CIGARETTE HOLDER FOR SMOKE DILUTION

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There is provided a smoke mouthpiece (1) for the dilution of smoke from a smoking element, such as a cigarette (11), to an exhaust region (7), comprising an internal longitudinal channel with openings at both ends and divided into 5 channel sections, wherein a first channel section (2) is provided in the first end of the smoking mouthpiece (1) with an opening for insertion of the smoking element (11), where a second channel section (3) for holding the smoking element (11) is in axial extension of the first channel section (2) with a smaller cross-section than the first channel section (2), where a third channel section (4) is in axial extension of the second channel section (3) to stop the end of the cigarette, where a fourth channel section (5) for diluting the smoke of the smoking element is in axial extension of the third channel section (4), where a fifth channel section (6) is provided at the other end of the smoking mouthpiece (1) in axial extension of the fourth channel section (5), wherein one or more air channels (8), (8'), (8") are provided in the one or more channel sections for diluting the smoke of the smoking element with atmospheric air, said air channel(s) (8), (8'), (8") ensure passage of atmospheric air from the first channel section (2) to the fourth channel section (5) when the smoking element (11) is in place in the second channel section.
CIGARETTE HOLDER FOR SMOKE DILUTION

FIELD OF THE INVENTION

[0001] The present invention relates to an anti-smoking device for the dilution of inhaled smoke from a cigarette thereby reducing the intake of cigarette smoke into the lungs of a smoker. Specifically, the device includes an internal longitudinal channel with openings at both ends and divided into 5 channel sections where a first channel section is shaped in the first end of the anti-smoking device for insertion of a cigarette and where a second channel section, is in axial extension of the first channel section, with a smaller cross section than the first channel section, for retaining the cigarette, and a third channel section, is in axial extension of the second channel section, to stop the end of the cigarette, where a fourth channel section, is in axial extension of the third channel section for smoke dilution, and a fifth channel section that is provided in the other end of the cigarette holder.

BACKGROUND OF THE INVENTION

[0002] Many smokers die from smoke related diseases. This is because the smoke contains many harmful substances and particles, such as nicotine and tar, consumed during smoking. Therefore more and more smokers wish to reduce or quit smoking.

[0003] When people, and in particular young people, start smoking it may be due to several reasons. These may be pressure from other young people, curiosity, rebellion or influence from the media. When people have smoked for a while they create a physical and psychological dependence on tobacco or rather the nicotine in tobacco that acts as a stimulant. Also habits and norms related to smoking arise. Smoking becomes a daily reward and ultimate it becomes a permanent smoking pattern.

[0004] The main requirement for a smoker to reduce or quit smoking is the motivation. The current experience suggests that in addition to motivation further assistance may be needed. The most popular tools for giving up smoking include various nicotine-containing products that are often combined with psychological counselling.

[0005] Furthermore, there are some cigarette holders that can hold cigarettes and dilute the inhaled smoke.

[0006] Nicotine gum is an example of a nicotine preparation available on the market and which serves as substitute for e.g. cigarettes, wherein the nicotine is absorbed through the mouth. During treatment with nicotine gum the smoker’s addiction is compensated with nicotine in the chewing gum for a longer period, such as 2-4 months. In this way, the smoker slowly gets rid of most smoking habits without being tempted to light a cigarette as a result of nicotine dependence. After that period it is time to get rid of the nicotine dependence, where nicotine gum and thus the amount of nicotine is decreased in a further period until a permanent stop can be achieved.

[0007] Use of nicotine products has the disadvantage that there is a risk of various side effects.

[0008] Smoking mouthpieces are described in the patent literature.

