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Expediente No.	**09-008.022**
Patente de Invención:	**"DISTRIBUCION DE GOTAS DE VIDRIO"**
Fase Nacional:	**PCT/US2007/016109**
Titular:	**OWENS-BROCKWAY GLASS CONTAINER INC.**

DESTINO: 444

HUMBERTO RUBIO CAMACHO, mayor de edad, domiciliado en Bogotá, D.C., identificado con la cédula de ciudadanía número 17.192.062 de Bogotá, abogado en ejercicio, portador de la Tarjeta Profesional No. 50.007 expedida por el Consejo Superior de la Judicatura, actuando en carácter de **APODERADO** de la Sociedad **OWENS-BROCKWAY GLASS CONTAINER INC.,** domiciliada en One Michael Owens Way, Perrysburg, Ohio 43551-2999, Estados Unidos de America; encontrándome dentro del término legal para dar contestación al auto proferido por su Despacho, mediante Oficio No. 3914 notificado por fijación en lista el 3 de Abril de 2009, me permito anexar:

ANEXO

1.- Copia de reporte de examen preliminar internacional y la correspondiente traducción al español de sus anexos (Art. 36.2.b del tratado de PCT).

Teniendo en cuenta que los documentos solicitados han sido aportados dentro del término legal, en forma respetuosa solicito continuar con el trámite correspondiente

Atentamente,

HUMBERTO RUBIO CAMACHO
C.C. 17.192.062 de Bogotá
T.P. 50.007 Consejo Superior de la Judicatura.
COD. 4134

09/228/P000779
Bap

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
SUSAN L. SMITH
OWENS-ILLINOIS, INC.
ONE MICHAEL OWENS WAY
PERRYSBURG, OH 43551

PCT

NOTIFICATION OF TRANSMITTAL OF
INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Rule 71.1)

Date of mailing *(day/month/year)*	19 MAR 2009
Applicant's or agent's file reference 18793 PCT	**IMPORTANT NOTIFICATION**

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US07/16109	16 July 2007 (16.07.2007)	02 August 2006 (02.08.2006)

Applicant
OWENS-BROCKWAY GLASS CONTAINER INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.

2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.

3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the *PCT Applicant's Guide*.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(1) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed invention is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Steven Griffin Lydia Sue For Telephone No. 571-272-1700

Form PCT/IPEA/416 (January 2004)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 18793 PCT	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/US07/16109	International filing date *(day/month/year)* 16 July 2007 (16.07.2007)	Priority date *(day/month/year)* 02 August 2006 (02.08.2006)
International Patent Classification (IPC) or national classification and IPC		
IPC: **C03B 7/00**(2006.01);**C03B 7/14**(2006.01);**C03B 11/00**(2006.01) USPC: 65/207,209,221,225,303,304		
Applicant		
OWENS-BROCKWAY GLASS CONTAINER INC.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
   a. ☐ *(sent to the applicant and to the International Bureau)* a total of 5 sheets, as follows:
      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)) ____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:
   - ☒ Box No. I Basis of the report
   - ☐ Box No. II Priority
   - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - ☐ Box No. IV Lack of unity of invention
   - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - ☐ Box No. VI Certain documents cited
   - ☐ Box No. VII Certain defects in the international application
   - ☒ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
02 June 2008 (02.06.2008)	19 February 2009 (19.02.2009)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Steven Griffin Telephone No. 571-272-1700

Form PCT/IPEA/409 (cover sheet)(April 2007)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US07/16109

Box No. I Basis of the report

1. With regard to the **language**, this report is based on:

☒ the international application in the language in which it was filed.

