

Search query (1): [SP]: The disclosure relates to a packaging machine comprising a plurality of work stations which are operable in synchronism with one another and which define a production direction, each of said work stations including at least one movable tool member. The packaging machine is provided with a rotationally driven shaft arranged in the production direction of said packaging machine, and the shaft and each of the movable tool members of various work stations have provided between them at least one transfer mechanism for converting the movement of the shaft into the movement of the respective tool member.

Results: 20

Search history

Search [SP]: The disclosure relates to a packaging machine comprising a plurality of work stations which are operable in synchronism with one another and which define a production direction, each of said work stations including at least one movable tool member. The packaging machine is provided with a rotationally driven shaft arranged in the production direction of said packaging machine, and the shaft and each of the movable tool members of various work stations have provided between them at least one transfer mechanism for converting the movement of the shaft into the movement of the respective tool member. (Results 20)

1) Family number: 19344129 (GB706844A)

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Title: Connecting rod and crank mechanism with periodically variable crank arm particularly adapted for automatic wrapping and like machines

Abstract: Source: GB706844A 706,844. Crank mechanism. G. D. SOC. ANON. Sept. 15, 1950 [Sept. 15, 1949], No. 22782/50. Class 80 (3) A crank mechanism for providing a period of rest at a dead-centre position comprises a primary crankpin 4 on a crank 3 of a shaft 2 on which is pivoted a lever 5. The lever 5 carries at its other end a secondary crankpin 6, to which is coupled a connecting rod 10 for operating a slide 13, and a roller 8 which engages in a cam groove 9. The crank 3 in rotating drags the lever 5 behind it and the cam groove is shaped with a concave portion to vary the position of the secondary crankpin 6 to provide a period of rest of the slide 13 at the top dead-centre position, the concave portion of the cam groove being of a radius corresponding to the length of the connecting rod 10. By providing a convex radiused portion of the groove at the bottom a rest period of the slide 13 at bottom dead-centre is obtained.

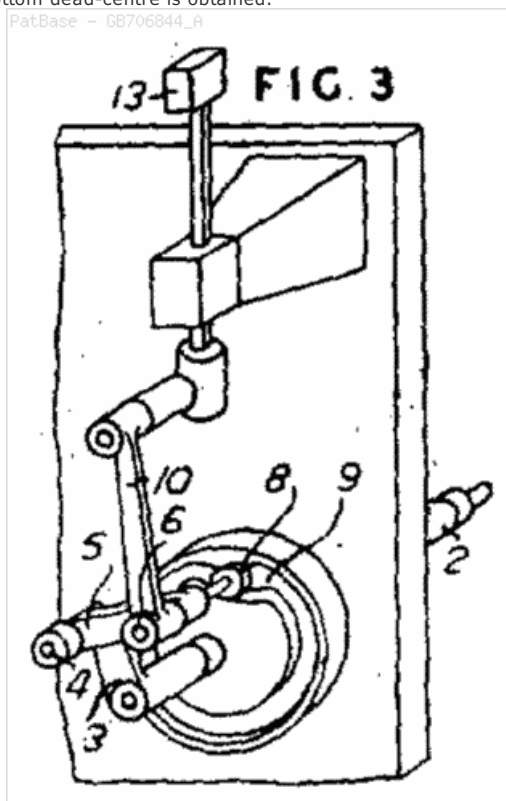
Classifications:

International (IPC 8-9): B65B65/02 (Advanced/Invention); B65B65/00 (Core/Invention)

International (IPC 1-7): F16H53/00

CPC: B65B65/02

European: B65B65/02



Family:

Publication number	Publication date	Application number	Application date
GB706844 A	19540407	GB19500022782	19500915

Probable Assignee: G D SOCIETA ANONIMA

Assignee(s): (std): G D SOCIETA ANONIMA

2) Family number: 25068262 (US3269236A)

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Title: PACKAGING MACHINE

Abstract: Source: GB994860A 994,860. Packaging-machines. BARTELT ENGINEERING CO. Inc. Sept. 17, 1963 [Dec. 12, 1962], No. 36593/63. Addition to 962,177. Heading B5D. [Also in Division B8] The accelerating mechanism which feeds bags

to a carrier in the packaging machine of the parent Specification is modified in the present Specification so that its speed is adjustable. In the embodiment shown the adjustment is provided by a pulley 350 whose effective diameter can be varied by moving a sheave 362, Fig. 2, towards or away from a fixed sheave 361 by a screw 363. The pulley 350, driven from the main drive 58, Fig. 1, of the machine drives a V-belt 355, which via a gear-box 358 and gears 174-176 drives the accelerating mechanism 164.

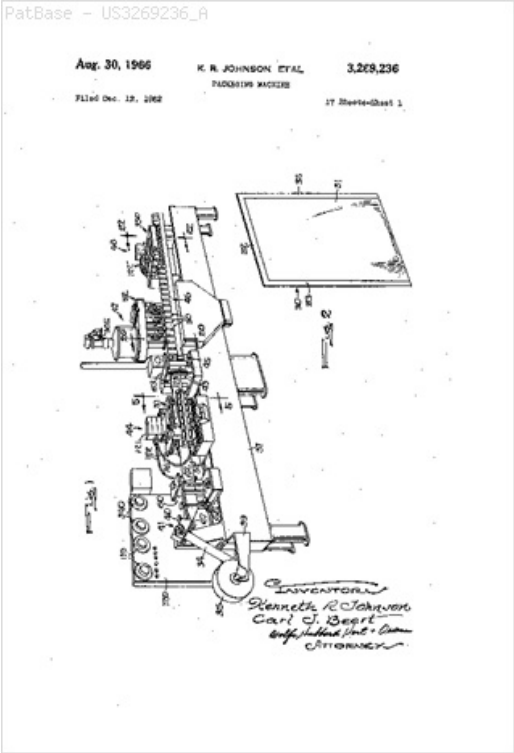
Classifications:

International (IPC 8-9): B65B51/30 B65B65/02 B65B9/08 B65B9/087 (Advanced/Invention); B65B51/26 B65B65/00 B65B9/06 (Core/Invention)

International (IPC 1-7): B65B51/30 B65B65/02 B65B9/08 B65D CPC: Y10T83/2098 Y10T83/21 Y10T83/219 Y10T83/4844 B65B9/087 B65B51/30 B65B51/306 B65B65/02

European: B65B51/30 B65B51/30C B65B65/02 B65B9/08 B65B9/087

US: 83/112 83/113 83/154 83/348



Family:

Publication number	Publication date	Application number	Application date
CH397513 A	19650815	CH19630012317	19631007
GB994860 A	19650610	GB19630036593	19630917
US3269236 A	19660830	US19620246287	19621212

Priority:

US19620246287 19621212

Probable Assignee: BARTELT ENGINEERING CO INC

Assignee(s): (std): BARTELT ENGINEERING CO INC ; BARTELT ENGINEERING COMPANY IN

Assignee(s): BARTELT ENGINEERING COMPANY INC ; BARTELT ENGINEERING CO IN

Inventor(s): (std): BEERT CARL J ; CARL J BEERT ; JOHNSON KENNETH R ; KENNETH R JOHNSON

Inventor(s): R JOHNSON KENNETH ; J BEERT CARL

3) Family number: 1060816 (US3948115A)

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Title: TRANSMISSION SYSTEM FOR A HIGH SPEED CIGARETTE PACKETING MACHINE

Abstract: Source: US3948115A A transmission system for a high speed cigarette packeting machine of the type on which the arbor is made up of a number of movable parts, comprises a train of gears that mesh with one another, a motor for operating the gears in a continuous fashion, and a plurality of shafts constantly caused to rotate by the aforementioned gears. Operating mechanisms of the machine are distributed throughout a wrapping line which extends along a sinuous, undulated path. The mechanism are connected to the rotatable shafts, from a part of which some of them take intermittent motion through Geneva mechanisms, and from the other part of which the other mechanisms take reciprocating motion through eccentric transmission devices.

