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[EPODOC: SS 1] DEVICE AND LINKING AND CONVEYOR AND BELTS

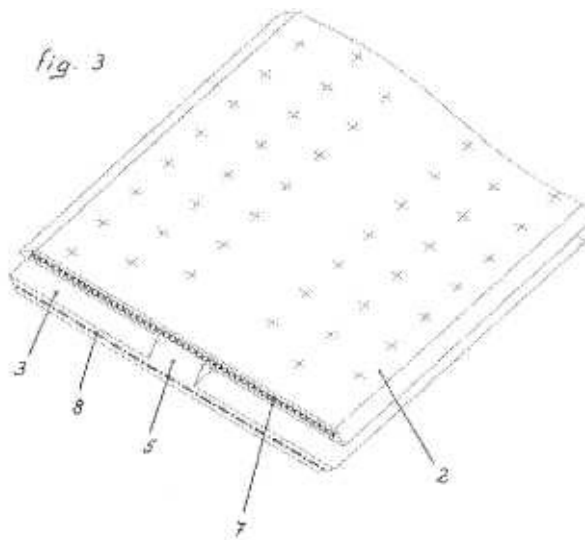
Results in EPODOC 28

[SS 2] ..li



1/28 © EPODOC / EPO

PN - [US2017241511](#) A1 20170824
PR - FR20140002007
20140904; WO2015FR52334
20150903
AP - US201715445712 20170228
DT - **
CCI - [F16G3/08](#)
CUI - [F16G3/02](#)
PA - ASER SARL [FR]
TI - **DEVICE FOR LINKING CONVEYOR BELTS**
AB - A **device** for **linking** a **conveyor** belt includes an upper plate and a lower plate. The upper plate includes a highly extendable armature and the lower plate includes an inextensible or quasi inextensible armature. The two plates can be fastened onto the ends of a **conveyor** belt inserted between the two plates, which as such transforms this **conveyor** belt into an endless belt.



2/28 © EPODOC / EPO

PN - [MX2015017770](#) A 20160726

PR - UA20130007787
20130619; WO2014UA00065
20140618

AP - MX20150017770 20140618

DT - I

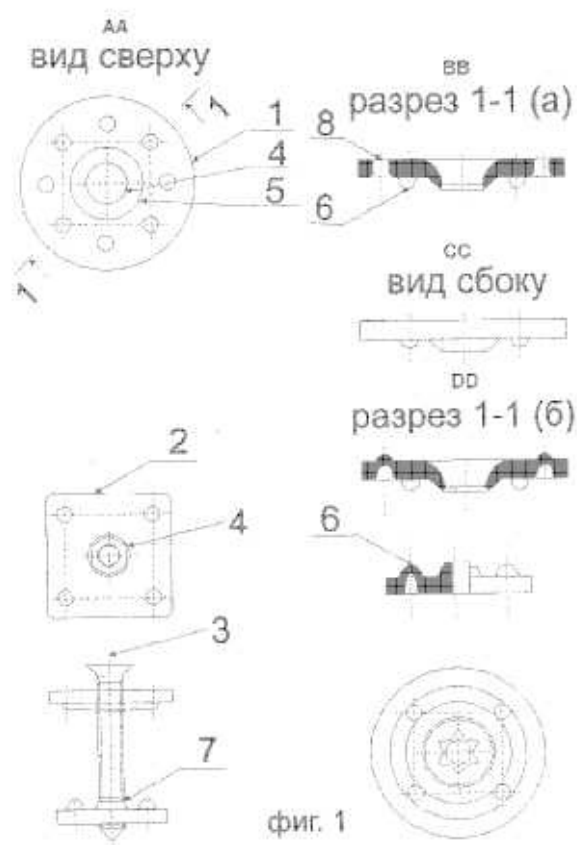
CCI - [F16G3/08](#)

CNOI - [F16G3/08](#)

PA - KOVALCHUK VOLODYMYR [UA]

TI - CONNECTOR FOR
MECHANICALLY LINKING
CONVEYOR BELTS.

AB - The invention relates to **conveyor** technology, and specifically to belt conveyors, and can be used in underground mining operations, including in coal mines. A connector for mechanically **linking conveyor belts** contains an assembly comprising two profiled plates and a connecting element; the profiled plates are provided, in the center thereof, with a through-hole in which the connecting element, in the form of a bolt, is located, the head of the bolt corresponding to a receiving seat in the upper profiled plate; the inner surfaces of the profiled plates are each provided with four symmetrically arranged profiled protrusions, and a nut is pressed into the centrally-located through-hole of the lower profiled plate; the upper profiled plate is equipped with four additional, tapered holes which are symmetrically arranged between the profiled protrusions, the larger openings of the tapered holes being provided on the inner surface of the profiled plate. The invention relates to **conveyor** technology, and specifically to belt conveyors, and can be used in underground mining operations, including in coal mines. A connector for mechanically **linking conveyor belts** contains an assembly comprising two profiled plates and a connecting element; the profiled plates are provided, in the center thereof, with a through-hole in which the



AA...top view
BB...sectional view 1-1 (a)
CC...side view
DD...sectional view 1-1 (b)

connecting element, in the form of a bolt, is located, the head of the bolt corresponding to a receiving seat in the upper profiled plate; the inner surfaces of the profiled plates are each provided with four symmetrically arranged profiled protrusions, and a nut is pressed into the centrally-located through-hole of the lower profiled plate; the upper profiled plate is equipped with four additional, tapered holes which are symmetrically arranged between the profiled protrusions, the larger openings of the tapered holes being provided on the inner surface of the profiled plate. The invention is a tissue identification **device** (10) for determining the presence and borders of the cancerous tissues; wherein it comprises a measurement probe (16) having a concentric, 2 port coaxial structure and enabling the 1 Port and 2 Port scattering parameters of the target tissue to be measured; an S parameter measurement unit (19), which is associated with said measurement probe (16) via RF/Microwave cable (15) and allows the S parameters of the tissue to be measured; a computer (11) identifying the tissue by means of the application software block (112) and the tissue identification software block (113) comprised therein in line with the measurement results from said S parameter measurement unit (17); and a hand tool (12) carrying the measurement probe (16) thereon during the measurement process and operates simultaneously with the computer (11) by being in communication therewith.