☐ a translation of the international application into English, which is the language of a translation furnished for the purposes of:

☐ international search (under Rules 12.3(a) and 23.1(b))

☐ publication of the international application (under Rule 12.4(a))

☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:
pages 2-8 as originally filed/furnished
pages* 1, 1a received by this Authority on 02 June 2008 (02.06.2008)
pages* NONE received by this Authority on

☒ the claims:
pages NONE as originally filed/furnished
pages* NONE as amended (together with any statement) under Article 19
pages* 10 and 11 received by this Authority on 02 June 2008 (02.06.2008)
pages* 12 received by this Authority on 02 June 2008 (02.06.2008)

☒ the drawings:
pages 1/13-13/13 as originally filed/furnished
pages* NONE received by this Authority on
pages* NONE received by this Authority on

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

☐ the description, pages
☒ the claims, Nos. 8
☐ the drawings, sheets/figs
☐ the sequence listing (*specify*):
☐ any table(s) related to the sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages
☐ the claims, Nos.
☐ the drawings, sheets/figs
☐ the sequence listing (*specify*):
☐ any table(s) related to the sequence listing (*specify*):

5. ☐ This report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 70.2(e)).

** If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US07/16109

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-7	YES
	Claims NONE	NO
Inventive Step (IS)	Claims 6	YES
	Claims 1-5, 7	NO
Industrial Applicability (IA)	Claims 1-7	YES
	Claims NONE	NO

2. Citations and Explanations (Rule 70.7)

Please See Continuation Sheet

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US07/16109

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The description contains the following defect(s) : In amending the specification a sentence was left out, thus there is a disconnect between the last line of amended sheet 1a and the first line of original sheet 2 of the specification. Appropriate correction is requiered.

The claims contain the following defect(s) : In amending the claims on orginal sheets 9-11applicant submitted claims on amended sheets 10-12 to replace originally filed claims 1-8 on originally filed sheets 9-11 thus claims on orginal sheet 9 are considered to remain in the application. Appropriate correction is requiere l.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US07/16109

Supplemental Box

In case **the space in any of the preceding boxes is not sufficient.**

Continuation of:

Claims 1-7 meet the criteria set out in PCT Article 33(2) and thus have novelty, because currently the closest prior art of record, US 4,723,982 A (Duga et al), alone does not teach or fairly suggest the limitations of claim 1 including slides that are slidably mounted on a stationary shaft disposed adjacent a pair of fluid cylinders

Claims 1-5 and 7 lack an inventive step under PCT Article 33(3) as being obvious over US 4,723,982 A (Duga et al) (as cited in the Chapter I written opinion) in view of US 4,722,748 A (Duga et al).

Regarding claim 1, US 4,723,982 discloses a glass gob distributor (figure 1) for delivering gobs of molten glass to individual section glassware forming machines, comprising:
-at least one motor (40);
- a ball screw (30, 36) coupled to said electric motor;
- a carriage (50) slidable on a carriage shaft (59) and coupled to said ball screw;
- a gear rack (20) coupled to said carriage,
- three scoops (14) coupled to said gear rack that can be rotatively displaced through an angular range;
-a pair of slidable shafts (62) slidably disposed on opposite sides of said carriage and disconnected from said carriage, wherein each slide shaft is adapted to slide within the side wall of the inner portion of the upper part of the housing (32) in order to actuate the fluid cylinders.
-and a pair of fluid cylinders (64) disposed adjacent to said slides, said fluid cylinders being responsive to an absence of power at said electric motor for pushing said slides toward each other to abut and slidably position said carriage on said carriage shaft, said gear rack and said at least one scoop at a home position (Col 1; lines 22-26, and Col 2; lines 12-22).

US 4,723,982 does not disclose a pair of slides that are slidably mounted on a stationary shaft. US 4,722,748 teaches a gob distributor for

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US07/16109

Supplemental Box

an individual section machine comprising a motor (40); a ball screw (30, 36) coupled to said electric motor; a carriage (50) slidable on a carriage shaft (59) and coupled to said ball screw; a gear rack (20) coupled to said carriage, scoops (14) coupled to said gear rack that can be rotatively displaced through an angular range. Additionally, US 4,722,748 discloses a pair of axially spaced cylindrical bushings (58) coupled to, but not integral with, the carriage and capable of sliding along rod (59). Because both US 4,723,982 and US 4,722,748 teach gob distributors for individual section machines, it would have been obvious to one of ordinary skill in the art to substitute one slidable mechanism for another to achieve the result of actuating the cylinders.

