Jan. 23, 1968 W. M. CASTLEBERRY 3,365,102

MEANS FOR HOLDING, SUPPORTING AND DISPENSING LIQUID COMESTIBLES

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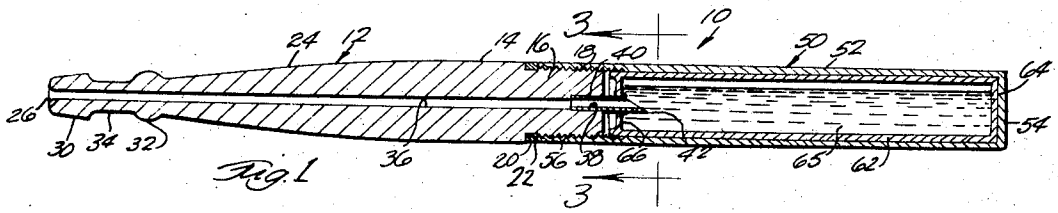


Fig. 1

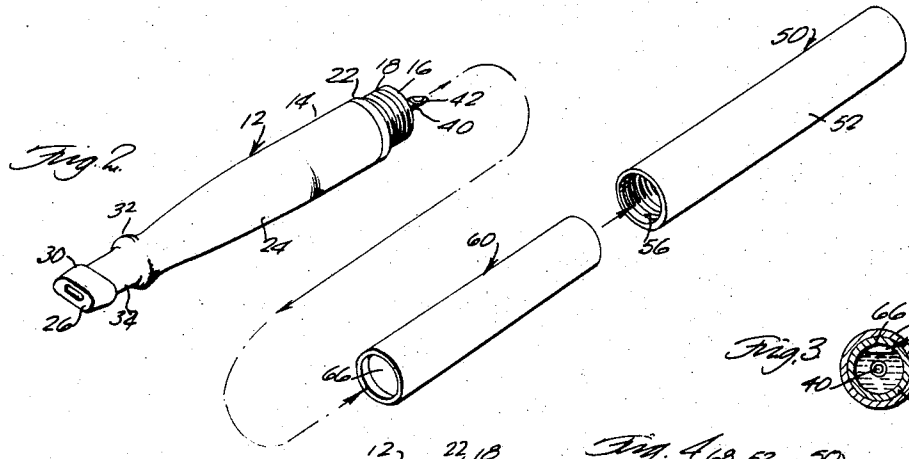


Fig. 2

Fig. 3

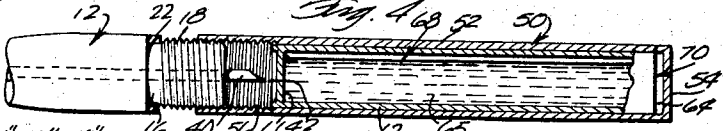


Fig. 4

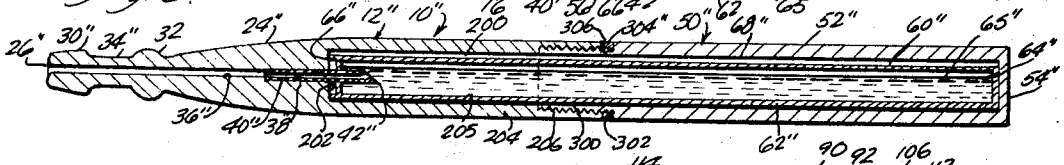


Fig. 8

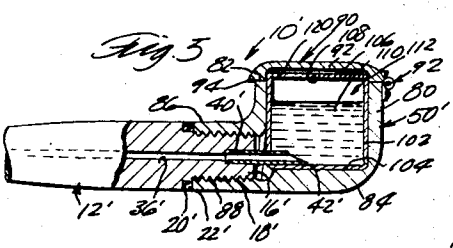


Fig. 5

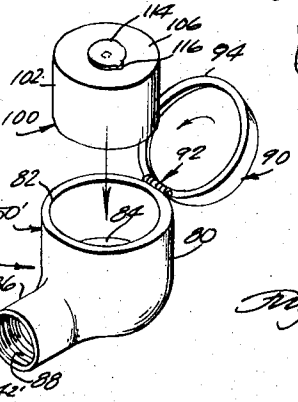


Fig. 6

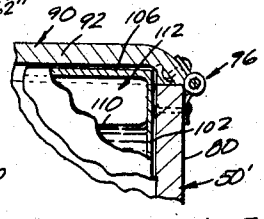
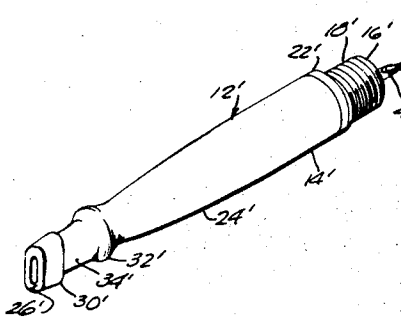


Fig. 7



INVENTOR.
WILLENE M. CASTLEBERRY
BY
Berman, Davidson & Berman
ATTORNEYS

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MEANS FOR HOLDING, SUPPORTING AND DISPENSING LIQUID COMESTIBLES

Willene M. Castleberry, 515 Park Circle, Forsyth, Ga. 31029

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This invention pertains to the general field of receptacles and, more specifically, to means or devices for holding, supporting and dispensing liquid comestibles.

With the widespread publicity attendant upon the recent Federal Government report adverse with respect to consumer use of tobacco products, there has been an adamant public response thereto which may be, in part, attributed to the fact that no suitable substitute has been made available to the public to satisfy the physical and psychological needs of habitual users of tobacco and tobacco products.

To many habitual smokers, the abrupt or even gradual stopping of the use of cigars, cigarettes, pipes, and the like, runs contrary to ingrown behavior patterns which, among other factors, makes necessary that the user have something available to occupy the hands or mouth. For the most part, such preoccupation is mainly an unconscious reaction by the user by virtue of sheer habit and environment, but to deny the user the product to which he has become so well familiar without offering a replacement or a substitute lends but little encouragement to such a user to abstain from the use of debilitating