

Search history

Search 1: PD<20150312 and IC=(B65B47/00) (Results 1590)
Search 2: (PD<20150312) and (IC=(B65B47/00)) (Results 1590)
Search 3: 2 AND (FT = seal* NEAR cover*) (Results 189)
Search 4: 3 AND (CC = CO) (Results 1)
Search 5: 3 AND (FT = (air OR fluid) NEAR (channel OR passag%e)) (Results 11)

Title: Packaging fluent products

Abstract: (Claim 1) 1. A package comprising a pair of sections of thermoplastic sheet material, each having a cavity therein filled with a fluid material, said cavities having open top sides and closed bottom and end portions, said cavities having their open top sides in opposed relation and said sections being joined around the peripheries of said open sides, and reinforcing strips secured to said sections and extending around parts of the bottom portions and said end portions of each section to provide a peripheral enclosure for said package extending around its ends and two opposite sides.

Classifications:

International (IPC 8-9): B29C51/16 B29C51/22 B65B47/10 B65B9/04 B65D75/34 B65D75/42 B65D75/54 (Advanced/Invention); B29C51/00 B29C51/18 B65B47/00 B65B9/00 B65D75/00 B65D75/28 B65D75/52 (Core/Invention)

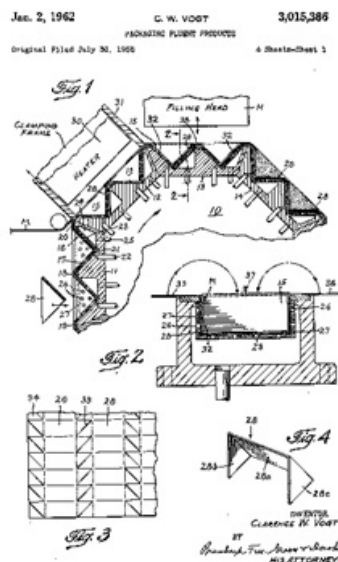
International (IPC 1-7): B65B47/10 B65B9/04 B65D65/38 B65D75/42 F26B17/34

CPC: B65D75/327 B65D75/42 B29C51/165 B29C51/225 B65B9/042 B65B47/10 B65D75/54

European: B29C51/16C B29C51/22B B65B47/10 B65B9/04B B65D75/32D3 B65D75/42 B65D75/54

US: 206/436 206/499 206/526 229/406 53/453 53/467 53/559 53/579

PatBase - US3015386_A



Family:

Publication number	Publication date	Application number	Application date
US2934867 A	19600503	US19560601030	19560730
US2949713 A	19600823	US19560585775	19560518
US3015386 A	19620102	US19590845881	19591012

Priority:

US19560585775 19560518 US19560601030 19560730 US19590845881 19591012

Probable Assignee:

VOGT CLARENCE W

Assignee(s): (std):

VOGT CLARENCE W

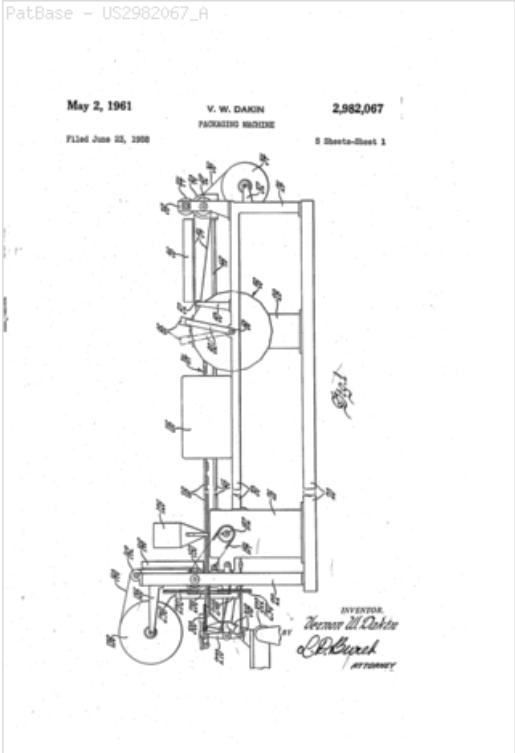
Inventor(s): (std):

VOGT CLARENCE W

Title: PACKAGING MACHINE

Abstract: (Claim 1) **Sealing** mechanism for **sealing** a **cover** over a continuous strip of article-containing pockets having a plurality of longitudinal rows of article-containing pockets formed therefrom, said mechanism comprising a sealing roll operatively contacting the upper surface of the continuous strip and extending transversely over the entire width thereof, a plurality of transversely spaced sealing dies engaging the lower surface of the continuous 15 strip and cooperating with said sealing roll to **seal** the strip **cover** to the strip longitudinally and on either side of each of the longitudinal rows of article-containing pockets, transversely extending vertically disposed sealing feet for intermittently cooperating with said sealing roll 20 to **seal** the strip **cover** to the strip transversely of the strip and intermediate successive pockets, at least one of said sealing feet having a space and receiving a follower roll therein, said follower roll engaging the lower surface of a longitudinal row of pockets and actuated thereby to 25 control the intermittent coopération of said sealing feet with said sealing roll, and control linkage interconnecting said cam follower and said sealing feet for actuating said sealing feet in accordance with said follower roll control.

