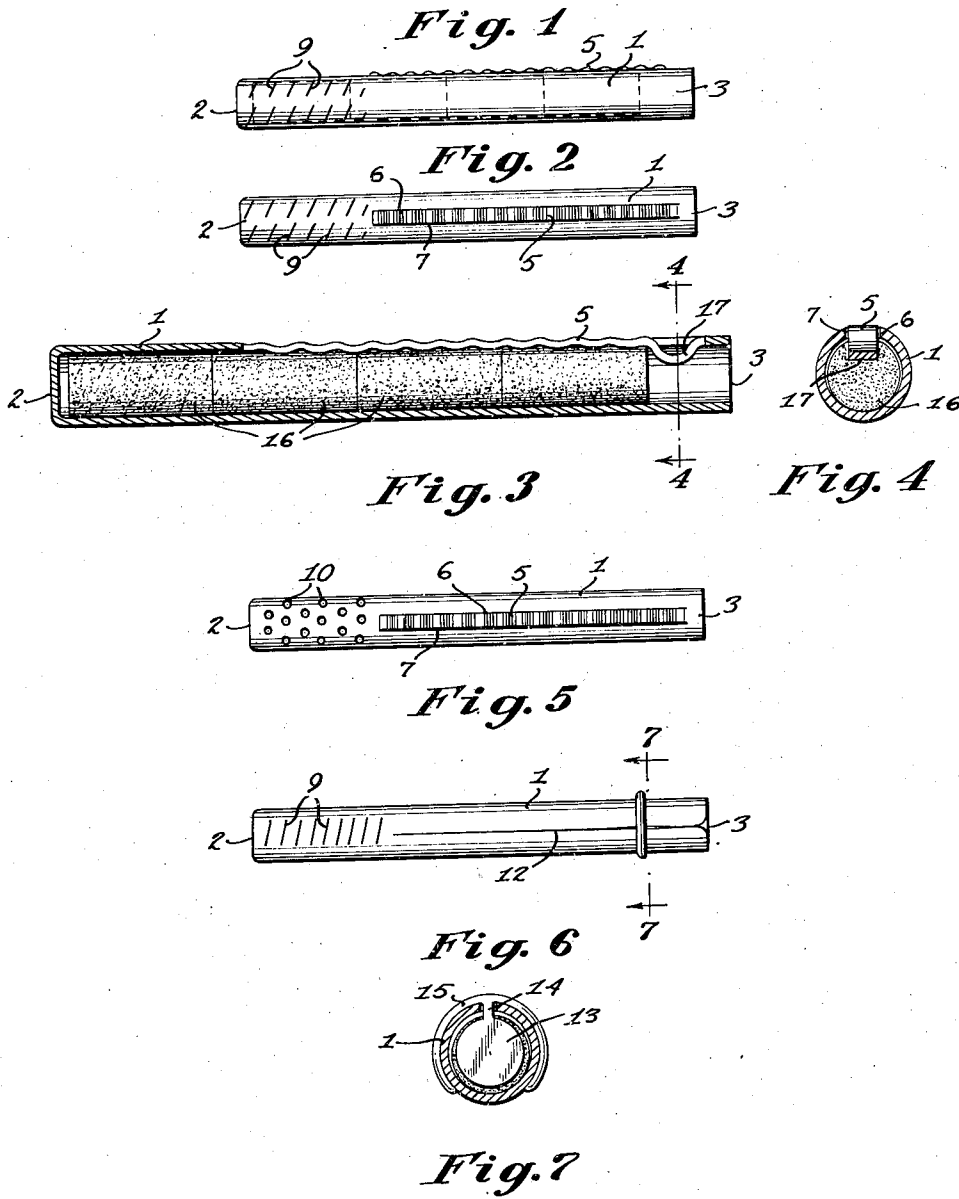


Aug. 16, 1949.

W. R. CEPERLY
TUBULAR MEDICATOR
Filed Dec. 6, 1946

2,479,002



Inventor

WALTER R. CEPERLY

By *McMorris, Bernier & Davidson*
Attorneys

UNITED STATES PATENT OFFICE

2,479,002

TUBULAR MEDICATOR

Walter R. Ceperly, Chicago, Ill.

Application December 6, 1946, Serial No. 714,410

3 Claims. (Cl. 128—201)

1

This invention relates to a smokeless cigarette, and more particularly to a device for dispensing medicaments or the like, adapted to be held in the user's mouth in the manner of a cigarette, and from which the medicaments will seep or percolate under the influence of the warmth and moisture from the mouth.

One object of the invention is to provide a device which can be used to take the place of a cigarette by persons accustomed to smoking who are compelled, because of their employment or otherwise, to remain in places where smoking is prohibited.