Classifications:

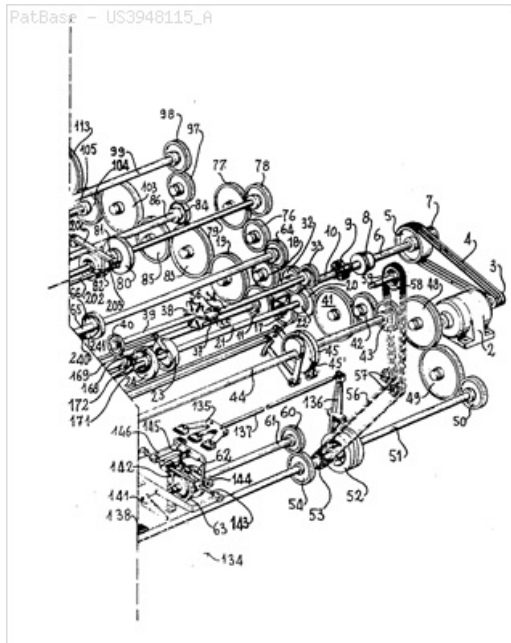
International (IPC 8-9): A24C1/14 B41F7/00 B65B19/22 B65B19/24 B65B19/26 B65B35/54 B65B65/02 F16H1/12 (Advanced/Invention); A24C1/00 B41F7/00 B65B19/00 B65B35/30 B65B65/00 F16H1/04 (Core/Invention)

International (IPC 1-7): A24C1/14 B41F7/00 B65B11/32 B65B11/58 B65B19/02 B65B19/22 B65B19/24 B65B19/26 B65B19/28 B65B35/54 B65B65/02 B65B65/04 B65D F16H1/12 F16H37/00 F16H37/12

CPC: Y10T74/19679 B65B19/226 B65B65/02

European: B65B19/22C3 B65B65/02

US: 131/283 53/148 53/154 53/234 74/421R

**Family:**

Publication number	Publication date	Application number	Application date
AT345185 B	19780911	AT19740004432	19740529
AT443274 A	19771215	AT19740004432	19740529
BR7405374 A	19760303	BR19740005374	19740628
CA1004503 A1	19770201	CA19740200839	19740523
CH580515 A	19761015	CH19740005978	19740502
CS189655 B2	19790430	CS19740004543	19740627
DD115463 C	19751005	DD19740180186	19740729
DE2425969 A1	19750213	DE19742425969	19740530
DE2425969 C2	19901011	DE19742425969	19740530
ES427517 A1	19770101	ES19740427517	19740621
FR2239383 A1	19750228	FR19740021116	19740618
FR2239383 B1	19780331	FR19740021116	19740618
GB1478147 A	19770629	GB19740029004	19740701
IN141879 A	19770430	IN1974CA01194	19740531
IT992093 A	19750910	IT19730003456	19730731
JP50042099 A2	19750416	JP19740084697	19740725
JP60010925 B4	19850322	JP19740084697	19740725
NL7410135 A	19750204	NL19740010135	19740726
PL94251 P	19770730	PL19740173116	19740730
SE7409796 A	19750203	SE19740009796D	19740730
US3948115 A	19760406	US19740476306	19740604

Priority:

IT19730003456 19730731

Probable Assignee: GD SPA**Assignee(s):** (std): GD SPA

Assignee(s): G D SPA IT ; G D SPA ; G D SOCIETA PER AZIONI TE BOLOGNA ITALIE ; GD SOC PER AZIONI ; SERAGNOLI ENZO ; GD SOCIETA PER AZIONI ; GDSOCIETA PER AZIONI ; GDSOCIETA PER AZIONI IT ; GD SOCIETA PER AZIONI TE BOLOGNA ITALIE ; G D IT SPA ; G D S P A BOLOGNA IT ; G D SOC IN ACCOMANDITA SEMPLI CE DI ENZO SERAGNOLI E ARI ; G D SOCIETA PER AZIONI ; G D SOCIETA PER AZIONI IT

Inventor(s): (std): SERAGNOLI E ; SERAGNOLI ENZO**Inventor(s):** SERAGNOLI ENZO BOLOGNA IT ; SERAGNOLI ENZO IT ; SERAGUNOORI ENZO**4) Family number: 1388103 (US4019307A)**

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Title: WELDING AND CUTTING DEVICE FOR PACKAGING MACHINES

Abstract: Source: US4019307A In a packaging machine of the kind in which a tubular film is wrapped around the articles to be packaged as they are advanced over a conveyor belt and the film is heat-welded and severed, the improvement consisting in that the welding and the counter-welding rods are vertically reciprocated between respective inactive positions and an approached position whereat both rods cooperate to effect the welding and the film-severing. The height adjustment to allow for different heights of the articles to be packaged is thus greatly facilitated and the film pull reduced.

Classifications:**International (IPC 8-9):** B65B51/14 B65B51/30

B65B61/06 (Advanced/Invention);

B65B51/26 B65B61/04 (Core/Invention)

International (IPC 1-7): B26F3/08 B29C27/02 B65B51/10 B65B51/14

B65B51/26 B65B51/30 B65B61/06 B65B9/12

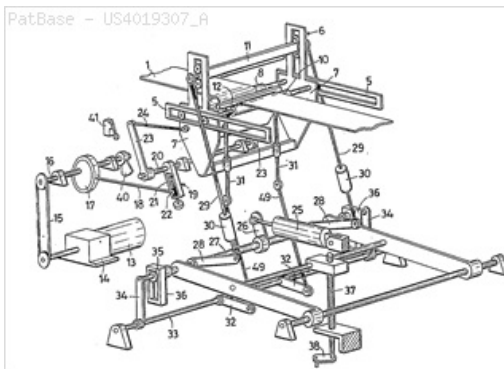
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B29C65/222 B29C65/743 B29C65/7433 B29C66/1122

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B29C66/8223 B29C66/8242

European: B29C66/8225 B65B51/30B B65B61/06

**Family:**

Publication number	Publication date	Application number	Application date
CA1046395 A1	19790116	CA19760243902	19760116
DE2601482 A1	19760722	DE19762601482	19760116
DE2601482 C2	19870122	DE19762601482	19760116
FR2297773 A1	19760813	FR19760001118	19760116
FR2297773 B1	19820319	FR19760001118	19760116
GB1496312 A	19771230	GB19760001582	19760115
IT1028456 A	19790130	IT19750019387	19750117
NL183639 B	19880718	NL19760000448	19760116
NL183639 C	19881216	NL19760000448	19760116
NL7600448 A	19760720	NL19760000448	19760116
US4019307 A	19770426	US19760649578	19760116

Priority:

IT19750019387 19750117

Probable Assignee: SITUND HOLDINGS S A**Assignee(s):** (std): SITMA INT SA ; SITMA INTERNATIONAL SA ; SITUNO HOLDING SA ; SITUND HOLDINGS S A**Assignee(s):** TASSI LAMBERTO ; TOSARELLI GIANNI ; SITUNO HOLDING TE LUXEMBURG SA ; BALLESTRAZZI ARIS ; SITUNO HOLDING S A ; SITUNO HOLDING S A TE LUXEMBURG ; SITMA INT TE LUXEMBURG LUXEMBURG SA ; SITMA INTERNATIONAL S A ; SITMA INTERNATIONAL S A LUXEMBURG LUXEMBOURG LU ; SITMA INTERNATIONAL S A TE LUXEMBURG LUXEMBURG**Inventor(s):** (std): BALLESTRAZZI ARIS ; TASSI LAMBERTO ; TOSARELLI GIANNI ; VIGNOLA MODENA ITALIEN**Inventor(s):** TOSARELLI GIANNI VIGNOLA MODENA IT**5) Family number: 7984780 (US4233801A)**

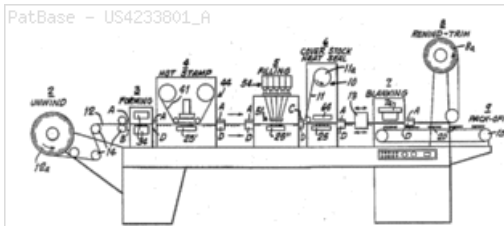
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Title: Apparatus and process for the manufacture of disposable thermometers

Abstract: Source: US4233801A Apparatus and method for making disposable thermometers of a laminated construction containing an array of liquid-crystal droplets, requiring precise registration of the stretchable substrate layer, the droplets and the temperature markings, wherein the substrate film web from which the thermometers are formed is provided with wide margins for handling in the forming machine to provide strength and avoid stretching and heat deformation. The substrate film web is precisely directed through the machine by suitable guide members and is held at the marking, filling, and heat-seal processing stations by suitable vacuum chucks, the chuck at the heat-sealing station being particularly adapted for cooling the web to avoid unwanted heating of the crystal droplets. A cam-operated transporter is used for precisely indexing the movement of the film.