Classifications:
International (IPC 8-9): B29C51/22 B29C51/44 B65B47/10 B65B9/04 (Advanced/Invention);
B29C51/18 B29C51/26 B65B47/00 B65B9/00 (Core/Invention)
International (IPC 1-7): B29C24/00 B65B47/10 B65B9/04
CPC: B29C51/225 B29C51/445 B65B9/04 B65B47/10
European: B29C51/22B B29C51/44B B65B47/10 B65B9/04
US: 53/329.4 53/389.3 53/389.5 53/559



Family:

Publication number	Publication date	Application number	Application date
US2982067 A	19610502	US19580743823	19580623

Priority:

US19580743823 19580623

Probable Assignee: GEN MOTORS CORP
Assignee(s): (std): GEN MOTORS CORP
Assignee(s): GENERAL MOTORS CORP
Inventor(s): (std): DAKIN VERNON W

Title: METHOD AND APPARATUS FOR PACKAGING IN PROTECTIVE ATMOSPHERE

Abstract: 1,128,800. Packaging machines. ANDERSON BROS. MFG. CO. 14 Aug., 1967 [23 Nov., 1966], No. 37302/67. Heading B8C. A method of packaging material in a protective atmosphere comprises forming and filling an open-topped flanged container, positioning a cover member over it, placing the container and cover in a vacuum enclosure and reducing the pressure, introducing a protective gas into the container through an opening formed in either the cover or container flange, so that the gas separates the two in order to pass into the container, sealing the container and removing it from the enclosure. A separate inner cover may be provided. Each container is formed by heating a web of thermoplastic material 11 and moulding it by mechanical or fluid pressure. The mould moves down to allow the web to be moved on by grippers 16 on piston 17 (also Fig. 2, not shown). A punch 32 then forms an opening 30 in the part of the web between two containers. This may alternatively be done at the same time as the moulding process. The container is then filled. If it is desired to apply an inner insert lid I to the package the containers are formed with a double flange 28, 29 and the inserts I formed in a similar way to the containers from a web 41. The inserts are cut from the web and placed into the containers to rest on flange 28, by a reciprocating gripper 46. A further web 61 is fed over the containers to act as a cover. The assembly is moved into the vacuum enclosure X where air is withdrawn through passage 87 via valve 86. A protective gas is introduced via conduit 95 and opening 30, stretching the cover 61 upwards and flowing directly into the container so that it mixes with the remaining air in the container and carries it out into the enclosure. The insert I is formed with a channel 59 adjacent the opening 30 to facilitate this. The channel may alternatively be formed in the container (not shown). The cover is sealed on to the container flange by a sealing head 83 using, e.g. heat- or pressure-sensitive or high-frequency sealing. The pressure in the package is approx. atmospheric. The packages are cut from the web at 64. A peeling tab may be provided.

Classifications:

International (IPC 8-9): B65B31/02 (Advanced/Invention);

B65B31/02 (Core/Invention)

International (IPC 1-7): B65B31/02 B65B31/04 B65B31/06

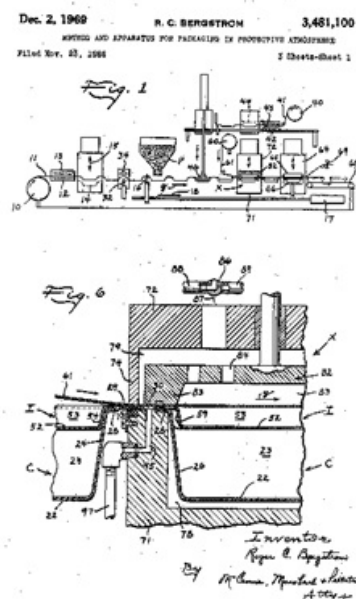
B65B47/00

CPC: B65B31/02 B65B31/021

European: B65B31/02 B65B31/02C

US: 426/392 53/220 53/282 53/329.4 53/329.5 53/433 53/453 53/511 53/559

PatBase - US3481100_A



Family:

Publication number	Publication date	Application number	Application date
CH464775 A	19681031	CH19670016004	19671114
DE1561956 A1	19700521	DE19671561956	19670901
GB1128800 A	19681002	GB19670037302	19670814
US3481100 A	19691202	US19660596581	19661123

Priority:

US19660596581 19661123

Probable Assignee: APV ANDERSON BROS INC

Assignee(s): (std): ANDERSON BROS MFG CO

Assignee(s): ANDERSON BROS MFG CO ; APV ANDERSON BROS INC

Inventor(s): (std): BERGSTROM ROGER C ; ROGER CARL BERGSTROM ; CARL BERGSTROM ROGER

Inventor(s): ROGER C BERGSTROM

Title: APPARATUS FOR THERMOFORMING PACKAGES OR HEAT-SEALING THERMOFORMED PACKAGES

Abstract: ABSTRACT OF THE DISCLOSURE An apparatus usable for the thermoforming of packages from a synthetic-resin foil or for **covering** and **sealing** such packages.