Regarding claim 2, US 4,723,982 discloses three scoops (14) wherein each scoop has a pinion 18 which interconnects with a gear rack (20) coupled to carriage (50) via coupling (70) so that the gob scoops can be rotatively displaced in unison through a desired angular range by selective displacement of the rack. (Col 1; lines 40-61)

Regarding claim 3, US 4,723,982 discloses only one motor (40), one ball screw assembly (30, 36), one carriage (50), one carriage shaft (59), and one gear rack (20). It would have been obvious to one of ordinary skill in the art to create multiples of the driving assemblies above to individually operate each scoop because it has been held that a mere duplication of parts has no patentable significance unless a new and unexpected result is produced. Here there is no unexpected results because the motors coupled to the ball screw assembly, carriage, and gear rack have the same function as sought in the prior art of controlling the gob distribution of a scoop. It is expected that if this assembly were duplicated to be provided for each scoop it would provide the same function as the prior art for each scoop individually.

Regarding claim 4, US 4,723,982 discloses the fluid cylinders are connected to one another to be actuated simultaneously (Fig 3, Col 2; lines 7-34)

Regarding claim 5, the combined teachings of US 4,723,982 and US 4,722,748 as taught above disclose a pair of axially spaced cylindrical bushings (58), or slides capable of sliding along rod (59), or slide shaft, mounted within a housing subassembly according to the teachings above, coupled to gear racks, carriages, ball screw mechanisms and motors.

Claim 7 lacks an inventive step under PCT Article 33(3) as being obvious over the prior art as applied in the immediately preceding paragraph and further in view of US 5,697,995 A (Leidy et al).
Regarding claim 7, US 5,697,995 teaches of an earlier application which proposed a gob distributor with multiple motors and employing drive belts to couple each motor to its associated scoop, so that the motors may be positioned offset from the axes of oscillation of the scoops. Such a construction improves the assembly and maintenance characteristics of the distributor assembly. (Col 1; line 47-Col 2; line 4) Thus it would have been obvious to one of ordinary skill in the art at them time of the invention to try including a plurality of motors each coupled to a scoop because US 5,697,995 discloses it will improve the assembly and maintenance ability of the gob apparatus.

Claim 6 meets the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the slides mounted on a slide shaft within a housing and coupled to a plurality of individual gear racks, carriages, ball screw assemblies and motors, nor is it presently clear how it would have been obvious to one of ordinary skill in the art to combine all of these elements as stated.

Claims 1-7 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in the industry of glassmaking.

US 4,722,748 A (Duga et al) 2 February 1988, see column 1, lines 38-68; column 2, lines 50-64
US 5,697,995 A (Leidy et al) 16 December 1997, se cloumn 1, line 47-column 2, line 4

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GLASS GOB DISTRIBUTION

The present disclosure relates to a glass gob distributor for an individual section glassware forming machine.

Background and Summary of the Disclosure

The science of glass container manufacture currently is served by the so-called individual section machine. Such a machine includes a plurality of separate or individual manufacturing sections, each of which has a multiplicity of operating mechanisms for converting one or more charges or gobs of molten glass into hollow glass containers and transferring the containers through successive stages of the machine section. In general, an individual section machine system includes a source of glass for generating one or more streams of molten glass, a shear mechanism for cutting the stream or streams of molten glass into individual gobs, and a gob distributor for distributing the individual gobs among the machine sections. Each machine section includes one or more blank molds in which a glass gob is initially formed in a blowing or pressing operation, one or more transfer mechanisms for transferring the blanks to blow molds in which the containers are blown to final form, a second transfer mechanism for removing the formed containers onto a deadplate, and a third transfer mechanism for transferring the molded containers from the deadplate onto a machine conveyor. A general object of the present disclosure is to provide a glass gob distributor for an individual section machine glassware forming system.

US 4723982 discloses a servo-driven gob distributor in which there is a direct coupling between a ball nut and a rack that is coupled to a scoop pinion gear. Air cylinders engage an arm that extends from the ball nut carriage to center the scoops when power is lost.

A glass gob distributor for delivering gobs of molten glass to sections of a glassware forming machine, in accordance with exemplary embodiments of the present disclosure, includes at least one electric motor, a ball screw coupled to the electric motor, and a carriage slidable on a

Claims

1.

A glass gob distributor for delivering gobs of molten glass to sections of a glassware forming machine, which includes:

at least one electric motor (58 or 60 or 62),

a ball screw (70 or 70a or 70b) coupled to said electric motor,

a carriage (74 or 74a or 74b) slidable on a carriage shaft (76 or 76a or 76b) and coupled to said ball screw,

at least one gear rack (82 or 82a or 82b or 124 or 126) coupled to said carriage,

at least one scoop (42 or 44 or 46) coupled to said gear rack for rotation around a scoop axis as a function of linear motion of said gear rack and said carriage, and

a pair of fluid cylinders (100, 106) responsive to an absence of power to move said carriage on said carriage shaft, said gear rack and said at least one scoop to a home position,

characterized in that

a pair of slides (88, 90) are slidable on a stationary slide shaft (86) parallel to said carriage shaft on opposite sides of said carriage, disconnected from said carriage and freely slidable with respect to said carriage and said carriage shaft, and

said pair of fluid cylinders (100, 106) are disposed adjacent to said slides for pushing said slides toward each other to abut and slidably position said carriage on said carriage shaft, said gear rack and said at least one scoop at a said home position.

2.

The gob distributor set forth in claim 1 wherein there are at least two of said scoops (42, 44, 46) and at least two of said gear racks (82, 82a, 82b, 124, 126) respectively coupled to said scoops, both of said gear racks being coupled to said carriage so that said scoops rotate around respective axes as a function of linear motion of said carriage on said carriage shaft.

3.

The gob distributor set forth in claim 1 in which there are at least two electric motors (58, 60, 62), at least two ball screws (70, 70a, 70b) respectively coupled to said electric motors, at least two carriages (74, 74a, 74b) slidably disposed on respective carriage shafts (76, 76a, 76b) and respectively coupled to said ball screws, at least two gear racks (82, 82a, 82b, 124, 126) respectively coupled to said carriages, at least two scoops (42, 44, 46) respectively coupled to said gear racks for rotation around respective scoop axes as functions of linear motion of associated gear racks and carriages, and wherein said slides (88, 90) are associated with both of said carriages for engaging said carriages on associated carriage shafts and moving said carriages and said scoops to said home positions.

4.

The gob distributor set forth in any preceding claim wherein said fluid cylinders (100, 106) are connected to each other so as to be actuated simultaneously.

5.

The gob distributor set forth in any preceding claim wherein said pair of slides (100, 106) are mounted on said slide shaft (86) within a housing (26) as a subassembly adapted for use in a gob distributor having plural scoops (42, 44, 46) coupled by individual gear racks, carriages and ball screws to individual electric motors, and also adapted for use in a gob distributor having plural scoops coupled by one or more gear racks (124, 126), a single carriage (74b) and a single ball screw (70b) to a single electric motor (62).

6.

The gob distributor set forth in claim 5 including at least two spindles (48, 50, 52) mounted within said housing for suspending individual associated scoops beneath said housing, said spindles having external gear teeth (48a, 50a, 52a) at differing elevations for connection by associated gear racks to individual carriages or to said single carriage.

7.

The gob distributor set forth in any preceding claim wherein said at least one electric motor is offset from said ball screw and coupled to said ball screw by a drive belt (64, 64a, 64b).

DISTRIBUCIÓN DE GOTAS DE VIDRIO

La presente descripción se refiere a un distribuidor de gotas de vidrio para una máquina de formar objetos de vidrio de secciones individuales.

ANTECEDENTES Y RESUMEN DE LA DESCRIPCIÓN

La ciencia de la fabricación de recipientes de vidrio se basa actualmente en la denominada máquina de secciones individuales. Tal máquina incluye una pluralidad de secciones de fabricación separadas o individuales, cada una de las cuales tiene una multiplicidad de mecanismos operativos para convertir una o más cargas o gotas de vidrio fundido en recipientes de vidrio huecos y transferir los recipientes a través de etapas sucesivas de la sección de máquina. En general, un sistema de máquina de secciones individuales incluye una fuente de vidrio para generar una o más corrientes de vidrio fundido, un mecanismo de corte para cortar la corriente o corrientes de vidrio fundido en gotas individuales, y un distribuidor de gotas para distribuir las gotas individuales entre las secciones de la máquina. Cada sección de la máquina incluye uno o más moldes de pieza en los que se forma inicialmente una gota de vidrio en una operación de soplado o prensado, uno o más mecanismos de transferencia para transferir las piezas en bruto a moldes de soplado en los que los recipientes son soplados a la forma final, un segundo mecanismo de transferencia para sacar los recipientes formados sobre una mesa de hogar, y un tercer mecanismo de transferencia para transferir los recipientes moldeados de la mesa de hogar sobre un transportador de máquina. Un objeto general de la presente descripción es proporcionar un distribuidor de gotas de vidrio para un sistema de formación de objetos de vidrio en máquina de secciones individuales.

US4723982 señala un distribuidor servo-impulsado en donde

hay un acomplamiento directo entre la rueda esferica y una rejilla que esta acoplada a una pala piñon diferencial. Los cilindros de aire se enganchan a un brazo que se extiende desde la caretilla de la rueda esferica para centrar la pala cuando se pierde la potencia.

Un distribuidor de gotas de vidrio para distribuir gotas de vidrio fundido a secciones de una máquina de formar objetos de vidrio, según realizaciones ejemplares de la presente descripción, incluye al menos un motor eléctrico, un tornillo de bola acoplado al motor eléctrico, y un carro deslizante en un eje

REIVINDICACIONES

1. Un distribuidor de gotas de vidrio para distribuir gotas de vidrio fundido a secciones de una máquina de formar objetos de vidrio, que incluye:

al menos un motor eléctrico (58 o 60 o 62),

un tornillo de bola (70 o 70a o 70b) acoplado a dicho motor eléctrico,

un carro (74 o 74a o 74b) que puede deslizar en un eje de carro (76 o 76a o 76b) y acoplado a dicho tornillo de bola,

al menos una cremallera (82 o 82a o 82b o 124 o 126) acoplada a dicho carro,

al menos una cuchara (42 o 44 o 46) acoplada a dicha cremallera para rotación alrededor de un eje de cuchara en función del movimiento lineal de dicha cremallera y dicho carro, y

un par de cilindros de fluido (100, 106) sensibles a la ausencia de potencia para mover dicho carro en dicho eje de carro, dicha cremallera y dicha al menos una cuchara a una posición inicial,

caracterizado porque

un par de correderas (88, 90) pueden deslizar en un eje de corredera estacionario (86) paralelo a dicho eje de carro en lados opuestos de dicho carro, desconectadas de dicho carro, y libremente deslizantes con respecto a dicho carro y dicho eje de carro, y

dicho par de cilindros de fluido (100, 106) están dispuestos junto a dichas correderas para empujar dichas correderas una hacia otra para contactar y colocar deslizantemente dicho carro en dicho eje de carro, dicha cremallera y dicha al menos única cuchara en dicha posición inicial.