products. Thus, it is among one of the primary objects of this invention to provide, not a tobacco substitute, but physical means appealing to the sense of touch which may be manipulated by the user in substantially the same manner as one would use the contentional articles, and at the same time, finding favor in both the sense of sight and taste. To this end it is proposed to provide a simulated smoker's equipment so designed as to hold a limited amount of a liquid comestible such as, for example, flavored syrups or liquids, liquid medical preparations, tobacco extracts, or other potable liquids suited to the individual taste.

A by no means less important prime object of this invention is to provide means of the type generally described above which afford the user a compact and inconspicuous liquid holder for limited volumes of liquid refreshment or medical treatment wherein the inconspicuousness of the device resides in the simulation of personal articles adapted for use peculiar to this invention.

A further object of this invention is to provide, in a simulated smoker's device, receptacle means for a palatable liquid which is to be drawn into the mouth in limited volumes as by sipping.

Another object of this invention is to provide a simulated smoker's article with replaceable and disposable liquid-holding cartridges which may be filled with flavored or medicated liquids or extracts to be drawn into the mouth of the user through a simulated pipe, or cigar or cigarette holder.

Still another object of this invention is to provide a device of the type generally described supra, wherein the component elements of the liquid cartridge-holding means may be sanitized by conventional practices without incurring deformation or deterioration.

This invention contemplates, as a still further object thereof, the provision of a simulated smoker's article for the purposes and functions described, the device being non-complex in construction and assembly, inexpensive to manufacture and maintain, and which is rugged and durable in use.