Classifications:**International (IPC 8-9):** G01K11/16 (Advanced/Invention); G01K11/00 (Core/Invention)**International (IPC 1-7):** B65B47/02**CPC:** G01K11/165**European:** G01K11/16B**US:** 374/E11.022 53/131.5 53/453 53/559

PatBase - US4233801_A

**Family:**

Publication number	Publication date	Application number	Application date
US4233801 A	19801118	US19780929402	19780731

Priority:

US19780929402 19780731

Probable Assignee: ASHLEY BUTLER INC**Assignee(s):** (std): ASHLEY BUTLER INC**Inventor(s):** (std): WATT WILLIAM E R**6) Family number: 10181163 (US4730761A)**

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Title: CUTTING FLEXIBLE FORMED PRODUCTS FROM FOAM RETAINING SHEET**Abstract:** Source: US4730761A A method for cutting flexible formed shell product from a flexible plastic foam sheet. In the

method, a foam shell formed in the sheet is drawn into and positioned in a die unit lower cavity and the die assembly is clamped together. A cutting die unit having dual curved serrated knife elements then descends and severs the formed shell from the sheet at all locations except for two short segments located at opposite ends of the formed shell. Then as a separate step, the partly severed formed shell is punched out from the flexible foam sheet, so as to provide multiple formed products. The products are usually formed as multiple units oriented in an end-to-end relationship in the foam sheet and which are simultaneously severed from the sheet. Cutting die apparatus adapted for cutting the formed products from the foam sheet is also disclosed.

Classifications:

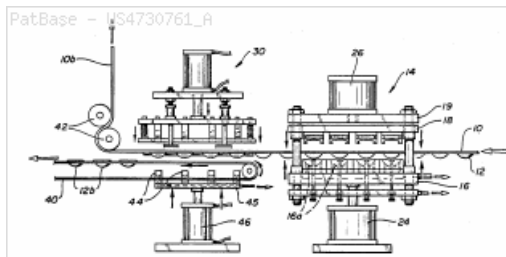
International (IPC 8-9): B26D7/18 B26F1/40 (Advanced/Invention); B26D7/18 B26F1/38 (Core/Invention)

International (IPC 1-7): B26D9/00 B26F3/00

CPC: B26F1/40 B26D7/1863 Y10T83/2079 Y10T83/5669 Y10T83/748 Y10T225/12 Y10T225/321 Y10T225/329 Y10T225/371

European: B26D7/18E3 B26F1/40

US: 225/103 225/2 225/96 225/97 53/559 83/103 83/374 83/375 83/451



Family:

Publication number	Publication date	Application number	Application date
US4730761 A	19880315	US19860897463	19860815

Priority:

US19860897463 19860815

Probable Assignee: SCA INCONTINENCE CARE NORTH AMERICA INC

Assignee(s): (std): PERSONAL PRODUCTS CO

Assignee(s): PERSONAL PRODUCTS COMPANY ; SCA INC ; SCA INVESTMENT CO INC ; SCA INCONTINENCE CARE NORTH AMERICA INC ; MCNEIL PPC INC

Inventor(s): (std): SPANO JOHN D

7) Family number: 4397768 (US5170611A)

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Title: Web supply mechanism for an indexing motion packaging machine

Abstract: Source: US5170611A An apparatus and method for supplying web material to an indexing advancement mechanism, such as may be associated with a packaging machine which forms the web into a component of a package. The web is supplied from a supply roll to an unwind mechanism, which continuously unwinds the web during indexing advancement of the web by the advancement mechanism of the packaging machine. The unwind mechanism includes an unwind motor which is operable to vary the rate at which the web is unwound from the supply roll. Tension is maintained in the web upstream of the advancement mechanism by a take-up mechanism interposed between the unwind mechanism and the advancement mechanism. The unwind motor speed is controlled by the position of a movable arm associated with the take-up mechanism.

Classifications:

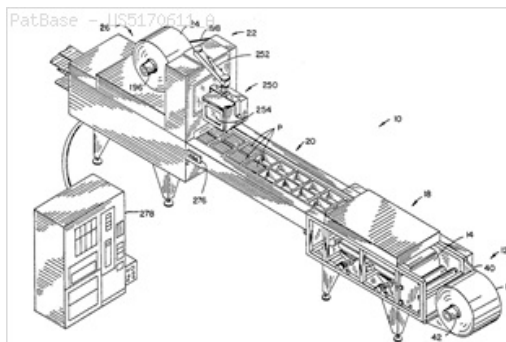
International (IPC 8-9): B26D5/00 B26D7/26 B65B41/14 B65B43/08 B65B47/00 B65B47/10 (Advanced/Invention); B26D5/00 B26D7/26 B65B41/00 B65B47/00 (Core/Invention)

International (IPC 1-7): B26B5/00 B26D7/26 B65B41/12 B65B41/14 B65B43/08 B65B47/00 B65B47/02 B65B47/10

CPC: B65H2801/81 B65B59/04 B65B47/00 B26D5/00 B26D5/08 B26D7/2614 B65B41/14

European: B26D5/00 B26D7/26B B65B41/14 B65B47/00 L26D5/08 L65H801/81

US: 226/44 5/345.3 53/453 53/559 53/579



Family:

Publication number	Publication date	Application number	Application date
CA2075804 AA	19920811	CA19912075804	19911210
CA2075804 C	20000919	CA19912075804	19911210
DE69101374 D1	19940414	DE19916001374	19911210
DE69101374 T2	19940616	DE19916001374T	19911210
DK0515661 T3	19940815	DK19910902856T	19911210
EP0515661 A1	19921202	EP19920902856	19920630
EP0515661 A1	19921202	EP19920902856	19911210
EP0515661 B1	19940309	EP19920902856	19920630
EP0515661 B1	19940309	EP19920902856	19911210
US5170611 A	19921215	US19910753218	19910830
US5205110 A	19930427	US19900626278	19901212
US5205110 C1	20010515	US19900626278	19901212
WO9210405 A2	19920625	WO1991US09279	19911210
WO9210405 A3	19920917	WO1991US09279	19911210

Priority:

US19900626278 19901212 US19900626278 19901212 WO1991US09279 19911210
WO1991US09279 19911210 US19910753218 19910830 US19910753219 19910830

Probable Assignee: ALKAR RAPIDPAK INC

Assignee(s): (std): BUCHKO RAYMOND G ; DEC INT ; RAPIDPAK INC

Assignee(s): FIRSTAR BANK MILWAUKEE NA SPECIAL LOAN GROUP ; FIRSTAR BANK MILWAUKEE NA ; DEC INTERNATIONAL INC ; RAPIDPAK INC APPLETON WIS US ; RAPIDPAK INC APPLETON WIS ; DEC INT INC ; RAPIDPAK INC A CORP OF WI ; HALGREN JOHN A ; WELLS RGO BANK WISCONSIN NATIONAL

ASSOC FA ; WELLS FARGO BANK WISCONSIN NATIONAL ASSOCIATION AS ; WELLS FARGO BANK WISCONSIN NATIONAL ASSOCIATION CO ; WELLS FARGO BANK WISCONSIN NATIONAL ASSOCIATION COLLATERAL AGENT AS ; ALKAR INC ; ALKAR RAPIDPAK INC

Inventor(s): (std): BUCHKO RAYMOND G ; HALGREN JOHN A ; HALGREN JOHN ; BUCHKO RAYMOND

Inventor(s): HALGREN JOHN A NEENAH WI 54956 US ; HALGREN JOHN A NEENAH WI 54956 ; BUCHKO RAYMOND G APPLETON WI 54911 US ; BUCHKO RAYMOND G APPLETON WI 54911

Agent(s): BORDEN LADNER GERVAIS LLP

Designated states: AT BE CA CH DE DK ES FR GB GR IT LU MC NL SE

8) Family number: 15083386 (US5644895A)

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Title: PACKAGING ARRANGEMENT

Abstract: Source: US5644895A A packaging arrangement for packaging products such as contact lenses in packages such as blister packs. The packaging arrangement includes an intermittently indexed, linearly driven endless conveyor which includes a plurality of identical support pallets, equally spaced apart along the endless conveyor. Each support pallet is designed to support and align an array of individual package bases. The arrangement is such that each support pallet with an array of individual package bases thereon is sequentially stopped at a plurality of spaced work stations along the endless conveyor.

