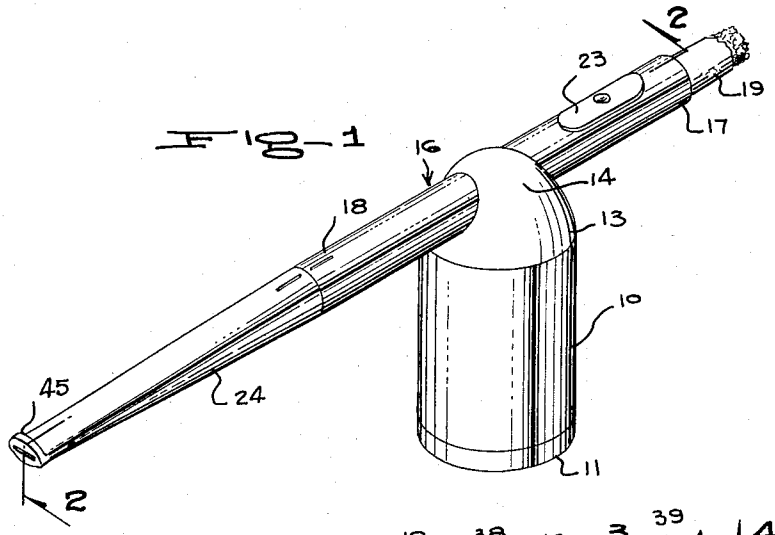
Sept. 10, 1957 WENSAN WANG 2,805,670

SMOKING DEVICE

Filed Nov. 9, 1956

Fig-1



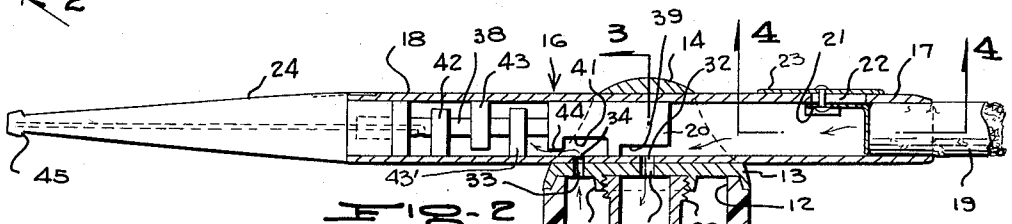


Fig-2

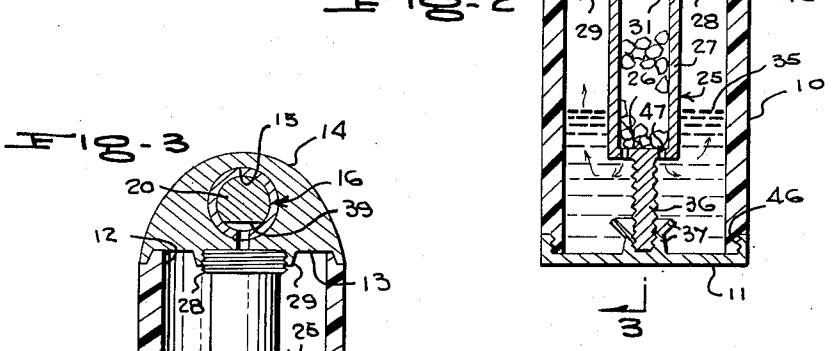
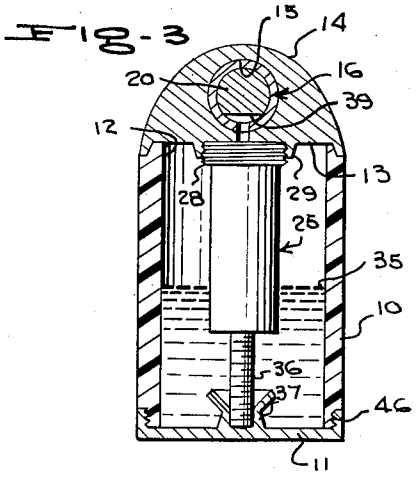


Fig-3



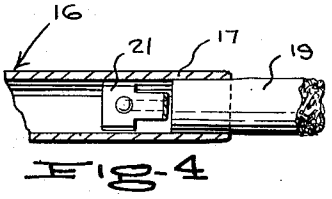


Fig-4

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SMOKING DEVICE

Wensan Wang, Tokyo, Japan

Application November 9, 1956, Serial No. 621,407

4 Claims. (Cl. 131—207)

This invention relates to a smoking device of the water reservoir type.

