(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 October 2009 (01.10.2009)

PCT

(10) International Publication Number
WO 2009/117797 A1

(51) International Patent Classification:
B01F 13/10 (2006.01) *B67D 5/56* (2006.01)

(21) International Application Number:
PCT/BR2009/000085

(22) International Filing Date:
27 March 2009 (27.03.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PI0801098-6 28 March 2008 (28.03.2008) BR

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

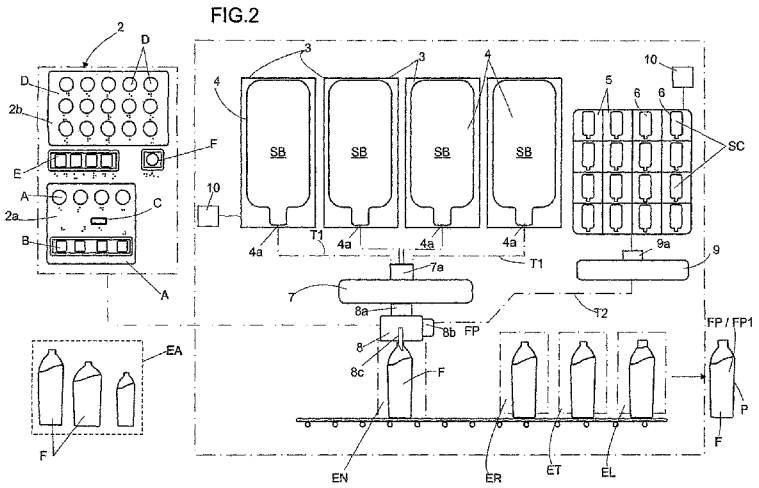
— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

WO 2009/117797 A1

(54) **Title**: MIXING, PROCESSING AND SEALING MACHINE FOR SUBSTANCES TO PREPARE COSMETICS AND RELATED MATERIALS AND CORRESPONDING PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIALS

FIG.2



(57) **Abstract**: A Mixing, processing and sealing machine for substances to prepare cosmetics using means for mixing and bottling products is provided. The machine is driven by external means (12, 13, 14, 15) and comprises a cabinet (G), where the command panels (2, 2') are externally placed and a bottling station (EN). The devices (DP) are used by a user to prepare cosmetics (P) and related products composed of chemicals or natural substances prescribed in personal formulas (FP1) which originate from prescriptions of professionals or pre-programmed formulations. The machine can be connected to a printing device (16) for printing the formula or recording means (17) for recording the formula.

"MIXING, PROCESSING AND SEALING MACHINE FOR SUBSTANCES TO PREPARE COSMETICS AND RELATED MATERIALS AND CORRESPONDING PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIALS".

TECHNICAL AREA

The present invention covers an equipment and corresponding preparation procedures of a personalized product as of chemical or natural substances used for cosmetics and related products, such as shampoos, creams, toners, moisturizers, liquid toilet soap, deodorants, oils among other; the basic substance is a fluid where to which there shall be added the combining substances, such as essences, scents, dyes, vitamins, oils, etc; such equipment comprises a sole unit or cabinet of medium size, to be installed in sundry facilities, such as drugstores, supermarkets, hospitals, convenience stores and other, having the purpose of offering the user the option of identifying its own cosmetic product; the operation of the cosmetic mixing machine & related materials will be done through the drive of a key of the fluid base cosmetic chosen by the agent/customer and the combination of possible mixtures programmed in advance in the system by the chemist in charge or by an authorized medical doctor (through prescription, for instance); the components are driven to the system of the machine by means of lateral keys; the system allows the computerized adjustment and control and is duly controlled and supervised by a chemist in charge; after the end of the choosing process, the agent/customer shall press the key to end the process and start the agitation to mix the product and finally the seal.

BASE OF THE TECHNIQUE

As commonly known, numerous cosmetic products are known to the market, destined to the treatment of the skin and/or hair, where each one has a different formula, whether to clean, moisture, protect or provide many other benefits to the users.

However, many persons evidence allergic reaction to certain substances included in the formula of such products, such as, for

instance, shampoos or creams, being the most frequent reaction red skin with edemas or small bubbles, in addition to the sensation of ardency, burning or itch.

One of the most common causes of the allergic reactions are the scents, conservation substances and paraphenylenodiamine, which, in contact with the skin of persons suffering of any king of allergy, such as rhinitis, asthma or yet elders and/or children, may cause the described reactions, whether though skin sensitiveness, or through mere contact by smell.

Another important issue regarding the choice of the product resides in the personal preference of each individual which varies as a consequence of several standards. For instance, the contact of certain scents, oils, etc. in a given type of skin, such as the black skin in relation to the white or yellow skin, produces different reactions, and can be good for one type of skin and not good for other type of skin.

Another point to be considered is that many persons need to use some king of component to wash their hair, for instance, dandruff combat, which many times is not found in the shampoo version they prefer, and must therefore use two types of shampoo, representing an additional cost, in addition to one product having a scent different from the other.