Other and further objects and advantages of the instant

invention will become more evident from a consideration of the following specification when read in conjunction with the annexed drawing, in which:

FIGURE 1 is an enlarged longitudinal, medial detail cross-sectional view of the liquid-holding and support device constructed according to this invention, the view showing the component elements of the device in their assembled form and in their relative positions to enable the user to dispense a liquid therefrom;

FIGURE 2 is an enlarged exploded perspective view of the device shown in FIGURE 1;

FIGURE 3 is a detail transverse cross-sectional view, FIGURE 3 being taken substantially on the vertical plane of line 3—3 of FIGURE 1, looking in the direction of the arrows;

FIGURE 4 is a fragmentary side elevational view, partly in cross-section, similar to FIGURE 1, but showing the component elements of the device in their assembled, but inoperative relative positions;

FIGURE 5 is a side elevational view, partly in longitudinal medial cross-section, showing a second embodiment of this invention;

FIGURE 6 is an enlarged exploded perspective view of the embodiment of the invention illustrated in FIGURE 5;

FIGURE 7 is an enlarged fragmentary cross-sectional view, partly broken away, of the second embodiment of this invention; and

FIGURE 8 is an enlarged longitudinal medial detail cross-sectional view of a still further embodiment of this invention.

Referring now more specifically to FIGURES 1 to 4, inclusive, of the drawing, reference numeral **10** designates, in general, a liquid-holding and dispensing device constructed in accordance with the teachings of this invention. As is illustrated in these figures, the liquid-holding and dispensing device simulates an elongated cigarette holder including an elongated stem **12** having a substantially cylindrical central body portion **14** terminating at its inner end in an axially-extending neck **16** externally-threaded as at **18**, to serve a function to be described, infra. The formation of the neck **16** inherently gives rise to a shoulder **20** at the junction thereof with the main body portion **14**, the shoulder **20** serving as a seat for an annular liquid-tight seal or gasket **22**. The stem **12**, as it extends from the other end of the main body portion **14**, resolves itself or is fared into a portion **24** having in transverse cross-section the configuration of an oblate spheroid which becomes more pronounced or acute at the outer terminal end **26**. The stem **12** adjacent its outer terminal end **26** is thickened to provide a bit **30**, and spaced inwardly from the bit **30** is an integrally-formed ferrule **32** defining therebetween lip or teeth-engaging portion **34**. Extending axially through the stem **12** and its neck **16** is an elongated bore **36** and counterbore **38** in which is seated the inner end of an elongated substantially hollow tubular cannula **40** having a pointed outer end **42** which projects beyond the adjacent end of the neck **16**.

The liquid-holding and dispensing device **10** also includes an elongated hollow cylindrical cartridge holder **50** having an elongated cylindrical sidewall **52** provided at one end with a transversely-extending integrally-formed closure wall **54**. The other end of the sidewall **52** is internally-threaded at **56** for coupling with the threads **18** formed on the neck **16** whereby the holder **50** may be detachably-connected on the stem **12**.

Reference numeral **60** denotes an elongated hollow cylindrical liquid-filled cartridge of a type well-known in the art. The cartridge **60** includes an elongated hollow cylindrical sidewall **62** and an outer end closure wall **64**. The cartridge **60** is partially-filled with, preferably, a

flavored liquid 65 which may comprise syrups, medical preparations, and liquid extracts, or other suitable liquids delightful to the taste, and according to the ultimate use of the device 10.

After the partial filling of the cartridge 60 has been accomplished, its inner end is formed with an integral discoidal sealing wall 66, and in so being sealed, forms an air pocket 68 which extends axially of the cartridge 60 adjacent its upper side when the cartridge 60 is held horizontally in the manner shown in FIGURES 3 and 4 of the drawing.

While the stem 12 and holder 50 are formed of any desirable substantially rigid material, such as a plastic, for example, which is capable of withstanding water sterilization treatment or other sterilization processes without deformation or deterioration, the cartridge 60 is, on the other hand, preferably formed of an inexpensive semi-rigid material, but of sufficient rigidity to retain the liquid 65 without distortion to the cylindrical configuration of the cartridge.

