ABSTRACT

A collapsible water pipe for combusting herbs has a flexible body to facilitate enhanced portability of the collapsible water pipe. In a deployed configuration, a down stem is positioned through a stem opening in the flexible body, and a bowl is positioned into the down stem. The bowl is in fluid communication with the down stem, which is in turn in fluid communication with a water chamber of the flexible body. Herbs are combusted within the bowl; the resulting smoke being pulled through a liquid within the water chamber to a smoke chamber of the flexible body, where the smoke is then consumed by a user. When not in use, the collapsible water pipe can be arranged into a collapsed configuration. The flexible body is folded in half and the down stem and bowl are positioned within the smoke chamber, while a retention strap is positioned around the flexible body.
FIG. 2
COLLAPSIBLE WATER PIPE


FIELD OF THE INVENTION

[0002] The present invention relates generally to smoking apparatuses. More specifically, the present invention is a water pipe for smoking herbal substances featuring a collapsible design for enhanced portability.

BACKGROUND OF THE INVENTION

[0003] Smoking is the common practice of combusting herbs in order to release active substances to be consumed. The product of the combustion process is inhaled and absorbed through the lungs. Although many methods and mechanisms of smoking herbs exist, the most common method is rolling the herbs with paper to form a cigarette. While cigarettes are generally rolled with tobacco, many other types of loose herbs may be packed and rolled for consumption by smoking. Despite the widespread prevalence of smoking, many health hazards and risks have become associated with the byproducts of the combustion process. Medical studies have successfully linked a wide variety of medical problems to smoking including many types of cancers, heart attacks/diseases, emphysema, infertility, and birth defects. Many of these medical problems are a result of the toxic and carcinogenic byproducts of the combustion process of herbs. A popular alternative to packing and rolling loose herbs for smoking is smoking through a water pipe. A water pipe is a smoking apparatus in which smoke from combusting herbs is drawn through water for a smoother smoking experience. Water pipes potentially offer a more enjoyable smoking experience and are also capable of reducing the amount of harmful irritating particles and substances found in unfiltered smoke. Water filtered smoke has been shown to be less harmful than smoke from cigarettes, cigars, and conventional pipes. Many water pipes are composed of glass or plastic and are thus rather fragile. Water pipes are often large and difficult to transport as well. The present invention seeks to address the aforementioned issues and provide a practical and convenient solution.

[0004] Therefore it is the object of the present invention to provide a collapsible water pipe for combusting and smoking herbs that has enhanced portability as compared to traditional water pipes. In the preferred embodiment, the present invention comprises a flexible body constructed from a pliable material. The flexible body defines a smoke chamber and water chamber; the water chamber being filled with water or other liquid of the user’s choice. The top of the flexible body features a mouth opening to allow the user to inhale smoke from the combusted herbs. A stem opening is present on the flexible body as well, for accommodating a down stem that is in fluid communication with the water chamber. The down stem supports a bowl, which has a herb receptacle for holding herbs, or other desired substance, during the combustion process. The smoke from the combusting herbs is drawn through the bowl and the down stem into the water within the water chamber. The smoke is then pulled through the water into the smoke chamber, where the filtered smoke is then drawn through the mouth opening for consumption by the user. When the collapsible water pipe is not in use, the down stem and the bowl can be removed and the flexible body may be flattened and folded in half or rolled once the water has been emptied from the water chamber. This reduces the size of the present invention and allows for more convenient transportation.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] FIG. 1 is a perspective view of the present invention in the deployed configuration.

[0006] FIG. 2 is a right side sectional view of the present invention in the deployed configuration, wherein the dashed line depicts a fill level for defining the water chamber.

[0007] FIG. 3 is an exploded view of the present invention in the deployed configuration.

[0008] FIG. 4 is a front elevational view of the flexible body.

[0009] FIG. 5 is a top plan view of the flexible body.

[0010] FIG. 6 is a front elevational view of the down stem.

[0011] FIG. 7 is a top plan view of the down stem.

[0012] FIG. 8 is a front elevational view of the bowl.

[0013] FIG. 9 is a top plan view of the bowl.

[0014] FIG. 10 is a top plan view of the present invention in the collapsed configuration.

[0015] FIG. 11 is a bottom plan view of the present invention in the collapsed configuration.

[0016] FIG. 12 is a top plan view of the present invention in the collapsed configuration, depicting the bowl and the down stem being positioned within the smoke chamber.

[0017] FIG. 13 is a top plan view of the present invention in the collapsed configuration with the addition of a clip coupled to the retention strap.

DETAIL DESCRIPTIONS OF THE INVENTION

[0018] All illustrations of the drawings are for the purpose of describing selected versions of the present invention and are not intended to limit the scope of the present invention.

