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- (72) Inventor; and
- (71) Applicant : DENNIS, Warren [ZA/ZA]; 155 Eagle Canyon Golf Estate, Blueberry Road, 2170 Honeydew (ZA).
- (74) Agent: DE BEER, Deon; 495 Summit Road, Morningside, 2128 Johannesburg (ZA).
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KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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(54) Title: PRODUCT PACKAGING

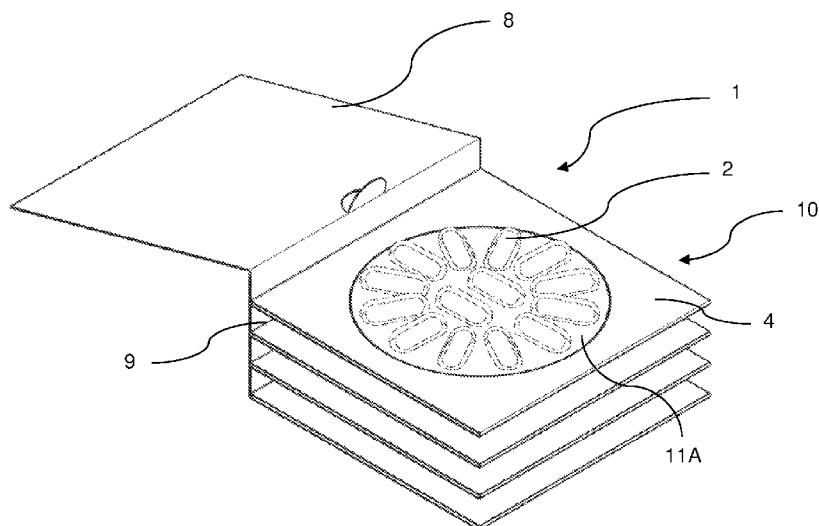


FIGURE 2

(57) Abstract: The invention relates to a product packaging (1) for a set of pills that comprises a booklet with a number of pages (4) each of which contains a subset of pills. The invention also extends to a method of presenting a set of pills in such packaging.



PRODUCT PACKAGING

FIELD OF THE INVENTION

5 This invention relates to a packaging for consumable products such as pills.

BACKGROUND TO THE INVENTION

10 Products that are designed for human consumption at determinable time intervals are provided in numerous packaging formats. These products include pills in the form of tablets or capsules, and these are typically contained and presented in bottles with screw on lids or in boxes containing pills in blister packs.

15 A problem with bottled products is that only one type of pill can be contained in a single bottle. This means it is not possible using such a container to provide pills with differing contents. An example of pills that cannot practically be presented in such packaging is contraceptive pills.

20 A problem with blister pack type packaging is that it typically presents pills in rows and relies on the colour of pills, printing on the blister pack itself, and a separate inserted leaflet to instruct a consumer on which tablets to consume when. Such packaging is often confusing and leaves people unsure of which tablets to take and when to take them. It also happens that the instruction pamphlet, which is separate from the blister pack, is lost or discarded and that the blister pack is then used without the instructions readily available. This may lead to
25 confusion, especially in the case of multiphase contraceptive pills that are not always consumed fully in each phase (such as when a woman wishes to delay the onset of one phase and skips a set of pills from one phase). It may also lead to damage to the foil of the blister pack itself, which could affect the efficacy of the pills.

30 The presently available product packaging is not conducive to presenting pills in a logical and systematic manner that is complimentary to cycles during which such pills may be consumed, and which provides adequate information relating to the pills in a format that is unlikely to be separated from the pills.

In this specification the word “pill” means any preparation in the form of a tablet, capsule or the like which is intended to be consumed by a human or animal, whether for therapeutic or preventive effect.

5 In this specification the phrase “a set of pills” means pills with differing ingredients which are configured for consumption over predeterminable intervals according to specific time-varying requirements of the intended consumer thereof, and which include more than one subset of pills.

10 In this specification the phrase “a subset of pills” means a subset of pills forming part of set of pills, each pill of such subset having similar (but not necessarily completely identical ingredients) and which are intended for consumption during a predetermined period, for example a week of a month.

15 OBJECT OF THE INVENTION

It is an object of the invention to provide a product packaging, a method of presenting a set of pills and a set of pills packaged according to the method that at least partly overcome the abovementioned problems.

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SUMMARY OF THE INVENTION

In accordance with this invention there is provided a product packaging for a set of pills, the packaging comprising a booklet having a predetermined number of pages each of which is
25 configured to contain a subset of pills, and preferably containing information relating to a subset of pills on a reverse side of a preceding page operatively for the information to be located adjacent the subset of pills when the booklet is opened at such subset of pills.

There is further provided for the booklet to include a front cover, and for the last page of the
30 booklet to form a rear cover for the booklet.

There is further provided for each page to contain a sleeve within which a blister pack of subset of pills is receivable, with a side of the sleeve, preferably the topside, being open to slidably extract and receive the blister pack.

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There is further provided for the information on the reverse side of a preceding page to comprise instructions for consumption of the associated subset of pills, and further preferably for the blister pack to also include instructions, such as colour coding, for consumption of the associated subset of pills, including at least the sequence in which the pills have to be consumed.