As already known, the cosmetics are manufactured in large scale by the industry, where great mixing, bottling and sealing machines are provided, preparing the products as a series, being inspected by chemists in charge.

It is also known that the cosmetics and other products in general can be prepared by processing pharmacies, where the customer delivers a prescription prepared by a medical doctor in charge, which is formulated and prepared by a chemist or person in charge of the processing pharmacy, delivering it to the customer. Generally, the cost of this type of product is much higher as compared to the products commonly found in the market, prepared by the cosmetic industry.

SHORT DESCRIPTION OF THE OBJECT

Thinking of providing improvements to the consumer market, the petitioner developed a mixing, processing and sealing machine to process substances used to prepare cosmetics and related products, which machine was particularly developed to offer the user/customer the option of personalizing its own cosmetics, such as cleaning, moisturizing and hair protection products, skin protection products, etc., allowing the user to develop the ideal product according to its preference. The present machine can be installed in Beauty Parlors, Supermarkets, Pharmacies, Stores, Fairs, Hospitals, Convenience Stores, Hotels, brand promotion Stands, among so many other places.

The fully automated machine prepares general cosmetics, such as shampoos, creams, moisturizers, toners, deodorants, etc. through combinations of one main substance, such as a basic fluid, release by pressing a key of the command keyboard, with other secondary substances such as scents, oils, essences, dyes, vitamins, etc., added to the base fluid by pushing keys or buttons placed in the control keyboard of the machine. The whole mixing process is automated and accompanied by a chemist in charge, present at the site or by electronic means, explained later.

The combinations may be pre-scheduled by the machine, which prescriptions and formulations were prepared by a qualified chemist, that is, each plurality of keys or buttons is associated to a certain pre-scheduled formulation, or, as an option of the machine, the agent/user may program the machine according to a prescription prepared by a qualified professional, such as dermatological medical doctors and other specialists, allowing the obtention of a personalized product, fully adjusted to the user.

After the end of the choice process, the agent/user shall press the "start" button which allows the machine to capture the components chosen, processes the agitation to mix the product and finally produces the cover seal which may be from a mere sachet to a container of

approximately 1 liter, depending on the client's option and of the characteristics of the machine.

In a preferred construction, the machine equipment provides a plurality of internal compartments, said main compartments, capable of storing one or more gallons of at least two liters containing substances of the "base" type, to prepare, for instance, shampoo, conditioner, moisturizer and other. Other compartments of smaller capacity, called secondary, contain combining substances, such as scents, vitamins, oils, etc.

The main compartments, with the "base" substances, are connected to a valve of the carrousel type, which, on its side, is connected to a dosing valve.

Such dosing valve receives, through another path, a connection coming from another carrousel, called secondary, responsible for receiving the combination substances.

This way, the user, whether or not accompanied by a guide, preferably a professional of the cosmetic area or responsible chemist, goes to the machine and chooses, from the control keyboard, the type of product it prefers which can be based in a prescheduled form of the equipment or in a formula prescribed by a responsible medical doctor.

Once the formula of the desired product is chosen, the equipment's procedures shall start. The choice of a personalized shampoo, through the control keyboard, may be as in the practical example, described as follows:

a) the equipment is manually or automatically fed with the size of the bottle wanted (250ml, 500ml, 1 liter or other measures, without restriction in the present patent);

b) through the keys, one chooses the type of product, for instance, shampoo;

c) the quantity desired is chosen;

d) the main carrousel leads the flow opening to the compartment of the shampoo base and allows the flow of the volume chosen;

e) from the main carrousel, the shampoo volume is conducted to the dosing valve of access to the bottle which will receive the shampoo base volume;

f) the same procedure is done in relation to the secondary substances (oils, essences, vitamins, etc.);

g) the secondary carrousel drives the flow mouth to each of the secondary compartments chosen, maintaining the mouth open for a period of time specified by the equipment program;

h) each volume of secondary substance is conducted to the dosing valve and, consequently, to the bottle which already contains the shampoo base;

i) the bottle is closed with a suitable cover;

j) after closed, the bottle goes to the mixing device, being agitated for a given period of time;

k) the bottle with the end product is sealed and released for delivery to the user/customer.

It is important to emphasize some characteristic construction points, such as, for instance:

- The compartment to add the base component (Fluid 1), internal part of the machine, must have a mouth for at least 4 containers with different types of fluids, being one of them water; such compartments provide for an alarm device informing if the fluid in the container is about to finish, allowing exchange time;
- The containers may be prepared with several materials, preferably that made in plastic and which fluid is packed by vacuum, type 2 liters refill, having the product discharge mouth adjustable to the machine's discharge mouth, receiving the product through the valve or by pressure;
- The container of the water gallon type must be turned up side down so as to release the liquid when the mechanism is driven;
- Addition of the mix/components based in the fluid is chosen through the pressing of keys, each key for its mix; such keys may preferably contain means for Braille reading;