A further object of the invention is the provision of a container having the form of a cigarette adapted to dispense substances through the mouth of the user and having means for maintaining the substance in a position in which it will be constantly subjected to the warmth and moisture of the mouth.

Another object is to provide a dispensing container in cigarette form for dispensing through the mouth medicaments or the like which are capable of being slowly dissolved, vaporized or evaporated when brought into contact with the warmth and moisture of the user's mouth, and which will be subsequently inhaled or swallowed.

The invention comprises, briefly speaking, a container in the general form of a cigarette having perforations adjacent one end by which the medicament or other substance is exposed to the warmth and moisture of the user's mouth, and out of which the substance then passes into the user's mouth. Means are also provided for moving the medicament or other substance in the container toward the perforated end of the same into a position to be consumed.

The invention will best be understood from the following description constituting a specification of the same, when taken in conjunction with the annexed drawings in which:

Figure 1 is a side elevational view of one form of the invention;

Figure 2 is a plan view of the form of the invention illustrated in Figure 1;

Figure 3 is a longitudinal sectional view through the form of the invention shown in Figures 1 and 2, showing the interior of the same and illustrating the manner in which substances are positioned in the container when in use;

Figure 4 is a cross-sectional view taken along the line 4—4 of Figure 3, looking in the direction indicated by the arrows;

Figure 5 is a plan view of the modified form of the invention;

2

Figure 6 is a plan view of another modified form of the invention; and

Figure 7 is a cross-sectional view taken along the line 7—7 of Figure 6, looking in the direction indicated by the arrows.

Referring to the drawings in greater detail, the invention comprises a container 1, of generally cylindrical shape, closed at one end, as indicated by 2. The opposite end 3 of the container is preferably open for the insertion of any suitable medicament or the like which it is desired to dispense.

The container 1 can be formed of any suitable material, such as plastic, paper, metal or other material having the requisite physical characteristics adapting it for the purpose to which it is to be applied. While the container is preferably of circular cross-section, as indicated in Figures 4 and 7 other desirable shapes may be employed, such as may be dictated by the materials available or the particular nature of the substance to be dispensed.

The container may be constructed for a single use, in which case it will preferably have the form indicated in Figures 1 to 5, inclusive, and is provided with a corrugated strip 5 along one side formed by two parallel cuts 6 and 7 extending through the wall of the container. The corrugated strip 5 extends from a point near the open end 3 of the tube 1 to a point spaced from the closed end 2 where it merges with the wall of the tube. Adjacent the closed end of the tube the wall is provided with suitable perforations which in the case of the form shown by Figures 1, 2, 3 and 4 of the drawings take the shape of small slits 9 arranged generally transversely of the tube. The slits 9 may be arranged entirely about the circumference of the tube, or, as indicated in Figure 6, they may be arranged only in selected areas of the tube walls. In place of the small slits 9, the portion of the tube adjacent the closed end may be provided with circular perforations, as indicated in Figure 5; these perforations 10 preferably being arranged about the periphery of the tube to assure an even distribution of the same over the entire perforated area.

The invention may also take the form indicated in Figures 6 and 7 of the drawings, and this form is particularly for use in the provision of a dispenser of a more permanent character adapted for re-use, and which may be repeatedly refilled with the desired substances. This form of the invention comprises same shape of tube 1 having the same closed end 2 and open end 3, and provided with the slits 9 previously referred to. A

3

longitudinal slot 12 is provided in one side of the tube extending from the open end 3 to the areas in which the slits 9 are located. A slidable member or disc 13 is positioned inside the tube and has a connecting portion 14 extending through the longitudinal slot 12 for connection to a split ring 15 which partially encircles the tube. The movable member 13 is preferably of slightly smaller diameter than the inside diameter of the tube and the encircling portion 15 clasps the outside of the tube in a manner to maintain the member 13 in any position in the tube to which it is moved.

In the use of the form of the invention shown by Figures 1 to 5, inclusive, the substance to be dispensed, preferably in the form of compressed tablets 16, is placed inside the tube 1, and a portion 17 of the corrugated strip 5 is bent inwardly near the open end of the tube to hold the tablet 16 firmly in place. When the container is held in the user's mouth, the action of biting on the area of the tube having the slits 9 will tend to open the slits and thereby subject the substance in this portion of the tube to the action of the warmth and moisture of the user's mouth, resulting in a slow dissolving, vaporizing or evaporation of the substance which subsequently passes out through the slits 9 and into the user's mouth. The closed end 2 of the tube serves to prevent the substance in the tube from coming into direct contact with the user's tongue.

