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(54) **Tobacco related product containing distinguishable tobacco related elements and methods**

(57) The invention relates to a tobacco related product comprising standard tobacco related fibers, elements and/or particles and further additional tobacco related elements configured to detectably distinguish from

standard tobacco related fibers, elements and/or particles and methods of manufacturing and authenticating such a tobacco related product.

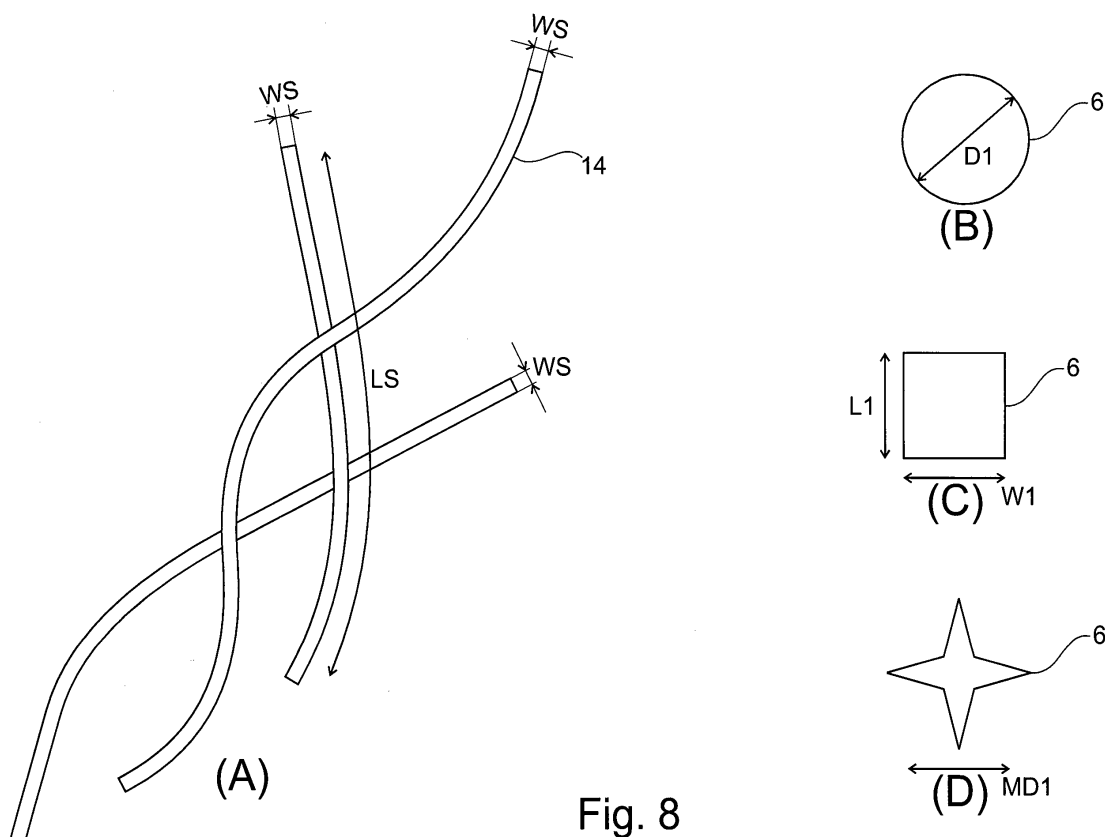


Fig. 8

Description

FIELD OF INVENTION

[0001] The invention relates to a tobacco related product containing distinguishable additional tobacco related elements and methods of manufacturing and authentication.

BACKGROUND

[0002] It is known in the art to use reconstituted tobacco for the manufacturing of tobacco products. The reconstituted tobacco is produced from tobacco shorts that cannot be used otherwise and/or tobacco stems. The two main processes for tobacco reconstitution are the Schweitzer process which is similar to paper making and the slurry process which is based on band casting and drying a tobacco slurry. Both processes deliver an endless web which can either be cut or torn into sheets to be used as a filler material or cut into smaller widths and then bobbinized. Bobbinized reconstituted tobacco is used as binder or wrapper in cigar making. If the reconstituted tobacco is used as a filler material, it is blended to the leaf tobacco prior to the cutting process. In consequence, the reconstituted tobacco fibers in the final blend have a shape and size similar to the other tobacco materials in the blend.

SUMMARY

[0003] It is an object of the present invention to provide tobacco related products and methods having improved properties compared with existing tobacco related products.

[0004] According to an aspect of the invention, a tobacco related product is provided that comprises standard tobacco related elements, fibers or particles and additional tobacco related elements configured to detectably distinguish from the standard tobacco related elements, fibers or particles. This general aspect of the invention provides a large number of embodiments relating to customization of tobacco products as well as reliable authentication of a specific product by manufacturers and consumers. In particular, the invention provides an information carrying tobacco related product.

[0005] In the present context, tobacco products comprise smokable tobacco products like loose tobacco, cigarettes, cigars, small cigars, as well as smokeless tobacco products like snus or snuff.

[0006] In one aspect, the additional tobacco related elements can be made distinguishable from the standard tobacco related elements and/or from each other by shape. The shape of the additional tobacco related elements is then different from the shape of the normally used tobacco fibers or the shape of components which are usually used for a tobacco product.

[0007] In another aspect, the additional tobacco relat-

ed elements can be distinguishable from the naturally used tobacco particles, fibers or elements and/or from each other by color. The color of the additional tobacco related elements can then deviate from the naturally occurring color of tobacco fibers, elements or particles. In a further aspect, the additional tobacco related elements can be made distinguishable from the naturally or usually used tobacco related elements and/or from each other by flavor and/or smell. The additional tobacco related elements may then have a specific flavor and/or smell which is distinguishably different from the naturally or normally used tobacco.

[0008] In still another aspect, the additional tobacco related elements may be distinguishable from the standard tobacco related elements and/or from each other by their composition of ingredients. This provides that a consumer or manufacturer may add a specific amount of additional tobacco related elements in order to create a tobacco product with a customized amount of ingredient.

[0009] According to an aspect, the tobacco related elements may be separated from other tobacco products, like loose tobacco for example. This prevents that any ingredient migrates from the tobacco elements to the tobacco or other tobacco related product. Any package or pouch in which the tobacco related elements and other tobacco related products are contained may then comprise separate compartments or pockets for the tobacco elements and the other tobacco related products like loose tobacco. In an embodiment, the ingredient may be nicotine.

[0010] The previously mentioned aspects relating to the shape, color, flavor and ingredients of the additional tobacco related elements can advantageously be combined with each other. The additional tobacco related elements can advantageously be distinguishable and/or detectable by visual inspection, i.e. by the naked eye of a consumer or the manufacturer. This mainly relates to the shapes or colors of the additional tobacco related elements. Using different flavors or ingredients relates to the scent, the taste and the effect of the tobacco product based on which the tobacco product is made distinguishable.

[0011] The characteristics of the additional tobacco related elements can further be used to distinguish the additional tobacco related elements from each other. This can be used to incorporate more information into the tobacco related product by the additional tobacco related elements.

[0012] In an aspect of the invention, a property of the additional tobacco related elements can be detectable by machine inspection. This provides for methods of authentication of the tobacco related product in view of counterfeiting.

[0013] Regarding the shape of the additional tobacco related elements, the additional tobacco related elements may have a rectangular, triangular, polygon, elliptic or round shape. The additional tobacco related ele-

ments may, however, also have the shape of characters, numbers, symbols, indicia and/or signs. This allows creating special editions of a tobacco product, for example for seasonal editions (e.g. shape like snowflake, sun) or origin/heritage related editions (e.g. leafs, flags etc.). Since the normally occurring tobacco fibers, elements or particles typically have an elongate shape where the length is substantially greater than the width, it is particularly advantageous to use a shape for the additional tobacco related elements that has a substantially greater width or maximum diameter than the normal tobacco fibers, elements or particles.

[0014] The invention also relates to authentication of a tobacco product. This means that the shape, color, flavor or ingredients of the additional elements are made such that the origin of the tobacco product can be determined.

[0015] The shape, color and/or flavor of the additional tobacco related elements may then be correlated with, and/or coded with respect to a characteristic of the tobacco product, a characteristic of a package of the tobacco product, a characteristic of the origin of the tobacco product, an event, an edition of the tobacco product or a product line of the tobacco product, a trademark, brand or name of the tobacco product or the producer or supplier or deliverer of the tobacco product. This allows the consumer, the manufacturer or any third party to reliably identify the authenticity of a product. This can particularly be helpful for prevention of counterfeiting.

[0016] The additional tobacco related elements may further be marked or embossed in order to make the distinguishable. The additional tobacco related elements may carry watermarks or a coding like a bar code or an invisible mark that responds only a specific excitation, for example by UV light (ultraviolet) or IR light (infrared). Detection mechanisms may be provided for detecting and confirming the authenticity of the tobacco product by detecting a specific characteristic of the additional tobacco related elements.

[0017] The additional tobacco related elements may be coded not only by imprints, but also by their dimensions, shapes etc. Such a coding may relate to a series number of a package or a number or characteristics of a product.

[0018] The above aspects particularly relate to smokable products. This means that the normally used tobacco fibers are smokable tobacco fibers (i.e. simple tobacco in cut and finished form) and the additional tobacco related elements are also smokable. In this regard, the additional tobacco related elements can comprise and/or can be made of reconstituted tobacco. However, it is also possible to use natural tobacco leafs as a basis for the additional tobacco related elements.

[0019] The invention also provides a cigarette, cigar, a small cigar, a package of such tobacco products or a carton of packages of such tobacco products as well as a loose tobacco product contained in a pouch, wherein each the previously mentioned products comprises at

least one additional tobacco related element according to the aspects and embodiments of the invention.

[0020] The package or pouch may advantageously further comprise loose tobacco. The package or pouch advantageously comprises a pocket or compartment for the additional tobacco related elements that is separate from any other compartment or pocket for other tobacco related products, as for example loose tobacco. The compartment or compartments can be separated by walls, foils, layers or sheets such that any volatile ingredient of the additional tobacco related elements is prevented from migrating into other tobacco related products or into the air.

[0021] According to aspects of the invention, a pouch of tobacco, a package of tobacco products or a carton or other unit of tobacco products may comprise one or more windows, numbers, signs, trademarks or other characteristic one or more of which can be reflected in a characteristic of the additional tobacco related elements.

[0022] If, for example, a package or pouch of a tobacco product has a window, the consumer may be enabled to determine whether the product contained in the package or pouch is authentic or whether the product has a specific property. In an embodiment, there might be a simple rectangular, round, roundish, elliptical etc window in a pouch of loose tobacco. The window may also have the shape of brands, characters, indicia, symbols or signs. The consumer or any other person may then inspect the tobacco contained in the pouch. The additional tobacco related elements may then, for example have the shape of characters indicating the brand or the name of the manufacturer. In an embodiment, the shape of the window may have the shape of character and the additional tobacco related elements may then have the shape of the window.

[0023] The invention also provides methods of customization of a tobacco related product. In an embodiment, the consumer may purchase a standard loose tobacco product and separately the additional tobacco related elements. The consumer may then add the additional tobacco related elements to the tobacco in order to create a customized tobacco product. If, for example, the additional tobacco related elements contain a certain amount of ingredient or flavor, the consumer can adjust the amount of ingredient or flavor according to his present need. The ingredient may be nicotine. In order to prevent migration or dissipation of the ingredient from the tobacco related elements, it is advantageous that these tobacco related elements are kept in a separate compartment or the like and are only mixed with other tobacco related products shortly before consumption.

[0024] The invention also provides a method of producing a tobacco related product. According to aspects of these methods a detectable and/or distinguishable additional tobacco related element can be cut out of tobacco and/or a tobacco related material (for example reconstituted tobacco sheets). In a preferred embodiment, bobbinized reconstituted tobacco is used as infeed material

for the cutting process. The additional tobacco related elements can be added to a tobacco related product, in particular to a package of finished tobacco product. Accordingly, the tobacco related material is cut into a distinct shape thereby making it possible to distinguish the tobacco product from other tobacco product. The tobacco product can be identified by the shape of the additional tobacco related elements.

[0025] The cutting step can be accomplished by using a die cutter, and/or a laser cutter and/or a water jet cutter and/or an air jet cutter. A very advantageous and efficient way is the die cutter. The die cutting step can be accomplished by using a stamping device or a cylindrical rolling die.

[0026] The method can generally include a transporting step of the all and/or the additional tobacco related elements. The transporting step can be accomplished by using a conveyor belt and/or a bucket conveyor and/or a pneumatic transport system.

[0027] The method can further comprise the step of embossing the cut additional tobacco related elements either simultaneously as the shape is cut from the tobacco material, or before or after the cutting step. A very advantageous process applies the step of embossing prior to cutting the additional tobacco related elements out.

BRIEF DESCRIPTION OF DRAWINGS

[0028]

FIG. 1 is an overall schematic of the tobacco related material cutting process, transporting of the cut additional tobacco related elements and placing the tobacco related elements into a tobacco package;

FIG. 2 is a schematic of an alternative method of cutting the tobacco material;

FIG. 3 is a schematic of an alternative method of cutting the tobacco material;

FIG. 4 is a schematic of an alternative method of transporting the cut additional tobacco related elements;

FIG. 5 is a schematic of an alternative method of transporting the cut additional tobacco related elements;

FIG. 6 is a schematic of the tobacco material being cut and embossed simultaneously;

FIG. 7 is a schematic of the additional tobacco related elements being embossed after been cut from the tobacco material;

FIGs 8A to 8D are simplified representations of embodiments of the invention;

FIGs 9A to 9D are simplified representations of embodiments of the invention;

FIGs 10A to 10D are simplified representations of embodiments of the invention, and

FIGs 12A to 12D are simplified representations of embodiments of the invention of methods of authentication.

DETAILED DESCRIPTION OF EMBODIMENTS

[0029] In the following description of embodiments of the invention similar reference signs denote similar elements throughout FIGs 1 through 12.

[0030] FIGs 1 to 7 illustrate aspects and embodiments of a method of manufacturing a tobacco product according to the invention.

[0031] FIG. 1 shows an overall schematic of a method by which the process can be accomplished. The tobacco related material 1 (for example reconstituted tobacco sheets) is fed into the process to be cut. Instead of the shown sheets, there might also be a bobbin of reconstituted tobacco. The cutting step is accomplished by the use of a die cutter utilizing a stamping motion 2. The collecting of the unused tobacco material 3 to be recycled (again) is illustrated by 4. The transporting of the cut additional tobacco related elements 6 to the tobacco package 7 is then accomplished by the use of a conveyor belt 5.

[0032] FIG. 2 illustrates a different method by which the cutting step is accomplished by the cutting device 8 which can be a laser cutter, water jet cutter or air jet cutter.

[0033] FIG. 3 shows an embodiment where the cutting step is accomplished by the use of a cylindrical, rolling die cutter 9.

[0034] FIG. 4 and FIG. 5 illustrate two methods different transporting steps. Accordingly, the transporting step to be carried out once the additional tobacco related elements have been cut from the tobacco material, can also be accomplished by the use of a bucket conveyor 10, or a pneumatic feeding system 11. The transporting step will be completed prior to the placing step where the additional tobacco related elements 6, will enter the tobacco package 7.

[0035] FIG. 6 and FIG. 7 illustrate two methods by which the embossing step can be accomplished. Accordingly, the embossing step is accomplished simultaneously to the cutting step by the use of an embossing tool incorporated within the cutting device 12, or the use of a separate embossing device 13, to emboss the cut additional tobacco related elements 6, wherein the embossing step is accomplished after the cutting step.

[0036] FIG. 8A illustrates a standard or normal tobacco related product. There are tobacco related elements 14 which are herein referred to as the standard, normal or natural tobacco fibers. They have an elongate shape and a length LS (only indicated for one of the fibers) that is

substantially greater than their width WS.

[0037] FIG. 8B is a simplified representation of an embodiment of an additional tobacco related element 6. The additional tobacco related element 6 has a substantially round shape in this embodiment. The diameter D1 of the additional tobacco related element 6 can be substantially greater than the width WS of the standard fibers 14 shown in FIG. 8A. The diameter D1 can also be a maximum diameter or maximum width of the additional tobacco related element. D1 can be at least twice the width WS of the standard fibers, elements or particles 14 and range up to 10, 20 or 15 times the width WS of the standard fibers, elements or particles 14.

[0038] FIG. 8C is a simplified representation of an embodiment of an additional tobacco related element 6. In this embodiment, the additional tobacco related element 6 has a substantially rectangular shape (may also be square). At least the length L1 or the width W1 of the additional tobacco related element 6 can be at least twice the width WS of the standard fibers, elements or particles 14 and range up to 10, 20 or 15 times the width WS of the standard fibers, elements or particles 14.

[0039] FIG. 8D is a simplified representation of an embodiment of an additional tobacco related element 6. In this embodiment, the additional tobacco related element 6 has a substantially polygon-like shape (here shaped as a star, but all kinds of polygons are possible, like hexagons, octagons, triangles etc.). A maximum diameter MD1 of the additional tobacco related element 6 can be at least twice the width WS of the standard fibers, elements or particles 14 and range up to 10, 20 or 15 times the width WS of the standard fibers, elements or particles 14.