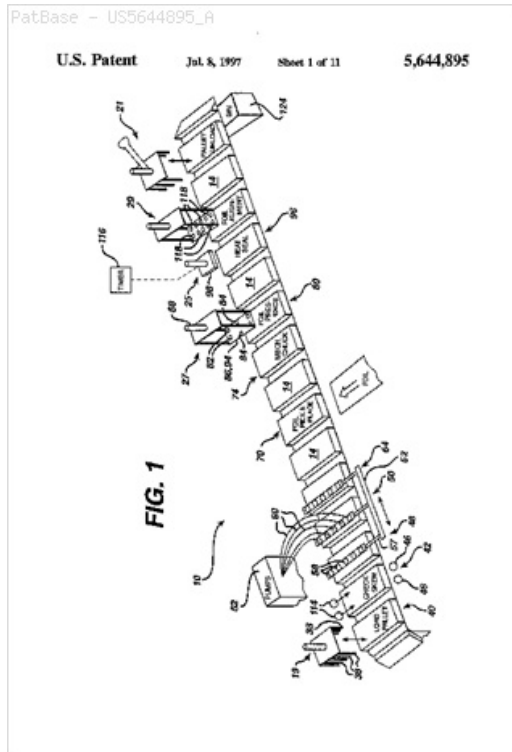
Classifications:

International (ipc 8-9): B29C65/00 B29C65/18 B65B11/50 B65B11/52 B65B25/00 B65B35/38 B65B35/46 B65B43/52 B65B5/06 B65B51/10 B65B55/22 B65B57/02 B65B7/28 (Advanced/Invention); B29C65/18 (Advanced/Non-invention); B29C65/00 B65B11/50 B65B25/00 B65B35/30 B65B43/42 B65B5/06 B65B51/10 B65B55/00 B65B57/02 B65B7/28 (Core/Invention); B29C65/18 (Core/Non-invention)

International (ipc 1-7): B65B11/50 B65B11/52 B65B23/00 B65B35/26 B65B35/36 B65B35/38 B65B35/46 B65B35/56 B65B43/52 B65B43/54 B65B47/00 B65B5/06 B65B51/10 B65B55/18 B65B55/22 B65B57/02 B65B7/28 B65B9/04 B65D81/00 B65G49/05
CPC: B29C66/91212 B29C66/91231 B29C66/92211 B29C66/8163 B29C66/944 B29C66/949 B65B7/2878 B65B25/008 B65B43/52 B65B57/02 B29C66/91431 B29C66/91421 B29C66/919 B29C66/961 B29C65/18 B29C66/71 B29C65/787 B29C66/112 B29C66/131 B29C66/24221 B29C66/8322 B29C66/849 B29L2011/0041 B29L2031/7164 B29C66/53461 B29C66/72321

European: B29C66/8163 B29C66/92211 B65B25/00L B65B43/52 B65B57/02 B65B7/28F4 L29C65/18 L29C66/534 L29C66/91421 L29C66/919 L29C66/944 L29C66/949

US: 53/249 53/282 53/53 53/55 53/559 53/64 53/75



Family:

Publication number	Publication date	Application number	Application date
AT188183 E	20000115	AT19960303023T	19960430
AU199650842 A1	19961114	AU19960050842	19960423
AU710032 B2	19990909	AU19960050842	19960423
CA2175323 AA	19961102	CA19962175323	19960429
CA2175323 C	20070731	CA19962175323	19960429
DE69605844 D1	20000203	DE19966005844	19960430
DE69605844 T2	20000629	DE19966005844T	19960430
EP0741078 A2	19961106	EP19960303023	19960430
EP0741078 A3	19970604	EP19960303023	19960430
EP0741078 B1	19991229	EP19960303023	19960430
JP3773986 B2	20060510	JP19960142078	19960430
JP9110007 A2	19970428	JP19960142078	19960430
MX9601612 A1	19970731	MX19960001612	19960430
SG85078 A1	20011219	SG19960009659	19960502
TW393420 B	20000611	TW19960111438	19960919
US5644895 A	19970708	US19950431891	19950501
US5848514 A	19981215	US19960738374	19961025

Priority:

CA19962175323 19960429 CA19962175323 19960429 US19960738374 19961025
US19950431891 19950501

Probable Assignee: JOHNSON AND JOHNSON VISION PROD

Assignee(s): (std): JOHNSON AND JOHNSON VISION PRODUCTS INC ; JOHNSON AND JOHNSON VISION CARE INC ; JOHNSON AND JOHNSON ; JOHNSON AND JOHNSON VISION PROD

Assignee(s): JOHNSON AND JOHNSON VISION PROD INC ; KITAGAWA HIROKAZU ; ABRAMS RICHARD WAYNE ; EDWARDS RUSSELL JAMES ; FUNO MASAO ; HOLLEY WILLIAM EDWARD ; HOOD CHARLES R ; IMAI KIYOSHI

Inventor(s): (std): ABRAMS RICHARD WAYNE ; CHARLES R HOOD ; CHIYAARUZU AARU FUTSUDO ; EDWARDS RUSSELL J ; EDWARDS RUSSELL JAMES ; FUNO MASAO ; HIROKAZU KITAGAWA ; HOLLEY WILLIAM EDWARD ;

HOLLEY WILLIAM EDWARD AND ; HOOD CHARLES R ; IMAI KIYOSHI ; KITAGAWA HIROKAZU ;
KIYOSHI IMAI ; MASAO FUNO ; RATSUSERU JIEEMUSU EDOWAAZU ; RICHARD WAYNE ABRAMS ;
RICHIYAADO UEIN ABURAMUSU ; RUSSELL JAMES EDWARDS ; UIRIAMU EDOWAADO HOORII ;
WILLIAM EDWARD HOLLEY

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; FPA PATENT
ATTORNEYS PTY LTD; OGILVY RENAULT LLP SENCRL SRL

Designated states: AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE

9) Family number: 10101121 (US6000327A)

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Title: Work conveyor of transfer press

Abstract: Source: US6000327A PCT No. PCT/JP96/03217 Sec. 371 Date Apr. 30, 1998 Sec. 102(e) Date Apr. 30, 1998 PCT Filed Nov. 1, 1996 PCT Pub. No. WO97/16268 PCT Pub. Date May 9, 1997A transfer press, in which a work carrying-in or delivery apparatus (10) for feeding a work (5) into a press body (1), is provided at the upstream side of the press body. A transfer feeder is provided for sequentially transporting works to respective processing stations (W1, W2, W3,...) of the press body. A work transporting apparatus of the transfer press includes a cam shaft (16) which is provided at an upper portion on an upstream side of the press body and is rotatable by driving power taken from a slide driving mechanism of the press body. A loader cam (112e, 112f) and a feeding cam (13a) are mounted on the cam shaft. And, a rocking lever (112a) and a feeding lever (13b) are pivotably mounted at an upper portion on an upstream side of the press body. The driving mechanism for the work carrying-in apparatus includes the loader cam and the rocking lever, and the feeding mechanism for the transfer feeder includes the feeding cam and the feeding lever. The work carrying-in apparatus is driven in the feeding direction by rocking the rocking lever by the loader cam, and the transfer feeder is driven in the feeding direction by rocking the feeding lever by the feeding cam.

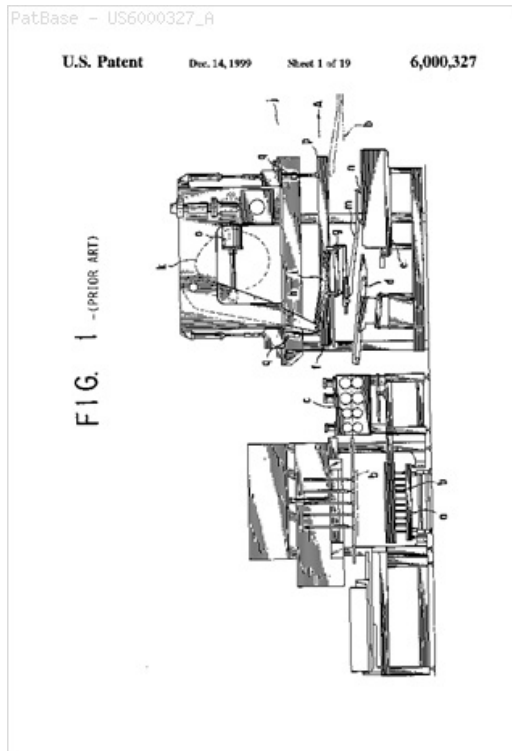
Classifications:

International (IPC 8-9): B21D43/05 B30B13/00 (Advanced/Invention);
B21D43/05 (Advanced/Non-invention);
B21D43/05 B30B13/00 (Core/Invention)