As the substance in the tube is consumed, further portions may be moved into the area containing the slits or perforations by pushing down on the strip 5, which will advance the tablet 16 toward the closed end 2 of the tube.

In the use of the form of the invention shown in Figures 6 and 7, the movable member 13 is removed from the tube 1 by grasping the outer member 15 and sliding the same off of the open end 3 of the tube. The medicament or other material can then be inserted through the open end 3 of the tube and the member 13 replaced to retain the medicament in the device. This form of the invention is used in the same manner as previously described, except that as the substance in the tube is consumed, the movable member 13 is moved toward the closed end 2 to assure a constant supply of medicament in the area of the tube in which the slits 9 are provided.

The form of the invention illustrated by Figures 6 and 7 is intended to be made of more durable material than the previously described form, in order to provide a device which is capable of re-use, whereas the form of the device illustrated in Figures 1 to 5, inclusive, may be made of paper or other sheet material intended for disposal after the medicament has become exhausted.

The device shown by Figure 5 is similar in all respects to that described in connection with Figures 1 to 4, inclusive, except that the perforations 10 are provided adjacent the closed end of the tube, instead of the small slits 9, and in this case the medicament contained in the tube will be readily dispensed without the necessity for biting the end of the tube to permit the entrance of moisture from the user's mouth.

It will be apparent that the provision of the slits 9 provide a means by which easily soluble substances can be dispensed in a slow and controlled manner, since the entrance of moisture into the tube and the escape of the medicament into the mouth of the user depends upon the amount of opening of the slits, and this opening

4

is controlled by the pressure exerted by the user when holding the device between his teeth.

It will thus be apparent that the invention as described above provides a convenient means of dispensing through the mouth substances of any desired character which are capable of being dissolved, vaporized or evaporated by the warmth and moisture of the user's mouth when the device is employed in the manner of a cigarette.

The operation of the invention is thought to be obvious from the above description of the structure of the various forms of the device, and it is considered unnecessary to enumerate the various substances which can be conveniently dispensed in this manner, since any substance which is affected by the moisture and warmth from the user's mouth can be administered in this manner.

The invention makes possible a retarded dispensing of the contents of the tube, which is at all times completely under the control of the user, and may be as protracted as is desirable or necessary, thus adding to the user's enjoyment or benefit.

It will thus be seen that the invention provides a simple and convenient means, capable of extremely wide application, in the popular form of a cigarette, whereby the chief enjoyment and effect of smoking is obtained without the attendant disadvantages of the fire hazard and irritation caused by the smoking of ordinary cigarettes.

It will readily be appreciated that the forms of the invention described above are intended for purposes of illustration only, and numerous changes in the details of construction, arrangement of the parts, and materials employed may be made without departing from the spirit of the invention or the scope of the appended claims.

Having thus clearly shown and described the invention, what is claimed as new and desired to secure by Letters Patent is:

1. A device for dispensing volatile medicaments comprising a cylindrical-shaped container having an open end for the ingress of medicament therethrough, and its other end closed and adapted to be inserted in the user's mouth, there being a plurality of openings arranged adjacent said closed end for the egress therethrough of the volatilized medicaments, said container having a longitudinally-extending slot extending from a point contiguous to said openings toward said open end, and means on said container and engaging said slot for moving said medicaments toward said closed end of said container.

2. A device for dispensing volatile medicaments comprising a container having an open end for the ingress of medicaments therethrough and its other end closed and adapted to be inserted in the user's mouth, there being a plurality of openings arranged adjacent said closed end for the egress therethrough of the volatilized medicaments, said container having a longitudinally-extending slot extending from a point contiguous to said openings toward said open end, and means embodying a corrugated strip mounted for vertical movement into and out of said slot for moving said medicaments toward said closed end of said container.

3. A device for dispensing volatile medicaments comprising a cylindrical-shaped container having an open end for the ingress of medicaments therethrough and its other end closed and adapted to be inserted in the user's mouth, there being a plurality of openings arranged adjacent said closed end for the egress therethrough of

the volatilized medicaments, said container having a longitudinally-extending slot extending from a point contiguous to said openings toward said open end, and means embodying a split ring encircling said container and mounted for slidable movement in said slot for moving said medicaments toward said closed end of said container.

WALTER R. CEPERLY.

REFERENCES CITED

The following references are of record in the file of this patent:

	Number
	567,558
5	2,338,287
	2,351,836
10	6,078

UNITED STATES PATENTS

Name	Date
Wiseman -----	Sept. 8, 1896
Lape -----	Jan. 4, 1944
Popper -----	June 20, 1944

FOREIGN PATENTS

Country	Date
Great Britain -----	1913