[0019] The present invention is a collapsible water pipe for extracting and consuming the active ingredients in herbal substances. The present invention features a collapsible design as to enhance the portability of the present invention, thus permitting the present invention to be employed in any situation. The collapsible water pipe comprises a flexible body 10, a bowl 20, a down stem 30, and a retention strap 40, wherein the components of the present invention can be arranged in both a deployed configuration and a collapsed configuration.

[0020] In reference to FIG. 1-3, the flexible body 10 is the main structure of the present invention and supports the bowl 20 and the down stem 30. The flexible body 10 comprises a mouth opening 13, a stem opening 14, a lateral wall 11, a base 12, a water chamber 15, and a smoke chamber 16. The flexible body 10 is an elongated, generally thin walled structure, such that the flexible body 10 can be contorted into a number of configurations; namely between the deployed configuration and the collapsed configuration, wherein the flexible body 10 is folded in half. In the preferred embodiment of the present invention, the flexible body 10 is constructed out of a pliable silicone. More specifically, a health grade silicone approved by the Food and Drug Administration is the preferred material used in the construction of the flexible body 10. However, it is possible for the flexible body to be constructed of any other pliable material in other embodiments.

[0021] In reference to FIG. 4-5, the base 12 is perimetrically connected to the lateral wall 11 and provides a stop end
In the preferred embodiment of the present invention, the base 12 is tapered towards the lateral wall 11, such that the base 12 has a larger bottom diameter in order to provide stability to the flexible body 10 when the present invention is in the deployed configuration and placed at rest on a surface. Together, the base 12 and the lateral wall 11 delineate the water chamber 15. The mouth opening 13 is positioned opposite the base 12 along the lateral wall 11. Together, the mouth opening 13 and the lateral wall 11 delineate the water chamber 15, wherein the smoke chamber 16 is in fluid communication with the water chamber 15.

In reference to FIG. 2, the water chamber 15 encompasses the interior volume of the lateral wall 11 that is filled with a liquid, preferably water, when the present invention is in use in the deployed configuration. The smoke chamber 16, on the other hand encompasses the interior volume of the lateral wall 11 that is not filled with said liquid. As such, the exact dimensions of both the water chamber 15 and the smoke chamber 16 are dependent on the volume of the liquid provided by the user. Typically only a small volume of the liquid is required in comparison to the total interior volume of the lateral wall 11, and as such the water chamber 15 is limited to the bottom half portion of the lateral wall 11 in the deployed configuration.

In further reference to FIG. 2, the stem opening 14 traverses through the second section and provides a means for engaging the down stem 30 with the flexible body 10. In the deployed configuration, the down stem 30 is positioned through the stem opening 14 and into the water chamber 15, wherein the down stem 30 is attached to the lateral wall 11 by a frictional fit. In reference to FIG. 6-7, the down stem 30 is an elongated member and comprises a secondary smoke channel 31 that traverses along the length of the down stem 30. When the down stem 30 is positioned through the stem opening 14, the secondary smoke channel 31 is in fluid communication with the water chamber 15, as depicted in FIG. 2.

In the preferred embodiment of the present invention, the down stem 30 further comprises a tapered end 32, as depicted in FIG. 6. When in the deployed configuration, the tapered end 32 is positioned into the stem opening 14 opposite the water chamber 15, wherein the small end of the tapered end 32 engages the lateral wall 11, as shown in FIG. 1-2. As the tapered end 32 engages the lateral wall 11 around the stem opening 14, an airtight seal is formed between the tapered end 32 and the lateral wall 11.

Furthermore, in the deployed configuration, the bowl 20 is attached to the down stem 30, as shown in FIG. 1-2. In reference to FIG. 8-9, the bowl 20 comprises a herb receptacle 21, a stem connector 22, and a primary smoke channel 23; the herb receptacle 21 being adjacent connected to the stem connector 22 and the primary smoke channel 23 traversing through both the herb receptacle 21 and the stem connector 22. The stem connector 22 is also an elongated member and is positioned into the secondary smoke channel 31 opposite the water chamber 15, such that the herb receptacle 21 is accessible to the user, and wherein the primary smoke channel 23 is in fluid communication with the secondary smoke channel 31, as shown in FIG. 2.

In the preferred embodiment of the present invention, the bowl 20 further comprises a gasket 24, as shown in FIG. 8. The gasket 24 is perimetrically connected to the stem connector 22 and engages the tapered end 32 of the down stem 30 when the bowl 20 is attached to the down stem 30, as shown in FIG. 1-2. As the gasket 24 engages the down stem 30, an airtight seal is formed between the gasket 24 and the down stem 30.