2. El distribuidor de gotas expuesto en la reivindicación 1 donde hay al menos dos de dichas cucharas (42, 44, 46) y al menos dos de dichas cremalleras (82, 82a,

82b, 124, 126) respectivamente acopladas a dichas cucharas, estando ambas cremalleras acopladas a dicho carro de modo que dichas cucharas giren alrededor de ejes respectivos en función del movimiento lineal de dicho carro en dicho eje de carro.

3. El distribuidor de gotas expuesto en la reivindicación 1 en el que hay al menos dos motores eléctricos (58, 60, 62), al menos dos tornillos de bola (70, 70a, 70b) respectivamente acoplados a dichos motores eléctricos, al menos dos carros (74, 74a, 74b) dispuestos deslizantemente en respectivos ejes de carro (76, 76a, 76b) y respectivamente acoplados a dichos tornillos de bola, al menos dos cremalleras (82, 82a, 82b, 124, 126) respectivamente acopladas a dichos carros, al menos dos cucharas (42, 44, 46) respectivamente acopladas a dichas cremalleras para rotación alrededor de respectivos ejes de cuchara en función del movimiento lineal de cremalleras asociadas y carros, y donde dichas correderas (88, 90) están asociadas con ambos carros para enganchar dichos carros en ejes de carro asociados y mover dichos carros y dichas cucharas a dichas posiciones iniciales.

4. El distribuidor de gotas expuesto en cualquier reivindicación precedente, donde dichos cilindros de fluido (100, 106) están conectados uno a otro de manera que sean accionados simultáneamente.

5. El distribuidor de gotas expuesto en cualquier reivindicación precedente, donde dicho par de correderas (100, 106) están montadas en dicho eje de corredera (86) dentro de un alojamiento (26) como un subconjunto adaptado para uso en un distribuidor de gotas que tiene múltiples cucharas (42, 44, 46) acopladas por cremalleras individuales, carros y tornillos de bola a motores eléctricos individuales, y también adaptadas para uso en un distribuidor de gotas que tiene múltiples cucharas acopladas por una o más cremalleras (124, 126), un solo carro (74b)

y un solo tornillo de bola (70b) a un solo motor eléctrico (62).

6. El distribuidor de gotas expuesto en la reivindicación 5 incluyendo al menos dos husillos (48, 50, 52) montados dentro de dicho alojamiento para suspender dichas cucharas individuales asociadas debajo de dicho alojamiento, teniendo dichos husillos dientes de engranaje externos (48a, 50a, 52a) a diferentes alturas para conexión por cremalleras asociadas a carros individuales o a dicho carro único.

7. El distribuidor de gotas expuesto en cualquier reivindicación precedente, donde dicho al menos único motor eléctrico está desviado de dicho tornillo de bola y acoplado a dicho tornillo de bola por una correa de accionamiento (64, 64a, 64b).

2020
Bogotá D.C.,

Doctor(a)
RUBIO CAMACHO HUMBERTO
Apoderado(a) y/o Representante de
OWENS - BROCKWAY GLASS CONTAINER INC

REFERENCIA	Radicación No.	9 8022
	Solicitud internacional	PCT/US2007/016109
	Fecha inicio fase nacional	02/03/2009
	Trámite	11
	Evento	379
	Actuación	416
	Oficio No.	10011
	Folios	1

Teniendo en cuenta que la solicitud de privilegio de patente que se tramita bajo el expediente indicado en la referencia, reúne los requisitos de forma establecidos en la Decisión 486 de la Comisión de la Comunidad Andina, el Tratado de Cooperación en Materia de Patentes (PCT), el Reglamento y la Circular Única de la Superintendencia de Industria y Comercio, se envía el extracto de la solicitud a la Oficina de Comunicaciones para efecto de su publicación en la Gaceta de Propiedad Industrial.

Cúmplase
Dado en Bogotá DC, 25 FEB. 2010

ALIX CARMENZA CESPEDES DE VERGEL
Directora de Nuevas Creaciones (c)

jfernand