As is seen in FIGURES 3 and 4, the outside diameter of the cartridge 60 is such relative to the inside diameter of the sidewall 52, as to permit a close sliding telescopic, but not airtight fit between the cartridge 60 and sidewall 52, thereby permitting the assembly of the cartridge 60 within the holder 50 with the discoidal end wall 60 spaced inwardly from the inner terminal end of the holder 50. In making this assembly, a temporary air cushion 70 is formed between the end walls 54 and 64 at that portion of the sidewall 52 embraced therebetween as shown in FIGURE 4.

With the cartridge 60 telescoped within the holder 50, the threads 56 are joined with the threads 18 to detachably-connect the holder 50 on the stem 12. In the event the liquid 65 is not to be immediately consumed, the threaded end of the holder 50 may be held in backed-off position (see FIGURE 4) relative to the seal 22 until that time the user desires to avail himself of the liquid content 65. At this time, the threads 18 and 56 are fully joined (see FIGURE 1) causing the pointed end 42 of the cannula 40 to penetrate the discoidal wall 66 and enter the liquid 65.

To withdraw or dispense the liquid 65, the outer end of the stem 12 is inserted into the mouth of the user with the lips or teeth engaging the portion 34 after which the user draws on the stem 12 and sips the liquid 65 from the cartridge 60.

After the cartridge 60 has been exhausted of its fluid 65, the stem 12 and holder 50 are disconnected and the cartridge 60, which is disposable, is shaken from, or otherwise removed from its holder 50, and is replaced, if so desired.

In FIGURES 5, 6 and 7, a second embodiment of this invention is disclosed wherein the device according to the instant teachings comprises a simulated smoking pipe 10'. The simulated pipe 10' includes a stem 12' having the structure of the preceding embodiment and, as viewed in these figures, all component elements of the device 10' finding their counterparts in FIGURES 1 to 4, inclusive, are differentiated therefrom by adding a prime mark to the identical reference numeral.

Thus, and in this modification, the holder 50' is seen to simulate a pipe bowl having the usual substantially hollow cylindrical sidewall 80 open at its normally upwardly-disposed upper end 82 and having an opposed lower transversely-extending end closure wall 84.

Projecting laterally away from the lower end of the sidewall 80 and integrally-formed therewith is a hollow cylindrical throat 86, the inner end of the throat 86 being in open communication with the interior of the bowl 50'. The outer end of the throat 86 is internally-threaded as at 88 to permit threaded connection or coupling with the threads 18' to detachably-connect the bowl 50' with the stem 12'.

Reference numeral 90 indicates a substantially flat normally horizontal cap having a centrally-located cylindrical

center wall 92 from a peripheral marginal edge of which laterally-projects an annular flange 94. Conventional hinge means 96 pivotally-connect one side of the cap 90 to one side of the bowl 50' at its upper end 82.

Reference numeral 100 denotes a vertically-elongated substantially hollow cylindrical liquid-receiving cartridge. As is seen in FIGURES 5 to 7, inclusive, the cartridge 100 includes a vertically-extending hollow cylindrical sidewall 102 having, at its lower end, a transversely-extending cylindrical closure wall 104 integrally-formed therewith. The opposed or upper end of the cartridge 100 is closed by a top closure wall 106 also having a cylindrical configuration, and, as is clearly seen in FIGURE 5, the top closure wall 106 is provided with a centrally-located transversely-extending air port or vent 108. The sidewall 102, and the end walls 104, 106 are, preferably, formed integrally, one with the other.

As before, the cartridge 100 is adapted to be partially-filled with a liquid 110 of the type referred to above, the partial-filling of the cartridge 100 resulting in the formation of an air chamber 112 which extends between the upper liquid level of the liquid 110, the end wall 106 and that portion of the sidewall 102 which is embraced therebetween. With reference to FIGURE 6 of the drawing, it is seen that a substantially cylindrical seal 114 is adhesively or otherwise secured to the top closure wall 106, the seal 114 being adapted to extend transversely across the outer end of the port or vent 108. The seal 114 is provided with a radially-extending tab 116 under which the user's fingernail may be inserted in order to lift the seal 114 from the top wall 106 to open the port or vent 108 to the atmosphere.