When in use the desired liquid is poured into the flexible body 10, thus defining the size of the water chamber 15, wherein the down stem 30 protrudes through the stem opening 14 into the water chamber 15. The desired herbs or substance to be smoked is then selected by the user and placed within the herb receptacle 21. The user then places his or her mouth over the mouth opening 13 creating a seal between the flexible body 10 and their mouth. The herbs, or other substance, is then lit, while the user inhales through the mouth opening 13. As the user inhales, smoke produced from the burning of the herbs is directed through the primary smoke channel 23 and the secondary smoke channel 31 into the water chamber 15. As the smoke enters the water chamber 15, the smoke is cooled by the liquid and passes through the liquid in the formation of bubbles. The smoke then breaks the surface of the liquid and enters the smoke chamber 16. When a sufficient amount of smoke has been collected within the smoke chamber 16, the bowl 20 is removed from the down stem 30 and the user is able to inhale the smoke as fresh air is pulled behind through the secondary smoke channel 31.

In reference to FIG. 10-11, the present invention can be readily stowed or transported when in the collapsed configuration. In the collapsed configuration, the bowl 20 is detached from the down stem 30 and the down stem 30 is detached from the flexible body 10. The flexible body 10 is then bent in half about the folded section, wherein the first section and the second section are positioned adjacent to each other. Both the down stem 30 and the bowl 20 are then positioned into portion of the smoke chamber 16 delineated by the first section, through the mouth opening 13, as depicted in FIG. 12. The retention strap 40 is then positioned around the flexible body 10, such that the flexible body 10 is held in the collapsed position and both the down stem 30 and the bowl 20 are securely held within the smoke chamber 16 by a frictional fit as the lateral wall 11 clamps around both the down stem 30 and the bowl 20.

In the preferred embodiment of the present invention, the retention strap 40 is constructed from a single, elastic piece of material, such as a soft rubber. In this way, the retention strap 40 is simply stretched around the flexible body 10 in order to secure the flexible body 10 in the folded position and provides force such that the lateral wall 11 clamps around both the bowl 20 and the down stem 30 in order to secure the bowl 20 and down stem 30 within the smoke chamber 16 by a frictional fit. In alternative embodiments of the present invention, the retention strap 40 may be inelastic and comprise a locking mechanism, such as a pair of hook and loop fasteners, a male and female snap, a buckle, etc. This would allow the user to tighten the retention strap 40 to his or her liking.

The flexible body 10 can also be stowed in an alternative collapsed configuration, wherein the flexible body 10 is rolled along the length of the flexible body 10. The end portion of the flexible body 10, either by the base 12 or the mouth opening 13, is first folded over, and the flexible body 10 is then rolled to the opposite end. The retention strap 40 is then positioned around the flexible body 10 in order to prevent the flexible body 10 from unraveling. The bowl 20 and the down stem 30 can be placed perpendicularly along the flex-
ible body 10, such that the bowl 20 and the down stem 30 are rolled within the flexible body 10 and frictionally held in place.

[0031] In reference to FIG. 13, the present invention may further comprise a clip 50. The clip 50 is coupled to the retention strap 40 either directly or indirectly, and allows for enhanced transportation of the present invention. The clip 50 provides the ability to quickly attach and detach the present invention to a number of fastening points when in the collapsed configuration. For example, while on a hike, the present invention can be attached externally to a backpack or belt loop, such that the present invention is readily accessible to be deployed. Preferably the clip 50 is a carabiner, however, the clip 50 can be any other type of temporary fastener.

[0032] Although the invention has been explained in relation to its preferred embodiment, it is to be understood that many other possible modifications and variations can be made without departing from the spirit and scope of the invention as hereinafter claimed.

What is claimed is:

1. A collapsible water pipe comprises:
   a flexible body;
   a bowl;
   a down stem;
   the flexible body comprises a mouth opening, a stem opening, a lateral wall, a base, a water chamber, and a smoke chamber;
   the bowl comprises a herb receptacle, a stem connector, and a primary smoke channel;
   the down stem comprises a secondary smoke channel;
   the base being perimetrically connected to the lateral wall;
   the mouth opening being positioned opposite the base along the lateral wall;
   the water chamber being delineated by the base and the lateral wall;
   the stem opening traversing through the lateral wall adjacent to the base;
   the smoke chamber being delineated by the mouth opening and the lateral wall, wherein the smoke chamber is in fluid communication with the water chamber;
   the herb receptacle being adjacent connected to the stem connector;
   the primary smoke channel traversing through the herb receptacle and the stem connector;
   the secondary smoke channel traversing along the down stem.

2. The collapsible water pipe as claimed in claim 1 comprises:
   the down stem being attached to the lateral wall;
   the down stem being positioned through the stem opening and into the water chamber;
   the secondary smoke channel being in fluid communication with the water chamber;
   the bowl being attached to the down stem;
   the stem connector being positioned into the secondary smoke channel opposite the water chamber; and
   the primary smoke channel being in fluid communication with the secondary smoke channel.

3. The collapsible water pipe as claimed in claim 2 comprises:
   the gasket further comprises a gasket;
   the gasket being perimetrically connected to the stem connector; and
   the gasket engaging the down stem, wherein an airtight seal is formed between the gasket and the down stem.

4. The collapsible water pipe as claimed in claim 2 comprises:
   the down stem further comprises a tapered end;
   the tapered end being positioned into the stem opening opposite the water chamber; and
   the tapered end engaging the lateral wall, wherein an airtight seal is formed between the tapered end and the lateral wall.

5. The collapsible water pipe as claimed in claim 1 comprises:
   a retention band;
   the lateral wall being folded in half, wherein the base and the mouth opening are positioned adjacent to each other;
   the down stem and the bowl being positioned within the smoke chamber; and
   the retention band being positioned around the flexible body.

6. The collapsible water pipe as claimed in claim 5, wherein the retention band is elastic.

7. The collapsible water pipe as claimed in claim 5 comprises:
   a clip; and
   the clip being coupled to the retention band.

8. The collapsible water pipe as claimed in claim 1, wherein the herb receptacle is tapered towards the stem connector.

9. The collapsible water pipe as claimed in claim 1, wherein the flexible body is constructed from silicone.

10. A collapsible water pipe comprises:
   a flexible body;
   a bowl;
   a down stem;
   the flexible body comprises a mouth opening, a stem opening, a lateral wall, a base, a water chamber, and a smoke chamber;
   the bowl comprises a herb receptacle, a stem connector, and a primary smoke channel;
   the down stem comprises a secondary smoke channel;
   the base being perimetrically connected to the lateral wall;
   the mouth opening being positioned opposite the base along the lateral wall;
   the water chamber being delineated by the base and the lateral wall;
   the stem opening traversing through the lateral wall adjacent to the base;
   the smoke chamber being delineated by the mouth opening and the lateral wall, wherein the smoke chamber is in fluid communication with the water chamber;
   the herb receptacle being adjacent connected to the stem connector;
   the primary smoke channel traversing through the herb receptacle and the stem connector;
   the secondary smoke channel traversing along the down stem;
the primary smoke channel being in fluid communication with the secondary smoke channel.

11. The collapsible water pipe as claimed in claim 10 comprises:
the bowl further comprises a gasket;
the gasket being perimetrically connected to the stem connector; and
the gasket engaging the down stem, wherein an airtight seal is formed between the gasket and the down stem.

12. The collapsible water pipe as claimed in claim 10 comprises:
the down stem further comprises a tapered end;
the tapered end being positioned into the stem opening opposite the water chamber; and
the tapered end engaging the lateral wall, wherein an airtight seal is formed between the tapered end and the lateral wall.

13. The collapsible water pipe as claimed in claim 10, wherein the herb receptacle is tapered towards the stem connector.

14. The collapsible water pipe as claimed in claim 10, wherein the flexible body is constructed from silicone.

15. A collapsible water pipe comprises:
a flexible body;
a bowl;
a down stem;
a retention band;
the flexible body comprises a mouth opening, a stem opening, a lateral wall, a base, a water chamber, and a smoke chamber;
the bowl comprises a herb receptacle, a stem connector, and a primary smoke channel;
the down stem comprises a secondary smoke channel;
the base being perimetrically connected to the lateral wall;
the mouth opening being positioned opposite the base along the lateral wall;
the water chamber being delineated by the base and the lateral wall;
the stem opening traversing through the lateral wall adjacent to the base;
the smoke chamber being delineated by the mouth opening and the lateral wall, wherein the smoke chamber is in fluid communication with the water chamber;
the herb receptacle being adjacent to the stem connector;
the primary smoke channel traversing through the herb receptacle and the stem connector;
the secondary smoke channel traversing along the down stem;
the lateral wall being folded in half, wherein the base and the mouth opening are positioned adjacent to each other;
the down stem and the bowl being positioned within the smoke chamber; wherein the down stem and bowl can be removed for use in a deployed configuration; and
the retention band being positioned around the flexible body, wherein the retention band can be removed to unfold the flexible body.

16. The collapsible water pipe as claimed in claim 15, wherein the retention band is elastic.

17. The collapsible water pipe as claimed in claim 15 comprises:
a clip; and
the clip being coupled to the retention band.

18. The collapsible water pipe as claimed in claim 15, wherein the flexible body is constructed from silicone.

19. The collapsible water pipe as claimed in claim 15 comprises:
the bowl further comprises a gasket; and
the gasket being perimetrically connected to the stem connector.

20. The collapsible water pipe as claimed in claim 15, wherein the herb receptacle is tapered towards the stem connector.

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