- Tube cleaning pipes: a cleaning tube system by steam and vapor is provided, preparing them for a new formulation; the cleaning is driven automatically immediately after the end of each operation of the machine;
- The driving of the mix and steps performed by the machine, as well as the quantity and type of mix are indicated in a liquid crystal display (LCD) or similar;
- The dosing unit comprises an intelligent system to schedule combinations of mix and doses according to the volume of the bottle chosen in milliliters; at the end of the mix injection, the system, through the LCD panel asks "did the operation finish"?. Whether the answer is "yes" or "no", the machine will go to the subsequent steps, i.e., agitation and sealing of the bottle.
- Bottling: the nozzle is retractable, that is, it projects itself outside upon the bottling, and returns when the machine is turned off, thus avoiding contamination with the environment.
- The plastic packages are preferably made by vacuum, and when fit into the bottling mouth, inflate with the liquid avoiding any precontamination.
- The agitator or mixer comprises an automatic door closing system (transparent), isolating, that must operate during the whole process.
- Eventually, should the agent/user require, the machine may bottle only the main fluids, irrespectively of the mix.

As described, the great innovation of the present machine consists in presenting an equipment which allows the manufacture of personalized products, in ideal quantities and according to the individual preference of each user, allowing a maximum use of the product, with no waste.

Another great advantage of the present equipment, in

addition to the versatility in preparing several products in a practical and fast manner, consists in the fact that it is easy to install, since it has a medium size, allowing the operation in supermarkets, drugstores, hospitals, convenience stores, hotels, etc.

Another advantage is that the present machine is fully computerized and equipped with means allowing perfect interaction with the agent/user through several means of command, such as keys and buttons, voice command, Braille, among other.

Another advantage related to the intelligent system of the machine resides in the fact that is provides for a printing or recording device associated to the production of the cosmetic or related product. Such device may print, through a thermal printer or equivalent, the composition chosen by the client or may, in another option, record such composition in a mini-CD, making it easier to do another operation when the client returns to the machine, since it will only be necessary to follow the prescription printed or to introduce the mini-CD in the machine for it to process the product once again.

DESCRIPTION OF THE DRAWINGS

Supplementing the present description so as to achieve a better understanding of the characteristics of the present invention and according to a preferred practical realization thereof, we attach hereto a set of drawings where, as example and without limitation, we represented the following:

Figure 1 represents a perspective view of the referred machine and the amplified view of one of the command keyboards;

Figure 2 illustrates a scheme of the internal part of the equipment and the devices responsible for preparing the personalized end product.

Figure 3 illustrates a diagram of blocks of the intelligent program or "software" to drive the machine, as well as the peripheral

devices associated thereto;

DETAILED DESCRIPTION OF THE OBJECT

With reference to the illustrated drawings, the present invention refers to an "MIXING, PROCESSING AND SEALING MACHINE FOR SUBSTANCES TO PREPARE COSMETICS AND RELATED MATERIALS AND CORRESPONDING PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIALS" more precisely, this is a machine (1) meant for the preparation of cosmetic products (P) and related products, obtained as of chemical or natural substances prescribed in formulas which may be based in personalized compositions (FP1), originated from prescriptions of professionals, such as dermatological medical doctors and other specialists or even chosen by the user/customer itself, assisted by a qualified assistant, or yet personalized formulas (FP2) resulting from recipes (R) previously programmed by the chemist in charge, which are part of the machine program (1); both formulas (FP1) and (FP2) are specially assigned to the most diversified skin and/or hair treatment; such equipment (1) allows the user to, with or without the help of a duly trained assistance, to be able to manufacture the product (P) personalized, totally adjusted to its preference.

Such equipment (1), in an optional construction, meant for better understanding, encompasses a cabinet (G) equipped with at least one control keyboard (2) and/or (2'), with two similar keyboards (2a) and (2b) and/or (2a') and (2b'), all liable of commanding and controlling the internal devices (DP) of the cabinet (G), which devices may be defined by plurality of main compartments (3), capable of warehousing the corresponding gallons (4) containing at least 2 liters of "base" substances (SB) which may, one of them being water, be used to prepare the cosmetics and related products, for instance, shampoo, conditioning, moisturizer, etc. Such compartments (3) have their drives electronically controlled by a logical programmable controller, PLC or another one suitable to act in the corresponding electrical valve releasing the fluid

Also inside the cabinet (G) other compartments with lower capacity are arranged (secondary compartments - (5)), where there are warehoused containers (6) with combination substances (SC), such as scents, vitamins, oils, etc.

The main compartments (3), with the "base" substances (SB), are connected by tubes (T1) to a main carrousel (7), equipped with a flow mouth (7a); such main carrousel (7) is connected to an entrance (8a) of a dosing valve (8), duly assembled in the bottling station (EN) of the bottle (F), preparing the end product (P).

Such dosing valve (8), which is controlled by an intelligent system to program combinations of mix and doses according to the volume of the bottle chosen in milliliters, receives, through another tube (T2) and other entrance (8b), the connection originated from a secondary carrousel (9), responsible for receiving the combination substances (SC) through the access mouth (9a). Such dosing valve (8) is equipped with the retractable nozzle (8c), which is projected outside upon the bottling, and retracts upon the end of the bottling, avoiding contamination with the environment.