The use of the device 10' is identical to the described above in connection with the device 10, but the assembly thereof is somewhat different. Thus, and referring to FIGURE 6 of the drawing which shows the component elements of the device 10' in their unassembled form, the user will insert the partially-filled cartridge 100 into the holder 50' with the seal 114 disposed adjacent the open upper end 82. As is seen in FIGURES 5 and 7, the axial length of the cartridge 100 is somewhat greater than the axial length of the holder 50', whereby an upper portion of the sidewall 102 and the end wall 106 are disposed above the open upper end 82 of the sidewall 80.

With the cartridge 100 disposed in the bowl or holder 50' in the manner described above, the cap 90 being disposed in its open position shown in FIGURE 6, the stem 12' is now engaged with the throat 86, the threads 18' and 88 being threaded together to the extent that the pointed end 42' of the cannula 40' pierces the sidewall 102 and becomes immersed in the liquid 110. The seal 114 is now stripped or otherwise removed from the top closure wall 106 and the user now sips on the stem 12' in the manner described supra, to cause the liquid 110 to start a free flow through the bore 36'. Thereafter, the seal 114 is placed over the vent 108 and re-sealed against the top wall 106, the adhesive employed being any one of the flexible non-drying types commonly found in the open market.

The cap 90 is now pivoted from its open position shown in FIGURE 6, to its closed position in FIGURES 5 and 7, the outer end of the flange 94 then seating against the open upper end of the sidewall 80. As is clearly seen in FIGURES 5 and 7, the flange 94 taken together with the center wall 92 define a substantially hollow cylindrical pocket 120 which receives the upper protruding end of the sidewall 102 and its closure wall 106 concealing the same from view.

After the liquid 110 has been drained from the cartridge 100, the cap 90 may be pivoted to its open position shown in FIGURE 6, the stem 12' uncoupled from the throat 86, and the cartridge 100 is then either manually-removed from the sidewall 80 or the same could be removed by knocking it from the sidewall 80 much in the same manner as a smoker would remove the tobacco

ash residue after the tobacco has been burned in the bowl of the pipe, that is, by tapping the outer end **82** against a fixed support or the palm of the hand. The cartridge **100** may now be replaced with a counterpart.

In FIGURE 8 is illustrated the third modification of this invention wherein the elements thereof common to element heretofore described above have been assigned the same reference numerals, but in this instance, these elements are distinguished from those previously described by the addition of a double prime mark to the reference numerals.

In FIGURE 8 the device **10″** is seen to comprise an elongated stem **12″** which, for all practical purposes, may be considered as a cap. The stem **12″** is formed with an elongated axially-extending cylindrical bore **200** which extends inwardly from its inner terminal end to a point intermediate the ends of the stem **12″** where it terminates in an end wall **202**. In providing the bore **200**, a sidewall **204** is formed which forms a substantially hollow cylindrical chamber **205**.

As before, the bore **36″** communicates at its inner end in a counterbore **38″** having one end of a cannula **40″** fitted therein. The other and pointed end **42″** of the cannula **40″** projects forwardly and is centrally-located relative to the end wall **202** and is circumscribed in spaced relation by an adjacent portion of the sidewall **204**. Thus, it is seen that the outer end of the cannula **40″** is disposed within the chamber **205**.

The stem **12″**, adjacent its inner terminal end, is internally-threaded as at **206** to serve a function to be described.

The cartridge holder **50″** in this instance includes an elongated substantially hollow cylindrical sidewall **52″** having an outer end closure wall **54″** and an opposed inner end which terminates in an axially-extending neck **300** of reduced external diameter. The neck **300** is externally-threaded at **302** to provide coupling means to effect connection between the cartridge holder **50″** and the stem **12″** in the manner described above.