Classifications:

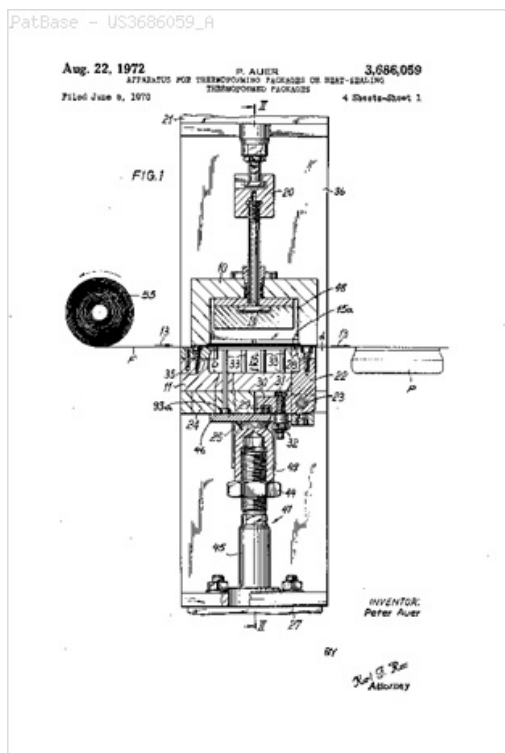
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International (IPC 1-7): B29C1/00 B29C1/16 B29C17/00 B29C17/02 B29C17/03 B29C27/02 B32B31/20 B65B47/00 B65B7/16 B65D1/00

CPC: B29C33/00 B29C37/0003 B29C49/0047 B29D22/003 B65B47/00

European: B29C33/00 B29C37/00B B29C49/00F B29D22/00C B65B47/00

US: 156/285 156/382 156/500 156/581



Family:

Publication number	Publication date	Application number	Application date
CH501479 A	19710115	CH19700007233	19700514
DE1929277 B1	19701105	DE19691929277	19690610
FR2052456 A5	19710409	FR19700019571	19700528
GB1277994 A	19720614	GB19700025012	19700522
SE352275 B	19721227	SE19700007068	19700522
US3686059 A	19720822	US19700044174	19700608

Priority:

DE19691929277 19690610

Probable Assignee: UHLMANN MASCHF JOSEF

Assignee(s): (std): JOSEF UHLMANN MAS FAB ; JOSEF UHLMANN MASCHF ; UHLMANN MASCHF JOSEF ; UHLMANN JOSEF MASCHINENF ; UHLMANN MASCHINENFAB

Assignee(s): JOSEF UHLMANN MASCHINENFABRIK ; JOSEF UHLMANN MASCHINENFABRIK KG ; UHLMANN MASCHF

Inventor(s): (std): AUER P ; AUER PETER ; PETER AUER

Title: APPARATUS AND METHOD FOR SKIN PACKAGING

Abstract: An apparatus and method is provided for forming a skin package particularly for food products, hardware and the like, in which said package is formed by a pressure differential applied to either an upper or lower member or both. This pressure is applied to the midportion of a film brought to a stretchable condition and held by its edges. When the film is thermoplastic this stretchable condition may be provided by holding its midportion against a heated platen until it is softened to a condition adapted for draping, sealing and forming. The product for packaging is placed on the lower covering member whose supporting face is adapted for sealing to the upper member by means of a pressure differential or air pressure and with this motion the film is stretched and brought to and is draped over the product. The air or atmosphere is used to form the package by pushing the film tightly around the product and into sealing condition with the other member. When both upper and lower members are thermoplastic film and are heated, either or both of the films after heating are urged toward each other. The chamber includes an upper and lower platen or clamping means and a mid-chamber form and may have provision for flushing the product or package with gas such as nitrogen, carbon dioxide and the like. A stretchable film may be used as one or both of the members and have an adhesive coated surface so that no heat is required but the stretchable film is pushed into sealing engagement with the other clamped member.