International (IPC 1-7): B21D43/05 B30B13/00 B30B15/30
CPC: B21D43/05 B21D43/0

European: B21D43/05

US: 100/207 198/621.1 414/752 72/405.1



Family:

Publication number	Publication date	Application number	Application date
DE19681635 B4	20040930	DE19961081635	19961101
DE19681635 T	19981029	DE19961081635T	19961101
DE19681635 T1	19981029	DE19961081635T	19961101
JP3661954 B2	20050622	JP19950285688	19951102
JP3745423 B2	20060215	JP19950285741	19951102
JP9122787 A2	19970513	JP19950285741	19951102
JP9122788 A2	19970513	JP19950285688	19951102
KR100284736 B1	20010315	KR19980703153	19980430
KR19990067200 A	19990816	KR19980703153	19961101
US6000327 A	19991214	US19980066446	19980430
WO9716268 A1	19970509	WO1996JP03217	19961101

Priority:

JP19950285688 19951102 JP19950285741 19951102 WO1996JP03217 19961101

Probable Assignee: KOMATSU LTD

Assignee(s): (std): KOMATSU MFG CO LTD ; MORIYASU TAKASHI ; KAWAMOTO KIICHIROU ; NISHIDA KENJI ; NODA SHIGEKAZU

Assignee(s): KOMATSU LTD ; KOMATSU LTD TOKIO TOKYO ; KOMATSU LTD TOKIO TOKYO JP

Inventor(s): (std): MORIYASU TAKASHI ; NISHIDA KENJI ; KAWAMOTO KIICHIROU ; NODA SHIGEKAZU ; NODA JUICHI

Inventor(s): NODA SHIGEKAZU KOMATSU ISHIKAWA JP ; KAWAMOTO KIICHIROU KOMATSU ISHIKAWA JP ;
MORIYASU TAKASHI KOMATSU ISHIKAWA JP ; NISHIDA KENJI KOMATSU ISHIKAWA JP

Designated states: CN DE KR US

Title: Form-fill-seal packaging machine

Abstract: Source: US5870887A A form-fill-seal packaging machine in which a packaging material (F) is sealed crosswise by bringing a pair of sealing jaws (41, 42) into contact with each other. The sealing jaws (41, 42) are caused to follow the packaging material along the packaging material transfer direction while they are kept in the same condition, to cause the sealing jaws to take contacting and following motions by means of a single drive source. The rotation of a motor (25) is converted into a linear reciprocating motion along the transfer route of the packaging material through a cam mechanism comprised of a circular cam plate (24) and an arm (33) and the converted reciprocating motion is transmitted to a block (30). Similarly, the rotation of the motor (25) is converted into a linear reciprocating motion in a direction intersecting the packaging material transfer route at right angles through vertically elongated cam plates (50, 50) and the converted reciprocating motion is transmitted to blocks (37, 38). Thus, by supporting these blocks (37, 38) by the block 30, it is possible to allow the sealing jaws (41, 42) to take elevating and contacting motions using the single motor (25).

Classifications:

International (IPC 8-9): B65B51/10 B65B51/30 B65B65/04 B65B9/20 (Advanced/Invention);

B65B51/10 B65B51/26 B65B65/00 B65B9/10 (Core/Invention)

International (IPC 1-7): B65B51/10 B65B51/30 B65B65/04 B65B9/20

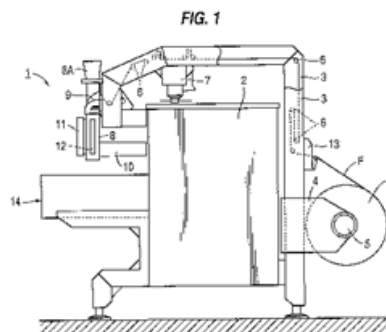
CPC: B65B51/30 B65B65/04

European: B65B51/30 B65B65/04

US: 53/551 53/552

PatBase - US5870887_R

U.S. Patent Feb. 16, 1999 Sheet 1 of 5 5,870,887



Family:

Publication number	Publication date	Application number	Application date
DE69737826 D1	20070802	DE19976037826	19971219
DE69737826 T2	20080306	DE19976037826T	19971219
EP0850839 A1	19980701	EP19970310372	19971219
EP0850839 B1	20070620	EP19970310372	19971219
GB9626785 A0	19970212	GB19960026785	19961223
JP10181705 A2	19980707	JP19970250045	19970829
US5870887 A	19990216	US19970996428	19971222

Priority:

GB19960026785 19961223

Probable Assignee:

ISHIDA CO LTD

Assignee(s): (std):

ISHIDA SEISAKUSHO

Assignee(s):

ISHIDA CO ; ISHIDA CO LTD

Inventor(s): (std):

BENNETT ROBERT ; ROBERT BENNETT

Designated states:

CH DE FR GB IT LI NL

Title: Multistation press

Abstract: Source: US6453718B A multistation press, particularly a suction device press, for machining sheet metal parts is provided for the successive machining of workpieces in several stages. Several press stations are arranged behind one another so that workpieces pass through the stations successively. At least one transfer device transports the workpiece. A common driving device for all press stations has a drive shaft divided into shaft sections. At least one press station is assigned to each shaft section. Slides are driven by the drive shaft and are assigned to one press station, respectively. An adjustable coupling is provided between two successively arranged shaft sections for adjusting a specific phase shift between two successive press stations.

Classifications:

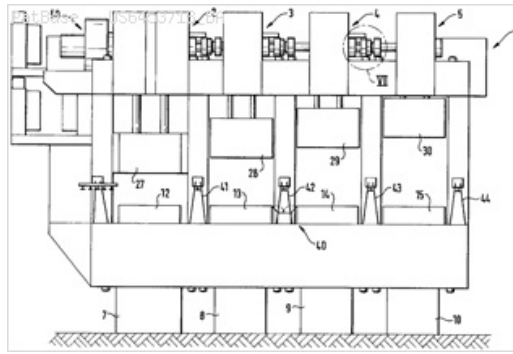
International (IPC 8-9): B21D43/05 B30B15/00 (Advanced/Invention); B21D43/05 B30B15/00 (Core/Invention)

International (IPC 1-7): B21D43/05 B30B1/26 B30B15/00 B30B15/12

CPC: B21D43/05

European: B21D43/05

US: 100/207 100/209 72/405.02 72/405.1



Family:

Publication number	Publication date	Application number	Application date
DE19654473 A1	19980702	DE19961054473	19961227
DE59711639 D1	20040624	DE19975011639	19971212
EP0850752 A1	19980701	EP19970121901	19971212
EP0850752 B1	20040519	EP19970121901	19971212
US6453718 BA	20020924	US19970998777	19971229

Priority:

DE19961054473 19961227 DE19975011639 19971212

Probable Assignee: SCHULER PRESSEN GMBH AND CO

Assignee(s): (std): SCHULER PRESSEN GMBH AND CO

Assignee(s): SCHULER PRESSEN GMBH AND CO 73033 GOEPPINGEN DE ; SCHULER PRESSEN GMBH AND CO KG ; SCHULER PRESSEN GMBH

Inventor(s): (std): BRANDSTETTER RUDI ; BRANDSTETTER RUDI DIPL ING ; METZGER KURT ; METZGER KURT DIPL ING ; SCHMEINK MARTIN ; VEIT STEFAN

Inventor(s): VEIT STEFAN 73072 DONZDORF DE ; SCHMEINK MARTIN 73079 SUESEN DE ; METZGER KURT DIPL ING FH 73035 GOEPPINGEN DE ; BRANDSTETTER RUDI DIPL ING FH 73099 ADELBERG DE

Designated states: DE ES FR GB IT SE

12) Family number: 12195509 (US6050124A)

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Title: Transfer feeder having two different drive modes and method of its operation

Abstract: Source: US6050124A A transfer feeder (2) that is operable in a mechanical synchronism with a press machine (1) to prevent an interference of a movable part in the press machine (1) and a movable part in the transfer feeder (2) is disclosed that comprises a feed drive means (10) having a feed lever (10a) adapted to be swung for moving a group of feed carriers (6) or a transfer bar that carries workpieces in a workpiece feed direction. The feed drive means (10) is further provided with a cam drive means (12) comprising a feed cam (12b) adapted to be rotated in a mechanical synchronism with an operation of the press machine (1) by power taken out of the press machine with a power takeout means (14). The feed cam (12b) and the feed lever (10a) are associated with a switching means (19) for coupling them together and decoupling them each other. A servo drive means (13) comprising a servo controllable feed motor (21) is also provided to swing the feed lever (10a). A clutch (24) is disposed between the feed motor (21) and the feed lever (10a) for coupling them together and decoupling them each other. In the transfer feeder (2) so constructed, the switching means (19) and the clutch (24) are actuated to render one of cam drive means (12) and the servo drive means (13) selectively operable to swing the feed lever (10a).