In the construction of the neck **300**, a shoulder **304** is inherently formed at its junction with the sidewall **52″** and the shoulder **304** provides a seat for a liquid-tight annular seal or gasket **306** which is mounted over the neck **300**.

The cartridge **60″**, as in the two previous embodiments of this invention, is formed of any desirable inexpensive semi-rigid material, but having sufficient rigidity so as to retain its liquid **65″** without imparting distortion to the sidewall **62″**. In all cases, the cartridge **60**, **100** and **60″** must be formed of a material which will maintain a sufficiently constant or uniform cross-sectional area throughout their respective lengths.

The cartridge **60″** is, when compared with the cartridge **60**, of appreciably greater axial length, and the outside diameter thereof is substantially the same as the inside diameter of the holder **50″** and the stem **12″**. As is seen in FIGURE 8, the cartridge **60″** is telescopically-fitted within the holder **50″** with that end of the cartridge **60″** carrying the end closure wall **66″** projecting beyond the outer end of the threaded neck **300**. This extended and exposed end of the cartridge **60″** is telescopically-received within the bore **200** of the stem **12″**, and when the stem **12″** is coupled with the holder **50** the sharpened end **42″** of the cannula **40″** will penetrate the end closure wall **66″** in the same manner described above in connection with that embodiment of the invention illustrated in FIGURES 1 to 4, inclusive.

In all other respects, the operation and function of the device **10″** is identical with respect to those assigned to the device **10** shown in FIGURES 1 to 4, inclusive

Having described and illustrated several embodiments of this invention in detail, it will be understood that the same are offered merely by way of example, and that this invention is to be limited only by the scope of the appended claims.

What is claimed is:

1. A simulated smoker's accessory for holding and dispensing a potable liquid to aid a user in breaking the smoking habit, comprising an elongated stem having a bit at one end for insertion in the mouth of a user, a bore extending from end-to-end of said stem and through said bit, a holder releasably attached to the other end of said stem, a cartridge containing a potable liquid and held by said holder, and means for communicating the interior of said cartridge with said bore to permit sucking of liquid from within the cartridge into the bore and through the bit.

2. A simulated smoker's accessory according to claim **1** wherein said means for communicating the interior of said cartridge with said bore comprises penetrating means adapted to pierce a wall of the cartridge when said holder is attached to said stem.

3. A simulated smoker's accessory according to claim **2** wherein said penetrating means comprises a cannula secured in said bore at said other end of the stem and having a pointed portion for piercing a wall of the cartridge and immersion in said potable liquid.

4. A simulated smoker's accessory according to claim **1** wherein said holder comprises a tubular member conforming in size and shape to a cigarette so that when attached to said stem the stem and holder take the appearance of a cigarette holding device, threads on said other end of the stem and complementary threads on said holder for releasably coupling the stem and holder, and said cartridge being a tubular enclosure telescoped within the holder.

5. A smoker's accessory according to claim **1** wherein said holder comprises an open top bowl having a radially projecting neck at the bottom communicating with the interior of the bowl, said cartridge containing potable liquid being inserted within the bowl, and said other end of the stem being secured to the neck of the bowl so that the stem and bowl take the shape and appearance of a smoker's pipe.

6. A simulated smoker's accessory according to claim **5** wherein said means for communicating the interior of said cartridge with said bore comprises penetrating means adapted to pierce a wall of the cartridge when said holder is attached to said stem.

7. A simulated smoker's accessory according to claim **6** wherein the open top of said bowl is closed by a cap pivoted to the bowl.

8. A simulated smoker's accessory according to claim **7** wherein an air vent is provided in the upper end of said potable liquid holding cartridge, and removable sealing means extends across said vent.

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WALTER SOBIN, *Primary Examiner.*