Compartments (3) and (5) are equipped with alarm devices (10) (see figure 2) which inform when the fluids of each container (4) or (5) are closed to requiring change.

The equipment also provides, internally or externally, the mixing station (ER), the closing station (ET) and the sealing station (EL).

Such equipment (1) may provide for an internal or external compartment, called feeding station (EA) where the several models of bottles will be warehoused (F), since the bottling and product preparation program (P) allows the user/customer to choose the volume of product to be prepared, which may vary from 100 ml to 1 liter or a volume range not restricted to the examples quoted by the present patent.

The production process performed by the equipment

(1) to obtain a cosmetic or related product (P), according to the present invention, may be defined as follows:

a) the bottling station (EN) of the equipment (1) is fed manually or automatically with a bottle (F) chosen among the optional volumes, which one intends to fill;

b) in the keyboard (2a) one chooses from keyboard (2), through the keys (A), the type of base substance (SB) and with the keys (B), the volume to be fed into the bottle (F);

c) key is pressed (C) ending the keyboard command (2a);

d) from the keyboard (2b) keys (D) of keyboard (2), the types of combination substances (SC) which one wishes to add to the base (SB);

e) through keys (E) of keyboard (2b) one chooses the volume of the combination substance (SC) to be added to the base substance (SB);

key is pressed (F), ending the choice process and automatically starts the preparation of the equipment;

f) the main carrousel (7) leads the flow opening mouth (7a) up to the compartment of the base substance (SB) chosen in the keyboard (2a);

g) from the main carrousel (7), the volume of base substance (SB) is taken to the dosing valve (8) and, consequently, to bottle (F) placed in the bottling station (EN);

h) the secondary carrousel (9) makes the same procedures as carrousel (7), taking the flow mouth (9a) to the combination substances (SC) chosen, allowing their flow by the tubes (T2) up to the dosing valve (8) and from that to the bottle (F) in the bottling station (EN);

i) the bottle, containing all portions of the base substances (SB) and combination substances (SC) is taken to the mixing station (ER);

j) the bottle is closed in the closing station (ET); and

k) finally, the bottle is sealed and released in the sealing station (EL) being released for delivery to the user/customer.

In a constructive option, a command keyboard (2')

may be provided, previously programmed with some formulas prepared by the chemist in charge. This panel (2') encompasses a keyboard (2a') with keys (A') in number corresponding to the number of compartments (3) and corresponding base substances a keyboard (2b') with keys (T) referring to a given type of recipe (R), previously scheduled, with are available, together with the equipment, for the user/customer to be able to access before choosing.

In face of this keyboard (2') it is sufficient for the user/customer to choose, through key (A'), which type of base substance (SB) it wishes and through key (D') which ready recipe (R), based in the combination substances (SC) (vitamin, dandruff combat, essences, etc.) it wishes to incorporate to the base (SB). As of such choices, the start key (IN) is pressed, for the equipment to proceed to prepare the product (P), such as described in the following process steps:

a1) the bottling station (EN) of the equipment (1) is fed manually or automatically with a bottle (F) chosen among the optional volumes, which one intends to fill;

b2) in the keyboard (2'), more precisely in the sub-panel (2a'), one chooses through key (A'), the type of base substance (SB) to be placed in the bottle (F);

c1) from keys (D') of the sub-panel (2b') one chooses the pre-programmed recipe (R) the types of combination substances (SC) which one wishes to add to the base (SB);

d1) key (IN) is pressed, ending the choice process and automatically starts the preparation of steps "g" to "m" of equipment preparation, already described.

As stated, the machine works by means of an automated programming control, that is, a "software" (11) (figure 3) especially developed to allow the "step by step" operation made by the agent/user to make the combination and doses of the mix components.

For such purpose, the "software" (11) provides for the following operational conditions:

- to start the programming, it is necessary to introduce the sheet or similar

element in a driving device (12), responsible for starting the machine; a device which is turned off if the facility so prefers, since this device can be added remotely by means of a keyboard (13) where he customer data may be inserted: name, (note that the machine is destined to the individual identification an that it is important for the person to keep its individual formula);

- the "software" may contemplate driving through "voice command" (14) allowing short people or handicapped people in wheel chairs to access the machine.
- the voice command may be associated to a keyboard or Braille keys (15) allowing access by persons who are short sighted or blind;
- after the machine is started (1) through any of the devices (12/13/14/15 or other suitable devices) the agent/user starts the automated operation of the machine's internal devices (1);
- at the end of the operation, the "software" (11) may be connected to a printing device (16) or recording (17) responsible for recording the formula of the cosmetic or related material, chosen by the agent/user; the printing device (16) may print an evidence slip with the characteristics of the formula as well as the condensation in bar codes (18) or may, in another option, through the recording device (17), record such composition in a mini-CD (19), making a new operation easier when the client returns to the machine, since it will be enough to repeat the printed prescription or introduce it by means of the bar code or through the mini-CD in the machine for the client to obtain the same product once more.