There is further provided for each page of the booklet to contain a blister pack having a subset of pills for consumption over a period of one or two weeks, and further preferably for the pills to comprise any one or more of supplements, preferably hormone supplements, more preferably female hormonal supplements configured for specific ages and phases relating to the female hormonal cycle; alternatively contraceptives, preferably female contraceptives, and further alternatively a combination of female hormonal supplements and female contraceptives.

There is still further provided for the hormonal supplement to be configured to supplement the hormonal requirements of a female as a result of her menstrual cycle.

According to a further feature of the invention there is provided for the subset of pills on the last page of the booklet to optionally contain more or less pills than each of the subsets of pills on the other pages, and optionally for a representation corresponding to the number of pills normally required for a female menstrual cycle length to be printed on the last blister pack or reverse side of the preceding page.

There is still further provided for the colours and ingredients of at least some of the subsets of pills to differ.

There is further provided for the pills to be presented in the blister pack in a circular pattern, alternatively any desired pattern.

There is further provided for the sleeve to include a central aperture shaped to expose the arrangement of the subset of pills within the blister pack when the booklet is opened at the specific page, further preferably for the aperture to be shaped complimentary to the pattern of the subset of pills in the blister pack, and most preferably for the aperture and the arrangement of the subset of pills to be circular.

According to a further feature of the invention there is provided a method of presenting a set of pills, the method including providing a packaging as defined above with a blister pack of a subset of pills in each sleeve of the booklet which corresponds to a predetermined portion of a period of time, and preferably for the subset of pills in each sleeve to contain pills for one or two weeks out of multi-week cycle, more preferably a four week cycle, with the sequence of consumption of the subsets of pills determining their respective locations in the booklet.

According to a still further feature there is provided a packaged set of pills which includes a set of pills with a plurality of subsets of pills packaged in a product packaging as defined above, and preferably for the packaged set of pills to comprise a set of female hormonal supplements configured to complement the supplementary requirements of a female human during the various phases of her hormonal cycle, comprising further preferably a set of hormonal supplements for one of five age groups for females including teenagers, adults with premenstrual stress, mature adults undergoing menopause, mature adults with severe menopausal symptoms, and senior adults post menopause.

According to a further feature of the invention there is provided a packaged set of pills which includes on each page a combination of a contraceptive and a hormonal supplement.

These and other features of the invention are described in more detail below.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the invention are described by way of example only and with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a closed product packaging containing a set of pills according to a first embodiment of the invention;

Figure 2 is a perspective view of the product packaging of Figure 1 with the front cover opened;

Figure 3 is a plan view of the packaging as shown in Figure 2;

Figure 4 is a bottom end view of the packaging as shown in Figure 2;

Figure 5 is a perspective view of a second embodiment of the product packaging with the front cover opened;

Figure 6 is a plan view of the packaging as shown in Figure 5; and

Figure 7 is a bottom end view of the packaging as shown in Figure 5.

DETAILED DESCRIPTION OF THE INVENTION

A first embodiment of a product packaging containing a set of pills according to the invention is shown in the drawings of Figure 1 to 4. The packaging (1) is designed for a set of female hormonal supplements in the form of tablets (2).

The packaging (1) comprises a booklet (3) having four pages (4-7). The booklet (3) includes a front cover (8) and the last page (7) forms the rear cover of the booklet (3).

Each page (4-7) comprises a double layer sleeve (9) which is open ended along its top (10). Each sleeve (9) is designed to removably contain a blister pack of tablets (11). The blister pack (11) may be inserted into the sleeve (9) through the open top (10). Each sleeve (9) includes a central aperture (12) through which the tablets (2) in the blister pack (11) are visible when it is inserted into the sleeve (9). Since the sealed tablets (2) extend above the backing surface of the blister pack (11), the tablets (2) protrude through the aperture (12) when inserted into the sleeve (9), which assists in retaining the blister pack (11) within the sleeve (9).

Each blister pack (11) is slidably removable from its sleeve (9). This allows a tablet (2) to be removed from the blister pack (11) in the conventional manner by pressing it through its foil backing, and for the blister pack (11) to be replaced in the sleeve (9) afterwards, ready for its next use.

In the embodiment shown each sleeve (9) is designed to contain a subset of tablets in the form of the blister pack (11). The blister pack (11) contains fourteen tablets. The recommended dosage is one tablet (2) per day. The booklet (3) thus contains fifty-six tablets on its four pages (4-7), which corresponds to one tablet (2) per day for two average female menstrual cycles of twenty-eight days each.

The blister pack (11) may also be provided with instructions for consumption of the tablets (2). Each blister pack (11) may have appropriate numbering or signage (not shown) adjacent the pills to indicate the required sequence of consumption of tablets (2).

These and additional general information on the tablets (2) as well as each subset of tablets (2) may also be provided anywhere on the booklet (3).

The booklet (3) and blister pack (11) may also incorporate colour coding to facilitate the correct consumption of the tablets (2). In this regard, the blister pack (11) has a coloured backing at one or more tablets (2). This colour coding will correspond to instructions found on the cover (8) and reverse sides of the pages (4, 5 and 6) respectively. The instructions will inform the user to consume the tablet located at a specific coloured backing at the required intervals. This will facilitate consumption of the correct first tablet (2) and the rest of the tablets (2) in the correct sequence.

The colour coding may also be used in combination with appropriate numbering and signage as discussed above.