[0040] FIG. 9A is a simplified representation of an embodiment of an additional tobacco related element 6. In this embodiment, it is shown that the additional tobacco related elements 6 can have different shapes. For example, the width of the elements 6 can be varied. The respective elements 6-1, 6-2, 6-3 and maybe more can all be added to the same tobacco related product (e.g. being added to the same pouch of tobacco, or the same cigarette, or the same package of cigarettes etc.). The variation of the width can then be used to further distinguish the product from other products. The variation of the width can be used to incorporate, carry or convey information for the consumer of the manufacturer or any third party. The first element 6-1 has a width W2, the second element 6-2 has a width W3, the third element 6-3 has a width W4. The widths W2, W3, W4 can all be different from each other. They can also be increasing by a certain factor or a fixed amount. The widths W2 to W4 can individually be chosen to indicate a certain number or code that is related to this dimension. Further elements 6 having still other widths or the same widths can be added to the tobacco related product. The length L2 can be the same for all elements 6-1 to 6-3. However, similar to the width W2 to W4, also the lengths of the elements can be varied and used to carry, convey or indicate a certain information

or code. One or more of the elements may have a maximum length or width that can be at least twice the width WS of the standard fibers, elements or particles 14 and range up to 10, 20 or 15 times the width WS of the standard fibers, elements or particles 14.

[0041] The widths and/or lengths of the additional tobacco related elements 6 can be used to indicate a code or in other words, the lengths and/or widths of the elements can represent a coding like a barcode or the like. The color of the elements 6 can also be varied in accordance with a pattern, coding or a certain theme in order to incorporate or convey information.

[0042] FIG. 9B is a simplified representation of an embodiment of an additional tobacco related element 6. In this embodiment, the element 6 is further distinguished from the normal fibers 14 by an imprint, indicia or the like. In this embodiment, the element 6 carries a coding like a barcode. Any other coding is also possible. The color of the element 6 is varied in accordance with a specific pattern, coding or scheme. The coding may be machine readable in order to determine authenticity of the element 6 and thereby the authenticity of the tobacco product.

[0043] FIG. 9C is a simplified representation of embodiments of additional tobacco related elements 6. Only as an example, there is an indicia 16 like a "W" on the element 6. Any other indicia or sign or symbol may be used. The indicia 16 can either be embossed or it can be printed on the element 6. Printing includes varying the color of the element at least partially. This can be done by using a specific color for printing that is different from natural color of the standard fibers 14 and/or the initial color of elements 6. The shape of the elements 6 can, of course be varied. In this example a round shape and a rectangular shape is shown only as illustrative examples.

[0044] FIG. 9D is a simplified representation of embodiments of additional tobacco related elements 6. The elements 6-1 to 6-3 now have the shape of characters "W", "O" and "L". This embodiment illustrates that the shapes of the elements 6 can be used to create indicia, characters, signs or symbols. Furthermore, complete strings of text or words etc. can be created and included into a tobacco product in form of the elements 6.

[0045] FIG. 10A shows another embodiment of the invention that relates to a correlation of a package or pouch 7 or 18 to the tobacco related product including the additional tobacco related elements 6 and standard tobacco 14. In this example, the package carries a sign, indicia, symbol or the like which is in this example a "W". The same or similar sign, indicia, symbol or character that is present on or in the package or pouch can then be represented on or by the additional tobacco related elements 6. This is a very simple mechanism to simplify authentication of a tobacco product by the consumer, the manufacturer or any third party. The package 7 may carry the sign, indicia, symbol or character in form of an imprint, embossing etc. Moreover, the sign, indicia, symbol or character can be present on the package in form of a window 27. The window can be closed by foil or any trans-

parent cover. This allows the consumer or manufacturer to carry out a visual inspection of the tobacco product inside the package 6, 28. If the package (here shown for a pouch 28 of loose tobacco) contains the standard tobacco 14 and the additional tobacco related elements 6, it can be determined whether or not the package contains elements 6 having the same shape as the window. This can also be used for marketing or for communicating information to the consumer or any third party.

[0046] The package 7 or pouch 28 may comprise a separate compartment for the additional tobacco related elements 6 such that the tobacco related elements 6 are prevented from mingling with other tobacco products contained in the package 7 or pouch 28. The package 7 or pouch 28 may for example contain loose tobacco 14 in a first compartment and the additional tobacco related elements 6 in a second compartment. The two compartments may be separated by foils, sheets or walls of plastic, paper or cardboard. This prevents any additional ingredients contained in the additional tobacco related elements from volatilizing or migrating into other components. In an embodiment, a double compartment pouch may be provided comprising one compartment for the loose tobacco and one compartment for the additional tobacco related elements 6. Any window in the pouch 28 or package 7 may then be arranged such that the additional tobacco related elements 6 are visible rather than any other tobacco related product.

[0047] FIG. 10B shows another embodiment of the invention that relates to a correlation of a package 7 to the tobacco related product including the additional tobacco related elements 6 and standard tobacco 14. In this embodiment, the package has a number that is printed somewhere outside or inside the package. This number 15 may be a series number or any other number relating to the product, product-line, edition or the manufacturer or the deliverer of the product. The number 15 can also relate to tax. The number 15 can be a unique number for this product or for the line of product or for the origin of the product. The number can be a unique identification number. The additional tobacco related elements 6-1 to 6-5 can then be configured in accordance or in correlation with the number 15. Only as an example, three embodiments are shown here. There can be a barcode (or any other coding) present on the element 6-1 that represents the series number. Furthermore, the coding on the element 6-1 can be an encrypted representation of the number 15 of the package. Using encryption can prevent more efficiently counterfeiting. Encryption methods may be used that employ encryption keys such that decryption of the coding is impossible without knowledge of the encryption key. The elements 6 may also represent the coding by their shape, for example by varying dimensions (lengths, widths, edges, angles etc.). Here an example is shown that used the width of the elements 6-1 to 6-5 as a representation of the number 15. The width of the first element 6-1 corresponds to the number 1, the width of the second element 6-2 corresponds to the number 2

etc. An encryption may of course also be used in a manner similar to the one previously described. The width of the elements 6-1 to 6-5 may then be configured in an encrypted manner. Since the elements are loosely distributed in the tobacco product, this can require identification of the different existing widths and creating an order. In still another embodiment, it is possible that the numbers are directly indicated by the shape of the elements 6-1 to 6-5 as shown on the bottom of FIG. 9B.

[0048] FIG. 10C is a simplified representation of embodiments of additional tobacco related elements 6. In this embodiment, mainly the color or visual appearance of the elements 6-1 to 6-3 is varied. Different colors are represented by different hatching of the elements 6-1 to 6-3. However, a different hatching or the like may also be used to distinguish the elements 6-1 to 6-3 among each other. The shape of the elements as well as the flavor or any other property may of course also be varied. The colors or other properties may then be used to incorporate, carry or convey information either apparently or secretly.

[0049] FIG. 10D is a simplified representation of embodiments of additional tobacco related elements 6. In this embodiment an aspect of the invention is illustrated that focuses on marketing. The additional tobacco related elements 6-1, 6-2 may be used to identify or mark specific event-related editions of a tobacco related product. Element 6-1 has the shape of a flag and may be issued, for example in connection with a specific country. Elements 6-2 have the shape of leaves. The package of the tobacco related product may, of course be shaped or marked accordingly. The package or pouch may have a window that has any shape and in particular the same shape as the elements. Seasonal items may be issued in which elements 6-2 may be added to the product which have the shape of leaves, but they may also have the shape of the sun or of snowflakes or the like.

[0050] FIG. 11A is a simplified representation of embodiments of additional tobacco related elements 6. This embodiment illustrates that the elements 6 can have the shape of entire strings or words. They can either comprise contiguous characters, signs, numbers, symbols or indicia as shown by element 6-1 or they are punched or cut out of larger element as shown by element 6-2.

[0051] FIG. 11B is a simplified representation of embodiments of additional tobacco related elements 6. This embodiment relates to an angle α of an additional tobacco related element 6. The elements 6-1 to 6-3 have a varying angle α . The shape of the elements 6-1 to 6-3 is substantially the same, but each element has different angle α_1 , α_2 and α_3 . This angle variation can be used to incorporate information that can be used for marketing or for authentication. The angle α can then be used to carry a coding by angle variation. This can of course also be done by various varying angles and the angle variation can be combined with any of the other aspects and embodiments of the invention.

[0052] FIG. 11C is a simplified representation of em-

bodiments of additional tobacco related elements 6. In this embodiment, the thickness T of the elements 6-1 to 6-3 is varied. The first element 6-1 has a first thickness T1, the second element has a second thickness T2 and the third element 6-3 has a third thickness T3. In other words, the elements 6 can be configured to have at least two different thicknesses. However, in other embodiments, the thickness of all the elements 6 may be same. A typical thickness may then be described by sheets (for example reconstituted tobacco) from which the elements 6 are manufactured having between 10g/sqmm to 150g/sqmm, an in particular about 40 g/sqmm.

[0053] FIG. 11D illustrates a method of customizing a tobacco related product by adding standard tobacco 14 and elements 6 in accordance with individual preferences. The amount of elements 6 can then either be automatically varied during manufacturing or by the consumer. The elements 6-1 to 6-3 may all be the same or they can differ by shape, color, flavor and/or ingredients/composition. For example, the elements 6-1 to 6-3 may all have a different content of nicotine. The strength of a tobacco product (cigarette, cigar, tobacco etc) may then be varied by the type and the amount of added elements 6-1 to 6-3 respectively. The elements 6-1 to 6-3 may be soaked and/or loaded with different amounts of nicotine or flavor.

[0054] FIG. 12 generally illustrates methods of authentication according to aspects of the invention.

[0055] FIG. 12A shows the easiest method, where the tobacco related product is inspected by the naked eye. The outer appearance (shape, color, embossing, signs, characters, indicia etc.) of the elements 6 allows the consumer or a third party to easily identify them in the tobacco related product among the standard tobacco related elements 14.

[0056] FIG. 12B illustrates a method of visual authentication or inspection. The tobacco product containing the standard tobacco related material 14 and the additional tobacco related elements 6 is inspected, for example by a visual inspecting means, as a camera 20 which is connected to a data processing unit 21. The data processing 21 is configured to automatically detect a specific property or characteristic of the elements 6 in order to determine a property or the authenticity of the tobacco product. The result of the authentication may be shown on a display 22.

[0057] FIG. 12C relates to an even more complex method of authentication. The tobacco related product including the elements 6 and the standard tobacco related elements 14 is now excited by a stimulus emitted from a stimulating apparatus 23. This can be a certain kind of light, like UV or IR light or colored light in the visible range. The elements 6 can carry a substance that emits light of a certain range in response to the excitation. The emitted light can either be in the visible range or also be in the UV or IR range. The light emitted by the elements 6 is then detected by a suitable detection apparatus 20 including one or more sensors suitable for detecting the expected emission. The detection apparatus is coupled

to a data processing unit 21 that determines the result and optionally shows the result of the detection on a display 22.

[0058] FIG. 12D illustrates still another embodiment of a detection or authentication method in which the tobacco related product containing the standard tobacco related elements 14 and the additional elements 6 undergo a chemical inspection in a suitable chemical device 24. It is of course possible to extract the elements 6 from the tobacco product beforehand and only insert the elements 6 into the device 24 for chemical inspection.

[0059] With respect to the above described embodiments and aspects of the invention, it is further explicitly disclosed that these embodiments and aspects can advantageously be combined. In particular, the shape, dimensions, edges, angles, imprints, signs, symbols, indicia, colors, embossing and/or watermarking on the additional tobacco related elements can either be used separately or in any combination within the same or different tobacco related products.

Claims

1. A tobacco related product comprising standard tobacco related fibers, elements and/or particles and further additional tobacco related elements configured to detectably distinguish from standard tobacco related fibers, elements and/or particles.
2. The tobacco related product according to claim 1, wherein the additional tobacco related elements are distinguishable from the standard tobacco related fibers, elements and/or particles and/or from each other by shape.
3. The tobacco related product according to claim 1 or 2, wherein the additional tobacco related elements are distinguishable from the standard tobacco related fibers, elements and/or particles and/or from each other by color.
4. The tobacco product according to anyone of the preceding claims, wherein the additional tobacco related elements are distinguishable from the standard tobacco related fibers, elements and/or particles and/or from each other by flavor and/or by smell.
5. The tobacco product according to anyone of the preceding claims, wherein the tobacco related elements are distinguishable from the standard tobacco related fibers, elements and/or particles and/or from each other by their composition of ingredients.
6. The tobacco related product according to anyone of the preceding claims, wherein the additional tobacco related elements comprise watermarks.

7. The tobacco related product according to anyone of the preceding claims, wherein the additional tobacco related elements comprise an embossing.
8. The tobacco related product according to anyone of the preceding claims, wherein the additional tobacco related elements comprise a coding, in particular a barcode. 5
9. The tobacco related product according to anyone of the preceding claims, wherein a characteristic, in particular a shape, color, ingredients and/or flavor of at least one additional tobacco related elements is/are correlated with, and/or coded with respect to a characteristic of the tobacco product, a characteristic of a package of the tobacco product, a characteristic of the origin of the tobacco product, an event, an edition of the tobacco product or a product line of the tobacco product, a trademark, brand or name of the tobacco product or the producer or supplier or deliverer of the tobacco product. 10 15 20
10. The tobacco related product according to anyone of the preceding claims, wherein the standard tobacco related fibers, elements and/or particles and the additional tobacco related elements are smokable. 25
11. The tobacco related product according to anyone of the preceding claims, wherein the additional tobacco related elements comprise and/or are made of re-constituted tobacco. 30
12. A cigarette, cigar, a small cigar comprising the tobacco related product according to anyone of the preceding claims. 35
13. A package or pouch comprising the tobacco related product according to anyone of claims 1 to 11.
14. The package or pouch according to claim 13, further comprising loose tobacco. 40
15. The package or pouch according to claim 14 comprising a pocket or compartment for the additional tobacco related elements that is separate from any other compartment or pocket for other tobacco related products, as for example loose tobacco. 45
16. The package or pouch according to anyone of claims 13 to 15 comprising an imprint, indicia, number, sign, symbol or window and wherein at least one of the additional tobacco related elements has a characteristic or property that relates or corresponds to the imprint, indicia, number, sign, symbol or window. 50 55
17. A smokeless tobacco related product, in particular snus or snuff, comprising the tobacco related product according anyone of claims 1 to 10.
18. A method of producing a tobacco related product, the method comprising the steps of: cutting detectable additional tobacco related elements out of tobacco and/or tobacco related material; inserting the tobacco related element into a package of finished tobacco product.
19. The method according to claim 18 wherein the cutting step is accomplished by using a die cutter.
20. The method according to claim 18 or 19 further comprising a transporting step of the additional tobacco related elements and wherein the transporting step is accomplished by using a conveyor belt and/or a bucket conveyor and/or a pneumatic transport system.
21. The method according to anyone of claims 18 to 20 further comprising a step of embossing the additional tobacco related elements prior to the cutting step.
22. A method of authenticating a tobacco related product comprising standard tobacco related fibers, elements and/or particles and further additional tobacco related elements configured to detectably distinguish from the standard tobacco related fibers, elements and/or particles, the method comprising the step of determining a characteristic of the additional tobacco related elements.

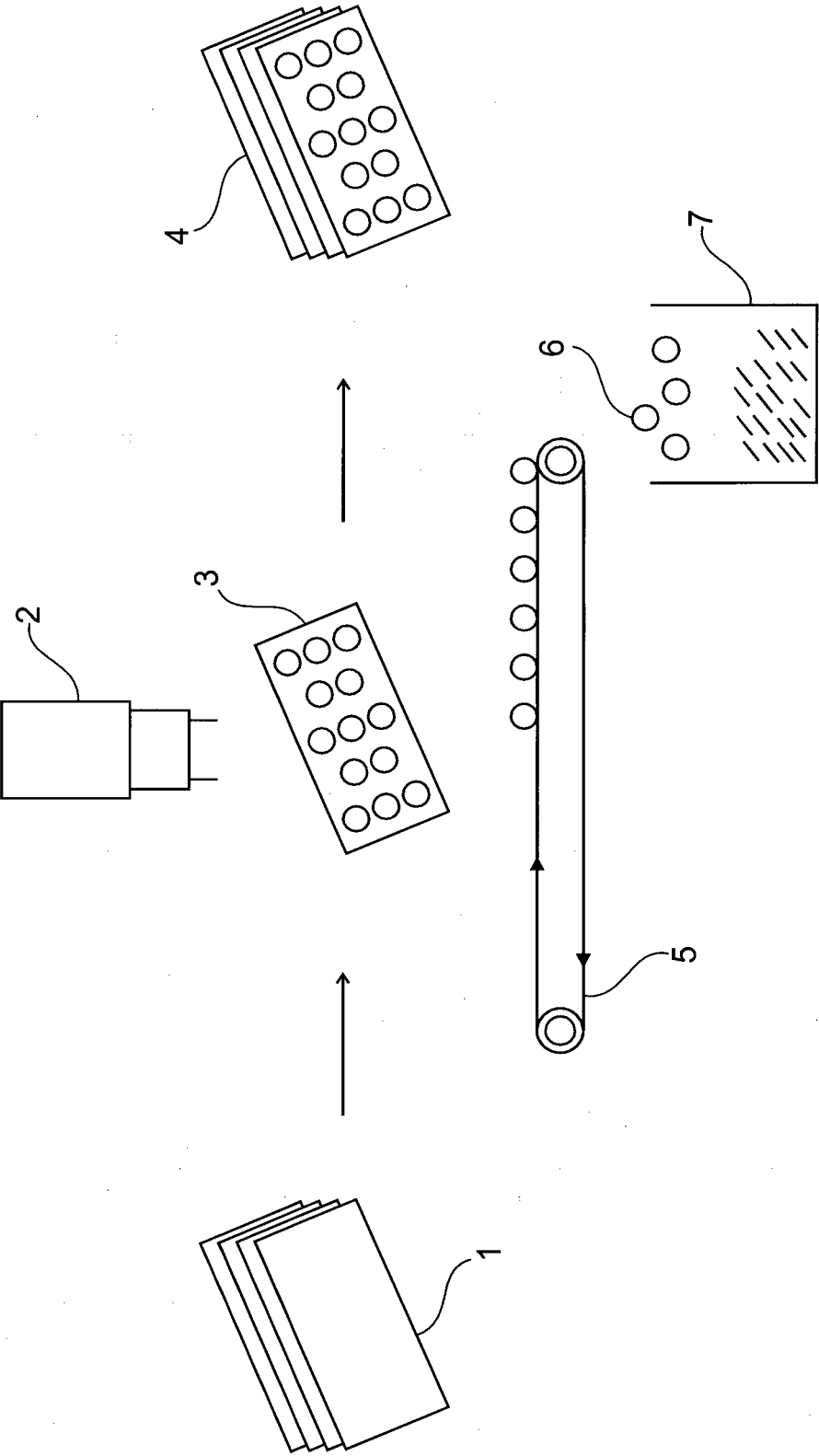


Fig. 1

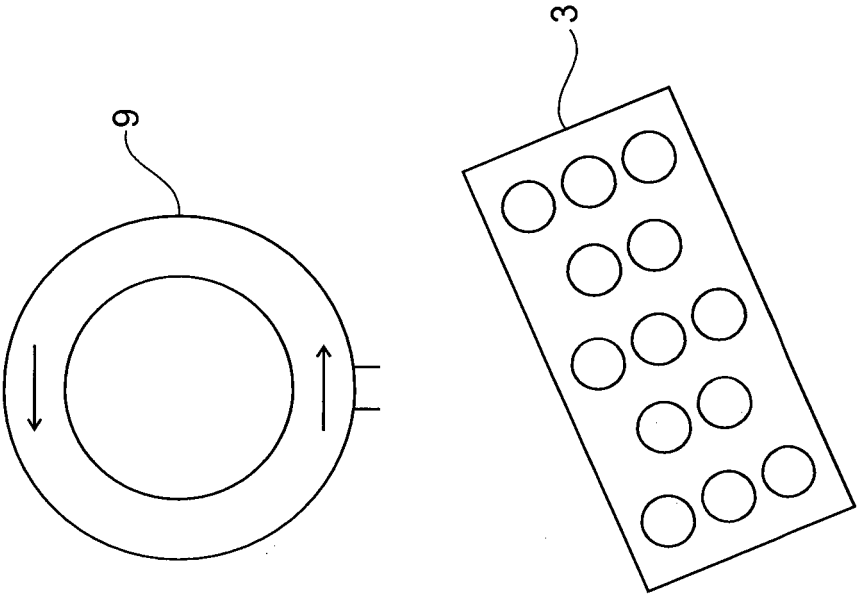


Fig. 3

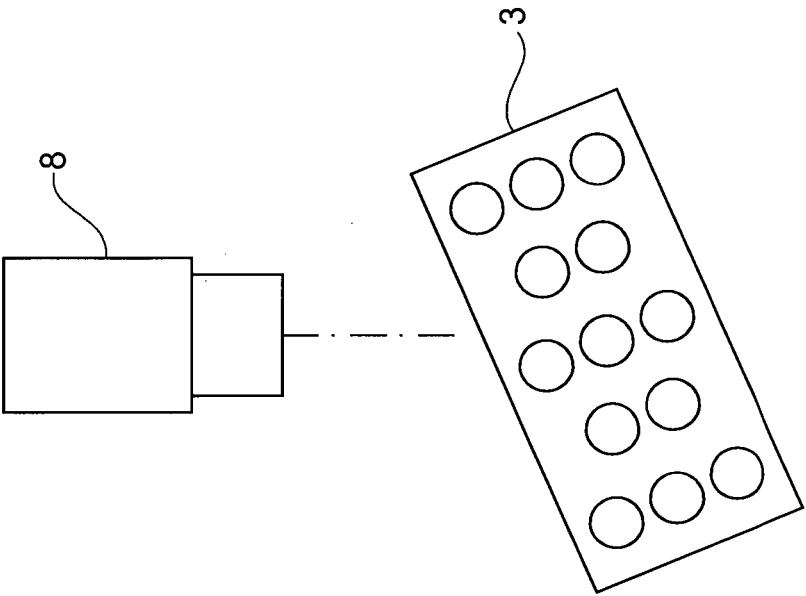


Fig. 2

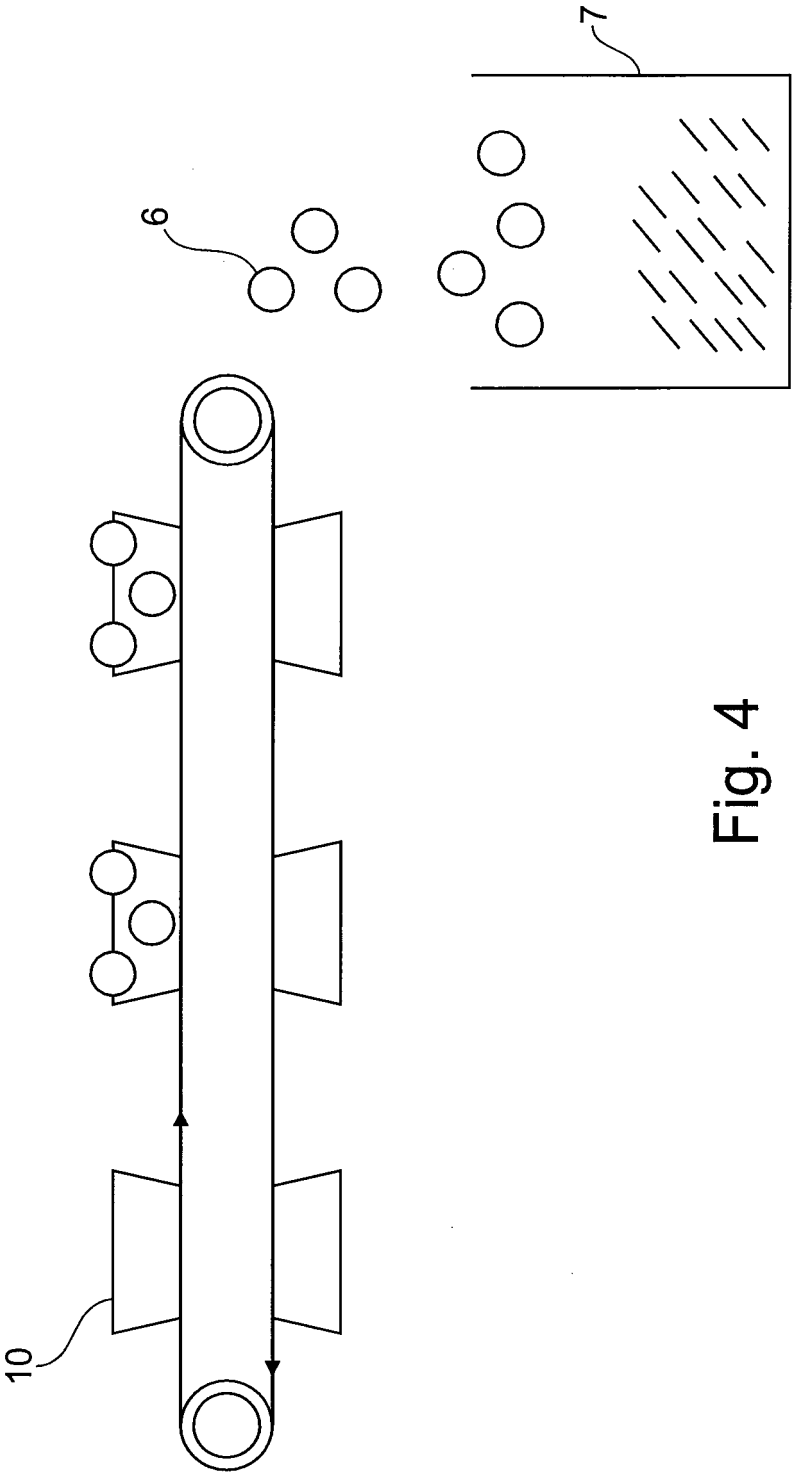


Fig. 4

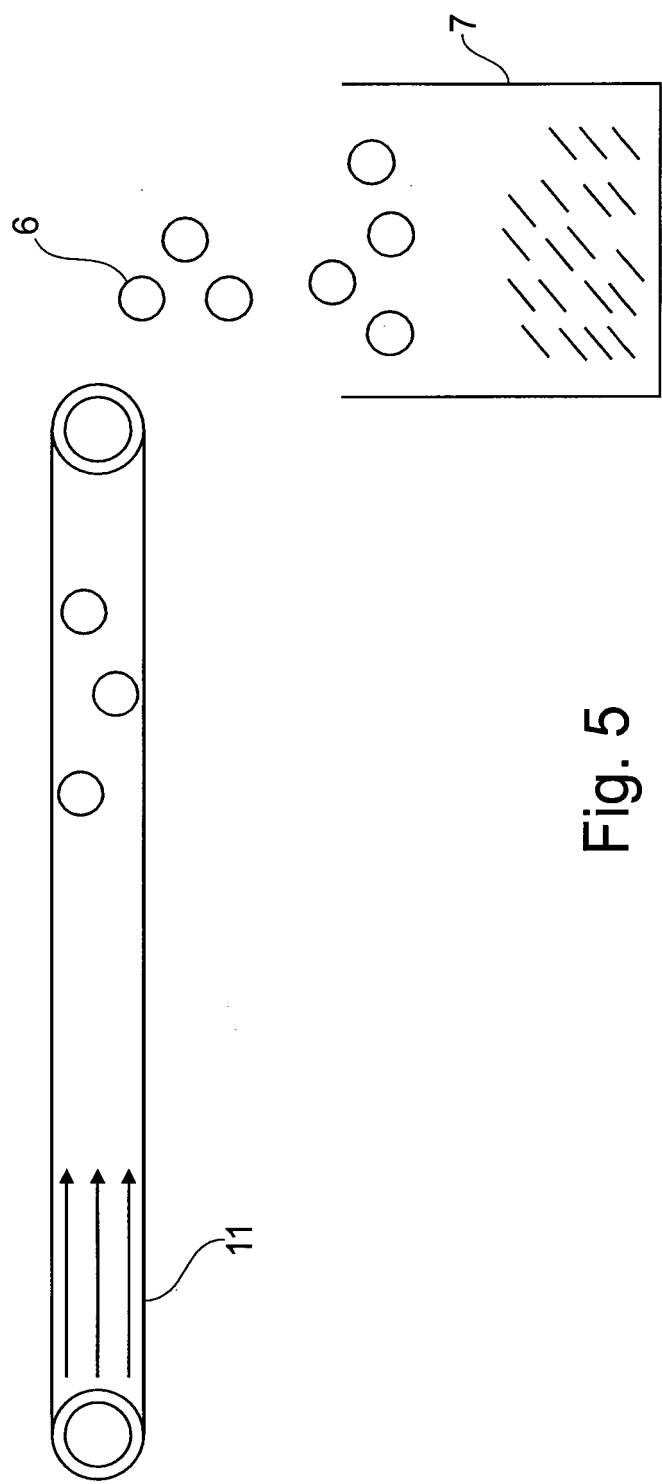


Fig. 5

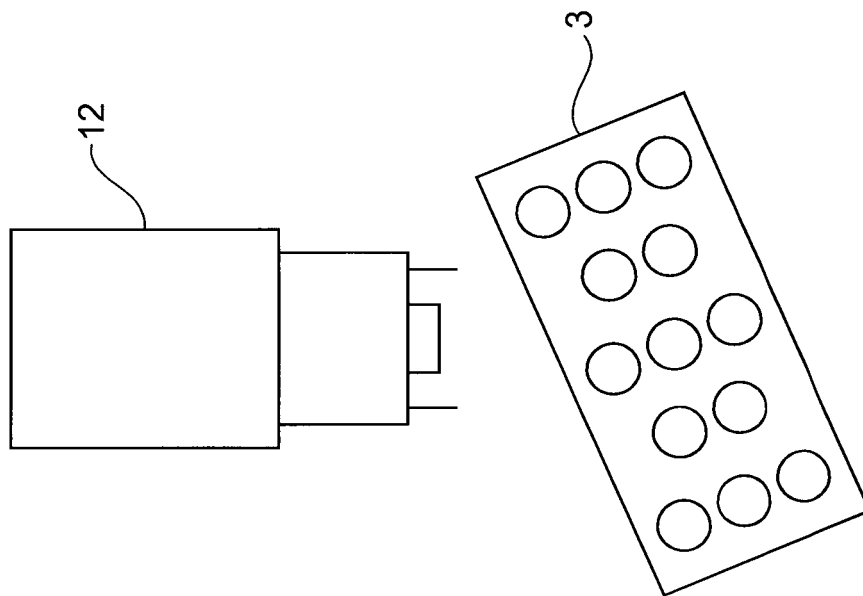


Fig. 6

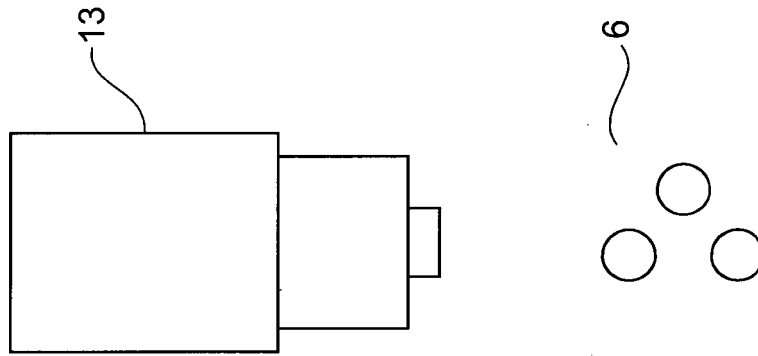


Fig. 7

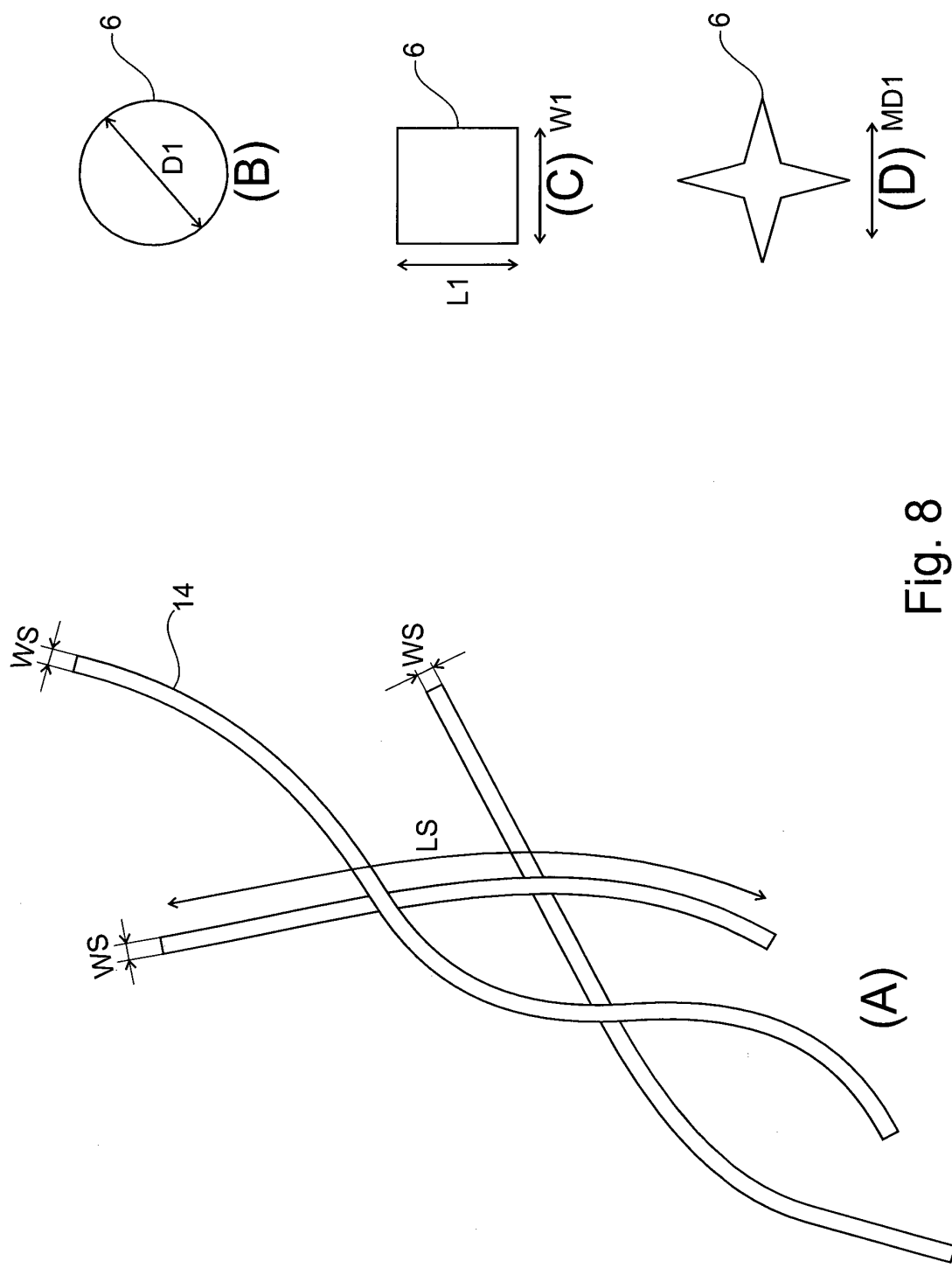


Fig. 8

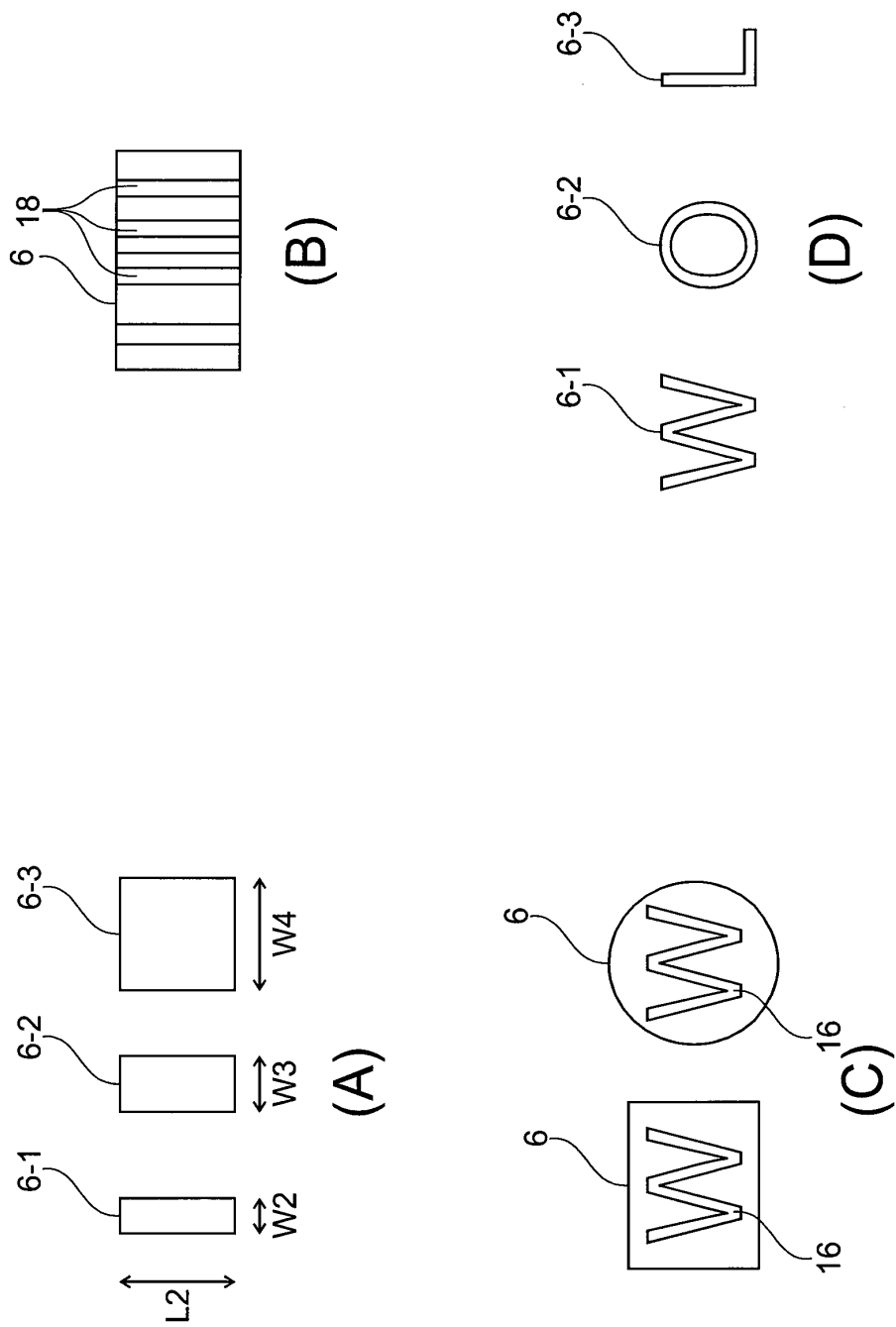


Fig. 9

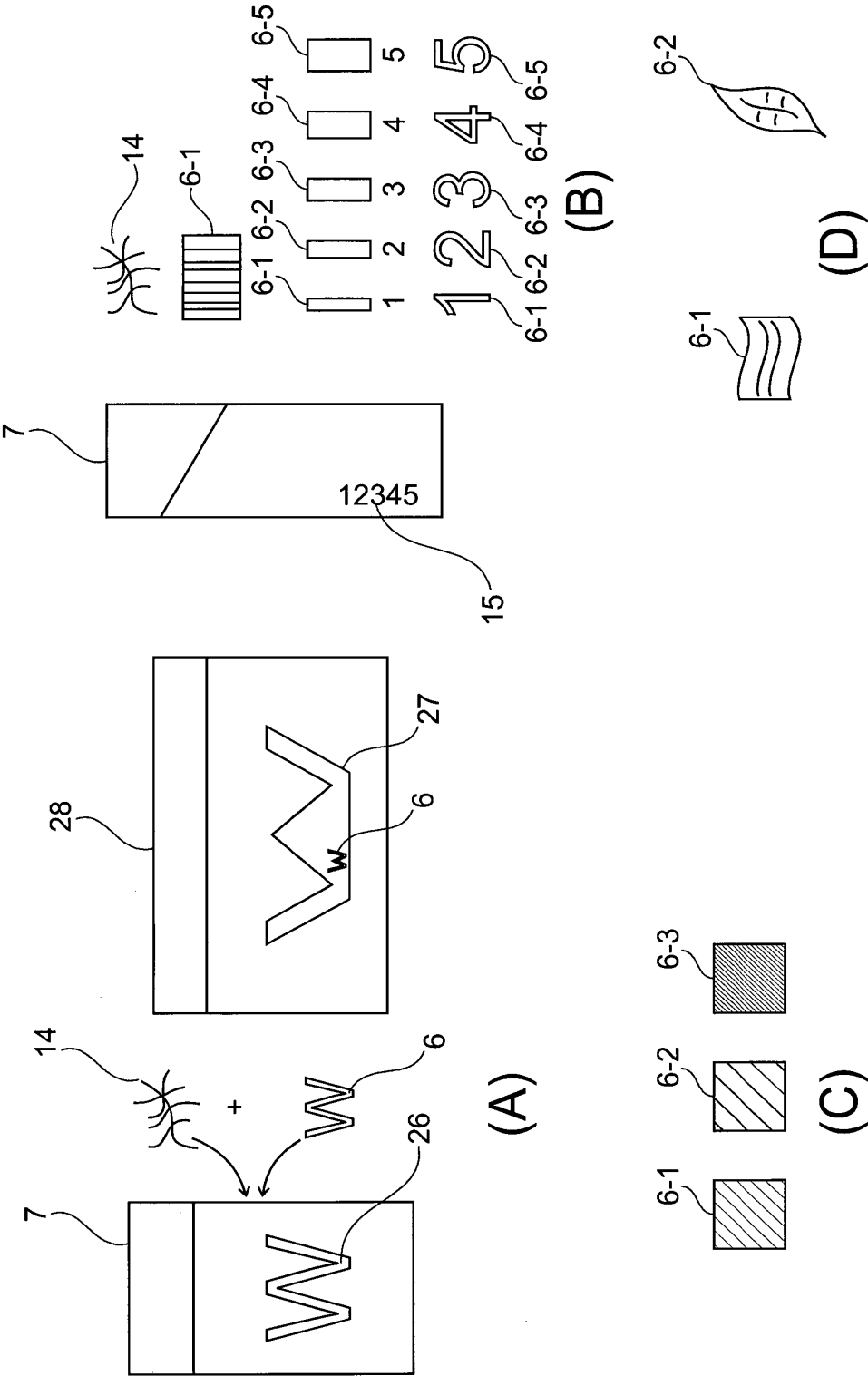


Fig. 10

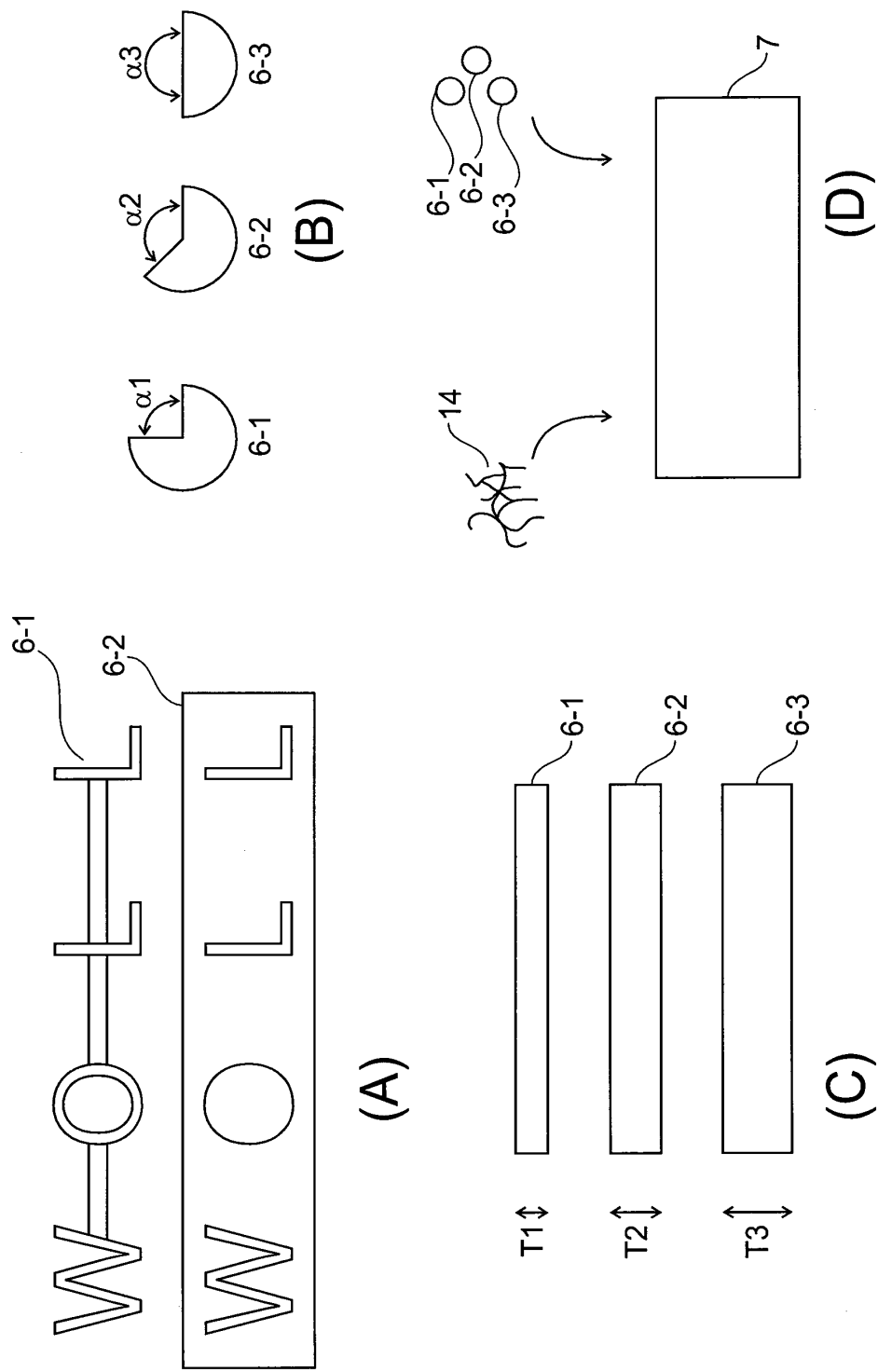


Fig. 11

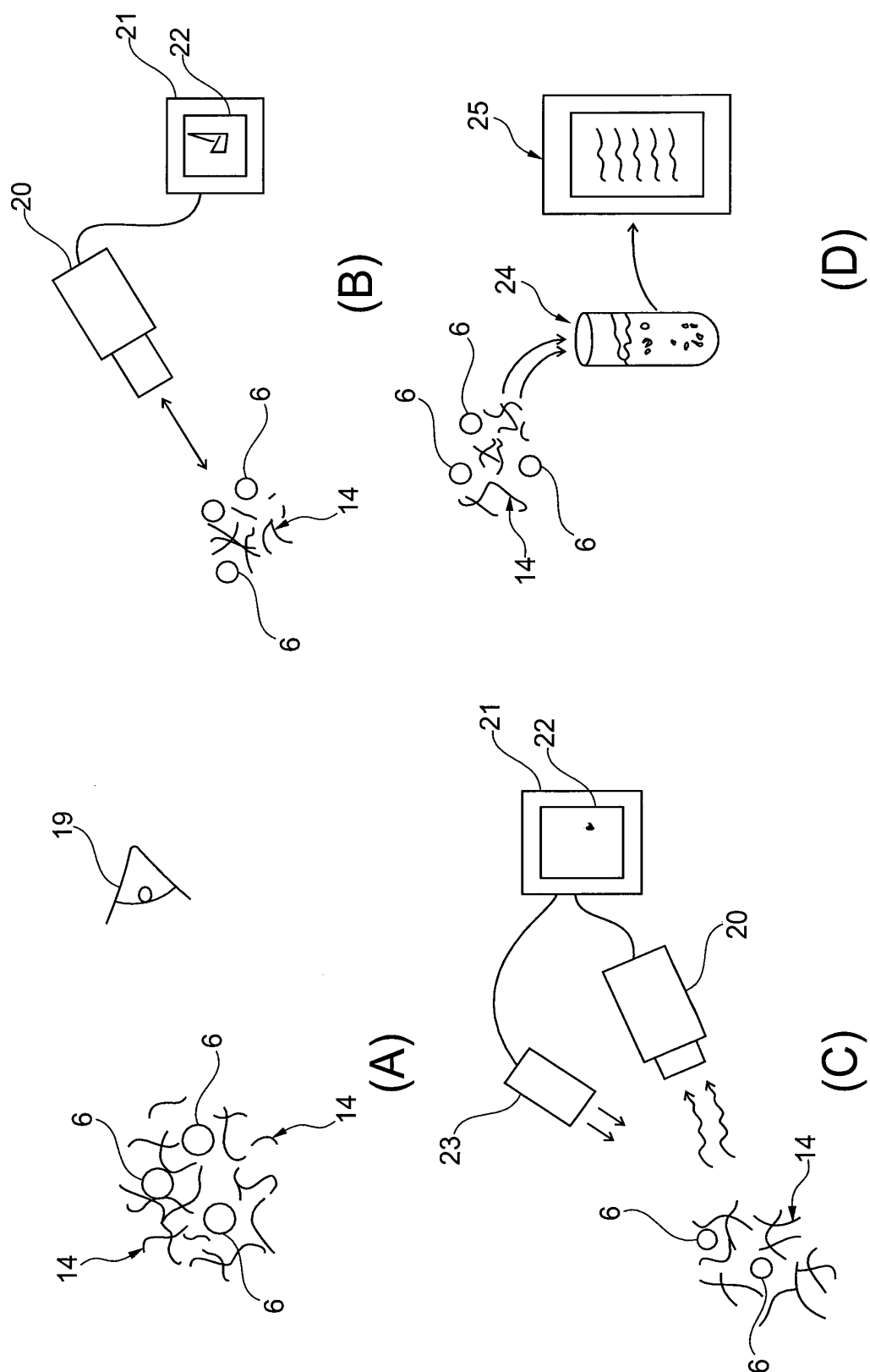


Fig. 12



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 Application Number
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 16 December 2014	Examiner Dimoula, Kerasina
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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