Classifications:

International (IPC 8-9): B21D43/00 B21D43/05

B30B13/00 (Advanced/Invention);

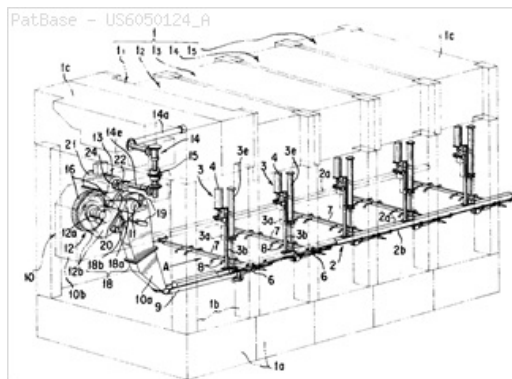
B21D43/00 B21D43/05 B30B13/00 (Core/Invention)

International (IPC 1-7): B21D43/00 B21D43/05 B30B13/00

CPC: B21D43/05 B21D43/055 B30B15/146

European: B21D43/05 B21D43/05B

US: 100/207 198/621.1 198/621.3 72/405.1 72/405.13 72/405.16



Family:

Publication number	Publication date	Application number	Application date
DE19902998 A1	19990805	DE19991002998	19990126
DE19902998 B4	20070405	DE19991002998	19990126
JP11221635 A2	19990817	JP19980023068	19980204
JP11221636 A2	19990817	JP19980023050	19980204
JP3821333 B2	20060913	JP19980023050	19980204
JP3821334 B2	20060913	JP19980023068	19980204
US6050124 A	20000418	US19990232531	19990118

Priority:

JP19980023050 19980204 JP19980023068 19980204

Probable Assignee: KOMATSU LTD

Assignee(s): (std): KOMATSU MFG CO LTD

Assignee(s): KOMATSU LTD ; KOMATSU LTD TOKIO TOKYO JP
Inventor(s): (std): SHIROZA KAZUHIKO
Inventor(s): SHIROZA KAZUHIKO KOMATSU ISHIKAWA JP

13) Family number: 28280138 (US2002157355A)

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Title: A METHOD AND AN APPARATUS FOR FORMING BLISTERS IN A BAND FOR MAKING BLISTER PACKS IN BLISTERING MACHINES

Abstract: Source: US2002157355A According to a method for forming a blister band (1) for blister packs (10) in blistering machines (M), a band (1) of heat-formable material is moved stepwise through a preheating station (5), a forming station (6), where a regular series of blisters (20) is formed, a filling station (8), where which said blisters (20) are filled with relative articles, a sealing station (9), in which the blister band is sealed with a covering band (11), and a cutting off station (13), where the blister band is cut into single blister packs (10). The method includes gradual heating, during the stepwise movement of the band (1) in the preheating station (5), of respective areas (24a,24b,24c) of the band (1). The areas (24a,24b,24c) are distributed regularly within a cold grid-like zone and have extension suitably bigger than the extension of the blisters (20) made in the region of the heated areas (24a,24b,24c).

Classifications:

International (ipc 8-9): B29C51/10 B29C51/42 B65B47/02

B65B61/24 B65B9/04 (Advanced/Invention);

B29L31/00 (Advanced/Non-invention);

B29C51/10 B29C51/26 B65B47/00 B65B61/00

B65B9/00 (Core/Invention)

International (ipc 1-7): B29C51/10 B29C51/42 B29L31/00

B65B31/00 B65B47/00 B65B47/02 B65B61/24 B65B9/04

CPC: B29C51/425 B29B13/023 B29C51/421 B29C65/18

B29C66/83411 B29C66/83413 B29C66/83511 B29L2031/7164

B65B9/045 B65B47/02 B29C66/81433 B29C65/02 B29C66/53461

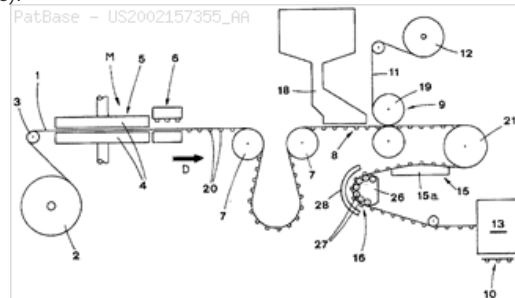
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B29C66/83413 B65B47/02 B65B9/04C L29C65/18 L29C66/534

L29C66/83411 L29C66/83413 L29C66/83511 L29L31/7164

US: 53/329.3 53/329.4 53/452 53/453 53/453P 53/478 53/559 53/559S



Family:

Publication number	Publication date	Application number	Application date
DE60029199 D1	20060817	DE20006029199	20001227
DE60029199 T2	20070516	DE20006029199T	20001227
EP1159199 A1	20011205	EP20000981570	20001227
EP1159199 B1	20060705	EP20000981570	20001227
IT1311383 B1	20020312	IT1999BO00720	19991230
ITBO990720 A0	19991230	IT1999BO00720	19991230
ITBO990720 A1	20010702	IT1999BO00720	19991230
JP2003519052 T2	20030617	JP20010550112T	20001227
US2002157355 AA	20021031	US20010913437	20010814
US6679031 BB	20040120	US20010913437	20010814
WO0149568 A1	20010712	WO2000IB01967	20001227

Priority:

IT1999BO00720 19991230 WO2000IB01967 20001227

Probable Assignee: IMA INDUSTRIA MACCHINE AUTOMATICHE SPA

Assignee(s): (std): I M A IND MACCHINE AUTOMATIC ; TAMPIERI PIERLUIGI ; IMA SPA

Assignee(s): IMA SAFE S R L ; I M A INDUSTRIA MACCHINE AUTOMATIC ; I M A INDUSTRIA MACCHINE AUTOMATICHE S P A ; I M A INDUSTRIA MACCHINE AUTOMATICHE S P A OZZANO DELL EMILIA ; IMA INDUSTRIA MACCHINE AUTOMATIC ; IMA INDUSTRIA MACCHINE AUTOMATICHE SPA

Inventor(s): (std): TAMPIERI LUIGI ; TAMPIERI PIERLUIGI

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT JP LU MC NL PT SE TR US

14) Family number: 28516584 (US2004244339A)

© PatBase

Title: METHOD AND MACHINE FOR PRODUCING BLISTER PACKS

Abstract: Source: US2004244339A A machine (M) for producing blister packs (10) includes unrolling means (3,7,21) for unrolling a band of heat-formable material from a bobbin (2) and for feeding the band (1) along a predetermined path (P) extending through subsequent stations (5,6,30,8,9,13), in which the band (1) is processed. The above-mentioned stations include a heating station (5), where the band (1) of heat-formable material is heated, a forming station (6), where a plurality of blisters (20) are formed on the band (1), a filling station (8), where the blisters (20) are filled with products, a sealing station (9), where the blister band (1a) is closed with a sealing band (11), and a cutting station (13), where the closed blister band (1a) is cut into blister packs (10). A further heating station (30) is provided for heating the blister band (1a) along the path (P) upstream of the filling station (8), so as to heat the band (1a) to cause a thermal stabilization treatment of the blister band (1a).