Classifications:

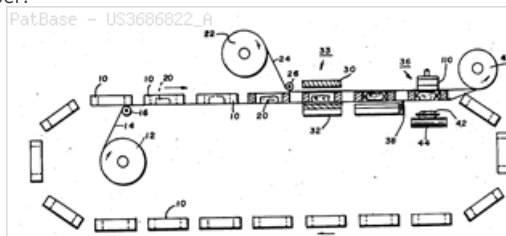
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B65B31/02 B65B47/00 (Core/Invention)

International (IPC 1-7): B65B B65B11/00 B65B31/02 B65B43/00
B65B47/02

CPC: B65B31/021 B65B47/02

European: B65B31/02C B65B47/02

US: 53/427 53/509 53/511 53/556

**Family:**

Publication number	Publication date	Application number	Application date
AU197129040 A1	19721123	AU19710029040	19710519
CA959749 A1	19741224	CA19710110011	19710408
DE2122110 A1	19720316	DE19712122110	19710505
FR2105779 A5	19720428	FR19710017520	19710514
US3686822 A	19720829	US19700071688	19700914

Priority:

US19700071688 19700914

Probable Assignee: YOUNG WILLIAM E

Assignee(s): (std): ROBERT OSCAR WOLFELSPERGER ; YOUNG WILLIAM E ; WOLFELSPERGER ROBERT ; WOLFELSPERGER ROBERT O

Assignee(s): WILLIAM E YOUNG

Inventor(s): (std): WOLFELSPERGER ROBERT O ; WOLFELSPERGER ROBERT OSCAR

Inventor(s): ROBERT O WOLFELSPERGER ; ROBERT OSCAR WOLFELSPERGER

Title: PACKAGING METHOD AND APPARATUS

Abstract: An automatic packaging machine makes hermetically sealed packages from which air has been exhausted by laminating two continuous sheets of packaging material. A roll of film on one end of the machine supplies a continuous support sheet to a chain belt conveyor which grips the opposite edges of the support sheet leaving the web unsupported, and transports this sheet the length of the machine. A vacuum forming die makes a plurality of receptacles in the support sheet in aligned longitudinal and transverse rows with transverse and longitudinal margins about the periphery of the receptacles. Another roll of film supplies a continuous cover sheet which is applied over the support sheet, the cover sheet being expediently severed longitudinally by a cutting blade in alignment with the inner longitudinal margins between the receptacles prior to application over the support sheet. The sheets are then heat sealed along the transverse margins. Subsequently, an evacuation unit heat seals the sheets along the outer longitudinal edge margins and an evacuation head exhausts the air from the receptacles through the evacuation opening advantageously provided by the severed **cover** sheet. A **sealing** bar in the evacuation head then closes the opening and the **cover** sheet is finally heat **sealed** to the support sheet in the areas adjacent the opening.

Classifications:

International (IPC 8-9): B65B31/02 B65B41/14

B65B9/04 (Advanced/Invention);

B65B31/02 B65B41/00 B65B9/00 (Core/Invention)

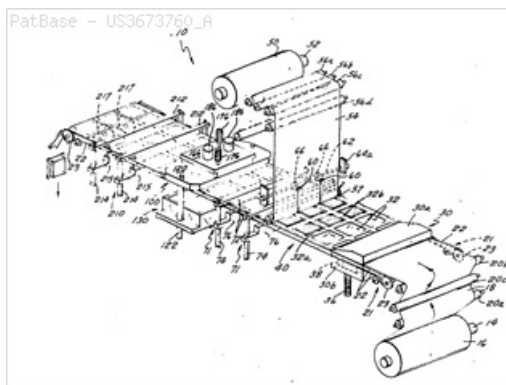
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B65B9/04 B65H17/42

CPC: B65B9/042 B65B31/021 B65B41/14

European: B65B31/02C B65B41/14 B65B9/04B

US: 226/112 226/173 53/433 53/453 53/471 53/478 53/511 53/559



Family:

Publication number	Publication date	Application number	Application date
CA946273 A1	19740430	CA19710123900	19710928
FR2111821 A1	19720609	FR19710038194	19711025
FR2111821 B1	19750718	FR19710038194	19711025
IT957104 A	19731010	IT19710053714	19711026
NL7114717 A	19720428	NL19710014717	19711026
US3673760 A	19720704	US19700083902	19701026
US3773235 A	19731120	US19720241780	19720406

Priority:

US19700083902 19701026 US19720241780 19720406

Probable Assignee: AMERICAN NATIONAL CAN CO

Assignee(s): (std): AMERICAN CAN CO

Assignee(s): AMERICAN CAN COMPANY ; AMERICAN CAN CY US ; AMERICAN CAN PACKAGING INC ; AMERICAN NATIONAL CAN CO ; ULLMANN CHRISTOPH ; CANAMERO ERNEST V ; AM CAN CO US

