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(54) **SELF-LIGHTING SMOKING TOOL**

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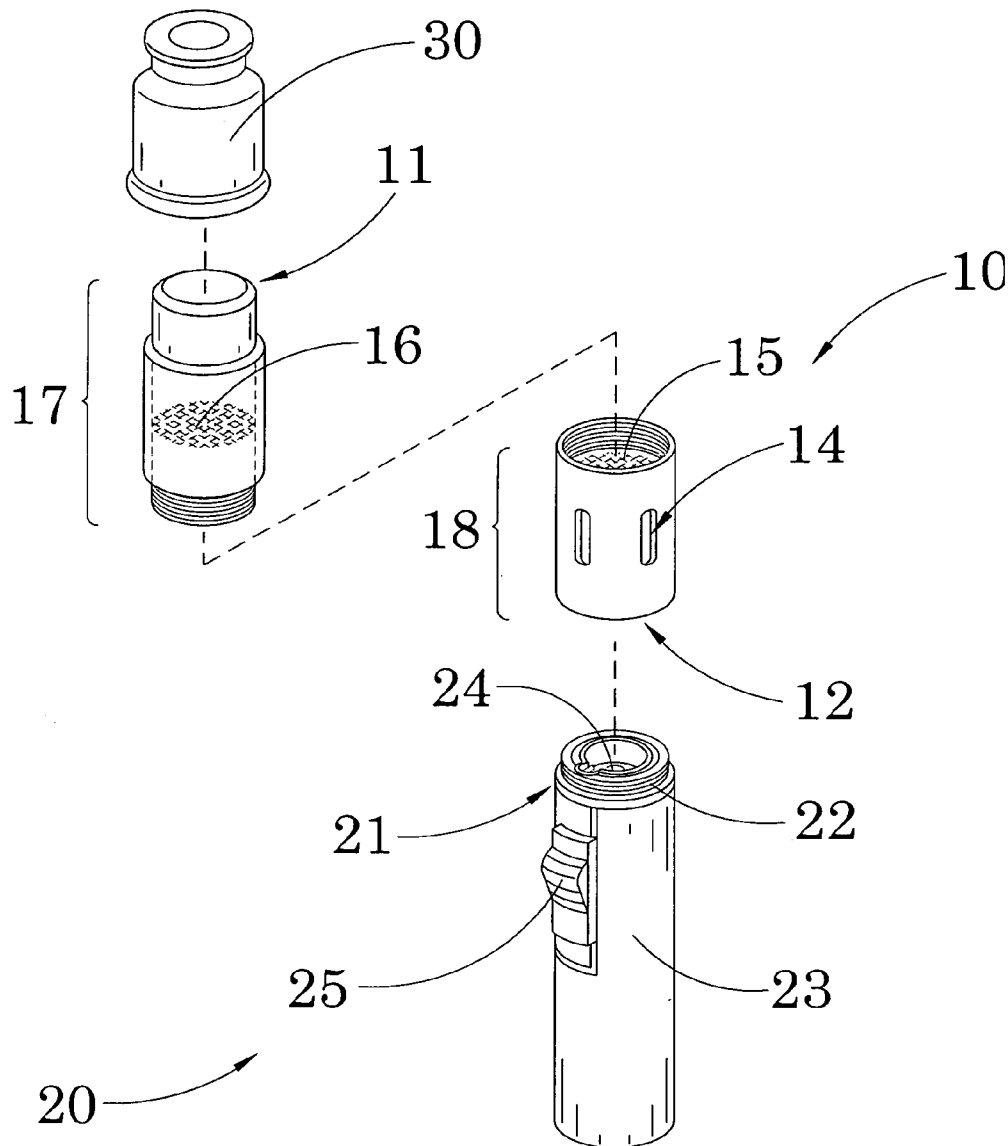
(57) **ABSTRACT**

A self-light smoking tool includes a portable inhaler tube having an inhaling end, an opposed lighter-adapter end, and a treatment chamber for receiving a smoking element therein. A lighter includes a flame producing portion detachably coupling with the lighter-adapter end of the inhaler tube. The inhaler tube further includes a plurality of ventilating slots spacedly formed at a surrounding wall at a position closed to the lighter-adapter end. Therefore, the self-light smoking tool is extremely portable and has its own lighter such that the user is able to always carry a self-lighting smoking tool with him for smoking purpose.

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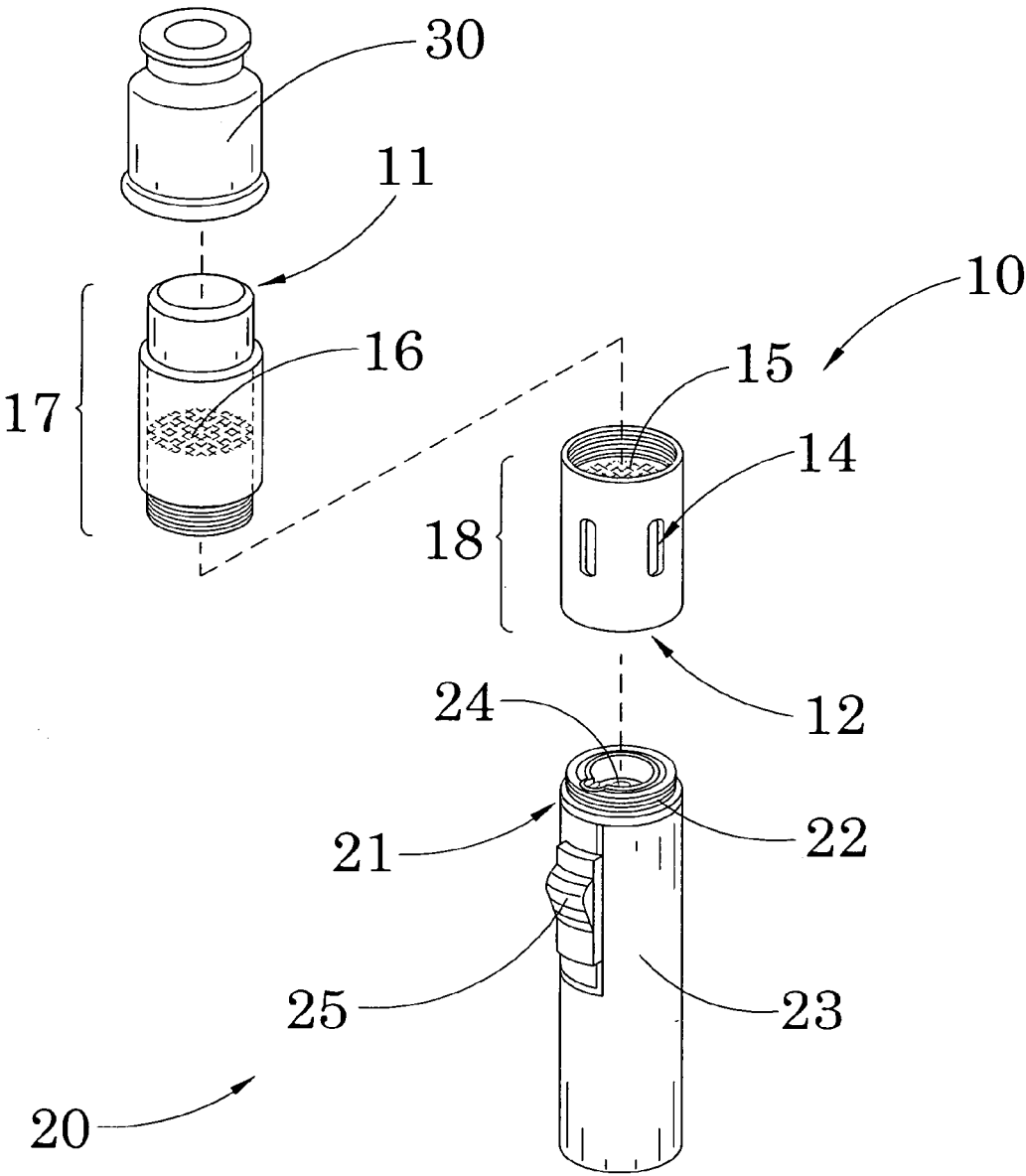


FIG.1

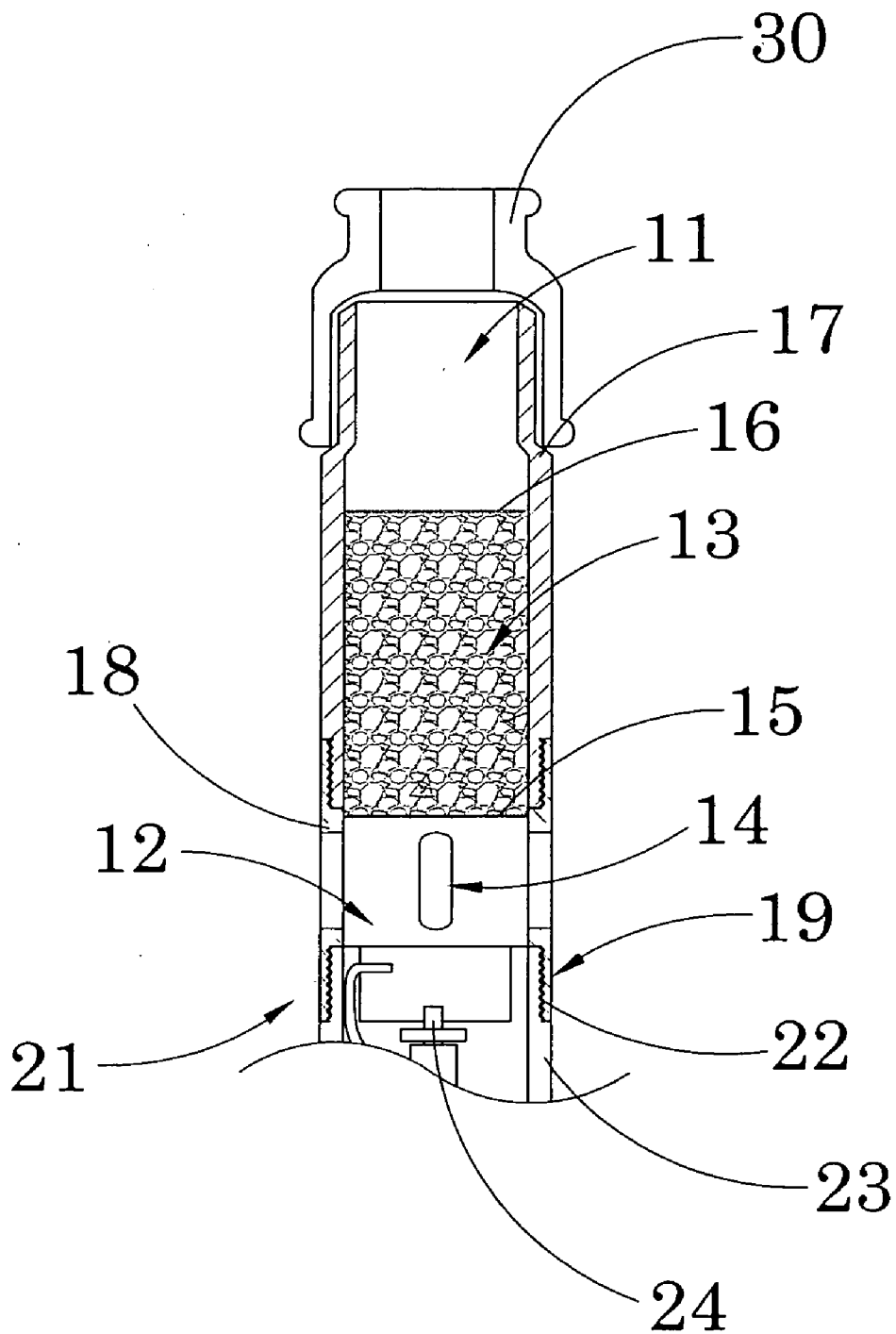


FIG. 2

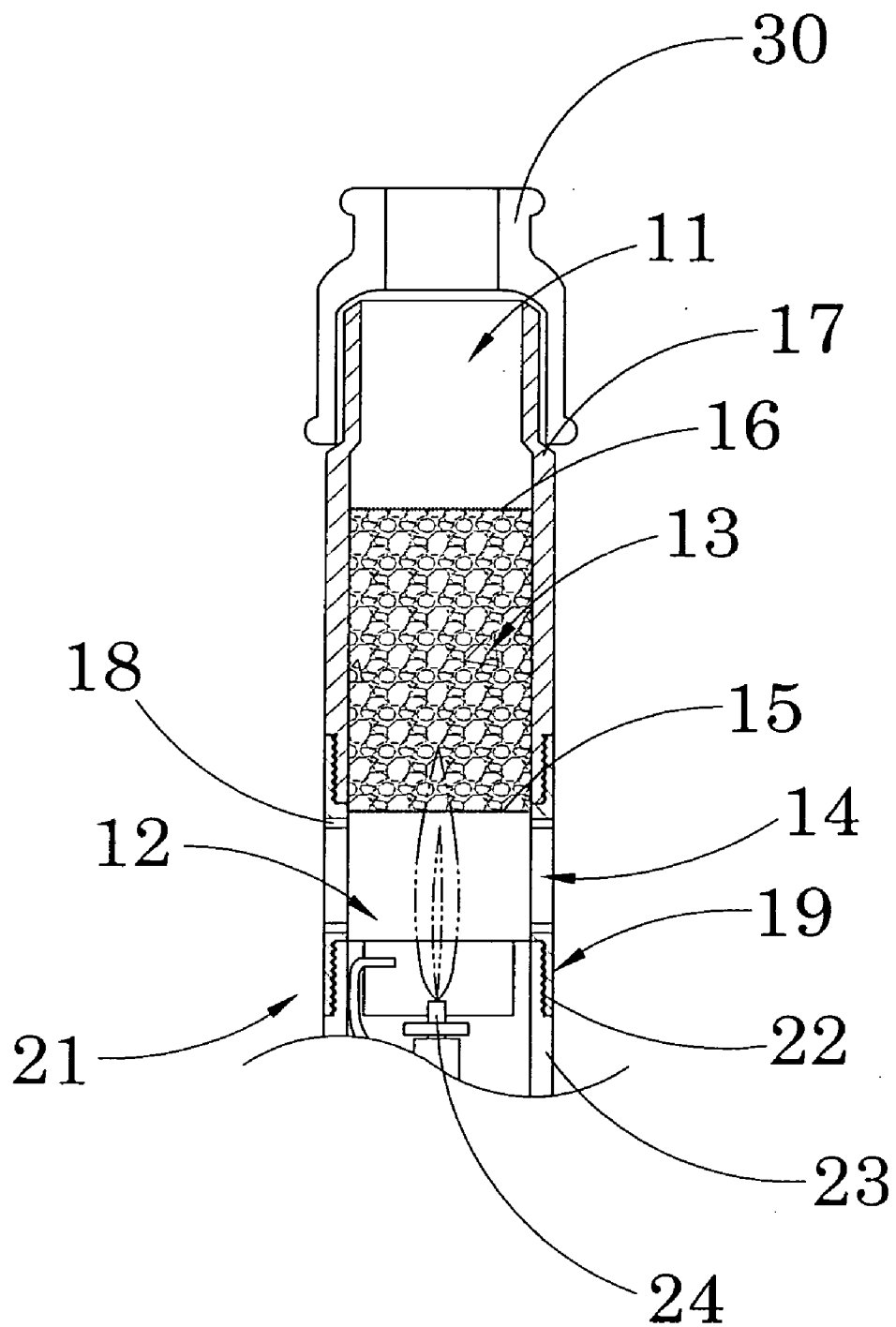


FIG. 3A

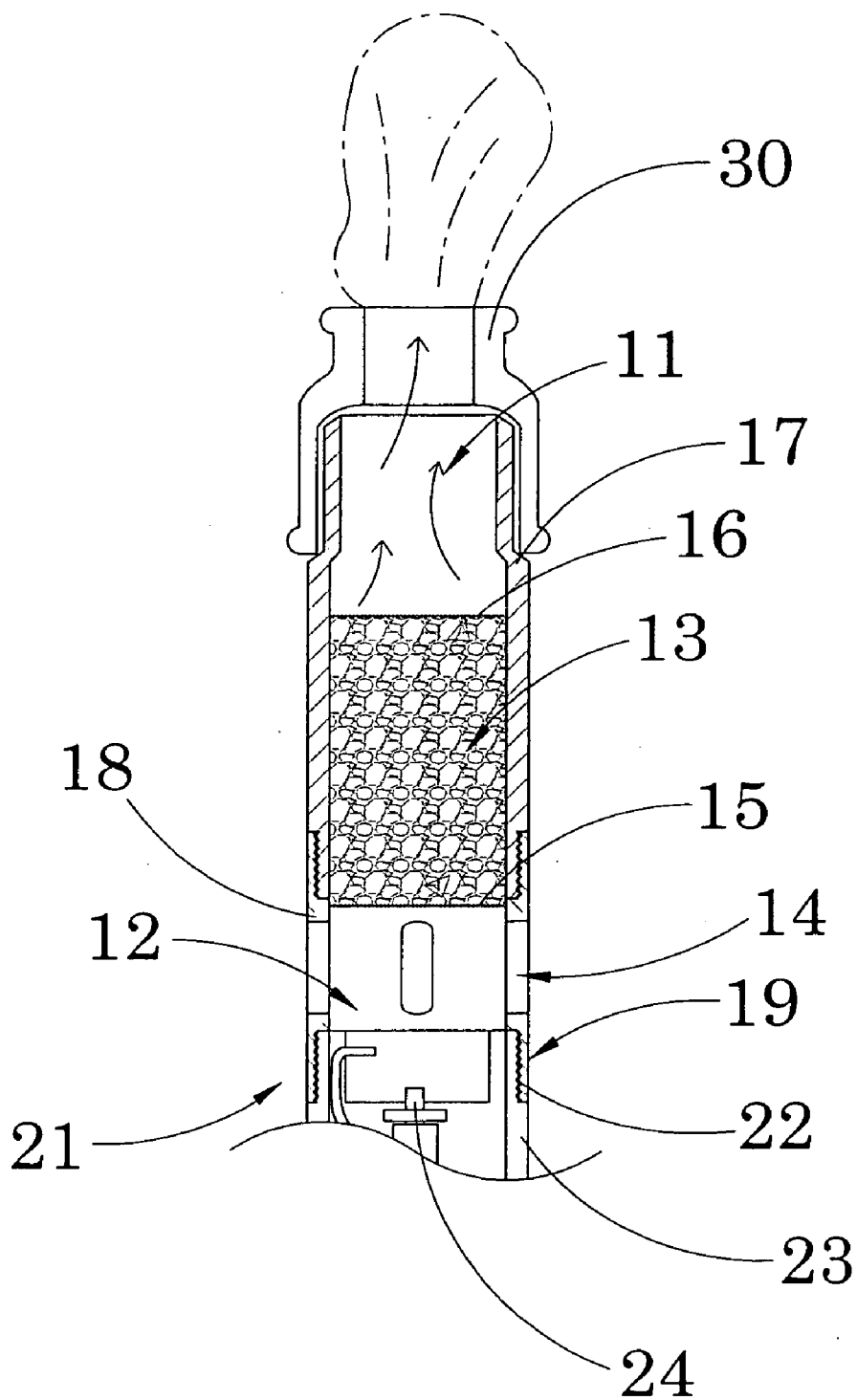


FIG. 3B

SELF-LIGHTING SMOKING TOOL

BACKGROUND OF THE PRESENT INVENTION

[0001] 1. Field of Invention

[0002] The present invention relates to a smoking tool, more particularly to a self-lighting smoking tool, which is a portable smoking tool, incorporating with a lighter such that the user is able to operate the self-lighting smoking tool anytime for smoking purpose without looking for the lighter.

[0003] 2. Description of Related Arts

[0004] A pipe is a common tool for tobacco smoking typically consists of a small chamber for the combustion of the tobacco. Generally, the pipe is commonly made of briar, corncob, meerscham, and clay. People who wants to smoking usually use lighter to lit the tobacco inside the pipe. However, no matter which type of smoking tool is, the smokers must carry a lighter or other lighting tool in order to light the tobacco. Accordingly, the tobacco is stopped burning after a period of time. Therefore, the smoker must re-burn the tobacco by the lighter. The smokers usually have the experience of borrowing other people's lighter to light the tobacco. In the other hand, it is not easy for people to light the tobacco in outdoor especially in a windy condition. Furthermore, there are still several drawbacks of the conventional smoking tool.

[0005] First, the ventilation system of some pipe is not good. Once, the aggressive smokers smoked too quickly, the excess moisture and the heat accumulated in the pipe. Therefore, the temperature of the pipe gradually goes up and become uncomfortable hot. It is extremely dangerous because the unmoral high temperature not only may ruin the pipe, but also make his/her hand burned.