Classifications:

International (ipc 8-9): B65B47/02 B65B9/04 (Advanced/Invention);

B65B47/00 B65B9/00 (Core/Invention)

International (ipc 1-7): B29C71/02 B65B47/00 B65B47/02

B65B9/04

CPC: B65B9/045 B29C65/18 B29C66/83411 B29C66/83413

B29C66/83511 B29L2031/7164 B65B47/02 B29C65/02

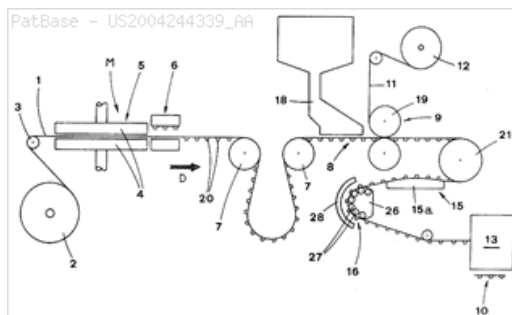
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L29C65/18 L29C66/534 L29C66/83411 L29C66/83413 L29C66/83511

L29L31/7164

US: 264/235 53/453 53/453P 53/559



Family:

Publication number	Publication date	Application number	Application date
DE60209032 D1	20060413	DE20026009032	20021024
DE60209032 T2	20060914	DE20026009032T	20021024
EP1438231 A1	20040721	EP20020781463	20021024
EP1438231 B1	20060201	EP20020781463	20021024
ES2256559 T3	20060716	ES20020781463T	20021024
ITBO20010650 A1	20030428	IT2001BO00650	20011026
JP2005506254 T2	20050303	JP20030538003T	20021024
JP4339117 B2	20091007	JP20030538003T	20021024
US2004244339 AA	20041209	US20040492585	20040414
US6941729 BB	20050913	US20020492585	20021024
WO03035478 A1	20030501	WO20021B04427	20021024

Priority:

IT2001BO00650 20011026 WO20021B04427 20021024

Probable Assignee: IMA INDUSTRIAL MACCHINE AUTOMATICHE SPA

Assignee(s): (std): DAL POZZO CORRADO ; IMA SPA

Assignee(s): IMA INDUSTRIA MACCHINE AUTOMATICHE SPA ; IMA INDUSTRIAL MACCHINE AUTOMATICHE SPA ; I M A INDUSTRIA MACCHINE AUTOMATICHE S P A ; I M A INDUSTRIA MACCHINE AUTOMATICHE S P A OZZANO DELL EMILIA ; IMA INDUSTRIA MACCHINE AUTOMATICHE S P A

Inventor(s): (std): DAL POZZO CORRADO

Agent(s): COLEMAN SUDOL; SAPONE PC; SAPONE WILLIAM J; WILLIAM J

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE 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 LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

15) Family number: 32135317 (CN2695356Y)

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Title: Cam main shaft driving device

Abstract: Source: CN2695356Y The utility model belongs to the field of the packing machinery, particularly a cam driving device which executes each mechanical action in the packaging process of a horizontal automatic packaging machine. The utility model is characterized in that the cams on the film putting end of the right side of a main shaft are taken to be orderly arranged on the main shaft from the right to the left according to the functions and the names of the cams, and the order is that a supporting plate frame of the main shaft, a bottom edge sealing cam, a vertical sealing cam, the supporting plate frame of the main shaft, a bag shearing cam, a bag clamping mechanism cam, two bag drawing cams, the supporting plate frame of the main shaft, a vacuum bag opening mechanism cam, a slide mechanism cam used for up and down filling the material of a material cup, a cam of a sliding carrier used for longitudinally conveying the bag, a bag sealing cam of the upper bag opening, a bag holding mechanism cam, a cam of the sliding carrier used for transversally conveying the bag and a worm-wheel worm-rod reducer. A film drawing rocker cam and the complete set of the action mechanism of the film drawing rocker cam are omitted because of the drive of the cams, and a film pressing mechanism is omitted. The machine construction is compressed and is compact after changing the arrangement of the cams, and thus the utility model is suitable for the requirement of the machine type of the maximal packaging bag with the width of 130 mm.

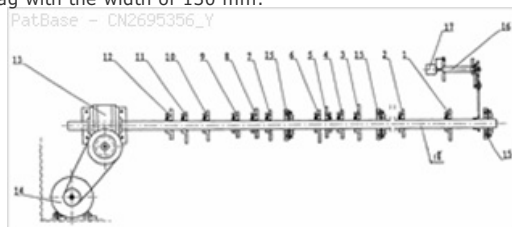
Classifications:

International (IPC 8-9): B65B1/04 B65B11/00 B65B65/00

B65B9/00 (Advanced/Invention);

B65B1/04 B65B11/00 B65B65/00 B65B9/00 (Core/Invention)

International (IPC 1-7): B65B1/04 B65B11/00 B65B65/00 B65B9/00



Family:

Publication number	Publication date	Application number	Application date
CN2695356 Y	20050427	CN200420021245U	20040324

Priority:

CN20042021245U 20040324 CN200420021245U 20040324

Probable Assignee: SHANGHAI MAIWEI PACKAGE MACHCI

Assignee(s): (std): SHANGHAI MACWELL PACKAGING MACHINERY CO LTD ; SHANGHAI MAIWEI PACKAGE MACHCI

Assignee(s): SHANGHAI MAIWEI PACKAGE MACHCINERY CO

Inventor(s): (std): WEI GAOMING ; ZHONG LIXING

Inventor(s): GAOMING WEI ; LIXING ZHONG

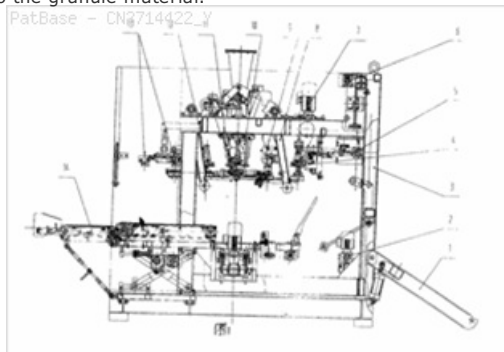
Title: Automatic bag forming and packaging machine

Abstract: Source: CN2714422Y The utility model provides an automatic bag forming and packaging machine, comprising a machine frame 3, a film tome lifting mechanism 1 installed on the lower part of the right side of the machine frame, a film tome expansion mechanism 2 arranged on the back of the film tome lifting mechanism, an angle sealing mechanism 5 installed on the upper part of the right side of the machine frame, an angle sealing positional adjusting mechanism 6 provided above the angle sealing mechanism, a bag sending mechanism 7 and an oscillation arm mechanism 8 which two are installed above the machine frame. The oscillation arm mechanism is provided with a drive motor. A bag mouth opening mechanism 9, a material door mechanism 10, a bag clamping and shrinking mechanism 11, a mouth sealing mechanism 12 and a mouth sealing and cooling mechanism 13 are orderly installed on the oscillation arm mechanism from the left to the right. An upright bag conveyer mechanism 14 is arranged on the lower part of the machine frame. The utility model has the advantages of compact structure and high running efficiency. The packaging speed of the machine is fast, and the automatic bag forming and packaging machine can reach to 1600 bags / hour to the granule material.

Classifications:

International (IPC 8-9): B65B1/00 B65B43/00 B65B43/20 B65B43/26 B65B51/10 B65B51/32 (Advanced/Invention); B65B1/00 B65B43/00 B65B43/26 B65B51/00 B65B51/10 (Core/Invention)

International (IPC 1-7): B65B1/00 B65B43/00 B65B43/20 B65B43/26 B65B51/10 B65B51/32



Family:

Publication number	Publication date	Application number	Application date
CN2714422 Y	20050803	CN200320111604U	20031121

Priority:

CN200320111604U 20031121 CN20032111604U 20031121

Probable Assignee: HARBIN BOSHI AUTOMATION EQUIPM

Assignee(s): (std): HARBIN BOSHI AUTOMATION EQUIPM

Assignee(s): HARBIN BOSHI AUTOMATION EQUIPMENT CO

Inventor(s): (std): GONG HAITAO ; WANG CHUNGANG ; WANG XUESONG

Inventor(s): XUESONG WANG ; HAITAO GONG ; CHUNGANG WANG

Title: PACKAGING MACHINE WITH AT LEAST ONE PNEUMATIC DRIVE

Abstract: Source: US2010107572A A packaging machine with at least one pneumatic drive is proposed, which packaging machine is insensitive to dirt and is easy to clean. According to the invention, this is achieved by provision of an integrated structural unit (8, 9, 10) which comprises a pilot valve and a pneumatic cylinder.