Inventor(s): (std): CANAMERO E ; CANAMERO ERNEST V ; ULLMAN C ; ULLMANN CHRISTOPH

Inventor(s): ULLMAN C DT ; CANAMERO E US ; CHRISTOPH ULLMANN ; ERNEST V CANAMERO

Title: PACKAGING MACHINE FOR INDIVIDUAL PORTIONS, AND METHOD

Abstract: A packaging machine for individual portions in which a strip of thermoplastic film is automatically releasably gripped along its longitudinally extending marginal portions by rows of gripping elements and while so gripped, the film is moved in a forward direction and is progressively heated by a heater and progressively tautened transversely of its movement as it softens. After leaving the heater and while still gripped, the softened film is positioned over upper mold forms at a cup-forming station at one end of the upper run of an endless row of such forms which upper run is moved in said forward direction toward a filling and sealing station successively spaced from said one end. A lower mold form at said cup-forming station is moved against the upper mold form to form the cup-mold and mechanical and suction means forms a plurality of cups in the film after which the marginal grippers and the lower mold form automatically release the film for movement to the filling station where the cups in the film are filled, and the filled cups are then moved to the sealing station while the cups are still in the upper mold forms. At the **sealing** station a **cover** sheet is positioned over the cups and is heat sealed to the upper surface of the film around the cup openings during uniform application of pressure against the upper and lower sides of the film at said surface, and finally the film and filled, sealed cups are moved out of the upper mold forms and the cups are cut from the film to provide filled and sealed individual packages.

Classifications:

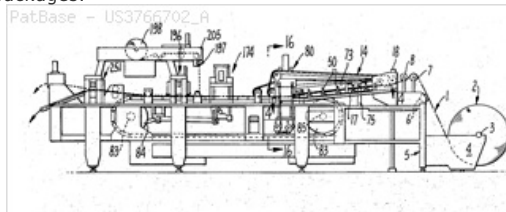
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B29C51/10 (Advanced/Non-invention);
B29C51/00 B29C51/18 B65B47/00 B65B9/00 (Core/Invention);
B29C51/10 (Core/Non-invention)

International (IPC 1-7): B29C3/02 B65B11/00 B65B11/48
B65B47/02 B65B5/00 B65B9/04

CPC: B29C51/04 Y10S425/201 B29C51/00 B29C51/10 B29C51/24
B65B9/042

European: B29C51/00 B29C51/04 B29C51/24 B65B9/04B
L29C51/10

US: 425/34.7 425/347 425/359 425/364R 425/387.1 425/388 425/397 425/400 425/DIG.201 53/141 53/30 53/453 53/559



Family:

Publication number	Publication date	Application number	Application date
BE792884 A	19730330		00000000
BE792884 A1	19730330	BE19721004674	19721215
CA983376 A1	19760210	CA19720159052	19721212
DE2261812 A1	19730628	DE19722261812	19721214
FR2174484 A5	19731012	FR19720044835	19721215
NL7217168 A	19730619	NL19720017168	19721215
US3766702 A	19731023	US19710208178	19711215
US3837782 A	19740924	US19730376679	19730705

Priority:

US19710208178 19711215 US19730376679 19730705

Probable Assignee: FILPER CORP

Assignee(s): (std): FILPER CORP

Assignee(s): FILPER CORP OLD CROW CANYON ROAD SAN RAMON CALIFORNIA E U A ; FILPER CORP US ; LANE WILLIAM A ; MEISSNER KONRAD E ; PELSTER EDWIN J ; CHEMICAL BANK A NEW YORK BANKING CORP ; FILPER 475 EDISON WAY RENO CORP

Inventor(s): (std): LANE WILLIAM A ; MEISSNER K ; MEISSNER K E ; MEISSNER KONRAD E ; PELSTER E ; PELSTER EDWIN J JR ; TELSTER E J ; TELSTER JUN ; MEISSNER KONRAD EMIL ; LANE WILLIAM ALEXANDER ; LANE W ; LANE W A

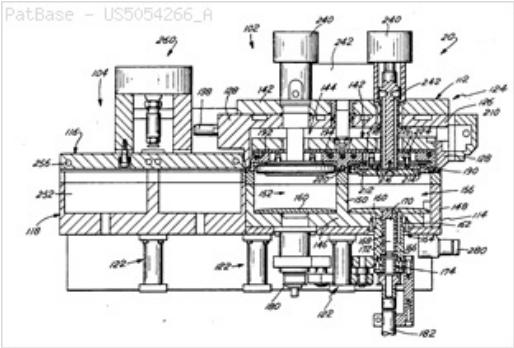
Inventor(s): LANE W US ; JOSEPH TELSTER JUN EDWIN ; JOSEPH TELSTER JUN ; EMIL MEISSNER KONRAD ; ALEXANDER LANE WILLIAM ; W A LANE ; WA LANE ; PELSTER E US ; PELSTER EDWIN J ; MEISSNER K US ; E J TELSTER ; EJ TELSTER ; K E MEISSNER ; KE MEISSNER

Title: Vacuum seal station for a vacuum packaging machine

Abstract: A vacuum packaging machine includes an elongated frame, packaging forming stations for forming a lower container and top or cover for a package, a vacuum seal and sizing station, a chill station and a cutoff or package separating station. The vacuum seal and sizing station includes an upper tool defining an upper chamber and a lower tool defining a container chamber. The lower tool is movable towards and away from the upper tool and defines a vacuum chamber therewith. A pressure and sealing bar disposed within the upper chamber is movable to seal the package top to the container. A platform is adjustably positionable in the container chamber to vary the volume or size of the vacuum chamber. A product sizing plunger carried by the upper tool engages and compresses the product placed within the container prior to application of a vacuum and **sealing** of the **cover** or top to the container.