[0009] One kind of smoke mouthpiece is disclosed in the patent literature, e.g. in GB 1,026,322. This mouthpiece is affixed as an extension for e.g. a cigarette. The mouthpiece is composed of 2 main parts, a cylindrical hollow member, which subsists in 2 coherent cylindrical holes with different diameters, and a cigarette holder. The cigarette holder is located in the first cylindrical hole, which is provided with 8 interior open longitudinal air channels or grooves that constitute closed air ducts when the cigarette holder is in place. The air ducts extend into the second cylindrical hole where the smoke from the cigarette is mixed with air from air ducts. The second cylindrical hole is made in a size and extent that a portion of the diluted smoke condenses in the mouthpiece before the smoke is finally inhaled by the smoker. In the end of the mouthpiece where the cigarette holder is introduced the inlet is sloped and conical in order not to obstruct the air intake into the air channels by the cigarette holder. This patent teaches that the mouthpiece can reduce the smoker’s tar intake by up to 80% due to the intake of atmospheric air through the 8 air ducts. Furthermore it is stated that non-harmful aromatic tar is condensed in the mouthpiece, i.e. inside the second cylindrical hole, thereby preserving some of the cigarette taste.

[0010] A major drawback of this mouthpiece is that the shape of the mouthpiece does not cope with the smoker covering the air intake by obstructing the inlet with e.g. his finger resulting in an insufficient and inaccurate quantity of atmospheric air entering the 8 air ducts.

[0011] A disadvantage of this mouthpiece is that after insertion of the cigarette the mouthpiece has a relatively large extent, which is necessary for the aforementioned aromatic tar to condense in the mouthpiece. This renders the mouthpiece large and clumsy.

[0012] Another disadvantage of this mouthpiece is that the mouthpiece becomes contaminated with the aforementioned aromatic tar requiring frequent cleaning of the mouthpiece.

[0013] A further disadvantage of this mouthpiece is that the mouthpiece is designed exclusively to reduce the smoker’s intake of tar by up to 80% and thus not necessarily designed for use in smoke quittance. More smoke mouthpieces with different dilution ratios are needed.

[0014] Another smoke mouthpiece is disclosed in WO2008099147, namely a smoking mouthpiece consisting of a hollow cylinder with inner longitudinal and throughgoing grooves forming open air channels. The cigarette is fitted between the grooves, which create sealed air ducts. By inhaling atmospheric air through the closed air ducts a dilution is obtained.

[0015] A significant disadvantage of this mouthpiece is that the shape of the mouthpiece does not prevent the smoker from covering the air inlets with the fingers or accidentally pushing the cigarette into the open air channels hampering an accurate and desirable amount of air to pass through the air ducts.

[0016] A significant disadvantage of this mouthpiece is that the shape of the mouthpiece does not prevent the smoker from covering the open air channels in the exhaust area of the mouthpiece, with e.g. the lips, hampering an accurate and desirable amount of air to pass through the air ducts.

[0017] A disadvantage of this mouthpiece is that the shape of the mouthpiece and the construction of ducts do not take into account that different brands of cigarettes may have a small but significant difference in cross section, which means that the same smoke mouthpiece may give rise to different smoke dilution dependent on the cigarette brand.

[0018] A disadvantage of this mouthpiece is that the exit of the mouthpiece has a relatively large cross section. When desiring a high degree of smoke dilution large quantities of atmospheric air are inhaled through the air channels. A rela-
tively large cross section means that the mouthpiece gets a relatively small suction resistance. A user survey has shown that a relatively small suction resistance is undesirable, since it does not feel like an ordinary cigarette, which gives a relatively large suction resistance.

[0019] It appears from the following that the smoking mouthpiece according to the present invention is significantly different from the smoking mouthpieces described in the prior art documents GB 1,026,322 and WO 2008099147, since the present smoking mouthpiece is not affected by the position of the smoker’s fingers or lips, it does not need removal of tar and nicotine, is more discrete and simple in its construction, can be easily extended to multiple mouthpieces in a series of different smoke dilution ratios, while maintaining a sufficiently large suction resistance.

[0020] It is therefore an object of the present invention to provide a smoke mouthpiece fitted to a smoking element, such as a cigarette, which may dilute the smoke from the cigarette, including tar and nicotine, by intake of atmospheric air, while providing a more appropriate solution to the aforementioned drawbacks of the prior art smoking mouthpieces.