When all the tablets (2) from a subset of tablets in the blister pack (11A) on one page (4) are finished (which will be after 14 days if consumed at the correct rate), the user turns to the next page (5) to use tablets (2) from the blister pack (11B) therein.

The tablets (2) are configured to supplement the hormonal requirements of a woman as result of her menstrual cycle. Booklets are provided in a number of variants, including a set for female teenagers (11-19 years), a set for female adults (20-45 years), two sets for mature females (45-60), and a set for senior females (60+ years).

The set for teenager include supplements that provide assistance with a monthly hormonal cycle of a female teenager that typically struggles with hormone related skin issue, food cravings, pre-menstrual cramps and irregular periods.

The set for adult females include supplements that provide assistance with a monthly hormonal cycle of an adult female that is in the pregnancy phase of their life and require more folic acid, biotin, and zinc to support good reproduction, in addition to suffering from mood swings, breast tenderness, food cravings, bloating, insomnia and requiring breast care.

The first set for mature females include supplements that provide assistance with a monthly hormonal cycle of a mature female that is no longer menstruating and starting to experience symptoms such as mild to moderate hot flushes and night sweats, mood swings, anxiety, memory loss and requiring breast care.

The second set for mature females include supplements that provide assistance with a monthly hormonal cycle of a mature female that is no longer menstruating and starting to experience symptoms such as severe hot flushes and night sweats, mood swings, anxiety, memory loss and requiring breast care.

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The set for senior females include supplements that provide assistance with a monthly hormonal cycle of a senior female that is starting to experience health issues relating to bone health and bone density, heart health, digestive health, breast care, memory function, blood sugar control, immunity and requires anti-aging supplements.

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It can be appreciated from the above that the five sets of pills described have different ingredients. It can further be appreciated that for each female described the requirements vary depending on her age and the time during her menstrual cycle. The subsets of tablets (11A-11D) and their presentation on different pages (4-7) in the booklet (3) make it possible to provide each woman with a hormonal supplement that most accurately assists her during each specific phase of her menstrual cycle and her life.

15

The woman starts using the tablets (2) at the onset of her menstrual cycle, and consumes one tablet (2) per day. When a subset is finished she moves on to the next subset in the blister pack in the next page, until the booklet is empty of tablets. If her cycle is longer than twenty-eight days she waits until her next cycle starts before taking the first tablet of the next booklet. If her cycle is shorter than twenty-eight days, she starts using the next booklet when her next cycle starts and discards the unused tablet(s) from the booklet of her shortened cycle. If the woman suffers from cycles that vary greatly above and below twenty eight days, she may elect to keep the supplements from the last page when she has a shortened cycle and then later when she has a longer cycle use those retained tablets until her cycle ends, at which time she will start using a new booklet.

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A second embodiment of a product packaging, in the form of a booklet (20), containing a set of pills according to the invention is shown in Figures 5 to 7. The booklet (20) also contains four pages (21) and a cover (22) all of which are the same construction of the first embodiment. This embodiment will be particularly useful when a booklet is required to contain the necessary tablets for only one normal menstrual cycle. Each page contains seven tablets (23), with the four pages totalling twenty-eight tablets which is equal to a normal menstrual cycle.

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The tablets provide the woman with a balanced intake of ingredients that are designed to most optimally supplement her requirements at every phase of her menstrual cycle. This avoids consuming supplements such as vitamins when they are not needed, and ensures that the correct amounts of such supplements are taken when they needed most. This is important since it is possible to consume too much of a specific supplement, for example some vitamins. In line with this, conventional supplements strikes a median in respect of their dosages, meaning it will overdose or under dose during some phase, and correctly dose during only some phases of a woman's menstrual cycle.

It will be appreciated that the embodiments described above is given by way of example only and is not intended to limit the scope of the invention. It is example to alter aspects of the embodiments without departing from the essence of the invention.

It is for example possible to provide supplements, in addition to, or other than female hormonal supplements in the booklet. It can contain any type of pill that has to be taken in any type of cyclic manner. These include contraceptives, sport supplements, chronic medication, critical illness medication and the like.

A specific alternative to the first embodiment described above is to include both hormonal supplements and contraceptives in one booklet. Each page will still include fourteen pills, of which seven will comprise hormonal supplements and seven will comprise contraceptives. These may be presented in pairs, ensuring that a woman takes a contraceptive and its complementary hormonal supplement at the same time. These can be marked on the foil of the blister pack to ensure there is no confusion. In this way, a woman is presented with a unique and accurate dosage of the correct amount of medication at the same time.

It is also possible for the booklet to be designed without a sleeve on each page, and for the tablets to be presented in a different manner on each page for use, for example by locating each tablet under a seal removably secured to the page.

In respect of the shortening or lengthening of a cycle, this impacts consumption of tablets from the last subset of tablets, which is when the woman taking the tablets is menstruating. Thus, only tablets from the last page will be effected by such shortening or lengthening of a cycle. In an optional modification of the invention, the last page of the booklet may be provided with extra tablets. The idea of this will be that if a woman regularly has longer cycles she will consume more tablets during the last portion of her cycle.

It is also possible for the last page to be provided with fewer tablets, effectively shortening the cycle over which the booklet will be used. This allows the booklet to be provided with a cycle length associated with it, and for woman to obtain a more tailored made booklet. For example, a 28-day Teen booklet may be provided as standard, but a 26, 27, 29 and 30 day Teen booklet may also be provided. The same could be done for any of the other formulations and age groups.