Classifications:

International (IPC 8-9): B65B31/02 B65D43/04
B65D43/10 (Advanced/Invention);
B65B31/02 B65D43/08 (Core/Invention)
International (IPC 1-7): B32B9/00 B65B1/24 B65B31/00 B65B31/02
B65B47/00 B65B7/28 B65D43/10
CPC: B65B31/021 Y10T428/24802 Y10T428/24876 Y10T428/24893
Y10T428/26 Y10T428/31678 Y10T428/31692 Y10T428/31786
Y10T428/31895
European: B65B31/02C
US: 220/359 220/359.3 229/123.2 428/195 428/195.1 428/204
428/206 428/220 428/332 428/457 428/461 428/480 428/511
428/516 53/433 53/436 53/453 53/487 53/511 53/526



Family:

Publication number	Publication date	Application number	Application date
CA2091642 AA	19931001	CA19932091642	19930315
US5054266 A	19911008	US19900516452	19900430
US5106670 A	19920421	US19900465487	19900116
US5542234 A	19960806	US19940232428	19940421

Priority:

US19880239517 19880901	US19890443606 19891130	US19900465487 19900116
US19900516452 19900430	US19900526453 19900723	US19910711162 19910605
US19920859678 19920330	CA19932091642 19930315	US19930073279 19930604
US19940232428 19940421		

Probable Assignee: SARA LEE CORP
Assignee(s): (std) BIL MAR FOODS INC ; LEE SARA CORP
Assignee(s): MELLO FRANK ; SARA LEE CORP
Inventor(s): (std) MELLO FRANK C ; WYSLOTSKY IHOR ; MELLO FRANK
Agent(s): SMART AND BIGGAR

Title: PLASTIC EMBOSSED CARRIER TAPE APPARATUS AND PROCESS

Abstract: An embossed carrier tape manufacturing apparatus includes features for integrating with other processing equipment so that other processes such as forming, filling, and sealing the tape can be performed sequentially in one integrated process. The apparatus includes retractable contact spot heaters for heating the tape prior to embossing, along with a unique heat shield arrangement that is interposable between the heaters and the tape so that the process may be paused. Also, a synchronizing apparatus is integrated so that the carrier tape embossing process may be automatically paused for adjusting to the input rate of other carrier tape processing apparatus.

Classifications:

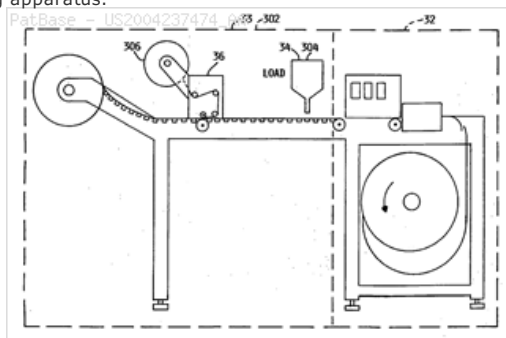
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International (IPC 1-7): B29C59/02 B65B15/04 B65B47/00 B65B9/02 B65B9/04 B65D

CPC: B29C35/02 B29C51/082 B29C51/10 B29C51/14 B29C51/261 B29C51/421 B29K2105/256 B65B47/02 H05K13/0084

European: B29C51/08B B29C51/26B B65B47/02 H05K13/00P L29C35/02 L29C51/08B L29C51/10 L29C51/14 L29C51/26B L29C51/42B L29K105/25C4

US: 425/384 425/397 425/398 425/412 53/281 53/453 53/453P 53/471 53/51 53/559 53/77



Family:

Publication number	Publication date	Application number	Application date
CN100554088 C	20091028	CN200480015023	20040401
CN1798689 A	20060705	CN200480015023	20040401
JP2007521155 T2	20070802	JP20060509615T	20040401
JP2011031620 A2	20110217	JP20100222220	20100930
JP4633714 B2	20110223	JP20060509615T	20040401
JP4633714 B2	20110223	JP20060509615	20040401
JP4633714 B2	20110216	JP20060509615T	20040401
JP5001415 B2	20120815	JP20100222220	20100930
KR101215182 B1	20121224	KR20117024889	20040401
KR101309950 B1	20130917	KR20057018559	20040401
KR20050110704 A	20051123	KR20057018559	20040401
KR20110133613 A	20111213	KR20117024889	20040401
MY144621 A	20111014	MY20040001198	20040401
MY156478 A	20160226	MY20110002953	20040401
TW200500192 A	20050101	TW20040109049	20040401
TWI344416 B	20110701	TW20040109049	20040401
US2004237474 AA	20041202	US20040815475	20040401
US2009133367 AA	20090528	US20090349034	20090106
US7771187 BB	20100810	US20040815475	20040401
US7987653 BB	20110802	US20090349034	20090106
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WO04089760 A3	20050721	WO2004US10142	20040401