It is certain that, when the present invention is placed in use, there may be introduced modifications regarding certain construction details and form, however this will not imply detachment from the essential principles which are clearly substantiated in the claims schedule, being thus understood that the terms used had the purpose of describing without limitation.

CLAIMS

1) "MIXING, PROCESSING AND SEALING MACHINE FOR SUBSTANCES TO PREPARE COSMETICS AND RELATED MATERIALS AND CORRESPONDING PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIALS" of the type using mans to mix, process (shake) and bottle products, more specifically *characterized* by the fact of the machine (1) driven by external means (12), (13), (14), (15) or another suitable mean and electronically commanded by an intelligent program or "software" comprising a cabinet (G) where there are externally placed command keyboards (2) and (2') and a bottling station (EN), whilst internally, there are provided a plurality of devices (DP) used by one agent/user to prepare cosmetics (P) and related products, to be placed in bottles (F), as of the choice of chemical or natural substances which may be in the form of base substances (SB) and combination substances (SC), prescribed in personalized formulas (FP1), originated from prescriptions of professionals or other specialists or formulas (FP2), resulting from previously programmed recipes (R) which are part of the equipment program (1); at the end of the machine operation (1), the "software" (11) may be connected to a printing device (16) or recording (17) responsible for recording the formula of the cosmetic or related product, chosen by the agent/user; the printing device (16) may print an evidence with the characteristics of the formula, as well as the condensation into bar code (18) or may, in another option, through the recording device (17), record such composition in a mini-CD (19) or equivalent.

2) "MIXING, PROCESSING AND SEALING MACHINE FOR SUBSTANCES TO PREPARE COSMETICS AND RELATED MATERIALS AND CORRESPONDING PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIALS", according to the 1st claim and in a preferred construction, *characterized* by the cabinet (G) of equipment (1) being equipped with at least one command keyboard (2), with two similar keyboards (2a) and (2b), capable of commanding and controlling the internal devices (DP), which

are constituted by a plurality of main compartments (3), capable of warehousing corresponding gallons (4) containing at least 2 liters of substances of the "base" type (SB), such as shampoos, moisturizers, creams, etc.; in another part of the interior of the cabinet, there are arranged other compartments of lower capacity, called secondary compartments (5), where there are stored containers (6) of combination substances (SC), such as scents, vitamins, oils, etc.; the main compartments (3), with the "base" substances (SB), are connected by tubing (T1) to a main carrousel (7), equipped with a flow mouth (7a); such main carrousel (7) is connected to the entrance (8a) of a dosing valve (8), duly assembled in the bottling station (EN) of the bottle (F); said dosing valve (8) receives, through another entrance (8b), the connection originated from a secondary carrousel (9), responsible for receiving the combination substances (SC) through an access mouth (9a); the equipment also provides, internally or externally, a mixing station (ER), the closing station (ET) and the sealing station (EL); such equipment (1) may provide for an internal or external compartment, said feeding station (EA) where there are warehoused the several models of bottles (F), since the bottling and preparation program of the product (P) allows the user/customer to choose the volume of product to be prepared, which may vary from 100 ml to 1 liter or other suitable volume.

3) "MIXING, PROCESSING AND SEALING MACHINE FOR SUBSTANCES TO PREPARE COSMETICS AND RELATED MATERIALS AND CORRESPONDING PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIALS", according to claims 1 and 2, *characterized* by the dosing valve (8) being controlled by an intelligent system to program mix and dosing combinations according to the volume of the bottle chosen in milliliters; such dosing valve (8) is equipped with the retractable nozzle (8c), which is projected outside upon the bottling, and retracts upon the end of the bottling.

4) "MIXING, PROCESSING AND SEALING MACHINE FOR SUBSTANCES TO PREPARE COSMETICS AND RELATED MATERIALS AND

CORRESPONDING PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIAL". according to claims 1 and 2, *characterized* by compartments (3) and (5) being equipped with alarm devices (10), which inform when the fluids of each container (4) or (5) are close to require change.

5) "PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIAL". according to the previous claims *characterized* by the production process performed by the equipment (1) to obtain cosmetic or related product (P) based in formulations (FP1) originated from a medical doctor or specialist, being commanded in a command panel (2) according to the following steps:

a) the packing stations (EM) of equipment (I) is manually or automatically fed with a bottle (F), chosen among the option volumes, which one wants to fill in;

b) one chooses, in panel (2), precisely in sub-panel (2a) through key (A) the type of base substance (SB) and through key (B) the volume to be filled to the bottle (F);

c) key (C) is pressed, ending the panel command (2a);

d) through keys (D) of sub-panel (2b) one chooses the types of combined substances (SC) which one wishes to add to the base (SB);

e) through keys (E) of the sub-panel (2b) one chooses the volume of combined substance (SC) to be added to the base substance (SB);

f) key (F) is pressed, ending the choice process and automatically starts the preparation of the equipment;

g) the main carrousel (7) leads the flow opening mouth (7a) up to the compartment of the base substance (SB) chosen in the keyboard (2a);

i) from the main carrousel (7), the volume of base substance (SB) is taken to the dosing valve (8) and, consequently, to bottle (F) placed in the bottling station (EN);

j) the secondary carrousel (9) makes the same procedure, leading the flow mouth (9a), to the combination substances chosen, allowing their flow to the dosing valve (8) and from that to the bottle (F) in the bottling station (EN);

k) the bottle, containing all portions of the base substances (SB) and combination substances (SC) is taken to the mixing station (ER);

l) the bottle is closed in the closing station (ET); and

m) finally, the bottle is sealed and released in the sealing station (EL) being released for delivery to the user/customer.

6) "MIXING, PROCESSING AND SEALING MACHINE FOR SUBSTANCES TO PREPARE COSMETICS AND RELATED MATERIALS AND CORRESPONDING PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIAL" according to claim 1 and in optional construction, *characterized* by the cabinet provided with a command keyboard (2') for the preparation of formulas (FP2) resulting from previously programmed recipes (R); this panel (2) comprises one sub-panel (2a') with keys (A') in number corresponding to the number of compartments (3) and corresponding base substances (SB) one sub-panel (2b') with keys (D'), related to a given type of recipe (R) which contemplates the addition of certain combination substances (EC), recipes (R) which are available, beside the equipment, for the user/customer to have access thereto before the choice.

7) "PROCEDURES FOR PREPARATION OF COSMETICS AND RELATED MATERIAL", according to claims 1, 2 and 4, *characterized* by the production process performed by the equipment (1) to obtain a cosmetic or related product (P) which formula (FP2) results from recipes (R) typed to the panel (2'), observing the following steps:

a1) the bottling station (EM) of the equipment (1) is fed manually or automatically with a bottle (F) chosen among the optional volumes, which one intends to fill;

b2) in the keyboard (2'), more precisely in the sub-panel (2a'), one chooses through key (A'), the type of base substance (SB) to be placed in the bottle (F);

c1) from keys (D') of the sub-panel (2b') one chooses the pre-programmed recipe (R) the types of combination substances (SC) which one wishes to add to the base (SB);

d1) Key (IN) is pressed, ending the choice process and automatically starts the preparation of steps “g” to “m” of equipment preparation, already described.

5

FIG.1

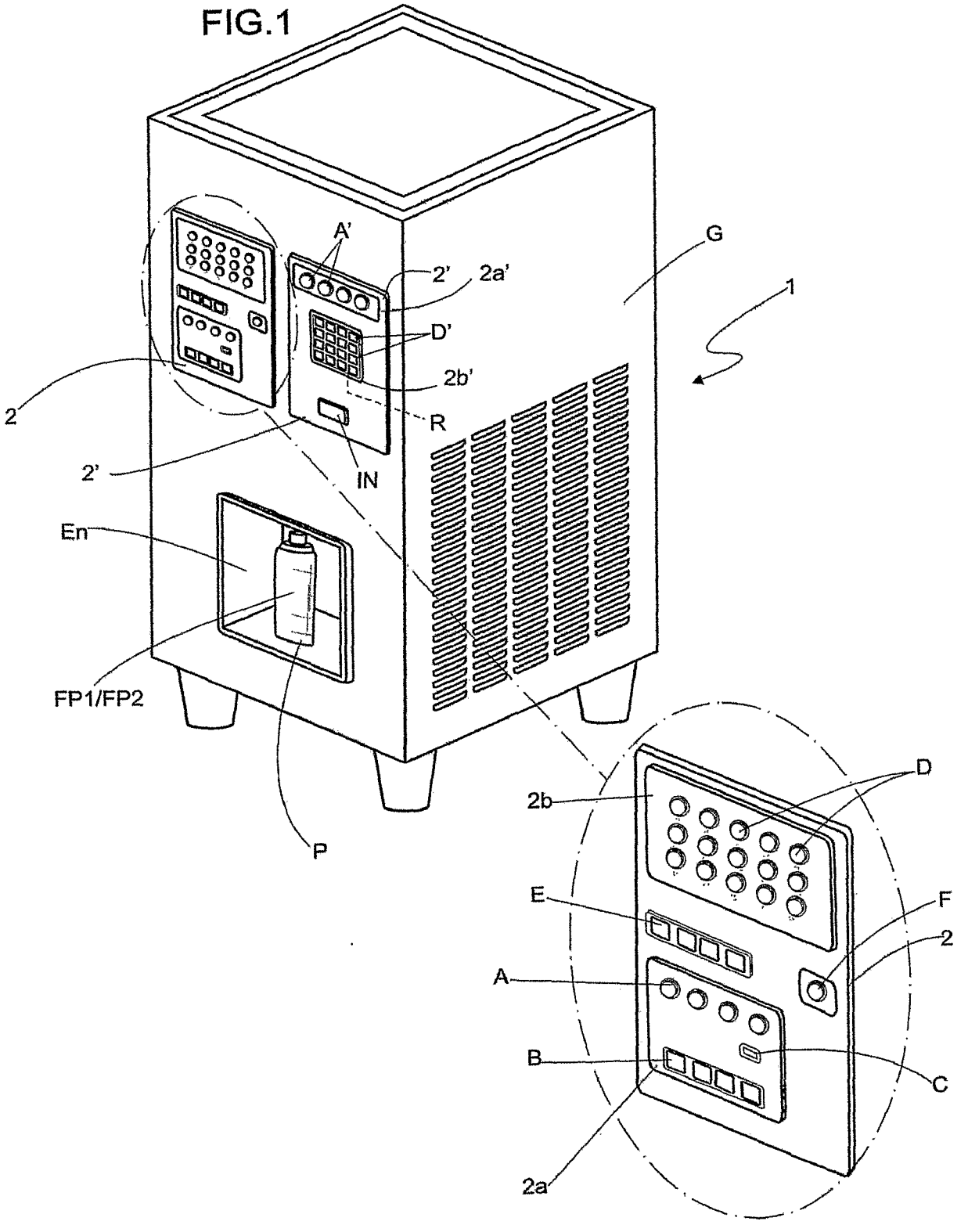
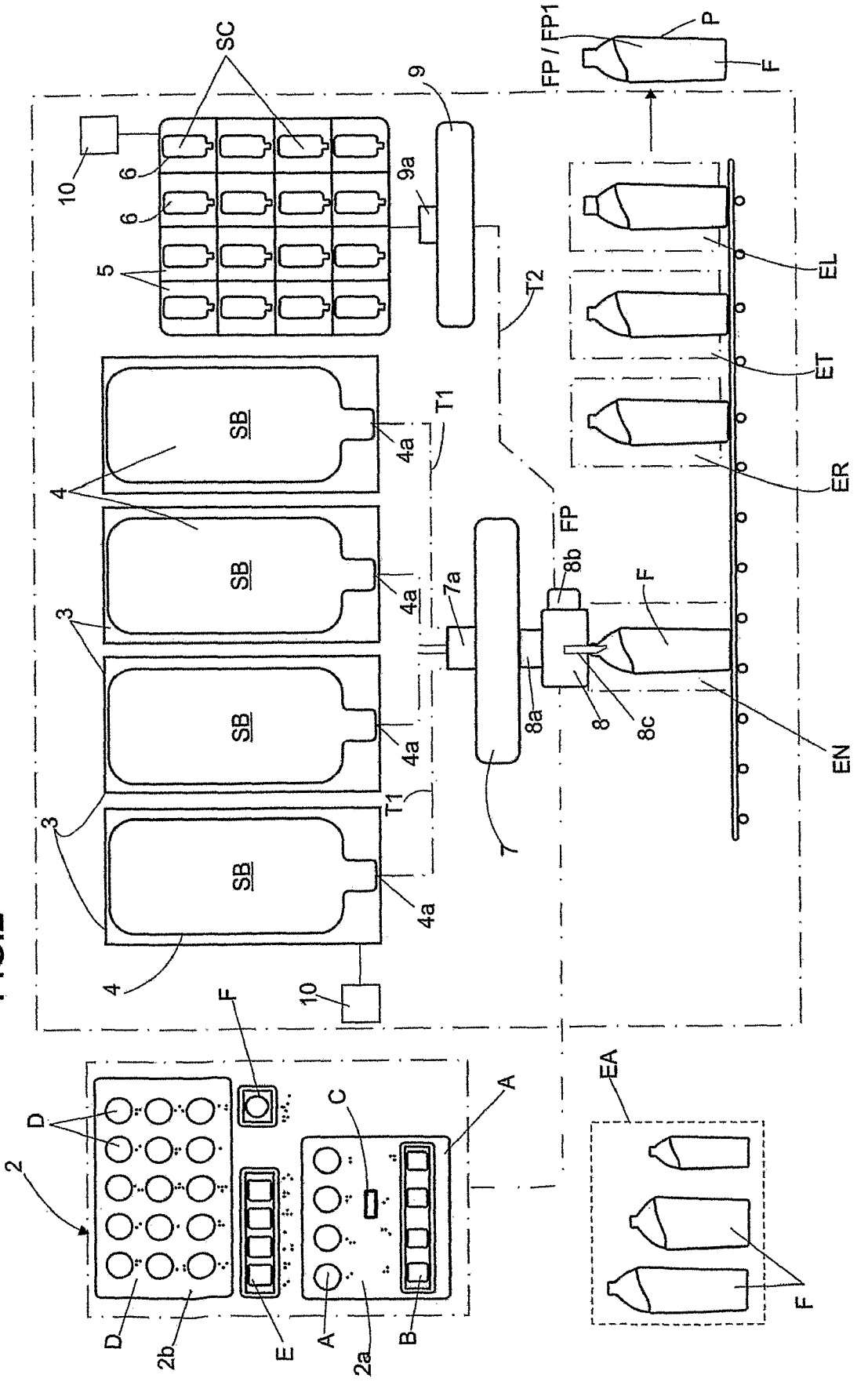


FIG.2


SC
9
FP / FP1
P
F
10
6
6
9a
5
T2
EL
ET
ER
SB
4a
T1
4
FP
8b
7a
F
3
8a
8
8c
EN
7
T1
3
4a
4
10
F
EA
D
C
A
2
D
2b
E
A
2a
B
F

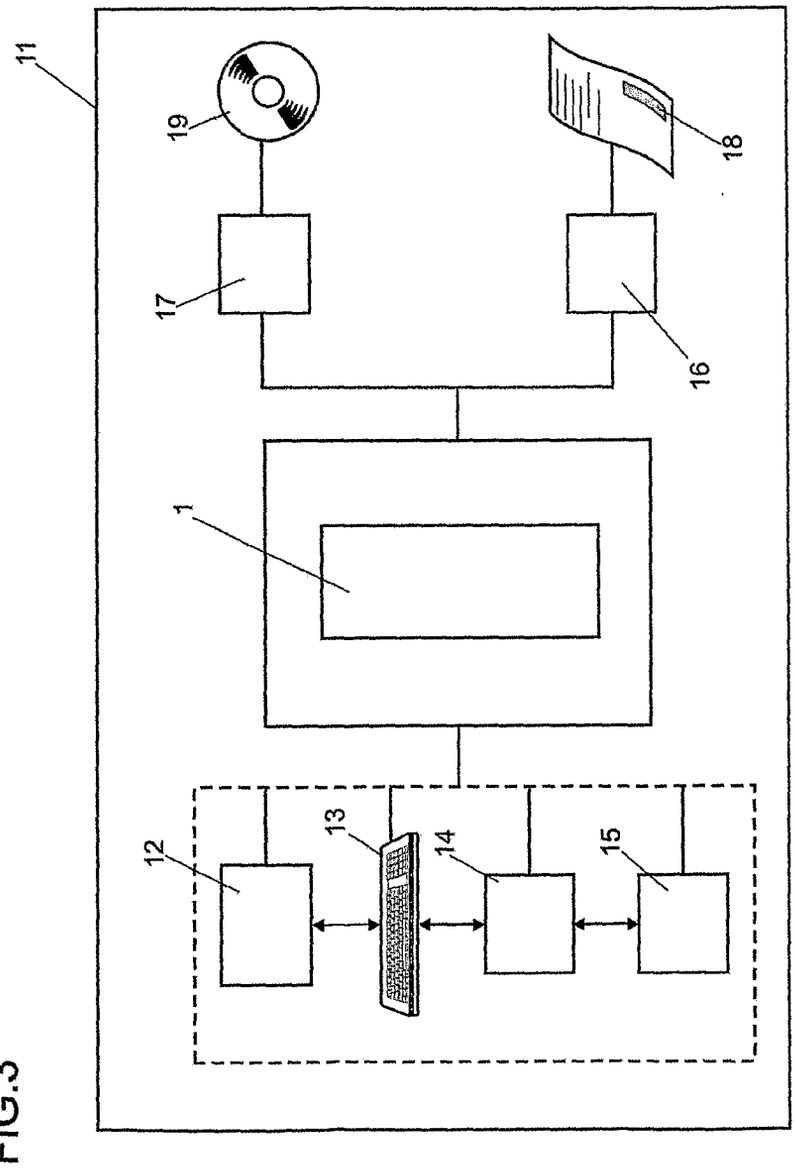


FIG.3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/BR 2009/000085

A. CLASSIFICATION OF SUBJECT MATTER
IPC[8]: ***B01F 13/10*** (2006.01); ***B67D 5/56*** (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)
IPC[8]: B01F, B67D

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, cl txtn

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 093 842 A1 (Esmoris Rodriguez) 25 April 2001 (25.04.2001) *fig. 1, 2, [0008], [0009], [0015] , [0016], [0018], [0019], [0021], [0022], [0030]* --	1, 2, 6
X	US 2005/092772 A1 (MILLER et al.) 5 May 2005 (05.05.2005) *fig. 2, 4, 12 - 14, [0049] - [0051], [0059]* --	1
X	US 6 793 387 B1 (NEAS et al.) 21 September 2004 (21.09.2004) *fig. 1,2,(0017), (0018), (0030), (0032), (0033)* ----	1

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means
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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
9 June 2009 (09.06.2009)	23 July 2009 (23.07.2009)
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 STEINZ-KRISMANIC C. Telephone No. +43 / 1 / 534 24 / 387

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/BR 2009/000085

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		DK	T3	1093842T	2003-09-01
		DE	T2	69907680T	2004-01-22
		AT	T	239543T	2003-05-15
US A 2005092772		JP	T	2007517541T	2007-07-05
		EP	A2	1686874	2006-08-09
		CA	A1	2543810	2005-05-19
		AU	A1	2004287384	2005-05-19
		WO	A2	2005044041	2005-05-19
		US	A1	2005092772	2005-05-05
US A 6793387		US	B1	6793387	2004-09-21
		WO	A1	0068137	2000-11-16
		AU	A	5126300	2000-11-21