CLAIMS

1. A product packaging for a set of pills, the packaging comprising a booklet having a predetermined number of pages each of which is configured to contain a subset of pills.
5
2. A product packaging for a set of pills as claimed in claim 2 wherein the pages contain information relating to the subset of pills on a reverse side of a preceding page, operatively for the information to be located adjacent the subset of pills when the booklet is opened at such subset of pills.
10
3. A product packaging for a set of pills as claimed in claim 3 wherein the information includes instructions for consumption of the pills.
- 15 4. A product packaging for a set of pills as claimed in claim 1 to 3 wherein the booklet includes a front cover, and a last page of the booklet forming a rear cover for the booklet.
- 20 5. A product packaging for a set of pills as claimed in any one of claims 1 to 4 wherein each page contains a sleeve within which a blister pack of subset of pills is receivable, with a side of the sleeve being open to slidably extract and receive the blister pack.
- 25 6. A product packaging for a set of pills as claimed in claim 5 wherein the topside is open to slidably extract and receive the blister pack.
7. A product packaging for a set of pills as claimed in any one of claims 5 or 6 wherein the blister pack includes instructions for consumption of the pills.
- 30 8. A product packaging for a set of pills as claimed in claim 7 wherein the instructions include colour coding.
- 35 9. A product packaging for a set of pills as claimed in any one of claims 1 to 8 wherein each page of the booklet contains a blister pack having a subset of pills for one or two weeks.

10. A product packaging for a set of pills as claimed in any one of claims 1 to 9 wherein the pills comprise supplements.
- 5 11. A product packaging for a set of pills as claimed in claim 10 wherein the supplements are hormone supplements.
12. A product packaging for a set of pills as claimed in claim 11 wherein the hormone supplements are female hormonal supplements configured for specific ages and phases relating to the female hormonal cycle.
- 10 13. A product packaging for a set of pills as claimed in claim 11 or 12 wherein the hormonal supplements are configured to supplement the hormonal requirements of a female as a result of her menstrual cycle.
- 15 13. A product packaging for a set of pills as claimed in any one of claim 1 to 9 wherein the pills comprise contraceptives.
14. A product packaging for a set of pills as claimed in claims 13 wherein the contraceptives are female contraceptives.
- 20 15. A product packaging for a set of pills as claimed in claims 1 to 9 wherein the pills comprise any of the pills claimed in claims 9 to 14.
16. A product packaging for a set of pills as claimed in any one of the preceding claims wherein the subset of pills corresponding to the last blister pack of a cycle length contains more or less pills than each of the other subsets of pills in the cycle length.
- 25 17. A product packaging for a set of pills as claimed in claim 15 wherein a representation corresponding to the number of pills normally required for the cycle length is printed on the last blister pack or reverse side of the preceding page.
- 30 18. A product packaging for a set of pills as claimed in any one of the preceding claims wherein the colours and ingredients of at least some of the subsets of pills differ.
- 35 19. A product packaging for a set of pills as claimed in any one of claims 5 to 18 wherein the pills in the blister pack are presented in a pattern.

20. A product packaging for a set of pills as claimed in claim 19 wherein the pattern is circular.
21. A product packaging for a set of pills as claimed in any one of claims 5 to 21 wherein the sleeve includes a central aperture shaped to expose the arrangement of the subset of pills within the blister pack when the booklet is opened at the specific page.
22. A product packaging for a set of pills as claimed in claim 21 wherein the aperture is shaped complimentary to the pattern of the subset of pills in the blister pack.
23. A packaged set of pills comprising a plurality of subsets of pills packaged in a product packaging as claimed in any one of claims 1 to 22.
24. A packaged set of pills as claimed in claim 23 in which the pills comprise a set of female hormonal supplements configured to complement the supplementary requirements of a female human during the various phases of her hormonal cycle.
25. A packaged set of pills as claimed in claim 24 in which the set of hormonal supplements comprise supplements for one of five age groups for females including teen females, adult females with premenstrual stress, mature females undergoing menopause, mature females with severe menopausal symptoms, and senior females post menopause.
26. A packaged set of pills as claimed in claim 22 which includes on each page a combination of a contraceptive and a hormonal supplement.
27. A method of presenting a set of pills, the method including providing a packaging as claimed in any one of the preceding claims with a blister pack of a subset of pills in each sleeve of the booklet which corresponds to a predetermined portion of a period of time.
28. A method of presenting a set of pills as claimed in claim 27 wherein the subset of pills in each sleeve contains pills for one or two weeks out of multi-week cycle with the sequence of consumption of the subsets of pills determining their respective locations in the booklet.

29. A method of presenting a set of pills as claimed in claim 28 wherein the cycle is a four-week cycle.

5 30. A method as claimed in claims 27 to 29 in which the period of time is represented by the sum of the portions of time represented by the sleeves in a booklet.