Priority:

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JP20060509615 20040401	US20040815475 20040401	WO2004US10142 20040401
US20090349034 20090106		

Probable Assignee: ADAPTSYS LTD

Assignee(s): (std): ADAPTSYS LTD ; ENTEGRIS INC ; GREGERSON BARRY L ; SPITZER JAMES E

Assignee(s): ACCU TECH PLASTICS INC ; ADAPTSYS LIMITED

Inventor(s): (std): GREGERSON BARRY L ; GREGERSON BARRY L SPITZER JAME ; SPITZER JAMES E ; JAMES E SPITZER ; BARRY L GREGERSON

Inventor(s): GREGERSON BARRY L SPITZER JAMES E

Agent(s): ANTHONY J BOURGET; ANTHONY J; MICHAEL T

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: REVERSE BLISTER GROUND CALCIUM CARBONATES PACKAGING AND METHOD OF MAKING SAME

Abstract: The present invention is directed to an environmentally friendly "reverse blister" style packaging article that contains a ground calcium carbonate-containing composite structure. The packaging article has a front card having a substantially flat front region and an opening formed therethrough. The opening is at least partially covered by a layer of transparent material. The packaging article also has a back card that has a substantially flat back region and a recessed compartment that is capable of holding the retail product therein. The front and back cards are adhered to one another such that a product being held in the recessed compartment is visible through the layer of transparent material that at least partially covers the opening in the front card. The ground calcium carbonate composite structure can be flexible and pliable to impart enhanced performance characteristics as well as improved look and feel to the "reverse blister" style packaging article.

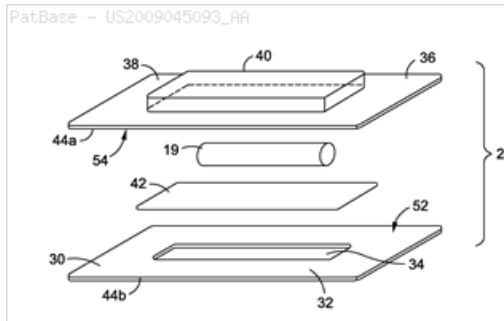
Classifications:

International (IPC 8-9): B26D7/27 B27N3/08 B29C53/80 B29C65/00 B29C65/54 B29D22/00 B32B B32B1/02 B32B17/10 B32B19/02 B32B19/04 B32B21/12 B32B27/04 B32B27/10 B32B27/12 B32B27/18 B32B27/20 B32B29/04 B32B3/26 B32B3/28 B32B5/02 B32B5/16 B32B5/18 B32B5/22 B32B5/24 B32B5/28 B32B5/30 B32B9/00 B65B47/00 B65D19/22 B65D27/00 B65D65/38 B65D65/40 B65D65/46 B65D73/00 B65D75/00 B65D75/36 B65D90/00 C04B14/00 C08K3/00 C08K3/26 C08K3/34 C09D17/00 (Advanced/Invention); B32B27/20 B32B29/04 B32B9/00 (Advanced/Non-invention); B26D7/00 B27N3/08 B29C53/00 B29C65/00 B29C65/52 B32B17/06 B32B19/00 B32B27/12 B32B27/20 B32B29/00 B32B5/16 B32B9/00 B65B47/00 B65D27/00 B65D73/00 B65D75/28 B65D90/00 C04B14/00 C08K3/00 C09D17/00 (Core/Invention); B32B (Subclass/Invention)

CPC: B32B1/02 B32B9/002 B65D75/008 B32B2260/021 B32B2307/54 B32B2439/62 Y10T428/1352 Y10T428/24628 Y10T428/24942 Y10T428/24992 Y10T156/1002 Y10T428/266 B32B27/12 B32B27/18 B32B1/00 B32B5/022 B32B5/024 B32B5/028 B32B7/12 B32B27/10 B32B27/32 B32B27/36 B32B2250/40 B32B2255/02 B32B2255/12 B32B2255/26 B32B2262/08 B32B2272/00 B32B2307/31 B32B2307/5825 B32B2307/7163 B32B2553/00 B32B5/24 B32B27/04 B32B3/28 B32B5/18 B32B5/30 B32B21/12 B32B2262/062 B32B2262/067 B32B2264/104 B32B2307/412 Y10T156/10 Y10T156/1043 Y10T428/1334 Y10T428/24355 Y10T428/25 Y10T428/31645 Y10T428/31667 B32B5/02 B65D65/38 B32B2439/02 B32B2439/40 B32B2309/105 B32B3/263 B32B27/20 B32B29/04 B32B2307/718 B32B2307/72 B32B2307/732 B32B29/005