[0006] Second, cleaning the pipe after smoking is a big issue for maximize and extend the life span of the pipe. Some people use a pipe tool to clean out the ash and unburned tobacco. However, in some small pipe or long channel pipe, even using a pipe tool, it is still hard for people to clean the ash and the last bits out. Once, the unburned tobacco and the ash doesn't come out during last clean, the flavor of the cigarette or the tobacco dramatically ruined by the residue element. Moreover, burning the combination of residue and overheated material in pipe may produce some unpredicted poison such that the user may inhale to their lungs, which is harmful to the user's health. Finally, the smokers usually require a tool for adjusting, packing and emptying the tobacco inside the pipe, and a regular supply of pipe cleaners. The volume of the pipe and the tool for cleaning pipe are usually bulky, and hard for people to carry them on hand.

SUMMARY OF THE PRESENT INVENTION

[0007] A main object of the present invention is to provide a self-lighting smoking tool, wherein the self-lighting smoking tool is portable such that the user is able to always carry a self-lighting smoking tool with him for smoking purpose.

[0008] Another object of the present invention is to provide a self-lighting smoking tool, wherein the self-lighting smoking tool increases the model's portability so as to lessen inconvenient owing to not able to carry it on my own.

[0009] Another object of the present invention is to provide a self-lighting smoking tool, wherein the self-lighting smoking tool provides a piezoelectric-type lighter such that the user is able to lighten the smoking tool in outdoor windy condition.

[0010] Another object of the present invention is to provide a self-lighting smoking tool, wherein each of the ventilating slots is adapted not only for releasing excessive heat from the lighter when the flame is generated to the treatment chamber but also for enabling ambient air entering into the treatment chamber when smoke is inhaled at the inhaling end of the inhaler tube.

[0011] Another object of the present invention is to provide a self-lighting smoking tool, wherein the ventilating slots to maintain continuity of enough fresh air supplies.

[0012] Another object of the present invention is to provide a self-lighting smoking tool, wherein the ventilating slots provide a good air circulation system to ensure ambient air entering into the treatment chamber for enhancing the burning of the smoking element therein for spontaneous combustion.

[0013] Another object of the present invention is to provide a self-lighting smoking tool, wherein the inhaler tube comprises a bottom filtering net mounted therein as a bottom wall of the treatment chamber for preventing the smoking element falling to the flame production of the lighter.

[0014] Another object of the present invention is to provide a self-lighting smoking tool, wherein the upper and lower filtering nets are provided at two detachable tubes respectively for easy-cleaning purpose.

[0015] Another object of the present invention is to provide a self-lighting smoking tool, wherein the lighter housing provides a well-insulated area for the smoker to hold so as to prevent the high temperature smoking tool from burning his/her hand.

[0016] Another object of the present invention is to provide a self-smoking tool, wherein the self-lighting smoking tool has its own lighter such that all those troubles to find a lighter while using a smoking tool are now history.

[0017] Another object of the present invention is to provide a self-smoking tool, wherein the upper and the lower filtering net provide a way to circulate the air and ashes prevent from plugging the channel with the ashes.

[0018] Another object of the present invention is to provide a self-smoking tool, wherein the lighter of the self-smoking tool can be replaced by all regular kinds of lighters so as to ensure the self-smoking tool is highly acceptable on market demand.

[0019] Accordingly, in order to accomplish the above objects, the present invention provides a lighter, comprising a portable inhaler tube and a lighter detachably coupling thereto.

[0020] The portable inhaler tube has an inhaling end, an opposed lighter-adapter end, and a treatment chamber for receiving a smoking element therein.

[0021] The lighter comprises a flame producing portion detachably coupling with the lighter-adapter end of the inhaler tube, wherein the lighter is adapted for controllably producing a flame at the flame producing portion towards the treatment chamber to bum the smoking element therein, such that once a smoke is generated, the smoke is inhaled at the inhaling end of the inhaler tube;

[0022] These and other objectives, features, and advantages of the present invention will become apparent from the following detailed description, the accompanying drawings, and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] FIG. 1 is an exploded perspective view of a self-lighting smoking tool according to a preferred embodiment of the present invention.

[0024] FIG. 2 is a sectional view of the self-lighting smoking tool according to the above preferred embodiment of the present invention.

[0025] FIG. 3A is a partial sectional view of a self-lighting smoking tool according to the above preferred embodiment, illustrating the lighter producing a flame at the flame producing portion towards the treatment chamber.

[0026] FIG. 3B is a partial sectional view of a self-lighting smoking tool according to the above preferred embodiment, illustrating the smoke being inhaled at the inhaling end of the inhaler tube.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0027] Referring to FIGS. 1 and 2 of the drawings, a self-lighting smoking tool according to a preferred embodiment of the present invention is illustrated, wherein the self-lighting smoking tool comprises a portable inhaler tube **10** and a lighter **20** detachably coupling with the inhaler tube **10**.

[0028] The inhaler tube **10**, which has an elongated tubular structure, has an inhaling end **11**, an opposed lighter-adapter end **12** coaxially aligned with the inhaling end **11**, and a treatment chamber **13** for receiving a smoking element, such as tobacco, therein.

[0029] The lighter **20** comprises a flame producing portion **21** detachably coupling with the lighter-adapter end **12** of the inhaler tube, wherein the lighter **20** is adapted for controllably producing a flame at the flame producing portion **21** towards the treatment chamber **13** to burn the smoking element therein, as shown in FIG. 3A.

[0030] Once a smoke is generated, the smoke is inhaled at the inhaling end **11** the inhaler tube **10** as shown in FIG. 3B. An important point of this invention is that the self-lighting smoking tool used light iron as its material and is extremely portable such that the user is able to always carry a self-lighting smoking tool with him for smoking purpose. Because of its portability, it totally solved the problems of not being able to carry it on my own. Finally, with it you wouldn't see the smokers borrow the fire to light the cigarette on the street.

[0031] The inhaler tube **10** further contains a plurality of ventilating slots **14** spacedly formed at a surrounding wall at a position closed to the lighter-adapter end **12**, wherein each of the ventilating slots **14** is a through slot not only for releasing excessive heat from the lighter **20** when the flame is generated to the treatment chamber **13** but also for enabling ambient air entering into the treatment chamber **13** when smoke is inhaled at the inhaling end **11** of the inhaler tube **10**. Moreover, the ventilating slots **14** provide a good air circulation system to produce spontaneous combustion, to maintain continuity of enough fresh air supplies, and to ensure that there is a free flow of air inside the self-lighting smoking tool.

[0032] According to the preferred embodiment, the inhaler tube **10** has an elongated structure that the inhaling end **11** is coaxially aligned with the lighter-adapter end **12**. The inhaler tube **10** comprises a bottom filtering net **15** mounted therein as a bottom wall of the treatment chamber **13** for preventing the smoking element falling to the flame producing portion **21** of the lighter **20**. In the other hand, the inhaler tube **10** further comprises an upper filtering net **16** mounted therein as an

upper wall of the treatment chamber **13** for retaining the smoking element between the upper and bottom filtering nets **15**, **16**. Moreover, the upper and lower filtering nets **15**, **16** further provide a way to circulate the air and ashes prevent from plugging the channel with the ashes.

[0033] It is worth to mention that the smoking element can be formed in a tablet or capsule configuration that the smoking element is enclosed by an enclosing net to dispose in the treatment chamber **13**. Therefore, the upper and lower filtering nets **15**, **16** can be omitted.

[0034] The inhaler tube **10** comprises a tubular inhaling guider **17** defining the inhaling end **11** and the treatment chamber **13** thereat, and a tubular lighter guider **18** which is defining the lighter-adapter end **12** thereat and is detachably and coaxially coupling with the inhaling guider **17** end-to-end.

[0035] The ventilating slots **14** are spacedly formed at the surrounding wall of the lighter guider **18** at a position that the ventilating slots **14** are located below the bottom filtering net **15**. The upper and bottom filtering nets **16**, **15** are formed at the inhaling guider **17** and the lighter guider **18** respectively. It is worth to mention that the upper and lower filtering nets **15**, **16** are detached for easily cleaning when the inhaling guider **17** and the lighter guider **18** are detached from each other.

[0036] The inhaler tube **10** has an inner threaded portion **19** provided at the lighter-adapter end **12**, wherein the lighter **20** has an outer threaded portion **22** provided at the flame producing portion **21** to detachably engage the inner thread portion **19** of the inhaler tube **10** so as to coaxially couple the lighter **20** with the inhaler tube **10** in a detachably attaching manner.

[0037] According to the preferred embodiment, the lighter **20** is a piezoelectric-type lighter comprising an elongated lighter casing **23** and a flame nozzle **24** extended to a top end of the lighter casing **23** to define the flame producing portion **21** of the lighter **20**, wherein when the top end of the lighter casing **23** is detachably coupled with the lighter-adapter end **12** of the inhaler tube **10**, the lighter **20** is controllably actuated to produce a torch flame towards the treatment chamber **13** of the inhaler tube **10**. Accordingly, an actuation button **25** is slidably mounted at the lighter casing **23** such that when the actuation button **25** is pressed downwardly, the piezoelectric unit (not shown) is depressed to produce the flame at the flame nozzle **24**. It is worth to mention that when the flame is produced at the flame nozzle **24**, the lighter guider **18** forms a windshield for preventing the flame being blown off.

[0038] The difference between adopting the regular lighter and a piezoelectric-type lighter is that lighting a piezoelectric-type lighter is not restricted by outdoor or bad weather such that the user is able to lighten the smoking tool in outdoor windy condition. Accordingly, the lighter casing **23** provides a well-insulated area for people to hold so as to prevent the high temperature smoking tool from burning his/her hand.

[0039] It is worth to mention that inhaler tube **10** is adapted to incorporate with the conventional lighter, such as disposable lighter, by detachably coupling the lighter-adapter end **12** of the inhaler tube **10** to the conventional lighter. Preferably, the self-lighting smoking tool has its own lighter **20** such that all those troubles to find a lighter while using a smoking tool are now history. Practically, the lighter **20** of the self-smoking tool can be replaced by all regular kinds of lighters

so as to ensure the self-smoking tool is highly acceptable on market demand. In addition, the self-lighting smoking tool has a pen size for carrying.

[0040] According to the preferred embodiment, a self-lighting smoking tool further comprises a detachable mouth-piece **30** detachably coupling with the inhaling end **11** of the inhaler tube **10** for inhaling the smoke thereat.

[0041] One skilled in the art will understand that the embodiment of the present invention as shown in the drawings and described above is exemplary only and not intended to be limiting.

[0042] It will thus be seen that the objects of the present invention have been fully and effectively accomplished. The embodiments have been shown and described for the purposes of illustrating the functional and structural principles of the present invention and is subject to change without departure from such principles. Therefore, this invention includes all modifications encompassed within the spirit and scope of the following claims.

What is claimed is:

1. A self-lighting smoking tool, comprising:
 - a portable inhaler tube having an inhaling end, an opposed lighter-adapter end, and a treatment chamber for receiving a smoking element therein; and
 - a lighter having a flame producing portion detachably coupling with said lighter-adapter end of said inhaler tube, wherein said lighter is adapted for controllably producing a flame at said flame producing portion towards said treatment chamber to burn said smoking element therein, such that once a smoke is generated, said smoke is inhaled at said inhaling end of said inhaler tube.
2. The self-lighting smoking tool, as recited in claim 1, wherein said inhaler tube further contains a plurality of ventilating slots spacedly formed at a surrounding wall at a position closed to said lighter-adapter end, wherein each of said ventilating slots is a through slot not only for releasing excessive heat from said lighter when said flame is generated to said treatment chamber but also for enabling ambient air entering into said treatment chamber when said smoke is inhaled at said inhaling end of said inhaler tube.
3. The self-lighting smoking tool, as recited in claim 2, wherein said inhaler tube has an elongated structure that said inhaling end is coaxially aligned with said lighter-adapter end.
4. The self-lighting smoking tool, as recited in claim 1, wherein said inhaler tube comprises a bottom filtering net mounted therein as a bottom wall of said treatment chamber for preventing said smoking element falling to said flame producing portion of said lighter.
5. The self-lighting smoking tool, as recited in claim 3, wherein said inhaler tube comprises a bottom filtering net mounted therein as a bottom wall of said treatment chamber for preventing said smoking element falling to said flame producing portion of said lighter.
6. The self-lighting smoking tool, as recited in claim 4, wherein said inhaler tube comprises an upper filtering net mounted therein as an upper wall of said treatment chamber for retaining said smoking element between said upper and bottom filtering nets.
7. The self-lighting smoking tool, as recited in claim 5, wherein said inhaler tube comprises an upper filtering net mounted therein as an upper wall of said treatment chamber for retaining said smoking element between said upper and bottom filtering nets.
8. The self-lighting smoking tool, as recited in claim 1, wherein said inhaler tube comprises a tubular inhaling guider defining said inhaling end and said treatment chamber thereat, and a tubular lighter guider which is defining said lighter-adapter end thereat and is detachably and coaxially coupling with said inhaling guider end-to-end.
9. The self-lighting smoking tool, as recited in claim 5, wherein said inhaler tube comprises a tubular inhaling guider defining said inhaling end and said treatment chamber thereat, and a tubular lighter guider which is defining said lighter-adapter end thereat and is detachably and coaxially coupling with said inhaling guider end-to-end.
10. The self-lighting smoking tool, as recited in claim 9, wherein said ventilating slots are spacedly formed at said surrounding wall of said lighter guider at a position that said ventilating slots are located below said bottom filtering net.
11. The self-lighting smoking tool, as recited in claim 10, wherein said upper and bottom filtering nets are formed at said inhaling guider and said lighter guider respectively.
12. The self-lighting smoking tool, as recited in claim 1, wherein said inhaler tube has an inner threaded portion provided at said lighter-adapter end, wherein said lighter has an outer threaded portion provided at said flame producing portion to detachably engage with said inner thread portion of said inhaler tube so as to coaxially couple said lighter with said inhaler tube.
13. The self-lighting smoking tool, as recited in claim 11, wherein said inhaler tube has an inner threaded portion provided at said lighter-adapter end, wherein said lighter has an outer threaded portion provided at said flame producing portion to detachably engage with said inner thread portion of said inhaler tube so as to coaxially couple said lighter with said inhaler tube.
14. The self-lighting smoking tool, as recited in claim 1, wherein said lighter, which is a piezoelectric-type lighter, comprises an elongated lighter casing and a flame nozzle extended to a top end of said lighter casing to define said flame producing portion of said lighter, wherein when said top end of said lighter casing is detachably coupled with said lighter-adapter end of said inhaler tube, said lighter is controllably actuated to produce a torch flame towards said treatment chamber of said inhaler tube.
15. The self-lighting smoking tool, as recited in claim 13, wherein said lighter, which is a piezoelectric-type lighter, comprises an elongated lighter casing and a flame nozzle extended to a top end of said lighter casing to define said flame producing portion of said lighter, wherein when said top end of said lighter casing is detachably coupled with said lighter-adapter end of said inhaler tube, said lighter is controllably actuated to produce a torch flame towards said treatment chamber of said inhaler tube.
16. A self-lighting smoking tool, comprising a portable inhaler tube having an inhaling end, an opposed lighter-adapter end, and a treatment chamber for receiving a smoking element therein, wherein said inhaler tube has an elongated structure that said inhaling end is coaxially aligned with said lighter-adapter end, wherein said lighter-adapter end of said inhaler tube is adapted for detachably coupling with a flame producing portion of a lighter, such that when said lighter is actuated to produce a flame at said flame producing portion towards said treatment chamber to burn said smoking element therein, a smoke is inhaled at said inhaling end of said inhaler tube.

17. The self-lighting smoking tool, as recited in claim **16**, wherein said inhaler tube further contains a plurality of ventilating slots spacedly formed at a surrounding wall at a position closed to said lighter-adapter end, wherein each of said ventilating slots is a through slot not only for releasing excessive heat from said lighter when said flame is generated to said treatment chamber but also for enabling ambient air entering into said treatment chamber when said smoke is inhaled at said inhaling end of said inhaler tube.

18. The self-lighting smoking tool, as recited in claim **17**, further comprising a detachable mouthpiece detachably coupling with said inhaling end of said inhaler tube for inhaling said smoke thereat.

19. The self-lighting smoking tool, as recited in claim **18**, wherein said inhaler tube comprises a bottom filtering net mounted therein as a bottom wall of said treatment chamber for preventing said smoking element falling to said flame

producing portion of said lighter, and an upper filtering net mounted therein as an upper wall of said treatment chamber for retaining said smoking element between said upper and bottom filtering nets.

20. The self-lighting smoking tool, as recited in claim **5**, wherein said inhaler tube comprises a tubular inhaling guider defining said inhaling end and said treatment chamber thereat, and a tubular lighter guider which is defining said lighter-adapter end thereat and is detachably and coaxially coupling with said inhaling guider end-to-end, wherein said ventilating slots are spacedly formed at said surrounding wall of said lighter guider at a position that said ventilating slots are located below said bottom filtering net, wherein said upper and bottom filtering nets are formed at said inhaling guider and said lighter guider respectively.

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