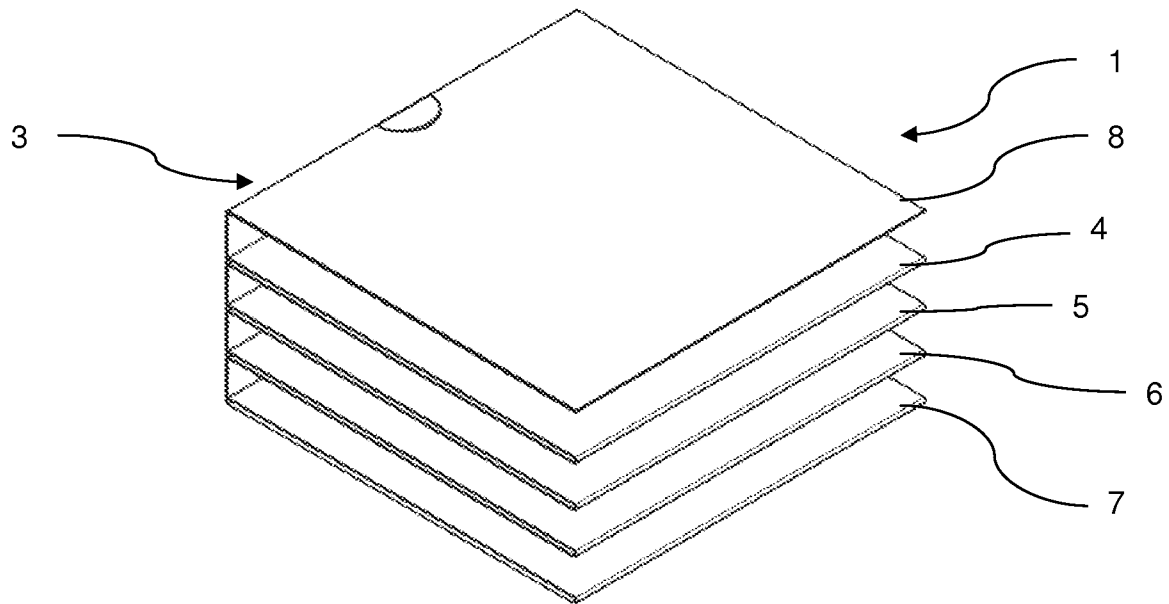


FIGURE 1

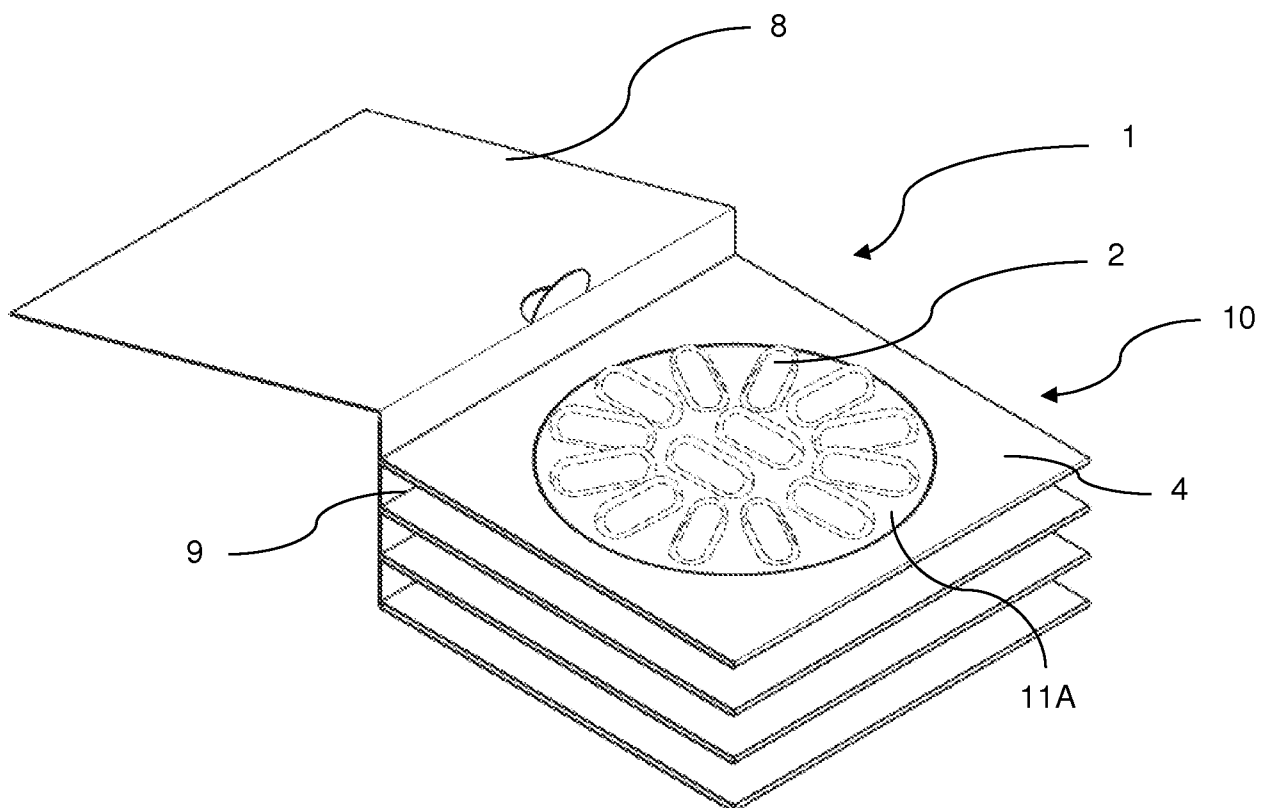
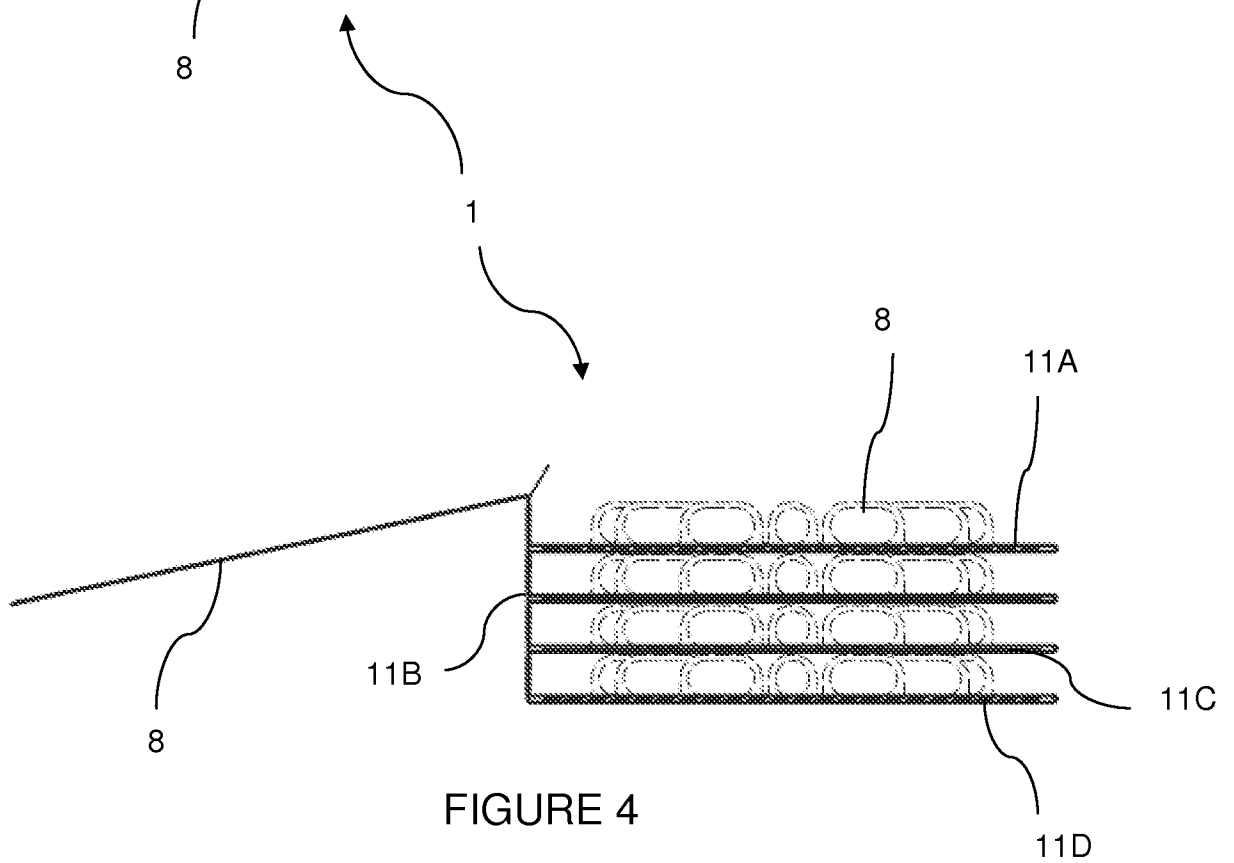
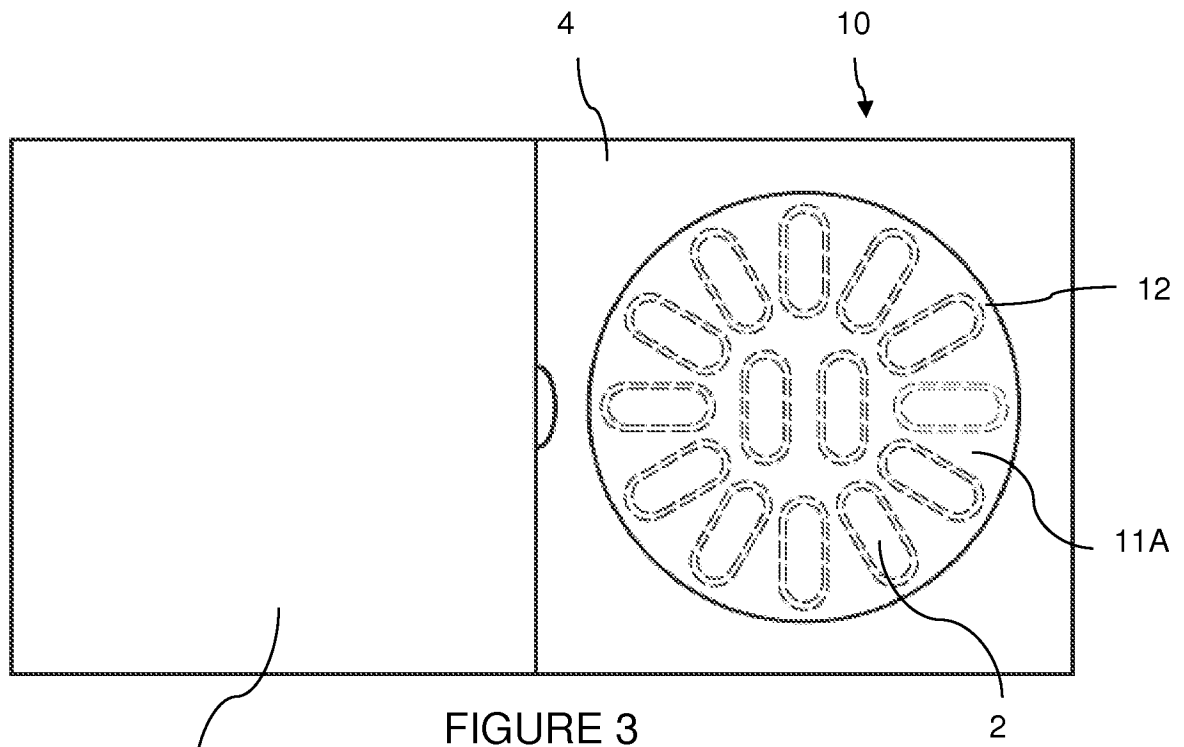
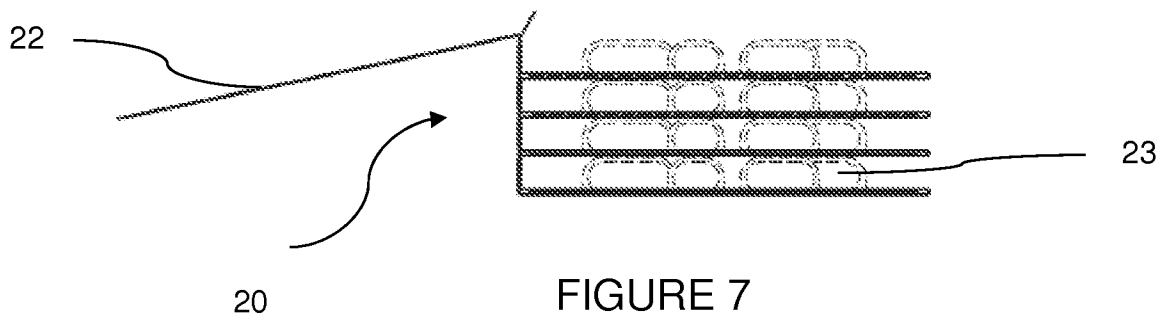
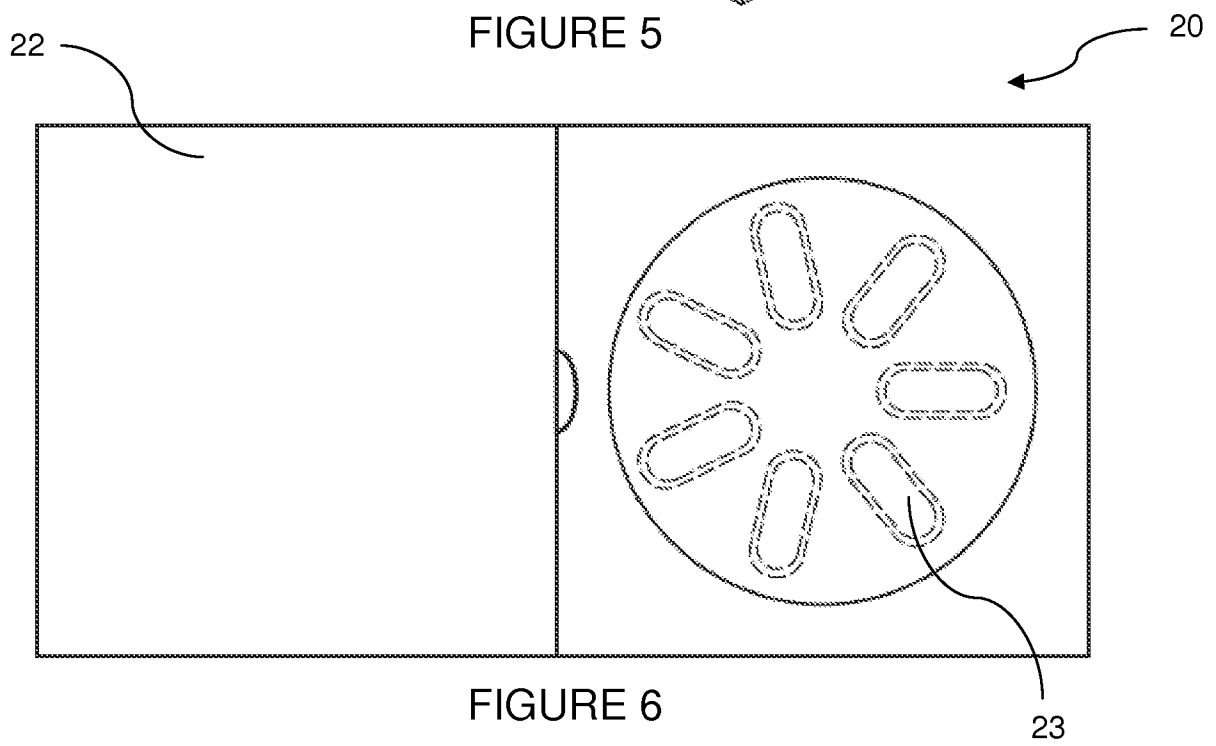
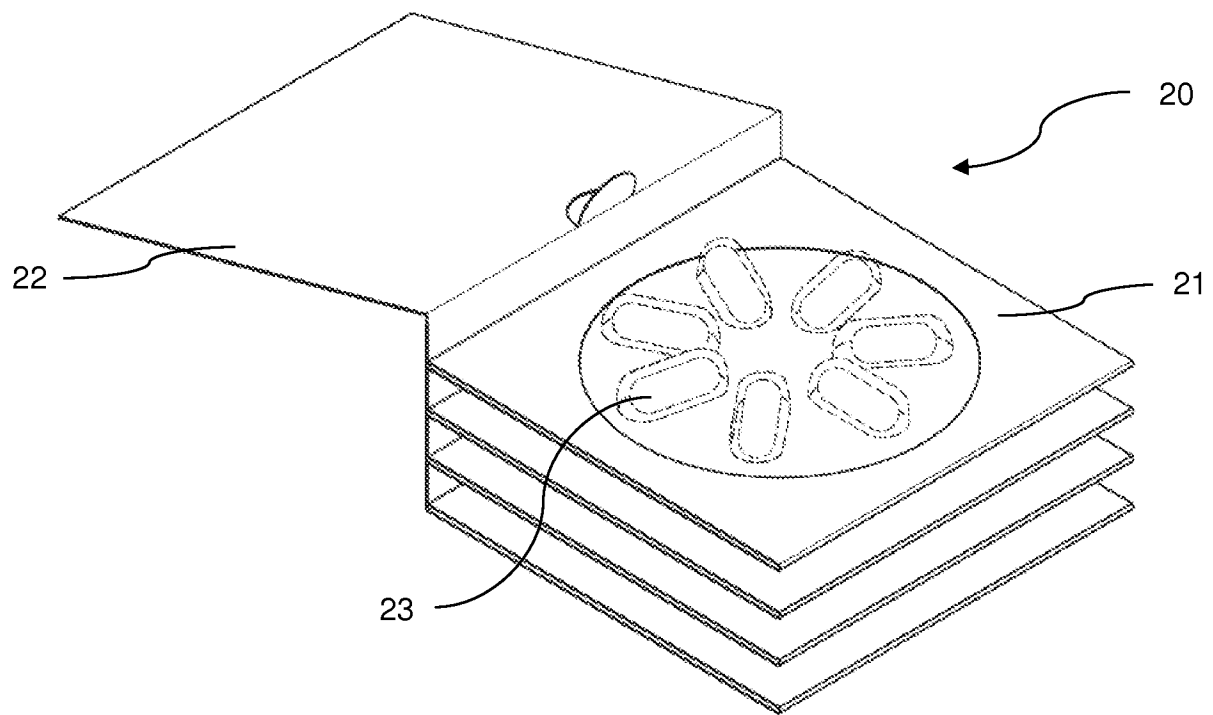


FIGURE 2





INTERNATIONAL SEARCH REPORT

International application No.

PCT / IB 2013/053242

A. CLASSIFICATION OF SUBJECT MATTER IPC: A61J 1/03 (2006.01) According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A61J Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPODOC, WPI, TXTnn		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009139893 A1 (MCGONAGLE ET AL.) 04 June 2009 (04.06.2009) abstract; paragraphs 2, 4, 5, 131, 154-158; figs. 18, 24	1-4, 9-17, 23-26
Y		5-8
X	GB 2411165 A (ASLETT D) 24 August 2005 (24.08.2005) abstract; figs. 4-6; pages 8, 13, 14	1-4, 23-26
X	US 2009230013 A1 (BORN ET AL.) 17 September 2009 (17.09.2009) abstract; figs. 3, 3A, 8, 8A; paragraphs 58-59	1-4, 18, 23-26
Y		19-22
Y	WO 2005068316 A2 (ALTANA PHARMA AG) 28 July 2005 (28.07.2005) figs. 5-25; page 9, last paragraph	5-8, 19-22
☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 21 August 2013 (21.08.2013)		Date of mailing of the international search report 02 September 2013 (02.09.2013)
Name and mailing address of the ISA/AT Austrian Patent Office Dresdner Straße 87, A-1200 Vienna Facsimile No. +43 / 1 / 534 24-535		Authorized officer RODLAUER G. Telephone No. +43 / 1 / 534 24-321

INTERNATIONAL SEARCH REPORT

International application No.

PCT / IB 2013/053242

Box No. II	Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons: 1. ☐ Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely: 2. ☒ Claims Nos.: 27-30 because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically: The methods of a set of pills presented by a packaging, as claimed in any of the preceding claims, do not contain any technical features that allow to find any inventive concept shared with the preceding claims and no technical features at all that can be searched or discussed. Therefore, no opinion is formed on claims 27-30. 3. ☐ Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).	
Box No. III	Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows: 1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims. 2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees. 3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: 4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee. ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation. ☐ No protest accompanied the payment of additional search fees.	

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT / IB 2013/053242

Patent document cited in search report			Patent family member(s)			Publication date
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			US	A1	2007163918	2007-07-19
			AT	T	491649	2011-01-15
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			JP	A	2007511254	2007-05-10