An object of the present invention is to provide a smoking device in which said cover for the reservoir supports the passageway for conveying the smoke from the generating end to the discharge end and means for condensing and removing tar and tar constituents from the smoke.

Another object of the present invention is to provide a smoking device in which valve means are provided in the passageway for controlling the flow of smoke from the generating end to the discharge end of the smoke conveying passageway.

A further object of the present invention is to provide a smoking device which is simple in structure, and is particularly efficient in operation and commercially feasible.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawings, in which:

Figure 1 is a perspective view of the smoking device of the present invention;

Figure 2 is a sectional view taken on the line 2—2 of Figure 1;

Figure 3 is a sectional view taken on the line 3—3 of Figure 2; and

Figure 4 is a sectional view taken on the line 4—4 of Figure 2.

Referring in greater detail to the drawing in which like numerals indicate like parts throughout the several views, the smoking device according to the present invention comprises an upstanding body **10** having a closed bottom **11** and an open top **12**. A cover **13** closes the open top **12** of the body **10** and a dome-shaped head **14** is positioned exteriorly of and projects upwardly from the cover **13**.

The dome-shaped head **14** has a passageway **15** extending transversely therethrough and a hollow tube **16** has the intermediate part fixedly positioned in the passageway **15** and has a portion adjacent one end exteriorly of and on one side of the head **14** and has a portion adjacent the other end exteriorly of and on the other side of the head **14**, the portions being indicated by the reference numerals **17** and **18**.

The portion **17** of the tube **16** is adapted to hold a smoke producing article, such as a cigarette **19**, and is provided with an ejector embodying a slide element **21** slidably mounted in the portion **17** in a slot **22** provided therein and having a finger grip portion exteriorly of the tube portion **17**, as indicated by the reference numeral **23** in Figure 2.

The other portion **18** of the tube **16** has a bit **24** mounted therein for rotation about the longitudinal axis of the tube **16**.

A receptacle **25** which is adapted to contain a charge of adsorbent material such as silica gel and which includes a bottom **26** and an upstanding wall **27** extending about the perimeter of the bottom **26** is positioned within the body **10** and has a threaded part **28** of the wall **27** adjacent the top dependingly supported in the under face of the cover **13** as by the part **28** being in threaded engagement with an internally threaded collar **29** depending from the under face of the cover **13**.

The cover **13** has an aperture **31** in registry with an aperture **32** provided in the tube **16** connecting the interior of the tube **16** with the interior of the receptacle **25** and has another aperture **33** in registry with a second aperture **34** provided in the tube **16** connecting the interior of the tube **16** with the interior of the body **10**.

The bottom **26** of the receptacle **25** is provided with a plurality of apertures **47** connecting the interior of the receptacle **25** in communication with the interior of the body **10**.

The body **10** and the bottom **11** are preferably formed of two pieces threadedly and detachably secured together as at **46**, so that the body **10** and bottom **11** may be easily taken apart for cleaning.

The interior of the receptacle **25** adjacent to the cover aperture **31** forms a condensing chamber for the tars and tar vapors produced in the tobacco smoke and the interior of the body **10** adjacent the cover aperture **33** forms a further condensing chamber for the tar and tar vapors and other vapors that may not be removed by the adsorbent material in the receptacle **25** or by the charge of water in the lower portion of the body **10**. Preferably, the level of the charge of the water in the body **10** should be in the vicinity of a point above the receptacle bottom **26**, as indicated by a dotted line in Figure 2 and identified by the reference numeral **35**.

Means is provided fixedly securing the receptacle bottom **26** in spaced relation to the body bottom **11** and comprises an upright threaded post **36** having its upper end formed integrally with the receptacle bottom **26** and having its lower end threadedly secured in a threaded socket **37** formed in the central portion of the body bottom **11**.

Valve means is provided in the bit **24** for establishing communication between the other end portion **18** and the one end portion **17** of the tube **16** through the passageway **15**, the receptacle **25**, and the body **10**. Such means includes a plug **20** which is carried by the free end of an extension **38** which projects into the interior of the tube **16** and is fixedly secured to the adjacent end of the bit **24**. The plug **20** is provided with a first cut-away portion or flat **39** normally in registry with the apertures **31** and **32** provided in the cover **13** and in the tube **16** respectively, and with a second cut-away portion or flat **41** normally in registry with the apertures **33** and **34** similarly provided in the cover **13** and tube **16**. Upon rotation of the bit **24** within the tube **16**, the flats **39** and **41** move from their normal position to a position in which the plug **20** closes the aforesaid registering apertures **31** and **32**, and **33** and **34**, respectively.

The bit extension **38** is provided with a plurality of spaced collars, as indicated by the reference numerals **42**, **43** and **43'**, each having oppositely positioned flats providing a tortuous passage for the tobacco smoke received from the interior of the body **10** through the passage **44** provided in the adjacent end of the plug **20**. The bit **24** is provided with a mouthpiece portion **45** of conventional configuration.

In use, the body **10** is removed from the cover **13** by unscrewing the post **36** from the socket **37**. The receptacle **25** may then be detached from the collar **29** and a charge of adsorbent material, such as silica gel or the like, placed within the receptacle **25**. The receptacle **25** is then replaced within the collar **29** and screwed up tight. The body **10** is next provided with a charge of water and is replaced with its upper end abutting the cover **13** and with the post **36** threadedly secured into

the socket **37**. A smoke producing article, such as a cigarette, is then placed in the portion **17** of the tube **16** and is ignited. When the cigarette has been consumed, it is ejected from the open end of the tube portion **17** by moving the ejector slide element **21** toward the open end of the tube portion **17**.

During the smoking of the cigarette the smoke is drawn through the aligned apertures **31** and **32** into the interior of the receptacle **25** where its tar and tar vapors are condensed upon the walls of the receptacle **25** and are adsorbed by the adsorbent material placed within the receptacle **25**. The smoke is then passed through the apertures **47** into the body of water contained within the body **10** and upwardly through the aligned apertures **33** and **34** into the space formed by the plug **20** adjacent the flat **41** and thence through the passageway **44** into the tortuous passage formed by the collars **42**, **43** and **43'** on the extension **38** and into the bit **24** from whence it is drawn into the mouth of the smoker.

It will be found that the smoking device according to the present invention provides a cool smoke having most, if not all, of the tars and tar vapors removed therefrom. The smoking device, according to the present invention, is easily taken apart for cleaning and is as easily reassembled.

What is claimed is:

1. In a smoking device, an upstanding body having a closed bottom and an open top, a cover closing the open top of said body, a dome-shaped head exteriorly of and projecting upwardly from said cover, said head having a passageway extending transversely therethrough, a hollow tube having the intermediate part fixedly positioned in said passageway and having one portion adjacent one end exteriorly of and on one side of said head and having the other portion adjacent the other end exteriorly of and on the other side of said head, a receptacle adapted to contain a charge of adsorbent material and including a bottom and an upstanding wall extending around the perimeter of the bottom positioned within said body and having the part of the wall adjacent the top dependingly supported in the undersurface of said cover, said cover and tube having first registering apertures connecting the interior of said tube in communication with the interior of said receptacle and second registering apertures connecting the interior of said tube in communication with the interior of said body, means fixedly securing said receptacle bottom in spaced relation to said bottom body, there being an aperture extending through said receptacle bottom and in communication with the interior of said body, and means positioned in the intermediate part of said tube between the first and second registering apertures for establishing communication between the other end portion and the one end portion of said tube through said passageway, receptacle, and body.

2. The smoking device, according to claim 1, wherein the said one end portion of said tube is adapted to receive a smoke producing article, and the said other end portion of said tube is adapted to receive bit.

3. The smoking device, according to claim 1, wherein the said one end portion of said tube is adapted to receive a smoke producing article, and which includes in addition a bit mounted in said other end portion of said tube for rotation about the longitudinal axis thereof, said bit having said valve means as a part thereof.

4. The smoking device, according to claim 1, wherein the part of the receptacle wall adjacent the top is dependingly and detachably supported in a collar depending from the underface of said cover.

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