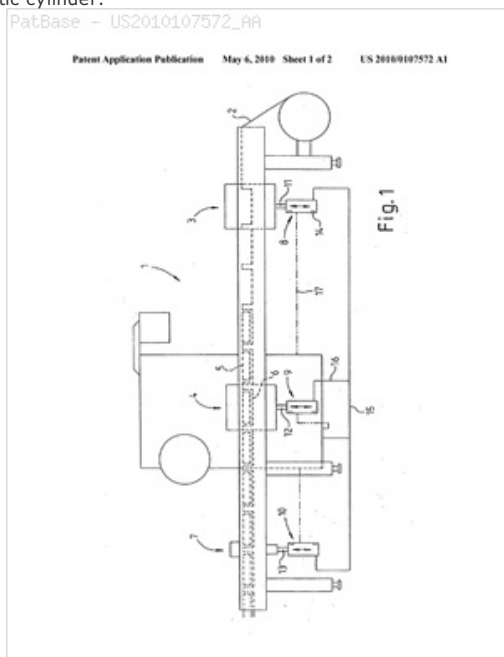
Classifications:

International (IPC 8-9): B65B47/04 B65B65/00 B65B9/04 F15B15/20 (Advanced/Invention); B65B47/00 B65B65/00 B65B9/00 F15B15/00 (Core/Invention)

CPC: B65B9/04 B65B65/00 F15B15/202

European: B65B65/00 B65B9/04 F15B15/20B

US: 53/393 53/559 91/304 91/418



Family:

Publication number	Publication date	Application number	Application date
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DE102005038357 A1	20070215	DE200510038357	20050811
DE502006011946 D1	20121025	DE200650011946T	20060718
EP1912864 A1	20080423	EP20060775708	20060718
EP1912864 B1	20120905	EP20060775708	20060718
US2010107572 AA	20100506	US20060990183	20060718
WO07019818 A1	20070222	WO2006DE01251	20060718

Priority:

DE200510038357 20050811 EP20060775708 20060718 WO2006DE001251 20060718

Probable Assignee: MULTIVAC SEPP HAGGENMULLER GMBH AND CO KG

Assignee(s): (std): EHRMANN ELMAR EUGEN ; KIRMSE HERBERT ; MULTIVAC ; MULTIVAC HAGGENMUELLER GMBH ; SLOMP TIEME JAN

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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 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 MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

18) Family number: 42574416 (WO08141488A1)

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Title: A CAM MECHANICS

Abstract: A cam mechanics is disclosed. The cam mechanics comprises more than one cam fixed on a drive shaft (11,13,18) connecting with an outputting shaft of a gear worm reducer (14), which is driven by an electric motor. This cam is a corner folding cam (1), a bottom part forming cam (2,3), an aseptic filling cam (4,5), a top part forming cam (6,7), a core mold cam (8,9) or a blank pulling cam (10). Each cam is provided with a curved recess or a curved outer contour that is specially designed for achieving corresponding operation. These cams control corresponding holders and components through a roll-link mechanics to complete respective operation, achieving an automation of the whole production process.

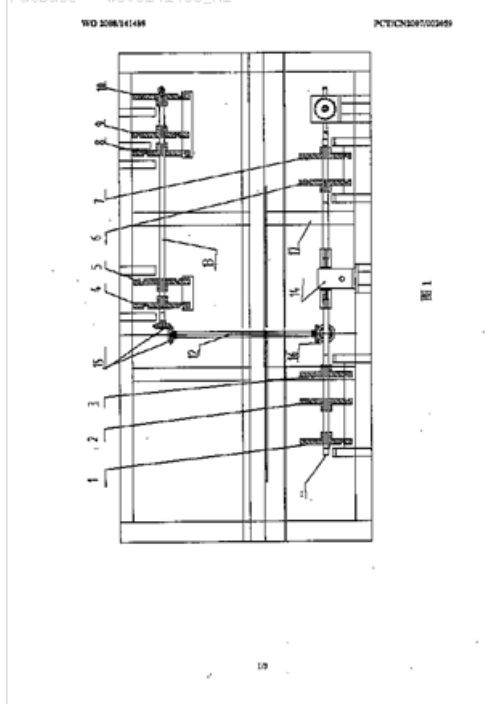
Classifications:

International (IPC 8-9): B65B65/04 F16H37/12 (Advanced/Invention); B65B65/00 F16H37/00 (Core/Invention)

CPC: B65B65/02 F16H25/14

European: B65B65/02 F16H25/14

PatBase - WO08141488_A1



Family:

Publication number	Publication date	Application number	Application date
CN101307820 A	20081119	CN200710040939	20070518
WO08141488 A1	20081127	WO2007CN02059	20070702

Priority:

CN200710040939 20070518

Probable Assignee: SHANGHAI TIANLONG PACKING MACH

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI 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

19) Family number: 47634286 (US2010287888A)

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Title: PACKAGING MACHINES AND METHODS

Abstract: Source: US2010287888A Packaging machines are disclosed including a web transport conveyor transporting a web of flexible packaging material from upstream to downstream locations through a series of stations. Packaging apparatuses are disclosed including a forming station and a closing station, each having movable die members that are counterbalanced. Methods of operating the packaging apparatus are disclosed.

Classifications:

International (IPC 8-9): B65B41/12 B65B47/00 B65B47/04

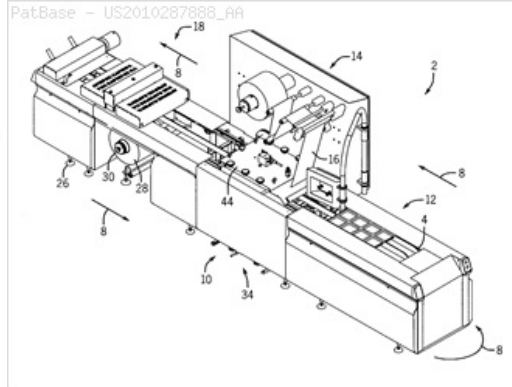
B65B51/00 B65B51/10 B65B7/00 B65B9/02

B65B9/04 (Advanced/Invention)

CPC: B65B59/04 B65B47/04 B65B9/04

European: B65B47/04 B65B9/04

US: 53/285 53/285S 53/453 53/453P 53/476 53/476S 53/558 53/559
53/559S 53/561



Family:

Publication number	Publication date	Application number	Application date
AT549248 E	20120315	AT20100005160T	20100518
CA2701027 AA	20101118	CA20102701027	20100419
CA2701027 C	20130730	CA20102701027	20100419
CA2701285 AA	20101118	CA20102701285	20100422
DE602010000960 D1	20120510	DE201060000960T	20100518
DE602010004010 D1	20130207	DE201060004010T	20100518
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EP2253543 B2	20160720	EP20100005159	20100518
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JP2010265039 A2	20101125	JP20100109400	20100511
US2010287888 AA	20101118	US20090605101	20091023
US2010287889 AA	20101118	US20090605171	20091023
US8186134 BB	20120529	US20090605101	20091023
US8499536 BB	20130806	US20090605171	20091023

Priority:

CA20102701027 20100419 EP20100005159 20100518 US20090179216P 20090518
US20090605101 20091023 US20090605171 20091023 EP20100005160 20100518

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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

20) Family number: 50537668 (US2012023865A)

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Title: PACKAGING MACHINE COMPRISING A PLURALITY OF WORK STATIONS

Abstract: Source: US2012023865A The disclosure relates to a packaging machine comprising a plurality of work stations which are operable in synchronism with one another and which define a production direction, each of said work stations including at least one movable tool member. The packaging machine is provided with a rotationally driven shaft arranged in the production direction of said packaging machine, and the shaft and each of the movable tool members of various work stations have provided between them at least one transfer mechanism for converting the movement of the shaft into the movement of the respective tool member.

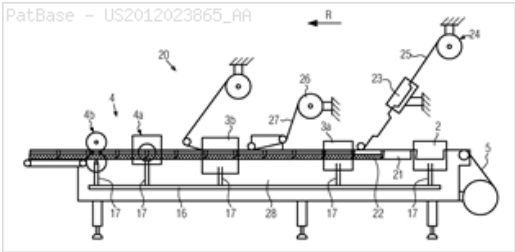
Classifications:

International (IPC 8-9): B65B47/00 B65B47/02 B65B51/10

B65B51/14 B65B61/06 B65B65/02 B65B65/08

B65B9/04 (Advanced/Invention)

CPC: B65B9/04 B65B51/14 B65B65/02
European: B65B51/14 B65B65/02 B65B9/04
US: 100/207 53/167 53/167P 53/329.2 53/329.3 53/559



Family:

Publication number	Publication date	Application number	Application date
CN102424150 A	20120425	CN201110216919	20110729
CN102424150 B	20140709	CN201110216919	20110729
DE502010003110 D1	20130627	DE201050003110T	20100729
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US2012023865 AA	20120202	US20110193923	20110729
US8720169 BB	20140513	US20110193923	20110729

Priority:

EP20100007915 20100729

Probable Assignee: MULTIVAC HAGGENMUELLER GMBH

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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