European: B32B27/04 B32B27/12 B32B27/18 B32B27/20 B32B29/04 B32B5/24

US: 1/1 106/817 106/817S 156/196 156/196S 156/221 156/221S 156/60 156/60S 206/462 220/890 229/68.1 229/68.100S 264/319 264/319S 264/339 428/141 428/174 428/174S 428/212 428/212S 428/218 428/218S 428/323 428/323P 428/337 428/337P 428/35.2 428/35.7 428/35.700P 428/441 428/441P 428/451 428/451S 524/425 524/427 524/445 524/450 53/396 53/396S 53/453



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Publication number	Publication date	Application number	Application date
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AU2010210355 AA	20100812	AU20100210355	20100209
AU2010210355 BB	20151001	AU20100210355	20100209
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CA2697171 AA	20090226	CA20082697171	20080818
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US2009045210 AA	20090219	US20070945166	20071126

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US2017225427 AA	20170810	US20170495890	20170424
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ZA201001921 A	20101124	ZA20100001921	20100317
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Priority:

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Probable Assignee: EARTH FIRST IND INC

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Agent(s): FISHER ADAMS KELLY; FISHER ADAMS KELLY PTY LTD; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; SMART AND BIGGAR; PARRY SIMON JAMES; POWELL TIMOTHY JOHN; CAMPELLO REYES; MERVE YILDIRIM; FULWIDER PATTON LLP; STETINA BRUNDA GARRED AND BRUCKER; JOSEPH C; MYERS ANDRAS LLP; FISH AND TSANG LLP; STEPHENS JOHN B; THOMAS A RUNK

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SEALING STATION

Abstract: The sealing station in a thermoforming machine for **sealing** a **cover** sheet to a bottom sheet having pocket-like depressions to hold products includes a first mold and a second mold, the second mold having cavities to accept the pocket-like depressions in the bottom sheet. The sealing station further has a vent system, which involves an inlet channel and an outlet channel in an area of each of the cavities so that, during a sealing operation, a vent space is formed between each depression in the bottom sheet and each cavity, and air entering through the respective inlet channel passes over the depression in the bottom sheet in the vent space and escapes through the respective outlet channel.

Classifications:

International (IPC 8-9): B29C65/00 B29C65/18 B29C65/30 B65B47/00 B65B51/14 B65B51/32 B65B7/16 B65B7/28

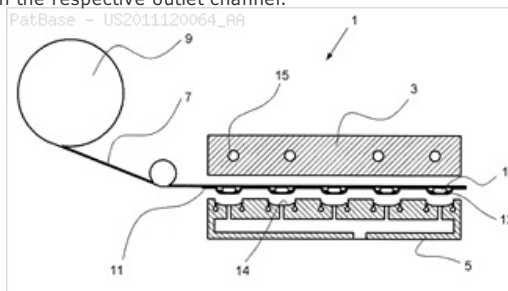
B65B9/04 (Advanced/Invention);

B29L31/00 B65B31/02 B65B51/32 (Advanced/Non-invention)

CPC: B29C65/18 B29C65/305 B29C66/003 B29C66/112 B29C66/131 B29C66/348 B29C66/53461 B29C66/81431 B29C66/81811 B29C66/849 B29L2031/7164 B65B7/164 B65B31/028 B29C66/83221 B29C66/71 B29C66/72321

European: B29C65/18 B29C66/003 B29C66/112 B29C66/131 B29C66/348 B29C66/53461 B29C66/849 B65B7/16B1 L29L31/7164 L65B31/02F2

US: 53/269 53/329 53/373.7 53/559 53/559P

**Family:**

Publication number	Publication date	Application number	Application date
DE102009047151 B3	20110728	DE200910047151	20091125
DE502010001154 D1	20121018	DE201050001154T	20101029
EP2327533 A1	20110601	EP20100189516	20101029
EP2327533 B1	20120822	EP20100189516	20101029
US2011120064 AA	20110526	US20100945165	20101112
US9021770 BB	20150505	US20100945165	20101112

Priority:

DE200910047151 20091125 EP20100189516 20101029

Probable Assignee: UHLMANN PAC SYSTEME GMBH AND CO KG

Assignee(s): (std): ENGELHARDT ULRICH ; FUCHSLOCH GUIDO ; KRAHL WOLFGANG ; UHLMANN PAC SYSTEME GMBH AND CO

Assignee(s): UHLMANN PAC SYSTEME GMBH AND CO KG

Inventor(s): (std): ENGELHARDT ULRICH ; FUCHSLOCH GUIDO ; KRAHL WOLFGANG

Agent(s): KROHER STROBEL RECHTS U PATENTANWAELTE PARTMBB; WAECHTER JOCHEN; BRINKS GILSON AND LIONE

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR