

(12) UK Patent Application (19) GB (11) 2 330 515 (13) A

) Date of A Publication 28.04.1999

(21) Application No 9722331.7

(22) Date of Filing 22.10.1997

(71) Applicant(s)
Oh Sung Bae
 #702 New Hyundai-Riverill, 130-10 Chungdam-Dong,
 Kangnam-ku, Seoul 135-100, Republic of Korea

(72) Inventor(s)
Oh Sung Bae

(74) Agent and/or Address for Service
Withers & Rogers
 Goldings House, 2 Hays Lane, LONDON, SE1 2HW,
 United Kingdom

(51) INT CL⁶
A24B 15/16

(52) UK CL (Edition Q)
A2C CACA

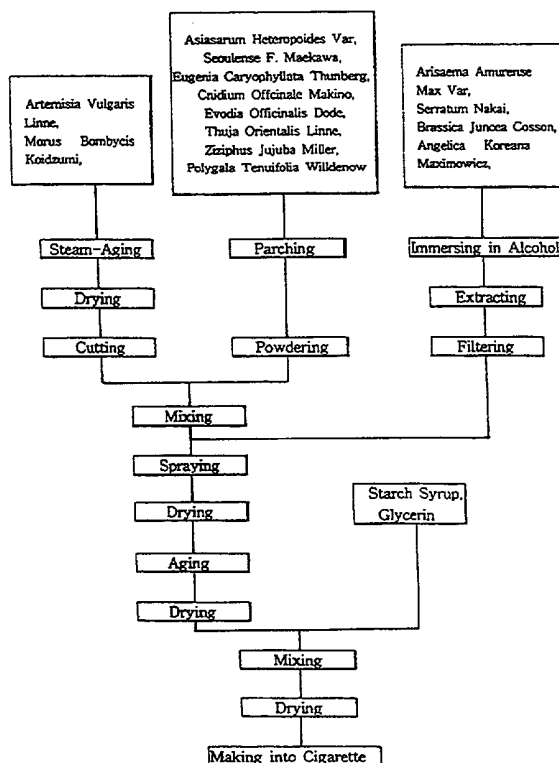
(56) Documents Cited
None

(58) Field of Search
 UK CL (Edition O) **A2C CACA**
 INT CL⁶ **A24B 15/16**
On Line W.P.I.

(54) Abstract Title
Alternative cigar/cigarette and method for preparing the same.

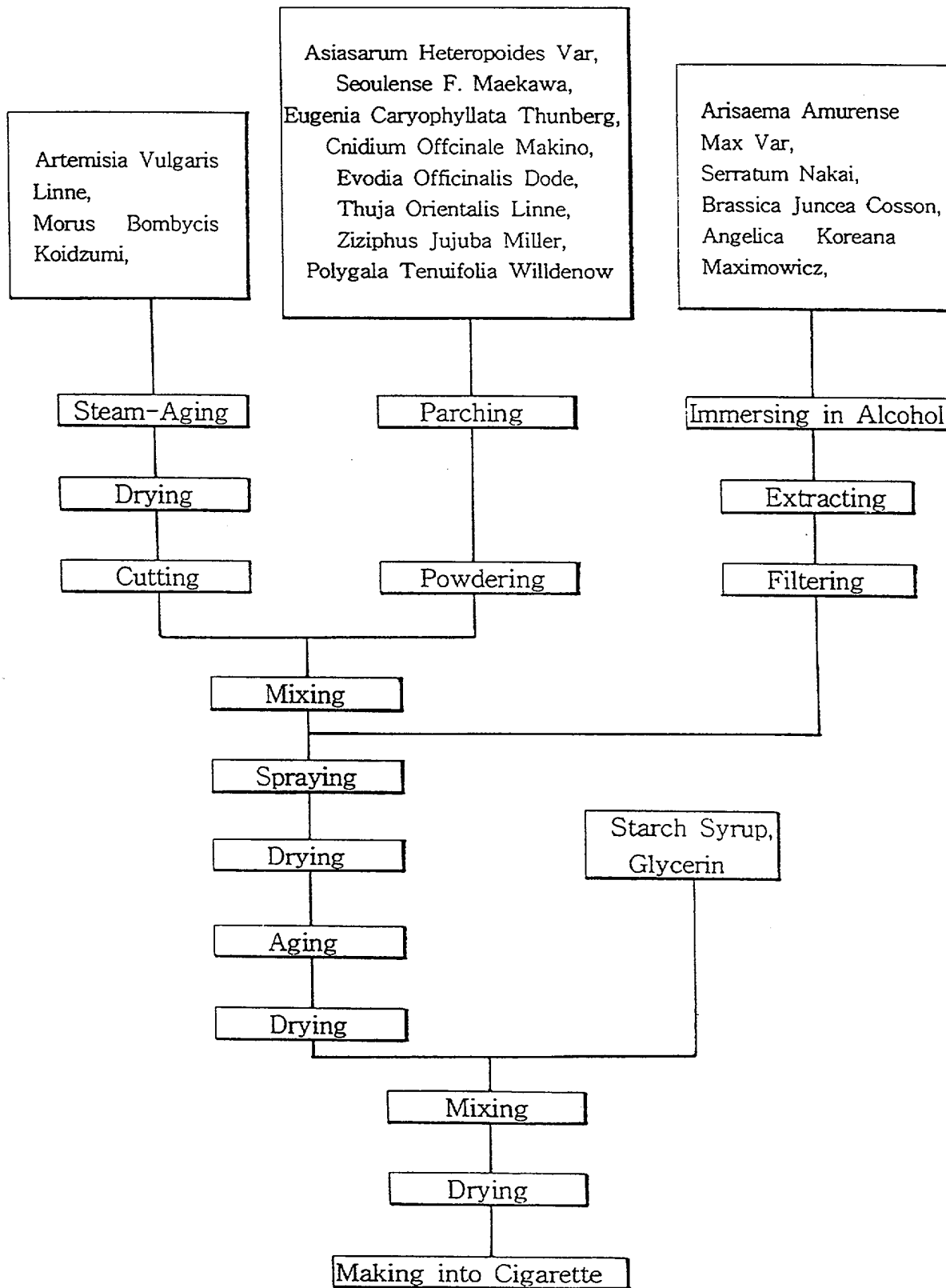
(57) An alternative cigarette/cigar with a moisture content of 12-13 %, is prepared from a composition comprising a herb medicinal mixture of *Artemisia vulgaris* Linne, *Morus bombycis* Koidzumi, *Ziziphus jujuba* Miller, *Polygala tenuifolia* Willdenow, *Asiasarum heterotropoides* var. *seoulense* F. Maekawa, *Eugenia caryophyllata* Thunberg, *Cnidium officinale* Makino, *Evodia officinalis* Dode and *Thuja ocialentis* Linne powders and *Arisaema amurense* Max var. *Serratum Nakai*, *Angelica koreana* Maximowicz and *Brassica juncea* Cosson extracts, in combination with 1-10 wt % of starch syrup and 0.1-1 wt % of glycerol on the basis of the weight of the herb medicinal mixture.

Fig. 1



GB 2 330 515 A

Fig. 1



ALTERNATE CIGARETTE AND METHOD FOR PREPARING THE
SAME

BACKGROUND OF THE INVENTION

5

Field of the Invention

The present invention relates to a novel smoking material which is harmless and, more particularly, to a non-toxicant alternate cigarette with
10 which a smoking sense and abstinence from smoking can be effected.

Description of the Prior Art

Nicotiana tabacum, an annual grass which belongs to a tobacco genus
15 of an eggplant family, is cultivated to use its leaves. Being used as a material for smoking, the leaves are of aromatic, impulsion and paralysis.

Generally, tobacco leaves or the combustion products thereof are known to contain such harmful ingredients as nicotine and tar at an amount of 1-8%. Particularly, as many as about 4,000 chemicals are present in the
20 smoke of tobacco and it is well known that smoking is a main cause of various diseases including lung cancer and coronary artery disorder. The bad effect of smoking was examined since 1930s and is now found to be mainly attributed to the carcinogen (tar) and the toxicant (nicotine). In fact, it is reported that the attack rate with long cancer increases as a smoking
25 population increases and non-smokers suffer from

the smoke from smokers.

Nicotine, a colorless, volatile liquid alkaloid, is so fatally poisonous and it stimulates the nerve tissues, such as cerebral nerve, cerebellum and affects vertebra to paralysis. Recently, with an increasing interest in carcinogenesis, many researchers have reported that nicotine could cause carcinomas in lung, larynx and esophagus.

SUMMARY OF THE INVENTION

10

Therefore, it is an object of the present invention to provide a non-poisonous alternate cigarette, with which a smoker can be restrained from smoking, get rid of tension and stress and relieve himself or herself from the smoking motives, such as psychological tone, anxiousness, wrath, melancholy, etc, while feeling a smoking sense and experiencing medical effects such as cough remedy and discharge of phlegm.

It is another object of the present invention to provide a method for preparing an alternate cigarette.

In accordance with an aspect of the present invention, there is provided a method for preparing an alternate cigarette, which comprises mixing starch syrup and glycerin at an amount of 1-10 wt% and 0.1-1 wt%, respectively, based on the weight of a herb medicinal mixture of powders from

Artemisia vulgaris Linne, Morus bombycis Koidzumi, Ziziphus jujuba Miller, Polygala tenuifolia Willdenow, Asiasarum heterotropoides var. seoulense F. Maekawa, Eugenia caryophyllata Thunberg, Cnidium officinale Makino, Evodia officinalis Dode and Thuja orientalis Linne and extracts from
5 Arisaema amurense Max var. Serratum Nakai, Angelica Koreana Maximowicz and Brassica juncea Cosson, drying the resulting mixture to a moisture content of 12-13% and making it into a form of cigar or cigarette.

BRIEF DESCRIPTION OF THE DRAWING

10

Fig. 1 is a flow chart illustrating processes for preparing an alternate cigarette, in accordance with the present invention.

DETAILED DESCRIPTION OF THE INVENTION

15

In accordance with the present invention, the alternate cigarette according to the present invention is in a form of a cigar or cigarette which has a moisture content of 12-13% and is prepared from a herb medicinal composition comprising one or more of the powders of Artemisia vulgaris
20 Linne, Morus bombycis Koidzumi, Ziziphus jujuba Miller, Polygala tenuifolia Willdenow, Asiasarum heterotropoides var. seoulenses F. Maekawa, Eugenia caryophyllata Thunberg, Cnidium officinale Makino, Evodia officinalis Dode and Thuja orientalis Linne and the extracts from Arisaema amurense Max var. Serratum Nakai, Angelica koreana Maximowicz and Brassica juncea Cosson
25 in combination with starch syrup and glycerol.

The herb medicinal composition preferably consists of a solid portion comprising 7-38 wt% of *Artemisia vulgaris* Linne, *Ziziphus jujuba* Miller, *Polygala tenuifolia* Willdenow, *Asiasarum heterotropoides* var. *seoulenses* F. Maekawa, *Eugenia caryophyllata* Thunberg, *Evodia officinalis* Dode and
5 *Thuja orientalis* Linne each and 10-41 wt% of *Morus Bombycis* Koidzumi and *Cnidium officinale* Makino each and a liquid portion comprising 15-30 wt% of *Arisaema amurense* Max var. *Serratum* Nakai, *Angelica koreana* Maximowicz and *Brassica juncea* Cosson extracts each based on the weight of the solid portion. While the starch syrup is on the order of 1-10 wt%
10 based on the weight of the herb medicinal composition while the glycerol is on the order of 0.1-1 wt%.

In the herb medical documents of Korea, the above-mentioned herbs are recorded to exhibit various pharmaceutical effects.

15

First, *Artemisia vulgaris* Linne is so warm in temper that it can be useful to treating the abdominal pain and the lumbago, attributed to a chill of internal body, by internal administration or moxocautery. In addition, *Artemisia*

20

vulgaris Linne is prescribed for anaemia prevention, anti-inflammation, neuralgia relief, anti-carcinogenesis, uterus strengthening and digestion promotion.

5 *Morus bombycis Koidzumi* is a root shell of a mulberry tree and is recorded to be effective for hypertension, pneumonia, cough remedy, discharge of phlegm, cholesterol removal, and diabetes.

10 *Arisaema amurense Max var. Serratum Nakai*, a perennial herb, contains saponin, cyperine, benzoic acid and starch in large quantities and is effective for cough remedy, discharge of phlegm, asthma, paralysis, lung cancer, headache, emesis, hypertension, senile dementia, neuralgia, and myalgia.

15 As for *Angelica koreana Maximowicz*, it is a perennial herb which belongs to a family of Umbelliferea and is effective for paralysis, hemiplegia, neuralgia, arthritis and headache.

As a seed of leaf mustard, *Brassica juncea Cosson* is reported to be effective for cough remedy, discharge of phlegm, asthma and neuralgia.

20 *Asiasarum heterotropoides var. seoulense F. Maekawa* is a perennial herb which is prescribed for headache, heat disease and paralysis.

25 *Eugenia caryophyllata Thunberg* is a dried clove bud, which is so hot in temper and harmless that it is effective for dyspepsia, feeble appetite and gastritis.

Being effective for headache, neuralgia, hypertension and arthritis, *Cnidium officinale Makino* is a perennial herb belonging to a family of Umbelliferea.

5 *Evodia officinalis Dode* is a dried premature fruit prescribed for senile dementia, metabolism promotion and anti-carcinogenesis.

Thuja orientalis Linne is a seed of a thuja tree which is recorded to be prescribed for sleeplessness, hypertension, paralysis, heart disease and nervous breakdown.

10 *Ziziphus jujuba Miller* is a seed of the Dahurian buckthorn, showing a medicinal effect for sleeplessness, nervous breakdown, headache and heart disease.

As for *Polygala tenuifolia Willdenow*, it is a root of *Polygala tenuifolia* or *P. sibiricva* which is recorded to show a high clinical effect for headache, senile dementia, memory enhancement, heart disease, nerve sedateness and sleeplessness.

20 The invention excludes the dangerous cause attributable to nicotine by replacing tobacco leaves with the herb composition. The alternate in accordance with the present invention allows a feeling of the smoking sense while providing effects peculiar to herb medicine, such as cough remedy, discharge of phlegm and nerve sedateness.

25 Although the herb ingredients are not particularly limited in quantities, each of them is preferably formulated

in order to act to the best of its medicinal effects while
being harmless to the human body as a component of a favorite.
In this regard, the herb composition comprises a solid portion
consisting of 7-38 wt% of *Artemisia vulgaris* Linne, *Ziziphus*
5 *jujuba* Miller, *Polygala tenuifolia* Willdenow, *Asiasarum*
heterotropoides var. *seoulense* F. Maekawa, *Eugenia*
caryophyllata Thunberg, *Evodia officinalis* Dode and *Thuja*
orientalis Linne powders each and 10-41 wt% of *Morus bombycis*
Koidzumi and *Cnidium officinale* Makino powders each and a
10 liquid portion comprising 15-30 wt% of *Arisaema amurense* Max
var. *Serratum* Nakai, *Angelica koreana* Maximowicz and *Brassica*
juncea Cosson extracts each in alcohol based on the weight of
the solid portion.

To prepare the alternate cigarette according to the
15 present invention, first, *Artemisia vulgaris* Linne and *Morus*
bombycis *Koidzumi* are steamed for 1 hour. While *Arisaema*
amurense Max var. *Serratum* Nakai, *Brassica juncea* Cosson and
Angelica koreana Maximowicz are immersed in 50-70% alcohol for
100 days to extract pharmaceutical components therefrom,
20 *Asiasarum heterotropoides* var. *seoulense* F. Maekawa, *Eugenia*
caryophyllata Thunberg, *Cnidium officinale* Makino, *Evodia*
officinalis Dode, *Thuja orientalis* Linne, *Ziziphus jujuba*
Miller and *Polygala tenuifolia* Willdenow are parched at 100 °C
to yield powders.

25 Then, the steamed *Artemisia vulgaris* Linne and *Morus*

bombycis Koidzumi are cut at intervals of 0.5-1 mm and homogeneously mixed with the powders of *Asiasarum heterotropoides var. seoulense* F. Maekawa, *Eugenia caryophyllata* Thunberg, *Cnidium officinale* Makino, *Evodia officinalis* Dode, *Thuja orientalis* Linne, *Ziziphus jujuba* Miller and *Polygala tenuifolia* Willdenow. Thereafter, the extracts from *Arisaema amurense* Max var. *Serratum* Nakai, *Brassica juncea* Cosson and *Angelica koreana* Maximowicz are sprayed on the homogeneous mixture with stirring. The resulting herb composition is aged for 10-20 days in a closed container while keeping its moisture content at 18-21%. After being cold-dried to a moisture content of 13-14 %, the herb composition is added with 1-10 wt% of starch syrup and 0.1-1 wt% of glycerin on the basis of the weight of the herb composition. The composition is adjusted to have a moisture content of 12-13% and then, made into a form of a cigar or cigarette, to provide an alternate cigarette.

The steam-aging of *Artemisia vulgaris* Linne and *Morus bombycis Koidzumi* allows toxicants to be discharged out of them in advance in order to have the product to be ignited well. Preferably, *Artemisia vulgaris* Linne and *Morus bombycis Koidzumi* are subjected to steam-aging for 1 hour. For example, if the steam-aging is carried out for less than 1 hour, the desirable effects are not expressed completely. On the other hand, if steam-aging is performed too long, it is

economically unfavorable in the light of the effective improvement.

In extracting from *Arisaema amurense* Max var. *Serratum* Nakai, *Brassica juncea* Cosson and *Angelica koreana* Maximowicz, ethyl alcohol is the most favorable one because it is harmless to the human body. However, all that are conventionally used as extracting solvents in this art can be available. If the alcohol is less than 50% in concentration, *Arisaema amurense* Max var. *Serratum* Nakai, *Brassica juncea* Cosson and *Angelica koreana* Maximowicz are put in danger of sepsis. On the other hand, if too high concentrated alcohol is used, it is economically unfavorable.

Asiasarum heterotropoides var. *seoulense* F. Maekawa, *Eugenia caryophyllata* Thunberg, *Cnidium officinale* Makino, *Evodia officinalis* Dode, *Thuja orientalis* Linne, *Ziziphus jujuba* Miller and *Polygala tenuifolia* Willdenow provide the fragrance peculiar to herb medicines, allow the product to be ignited well and modify the harmful elements into harmless ones. When these herbs are parched at a temperature less than 100 °C, the desired goals cannot be obtained fully. On the other hand, upon parching at a temperature higher than 100 °C, it is difficult to execute this step and carbonization may occur.

With the aim of facilitating the aggregation of the herb components and improving the flavor of the alternate product,

starch syrup and glycerin are preferably added within the above-mentioned range. For example, if they are used too little, the flavor effect is poor. On the other hand, if they are added in excess, it takes a long time to dry them, so that it is economically unfavorable. In addition, excess starch syrup and glycerin result in an over-aggregation of the herb components, which requires an additional pulverization process.

A better understanding of the present invention may be obtained through the following example which is set forth to illustrate, but is not to be construed as the limit of the present invention.

EXAMPLE

100 g of *Artemisia vulgaris* Linne and 150 g of *Morus bombycis* Koidzumi were steamed in a steam kettle, dried and cut at intervals of 0.5-1 mm. 300 g of *Arisaema amurense* Max var. *Serratum* Nakai, 300 g of *Brassica juncea* Cosson and 300 g of *Angelica koreana* Maximowicz were immersed in 3 liters of 60% ethyl alcohol for 100 days, to extract medicinal ingredients which were, then, filtered.

Separately, 150 g of *Asiasarum heterotropoides* var. *seoulense* F. Maekawa, 200 g of *Eugenia caryophyllata* Thunberg, 150 g of *Cnidium officinale* Makino, 150 g of *Evodia*

officinalis Dode, 100 g of *Thuja orientalis* Linne, 100 g of *Ziziphus jujuba* Miller and 100 g of *Polygala tenuifolia* Willdenow were parched and then, broken into powders.

5 The *Artemisia vulgaris* Linne and *Morus bombycis* Koidzumi pieces and the *Asiasarum heterotropoides* var. *seoulense* F. Maekawa, *Eugenia caryophyllata* Thunberg, *Cnidium officinale* Makino, *Evodia officinalis* Dode, *Thuja orientalis* Linne, *Ziziphus jujuba* Miller and *Polygala tenuifolia* Willdenow powders were homogeneously mixed each other while spraying the
10 *Arisaema amurense* Max var. *Serratum* Nakai, *Brassica juncea* Cosson and *Angelica koreana* Maximowicz extracts thereon. Thereafter, the resulting mixture was dried to a moisture content of 18-21 % and aged for 15 days in a closed container. Again, after being dried to a moisture content of 13-14 %, the
15 mixture was added with 50 g of starch syrup and 5 g of glycerin, followed by reducing the moisture content to 12-13 %. Finally, this composition thus obtained was made into a form of cigarette or cigar.

20 A chemical analysis showed that neither the alternate cigarette according to the present invention nor the smoke therefrom contained nicotine. The alternate was found to be good in favor via a sensuous test in which 100 men had a smoke with the alternate.

25 As described hereinbefore, the alternate cigarette in accordance with the present invention is in a form of cigar or

cigarette with a moisture content of 12-13 %, which is prepared from a composition comprising a herb medicinal mixture of *Artemisia vulgaris* Linne, *Morus bombycis* Koidzumi, *Ziziphus jujuba* Miller, *Polygala tenuifolia* Willdenow, *Asiasarum heterotropoides* var. *seoulense* F. Maekawa, *Eugenia caryophyllata* Thunberg, *Cnidium officinale* Makino, *Evodia officinalis* Dode and *Thuja orientalis* Linne powders and *Arisaema amurense* Max var. *Serratum* Nakai, *Angelica koreana* Maximowicz and *Brassica juncea* Cosson extracts, in combination with 1-10 wt % of starch syrup and 0.1-1 wt % of glycerol on the basis of the weight of the herb medicinal mixture. With the alternate cigarette, a smoker can be restrained from smoking, get rid of tension and stress and relieve himself or herself from the smoking motives, such as psychological tone, anxiousness, wrath, melancholy, etc, while feeling a smoking sense and obtaining medical effects including cough remedy, discharge of phlegm and mental serenity.

The present invention has been described in an illustrative manner, and it is to be understood that the terminology used is intended to be in the nature of description rather than of limitation. Many modifications and variations of the present invention are possible in light of the above teachings. Therefore, it is to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

WHAT IS CLAIMED IS:

1. A method for preparing an alternate cigarette, which
comprises mixing starch syrup and glycerin at an amount of 1-
5 10 wt% and 0.1-1 wt%, respectively, based on the weight of a
herb medicinal mixture of powders from *Artemisia vulgaris*
Linne, *Morus bombycis* *Koidzumi*, *Ziziphus jujuba* *Miller*,
Polygala tenuifolia *Willdenow*, *Asiasarum heterotropoides* *var.*
seoulense *F. Maekawa*, *Eugenia caryophyllata* *Thunberg*, *Cnidium*
10 *officinale* *Makino*, *Evodia officinalis* *Dode* and *Thuja*
orientalis *Linne* and extracts from *Arisaema amurense* *Max var.*
Serratum *Nakai*, *Angelica koreana* *Maximowicz* and *Brassica*
juncea *Cosson*, drying the resulting mixture to a moisture
content of 12-13 % and making it into a form of cigar or
15 cigarette.

2. A method in accordance with claim 1, wherein said herb
medicinal mixture consists of a solid portion comprising 7-38
wt% of *Artemisia vulgaris* *Linne*, *Ziziphus jujuba* *Miller*,
20 *Polygala tenuifolia* *Willdenow*, *Asiasarum heterotropoides* *var.*
seoulense *F. Maekawa*, *Eugenia caryophyllata* *Thunberg*, *Evodia*
officinalis *Dode* and *Thuja orientalis* *Linne* each and 10-41 wt%
of *Morus bombycis* *Koidzumi* and *Cnidium officinale* *Makino* each
and a liquid portion comprising 15-30 wt% of *Arisaema amurense*
25 *Max var. Serratum* *Nakai*, *Angelica koreana* *Maximowicz* and

Brassica juncea Cosson extracts each based on the weight of the solid portion.

3. A method in accordance with claim 1, or claim 2, wherein Artemisia vulgaris Linne and Morus bombycis Koidzumi are steam-aged, dried and cut
5 into pieces.

4. A method in accordance with any of claims 1 to 3, wherein Arisaema amurense Max var. Serratum Nakai, Brassica juncea Cosson and Angelica koreana Maximowicz are immersed in a alcohol to extract pharmaceutical
10 ingredients.

5. A method in accordance with claim 4, wherein said alcohol is an ethyl alcohol solution with an alcohol content ranging from 50-70%.

15 6. A method in accordance with any of the preceding claims wherein said Asiasarum heterotropoides var. Seoulense F. Maekawa, Eugenia caryophyllata Thunberg, Cnidium officinale Makino, Evodia officinalis Dode, Thuja orientalis Linne, Ziziphus jujuba Miller and Polygala tenuifolia Willdenow are parched and pulverised into powders.

20

7. A method in accordance with any of the preceding claims, wherein said alternate is free of tobacco components and consists of medicines.

8. An alternate cigarette, prepared by the method of claim 1 to 7.

25

9. An alternate cigarette or cigar in which the smoking material comprises one or more of the herb medicinal powders from Artemisia vulgaris Linne

Morus bombycis Koidzumi, Ziziphus jujuba Miller, Polygala tenuifolia Willdenow, Asiasarum heterotropoides var. Seoulenses F. Maekawa, Eugenia caryophyllata Thunberg, Cnidium officinale Makino, Evodia officinalis Dode and Thuja orientalis Linne and extracts from one or more of Arisaema
5 amurense Max var. Serratum Nakai, Angelica koreana Maximowicz and Brassica juncea Cosson mixed with 1-10 wt % starch syrup and 0.1-1 wt % glycerin.

10. An alternate cigarette or cigar according to claim 9 in which the
10 smoking material has a moisture content of 12% to 13%.



Application No: GB 9722331.7
Claims searched: 1-10

Examiner: R.B.Luck
Date of search: 28 November 1997

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:
UK CI (Ed.O): A2C CACA
Int CI (Ed.6): A24B 15/16
Other: OnLine W.P.I.

Documents considered to be relevant:

| Category | Identity of document and relevant passage | Relevant to claims |
|----------|---|--------------------|
| | No relevant documents found | |

16

| | | | |
|---|---|---|--|
| X | Document indicating lack of novelty or inventive step | A | Document indicating technological background and/or state of the art. |
| Y | Document indicating lack of inventive step if combined with one or more other documents of same category. | P | Document published on or after the declared priority date but before the filing date of this invention. |
| & | Member of the same patent family | E | Patent document published on or after, but with priority date earlier than, the filing date of this application. |