

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO	
RAD: 14-104864- -4	FECHA: 2015-03-30 11:15:39
DEP: 2020 DIRECCION DE NUEVAS CREACIONES	EVE: 1 REGISTRO/DEPOSITO/CONCESION/DEPOSITO
TRA: 3 PATENTES DE MODELO DE UTILIDAD	FOLIOS: 5
ACT: 430 REQUERSOLICITA	

DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogado(a)/Señor(a)
MARIA MERCEDES DIAZ SUAREZ

Asunto: Radicación: 14-104864- -4
Trámite: 3
Evento: 1
Actuación: 430
Oficio: 3394
Folios: 5

Patente de Invención				Patente de Modelo de Utilidad	X
Vía Nacional	X				
Vía PCT (Fase Nacional)		Capítulo I		Capítulo II	
No. Solicitud Internacional					
Fecha de Presentación Internacional					

Como resultado del Examen de Fondo realizado, con fundamento en el artículo 85 y en concordancia con el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. Documentos estudiados

Descripción:	Rad. N° 14-104864-00000-0000	15/mayo/2014
Reivindicaciones:	Rad. N° 14-104864-00000-0000	15/mayo/2014
Dibujos:	Rad. N° 14-104864-00000-0000	15/mayo/2014
Prioridad:	US 13/895,535	16/Mayo/2013

2. Análisis de la Prioridad

Se acepta la reivindicación de prioridad porque ésta solicitud fue presentada dentro del plazo establecido (Art. 9 D 486) y su contenido técnico corresponde con el de la prioridad reivindicada.

3. Objeto de la invención

De acuerdo con lo establecido en el numeral 1.2.2.2 del Capítulo Primero del Título X de la Circular Única para efectos del examen de patentabilidad, se tendrá en cuenta la tasa pagada por el solicitante al momento de comenzar el examen para las reivindicaciones adicionales; esto es que cuando la solicitud contenga más de diez (10)

reivindicaciones y no se haya pagado la tasa complementaria, sólo se estudiarán las cubiertas por la tasa pagada. Por lo tanto, se estudiarán las reivindicaciones 1 a 20.

Título de la solicitud: "Aparato Dispensador".

El problema planteado en esta solicitud consiste en la necesidad de diseñar una configuración de dispensador que no entregue producto de forma no autorizada o que presente pérdidas de material por el uso.

Para resolver este problema técnico, la solicitud en estudio proporciona un aparato dispensador con un ensamble de bloqueo de palanca para control de salida del producto, un ensamble dispensador para control de la porción y un bloqueo del receptáculo de producto mientras este está siendo dispensado.

El objeto de la presente solicitud se relaciona con la Clasificación Internacional de Patentes (CIP): A47F3/00; B65B 1/04, 1/30, 3/04, 39/00.

4. De la solicitud de patente

Titulo

El título no corresponde con el objeto de la solicitud porque no describe de forma amplia la invención, por lo cual se sugiere al solicitante hacer la corrección necesaria.

Reivindicaciones (Art 30 D 486, Art 22 PCT)

Las reivindicaciones 1 a 6, 8 a 14 y 16 a 20 no está/n caracterizada/s por sus características esenciales sino por resultados a alcanzar y/o funcionalidades definidos por los términos: "...para sostener el material dispensable...", "...para soportar dicho recipiente...", "...para recibir el material dispensable del mismo...", "...operable por un usuario...", "...operablemente con dicho pistón para avanzar y retraer dicho pistón dentro de dicho eje de pistón...", "...es operable para bloquear o desbloquear de forma deslizable dicha ranura de palanca...", "...se empuja de forma pivotante en dicha área de recepción de receptáculo...", "...es operable para acoplar o desacoplar dicha abertura de placa de manija...", "...es operable para acoplar dicho brazo de liberación y de esta forma pivotar dicho brazo de liberación fuera de dicha área de recepción de receptáculo a medida que dicho receptáculo se inserta en dicha área de recepción de receptáculo, en donde dicho brazo de liberación es operable para deslizar dicho pasador de liberación de dicha abertura de placa de manija a medida que dicho brazo de liberación se pivota fuera de dicha área de recepción de receptáculo...", "...es operable para acoplar dicho brazo de manija y de esta forma pivotar dicho brazo de manija fuera de dicha área de recepción de receptáculo a medida que dicho receptáculo se inserta en dicha área de recepción de receptáculo, en donde dicho primer miembro pivotante de brazo de manija es operable para deslizar dicha placa de manija para desbloquear dicha ranura de palanca a medida que dicho brazo de manija se pivota fuera de dicha área de recepción de receptáculo...", "...es operable para acoplar dicho pistón y de esta forma avanzar dicho pistón a través de dicho eje de pistón a medida que dicho primer extremo de palanca se mueve hacia abajo a través de dicha ranura de palanca, en donde dicho pistón es operable para empujar el material dispensable desde dicha porción superior del eje de pistón en dicho canal a medida que dicho pistón se avanza a través de dicho eje de pistón, en donde el producto dispensable fluye por gravedad hacia abajo de dicho canal y en dicho receptáculo en dicha área de recepción de receptáculo." (Reiv. 1, 6 y 14), "...para

acoplar dicha punta distal de dicho segundo extremo de palanca y empujar dicho segundo extremo de palanca hacia abajo...”, “...para acoplar dicha abertura de placa de manija,” (Reiv. 1), “...es operable para deslizarse en dicha área de recepción de receptáculo a través de una tercera apertura... para recibir dicho segundo miembro pivotante del brazo de manija allí...” (Reiv. 1, 8, 16), “...para recibir un extremo inferior de dicho miembro de bloqueo...” (Reiv. 1), “...es operable para deslizar dicha placa de bloqueo en dicha área de recepción de receptáculo a través de dicha tercera apertura a medida que dicho brazo de manija se pivota fuera de dicha área de recepción de receptáculo y de esta forma evitar que dicho receptáculo se remueva de dicha área de recepción...” (Reiv. 1, 8, 16), “...es operable para acoplar dicho miembro de cámara y de esta forma pivotar el miembro de cámara fuera de dicha ranura de palanca a medida que dicho primer extremo de palanca se mueve hacia abajo a través de dicha ranura de palanca, en donde dicho miembro de cámara es operable para llevar dicho extremo inferior del miembro de bloqueo en dicha segunda muesca a medida que dicho miembro de cámara se pivota fuera de dicha ranura de palanca y de esta forma evitar que dicha placa de bloqueo se remueva de dicha área de recepción...” (Reiv. 1), “...es operable para retraer dicho pistón de regreso a través de dicho eje de pistón a medida que el primer extremo de palanca se mueve hacia arriba a través de dicha ranura de palanca...” (Reiv. 2, 10 y 18), “...es operable para desacoplarse de dicho miembro de cámara para permitir que dicho miembro de cámara pivote en dicha ranura de palanca a medida que dicho primer extremo de palanca se mueve hacia arriba a través de dicha ranura de palanca, en donde dicho miembro de cámara es operable para empujar dicho extremo inferior del miembro de bloqueo fuera de dicha segunda muesca a medida que dicho miembro de cámara pivota en dicha ranura de palanca...” (Reiv. 3, 11, 19), “...es operable para desacoplarse de dicho brazo de manija para permitir que dicho brazo de manija pivote en dicha área de recepción de receptáculo a medida que dicho receptáculo se remueve de dicha área de recepción de receptáculo, ... es operable para deslizar dicha placa de manija para bloquear dicha ranura de palanca a medida que dicho brazo de manija se pivota en dicha área de recepción de receptáculo, ...es operable para deslizar dicha placa de bloqueo fuera de dicha área de recepción de receptáculo a través de dicha tercera apertura a medida que dicho brazo de manija se pivota en dicha área de recepción de receptáculo...” (Reiv. 4, 12, 20), “... es operable para desacoplarse de dicho brazo de liberación para permitir que dicho brazo de liberación pivote en dicha área de recepción de receptáculo a medida que dicho receptáculo se remueve de dicha área de recepción de receptáculo...es operable para empujar dicho pasador de liberación en dicha abertura...” (Reiv. 5, 13, 20), “...es operable para acoplar dicho miembro de cámara y de esta forma pivotar dicho miembro de cámara fuera de dicha ranura de palanca a medida que dicho primer extremo de palanca se mueve hacia abajo a través de dicha ranura de palanca, en donde dicho miembro de cámara es operable para empujar dicho extremo inferior de miembro de bloqueo en dicha segunda muesca a medida que dicho miembro de cámara se pivota fuera de dicha ranura de palanca y de esta forma evitar que dicha placa de bloqueo se remueva de dicha área de recepción...” (Reiv. 9, 17). Es así que estos términos no definen características estructurales esenciales, puesto que la reivindicación incluiría no sólo la solución propuesta por el solicitante, sino todas las alternativas presentes o futuras que lleguen a esos resultados. Se sugiere reemplazarlos por las características esenciales estructurales que contribuyen a la obtención de esos efectos. Es oportuno aclarar que, las funcionalidades pueden estar presente en la reivindicación pero no le pueden dar novedad y/o nivel inventivo a un producto, dado que, que cuando se reivindica un producto, las funcionalidades sirven para entender la relación que hay entre los diferentes elementos estructurales de un producto, pero son solo los elementos estructurales los que definen a dicho producto haciendo a las funcionalidades opcionales.

Las reivindicaciones 2 a 5, 8 a 13 y 16 a 20 no son claras porque presenta una falsa dependencia al hacer referencia a las reivindicaciones 1, 6 y 14, respectivamente. Al ser las reivindicaciones 1, 6 y 14 reivindicaciones de producto y las reivindicaciones 2 a 5, 8 a 13 y 16 a 20 unas reivindicaciones de procedimiento, las reivindicaciones 2 a 5, 8 a 13 y 16 a 20 no puede heredar la característica de las reivindicaciones 1, 6 y 14 porque los productos y los métodos se definen de forma diferente.

El capítulo reivindicatorio no es conciso porque contiene un excesivo número de reivindicaciones independientes 1, 6 y 14, que protegen lo mismo en conjunto con sus reivindicaciones dependientes. El grupo de reivindicaciones 14 a 20, resulta ser la invención más general de donde deberían de depender las configuraciones planteadas de 1 a 13. Se sugiere hacer las correcciones, ya que esto hace difícil definir cuál es el objeto que se busca proteger.

Descripción (Art 28 D 486)

Hay inconsistencia entre los dibujos (Fig. 6 y 7) y la descripción, debido a que se indica que una vista de corte lateral derecha e izquierda respectivamente, pero las dos corresponden al mismo lado. Se sugiere realizar la corrección correspondiente

Error en la digitación, redacción y/o traducción de la descripción, según los siguientes fragmentos: "...al tolva 14...", "...varilla pivotante 4 y...". Se sugiere al solicitante hacer las aclaraciones necesarias.

5. Determinación del Estado de la Técnica

El estado de la técnica se determinó con base en la fecha de prioridad 16 de mayo de 2013 y no se encontraron documentos que divulguen en su totalidad la materia reivindicada en las reivindicaciones 1, 6 y 14.

6. Conclusión

No se encontraron anterioridades que divulguen en su totalidad las características reclamadas en las reivindicaciones 1, 6 y 14, sin embargo, es necesario que el solicitante realice las correcciones y/o aclaraciones a las objeciones de claridad del capítulo reivindicatorio y descripción.

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de treinta (30) días contados a partir del día siguiente de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Se invita al solicitante se sirva indicar, si así lo considera, su renuncia al término faltante de treinta (30) días para dar respuesta a este requerimiento y presentarla por escrito.

Finalmente, se le recuerda al solicitante que si como respuesta a este requerimiento llegara a modificar el capítulo reivindicatorio y éste contenga más de diez (10) reivindicaciones, no pagará la tasa de modificación voluntaria pero sí la correspondiente al pago por reivindicación adicional.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única No. 10 de 2001.



JOSÉ LUIS SALAZAR LÓPEZ
Director de Nuevas Creaciones (c)

El anterior requerimiento fue notificado por fijación en lista, de fecha 2015-04-07

Elaboró: Diana Melisa Avila

Revisó: Sonia Andrea Diaz Pirazan

INFORME DE BÚSQUEDA DE PATENTES PARA EL No de Radicación: 14-104864						
CRITERIOS PARA LA BÚSQUEDA (anexar pantallazo o reporte en PDF, junto con los boleanos utilizados)						
Palabras clave utilizadas		dispens* and (device or apparatus) and (piston or plunger or cylinder) and (container or holder or receptacle)) and IC=(b65b) dispenser and (system or device or apparatus) and (container or holder) and Hopper				
CLASIFICACIONES INTERNACIONALES UTILIZADAS PARA LA BÚSQUEDA		A47f 3/00; B65B 1/04, 1/30, 3/04, 39/00				
BASES DE DATOS CONSULTADAS.						
ESPACENET		COLOMBIANA		Patentscope		Patbase
USPTO						
INFORMES DE EXÁMENES REALIZADOS EN OTRAS OFICINAS (documentos patentes, literatura no patente etc...)						
Oficina	Fecha del examen o de reporte de búsqueda de documentos	Anterioridades encontradas para el examen o reportados en el examen de búsqueda(relacionarlos todos)	Reiv. afectadas	RELEVANCIA (requisito que afecta)	FUERON TENIDOS EN CUENTA PARA EL EXAMEN EN LA OFICINA COLOMBIANA	
					SI	NO
DOCUMENTOS ADICIONALES ENCONTRADOS POR EL EXAMINADOR DE ACUERDO A LOS CRITERIOS DE BÚSQUEDA.						
Observaciones						
Fecha del reporte de búsqueda:						

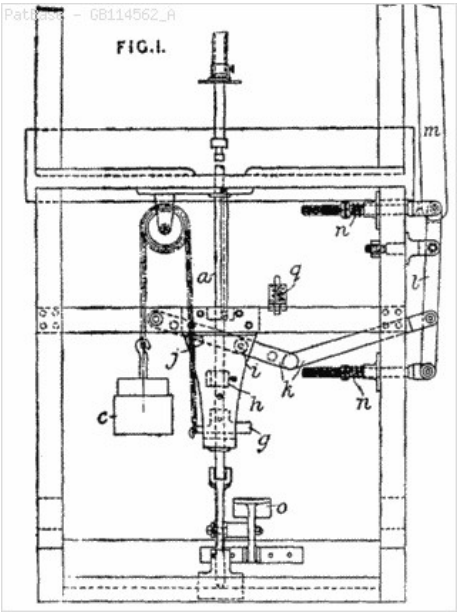
Search history

Search 1: TAC=(dispenser and (system or device or apparatus)) (Results 58397)
Search 2: TAC=(dispenser and (system or device or apparatus)and (container or holder)) (Results 3424)
Search 3: TAC=(dispenser and (system or device or apparatus)and (container or holder)) and IC=(b65b) (Results 236)
Search 4: TAC=(dispenser and (system or device or apparatus)and (container or holder)and hopper) (Results 101)
Search 5: TAC=(dispenser and (system or device or apparatus) and (container or holder) and hopper) (Results 101)
Search 6: INV=(green scott) and PRD=201304:201305 (Results 1)
Search 7: TAC=(dispensing and (device or apparatus)) and IC=(b65b) (Results 6771)
Search 8: TAC=(dispens* and (device or apparatus) and (container or holder or receptacle)) and IC=(b65b) (Results 1313)
Search 9: TAC=(dispens* and (device or apparatus) and (piston or plunger or cylinder) and (container or holder or receptacle)) and IC=(b65b) (Results 339)

Title: Improvements relating to Packing or Filling Machines.

Abstract: Source: GB114562A 114,562. Atkinson, G. L., Southall, C., and Smith, A. Aug. 7, 1917. Packing and filling granular and like materials into receptacles.-In machines comprising a vertically movable support for a receptacle and a feed screw or plunger for the material, the clutch for the feed screw or plunger is controlled by a spring toggle-device which is set and released by the upward and downward movements of the support respectively. In the arrangement shown, a toggle k is pivoted to the framework and to a lever l which is connected to the clutch lever m and springs n. The support a. carries adjustable tappets g, h adapted to engage tappets i, j respectively on the toggle. On release of a catch, the support is raised by a counterweight c, and the tappet g engages the tappet i and moves the toggle over the dead-centre into a position determined by a spring stop q. This movement of the toggle rocks the lever l in a direction to close the clutch and compress the lower spring n. During filling, the support is depressed by the pressure of the feed-screw and the tappet j engages the tappet h and moves the toggle below the dead-centre. the lower spring n then acting, independently of the support, to complete the movement of the toggle. The upper spring n cushions the downward movement of the toggle. The downward movement of the support is completed by a pedal o. In a modification, the toggle is arranged vertically and the upper or cushioning-spring n is dispensed with.

Classifications:
International (IPC 8-9): B65B65/02 (Advanced/Invention); B65B65/00 (Core/Invention)
International (IPC 1-7): B65B65/02
CPC: B65B65/02
European: B65B65/02



Family:

Publication number	Publication date	Application number	Application date
GB114562 A	19180411	GB19170011321	19170807

Priority:

GB19170011321 19170807

Assignee(s): (std): ARTHUR SMITH ; CHRISTOPHER SOUTHALL ; GEORGE LEONARD ATKINSON

Assignee(s): GEORGE LEONARD ATKINSON CHRISTOPHER SOUTHALL

Title: A machine for making and filling packets

Abstract: Source: GB198405A 198,405. Day, A. Feb. 3, 1922. Paper bags, making.-Relates to machines for making and filling paper bags with tea and c., or for making bags only without filling them. Paper is fed from a roll 17, Figs. 4 and 5, over a roller 38 actuated by chain gear 35 from an oscillating segment 27, Fig. 5, carrying a number of pawls 31, 32, 33 of slightly different lengths engaging a ratchet 30. If one or more extra webs are to be employed to form linings for the bags, they are fed from rolls 21 so as to leave a margin at the edge at which the main web is gummed by a roll 41 taking adhesive from a roll 42 rotating in a **receptacle** 43, a scraper 68 removing excess. The applying roll 41 is mounted on a pivoted arm 61 which is raised at intervals to leave a space at which the web is to be cut. The web, after passing over the roll 38, passes between guide-plates 118, 119, Fig. 8, and between knives 103, 107 which sever it. A two-armed lever 105, 106 carries a roller 45 to press the web against the feeding roll 38 and a blade 107 approximately fixed. The movable blade 103 is carried by levers 101, 97 connected by springs 108, 112 to the lever 105, and adjustably to a stud 115 by a spring 114, and cam-actuated to sever the web at the requisite moment. The severed sheets rest on ledges 122, Figs. 4 and 6, in front of plates 82, 83 of the folding box 81, and may be held at one or both sides by spring-urged fingers 125. The box 81 and plates 82, 83 now advance and fold the paper about three sides of the downward extension or former 71 of the hopper 70, the plate 90 being retarded by the former and the plates 82, 83 continuing to advance to make the folds. The leading portions of the paper are folded in by folders 150, 151, Fig. 9, and a rubber covered member presses the seam to ensure adhesion. The paper now constitutes a tube of rectangular cross-section, with the lower part projecting below the bottom of the former. The first fold of the bottom is made by a folding blade 176, Figs. 9 and 12, advanced by a sliding bar 165, a cam surface 184 acting upon the tail of the blade to cause it to turn into the horizontal position at the end of the stroke. The second and third folders 202, 206, Fig. 9, next come into operation and make their respective folds while the blade 176 is still in position. The fourth folder 205, Fig. 13, advances against the remaining triangular tab at the bottom of the former and nips it against the folder 203, which is still in its forward position. The folder then passes across the bottom of the former to fold down the last tab, moves downward with the bag when it is stripped from the former, a web 206, passing through a slot in the side of the mould, and then backwards, leaving the bag resting on the stationary bottom plate 224 of the mould. Bag-ends of the "double-ear" type may be made by varying the order in which the folders come into action. A stripper, comprising a vertically moving forked bracket, may be used to ensure disengagement, studs in the bracket coacting with vertical grooves on the former. In order to prevent the web from being fed after a failure in the supply of tea and c. to be subsequently filled into the bag, a balanced feeler may rest on the material in the hopper and be adapted to throw the pawls 31, 32, 33 out of action when the supply fails or the pawls may be normally disengaged and only put into engagement by the charge acting upon the feeler. In the form of stopmechanism shown in Fig. 20, a flap 322 is hinged on the edge of the hopper 70 and is connected by links to a rocking pawl 325. The flap is lifted by any suitable mechanism to allow the charge to enter the hopper and the pawl 325 thus disengages a projection 333 on a vertical slide 326 carrying a radius bar 331 adapted, in its lower position, to keep the pawls 31, 32, 33 out of action. If, therefore, the flap 322 is not raised and no charge is fed, the slide 326 is not disengaged by the pawl 325 and no feed of paper takes place. In one modification, the web feed may be **dispensed** with and separate sheets fed by known **devices** to the folding **apparatus**. In another form, two or more sets of **apparatus** may be embodied in one machine.

Classifications:

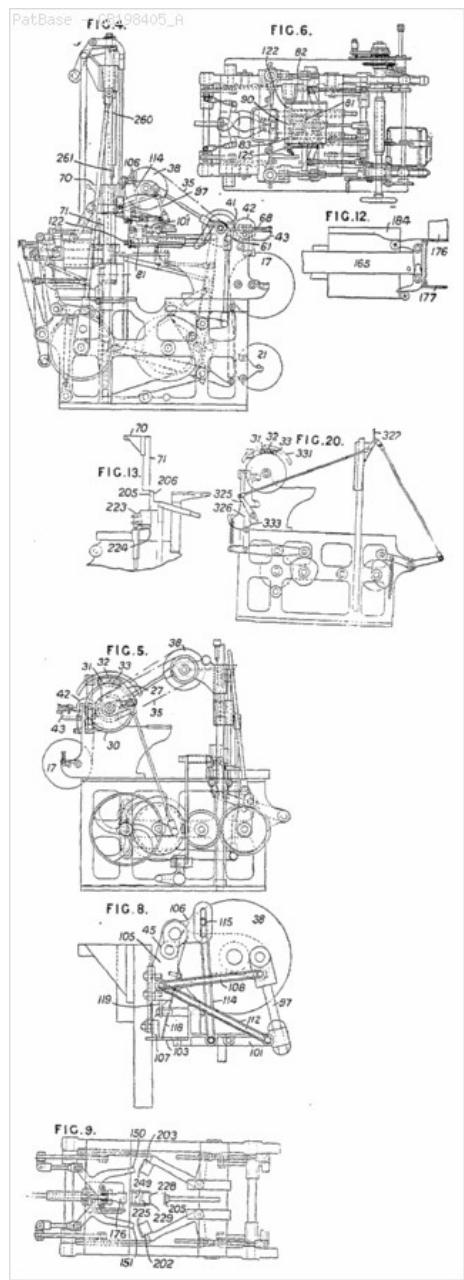
International (IPC 8-9): B65B45/00 (Advanced/Invention);

B65B45/00 (Core/Invention)

International (IPC 1-7): B65B45/00

CPC: B65B45/00

European: B65B45/00



Family:

Publication number	Publication date	Application number	Application date
GB198405 A	19230604	GB19220003261	19220203

Priority:

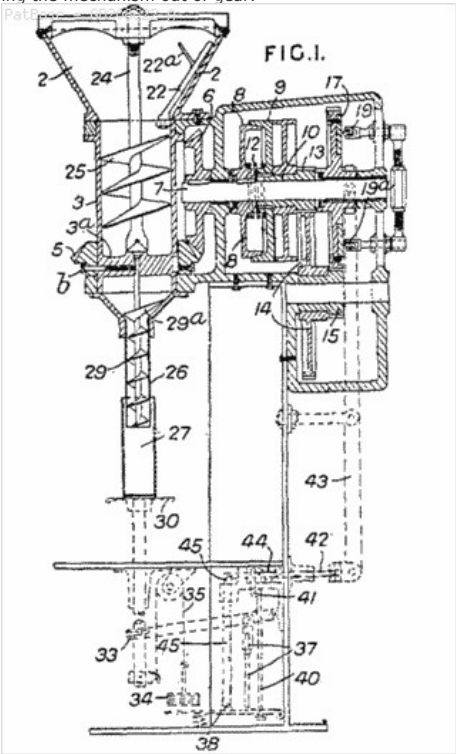
GB19220003261 19220203

Assignee(s): (std): ALBERT DAY

Title: Improvements in machines or **apparatus** for measuring and filling powdered, granulated, plastic or like substances into appropriate **receptacles**

Abstract: Source: GB208622A 208,622. Young, B. Nov. 4, 1922. Operating clutches.-In a machine for filling materials into **receptacles**, the feeding **devices** are driven through a friction clutch controlled automatically or by a pedal. The material, contained in a hopper 2, falls into a revolving **cylinder** 3 surrounding a fixed worm 25 which feeds it into a nozzle 26 in which a worm 29, secured to a diametric arm 3 in the **cylinder** 3 by a screw b, rotates to force the material into a **receptacle** 27. The **cylinder** 3 is driven from a pulley 9 keyed upon a sleeve 10 which rotates a face-cam 17 through gears 13, 14, 15. During rotation, adjustably fixed runners 19, 19 contact with the raised portions of the cam, and force the cam and associated gears to the left against the action of a spring 12, causing the pulley 9 and friction clutch 8 to engage. The shaft 7 is rotated, and drives the **cylinder** 3 through gears 6, 5. When a sunken part of the cam 17 registers with the runners 19, 19 the clutch is disengaged. By adjusting the runners the amount of feed is regulated. The runners 19, 19 may be **dispensed** with, and the parts 8, 9 put in gear by a pedal 38 through links 40 - - 43. A table 30, on which the **receptacle** rests, descends as the **receptacle** fills and a lever 33 carrying a depending arm 37 depresses the pedal 38 and releases a catch rod 45, a spring 44 throwing the mechanism out of gear.

Classifications:
International (IPC 8-9): B65B1/40 (Advanced/Invention);
B65B1/30 (Core/Invention)
International (IPC 1-7): B65B1/40
CPC: B65B1/40
European: B65B1/40



Family:

Publication number	Publication date	Application number	Application date
GB208622 A	19231227	GB19220030196	19221104

Priority:

GB19220030196 19221104

Assignee(s): (std): BROUGHAM YOUNG

Title: Filling machine

Abstract: Source: US1700494A 1. In a. dispensing ceptacle carriers, two alternately discharging an independent source. apparatus, movable re- B5 I0 I 14 I I I"(I3(nozzles movable with the carriers while discharging, a cylinder provided with ports adjacent its opposite ends adapted to serve alternately as inlets and outlets to the cylinder for a supply under pressure of substance to be dis enseul, conduits connecting the nozzles and) the ports, valve mechanism for reversing the functions of the ports, a piston adapted to move between the ports in the cylinder under the pressure of the substance entering the cylinder from first one port and then the other, a device movable with the piston exteriorly of the cylinder, and a connection between the device and the valve mechanism serving _to operate the valve mechanism at the end of each piston stroke.

Classifications:

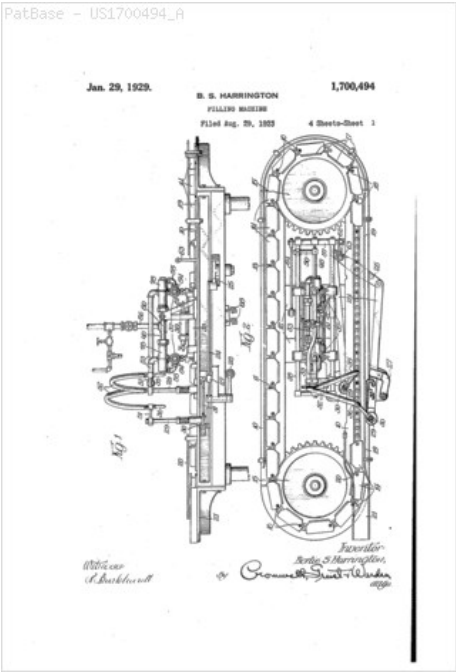
International (IPC 8-9): B65B3/32 B65B39/14 (Advanced/Invention); B65B3/00 B65B39/00 (Core/Invention)

International (IPC 1-7): B65B3/32 B65B39/14 B67C3/20

CPC: B65B3/32 B65B39/14

European: B65B3/32 B65B39/14

US: 141/115 141/137 141/179 222/249 222/261 222/335



Family:

Publication number	Publication date	Application number	Application date
US1700494 A	19290129	US19230659874	19230829

Priority:

US19230659874 19230829

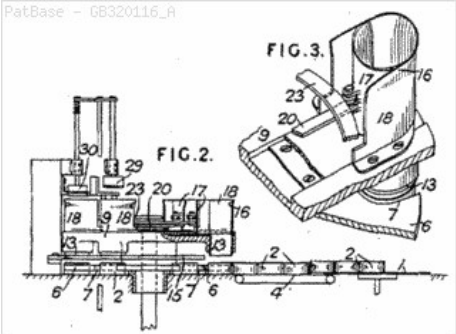
Assignee(s): (std): HARRINGTON BERTIE S

Inventor(s): (std): HARRINGTON BERTIE S

Title: A method and apparatus for packing materials

Abstract: Source: GB320116A Packeting compressible materials in tins.-In a machine for packeting compressible materials, such as tobacco, the tins 2, Fig. 2, are fed from a disc 1 by a belt 4 into pockets 7 in a spider 6. Each pocket is arranged immediately below a compression chamber 13 on a rotary table 9 moving in synchronism with the spider 6. The upper portion of the compression chamber comprises a part 18, Figs. 2 and 3, fixed to the table 9, and radially movable walls 17. When a charge of tobacco is introduced through a feed shoot into the upper portion of the compression chamber, the wall 17 is retracted as shown in Fig. 2, and, on moving to the next station of rest, a fixed guide cam 23 forces the wall into the position shown in Fig. 3, effecting a preliminary compression. The upper edges of the chamber are flared outwards at 16 so as to facilitate the introduction of the charge. Each wall 17 is connected by a link 20 to the one opposite, so that when compression takes place, the empty chamber opposite is expanded for the next cycle of operations. The bottom of the chamber 13 arrives over a fixed plate 15 and a plunger 29 descends and compresses the charge into the chamber 13. At the next pause, a plunger 30 pushes the compressed charge out of the chamber 13 into the tin 2, the plate 15 having terminals between the points of operation of the plungers 29, 30. At the next stage, the tins are ejected from the machine on to a conveyer. The plungers may be of the metal known under the registered Trade Mark " Monel," and may be heated by electric or other means. Pads may be placed so as to clean the plungers. In another method of operation, the tin-feeding mechanism may be dispensed with and the compressed tobacco fed on to a belt ready to be placed in tins by hand.

Classifications:
International (IPC 8-9): B65B63/02 (Advanced/Invention);
B65B63/00 (Core/Invention)
International (IPC 1-7): B65B63/02
CPC: B65B63/02
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Family:

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Assignee(s): (std): CLAUD CAREW GIBSON ; WILLIAM HOLMES

Title: Filling and capping machine

Abstract: Source: US1913743A Claim: 1. In a machine of the character described, the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** for supplying /cups one by one to said carrier at each step taken thereby, comprising a cup **holder** for retaining a stack of nested cups, and a reciprocating member having a connection with the aforesaid reciprocating element to be operated by the latter to release cups one by one from the bottom of the stack upon each reciprocation of said member. 2. In a machine of the character described, the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** for supplying cups one by one to said carrier at each step taken thereby, comprising a cup **holder** for retaining a stack of nested cups, and a reciprocating member having a connection with the aforesaid reciprocating element to be operated by the latter to release cups one by one from the bottom of the stack upon each reciprocation of said member, the connection between said member and said element being a resilient one for operation in one direction and a positive one for operation in the other direction. 3. In a machine of the character described the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** arranged to drop cups one by one onto said carrier at each step taken thereby, comprising a **holder** to retain a stack of nested cups, a slide operating in said **holder** beneath the stack of cups arranged when moved in one direction to segregate the bottom cup of the stack and when moved in the other direction to release the segregated cup and to retain the next cup thereabove, and means providing an operating connection between said slide and said reciprocating element. 4. In a machine of the character described, an endless carrier for feeding cups to be filled, a reciprocating element for advancing said carrier step by step continuously in one direction, a **holder** to receive a stack of caps for application to the cups, and a reciprocating member for **dispensing** caps from said **holder** one by one having an operating connection with the aforesaid reciprocating element. 5. In a machine of the character described, a horizontal elongated supporting frame providing ways thereon, an endless belt type conveyor operating from end to end of said frame, the conveyor being adapted to have **receptacles** thereon, like cups, adapted to be filled and requiring capping, a horizontally reciprocating element for advancing the conveyor step by step progressively toward one end of said frame, a **holder** containing caps, another horizontally reciprocating element operatively connected with the other reciprocating element for feeding, caps one by one in proper timed relation to the step by step movement of the conveyor, and means for applying the caps to the cups. 6. In a machine of the character described, a carrier for feeding cups one by one in a step by step movement to be filled, means for advancing the carrier step by step progressively in one direction, a **dispensing cylinder**, a **piston** operating up and down in said **cylinder** to discharge material therefrom into said cups, a **plunger** operating up and down and serving by operation on the carrier to insure accurate positioning of the cups at each advance thereof, and a single device operating up and down having connection with said **piston** for operating the same and also arranged to operate said **plunger**. 7. In a machine of the character described, a carrier for feeding cups one by one in a step by step movement to be filled, a **dispensing cylinder**, a **piston** operating up and down in said **cylinder** to discharge material therefrom into said cups, a **holder** for caps to be applied to said cups, means for **dispensing** caps one by one for application to the cups, a **plunger** operating up and down for applying the caps to the cups, means for advancing the carrier step by step progressively in one direction, another **plunger** operating up and down and serving at each step to operate on the carrier to insure accurately indexed position thereof, and a single means operating up and down having connection with said **piston** for operating the same and also arranged to operate said **plungers**. 8. In a machine of the character described, a carrier for feeding cups one by one in a step by step movement to be filled, a horizontally reciprocating element for advancing the carrier step by step progressively in one direction, a **dispensing cylinder**, a **piston** operating up and down in said **cylinder** to discharge material therefrom into said cups, a **holder** for caps to be applied to said cups, another horizontally reciprocating element for **dispensing** caps one by one for application to the cups, the said reciprocating elements operating in timed relation with one another, a **piston** operating up and down for applying the caps to the cups, and a single means operating up and down having connection with said **piston** for operating the same and also operatively connected with said **plunger**. 9. In a machine of the character described, an endless carrier arranged to feed step by step continuously in one direction for feeding cups, means for filling the cups, a **holder** for caps, means for **dispensing** caps from said **holder** one by one in timed relation to the step by step movement of said carrier to feed a cap for each cup, a **plunger** for applying the caps to the cups, and means operating up and down arranged to position a cup in exact register with the **plunger** for capping and arranged to operate said **plunger** to apply the caps to the cups. 10. In a machine of the character described, an endless carrier moving step by step continuously in one direction, a reciprocating element for advancing said carrier, a cup **holder**, a cap **holder**, means for **dispensing** material into said cups, a reciprocating cup **dispenser** for said cup **holder**, a reciprocating cap **dispenser** for said cap **holder**, and connections for said cup and cap **dispensers** with said first mentioned reciprocating element for operating said **dispensers** therewith. 11. In a machine of the character described, an endless carrier for feeding cups, a reciprocating element arranged to advance the carrier step by step progressively in one direction, a reciprocating **dispensing** valve for **dispensing** material into said cups, a cup **holder**, a cap **holder**, a reciprocating cup **dispenser** for said cup **holder**, a reciprocating cap **dispenser** for said cap **holder**, and means for connecting certain of said **dispensers** with the reciprocating element for operation thereby in timed relation therewith, all of said **dispensers** being operated in a predetermined timed relation with one another. 12. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating carrier advancer, a cup **holder**, a reciprocating cup **dispenser** for said **holder**, a cap **holder**, a reciprocating cap **dispenser** for said **holder**, means for operating said reciprocating cup and cap **dispensers** and the reciprocating advancer in a predetermined timed relation, a **dispensing cylinder**, a vertically operating **plunger** for **dispensing** material therefrom, a vertically operating cap applying **plunger**, and means for operating said **dispensing** and cap applying **plungers** together. 13. In a machine of the character described, an endless carrier for feeding cups to be filled, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** in timed relation, a **dispensing cylinder**, a vertically operating **plunger** for **dispensing** material therefrom, a vertically operating cap applying **plunger**, and a common means operating vertically arranged to operate said **dispensing** and cap applying **plungers** together. 14. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, a cup **holder**, a horizontally reciprocating cup **dispenser** in said **holder**, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** and said carrier advancing element together, a **dispensing cylinder**, a vertically operating **plunger** for **dispensing** material therefrom, a vertically operating cap applying **plunger**, and means for operating said **dispensing** and cap applying **plungers** together. 15. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, a cup **holder**, a horizontally reciprocating cup **dispenser** in said **holder**, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** and said carrier advancing element together, a **dispensing cylinder**, a vertically operating **plunger** for **dispensing** material therefrom, a vertically operating cap applying **plunger**, a vertically operating member for registering a cup to be capped with the capping **plunger**, and a common means operating vertically arranged to operate said **dispensing** and cap applying **plungers** together. 16. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said **dispensers** and said slide. 17. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, operating connections between said **dispensers** and said slide, a reciprocating element for advancing said carrier step by step in one direction, and an operating connection between said element and said slide. 18. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a **dispensing cylinder**, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap

connection between said vertically reciprocating means and said shaft for reciprocating; the former in the rotation of the latter, a horizontally reciprocating slide valve for controlling the discharge from said **cylinder**, and an operating connection between said slide valve and said shaft for reciprocating the former in the rotation of the latter. 24. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a **dispensing cylinder**, a vertically reciprocating **plunger** operating in said **cylinder** for **dispensing** material therefrom into said cups, a vertically reciprocating cap applying **plunger**, a single vertically reciprocating means for operating said **plungers** together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, a horizontally reciprocating element for advancing said carrier step by step in one direction, a slide operating in said frame, a cup **holder**, a horizontally reciprocating cap **dispenser** operating in said holder, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, connections between said slide and said reciprocating element and each of said dispensers for operating the same together, and an operating connection between said slide and said power shaft for reciprocating the former in the rotation of the latter. 27. In a machine of the character described, comprising a frame and an endless link belt carrier operating from end to end of said frame for feeding cups to be filled, said links each supporting a cup in an opening therein, means for advancing said carrier link by link, a reciprocating element at the end of said frame moving from one terminal position to another, the movement of said element to one terminal position serving to raise a cup out of its opening in the carrier, the cup being thereafter supported in such raised position and so conveyed in the movement of said reciprocating element to the other terminal position, the cup in the latter position of said element being free of the carrier and extended from the frame, and means for receiving the cups from the reciprocating element. 28. In a machine of the character described comprising a frame and an endless linked belt carrier composed of perforated plates each arranged to support a cup in its opening by a GI 10 II Q rim thereon, the said carrier being arranged to convey the cups on one side thereof toward one end of the frame, means for advancing said carrier link by link progressively in one direction, a reciprocating element comprising an inclined bottom portion arranged in the movement of said element to its one terminal position to raise the cup by engagement with the bottom thereof out of its opening, and a top portion arranged at the same time to hold the cup on the lower portion by engagement with the top thereof, said element being arranged in the movement from the last mentioned terminal position to its other terminal position to convey the cup free of the carrier and extend the same from the end of the frame, the perforated plates of said carrier being arranged in turning at the end of the frame from the top flight to the lower flight to receive the lower portion of said element in the openings thereof whereby to permit extension of said element from the end of the frame, and means for receiving cups from said element. 29. In a cup filling and capping machine, an endless cup carrier, a cup **holder**, means for **dispensing** cups therefrom one by one to said carrier, a hopper for the material to be **dispensed**, means for **dispensing** material therefrom into the cups in said carrier in succession, a cup **holder**, means for **dispensing** cups one by one from said **holder**, means to apply the **dispensed** caps to said cups in succession, a source of power for operating all of the above means, a clutch for transmitting the power to said means arranged to be disengaged in the event of excessive resistance to operation of the carrier or any one of said means, and a stop **device** normally held in inoperative position by cups feeding past the same on the carrier but arranged in the event of a failure of a cup supply or in the event the cup **dispenser** otherwise fails to operate to move to operative position and interfere with the operation of one of the above-mentioned parts and thereby effect disengagement of the clutch. 30. In a machine of the character described, an endless carrier for feeding cups, a reciprocating element for advancing said carrier step by step continuously in one direction, a **holder** to receive a stack of caps for application to the cups, a reciprocating member for **dispensing** caps from said holder one by one having an operating connection with the aforesaid reciprocating element, and reciprocating means arranged to raise the cups out of their position in the carrier after the same have received caps, said reciprocating means also having an operating connection with the aforesaid reciprocating element. 31. In a machine of the character described, an endless carrier for feeding cups to be filled, means for **dispensing** cups one by one to said carrier, a cap **holder**, a horizontally reciprocating cap dispenser in said **holder**, means for operating said cap **dispenser**, said cap and cap **dispensing** means being operated in timed relation to one another, a **dispensing cylinder**, a vertically operating **plunger** for **dispensing** material therefrom, a vertically operating cap applying **plunger**, a vertically operating carrier registering **plunger**, and means for operating said **dispensing**, registering and cap applying plungers together. 32. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, means for **dispensing** cups one by one to said carrier, said cup **dispensing** means being operated in timed relation to the advancing of the carrier, a cap **holder**, a horizontally reciprocating cap dispenser in said **holder**, means for operating said cap **dispenser** and said carrier advancing element together, a **dispensing cylinder**, a vertically operating **plunger** for **dispensing** material therefrom, a vertically operating cap applying **plunger**, and means for operating said **dispensing** and cap applying plungers together. 33. A machine as set forth in claim 31 including a horizontally reciprocating **device** for raising the cups out of position in the carrier after the caps have been applied, said **device** being operated with said cap **dispenser**. 34. A machine as set forth in claim 32, including a horizontally reciprocating **device** for raising the cups out of position in the carrier after the same have been applied, said **device** being connected with the cup dispenser and carrier advancing element. 35. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a **dispensing cylinder**, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, means for **dispensing** cups one by one to said carrier, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a reciprocating slide cooperating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said slide and said cap **dispenser**, said cup **dispensing** means being operated in timed relation to the cap **dispenser**. 36. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a **dispensing cylinder**, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, means for **dispensing** cups one by one to said carrier, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, a reciprocating element for advancing said carrier in said frame step by step in one direction, and an operating connection between said element and said slide, the cup **dispensing** means being operated in timed relation to the step by step advancing of the carrier. 37. A machine as set forth in claim 36 including a reciprocating **device** for raising the cups out of their position in the carrier after the same have been filled, said **device** having an operating connection with the last mentioned reciprocating slide, whereby to be operated in proper relation to the step by step advancing of the carrier. 38. In a machine of the character described, the combination with an endless carrier arranged to be advanced progressively in one direction step by step so as to feed cups to be filled and subsequently capped, of a material **dispenser**, a reciprocating valve for **dispensing** material from said **dispenser** into said cups, the said valve being operated in timed relation to the step by step advancing of the carrier, a cap holder, a reciprocating element for feeding caps one by one from said **holder** to the cups, said last mentioned reciprocating element being operated in timed relation with the reciprocating valve and with the step by step movement of the carrier, means for applying the caps to the cups, and a reciprocating **device** operatively connected with the reciprocating cap feeding element to operate in a predetermined time relation therewith, said **device** being arranged in the movement thereof to one of its terminal positions to raise the cups off the carrier and in the movement thereof to the other terminal position to convey the same away from the carrier. 39. In a machine of the character described, the combination with an endless carrier arranged to be advanced progressively in one direction step by step so as to feed cups to be filled and subsequently capped, of a material **dispenser**, a reciprocating valve for **dispensing** material from said **dispenser** into said cups, the said valve being operated in timed relation to the step by step advancing of the carrier, a cap holder, a reciprocating element for feeding caps one by one from said **holder** to the cups, said last mentioned reciprocating element being operated in timed relation with the reciprocating valve and with the step by step movement of the carrier, means for applying the caps to the cups, wherein the last mentioned means comprising a cap **plunger** operating up and down in timed relation to the step by step movement of the carrier, and another **plunger** also moving up and down in timed relation to the last mentioned **plunger** serving by operation on the carrier to jog the same one way or the other from the position to which the same has been advanced whereby accurately to index the same at each step by step advancement thereof to insure proper application of the caps to cups. 40. In a machine of the character described, the combination with an endless carrier and a reciprocating element arranged to advance the carrier step by step progressively in one direction, of a cup **dispenser** for supplying cups one by one to said carrier at each step taken thereby, comprising a reciprocating member operatively connected with the aforesaid reciprocating element or operation therewith in a predetermined time relation. 41. A machine as set forth in claim 40 including a material **dispenser** and a reciprocating dispensing valve for discharging material into said cups, said valve being operated in timed relation with the reciprocating element and reciprocating member and with the step by step movement of the carrier. 42. In a machine of the character described, the combination of an elongated supporting frame providing ways thereon, an endless belt type conveyor operating on said ways from end to end of said frame and adapted to guide cups past the conveyor at one end of said frame to carry to the other end thereby, a reciprocating element cooperating with said conveyor to advance the same step by step in one direction, a hopper for material to be **dispensed** mounted intermediate said conveyor and adapted to discharge material into the cups, a reciprocating cap feeder for the **holder** arranged to feed caps one by one to the cups, said cap feeder being operated in timed relation with the reciprocating valve, and one of the two last mentioned reciprocating parts being operatively connected with the first mentioned reciprocating element whereby the operations of **dispensing** and cap feeding are in timed relation to the movement of the conveyor. 43. A machine as set forth in claim 42 including a vertically reciprocating plunger for applying the caps to the cups, said **plunger** being operated in a timed relation with the other reciprocating elements, and another **plunger** reciprocating vertically like the last mentioned **plunger** and in timed relation therewith, said last mentioned **plunger** being arranged to operate on the conveyor accurately to index the same at each step by step advancement thereof whereby to insure proper application of the caps to the cups, and a reciprocating **dispensing plunger** for the hopper operated in timed relation with the reciprocating valve for discharging material from the hopper. 45. A machine as set forth in claim 42 including a vertically reciprocating

dispensing plunger for the hopper operated in timed relation with the reciprocating valve, and another vertically reciprocating **plunger** operated in time relation with the **dispensing plunger** and arranged by operation on the conveyor accurately to index the same at each step by step advancement thereof. ' 46. A machine as set forth in claim 42 including a reciprocating **device** at the discharge end of the frame operatively connected with the cap feeder so as to operate in a predetermined timed relation therewith, said **device** in moving to one terminal position being arranged to pick up the cups off the conveyor and in the movement thereof to the other terminal position to convey the same away for removal from the machine. 47. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideways endwise of the frame and arranged to have **receptacles**, such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a hopper for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a transverse cam shaft in said frame below the hopper and arranged to be continuously driven, a cam on said shaft for communicating the reciprocation to the reciprocating element, whereby to advance the carrier at regular intervals, a vertically reciprocating **piston** associated with the hopper for discharging measured amounts of material from the hopper, and an eccentric on said shaft having a connecting rod fitting thereon and connected with the **piston** for operating the same in timed relation with the advancement of the carrier. 48. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideways endwise of the frame and arranged to have **receptacles**, such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a hopper for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for **dispensing** material from the hopper, said valve being operated in timed relation with the aforesaid reciprocating element, a cap container at the outlet end of said frame disposed over the carrier, and a reciprocating cap **dispenser** for said container operatively connected with the aforesaid reciprocating element whereby to operate in a predetermined timed relation therewith. 49. A machine as set forth in claim 48, including a single control shaft mounted transversely in said frame beneath the hopper, said shaft having a cam thereon for operating the reciprocating element, and said machine further including a vertically reciprocating **piston** for discharging material from the hopper, and an eccentric on said shaft having a connecting rod bearing thereon and connected with said **piston** for operating the latter in a predetermined timed relation with the advancement of the carrier. 50. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideway endwise of the frame and arranged to have **receptacles**, such as cups, carried thereby, a hopper for the material to be **dispensed** disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for **dispensing** material from said hopper, said valve being operated in timed relation with the aforesaid reciprocating element, and a cup **dispenser** disposed over the carrier at the one end of said frame and arranged upon each operation to **dispense** one cup, said **dispenser** being operatively connected with the aforesaid reciprocating element whereby to operate in a predetermined timed relation therewith. 51. A machine as set forth in claim 50, including a cap container disposed over the carrier at the other end of said frame, and a reciprocating cap **dispenser** operatively connected with the reciprocating element whereby to operate in a predetermined timed relation therewith. 52. A machine as set forth in claim 50, including a single control shaft disposed transversely in said frame beneath the hopper, said shaft having a cam thereon for operating the reciprocating element, a vertically reciprocating **piston** in said hopper for discharging material therefrom, and an eccentric on said shaft having a connecting rod bearing thereon and connected with said piston whereby to operate the **piston** in timed relation with the advancement of the carrier. 53. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideway endwise of the frame and arranged to have **receptacles**, such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a hopper for the material to be **dispensed** disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for **dispensing** material from the hopper, said valve being operated in timed relation with the aforesaid reciprocating element, and a second reciprocating element at the outlet end of the frame having a portion thereof arranged in the movement of said element to its one terminal position to engage the end-most cup on the carrier and raise it clear of the carrier, said element in the movement thereof to its other terminal position serving to convey the cup off the carrier and extend the same from the end of the frame for reception by a suitable receiver, said second reciprocating element being operatively connected with the first reciprocating element for operation in a predetermined timed relation therewith. 54. A machine as set forth in claim 53, including a reciprocating cup **dispenser** disposed over the carrier at the opposite end of said frame, said **dispenser** being operatively connected with the first mentioned reciprocating element whereby the same is arranged to be operated in a predetermined timed relation therewith. 55. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction, means for **dispensing** cups or the like one by one to said carrier in timed relation with its step by step operation, means for filling the cups, cap **dispensing** means arranged to be operated in timed relation with the other means so as to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the cup **dispensing** means, filling means, and cap applying means. 56. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction for feeding cups or other **receptacles** to be capped, cap **dispensing** means operated in timed relation to the step by step movement of the carrier to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the cap applying means. 57. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction for feeding cups or other receptacles to be filled and capped, means for filling the cups, said means being operated in timed relation with the step by step movement of the carrier to fill the cups between movements of the carrier, cap **dispensing** means, said means being operated in timed relation with the movement of the carrier to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the filling means and cap applying means. 58. In an automatic machine, such as a filling and capping machine, the combination of an endless carrier arranged to be fed step by step continuously in one direction, means for advancing the carrier step by step, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly. 59. In a machine of the character described, a frame, an endless carrier operating thereon for feeding cups to be filled, a reciprocating cup **dispenser**, a reciprocating cap **dispenser**, a power shaft in said frame, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, the reciprocating cup and cap **dispensers** being operated in timed relation to one another and to the advancement of the carrier, and operating connections between at least one of said **dispensers** and said slide. 60. A machine as set forth in claim 59 including an operating connection between the carrier and the slide, said connection being so constructed whereby movement is communicated to the carrier in the movement of the slide in one direction, the slide in its movement in the other direction being arranged to operate the **dispenser** connected therewith. 61. In an automatic machine, such as a filling and capping machine, the combination of an endless carrier arranged to be advanced continuously in one direction for feeding cups or the like for filling or capping, or both, means for advancing the carrier step by step, there being other means for the filling or capping operations operated in timed relation with the advancement of the carrier, a source of power for operating all of the above so as to stop the carrier, and a stop **device** normally held in inoperative position by cups or the like feeding past the same on the carrier, but arranged to move to operative position and interfere with the normal operation of the carrier and thereby affect disengagement of the clutch. 62. In an automatic machine of the character described, the combination of an endless carrier arranged to be advanced continuously in one direction for feeding articles, means for advancing the carrier, a source of power for operating said means, a clutch for transmitting the power to said means arranged to be disengaged in the event of excessive resistance to operation of the carrier, and a stop **device** normally held in inoperative position by the articles feeding past the same on the carrier but arranged in the absence of an article to move to operative position and interfere with the normal operation of the carrier and thereby affect disengagement of the clutch. 63. In a machine of the character described, means for feeding cups or the like one by one in a step by step movement to be capped, cap feeding means arranged to feed one cap for each cup, a capper for applying the caps to the cups, a **device** operating up and down and arranged upon each downward movement to register a cup in a predetermined desired position in proper alignment with the capper for good application of the cap to the cup, and means for operating said **device** in timed relation to the operation of the cup feeding means so that the downward movement of the **device** occurs after each advancement of the cups, said capper also operating up and down like the cup registering **device**, the two being operated by the same means, and said registering **device** being in leading relation to the capper so as to insure proper registration of the cup prior to the capping operation. 64. In a filling and capping machine of the character described, cup **dispensing** means arranged to deliver one cup or the like at a time, cup feeding means for advancing the cups in the machine step by step, filling means, capping means beyond the filling means in relation to the direction of movement of the cup feeding means, whereby the cups after being filled are arranged to be capped one by one, a source of power having connection with all of said means for normally operating the same in a predetermined timed relation to one another, and a **device** between the cup **dispensing** means and the filling means arranged to engage each cup before its delivery to the filling means, said **device** being thereby normally held in inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 65. In a machine of the character described, cup **dispensing** means arranged to deliver one cup or the like at a time, cup feeding means for advancing the cup in the machine step by step, filling means, a source of power having connection with all of said means for normally operating the same in a predetermined timed relation to one another, and a **device** between the cup **dispensing** means and the filling means arranged to engage each cup before its delivery to the filling means, said **device** being thereby normally held in inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 66. In a machine of the class described, the combination of means for feeding cups or the like step by step in one direction, capping means for applying caps one by one to the cups, a power source for normally operating said means in a predetermined timed relation, and a **device** disposed so as to engage each cup prior to its delivery to the capping means, said **device** being thereby normally held in an inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 67. In a machine of the class described, the combination of means for feeding cups or the like horizontally to a capping station, of cup feeding means serving to deliver one cup or each cup a cap registering **plunger**, a cap applying **plunger**, and a single operating part reciprocating substantially vertically and having the two **plungers** thereon in such relation to one another that the registering **plunger** is arranged to first jog the cup one way or the other from the position to which the same has been advanced by the cup feeding means whereby to bring the same into a predetermined position for capping, whereupon the cap applying **plunger** is arranged to apply the cap to the cup. 68. In a **device** for capping cups or other containers made of paper or similar material and having an annular internal shoulder at the capping end to receive a cap thereon, means for supporting a cup externally at its capping end in the plane of the aforesaid internal shoulder whereby to prevent damage to the cup in the application of a cap, and a capping **plunger** operable in register with said means. 69. In a capper, the combination of a supporting plate having a circular opening therein to receive a container to be capped, the container having an outwardly projecting rim or bead at the capping end and the circular opening in the plate being of such a size that the rim or bead will rest on the plate, whereby to permit

application of a cap under pressure into the capping end of the container disposed in the opening and means registering with the opening in the plate for pressing a cap into position in the container. 70. In a capper for applying tabbed caps of paper or similar material to containers made of paper or similar material each having an annular rim or bead at the capping en , means for supporting a container externall of the capping end adjacent the rim or bead' and in the vicinity where the tab of the cap comes in capping, whereby _to revent damaging the container in the application of a tabbed cap thereto and cause t e bending up of the tab, and a capping **plunger** operable in register with said means. In witness of the foregoing I ailix my signature

Classifications:

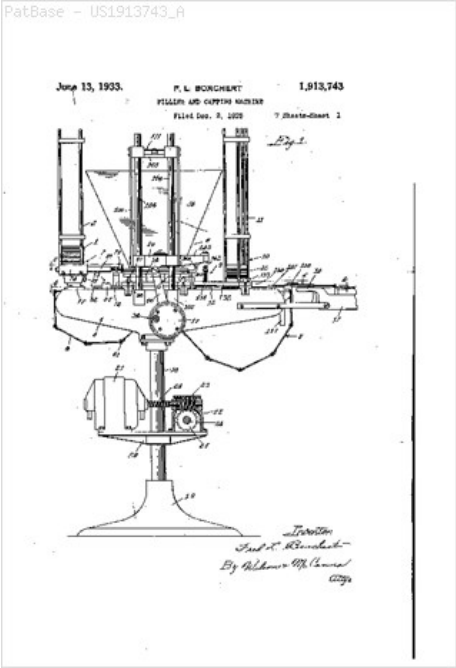
International (IPC 8-9): A23G9/28 B65B3/32 B65B57/08 G07F13/10 G07F9/10 (Advanced/Invention)

International (IPC 1-7): A23G9/28 B65B3/32 B65B57/08 B67C7/00

CPC: B65B3/32 B65B57/08 G07F13/10 G07F17/0071 A23G9/286

European: A23G9/28F B65B3/32 B65B57/08 G07F13/10 G07F17/00F2

US: 141/103 141/165 141/174 141/183 222/309 53/282



Family:

Publication number	Publication date	Application number	Application date
US1791611 A	19310210	US19270199971	19270620
US1913743 A	19330613	US19250072618	19251202

Priority:

US19250072618 19251202 US19270199971 19270620

Assignee(s): (std): BORCHERT FRED L

Inventor(s): (std): BORCHERT FRED L

Title: Filling and capping machine for containers

Abstract: Source: GB345715A 1227. Convention date, Jan. 12. 1929. [Class 125 (ii).] In **apparatus** for filling and capping containers of the type in which the containers, positioned on a conveyer, receive predetermined quantities of material whereupon the rims of the containers are deformed by deflecting and crimping for sealing purposes, there is provided a source of containers together with means, driven by the actuating **devices** of the conveyer, for successively removing the containers, one after another, from said source. Conical paper cups 39, Fig. 33, are **dispensed** from a magazine 52, Fig. 1, and deposited in pockets 36 of a travelling endless conveyer 29, which is operated intermittently, by Geneva wheel mechanism, to advance the cups into a position beneath a hopper 97 containing ice cream or other substance to be **dispensed** to the containers. Disposed beneath the hopper 97 is a valve control mechanism, Fig. 8, which is arranged, by the operation of **plungers** 86 and the rotation of a valve 91, to permit a quantity of material to be deposited in a container positioned below. After completion of the filling operation, the cup is advanced by the conveyer to a position opposite the cup delivering mechanism 120 .. 127, Fig. 5, and beneath a rimdeflecting **device** 155, the dies of the latter being brought into operation, subsequent to the positioning of a flanged cap 133, Fig. 33, within the mouth of the container, to bend the rim of the cup inwardly over the cap. The filled container is then carried forward by the conveyer to a crimping mechanism 177, Fig. 1, which is automatically operated to complete the closure by crimping the inwardly deflected margin of the container over the flange of the cap. Additional movement of the conveyer permits the removal of the cups by hand, or allows them to fall from the container pocket into a receiving rack. The cups are **dispensed** by a pair of gripper arms 69, Fig. 9, mounted for reciprocal and oscillatory movement, on upright rods 63 located within the magazine 52, each arm being provided with a dog 70 for engagement with a connecting bar 65, which is pivotally mounted at one end and at the other end has a pivotal connection with a crank on a control shaft 49. The latter is provided with a pin 48 to coact with a pin 47 on the inner side of the sprocket 42 driven by a chain 41 from a shaft 18, Fig. 1, and during each advance of the conveyer the shaft 49 is rotated to actuate the gripper arms which seize the lowermost container of the stack and withdraw it from retaining means on the magazine.

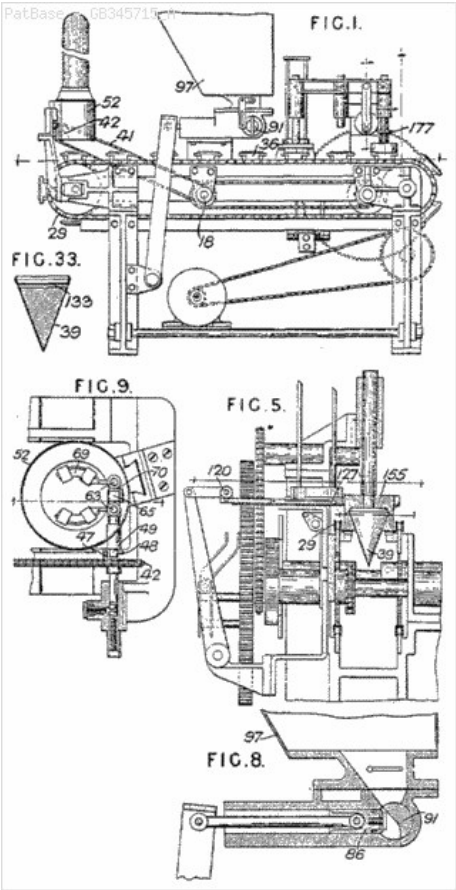
Classifications:

International (IPC 8-9): B65B3/32 B65B43/44 (Advanced/Invention); B65B3/00 B65B43/42 (Core/Invention)

International (IPC 1-7): B65B3/32 B65B43/44

CPC: B65B3/32 B65B43/44

European: B65B3/32 B65B43/44



Family:

Publication number	Publication date	Application number	Application date
GB345715 A	19310402	GB19300001227	19300113

Assignee(s): (std): VORTEX MFG CO

Assignee(s): THE VORTEX MFG CO

Title: **Apparatus** for packaging articles

Abstract: Source: US2066769A I claim:- 1. **Apparatus** for packaging straws or similar articles, which are received in bundles with elastic hands therearound, in cartons which have closure naps at each end, which comprises in combination, a conveyor for separately elevating the bundles, a chute into which the conveyor delivers the bundles, movable arms in one side of the chute for pressing the bundles flat, successive members for **dispensing** the bundles downward one at a time, 9. double-compartment laterally shiftable frame receiving alternate bundles from said chute in alternate compartments, a swinging plate at each side of the central position at the chute for pressing the bundles flat vertically and confining them in said frame, a fixed curved groove-forming bracket on each side above the bundle, vertically movable frames on each side which first move a bundle upward and cause a groove to be formed in it and later descend with it, means on said frames for grasping bundles, grippers which swing longitudinally of the bundles for grasping the elastic bands and pulling them off the ends of the bundles, longitudinally divided boxes into which the bundles are lowered by said vertically movable frame after the bands have been removed, means for forcing the parts of said boxes together after the bundles have been deposited therein, a double-compartment inserting **receptacle** movable laterally at the ends of said boxes, **plungers** for pushing bundles from said boxes into a compartment of said **receptacle**, a carrier for presenting a carton with its open end to the compartments of said **receptacle** when in a central position. and a **plunger** for pushing bundles from the **receptacle** into said carton. 2. **Apparatus** for packaging straws or similar articles which are received in bundles with elastic bands therearound, in cartons, which comprises in combination, means for feeding the bundles along one by one to a central position. means for shifting alternate bundles to opposite sides of the central position, means at the two side positions for removing the elastic bands off the ends of the bundles, means for grasping the bundles and shifting them downward, means for then shifting them endwise, means for then shifting them back to a central position, means for presenting cartons at the central position, and means for shifting the bundles endwise into the cartons. 3. **Apparatus** for packaging straws or similar articles which are received in bundles with elastic bands therearound. in cartons, which comprises in combination, means for feeding bundles one by one, swinging grippers for grasping the bands and removing them from the bundles, means for presenting open cartons to the ends of said bundles, and means for delivering the bundles into said cartons. 4. In **Apparatus** for packaging bundles of straws or similar articles, in combination, a chute down which the bundles descend by gravity, a plurality of pairs of curved fingers entering the chute from each side and arranged in sets at spaced distances along the length of the chute, a frame located at the open lower end of the chute for receiving bundles therefrom, and means for operating the spaced sets of fingers for dropping bundles one at a time from set to set and from the last set to the receiving frame. 5. In **Apparatus** for packaging straws or similar articles which are received in bundles with elastic bands therearound, in combination, means for presenting a bundle to a given position; swinging grippers mounted at the given position, grasping jaws for said grippers, means for swinging said grippers into a position where the jaws are on opposite sides of a band, means for closing the jaws for grasping a band, means for swinging the grippers outward beyond the ends of the bundle and means for opening the jaws at the outer position for releasing the bands. 6. In **Apparatus** for packaging straws or similar articles which are received in bundles with elastic bands therearound, in combination, means for presenting bundles to a given position, **devices** for removing hands from the bundles. said **devices** being movable from an inner position where they engage the bands to an outer position where they discharge them, and means at the outer position for assisting in the removal of bands from the **devices**. 7. In **Apparatus** for packaging straws or similar articles which are received in bundles with elastic bands therearound, in combination, means for presenting bundles to a given position, **devices** for removing bands from the bundles. said **devices** being movable from an inner position where they engage the bands to an outer position where they discharge them. and means for delivering a directed stream of fluid under pressure to said **devices** when they are located in the outer position for assisting in the removal of bands therefrom. 8. In **Apparatus** for packaging straws or similar articles which are received in bundles with elastic bands therearound, in combination, means for presenting bundles to a given position, **devices** for removing bands from the bundles, said **devices** being movable from an inner position where they engage the bands to an outer position where they discharge them, and a member movable across the space between the bundle and the **device** when it is in its outer position for striking the band to pull it away from the bundle in case it should still be held thereto. 9. **Apparatus** as set forth in claim B in which said member consists of a swinging arm. 10. In **Apparatus** for packaging straws or similar articles which are received in bundles with elastic bands therearound, in combination, means for presenting bundles to a given position, means for forming a longitudinal groove in the bundles, the bands being left spanning the groove, and means for engaging the bands along the groove and removing them from the bundles. 11. In **Apparatus** for packaging straws or similar articles which are received in bundles with elastic bands therearound, in combination, means for presenting bundles to a given position; a curved bracket mounted at said position, means for pushing a bundle of straws upward at the top to form a groove therein by engagement with said bracket, and means for engaging the bands along the groove and removing them from the bundle. 12. **Apparatus** as set forth in claim 11 in which said upward pushing means includes a member which moves over against the side of the bundle to change its shape from round to rectangular in cross section and to cause some straws at the top of the bundle to move upward along the sides of the curved bracket to form the groove in the bundle. 13. **Apparatus** as set forth in claim 11 in which said upward pushing means includes a member which moves upward against the bottom of the bundle to move it upward. 14. **Apparatus** as set forth in claim 11 in which said upward pushing means comprises a member which moves over against the side of the bundle and a member which moves upward against the bottom of the bundle. 15. In **Apparatus** for packaging straws or similar articles, in combination, a laterally slidable bundle supporting frame which is shorter than the bundle, a vertically slidable frame which engages a bundle while held in the first mentioned frame along the part of the bundle not engaged by the first mentioned frame, said second mentioned frame moving the bundle down after the first mentioned frame moves from beneath it, a third frame which is shorter than the bundle into which the second frame deposits the bundle, and a **plunger** for pushing the bundle endwise from the third frame so the second frame can move back upward. 16. In **Apparatus** for packaging straws or similar articles, in combination, a narrow frame for grasping a bundle of straws between its ends, a two-part box for receiving the bundle, the parts of the box being disposed at each end of frame and the frame being movable across the ends of the parts of the box, and means pushing the parts of the box together after the frame has moved clear of them. 17. In **Apparatus** for packaging straws or similar articles, in combination, a narrow frame for grasping a bundle of straws between its ends, a two-part box for receiving the bundle, the parts of the box being disposed at each end of the frame and the frame being movable across the ends of the parts of the box, means for pushing the parts of the box together after the frame has moved clear of them, and a **plunger** for pushing the bundle endwise from the box after the parts have been brought together. 18. In **Apparatus** for packaging straws or similar articles, comprising in combination, a **receptacle** for inserting a bundle of loose straws in a carton, an enclosed ring-shaped member for directing the straws into the end of the carton, and a **plunger** for compressing the bundle of straws until it will enter the ring shaped member. 19. **Apparatus** as set forth in claim 18 which includes in further combination, resilient means for moving said **plunger** on the compressing stroke. 20. **Apparatus** as set forth in claim 18 which includes in further combination, means for giving an indication if the **plunger** does not move to a given position on the compressing stroke. 21. In **Apparatus** for packaging straws or similar articles, comprising in combination, a **receptacle** for presenting bundles of straws to a position where they are fed into cartons, means for shifting said **receptacle**, said means including a resilient element for moving the **receptacle** in one direction, and means for giving an indication if said **receptacle** has not moved fully into the feeding position under the influence of the resilient element. 22. In **Apparatus** for packaging straws or similar articles, comprising in combination, a **plunger** for pushing a bundle of straws toward a carton. means for operating said **plunger**, said means including a resilient element for moving the **plunger** in feeding direction, and means for giving an indication if the **plunger** has not moved the full length of its feeding stroke. 23. **Apparatus** for packaging articles in cartons which have end closure naps extending straight from the sides of the cartons. comprising in combination, a carrier wheel provided with means for holding a carton thereon with the naps extending radially from the sides of the wheel, means for rotating said wheel intermittently and halting cartons at various positions, means for opening the naps at the charging end of the carton, means for closing the naps at the other end of the carton, means at a filling position for releasing the carton from the wheel, means for moving the carton endwise for tilting, means for charging articles into the carton, and means for returning the carton to its original position on the wheel. 24. **Apparatus** as set forth in claim 23 in which said means for returning the carton includes grippers which engage the carton. 25. **Apparatus** as set forth in claim 23 in which said means for returning the carton includes grippers which engage the carton upon the faces of two sides near the corners of another side. 26. **Apparatus** as set forth in claim 23 in which said means for moving the carton endwise includes a **plunger** and in which said means for returning the carton comprises gripper jaws, and interacting means between said **plunger** and said jaws for providing at least a part of the movement of said jaws. 27. In **Apparatus** for packaging straws or similar articles which are received with elastic hands therearound, in combination, means for holding a bundle, a frame movable vertically upward to embrace the bundle on the sides and bottom, a swingable arm mounted upon said frame for moving over and engaging the top of the bundle, and elastic lining elements located interiorly of said frame and arm for direct engagement with the straws to avoid crushing them. 28. In **Apparatus** for packaging straws or similar articles which are received with elastic bands therearound, in combination means for holding a bundle, a frame movable vertically upward to embrace the bundle on the bottom and sides, a swingable arm mounted upon said frame for moving over and engaging the top of the bundle, and means for moving the arm over as the frame approaches the top of its stroke and holding it over as the frame moves downward, said last mentioned means comprising a cam follower arm rigid with said bundle engaging arm. and a cam for operating said cam arm. 29. In **Apparatus** for packaging straws or similar articles which are received with elastic hands therearound, in combination means for holding a bundle, a frame movable vertically upward to embrace the bundle on the bottom and sides. a swingable arm mounted upon said frame for moving over and engaging the top of the bundle. and means for moving the arm over as the frame approaches the top of its stroke and holding it over as the frame moves downward, said last mentioned means comprising a cam follower arm rigid with said bundle engaging arm. a cam for operating said cam arm, and an auxiliary member acting upon the bundle engaging arm in its upper position for pushing it over into engagement with the bundle. 31. In **Apparatus** for packaging straws or similar articles which are received with elastic bands therearound in combination means for holding a bundle, a frame movable vertically upward to embrace the bundle on the bottom and sides, a swingable arm mounted upon said frame for moving over and engaging the top of the bundle, and means for moving the arm over as the frame approaches the top of its stroke and holding it over as the frame moves downward, said last mentioned means comprising a cam follower arm rigid with said bundle engaging arm, a cam for operating said cam arm, and an auxiliary resilient member which said bundle engaging arm engages at the upper end of its stroke for pushing the arm over into engagement with the bundle. 32. **Apparatus** for packaging articles in cartons which have end closure flaps extending straight from the sides of the carton, comprising in combination, a carrier wheel provided with means for holding a

US: 53/167 53/284 53/507 53/530 53/564



Priority:

US19320649276 19321229

Assignee(s): (std): ALEXANDER HERZ

Inventor(s): (std): EUGENE CONTI

Inventor(s): CONTI EUGENE

Title: **Apparatus** for filling containers of pressure fluids

Abstract: Source: US2462642A 1. An **apparatus** for filling containers with measured volumes of high vapor pressure liquid, comprising a filling head, a **cylinder** communicating with said filling head and with a source of supply of such liquid under substantially higher pressure than its vapor pressure, through admission and discharge ports at each end of the **cylinder**, valves for controlling the admission of liquid to alternate ends of the **cylinder** and for controlling the discharge thereof from the opposite alternate ends of the **cylinder**, a double acting **piston** in said **cylinder** operating upon reciprocation to discharge measured volumes of the liquid to the filling head under pressure higher than that normally existing in the filling head, an outlet valve in the filling head normally held closed by spring means but responding to the higher pressure of each charge of the liquid discharged by said piston and thereby operating to permit **dispensing** of each such charge, a projecting discharge conduit of such diameter as closely to surround the projecting tubular filling conduit of a container in position to receive a charge of the liquid and of a length sufficient for its end to abut the shoulder of such container surrounding the filling conduit, a sealing gasket between the outlet conduit of said filling head and the shoulder of the container adapted to prevent leakage therebetween, and means for presenting a container to the filling head and for pressing the same into sealing contact with the outlet conduit thereof. _

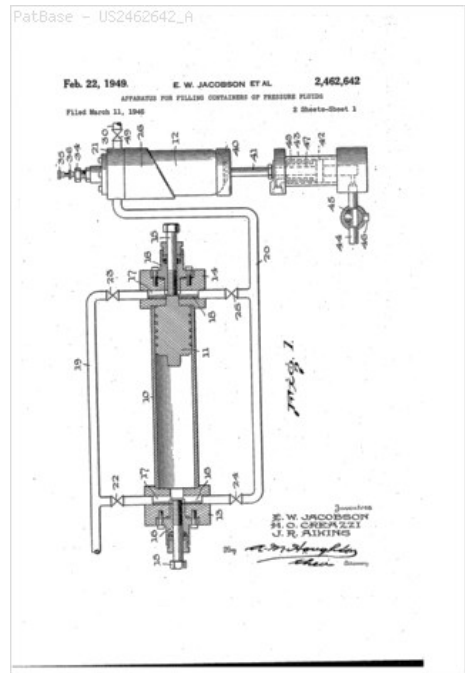
Classifications:

International (IPC 8-9): B65B31/00 (Advanced/Invention);
B65B31/00 (Core/Invention)

International (IPC 1-7): B65B31/04
CPC: B65B31/003

European: B65B31/00A

US: 141/20 141/277 141/65 222/249



Family:

Publication number	Publication date	Application number	Application date
US2462642 A	19490222	US19460653666	19460311

Priority:

US19460653666 19460311

Assignee(s): (std): GULF RESEARCH DEVELOPMENT CO

Assignee(s): GULF RESEARCH AND DEVELOPMENT COMPANY

Inventor(s): (std): AIKINS JOHN R ; ALLEGHENY COUNTY ; CREAZZI HARRY O ; JACOBSON EUGENE W

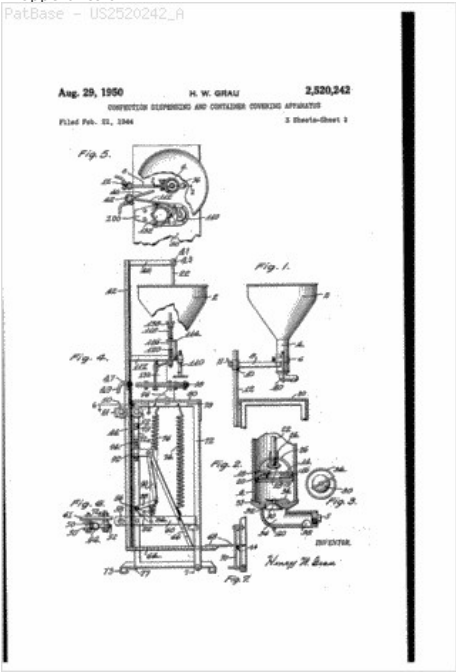
Inventor(s): COUNTY ALLEGHENY

Title: Confection **dispensing** and container covering **apparatus**

Abstract: Source: US2520242A (Claim 1) 'Having 'thus =desnrihed._gt;my=' invention, I -claim: I; In s; filling 1sxn d'ua.p1:iin.g# ms.nl=1ine' the com- -blnaftlonnf n-hoppermzviston-means-to force semiliquid -materiel -out-'-of said nopperdnto a.

Classifications:

International (IPC 8-9): A23G9/28 B65B3/12 B65B7/28 F25C5/14 (Advanced/Invention);
A23G9/04 B65B3/10 B65B7/28 F25C5/00 (Core/Invention)
International (IPC 1-7): A23G9/28
CPC: A23G9/283 B65B3/12 B65B7/28 F25C5/14
European: A23G9/28D4 B65B3/12 B65B7/28 F25C5/14
US: 222/309 222/380 222/383.1 222/566 417/513 53/284.5



Family:

Publication number	Publication date	Application number	Application date
US2520242 A	19500829	US19440523316	19440221

Priority:

US19440523316 19440221

Assignee(s): (std): GRAU HENRY W

Inventor(s): (std): GRAU HENRY W

Search history

Search 1: TAC=(dispenser and (system or device or apparatus)) (Results 58397)

Search 2: TAC=(dispenser and (system or device or apparatus)and (container or holder)) (Results 3424)

Search 3: TAC=(dispenser and (system or device or apparatus)and (container or holder)) and IC=(b65b) (Results 236)

Search 4: TAC=(dispenser and (system or device or apparatus)and (container or holder)and hopper) (Results 101)

Search 5: TAC=(dispenser and (system or device or apparatus) and (container or holder) and hopper) (Results 101)

Search 6: INV=(green scott) and PRD=201304:201305 (Results 1)

Search 7: TAC=(dispensing and (device or apparatus)) and IC=(b65b) (Results 6771)

Search 8: TAC=(dispens* and (device or apparatus) and (container or holder or receptacle)) and IC=(b65b) (Results 1313)

Search 9: TAC=(dispens* and (device or apparatus) and (piston or plunger or cylinder) and (container or holder or receptacle)) and IC=(b65b) (Results 339)

Title: Filling and capping machine

Abstract: Source: US1913743A I claim: - 1. In a machine of the character described, the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** for supplying /cups one by one to said carrier at each step taken thereby, comprising a cup **holder** for retaining a stack of nested cups, and a reciprocating member having a connection with the aforesaid reciprocating element to be operated by the latter to release cups one by one from the bottom of the stack upon each reciprocation of said member. 2. In a machine of the character described, the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** for supplying cups one by one to said carrier at each step taken thereby, comprising a cup **holder** for retaining a stack of nested cups, and a reciprocating member having a connection with the aforesaid reciprocating element to be operated by the latter to release cups one by one from the bottom of the stack upon each reciprocation of said member, the connection between said member and said element being a resilient one for operation in one direction and a positive one for operation in the other direction. p 3. In a machine of the character described the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** arranged to drop cups one by one onto said carrier at each step taken thereby, comprising a **holder** to retain a stack of nested cups, a slide operating in said **holder** beneath the stack of cups arranged when moved in one direction to segregate the bottom cup of the stack and when moved in the other direction "to release the segregated cup and to retain the next cup thereabove, and means providing an operating connection between said slide and said reciprocating element. 4. In a machine of the character described, an endless carrier for feeding cups to be filled, a reciprocating element for advancing said carrier step by step continuously in one direction. a **holder** to receive a stack of caps for application to the cups, and a reciprocating member for dispensing caps from said **holder** one by one having an operating connection with the aforesaid reciprocating element. 5. In a machine of the character described, a horizontal elongated supporting frame providing ways thereon, an endless belt type conveyor operating from end to end of said frame, the conveyor being adapted to have receptacles thereon, like cups, adapted to be filled and requiring capping, a horizontally reciprocating element for advancing the conveyor step by step progressively toward one end of said frame, a **holder** containing caps, another horizontally reciprocating element operatively connected with the other reciprocating element for feeding, caps one by one in proper timed relation to the step by step movement of the conveyor, and means for applying the caps to the cups. 6. In a machine of the character described, a carrier for feeding cups one by one in a step by step movement to be filled, means for advancing the carrier step by step progressively in one direction, a dispensing cylinder, a piston operating up and down in said cylinder to discharge material therefrom into said cups, a plunger operating up and down and serving by operation on the carrier to insure accurate positioning of the cups at each advance thereof, and a single **device** operating up and down having connection with said piston for operating the same- and also arranged to operate said plunger. » 7. In a machine of the character described, a carrier for feeding cups one by one in a step by step movement to be filled, a dispensing cylinder, a piston operating up and down in said cylinder to discharge material therefrom into said cups, a **holder** for caps to be applied to said cups, means for dispensing caps one by one for application to the cups, a plunger operating up and down for applying the caps to the cups, means for advancing the carrier step by step progressively in one direction, another plunger operating up and down and serving at each step to operate on the carrier to insure accurately indexed position thereof, and a single means operating up and down having connection with said piston for operating the same and also arranged to operate said plungers. 8. In a machine of the character described, a carrier for feeding cups one by one in a step by step movement to be filled, a horizontally reciprocating element for advancing the carrier step by step progressively in one direction, a dispensing cylinder, a piston operating up and down in said cylinder to discharge material therefrom into said cups, a **holder** for caps to be applied to said cups, another horizontally reciprocating element for dispensing caps one by one for application to the cups, the said reciprocating elements operating in timed relation with one another, a plunger operating up and down for applying the caps to the cups, and a single means operating up and down having connection with said piston for operating the same and also operatively connected with said plunger. 9. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction for feeding cups, means for filling the cups, a **holder** for caps, means for dispensing caps from said **holder** one by one in timed relation to the step by step movement of said carrier to feed a cap for each cup, a plunger for applying the caps to the cups, and means operating up and down arranged to position a cup in exact register with the plunger for capping and arranged to operate said plunger to apply the caps to the cups. 10. In a machine of the character described, an endless carrier moving step by step continuously in one direction, a reciprocating element for advancing said carrier, a cup **holder**, a cap **holder**, means for dispensing material into said cups, a reciprocating cup **dispenser** for said cup **holder**, a reciprocating cap **dispenser** for said cap **holder**, and connections for said cup and cap **dispensers** with said first mentioned reciprocating element for operating said **dispensers** therewith. V 11. In a machine of the character described, an endless carrier for feeding cups, a reciprocating element arranged to advance the carrier step by step progressively in one direction, a reciprocating dispensing valve for dispensing material into said cups, a cup **holder**, a cap **holder**, a reciprocating cup **dispenser** for said cup **holder**, a reciprocating cap **dispenser** for said cap **holder**, and means for connecting certain of said **dispensers** with the reciprocating element for operation thereby in timed relation therewith, all of said **dispensers** being operated in a predetermined timed relation with one another. 12. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating carrier advancer, a cup **holder**, a reciprocating cup **dispenser** for said **holder**, a cap **holder**, a reciprocating cap **dispenser** for said **holder**, means for operating said reciprocating cup and cap **dispensers** and the reciprocating advancer in a predetermined timed relation, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, and means for operating said dispensing and cap applying plungers together. 13. In a machine of the character described, an endless carrier for feeding cups to be filled, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** in timed relation, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating member for registering a cup to be capped with the capping plunger, and a common means operating vertically arranged to operate said member together with said dispensing and cap applying plungers. 14. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, a cup **holder**, a horizontally reciprocating cup **dispenser** in said **holder**, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** and said carrier advancing element together, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating member for registering a cup to be capped with the capping plunger, and a common means operating vertically arranged to operate said member together with said dispensing and cap applying plungers. 15. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, a cup **holder**, a horizontally reciprocating cup **dispenser** in said **holder**, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** and said carrier advancing element together, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating member for registering a cup to be capped with the capping plunger, and a common means operating vertically arranged to operate said member together with said dispensing and cap applying plungers. 16. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said **dispensers** and said slide. 17. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, operating connections between said **dispensers** and said slide, a reciprocating element for advancing said carrier step by step in one direction, and an operating connection between said element and said slide. 18. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said slide and said cup and cap **dispensers**. 19. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said slide and said cup and cap **dispensers**. 20. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, operating connections between said slide and said cup and cap **dispensers**, a reciprocating element for advancing said carrier in said frame step by step in one direction, and an operating connection between said element and said slide. 21. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, operating connections between said slide and said cup and cap **dispensers**, a reciprocating element for advancing said carrier in said frame step by step in one direction, and an operating connection between said element and said slide. 22. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a vertically reciprocating member for registering a cup to be capped with said capping plunger, a single vertically reciprocating means for operating said member together with said plungers, a power shaft in said frame, and an operating connection between said shaft and said vertically reciprocating means for reciprocating the latter in the rotation of the former. 23. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a single vertically reciprocating means for operating said plungers together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, a

horizontally reciprocating slide valve for controlling the discharge from said cylinder, and an operating connection between said slide valve and said shaft for reciprocating the former in the rotation of the latter. 24. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a single vertically reciprocating means for operating said plungers together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, a horizontally reciprocating element for advancing said carrier step by step in one direction, and an operating connection between said element and said shaft for reciprocating the former in the rotation of the latter. 25. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a single vertically reciprocating means for operating said plungers together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, a cup dispensing and cap dispensing means, a reciprocating slide having connections with said **dispensers** to operate the same together, and an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter. 26. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a single vertically reciprocating means for operating said plungers together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, a horizontally reciprocating element for advancing said carrier step by step in one direction, a slide operating in said frame, a cup **holder**, a horizontally reciprocating cup **dispenser** operating in said holder, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, connections between said slide and said reciprocating element and each of said dispensers for operating the same together, and an operating connection between said slide and said power shaft for reciprocating the former in the rotation of the latter. 27. In a machine of the character described, comprising a frame and an endless link belt carrier operating from end to end of said frame for feeding cups to be filled, said links each supporting a cup in an opening therein, means for advancing said carrier link by link, a reciprocating element at the end of said frame moving from one terminal position to another, the movement of said element to one terminal position serving to raise a cup out of its opening in the carrier, the cup being thereafter supported in such raised position and so conveyed in the movement of said reciprocating element to the other terminal position, the cup in the latter position of said element being "free of the carrier and extended from the frame, and means for receiving the cups from the reciprocating element." 28. In a machine of the character described comprising a frame and an endless linked belt carrier composed of perforated plates each arranged to support; a cup in its opening by a guide rim thereon, the said carrier being arranged to convey the cups on one flight thereof toward one end of the frame, means for advancing said carrier link by link progressively in one direction, a reciprocating element comprising an inclined bottom portion arranged in the movement of said element to its one terminal position to raise the cup by engagement with the bottom thereof out of its opening, and a top portion arranged at the same time to hold the cup on the lower portion by engagement with the top thereof, said element being arranged in the movement from the last mentioned terminal position to its other terminal position to convey the cup free of the carrier and extend the same from the end of the frame, the perforated plates of said carrier being arranged in turning at the end of the frame from the top flight to the lower flight to receive the lower portion of said element in the openings thereof whereby to permit extension of said element from the end of the frame, and means for receiving cups from said element. 29. In a cup filling and capping machine, an endless cup carrier, a cup **holder**, means for dispensing cups therefrom one by one to said carrier, a **hopper** for the material to be dispensed, means for dispensing material therefrom into the cups in said carrier in succession, a cup **holder**, means for dispensing cups one by one from said **holder**, means to apply the dispensed caps to said cups in succession, a source of power for operating all of the above means, a clutch for transmitting the power to said means arranged to be disengaged in the event of excessive resistance to operation of the carrier or any one of said means, and a stop **device** normally held in inoperative position by cups feeding past the same on the carrier but arranged in the event of a failure of a cup supply or in the event the cup **dispenser** otherwise fails to operate to move to operative position and interfere with the operation of one of the above-mentioned parts and thereby effect disengagement of the clutch. 30. In a machine of the character described, an endless carrier for feeding cups, a reciprocating element for advancing said carrier step by step continuously in one direction, a **holder** to receive a stack of caps for application to the cups, a reciprocating member for dispensing caps from said holder one by one having an operating connection with the aforesaid reciprocating element, and reciprocating means arranged to raise the cups out of their position in the carrier after the same have received caps, said reciprocating means also having an operating connection with the aforesaid reciprocating element. 31. In a machine of the character described, an endless carrier for feeding cups to be filled, means for dispensing cups one by one to said carrier, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cap **dispenser**, said cup and cap dispensing means being operated in timed relation to one another, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating carrier registering plunger, and means for operating said dispensing, registering and cap applying plungers together. 32. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, means for dispensing cups one by one to said carrier, said cup dispensing means being operated in timed relation to the advancing of the carrier, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cap **dispenser** and said carrier advancing element together, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, and means for operating said dispensing and cap applying plungers together. 33. A machine as set forth in claim 31 including a horizontally reciprocating **device** for raising the cups out of position in the carrier after the caps have been applied, said **device** being operated with said cap **dispenser**. 34. A machine as set forth in claim 32, including a horizontally reciprocating **device** for raising the cups out of position in the carrier after the same have been applied, said **device** being operated with the cup **dispenser** and carrier advancing element. 35. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, means for dispensing cups one by one to said carrier, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a reciprocating slide valve operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said slide and said cap **dispenser**, said cup dispensing means being operated in timed relation to the cap **dispenser**. 36. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, means for dispensing cups one by one to said carrier, a reciprocating slide valve operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, a reciprocating element for advancing said carrier in said frame step by step in one direction, and an operating connection between said element and said slide, the cup dispensing means being operated in timed relation to the step by step advancing of the carrier. 37. A machine as set forth in claim 36 including a reciprocating **device** for raising the cups out of their position in the carrier after the same have been filled, said **device** having an operating connection with the last mentioned reciprocating slide, whereby to be operated in proper relation to the step by step advancing of the carrier. 38. In a machine of the character described, the combination with an endless carrier arranged to be advanced progressively in one direction step by step so as to feed cups to be filled and subsequently capped, of a material **dispenser**, a reciprocating valve for dispensing material from said **dispenser** into said cups, the said valve being operated in timed relation to the step by step advancing of the carrier, a cap holder, a reciprocating element for feeding caps one by one from said **holder** to the cups, said last mentioned reciprocating element being operated in timed relation with the reciprocating valve and with the step by step movement of the carrier, means for applying the caps to the cups, and a reciprocating **device** operatively connected with the reciprocating cap feeding element to operate in a predetermined time relation therewith, said **device** being arranged in the movement thereof to one of its terminal positions to raise the cups off the carrier and in the movement thereof to the other terminal position to convey the same away from the carrier. 39. In a machine of the character described, the combination with an endless carrier arranged to be advanced progressively in one direction step by step so as to feed cups to be filled and subsequently capped, of a material **dispenser**, a reciprocating valve for dispensing material from said **dispenser** into said cups, the said valve being operated in timed relation to the step by step advancing of the carrier, a reciprocating valve for dispensing material from said **dispenser** into said cups, the said valve being operated in timed relation to the step by step advancing of the carrier, a cap **holder**, a reciprocating element for feeding caps one by one from said **holder** to the cups, said last mentioned reciprocating element being operated in timed relation with the reciprocating valve and with the step by step movement of the carrier, means for applying the caps to the cups, wherein the last mentioned means comprising a cap plunger operating up and down in timed relation to the step by step movement of the carrier, and another plunger also moving up and down in timed relation to the last mentioned plunger serving by operation on the carrier to jog the same one way or the other from the position to which the same has been advanced whereby accurately to index the same at each step by step advancement thereof to insure proper application of the caps to the cups. 40. In a machine of the character described, the combination with an endless carrier and a reciprocating element arranged to advance the carrier step by step progressively in one direction, of a cup **dispenser** for supplying cups one by one to said carrier at each step and thereby comprising a reciprocating member operatively connected with the aforesaid reciprocating element or operation therewith in a predetermined time relation. 41. A machine as set forth in claim 40 including a material **dispenser** and a reciprocating dispensing valve for discharging material into said cups, said valve being operated in timed relation with the reciprocating element and reciprocating member and with the step, by step movement of the carrier. 42. In a machine of the character described, the combination of an elongated supporting frame providing ways thereon, an endless belt type conveyor operating on said ways from end to end of said frame and adapted to guide cups thereon at one end of said frame to the other end thereby, a reciprocating element cooperating with said conveyor to advance the same step by step in one direction, a **hopper** for material to be dispensed mounted intermediate to the ends of said frame, a reciprocating valve for said **hopper** or dispensing material into the cups, and a reciprocating cap feeder for the **holder** arranged to feed caps one by one to the cups, said cap feeder being operated in timed relation with the reciprocating valve, and one of the two last mentioned reciprocating parts being operatively connected with the first mentioned reciprocating element whereby the operations of dispensing and cap feeding are in timed relation to the movement of the conveyor. 43. A machine as set forth in claim 42 including a vertically reciprocating plunger for applying the caps to the cups, said plunger being operated in a timed relation with the other reciprocating elements, and another plunger reciprocating vertically like the last mentioned plunger and in timed relation therewith, said last mentioned plunger being arranged to operate on the conveyor accurately to index the same at each step by step advancement thereof whereby to insure proper application of the caps to the cups. 44. A machine as set forth in claim 42 including a vertically reciprocating plunger for applying the caps to the cups, said plunger being operated in a timed relation with the other reciprocating elements, another plunger reciprocating vertically like the last mentioned plunger and in timed relation therewith, said last mentioned plunger being arranged to operate on the conveyor accurately to index the same at each step by step advancement thereof whereby to insure proper application of the caps to the cups, and a reciprocating dispensing plunger for the **hopper** operated in timed relation with the reciprocating valve for discharging material from the **hopper**. 45. A machine as set forth in claim 42 including a vertically reciprocating dispensing plunger for the **hopper** operated in timed relation with the reciprocating valve, and another vertically reciprocating plunger operated in time relation with the dispensing plunger and arranged by operation on the conveyor accurately to index the

same at each step by step advancement thereof. ' _ 46. A machine as set forth in claim 42 including a reciprocating **device** at the discharge end of the frame operatively connected with the cap feeder so as to operate in a predetermined timed relation therewith, said **device** in moving to one terminal position being arranged to pick up the cups off the conveyor and in the movement thereof to the other terminal position to convey the same away for removal from the machine. 47. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideways endwise of the frame and arranged to have receptacles, such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a **hopper** for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a transverse cam shaft in said frame below the **hopper** and arranged to be continuously driven, a cam on said shaft for communicating the reciprocation to the reciprocating element, whereby to advance the carrier at regular intervals, a vertically reciprocating piston associated with the **hopper** for discharging measured amounts of material from the **hopper**, and an eccentric on said shaft having a connecting rod fitting thereon and connected with the piston for operating the same in timed relation with the advancement of the carrier. _ 48. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideways endwise of the frame and arranged \ _ to have receptacles, _such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a **hopper** for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for dispensing material from the **hopper**, said valve being operated in timed relation with the aforesaid reciprocating element, a cap container at the outlet end of said frame disposed over the carrier, and a reciprocating cap **dispenser** for said container operatively connected with the aforesaid reciprocating element whereby to operate in a predetermined timed relation therewith. 49. A machine as set forth in claim 48, including a single control shaft mounted transversely in said frame beneath the **hopper**, said shaft having a cam thereon for operating the reciprocating element, and said machine further including a vertically reciprocating piston for discharging material from the **hopper**, and an eccentric on said shaft having a connecting rod bearing thereon and connected with said piston for operating the latter in a predetermined timed relation with the advancement of the carrier. 50. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideway endwise of the frame and arranged to have receptacles, such as cups, carried thereby, a **hopper** for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for dispensing material from said **hopper**, said valve being operated in timed relation with the aforesaid reciprocating element, and a cup **dispenser** disposed over the carrier at the one end of said frame and arranged upon each operation to dispense one cup, said **dispenser** being operatively connected with the aforesaid reciprocating element whereby to operate in a predetermined timed relation therewith. 51. A machine as set forth in claim 50, including a cap container disposed over the carrier at the other end of said frame, and a reciprocating cap **dispenser** operatively connected with the reciprocating element whereby to operate in a predetermined timed relation therewith. 52. A machine as set forth in claim 50, including a single control shaft disposed transversely in said frame beneath the hopper, said shaft having a cam thereon for operating the reciprocating element, a vertically reciprocating piston in said **hopper** for discharging material therefrom, and an eccentric on said shaft having a connecting rod bearing thereon and connected with said piston whereby to operate the piston in timed relation with the advancement of the carrier. 53. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideway endwise of the frame and arranged to have receptacles, such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a **hopper** for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for dispensing material from the **hopper**, said valve being operated in timed relation with the aforesaid reciprocating element, and a second reciprocating element at the outlet end of the frame having a portion thereof arranged in the movement of said element to its one terminal position to engage the end-most cup on the carrier and raise it clear of the carrier, said element in the movement thereof to its other terminal position serving to convey the cup off the carrier and extend the same from the end of the frame for reception by a suitable receiver, said second reciprocating element being operatively connected with the first reciprocating element for operation in a predetermined timed relation therewith. 54. A machine as set forth in claim 53, including a reciprocating cup **dispenser** disposed over the carrier at the opposite end of said frame, said **dispenser** being operatively connected with the first mentioned reciprocating element whereby the same is arranged to be operated in a predetermined timed relation therewith. 55. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction, means for dispensing cups or the like one by one to said carrier in timed relation with its step by step operation, means for filling the cups, cap dispensing means arranged to be operated in timed relation with the other means so as to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the cup dispensing, means, filling means, and cap applying means. 56. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction for feeding cups or other receptacles to be capped, cap dispensing means operated in timed relation to the step by step movement of the carrier to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the cap applying means. ' 57. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction for feeding cups or other receptacles to be filled and capped, means for filling the cups, said means being operated in timed relation with the step by step movement of the carrier to fill the cups between movements of the carrier, cap dispensing means, said means being operated in timed relation with the movement of the carrier to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the filling means and cap applying means. 58. In an automatic machine, such as a filling and capping machine, the combination of an endless carrier arranged to be fed step by step continuously in one direction, means for advancing the carrier step by step, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly. 59. In a machine of the character described, a frame, an endless carrier operating thereon for feeding cups to be filled, a reciprocating cup **dispenser**, a reciprocating cap **dispenser**, a power shaft in said frame, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, the reciprocating cup and cap **dispensers** being operated in timed relation to one another and to the advancement of the carrier, and operating connections between at least one of said **dispensers** and said slide. » 60. A machine as set forth in claim 59 including an operating connection between the carrier and the slide, said connection being so constructed whereby movement is communicated to the carrier in the movement of the slide in one direction, the slide in its movement in the other direction being arranged to operate the **dispenser** connected therewith. 61. In an automatic machine, such as a filling and capping machine, the combination of an endless carrier arranged to be advanced continuously in one direction for feeding cups or the like for filling or capping, or both, means for advancing the carrier step by step, there being other means for the filling or capping operations operated in timed relation with the advancement of the carrier, a source of power for operating all of the above so as to so no power means, a clutch for transmitting the power to said means arranged to be disengaged in the event of excessive resistance to operation of the carrier, and a stop **device** normally held in inoperative position by cups or the like feeding past the same on the carrier, but arranged to move to operative position and interfere with the operation of the carrier and thereby affect disengagement of the clutch. _ 62. In an automatic machine of the character described, the combination of an endless carrier arranged to be advanced continuously in one direction for feeding articles, means for advancing the carrier, a source of power for operating said means, a clutch for transmitting the power to said means arranged to be disengaged in the event of excessive resistance to operation of the carrier, and a stop **device** normally held in inoperative position by the articles feeding past the same on the carrier but arranged in the absence of an article to move to operative position and interfere with the normal operation of the carrier and thereby affect disengagement of the clutch. 63. In a machine of the character described, means for feeding cups or the like one by one in a step by step movement to be capped, cap feeding means arranged to feed one cap for each cup, a capper for applying the caps to the cups, a **device** operating up and down and arranged upon each downward movement to register a cup in a predetermined desired position in proper alignment with the capper for good application of the cap to the cup, and means for operating said **device** in timed relation to the operation of the cup feeding means so that the downward movement of the **device** occurs after each advancement of the cups, said capper also operating up and down like the cup registering **device**, the two being operated by the same means, and said registering **device** being in leading relation to the capper so as to insure proper registration of the cup prior to the capping operation. 64. In a filling and capping machine of the character described, cup dispensing means arranged to deliver one cup or the like at a time, cup feeding means for advancing the cups in the machine step by step, filling means, capping means beyond the filling means in relation to the direction of movement of the cup feeding means, whereby the cups after being filled are arranged to be capped one by one, a source of power having connection with all of said means for normally operating the same in a predetermined timed relation to one another, and a **device** between the cup dispensing means and the filling means arranged to engage each cup before its delivery to the filling means, said **device** being thereby normally held in inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 65. In a machine of the character described, cup dispensing means arranged to deliver one cup or the like at a time, cup feeding means for advancing the cup in the machine step by step, filling means, a source of power having connection with all of said means for normally operating the same in a predetermined timed relation to one another, and a **device** between the cup dispensing means and the filling means arranged to engage each cup before its delivery to the filling means, said **device** being thereby normally held in inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 66. In a machine of the class described, the combination of means for feeding cups or the like step by step in one direction, capping means for applying caps one by one to the cups, a power source for normally operating said means in a predetermined timed relation, and a **device** disposed so as to engage each cup prior to its delivery to the capping means, said **device** being thereby normally held in an inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 67. In a machine of the class described, the combination with means for feeding cups or the like horizontally to a capping station, of cup feeding means serving to deliver one cap or each cup a cap registering plunger, a cap applying plunger, and a single operating part reciprocating substantially vertically and having the two plungers thereon in such relation to one another that the registering plunger is arranged to first jog the cup one way or the other from the position to which the same has been advanced by the cup feeding means whereby to bring the same into a predetermined position for capping, whereupon the cap applying plunger is arranged to apply the cap to the cup. 68. In a **device** for capping cups or other containers made of paper or similar material and having an annular internal shoulder at the capping end to receive a cap thereon, means for supporting a cup externally at its capping end in the plane of the aforesaid internal shoulder whereby to prevent damage to the cup in the application of a cap, and a capping plunger operable in register with said means. 69. In a capper, the combination of a supporting plate having a circular opening therein to receive a container to be capped, the container having an outwardly projecting rim or bead at the capping end and the circular opening in the plate being of such a size that the rim or bead will rest on the plate, whereby to permit application of a cap under pressure into the capping end of the container disposed in the opening and means registering with the opening in the plate for pressing a cap into position in the container. 70. In a capper for applying tabbed caps of paper or similar material to containers made of paper or similar

material each having an annular rim or bead at the capping en , means for supporting a container externall of the capping end adjacent the rim or bead' and in the vicinity where the tab of the cap comes in capping, whereby _to revent damaging the container in the application of a tabbed cap thereto and cause t e bending up of the tab, and a capping plunger operable in register with said means. In witness of the foregoing I ailix my signature

Classifications:

International (IPC 8-9): A23G9/28 B65B3/32 B65B57/08 G07F13/10 G07F9/10 (Advanced/Invention)

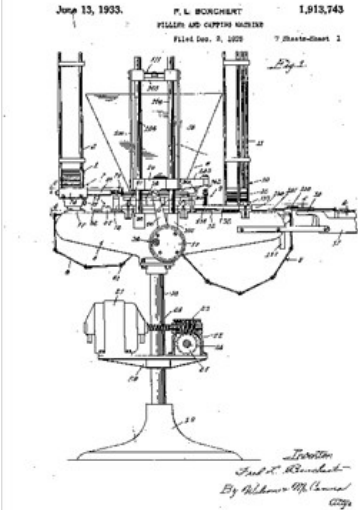
International (IPC 1-7): A23G9/28 B65B3/32 B65B57/08 B67C7/00

CPC: B65B3/32 B65B57/08 G07F13/10 G07F17/0071 A23G9/286

European: A23G9/28F B65B3/32 B65B57/08 G07F13/10 G07F17/00F2

US: 141/103 141/165 141/174 141/183 222/309 53/282

PatBase - US1913743_A



Family:

Publication number	Publication date	Application number	Application date
US1791611 A	19310210	US19270199971	19270620
US1913743 A	19330613	US19250072618	19251202

Priority:

US19250072618 19251202 US19270199971 19270620

Assignee(s): (std): BORCHERT FRED L

Inventor(s): (std): BORCHERT FRED L

Title: Roller feed mechanism for roller bearing assembling machines

Abstract: Source: US2105929A 1. A roller feeding **device** comprising a chute disposed so as to conduct rollers or the like by gravity from a source to a receptacle, said chute having a longitudinal passageway provided therein for said rollers having substantially parallel inner side walls at least one side wall of which is formed for broadside' engagement by the rollers in planes perpendicular to the axis of the passageway at relatively close intervals in their travel through said chute to deflect the rollers substantially into parallelism.

Classifications:

International (IPC 8-9): B23Q7/08 B23Q7/10 B65G47/14 F16C43/06 (Advanced/Invention);

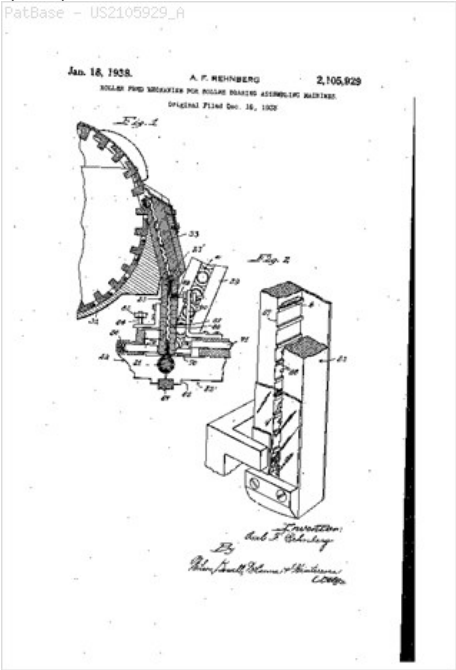
B23Q7/08 B23Q7/10 B65G47/14 F16C43/00 (Core/Invention)

International (IPC 1-7): B23P19/08 B23Q7/02 B65G11/08 F16C43/04 F16C43/06

CPC: B23Q7/08 B23Q7/106 F16C43/06 B65G47/1478 Y10T29/4968 Y10T29/53104 Y10T29/53478

European: B23Q7/08 B23Q7/10C B65G47/14B6 F16C43/06

US: 193/27 221/178 221/290 222/367 29/724 29/809 29/898.061 470/179 470/180



Family:

Publication number	Publication date	Application number	Application date
US2057692 A	19361020	US19330702683	19331216
US2088117 A	19370727	US19340712849	19340224
US2105929 A	19380118	US19360058680	19360111

Priority:

US19330702683 19331216 US19340712849 19340224 US19360058680 19360111

Assignee(s): (std): BORG WARNER

Assignee(s): BORG WARNER CORP

Inventor(s): (std): REHNBERG AXEL F

Title: Cigarette holder and dispenser

Abstract: Source: US2074925A 1. A device of the class described having a holder, a slide, means operable through movement of said slide to discharge a cigarette into said holder, an igniter carried by the slide, said igniter being engageable with a cigarette in the holder, a hopper, to contain a supply of cigarettes, having a discharge opening, the first mentioned means having a plate normally closing the opening, cigarette supporting means below the opening, and an ejector, for the cigarette on the supporting means, carried by said plate.

Classifications:

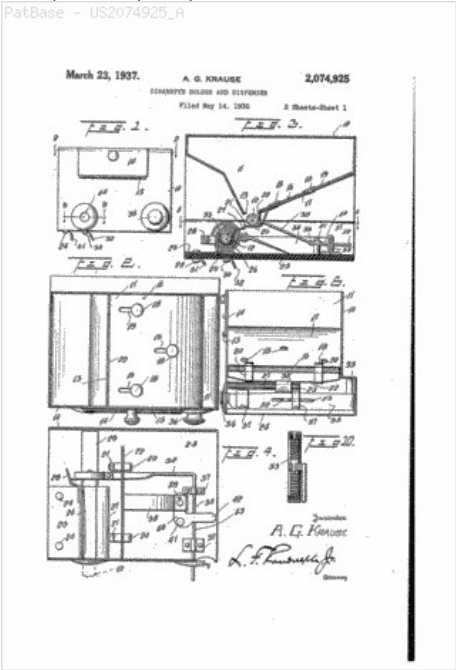
International (IPC 8-9): A24F15/10 (Advanced/Invention);
A24F15/00 (Core/Invention)

International (IPC 1-7): A24F15/10

CPC: A24F15/10

European: A24F15/10

US: 221/147 221/274 312/86



Family:

Publication number	Publication date	Application number	Application date
US2074925 A	19370323	US19360079797	19360514

Priority:

US19360079797 19360514

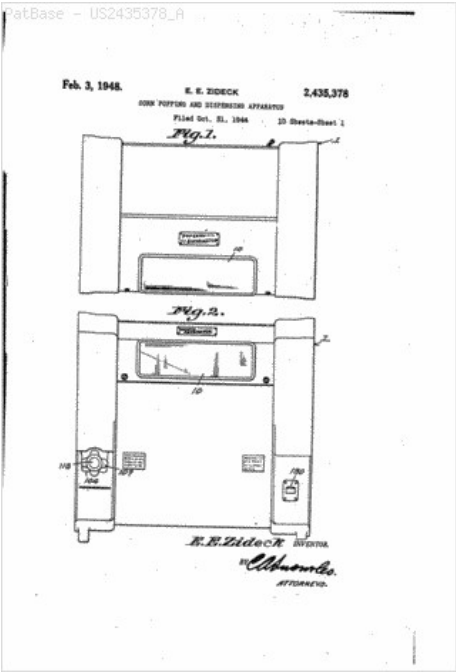
Assignee(s): (std): ANTONIO COTUGNO

Inventor(s): (std): KRAUSE ANDREW G

Title: Corn popping and dispensing **apparatus**

Abstract: Source: US2435378A 1. Popcorn dispensing **apparatus** including a popping chamber, a heating unit, B. hob fats **holder** positioned for transmitting heat from the heating unit to the popping chamber, a conveyer in the popping chamber, and means operating in timed relation with the conveyer for delivering unpopped com into said chamber.

Classifications:
International (IPC 8-9): A23L1/18 G07F9/10 (Advanced/Invention)
International (IPC 1-7): G07F9/10
CPC: A23L1/1815 G07F9/105 G07F17/0078
European: A23L1/18C6B G07F17/00F4 G07F9/10B
US: 198/733 222/146.1 222/415 99/323.8 99/323.9 99/337 99/470



Family:

Publication number	Publication date	Application number	Application date
US2435378 A	19480203	US19440561304	19441031

Priority:

US19440561304 19441031

Assignee(s): (std): JOSEPH HAGLER

Inventor(s): (std): ZIDECK ERNEST E

Title: Stopper feeding and applying machine

Abstract: Source: US2710714A (Claim 1) In a vial charging **apparatus**, a stopper applying mechanism comprising a vertically swingable member, means operatively connected to the member for sequentially raising and lowering the member toward a vial located therebeneath, additionally means connected to the member for yieldingly retaining a stopper relative thereto as the member is lowered to a position for forcing a stopper into the neck of a vial, means releasing said retaining means after the member is lowered, and means engaging the member to prevent lowering of the member, said last named means being moved into an inactive position by a vial engaging the same, whereby the member will be lowered only when a vial is disposed therebeneath to receive a stopper from the member.

Classifications:

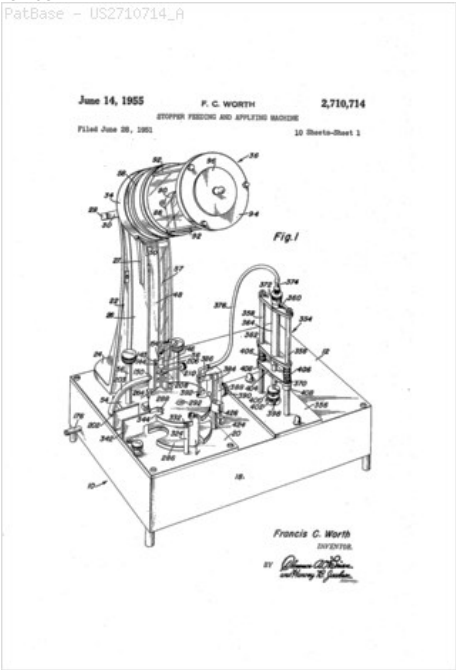
International (IPC 8-9): B67B1/00 B67B1/04 (Advanced/Invention);
B67B1/00 (Core/Invention)

International (IPC 1-7): A61J7/00

CPC: B67B1/005 B67B1/04

European: B67B1/00B B67B1/04

US: 141/161 221/169 221/197 221/251 221/287 53/319 53/67



Family:

Publication number	Publication date	Application number	Application date
US2710714 A	19550614	US19510234011	19510628

Priority:

US19510234011 19510628

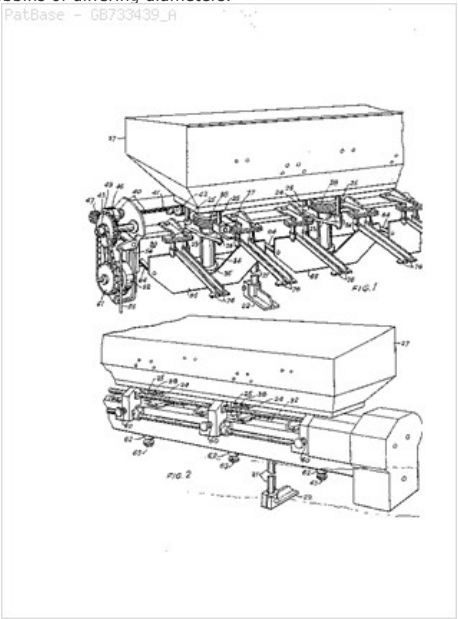
Assignee(s): (std): WORTH FRANCIS C

Inventor(s): (std): WORTH FRANCIS C

Title: A new or improved bobbin feeding mechanism for spooling machines

Abstract: Source: GB733439A 733,439. Supplying bobbins to machines. AYRTON and CO., Ltd., W., and TAYLOR, J. D. W. Sept. 7, 1953 [Sept. 6, 1952], No. 22447/52. Class 120(3). [Also in Group XXX] Bobbin feeding mechanism comprises a **hopper** 27, a tundish-shaped rotatable orienting member 37, a collect - ing shoot 36, and a swingable **holder** 62 in which the oriented bobbin is adapted to be swung away for delivery to the next machine. As shown, the **hopper** 27 is subdivided to form a number of outlets, of which one is shown, the outlet having the member 37 rotated from motor-driven shaft 32 so as to deliver the bobbin one by one into shoot 36, the bottom bobbin resting in **holder** 62. Whenever the spooling machine to be fed depresses rod 55, lever 44 rotates about pivot 53 and thus engages clutch 43 so that continuously-rotating motor-driven shaft 32 drives cam 52 through belt 50 whilst simultaneously withdrawing finger 44A to release said cam 52. The rotation of cam 52 displaces rack rod 68 by means of follower 72 and so causes oscillation of shaft 56 and thus of **holder** 62. The cam is such that the **holder** swings once to the right and then once to the left so as to feed the bobbins to the shoots 76 of two separate machines. Escapement **device** 82 is contacted at each oscillation so that it swings beneath the shoot 36 to support the bobbins remaining in said shoot at the same time as a bobbin is in process of being fed to shoot 76. The **holder** 62 has removable liner 67 to allow for bobbins of differing diameters.

Classifications:
International (IPC 8-9): B65H67/06 (Advanced/Invention)
International (IPC 1-7): H01F41/06
CPC: B65H67/06 B65H2701/31
European: B65H67/06 L65H701/31



Family:

Publication number	Publication date	Application number	Application date
DE1043896 B	19581113	DE1953A018727	19530905
GB733439 A	19550713	GB19520022447	19520906

Priority:
GB19520022447 19520906

Assignee(s): (std): JAMES DOVE WILFORD TAYLOR ; WILLIAM AYRTON AND CO LTD ; WILLIAM AYRTON AND COMPANY LTD

Assignee(s): WILLIAM AYRTON AND COMPANY LIMITED ; WILLIAM AYRTON AND CO LIMITED

Inventor(s): (std): TAYLOR JAMES DOVE WILFORD

Title: Cigarette **dispenser** and lighter

Abstract: Source: US2791351A (Claim 1) 1. Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent is: 1. A cigarette dispensing and lighting **apparatus** comprising: a body provided with a cigarette **hopper** and a cylinder with a suction applying piston therein, a vertically movable server operable through the base of the **hopper** to elevate one cigarette at a time to a lighting position, a **holder** having a socket to receive and hold rt cigarette in lighting position and having a suction passage leading to the cylinder, an ignition element pivotal from a retracted position to an advanced position in engagement with a cigarette in said **holder**, means for urging the ignition element into engagement with a cigarette held in the **holder**, a main operating lever pivotal on 2: fixed fulcrum and carrying st earn roller, operating connections between said lever and the server to elevate a cigarette when said lever is actuated, a piston operating lever also supported on a tixed fulcrnm and secured to the piston, and means for normally biasing both the main operating lever and the piston operating lever into normally inactive positions, in combination with a cam catch fulctumed on the piston operating lever and connected to the ignition element, said cam catch having two cam faces one of which is traversed and freed by the cam roller while the main operating lever is manually actuated to release the ignition element for movement into engagement with a cigarette in the **holder** and the other of which is engaged by the roller to maintain the ignition element in engagement with the cigarette while the main operating lever returns to inactive position to tilt the piston operating lever on its Hxed fulerum and thus withdraw the piston from its normally inactive position to apply suction to the cigarette.

Classifications:

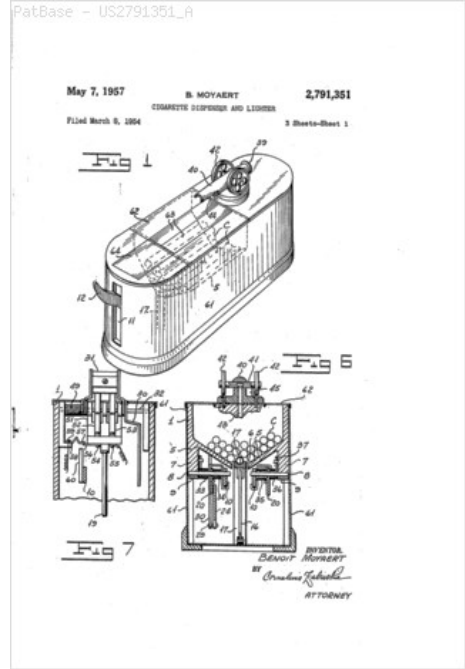
International (IPC 8-9): A24F15/10 (Advanced/Invention);
A24F15/00 (Core/Invention)

International (IPC 1-7): A24F15/10

CPC: A24F15/10

European: A24F15/10

US: 221/145 221/147 221/192 221/250



Family:

Publication number	Publication date	Application number	Application date
US2791351 A	19570507	US19540414769	19540308

Priority:

US19540414769 19540308

Assignee(s): (std): BENOIT MOYAERT

Inventor(s): (std): BENOIT MOYAERT

Inventor(s): MOYAERT BENOIT

Title: Confection packaging **apparatus**

Abstract: Source: US2796711A (Claim 1) 1. A machine for filling a succession of cups with iowable material contained in a **hopper** having dispensing nozzle means thrcrbelow, comprising in combination, a conveyor moving in step-by-step advancing fashion under said **hopper**, said conveyor having a surface portion adapted to receive in positionally indexed relation thereon a succession of open-top cartons for containing the cups to be filled, said cartons having slip-titted thereinto resilient horizontal partition **devices** apertured to accommodate in seated relation therein the cups to be niled, means for advancing said conveyor so as to bring said cup apertures successively into registration with said dispensing nozzle means, a cup dispensing mechanism mounted above said conveyor in advance of said **hopper** and comprising an empty cup magazine having empty cups in vertically stacked relation therein, gate incans operable for successive release of the lowermost cup from said vertical stack to fall by gravity therefrom, -means operable automatically to cause said cup-**dispenser** mechanism to move downwardly as said conveyor :brings said eartons into each successively new cup-receiving position so 'as to cause the lower end pordons of said cups to be thrust into said partition apertures while the lowermost cup is still held by said gate means, means operable automatically to thereupon actuate said gate means for gravity release of the lowermost 'of said stacked cups so as to cause said lowermost cup to thereby remain in seated position in said carton, a prcss bar carried by said cup-dispensing mechanism and movable therewith so as to simultaneously press downwardly upon said partition members for firmly seating them in said cartons as the cups arc dispensed thereinto, means -for actuating said material dispensing **devices** for subsequently filling said seated cups, means for subsequently dispensing any desired topping material into said cups, and means for subsequently capping said cups prior to discharge from the machine.

Classifications:

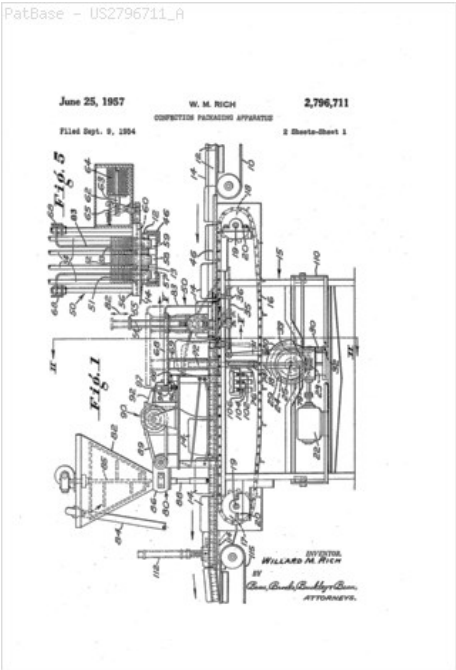
International (IPC 8-9): B65B43/44 B65B43/52 (Advanced/Invention);
B65B43/42 (Core/Invention)

International (IPC 1-7): B65B43/44 B65B43/52

CPC: B65B43/44 B65B43/52

European: B65B43/44 B65B43/52

US: 221/209 221/93 53/171 53/246 53/281 53/77



Family:

Publication number	Publication date	Application number	Application date
US2796711 A	19570625	US19540455029	19540909

Priority:

US19540455029 19540909

Assignee(s): (std): RICH WILLARD M

Inventor(s): (std): RICH WILLARD M

Title: **Dispenser** of paper and like sheet material

Abstract: Source: GB846609A 846,609. Roll **holders**. JONES, E. J. Dec. 31, 1958 [Jan. 28, 1958], No. 2821/58. Class 18. A dispensing **holder** for rolls of sheet material has two downwardly inclined opposed surfaces 7, 9 which form a tapered channel with a dispensing slot between them at their lower edges 11, 10 respectively and which support a roll 14 and the front wall 1 has a cutting or tear edge 13. The surfaces 7, 9 are formed on front and rear pieces 1, 2 respectively connected by end cheeks 3. The cutting edge 13 may comprise downwardly tapering teeth and may be provided on a piece of steel which is detachably mounted on the **holder** e.g. by releasable clip means. The **holder** may be made from moulded polystyrene.

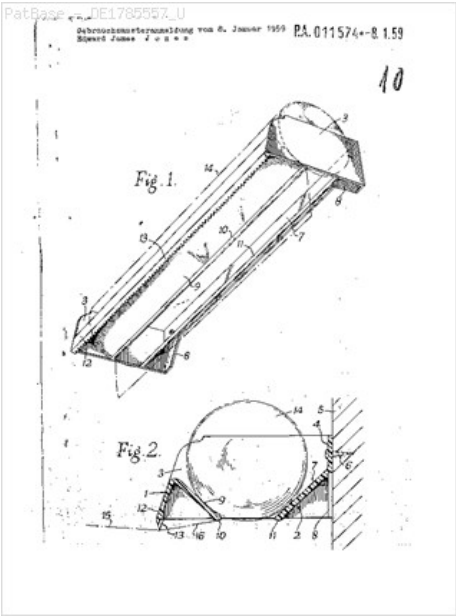
Classifications:

International (IPC 8-9): A47K10/38 B65H35/00 (Advanced/Invention);
A47K10/24 B65H35/00 (Core/Invention)

International (IPC 1-7): A47K10/38 B65H35/00 G21C3/62

CPC: A47K10/3827 B65H35/0006

European: A47K10/38B2 B65H35/00B



Family:

Publication number	Publication date	Application number	Application date
DE1785557 U	19590319	DE1959J007369U	19590108
GB846609 A	19600831	GB19580002821	19580128

Priority:

GB19580002821 19580128

Assignee(s): (std): EDWARD JAMES JONES ; JONES EDWARD JAMES

Inventor(s): (std): JONES EDWARD JAMES

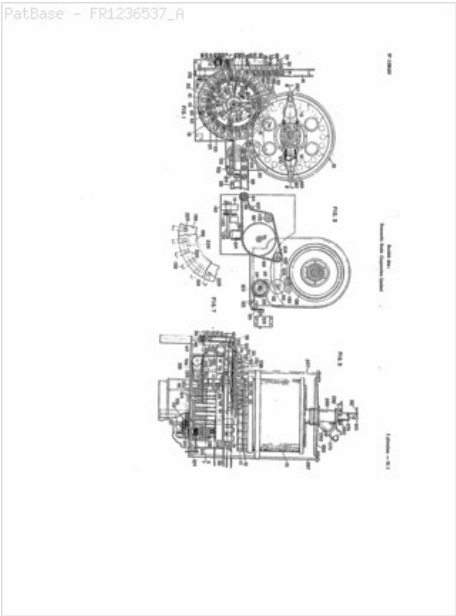
Inventor(s): EDWARD JAMES JONES

Title: Machine de remplissage sous vide Vacuum Filling Machine (Machine translation)

Abstract: Source: FR1236537A (Claim 1) **ATTENTION** debut du champ CLMS peut contenir fin de DESC **. le niveau de cette derniere au-dessous du passage de la lame palpeuse, a la suite de quoi l'alimentation en matiere recommence automatiquement. Il peut egalement etre prevu un dispositif permettant d'elever et d'abaisser de facon appropriee l'appareil de remplissage sous vide par rapport au plan horizontal du mecanisme de transport, de fa con a admettre des recipients de differente hauteur.

Machine translation: (Claim 1) CAUTION ** ** start of CLMS field may contain end of DESC **. The level of the latter below the passage of the safety edge, a result of which the supply of material automatically restarts. It may also be provided for a mechanism to raise and lower the **device** appropriately vacuum filling compared to the horizontal plane of the mechanism of transport, has fa con admit containers of different height.

Classifications:
International (IPC 8-9): B65B31/04 (Advanced/Invention)
International (IPC 1-7): B65B31/04
CPC: B65B31/044
European: B65B31/04D



Family:

Publication number	Publication date	Application number	Application date
FR1236537 A	19600722	FR19590796858	19590608

Priority:

FR19590796858 19590608

Assignee(s): (std): PNEUMATIC SCALE CORP
Assignee(s): PNEUMATIC SCALE CORP LTD

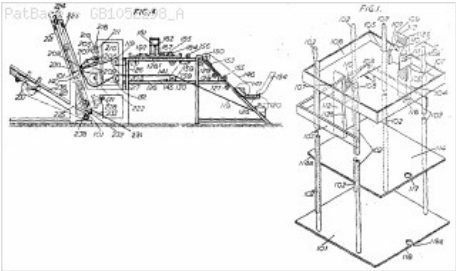
Search history

Search 1: TAC=(dispenser and (system or device or apparatus)) (Results 58397)
Search 2: TAC=(dispenser and (system or device or apparatus)and (container or holder)) (Results 3424)
Search 3: TAC=(dispenser and (system or device or apparatus)and (container or holder)) and IC=(b65b) (Results 236)
Search 4: TAC=(dispenser and (system or device or apparatus)and (container or holder)and hopper) (Results 101)
Search 5: TAC=(dispenser and (system or device or apparatus) and (container or holder) and hopper) (Results 101)
Search 6: INV=(green scott) and PRD=201304:201305 (Results 1)
Search 7: TAC=(dispensing and (device or apparatus)) and IC=(b65b) (Results 6771)
Search 8: TAC=(dispens* and (device or apparatus) and (container or holder or receptacle)) and IC=(b65b) (Results 1313)
Search 9: TAC=(dispens* and (device or apparatus) and (piston or plunger or cylinder) and (container or holder or receptacle)) and IC=(b65b) (Results 339)

Title: Packaging-**apparatus**; feeding plates.

Abstract: Source: GB1052298A 1,052,298. Packaging-**apparatus**; feeding plates. LA CELLOPHANE S.A. Dec. 10, 1964 [Dec. 27, 1963], No. 50361/64. Headings B8C and B8S. Filled bags are grouped and compressed prior to an air evacuation process by being stacked in a skeleton **holder** with separator plates between them, the **holder** having a closure **device** capable of one-way ratchet movement to compress and secure the bags. A machine may feed the bags to a plate **dispenser**, stack the bags and plates in the **holders** and forward the latter to compressing and evacuating means (not described). The **holders** consist of a base 101 to which are attached rods 102, the rods being joined by a strip 103 carrying racks 112. The bags are separated by plates 114 and the **holder** is closed by a cover 106 having holes to receive the rods and racks. Holes 116, 117 and 118 in the cover, plates and base enable a rod, Fig. 3 (not shown) to be passed through to line up the plates after which the cover is forced down and pawls 109 mounted on it retain it in place. The **holders** may be loaded manually. In the machine, they are lowered progressively as filled bags and plates are fed in alternately. Bags pass down a shoot 154, Fig. 4, and are forwarded by belts 119, 146 past "squirrel cage" or plane rollers 155, 156 which even out the contents, to beneath the plate magazine. The magazine comprises guides 161 and retaining arms 167 which are swung outwards. Figs. 6, 7 (not shown), to release a plate 114 when cams on a horizontal slider 164 act on rollers 171. The slider, operated by a cam 184 in response to means actuated by passage of a bag, also includes a pusher 198 and has a pair of rollers 201 which assist in supporting the stack. A plate is released by the arms as the slider moves to the left, Fig. 6, and then pushed in its place off lugs 160a at the base of the two left guides 161 by the pusher 198 as the slider makes a movement to the right. Its right end passes beneath a fixed strip 196 and it is held cantilevered over the rollers 201 until the latter move with the slider to its extreme right position. The plate then tilts on to the belt 119 and drops between two bags. Bags and plates pass under a belt 209, Fig. 4, into a **holder** which is lowered progressively by chain conveyers 223 in a guide 221 until it comes to rest on a platform 231. The platform then tilts to deposit the loaded **holder** on a conveyor 236 which removes it to the compressing means where the cover 104 is applied and forced down by a ram. The **holder** is then transferred to the vacuum chamber.

Classifications:
International (IPC 8-9): B65B43/44 (Advanced/Invention);
B65B43/42 (Core/Invention)
International (IPC 1-7): B65B43/44
CPC: B65B43/44
European: B65B43/44



Family:

Publication number	Publication date	Application number	Application date
GB1052298 A	00000000		00000000

Title: Filling and capping machine

Abstract: Source: US1913743A I claim: - 1. In a machine of the character described, the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** for supplying /cups one by one to said carrier at each step taken thereby, comprising a cup **holder** for retaining a stack of nested cups, and a reciprocating member having a connection with the aforesaid reciprocating element to be operated by the latter to release cups one by one from the bottom of the stack upon each reciprocation of said member. 2. In a machine of the character described, the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** for supplying cups one by one to said carrier at each step taken thereby, comprising a cup **holder** for retaining a stack of nested cups, and a reciprocating member having a connection with the aforesaid reciprocating element to be operated by the latter to release cups one by one from the bottom of the stack upon each reciprocation of said member, the connection between said member and said element being a resilient one for operation in one direction and a positive one for operation in the other direction. p 3. In a machine of the character described the combination with an endless carrier, and a reciprocating element arranged to advance said carrier continuously in one direction step by step, of a cup **dispenser** arranged to drop cups one by one onto said carrier at each step taken thereby, comprising a **holder** to retain a stack of nested cups, a slide operating in said **holder** beneath the stack of cups arranged when moved in one direction to segregate the bottom cup of the stack and when moved in the other direction "to release the segregated cup and to retain the next cup thereabove, and means providing an operating connection between said slide and said reciprocating element. 4. In a machine of the character described, an endless carrier for feeding cups to be filled, a reciprocating element for advancing said carrier step by step continuously in one direction. a **holder** to receive a stack of caps for application to the cups, and a reciprocating member for dispensing caps from said **holder** one by one having an operating connection with the aforesaid reciprocating element. 5. In a machine of the character described, i,s1s,v4s 9 a horizontal elongated supporting frame providing ways thereon, an endless belt type conveyor operating from end to end of sa-1d frame, the conveyor being adapted to have receptacles thereon, like cups, adapted to be filled and requiring capping, a horizontally reciprocating element for advancing the conveyor step by step progressively toward one end of said frame, a **holder** containing caps, another horizontally reciprocating element operatively connected with the other reciprocating element for feeding, caps one by one in proper timed relation to the step by step movement of the conveyor, and means for applying the caps to the cups. 6. In a machine of the character described, a carrier for feeding cups one by one in a step by step movement to be filled, means for advancing the carrier step by step progressively in one direction, a dispensing cylinder, a piston operating up and down in said cylinder to discharge material therefrom into said cups, a plunger operating up and down and serving by operation on the carrier to insure accurate positioning of the cups at each advance thereof, and a single **device** operating up and down having connection with said piston for operating the same- and also arranged to operate said plunger. » 7. In a machine of the character described, a carrier for feeding cups one by one in a. step b step movement to be filled, a dispensing cylinder, a piston operating up and down in said cylinder to discharge material therefrom into said cups, a **holder** for caps to be applied to said cups, means for dispensing caps one by one for application to the cups, a plunger operating up and down for applying the caps to the cups, means for advancing the carrier step by step progressively in one direction, another plunger operating up and down and serving at each step to operate on the carrier to insure accurately indexed position thereof, and a single means operating up and down having connection with said piston for operating the same and also arranged to operate said plungers. 8. In a machine of the character described, a carrier for feeding cups one by one in a. step by step movement to be filled, a horizontally reciprocating element for advancing the carrier step by step progressively in one direction, a dispensing cylinder, a piston operating up and down in said cylinder to discharge material therefrom into said cups, a **holder** for caps to be applied to said cups, another horizontally reciprocating element for dispensing caps one by one for application to the cups, the said reciprocating elements operating in timed relation with one another, a plunger operating up and down for applying the caps to the cups, and a single means operating up and down having connection with said piston for operating the same and also operatively connected with said plunger. 9. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction for feeding cups, means for filling the cups, a **holder** for caps, means for dispensing caps from said **holder** one by one in timed relation to the step by step movement of said carrier to feed a cap for each cup, a plunger for applying the caps to the cups, and means operating up and down arranged to position a cup in exact register with the plunger for capping and arranged to operate said plunger to apply the caps to the cups. 10. In a machine of the character described, an endless carrier moving step by step continuously in one direction, a reciprocating element for advancing said carrier, a cup **holder**, a cap **holder**, means for dispensing material into said cups, a reciprocating cup **dispenser** for said cup **holder**, a reciprocating cap **dispenser** for said cap **holder**, and connections for said cup and cap **dispensers** with said first mentioned reciprocating element for operating said **dispensers** therewith. V " 11. In a machine of the character described, an endless carrier for feeding cups, a reciprocating element arranged to advance the carrier step by step progressively in one direction, a reciprocating dispensing valve for dispensing material into said cups, a cup **holder**, a cap **holder**, a reciprocating cup **dispenser** for said cup **holder**, a reciprocating cap **dispenser** for said cap **holder**, and means for connecting certain of said **dispensers** with the reciprocating element for operation thereby in timed relation therewith, all of said **dispensers** being operated in a predetermined timed relation with one another. 12. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating carrier advancer, a cup **holder**, a reciprocating cup **dispenser** for said **holder**, a cap **holder**, a reciprocating cap **dispenser** for said **holder**, means for operating said reciprocating cup and cap **dispensers** and the reciprocating advancer in a predetermined timed relation, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, and means for operating said dispensing and cap applying plungers together. 13. In a machine of the character described, an endless carrier for feeding cups to be filled, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** in timed relation, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating member for registering a cup to be capped with the capping plunger, and a common means operating vertically arranged to operate said member together with said dispensing and cap applying plungers. 14. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, a cup **holder**, a horizontally reciprocating cup **dispenser** in said **holder**, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** and said carrier advancing element together, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating member for registering a cup to be capped with the capping plunger, and a common means operating vertically arranged to operate said member together with said dispensing and cap applying plungers. 15. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, a cup **holder**, a horizontally reciprocating cup **dispenser** in said **holder**, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** and said carrier advancing element together, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating member for registering a cup to be capped with the capping plunger, and a common means operating vertically arranged to operate said member together with said dispensing and cap applying plungers. 16. In a machine of the character described, an endless carrier for feeding cups to be filled, a cup **holder**, a horizontally reciprocating cup **dispenser** in said **holder**, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cup and cap **dispensers** and said carrier advancing element together, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating member for registering a cup to be capped with the capping plunger, and a common means operating vertically arranged to operate said member together with said dispensing and cap applying plungers. 17. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a power shaft in said frame, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, operating connections between said **dispensers** and said slide, a reciprocating element for advancing said carrier step by step in one direction, and an operating connection between said element and said slide. " 18. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said slide and said cup **dispenser**. 19. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said slide and said cup and cap **dispensers**. 20. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, operating connections between said slide and said cup **dispenser**, a reciprocating element for advancing said carrier in said frame step by step in one direction, and an operating connection between said element and said slide. c _ 21. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, a cup **holder**, a reciprocating cup **dispenser** in said **holder**, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, operating connections between said slide and said cup and cap **dispensers**, a reciprocating element for advancing said carrier in said frame step by step in one direction, and an operating connection between said element and said slide. 22. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a vertically reciprocating member for registering a cup to be capped with said capping plunger, a single vertically reciprocating means for operating said member together with said plungers, a power shaft in said frame, and an operating connection between said shaft and said vertically reciprocating means for reciprocating the latter in the rotation of the former. 23. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a single vertically reciprocating means for operating said plungers together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, a

horizontally reciprocating slide valve for controlling the discharge from said cylinder, and an operating connection between said slide valve and said shaft for reciprocating the former in the rotation of the hiter. 24. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a single vertically reciprocating means for operating said plungers together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, a horizontally reciprocating element for advancing said carrier step by step in one direction, and an operating connection between said element and said shaft for reciprocating the former in the rotation of the latter. 25. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a single vertically reciprocating means for operating said plungers together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, cup dispensing and cap dispensing means, a reciprocating slide having connections with said **dispensers** to operate the same together, and an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter. 26. In a machine of the character described, a frame, an endless carrier operating in said frame for feeding cups to be filled, a dispensing cylinder, a vertically reciprocating plunger operating in said cylinder for dispensing material therefrom into said cups, a vertically reciprocating cap applying plunger, a single vertically reciprocating means for operating said plungers together, a power shaft in said frame, an operating connection between said vertically reciprocating means and said shaft for reciprocating the former in the rotation of the latter, a horizontally reciprocating element for advancing said carrier step by step in one direction, a slide operating in said frame, a cup **holder**, a horizontally reciprocating cup **dispenser** operating in said holder, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, connections between said slide and said reciprocating element and each of said dispensers for operating the same together, and an operating connection between said slide and said power shaft for reciprocating the former in the rotation of the latter. 27. In a machine of the character described, comprising a frame and an endless link belt carrier operating from end to end of said frame for feeding cups to be filled, said links each supporting a cup in an opening therein, means for advancing said carrier link by link, a reciprocating element at the end of said frame moving from one terminal position to another, the movement of said element to one terminal position serving to raise a cup out of its opening in the carrier, the cup being thereafter supported in such raised position and so conveyed in the movement of said reciprocating element to the other terminal position, the cup in the latter position of said element being "free of the carrier and extended from the frame, and means for receiving the cups from the reciprocating element." 28. In a machine of the character described comprising a frame and an endless linked belt carrier composed of perforated plates each arranged to support; a cup in its opening by a guide rim thereon, the said carrier being arranged to convey the cups on one flight thereof toward one end of the frame, means for advancing said carrier link by link progressively in one direction, a reciprocating element comprising an inclined bottom portion arranged in the movement of said element to its one terminal position to raise the cup by engagement with the bottom thereof out of its opening, and a top portion arranged at the same time to hold the cup on the lower portion by engagement with the top thereof, said element being arranged in the movement from the last mentioned terminal position to its other terminal position to convey the cup free of the carrier and extend the same from the end of the frame, the perforated plates of said carrier being arranged in turning at the end of the frame from the top flight to the lower flight to receive the lower portion of said element in the openings thereof whereby to permit extension of said element from the end of the frame, and means for receiving cups from said element. 29. In a cup filling and capping machine, an endless cup carrier, a cup **holder**, means for dispensing cups therefrom one by one to said carrier, a hopper for the material to be dispensed, means for dispensing material therefrom into the cups in said carrier in succession, a cup **holder**, means for dispensing cups one by one from said **holder**, means to apply the dispensed caps to said cups in succession, a source of power for operating all of the above means, a clutch for transmitting the power to said means arranged to be disengaged in the event of excessive resistance to operation of the carrier or any one of said means, and a stop **device** normally held in inoperative position by cups feeding past the same on the carrier but arranged in the event of a failure of a cup supply or in the event the cup **dispenser** otherwise fails to operate to move to operative position and interfere with the operation of one of the above-mentioned parts and thereby effect disengagement of the clutch. 30. In a machine of the character described, an endless carrier for feeding cups, a reciprocating element for advancing said carrier step by step continuously in one direction, a **holder** to receive a stack of caps for application to the cups, a reciprocating member for dispensing caps from said holder one by one having an operating connection with the aforesaid reciprocating element, and reciprocating means arranged to raise the cups out, of their position in the carrier after the same have received caps, said reciprocating means also having an operating connection with the aforesaid reciprocating element. 31. In a machine of the character described, an endless carrier for feeding cups to be filled, means for dispensing cups one by one to said carrier, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cap **dispenser**, said cup and cap dispensing means being operated in timed relation to one another, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, a vertically operating carrier registering plunger, and means for operating said dispensing, registering and cap applying plungers together. 32. In a machine of the character described, an endless carrier for feeding cups to be filled, a horizontally reciprocating element for advancing said carrier step by step continuously in one direction, means for dispensing cups one by one to said carrier, said cup dispensing means being operated in timed relation to the advancing of the carrier, a cap **holder**, a horizontally reciprocating cap **dispenser** in said **holder**, means for operating said cap **dispenser** and said carrier advancing element together, a dispensing cylinder, a vertically operating plunger for dispensing material therefrom, a vertically operating cap applying plunger, and means for operating said dispensing and cap applying plungers together. 33. A machine as set forth in claim 31 including a horizontally reciprocating **device** for raising the cups out of position in the carrier after the caps have been applied, said **device** being operated with said cap **dispenser**. 34. A machine as set forth in claim 32, including a horizontally reciprocating **device** for raising the cups out of position in the carrier after the same have been applied, said **device** being operated with the cup **dispenser** and carrier advancing element. 35. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, means for dispensing cups one by one to said carrier, a cap **holder**, a reciprocating cap **dispenser** in said **holder**, a reciprocating slide valve operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, and operating connections between said slide and said cap **dispenser**, said cup dispensing means being operated in timed relation to the cap **dispenser**. 36. In a machine of the character described, a frame, an endless carrier operating therein for feeding cups to be filled, a dispensing cylinder, a reciprocating slide valve controlling the discharge therefrom, a power shaft in said frame, an operating connection between said shaft and said valve for reciprocating the latter in the rotation of the former, means for dispensing cups one by one to said carrier, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, a reciprocating element for advancing said carrier in said frame step by step in one direction, and an operating connection between said element and said slide, the cup dispensing means being operated in timed relation to the step by step advancing of the carrier. 37. A machine as set forth in claim 36 including a reciprocating **device** for raising the cups out of their position in the carrier after the same have been filled, said **device** having an operating connection with the last mentioned reciprocating slide, whereby to be operated in proper relation to the step by step advancing of the carrier. 38. In a machine of the character described, the combination with an endless carrier arranged to be advanced progressively in one direction step by step so as to feed cups to be filled and subsequently capped, of a material **dispenser**, a reciprocating valve for dispensing material from said **dispenser** into said cups, the said valve being operated in timed relation to the step by step advancing of the carrier, a cap holder, a reciprocating element for feeding caps one by one from said **holder** to the cups, said last mentioned reciprocating element being operated in timed relation with the reciprocating valve and with the step by step movement of the carrier, means for applying the caps to the cups, and a reciprocating **device** operatively connected with the reciprocating cap feeding element to operate in a predetermined time relation therewith, said **device** being arranged in the movement thereof to one of its terminal positions to raise the cups off the carrier and in the movement thereof to the other terminal position to convey the same away from the carrier. 39. In a machine of the character described, the combination with an endless carrier arranged to be advanced progressively in one direction step by step so as to feed cups to be filled and subsequently capped, of a material **dispenser**, a reciprocating valve for dispensing material from said **dispenser** into said cups, the said valve being operated in timed relation to the step by step advancing of the carrier, a reciprocating valve for dispensing material from said **dispenser** into said cups, the said valve being operated in timed relation to the step by step advancing of the carrier, a cap **holder**, a reciprocating element for feeding caps one by one from said **holder** to the cups, said last mentioned reciprocating element being operated in timed relation with the reciprocating valve and with the step by step movement of the carrier, means for applying the caps to the cups, wherein the last mentioned means comprising a cap plunger operating up and down in timed relation to the step by step movement of the carrier, and another plunger also moving up and down in timed relation to the last mentioned plunger serving by operation on the carrier to jog the same one way or the other from the position to which the same has been advanced whereby accurately to index the same at each step by step advancement thereof to insure proper application of the caps to the cups. 40. In a machine of the character described, the combination with an endless carrier and a reciprocating element arranged to advance the carrier step by step progressively in one direction, of a cup **dispenser** for supplying cups one by one to said carrier at each step and thereby comprising a reciprocating member operatively connected with the aforesaid reciprocating element or operation therewith in a predetermined timed relation. 41. A machine as set forth in claim 40 including a material **dispenser** and a reciprocating dispensing valve for discharging material into said cups, said valve being operated in timed relation with the reciprocating element and reciprocating member and with the step, by step movement of the carrier. 42. In a machine of the character described, the combination of an elongated supporting frame providing ways thereon, an endless belt type conveyor operating on said ways from end to end of said frame and adapted to guide cups thereon at one end of said frame to the other end thereby, a reciprocating element cooperating with said conveyor to advance the same step by step in one direction, a hopper for material to be dispensed mounted intermediate its ends across said conveyor, a reciprocating valve for said hopper or dispensing material into the cups, and a reciprocating cap feeder for the **holder** arranged to feed caps one by one to the cups, said cap feeder being operated in timed relation with the reciprocating valve, and one of the two last mentioned reciprocating parts being operatively connected with the first mentioned reciprocating element whereby the operations of dispensing and cap feeding are in timed relation to the movement of the conveyor. 43. A machine as set forth in claim 42 including a vertically reciprocating plunger for applying the caps to the cups, said plunger being operated in a timed relation with the other reciprocating elements, and another plunger reciprocating vertically like the last mentioned plunger and in timed relation therewith, said last mentioned plunger being arranged to operate on the conveyor accurately to index the same at each step by step advancement thereof whereby to insure proper application of the caps to the cups. 44. A machine as set forth in claim 42 including a vertically reciprocating plunger for applying the cups to the cups, said plunger being operated in a timed relation with the other reciprocating elements, another plunger reciprocating vertically like the last mentioned plunger and in timed relation therewith, said last mentioned plunger being arranged to operate on the conveyor accurately to index the same at each step by step advancement thereof whereby to insure proper application of the caps to the cups, and a reciprocating dispensing plunger for the hopper operated in timed relation with the reciprocating valve for discharging material from the hopper. 45. A machine as set forth in claim 42 including a vertically reciprocating dispensing plunger for the hopper operated in timed relation with the reciprocating valve, and another vertically reciprocating plunger operated in time relation with the dispensing plunger and arranged by operation on the conveyor accurately to index the

same at each step by step advancement thereof. ' _ 46. A machine as set forth in claim 42 including a reciprocating **device** at the discharge end of the frame operatively connected with the cap feeder so as to operate in a predetermined timed relation therewith, said **device** in moving to one terminal position being arranged to pick up the cups off the conveyor and in the movement thereof to the other terminal position to convey the same away for removal from the machine. 47. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideways endwise of the frame and arranged to have receptacles, such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a hopper for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a transverse cam shaft in said frame below the hopper and arranged to be continuously driven, a cam on said shaft for communicating the reciprocation to the reciprocating element, whereby to advance the carrier at regular intervals, a vertically reciprocating piston associated with the hopper for discharging measured amounts of material from the hopper, and an eccentric on said shaft having a connecting rod fitting thereon and connected with the piston for operating the same in timed relation with the advancement of the carrier. _ 48. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideways endwise of the frame and arranged \ _ _ to have receptacles, _such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a hopper for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for dispensing material from the hopper, said valve being operated in timed relation with the aforesaid reciprocating element, a cap container at the outlet end of said frame disposed over the carrier, and a reciprocating cap **dispenser** for said container operatively connected with the aforesaid reciprocating element whereby to operate in a predetermined timed relation therewith. 49. A machine as set forth in claim 48, including a single control shaft mounted transversely in said frame beneath the hopper, said shaft having a cam thereon for operating the reciprocating element, and said machine further including a vertically reciprocating piston for discharging material from the hopper, and an eccentric on said shaft having a connecting rod bearing thereon and connected with said piston for operating the latter in a predetermined timed relation with the advancement of the carrier. 50. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideway endwise of the frame and arranged to have receptacles, such as cups, carried thereby, a hopper for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for dispensing material from said hopper, said valve being operated in timed relation with the aforesaid reciprocating element, and a cup **dispenser** disposed over the carrier at the one end of said frame and arranged upon each operation to dispense one cup, said **dispenser** being operatively connected with the aforesaid reciprocating element whereby to operate in a predetermined timed relation therewith. 51. A machine as set forth in claim 50, including a cap container disposed over the carrier at the other end of said frame, and a reciprocating cap **dispenser** operatively connected with the reciprocating element whereby to operate in a predetermined timed relation therewith. 52. A machine as set forth in claim 50, including a single control shaft disposed transversely in said frame beneath the hopper, said shaft having a cam thereon for operating the reciprocating element, a vertically reciprocating piston in said hopper for discharging material therefrom, and an eccentric on said shaft having a connecting rod bearing thereon and connected with said piston whereby to operate the piston in timed relation with the advancement of the carrier. 53. In a machine of the character described, the combination of an elongated frame providing longitudinal guideways thereon, an endless carrier operating on said guideway endwise of the frame and arranged to have receptacles, such as cups, carried thereby, the said cups being arranged to be placed on the carrier at one end of the frame, a hopper for the material to be dispensed disposed over said carrier intermediate the ends of the frame, a reciprocating element on the frame cooperating with the carrier to advance the latter step by step in one direction, a reciprocating valve for dispensing material from the hopper, said valve being operated in timed relation with the aforesaid reciprocating element, and a second reciprocating element at the outlet end of the frame having a portion thereof arranged in the movement of said element to its one terminal position to engage the end-most cup on the carrier and raise it clear of the carrier, said element in the movement thereof to its other terminal position serving to convey the cup off the carrier and extend the same from the end of the frame for reception by a suitable receiver, said second reciprocating element being operatively connected with the first reciprocating element for operation in a predetermined timed relation therewith. 54. A machine as set forth in claim 53, including a reciprocating cup **dispenser** disposed over the carrier at the opposite end of said frame, said **dispenser** being operatively connected with the first mentioned reciprocating element whereby the same is arranged to be operated in a predetermined timed relation therewith. 55. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction, means for dispensing cups or the like one by one to said carrier in timed relation with its step by step operation, means for filling the cups, cap dispensing means arranged to be operated in timed relation with the other means so as to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the cup dispensing, means, filling means, and cap applying means. 56. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction for feeding cups or other receptacles to be capped, cap dispensing means operated in timed relation to the step by step movement of the carrier to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the cap applying means. ' 57. In a machine of the character described, an endless carrier arranged to be fed step by step continuously in one direction for feeding cups or other receptacles to be filled and capped, means for filling the cups, said means being operated in timed relation with the step by step movement of the carrier to fill the cups between movements of the carrier, cap dispensing means, said means being operated in timed relation with the movement of the carrier to feed a cap for each cup, cap applying means, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly with respect to the filling means and cap applying means. 58. In an automatic machine, such as a filling and capping machine, the combination of an endless carrier arranged to be fed step by step continuously in one direction, means for advancing the carrier step by step, and means arranged to be operated after each step by step advancement of the carrier to jog the carrier one way or the other whereby to accurately position the same properly. 59. In a machine of the character described, a frame, an endless carrier operating thereon for feeding cups to be filled, a reciprocating cup **dispenser**, a reciprocating cap **dispenser**, a power shaft in said frame, a reciprocating slide operating in said frame, an operating connection between said slide and said shaft for reciprocating the former in the rotation of the latter, the reciprocating cup and cap **dispensers** being operated in timed relation to one another and to the advancement of the carrier, and operating connections between at least one of said **dispensers** and said slide. » 60. A machine as set forth in claim 59 including an operating connection between the carrier and the slide, said connection being so constructed whereby movement is communicated to the carrier in the movement of the slide in one direction, the slide in its movement in the other direction being arranged to operate the **dispenser** connected therewith. 61. In an automatic machine, such as a filling and capping machine, the combination of an endless carrier arranged to be advanced continuously in one direction for feeding cups or the like for filling or capping, or both, means for advancing the carrier step by step, there being other means for the filling or capping operations operated in timed relation with the advancement of the carrier, a source of power for operating all of the above so as to so no no means, a clutch for transmitting the power to said means arranged to be disengaged in the event of excessive resistance to operation of the carrier, and a stop **device** normally held in inoperative position by cups or the like feeding past the same on the carrier, but arranged to move to operative position and interfere with the operation of the carrier and thereby affect disengagement of the clutch. _ 62. In an automatic machine of the character described, the combination of an endless carrier arranged to be advanced continuously in one direction for feeding articles, means for advancing the carrier, a source of power for operating said means, a clutch for transmitting the power to said means arranged to be disengaged in the event of excessive resistance to operation of the carrier, and a stop **device** normally held in inoperative position by the articles feeding past the same on the carrier but arranged in the absence of an article to move to operative position and interfere with the normal operation of the carrier and thereby affect disengagement of the clutch. 63. In a machine of the character described, means for feeding cups or the like one by one in a step by step movement to be capped, cap feeding means arranged to feed one cap for each cup, a capper for applying the caps to the cups, a **device** operating up and down and arranged upon each downward movement to register a cup in a predetermined desired position in proper alignment with the capper for good application of the cap to the cup, and means for operating said **device** in timed relation to the operation of the cup feeding means so that the downward movement of the **device** occurs after each advancement of the cups, said capper also operating up and down like the cup registering **device**, the two being operated by the same means, and said registering **device** being in leading relation to the capper so as to insure proper registration of the cup prior to the capping operation. 64. In a filling and capping machine of the character described, cup dispensing means arranged to deliver one cup or the like at a time, cup feeding means for advancing the cups in the machine step by step, filling means, capping means beyond the filling means in relation to the direction of movement of the cup feeding means, whereby the cups after being filled are arranged to be capped one by one, a source of power having connection with all of said means for normally operating the same in a predetermined timed relation to one another, and a **device** between the cup dispensing means and the filling means arranged to engage each cup before its delivery to the filling means, said **device** being thereby normally held in inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 65. In a machine of the character described, cup dispensing means arranged to deliver one cup or the like at a time, cup feeding means for advancing the cup in the machine step by step, filling means, a source of power having connection with all of said means for normally operating the same in a predetermined timed relation to one another, and a **device** between the cup dispensing means and the filling means arranged to engage each cup before its delivery to the filling means, said **device** being thereby normally held in inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 66. In a machine of the class described, the combination of means for feeding cups or the like step by step in one direction, capping means for applying caps one by one to the cups, a power source for normally operating said means in a predetermined timed relation, and a **device** disposed so as to engage each cup prior to its delivery to the capping means, said **device** being thereby normally held in an inoperative position but being arranged in the absence of a cup to move to operative position and stop the operation of the machine by the power source. 67. In a machine of the class described, the combination with means for feeding cups or the like horizontally to a capping station, of cup feeding means serving to deliver one cap or each cup a cap registering plunger, a cap applying plunger, and a single operating part reciprocating substantially vertically and having the two plungers thereon in such relation to one another that the registering plunger is arranged to first jog the cup one way or the other from the position to which the same has been advanced by the cup feeding means whereby to bring the same into a predetermined position for capping, whereupon the cap applying plunger is arranged to apply the cap to the cup. 68. In a **device** for capping cups or other containers made of paper or similar material and having an annular internal shoulder at the capping end to receive a cap thereon, means for supporting a cup externally at its capping end in the plane of the aforesaid internal shoulder whereby to prevent damage to the cup in the application of a cap, and a capping plunger operable in register with said means. 69. In a capper, the combination of a supporting plate having a circular opening therein to receive a container to be capped, the container having an outwardly projecting rim or bead at the capping end and the circular opening in the plate being of such a size that the rim or bead will rest on the plate, whereby to permit application of a cap under pressure into the capping end of the container disposed in the opening and means registering with the opening in the plate for pressing a cap into position in the container. 70. In a capper for applying tabbed caps of paper or similar material to containers made of paper or similar

material each having an annular rim or bead at the capping en , means for supporting a container externall of the capping end adjacent the rim or bead' and in the vicinity where the tab of the cap comes in capping, whereby _to revent damaging the container in the application of a tabbed cap thereto and cause t e bending up of the tab, and a capping plunger operable in register with said means. In witness of the foregoing I ailix my signature

Classifications:

International (IPC 8-9): A23G9/28 B65B3/32 B65B57/08 G07F13/10 G07F9/10 (Advanced/Invention)

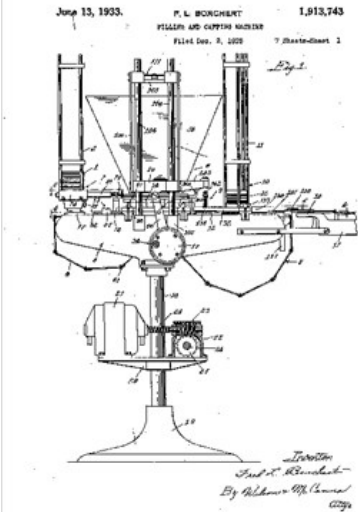
International (IPC 1-7): A23G9/28 B65B3/32 B65B57/08 B67C7/00

CPC: B65B3/32 B65B57/08 G07F13/10 G07F17/0071 A23G9/286

European: A23G9/28F B65B3/32 B65B57/08 G07F13/10 G07F17/00F2

US: 141/103 141/165 141/174 141/183 222/309 53/282

PatBase - US1913743_A



Family:

Publication number	Publication date	Application number	Application date
US1791611 A	19310210	US19270199971	19270620
US1913743 A	19330613	US19250072618	19251202

Priority:

US19250072618 19251202 US19270199971 19270620

Assignee(s): (std): BORCHERT FRED L

Inventor(s): (std): BORCHERT FRED L

Title: TAPE DISPENSER AND APPLIER

Abstract: Source: US2532596A (Claim 1) 1. A machine for holding, a roll of pressure sensitive tape and applying desired lengths of such tape to a work surface, said machine comprising a housing having a mouth, means for supporting said roll in said housing so that tape may be paid out, said housing having a portion defining a forward end of said mouth, said portion and work surface defining a plane, means carried by said housing adjacent the rear end of the mouth for pressing tape against the work surface, a cutter within the housing extending transversely of said housing near the rear portion of the mouth, said cutter having teeth some of which are at least one inch long with the teeth pointing generally toward the tape supply, spring means cooperating with the teeth so that the free cut end of the tape is retained in position against the teeth in preparation for a new cutting and tape dispensing cycle, a tape applier having at least an edge for cooperation with the non-adhesive side of tape, means for mounting said applier so that it normally rests well within the housing remote from the work surface but is freely movable to an active position toward the work surface so that the applying edge reaches the plane of the housing mouth at a joint between the forward end of the mouth and the projection of the teeth upon the mouth, said tape applier being adapted to deflect the tape out of a tension span extending between the tape roll and teeth and into contact with the work surface, said tape applier when returned to a normal position at the end of a tape applying operation allowing the tape to assume a tension span and thus force the tape against the cutter teeth during forward movement of the machine to result in severance of the tape.

Classifications:

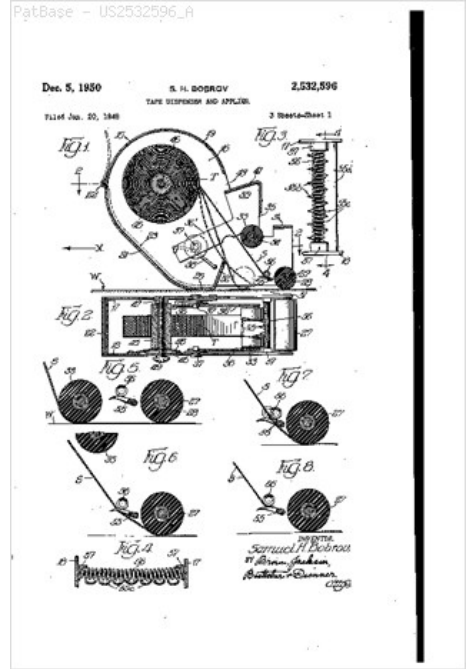
International (IPC 8-9): B65B51/06 B65H35/00 B65H35/07 (Advanced/Invention); B65B51/00 B65H35/00 B65H35/06 (Core/Invention)

International (IPC 1-7): B65B51/06 B65H35/00

CPC: B65B51/067 B65H35/0033 B65H35/008 Y10T156/1348

European: B65B51/06F B65H35/00B2B2 B65H35/00B6B

US: 156/523



Family:

Publication number	Publication date	Application number	Application date
US2532596 A	19501205	US19480003315	19480120

Priority:

US19480003315 19480120

Assignee(s): (std): BOBROV SAMUEL H

Inventor(s): (std): BOBROV SAMUEL H

Title: Confection packaging **apparatus**

Abstract: Source: US2796711A (Claim 1) 1. A machine for filling a succession of cups with iowable material contained in a hopper having dispensing nozzle means thrcrbelow, comprising in combination, a conveyor moving in step-by-step advancing fashion under said hopper, said conveyor having a surface portion adapted to receive in positionally indexed relation thereon a succession of open-top cartons for containing the cups to be filled, said cartons having slip-titted thereinto resilient horizontal partition **devices** apertured to accommodate in seated relation therein the cups to be niled, means for advancing said conveyor so as to bring said cup apertures successively into registration with said dispensing nozzle means, a cup dispensing mechanism mounted above said conveyor in advance of said hopper and comprising an empty cup magazine having empty cups in vertically stacked relation therein, gate incans operable for successive release of the lowermost cup from said vertical stack to fall by gravity therefrom, -means operable automatically to cause said cup-**dispenser** mechanism to move downwardly as said conveyor :brings said eartons into each successively new cup-receiving position so 'as to cause the lower end pordons of said cups to be thrust into said partition apertures while the lowermost cup is still held by said gate means, means operable automatically to thereupon actuate said gate means for gravity release of the lowermost 'of said stacked cups so as to cause said lowermost cup to thereby remain in seated position in said carton, a prcss bar carried by said cup-dispensing mechanism and movable therewith so as to simultaneously press downwardly upon said partition members for firmly seating them in said cartons as the cups arc dispensed thereinto, means -for actuating said material dispensing **devices** for subsequently filling said seated cups, means for subsequently dispensing any desired topping material into said cups, and means for subsequently capping said cups prior to discharge from the machine.

Classifications:

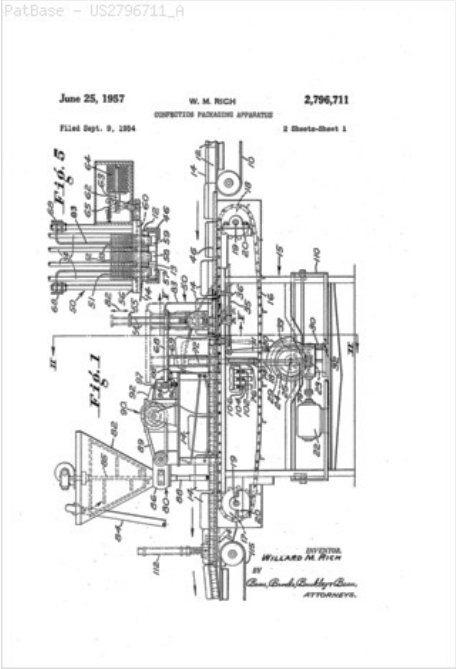
International (IPC 8-9): B65B43/44 B65B43/52 (Advanced/Invention);
B65B43/42 (Core/Invention)

International (IPC 1-7): B65B43/44 B65B43/52

CPC: B65B43/44 B65B43/52

European: B65B43/44 B65B43/52

US: 221/209 221/93 53/171 53/246 53/281 53/77



Family:

Publication number	Publication date	Application number	Application date
US2796711 A	19570625	US19540455029	19540909

Priority:

US19540455029 19540909

Assignee(s): (std): RICH WILLARD M

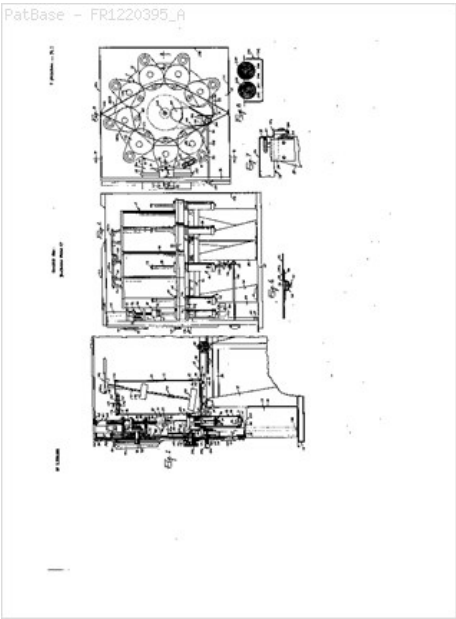
Inventor(s): (std): RICH WILLARD M

Title: Appareil distributeur de liquide Liquid **dispenser** (Machine translation)

Abstract: Source: FR1220395A (Claim 1) 1) ****ATTENTION**** debut du champ CLMS peut contenir fin de DESC ******. mises en rotation par intermittence pour agiter le contenu des reservoirs. L'appareil est de preference enferme et comprend des panneaux lateraux 191 et 192, un panneau superieur 193, un panneau anterieur 194 et un panneau posterieur 190. Afin de permettre de determiner facilement lequel des cylindres de dosage est situe au poste de distribution, une ouverture d'observation 199 est formee dans le panneau anterieur 194 et la plaque de support 21 au voisinage des cylindres de dosage 12 et chacun des cylindres est marque d'un signe approprie (voir fig.

Machine translation: (Claim 1) 1) **** WARNING **** start of CLMS field may contain end of DESC ******. intermittently rotated to stir the contents of the tanks. The **device** is preferably encloses and includes side panels 191 and 192, a top panel 193, a front panel 194 and a posterior panel 190. To enable to determine easily which of the metering cylinders is located at the dispensing station, a viewing aperture 199 is formed in the anterior panel 194 and the support plate 21 in the vicinity of the metering cylinders 12 and each cylinder is brand an appropriate sign (see Fig.

Classifications:
International (IPC 8-9): B65B39/00 (Advanced/Invention); B65B39/00 (Core/Invention)
International (IPC 1-7): B65B39/00 B67D5/02
CPC: B65B39/004
European: B65B39/00A3



Family:

Publication number	Publication date	Application number	Application date
FR1220395 A	19600524	FR19590787610	19590224

Priority:

19580224

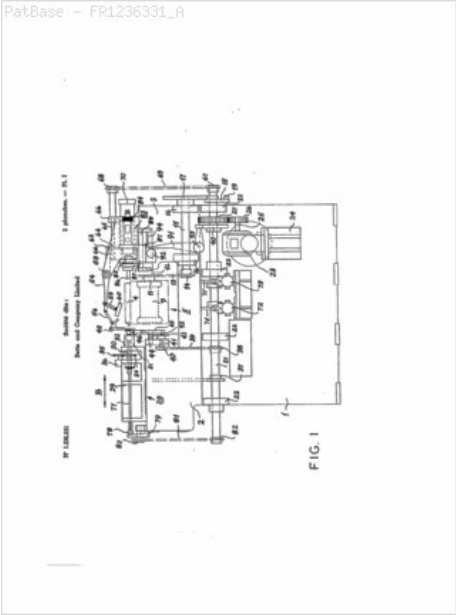
Assignee(s): (std): ROCKCOTE PAINT CO

Title: PROCEDE ET MACHINE POUR PLACER UN BOUCHON SUR L'OUVERTURE D'UN RECIPIENT METHOD AND MACHINE FOR PUTTING A CAP ON THE OPENING OF A CONTAINER (Machine translation)

Abstract: Source: FR1236331A (Claim 1) 1. Un procede pour boucher des recipients comportant une ouverture filetee, qui consiste a amener successivement les recipients simultanement dans l'axe d'un porte-bouchon et d'un dispositif de friction, a rapprocher le porte-bouchon du recipient de facon a mettre le bouchon en contact avec l'ouverture filetee, a deplacer l'organe de friction pour l'amener dans une position ou il empeche le recipient de tourner, et a faire tourner le porte-bouchon avec le bouchon qu'il contient, au moins lorsque le bouchon est en prise avec l'ouverture filetee du recipient.

Machine translation: (Claim 1) 1. A process to fill the containers with a threaded opening, which is to successively bring the containers simultaneously in the axis of a door-stopper and a friction **device**, the closer a cap **holder** of container to put the plug in contact with the threaded opening, to move the friction member to bring it into a position where it prevents the container from turning, and rotating the cap **holder** with the plug it contains, at least when the cap is engaged with the threaded opening of the container.

Classifications:
International (IPC 8-9): B65B7/14 (Advanced/Invention);
B65B7/00 (Core/Invention)
International (IPC 1-7): B65B7/14 B67B3/20
CPC: B65B7/14
European: B65B7/14



Family:

Publication number	Publication date	Application number	Application date
FR1236331 A	19600715	FR19590805668	19590921

Priority:

FR19590805668 19590921

Assignee(s): (std): BETTS AND CO LTD ; BETTS AND COMPANY LTD

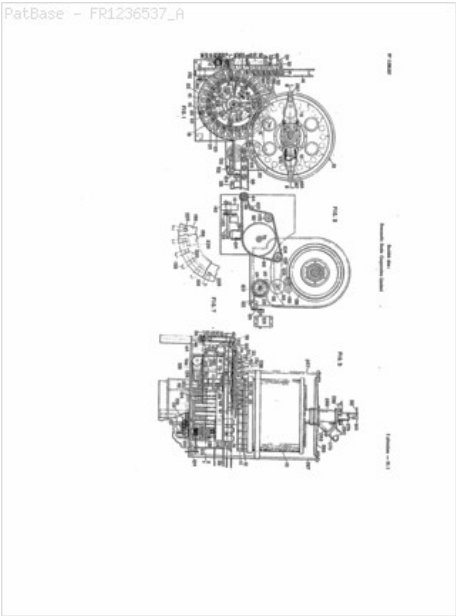
Assignee(s): BETTS AND COMPANY LIMITED

Title: Machine de remplissage sous vide Vacuum Filling Machine (Machine translation)

Abstract: Source: FR1236537A (Claim 1) ****ATTENTION**** debut du champ CLMS peut contenir fin de DESC **. le niveau de cette derniere au-dessous du passage de la lame palpeuse, a la suite de quoi l'alimentation en matiere recommence automatiquement. Il peut egalement etre prevu un dispositif permettant d'elever et d'abaisser de facon appropriee l'appareil de remplissage sous vide par rapport au plan horizontal du mecanisme de transport, de fa con a admettre des recipients de differente hauteur.

Machine translation: (Claim 1) CAUTION **** **** start of CLMS field may contain end of DESC **. The level of the latter below the passage of the safety edge, a result of which the supply of material automatically restarts. It may also be provided for a mechanism to raise and lower the **device** appropriately vacuum filling compared to the horizontal plane of the mechanism of transport, has fa con admit containers of different height.

Classifications:
International (IPC 8-9): B65B31/04 (Advanced/Invention)
International (IPC 1-7): B65B31/04
CPC: B65B31/044
European: B65B31/04D



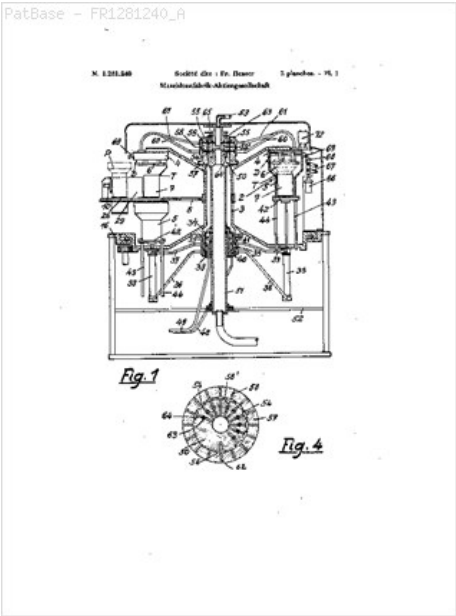
Family:			
Publication number	Publication date	Application number	Application date
FR1236537 A	19600722	FR19590796858	19590608
Priority:			
FR19590796858 19590608			
Assignee(s): (std): PNEUMATIC SCALE CORP			
Assignee(s): PNEUMATIC SCALE CORP LTD			

Title: Dispositif pour l'evacuation de l'air contenu dans des sachets d'emballage et l'introduction de gaz dans ces sachets, sur des machines de remplissage et de fermeture **Device** for the evacuation of the air bags in packaging and the introduction of gas into the bags on the filling machines and closing (Machine translation)

Abstract: Source: FR1281240A (Claim 1) ****ATTENTION**** debut du champ CLMS peut contenir fin de DESC ******. d'introduction d'un gaz, le joint du sachet P soit scelle par les machoires de scellement a chaud 6. Apres cette operation, les cloches sont a nouveau abaissees en vue du dechargement des receptacles transporteurs 7. Pour assurer un guidage irreprochable des clo- ches 5 pendant leur soulevement et leur abalsse- ment, des tiges de guidage 43 et 44 sont fixees sur les plateaux 42 sur lesquels lesdites cloches sont montees de facon amovible, lesdites tiges etant ellesmemes guidees dans des alesages du tambour 3. L'aspiration de l'air dans les sachets se trouvant dans les chambres 2, et le remplissage eventuel de ces sachets par un gaz de protection, sont commandes par une tete de commande 50 disposee au-dessus du tambour 3.

Machine translation: (Claim 1) **** WARNING **** start of CLMS field may contain end of DESC ******. Introduction of a gas, seal the bag P be sealed by the sealing jaws hot 6. After this operation, the bells are again lowered to the unloading of receptacles carriers 7. To provide guidance impeccable of clo-Ches 5 while lifting and abalsse -ment, guide rods 43 and 44 are fixed on 42 plates on which those bells are detachably mounted, said rods being ellesmemes Guided bores in the drum 3. The aspiration of air in the bags found in the two rooms, and the eventual filling of the bags by a shielding gas are orders by a control head 50 disposed above the drum 3.

Classifications:
International (IPC 8-9): B65B31/02 (Advanced/Invention)
International (IPC 1-7): B65B31/02
CPC: B65B31/022
European: B65B31/02D



Family:

Publication number	Publication date	Application number	Application date
FR1281240 A	19620112	FR19600822960	19600331

Priority:

FR19600822960 19600331

Assignee(s): (std): HESSER AG MASCHF

Assignee(s): HESSER MASCHF AG ; FR HESSER MASCHINENFABRIK AKTIENGESSELLSCHAFT

Title: Weighing assembly

Abstract: Source: US3112806A (Claim 1) 1. In an assembly for weighing out and discharging measured and corrected quantities of pourable commodities and incorporating a pre-dispensing station served by a pre-dispenser, a weighing station served by a weigher, a weight make-up station served by a make-up device under the control of said weigher, and a discharge station, a conveyor for conducting commodity from station to station comprising a carrier ring rotatable in a vertical plane through said stations, means for intermittently rotating said carrier ring, a plurality of commodity holders detachably mounted on said carrier ring for travel there-with, said holders having open mouths and being mounted on said ring with said mouths facing radially outwards, means supporting said weigher within said ring at a position at which the holders reach the uppermost position thereof, said predispensing station being located behind the weigher relative to the direction of rotation of the ring while said weight make-up station is located ahead of the weigher relative to the direction of rotation of the ring, and means at said weighing station for detaching each of said holders from the carrier ring in turn at this station for resting each said holder on said weigher.

Classifications:

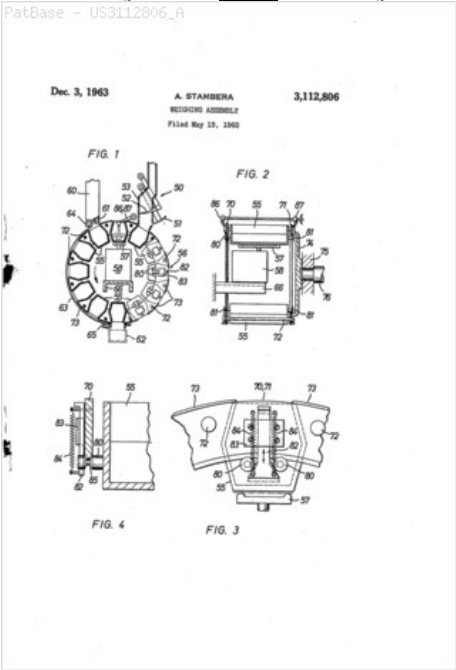
International (IPC 8-9): B65B1/32 G01G13/00 (Advanced/Invention)

International (IPC 1-7): B65B1/32 G01G15/02

CPC: B65B1/32 G01G13/00

European: B65B1/32 G01G13/00

US: 177/103 177/59 177/62 177/81 198/803.2



Family:

Publication number	Publication date	Application number	Application date
US3112806 A	19631203	US19620194923	19620515

Assignee(s): (std): HESSER AG MASCHF

Assignee(s): HESSER MASCHF AG ; FR HESSER MASCHINENFABRIK AKTIENGESELLSCHAFT

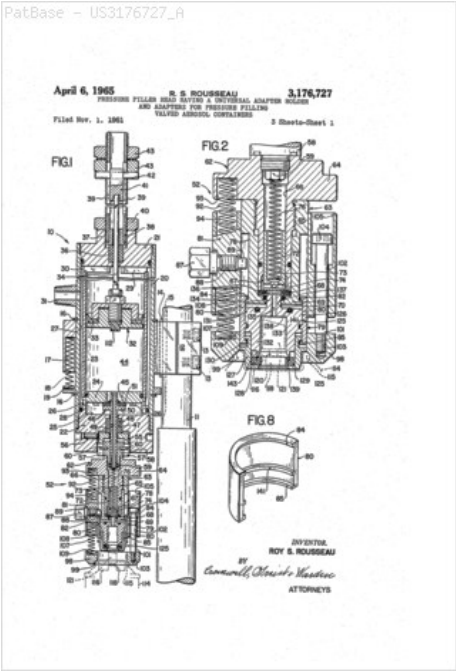
Inventor(s): (std): ADOLF STAMBERA

Inventor(s): STAMBERA ADOLF

Title: Pressure filler head having a universal adapter **holder** and adapters for pressure filling valved aerosol containers

Abstract: Source: US3176727A (Claim 1) A pressure fuler head for filling a metered quantity of pressurized fluid into an aerosol container through the valve ass-_mbly th-_roef comprising, a **dispenser** having a chamber of F,,redetermined size for receiving a m-_tered char-_e of fluid Linder pressure, a tubular adapter **holder** body dep-_nd;ng from said **dispenser** a-_id having a disc_i_,ir,-, pa_,sage extending therethrough wth its iipper epd op-_n to said ch_,imber, a normally closed discharge valve meriiber ir_ the lower end of said d_scharge passage, means for co_iinecting a sot:irce of fluid ur_,er pressure in contrubus compirn_'_e2ition witli said discoc_nser, m-,ars ineltiding a normally open valve at the upper end of said discharge pa_-sage for establish,'_ng said metered charge in said chamber iv'-Qeii the filler he_ad is out ofen.-ageni._nt wi,h a valved aerosol contain_er, an _-,dapter having means for seal;ng engageilicnt on a valved aerosol corilainer rer_lova_oly susp-_nded fron-i the lower end of sf_,id ,idaoter **holder** body, said adapter being slid_ble on said **holder** body so, as to permit upward movenient of s-_dd adapter relai-'_ve to _said body, said adat)ter having a d,'_scharge passage extending therethrough a-_id commurlc,iting with the lov/er end of said dischara passa-c in 6o _-aid a-'_ti3ter **holder** body, readily releasabl-_ me_ans for su_rondi-_ig said ad-_tpter from s-_id adtpter **holder** body, riie,,Liis tor closin.- thz valv- at the upper eiid of said disebar,-e, passageway and isolating said chamber and th_m-,tered ch_,ir-O thereiti from said fluid solirce upon initial rzz-igigement of the '_Uler head N_7ith the top of a valved arcosol conta-_ner, ,nd a ce-_itrally loc-_tt-_d upsta-_iding steni 'd adan on sa, _er slidably received in th-_ lovrer end of saidclis_,hargp. passage in said adarter **holder** body and operable upon Lipwarcl mov-,r.-e-tit of said adapter relative to said adapter **holder** 'Uody _afte.- said adapt-Ir is scalin,-ly e-_igaged w,.,Lh the top of an aerosol c6-_i_ainer f or e.,igaging aiid opening s_,i;d norm-ally clos-id e_i_.charge valve r.,i-niber in the lowei7 enct oi sa:ld discharge pas.s,igeway whereby aid metered c,iarge of p-ressuriz-d fluid is discharged 7 5 s lito the arcosol container through said adapter and the container valve ass6n-iblv.

Classifications:
International (IPC 8-9): B65B31/00 (Advanced/Invention);
B65B31/00 (Core/Invention)
International (IPC 1-7): B65B31/04
CPC: B65B31/003
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Family:

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Assignee(s): (std): KARTRIDG PAK CO

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