[0021] In this context it is an object of the present invention to provide:

[0022] A smoke mouthpiece that preserves the flow of atmospheric air, and thus smoke dilution irrespective of unintentional disturbance by the smoker at the outlet and inlet of the mouthpiece.

[0023] A smoke mouthpiece that has a discrete appearance and a relatively small extension of the cigarette.

[0024] A smoke mouthpiece, which when applied, does not accumulate considerable amounts of smoke, including tar and nicotine, and therefore does not require frequent cleaning.

[0025] A smoke mouthpiece, which is of simple construction, easy to produce industrially and can be manufactured as one part.

[0026] A smoke mouthpiece that can be used for e.g. smoking reduction or quittance, which may comprise one or more mouthpieces in a series of different dilution ratios, while maintaining a sufficient suction resistance.

SUMMARY OF THE INVENTION

[0027] The present invention provides a smoke mouthpiece (1) for the dilution of smoke from a smoking element, such as a cigarette (11), to an exhaust region (7), comprising an internal longitudinal channel with openings at both ends and divided into 5 channel sections, wherein a first channel section (2) is provided in the first end of the smoking mouthpiece (1) with an opening for insertion of the smoking element (11), where a second channel section (3) for holding the smoking element (11) is in axial extension of the first channel section (2) with a smaller cross-section than the first channel section (2), where a third channel section (4) is in axial extension of the second channel section (3) to optionally stop the end of the cigarette, where a fourth channel section (5) for diluting the smoke of the smoking element is in axial extension of the third channel section (4), where a fifth channel section (6) is provided at the other end of the smoking mouthpiece (1) in axial extension of the fourth channel section (5), wherein one or more air channels (8), (8'), (8") are provided in the one or more channel sections for diluting the smoke of the smoking element with atmospheric air, said air channel(s) (8), (8'), (8") ensure passage of atmospheric air from the first channel section (2) to the fourth channel section (5) when the smoking element (11) is in place in the second channel section.

[0028] In a preferred embodiment one or more air channels (8), (8'), (8") are provided through the second channel section (3) and the third channel section (4), said air channel(s) (8), (8'), (8") open towards the first channel section (2) and the fourth channel section (5).

[0029] In another preferred embodiment one or more air channels (8), (8'), (8") are provided through the second channel section (3), said air channel(s) (8), (8'), (8") open towards the first channel section (2) and the third channel section (4).

[0030] In one embodiment one or more air channels (8') constitute longitudinal openings, designed as depressions or grooves on the inside of one or more channel section(s).

[0031] In a preferred embodiment one or more air channels (8) are closed and hence take the form of holes.

[0032] In one embodiment of the present invention one or more air channels (8") entirely penetrate the mouthpiece (1) perpendicular to the longitudinal axis of the mouthpiece (1).

[0033] In one embodiment one or more air channels (8), (8') and (8") are hermetically closed with a suitable material, such as wood, plastic, rubber, metal or the like.

[0034] In one embodiment the outer shape of the smoke mouthpiece (1) is cylindrical and/or oval and/or conical. Preferably the first channel section (2), the second channel section (3), the second channel section (4), the fourth channel section (5) and/or the fifth channel section (6) is cylindrical, oval or conical. The present invention is also directed to channel sections and mouthpieces with other shapes.

[0035] In another embodiment the inside of the second channel section (3) is rounded or sloped (9) at the transition to the first channel section (2), for easier insertion of the smoking element (11) in the second channel section (3). In an alternative embodiment one or more edges on the inside of the fourth channel section (5) are rounded to reduce smoke residuals. In a specific embodiment the smoking mouthpiece (1) is surface treated and/or dyed.

[0036] In one embodiment the fifth channel section (6) has a cross section of approx. 0.01 to 8.0 mm², a preferred cross-section of approx. 0.2 to 1.8 mm², and a most preferred cross-section of approx. 0.5 to 1.1 mm². In another embodiment the smoking mouthpiece (1) has a longitudinal extent of approx. 7 to 45 mm, a preferred extent of approx. 15 to 35 mm, and a most preferred extent of approx. 20 to 27 mm.

[0037] In a further embodiment the smoking mouthpiece (1) is included in a series of several smoking mouthpieces having different smoke dilution ratios.

[0038] A smoke mouthpiece (1) according to this invention and as described above provides a smoke mouthpiece (1), which is e.g. not prone to accidental smoke dilution unintentionally disturbed by the smoker, which does not require frequent cleaning, is simple to manufacture, and which has a sufficient suction resistance.

BRIEF DESCRIPTION OF THE DRAWINGS

[0039] In the following the invention will be explained with reference to the accompanying drawings, where:

[0040] FIG. 1 shows a cross section of a smoke mouthpiece according to the invention with closed air ducts in the form of holes.

[0041] FIG. 2 shows a cross section of the smoke mouthpiece shown in FIG. 1 drawn at line A,
FIG. 3 shows a cross section of a smoke mouthpiece according to the invention with open air ducts configured as depressions or grooves.

FIG. 4 shows a cross section of the smoke mouthpiece shown in FIG. 3 drawn at line B.

FIG. 5 shows a cross section of a smoke mouthpiece according to the invention with one through-going air channel perpendicular to the longitudinal axis of the smoke mouthpiece.

FIG. 6 shows a cross section of a smoke mouthpiece according to the invention with closed air ducts, in the form of holes, fitted with a smoking element having a filter.

FIG. 7 shows a cross section of the smoking mouthpiece fitted with a smoking element as shown in FIG. 6, drawn at line C.

DETAILED DESCRIPTION OF THE INVENTION

In FIG. 1 there is shown a cross section of a smoke mouthpiece (1) for the dilution of smoke from a smoking element, such as a cigarette (11), to an exhaust region (7), comprising an internal longitudinal channel with openings at both ends and divided into 5 channel sections, wherein a first channel section (2) is provided in the first end of the smoking mouthpiece (1) with an opening for insertion of the smoking element (11), where a second channel section (3) for holding the smoking element (11) is in axial extension of the first channel section (2) with a smaller cross-section than the first channel section (2), where a third channel section (4) is in axial extension of the second channel section (3), where a fourth channel section (5) for diluting the smoke of the smoking element is in axial extension of the third channel section (4), where a fifth channel section (6) is provided at the other end of the smoking mouthpiece (1) in axial extension of the fourth channel section (5), wherein one or more air channels (8), (8), (8), (8) are provided in the one or more channel sections for diluting the smoke of the smoking element with atmospheric air, said air channel(s) (8), (8), (8) ensure passage of atmospheric air from the first channel section (2) to the fourth channel section (5) when the smoking element (11) is in place in the second channel section.

In FIG. 1 there is shown four closed air ducts (8), in the form of holes, provided longitudinally through the second channel section (3) and the third channel section (4), said air channels (8) are open to the first channel section (2) at one end and open to the fourth channel section (5) at the other end to ensure passage of air from the first channel section (2) to the fourth channel section (5).

FIG. 2 shows a cross section of the smoking mouthpiece (1) in FIG. 1, drawn at line A. The figure shows the four closed air ducts (8) and the second channel section (3).

In FIG. 3 there is shown a cross section of a smoke mouthpiece (1), wherein the third channel section (4) and the fourth channel section (5) have the same cross section and in which two longitudinal open air channels (8) are provided designed as grooves on the inside of the second channel section (3), said air channels (8) being open at one end to the first channel section (2) and open to the third channel section (4) at the other end ensuring passage of atmospheric air from the first channel section (2) to the fourth channel section (5) when the smoking element (11) is in place in the second channel section.

FIG. 4 shows a cross section of the smoking mouthpiece (1) of FIG. 3, drawn at line B. The figure shows the 2 open air channels (8) and the second channel section (3).

Application and Effect of the Invention

In FIG. 5 there is shown a cross section of a smoke mouthpiece (1) according to the invention with one longitudinal duct (8) penetrating the smoke mouthpiece (1) perpendicular to the longitudinal axis of smoking mouthpiece (1), said air channel (8) ensuring safe passage of air from the first channel section (2) to the fourth channel section (5) when the smoking element (11) is in place in the second channel section.

One benefit of the smoking mouthpieces (1) shown in FIGS. 1 to 5 is that these are relatively simple to manufacture.

In FIG. 6 the smoking mouthpiece (1) from FIG. 1 is shown, wherein a smoking element (11), such as a cigarette (11) with a filter (12), is attached. The smoke mouthpiece (1) is first pulled over the cigarette filter (12), which is achieved by introducing cigarette filter (12) through the first channel section (2), further into the second channel section (3), which provides a friction against the cigarette filter (12) until the cigarette filter (12) contacts the third channel section (4) having a different cross section and/or shape than the second channel section (3), whereby the interface between the two channel sections will prevent further insertion of the cigarette (11). The second channel section (3) is dimensioned so that the cigarette filter (12) provides resistance against the second channel section (3) by the application so that the cigarette filter (12) is trapped in the smoke mouthpiece (1) to such an extent that cigarette (11) cannot fall out under normal use.

In an embodiment wherein air ducts are provided with open air channels (8), see FIG. 3 and FIG. 4, the second channel section (3) is dimensioned so that the cigarette filter (12) fits the second channel section (3) without the cigarette filter material (12) extend into the open air channels (8) and thus results in undesired accidental clogging.

In FIG. 7 there is shown a cross-section of the smoking mouthpiece (1) fitted with a smoking element with filter as shown in FIG. 6 drawn at line C. The figure shows the four closed air ducts (8) and the cigarette filter (12).

During smoking the smoker sucks with his lips contacting the smoking mouthpiece (1) and beneficially the smoking mouthpiece (1) is configured in such a longitudinal extent that the smoker can hold on mouthpiece (1) in a pleasant way.

With reference to the smoking mouthpiece (1) shown in FIGS. 1 and 6 atmospheric air is drawn through the first channel section (2), i.e. in the region between the first channel section (2) and the cigarette (11), and further into the closed air ducts (8) in the second channel section (3), the third channel section (4) and further into the fourth channel section (5), where the air is mixed with smoke from the cigarette (11), emanating from the third channel section (4) so that the smoke is diluted and finally leaving the fifth channel section (6) into the smoke exhaust region (7), i.e. into the smoker’s mouth.

Further Description of the Invention

Reference is made to the mouthpiece (1) shown in FIGS. 1 and 6.

The first channel section (2) is provided with a cross section that is larger than the cross section of the second channel section (3) and thus the smoking element (11). This is done in such a degree that the cross-section of the air region
between the first channel section (2) and the second channel section (3) is so large that the volume of air to the inlet of the closed air channels (8) in the second channel section (3) can not be disturbed in the event that the smoker inadvertently, e.g. with his fingers, covers the region around the atmospheric air intake (10) in the mouthpiece (1). The first channel section (2) extends longitudinally to such an extent that the closed air ducts (8) in the second channel section (3) are not accidentally blocked, e.g. by the smoker’s fingers or any Compressed cigarette material.

[0061] The advantage of the aforementioned optimal dimensioning of the cross section and the extent of the first channel section (2) is that the smoker does not inadvertently disturb the air intake and thus the smoke dilution with e.g. his fingers.

[0062] The advantage of a larger cross section of the first channel section (2) relative to the cross section of the second channel section (3) and the smoking element (11), is also that the smoking mouthpiece (1) is easy to fit with the smoking element (11), the latter being of considerably smaller dimension.

[0063] To further facilitate the introduction of the smoking element (11) into the smoking mouthpiece (1) the second channel section (3) may be rounded or sloped (9) at the transition to the first channel section (2).

[0064] The cross-section of the second channel section (3) is configured such that the cigarette filter (12) provides resistance against the second channel section (3) by its insertion so that the cigarette filter (12) stays in place under normal use.

[0065] In an advantageous design the second channel section (3) is made e.g. oval as shown in the figure but with the same section. This allows safe fixation of various brands of cigarettes with small differences in cross-sectional area without significantly changing cigarette suction resistance.

[0066] In an embodiment that is not shown the second channel section (3) is configured e.g. conically, which allows safe fixation of various brands of cigarettes with small differences in cross-sectional area.

[0067] The third channel section (4) acts as a stop for the smoking element (11) when in place, and also as smoke exit from the smoking element (11). The stop is achieved in that the third channel section (4) is configured with a smaller cross-sectional area or with a different shape different from the second channel section (3). The longitudinal extent of the third channel section (4) is made relatively short to avoid deposition/condensation of significant quantities of smoke in this section and to make the smoke mouthpiece (1) as unobtrusive as possible.

[0068] In the fourth channel section (5) the smoke from the third channel section (4) is mixed with the atmospheric air from the closed air ducts (8), which dilute the smoke. The longitudinal extent of the fourth channel section (5) is made relatively short to avoid deposition/condensation of significant quantities of smoke in this section and to make the smoke mouthpiece (1) as unobtrusive as possible.

[0069] Advantageously one or more edges on the inside of the fourth channel section (5) are rounded to minimize deposition of smoke residuals.

[0070] In a preferred embodiment the third channel section (4) and the fourth channel section (5) have the same cross section (see also the example in FIG. 3). The cross-section is designed differently than the cross section of the second channel section (3), and in such a way that the third and fourth channel section will act as a stop for cigarette and also overlap and be joined by the air ducts (8), which are only provided in the second channel section (3). Said air channels (8), is at one end open to the first channel section (2) and at the other end open to the third channel section (4), and ensure passage of air from the first channel section (2) to the fourth channel section (5).

[0071] The advantage of an optimal sizing of the third channel section (4) and the fourth channel section (5) is that significant quantities of smoke are not deposited/condensed in the smoke mouthpiece (1), and that the smoking mouthpiece (1) has a short longitudinal extent, and thus becomes discrete.

[0072] The fifth channel section (6) constitutes the opening for diluted exhaust smoke before entering the smoker’s mouth. The size and design of the cross section of the fifth channel section (6) is extremely important because this section is decisive for the suction resistance through the smoke mouthpiece (1). A relatively small cross-section gives a relatively large suction resistance, even at high smoke dilution ratios, and the cross section is dimensioned optimally in such a way that the suction resistance approximately equals the suction resistance of a cigarette. In an advantageous embodiment the channel section (6) has a cross section of approx. 0.01 to 8.0 mm², a preferred cross section of approx. 0.2 to 1.8 mm², at preferred cross section of approx. 0.5 to 1.1 mm². The longitudinal extent of the fifth channel section (6), configured relatively short, to avoid deposition/condensation of significant quantities of smoke in this section and to make the smoke mouthpiece (1) as unobtrusive as possible.

[0073] Although the fifth channel section (6) of the smoking mouthpiece (1) is indicated as one channel section (6) with the mentioned preferred cross-section, the present invention is also directed to a smoking mouthpiece (1), wherein the fifth channel section (6) is configured as multiple-channel sections (6). The preferred cross section values listed here apply for the sum of cross sections of all channel sections (6).

[0074] The advantage of a relatively small cross section and an optimal sizing of the fifth channel section (6), therefore, is that significant quantities of smoke are not deposited/condensed in the fifth channel section (6), that the smoking mouthpiece (1) is discrete and that a relatively large suction resistance is maintained at various dilution ratios. Moreover, the benefit is that the air channels (8) can not be obstructed by e.g. the lips during use.

[0075] Advantageously, the longitudinal extent of the smoking mouthpiece (1) is dimensioned so that the mouthpiece (1) appears discretely. In an advantageous embodiment the smoke mouthpiece (1) has a longitudinal extent of approx. 7 to 45 mm, a preferably approx. 15 to 35 mm, a most preferably approx. 20 to 27 mm.

[0076] The inside of one or more channel sections may be surface treated, e.g. mechanically or coated, to improve retention of the smoking element (11) and/or to further avoid unwanted deposition of tar and the like in the mouthpiece (1).

[0077] In the following reference is made to the smoking mouthpiece (1) shown in FIGS. 1-7:

[0078] Air ducts (8’) may be open, for example designed as depressions or grooves on the internal surface of one or more channel sections. The open air channels (8’) become closed air channels upon insertion of the smoking element (11).

[0079] Advantageously, the air ducts are closed (8), designed as holes, since the cigarette upon insertion cannot clog the air ducts (8) when it is in place in the second channel
section (3). favourably, the second channel section (3) may be oval. This also provides better room for the closed air ducts (8) compared to a circular second channel section (3). This allows the total thickness of the smoking mouthpiece (1) to be reduced thereby rendering the mouthpiece (1) as discrete as possible.

[0080] The air ducts (8°) may be obtained completely cutting through smoke mouthpiece (1), perpendicular to the smoking mouthpiece (1) longitudinal axis. Since air ducts (8°), as well as being open interior, are also exteriorly open, the smoke mouthpiece (1) acts by atmospheric air being sucked into the air ducts (8°), immediately at the smoker's lips and into the mouthpiece, where the air is mixed with smoke from the smoking element (11).

[0081] It should be mentioned that the smoking mouthpiece (1) according to the invention, including, for example all mentioned variations can be provided with one or more air channels (8), (8') and (8°), which may have a different extent, shape, size and diameter to achieve the desired effect, including to achieve the desired smoke dilution. For instance the more air ducts (8), (8') and (8°) and the larger cross section, the greater volume atmospheric air will be aspirated through the smoke mouthpiece (1) and the greater smoke dilution ratio is obtained.

The Invention used for Smoking Reduction and/or Quittance

[0082] The smoking mouthpiece (1) according to the invention may e.g. be used for smoking reduction and/or quittance. In connection with smoking quittance a total of 6 different smoking mouthpiece (1) may be provided, which only differ from each other by increasing dilution ratio. Initially smoking is performed in a defined period with the smoke mouthpiece (1) providing the smallest dilution. Subsequently smoking is performed with mouthpieces (1) providing increasing dilution until quittance is achieved.

[0083] In an alternative embodiment one or more air channels (8), (8') and (8°) of the smoke-mouthpiece (1) according to the invention are hermetically closed/clogged with a suitable material, such as wood, plastic, rubber, metal or the like.

[0084] A smoke mouthpiece (1) with one or more hermetically closed air ducts may be beneficial for smoking reduction and/or quittance. As an alternative of using 6 different mouthpieces with increasing smoke dilution a single smoke mouthpiece (1) with e.g. 6 air ducts (8), (8') and (8°) may be used, where one or more of the air ducts are initially hermetically closed with a suitable material.

[0085] For example the 5 of the 6 air ducts (8), (8') and (8°) in the smoking mouthpiece (1) may as a rule be hermetically closed allowing the smallest dilution ratio. Smoking with this mouthpiece (1) is then performed in a defined period. After this period material is removed from one channel, so a total of 2 air channels with open air ducts appear, giving the second smallest dilution ratio. Then smoking is performed with this configuration of the smoking mouthpiece (1) in a defined period. Material is then successively removed for defined periods until quittance is achieved.

[0086] Hence, it appears that a smoking mouthpiece (1) with one or more hermetically closed air ducts (8), (8') and (8°) is very advantageous, since only one smoking mouthpiece (1) can achieve the same effect, e.g. smoking reduction and/or quittance, as several smoke mouthpieces with different smoke dilution ratio. This may reduce manufacturing costs significantly.

[0087] As appears from the above examples of a smoking mouthpiece (1) according to the present invention, a novel smoke mouthpiece (1) fulfilling the above recited requirements has been devised.

1. A smoke mouthpiece (1) for the dilution of smoke from a smoking element (11) to an exhaust region (7), comprising an internal longitudinal channel with openings at both ends and divided into 5 channel sections, wherein a first channel section (2) is provided in the first end of the smoking mouthpiece (1) with an opening for insertion of the smoking element (11), a second channel section (3) for holding the smoking element (11) is in axial extension of the first channel section (2), a third channel section (4) is in axial extension of the second channel section (3), a fourth channel section (5) for diluting the smoke of the smoking element is in axial extension of the third channel section (4), a fifth channel section (6) is provided at the other end of the smoking mouthpiece (1) in axial extension of the fourth channel section (5), wherein one or more air channels (8), (8'), (8°) are provided in the one or more channel sections for diluting the smoke of the smoking element with atmospheric air, said air channel(s) (8), (8'), (8°) ensure passage of atmospheric air from the first channel section (2) to the fourth channel section (5) when the smoking element (11) is in place in the second channel section.

2. A smoke mouthpiece (1) according to claim 1, wherein the one or more air channels (8), (8'), (8°) are provided through the second channel section (3) and the third channel section (4), said air channel(s) (8), (8'), (8°) open towards the first channel section (2) and the fourth channel section (5).

3. A smoke mouthpiece (1) according to claim 1, wherein the one or more air channels (8), (8'), (8°) are provided through the second channel section (3), said air channel(s) (8), (8'), (8°) open towards the first channel section (2) and the third channel section (4).

4. A smoke mouthpiece (1) according to any one of the claims 1-3, wherein the one or more air channels (8°) constitute longitudinal openings, designed as depressions or grooves on the inside of one or more channel sections(s).

5. A smoke mouthpiece (1) according to any one of the claims 1-3, wherein the one or more air channels (8) are closed and hence take the form of holes.

6. A smoke mouthpiece (1) according to any one of the claims 1-3, wherein the one or more air channels (8°) entirely penetrate the mouthpiece (1) perpendicular to the longitudinal axis of the mouth piece (1).

7. A smoke mouthpiece (1) according to any one of the claims 1-6, wherein the one or more air channels (8), (8') and (8°) are hermetically closed with a suitable material, such as wood, plastic, rubber, metal or the like.

8. A smoke mouthpiece (1) according to any one of the claims 1-7, wherein the first channel section (2), the second channel section (3), the third channel section (4), the fourth channel section (5) and/or the fifth channel section (6) is cylindrical, oval or conical.

9. A smoke mouthpiece (1) according to any one of the claims 1-8, wherein the exterior design of the smoke mouthpiece (1) is cylindrical and/or oval and/or conical.
10. A smoke mouthpiece (1) according to any one of the claims 1-9, wherein the fifth channel section (6) has a cross section of approx. 0.01 to 8.0 mm² a preferred cross section of approx. 0.2 to 1.8 mm², and a most preferred cross-section of approx. 0.5 to 1.1 mm².

11. A smoke mouthpiece (1) according to any one of the claims 1-10, wherein the inside of the second channel section (3) is rounded or sloped (9) at the transition to the first channel section (2), for easier insertion of the smoking element (11) in the second channel section (3).

12. A smoke mouthpiece (1) according to any one of the claims 1-11, wherein one or more edges on the inside of the fourth channel section (5) are rounded to reduce smoke residuals.

13. A smoke mouthpiece (1) according to any one of the claims 1-12, wherein the smoking mouthpiece (1) is surface treated and/or dyed.

14. A smoke mouthpiece (1) according to any one of the claims 1-13, wherein the smoking mouthpiece (1) is included in a series of several smoke mouthpieces having different smoke dilution ratios.

15. A smoke mouthpiece (1) according to any one of the claims 1-14, wherein the smoking mouthpiece (1) has a longitudinal extent of approx. 7 to 45 mm, a preferred extent of approx. 15 to 35 mm, and a most preferred extent of approx. 20 to 27 mm.

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