3/28 © EPODOC / EPO

PN - [CN204297630U](#) U 20150429
 PR - CN20142712077U 20141125
 AP - CN20142712077U 20141125
 DT - I
 PA - HANGZHOU WAHAHA TECHNOLOGY CO LTD
 TI - Box adjustment conveying **device**

AB - The utility model relates to the technical field of box conveying, and discloses a box adjustment conveying **device**. The box adjustment conveying **device** comprises a **conveyor** belt support frame and a main **conveyor** belt, the main **conveyor** belt comprises a plurality of main **conveyor** belt frames, main rotating rollers are arranged in the main **conveyor** belt frames, two rows of adjacent main **conveyor** belt frames are connected with each other through link heads, and the axial direction of the main rotating rollers is the same as the moving direction of the main **conveyor** belt; a plurality of parallel auxiliary **conveyor belts** are arranged at the lower portion of the main **conveyor** belt, the moving direction of the auxiliary **conveyor belts** is perpendicular to the moving direction of the main **conveyor** belt, the auxiliary **conveyor belts** are formed by **linking** a plurality of auxiliary **conveyor** belt frames, a plurality of auxiliary rotating rollers are arranged in the auxiliary **conveyor** belt frames, the axial direction of the auxiliary rotating rollers is perpendicular to the axis of the main rotating rollers, the lower sides of the main rotating rollers make contact with the upper sides of the auxiliary rotating rollers, and each auxiliary **conveyor** belt correspondingly supports one row or multiple rows of the main rotating rollers. Therefore, the box adjustment conveying **device** has the advantages that the structure is simple, the conveying efficiency is high, and sorting, combination, rotation, alignment and correcting can be conducted on boxes without any damage.

4/28 © EPODOC / EPO

PN - [CN202936527U](#) U 20130515
 PR - CN20122617196U 20121120
 AP - CN20122617196U 20121120
 DT - I
 PA - SICHUAN CHUANGYUE CARBON MATERIAL CO LTD
 TI - Pitch-based carbon fiber continuous non-melting **device**
 AB - The utility model discloses a carbon fiber production **device**, in particular to a pitch-based carbon fiber continuous non-melting **device**. A furnace body is of a multi-layer structure, and a **conveyor** belt is arranged at each layer. The non-melting **device** is characterized in that the **conveyor belts** are of mesh belt structures; tar/broken filament removing equipment is arranged under the mesh **belts**; overturn **linking** equipment is arranged between layers; the layers are mutually separated; airflow distribution devices are arranged on each layer and on two sides of the furnace body; side air blow or vertical air blow or horizontal air blow is adopted for heated air circulating and heating; a main pipeline is replenished with a certain amount of fresh air, and exhaust gas with corresponding amount is exhausted; micro positive pressure is maintained in the furnace body; a filter unit is arranged in front of an exhaust port; and a nitrogen inlet is arranged on a pipeline. The pitch-based carbon fiber continuous non-melting **device** can meet non-melting requirements of pitch-based fiber short filament, fixed-length filament and felts; temperature uniformity inside the furnace body is realized by adopting different hot air blowing manners; the pitch-based fiber is heated uniformly; the non-melting reaction is uniform; and waste gas and heat released during the non-melting reaction can be brought away timely.

5/28 © EPODOC / EPO

PN - [CN102951436](#) A 20130306
 PR - CN20121422353 20121030
 AP - CN20121422353 20121030
 DT - I
 CT - || STSE (A)
[CN102583049](#) A 20120718 [A] (GUANGDONG MODENA TECHNOLOGY LTD)
 [A] 1-4
 * 全文 *;
[CN202897510U](#) U 20130424 [R] (GUANGXI BEILIU CITY ZHICHENG CERAMICS AUTOMATION TECHNOLOGY CO LTD)
 [R] 1-4

* 权利要求1-4 *;

[CN201254533Y](#) Y 20090610 [A] (GUANGXI BEILIU ZHIYU CERAMIC A [CN])

[A] 1-4

* 全文 *;

[CN201525639U](#) U 20100714 [A] (SHANXI TAIGANG STAINLESS STEEL)

[A] 1-4

* 全文 *;

[JPS5319909Y](#) Y2 19780526 [X]

[X] 1-4

* 说明书全文及附图1、2 *;

[CN202321663U](#) U 20120711 [A] (SHANDONG RUNKE MECHANICAL AND ELECTRICAL EQUIPMENT CO LTD)

[A] 1-4

* 全文 *;

[CN86101744](#) A 19870930 [A]

[A] 1-4

* 全文 *;

[BE607535](#) A 19611218 [A] (STUEBBE FRIEDRICH [DE])

[A] 1-4

* 全文 *

- PA - GUANGXI BEILIU ZHICHENG CERAMIC AUTOMATION TECHNOLOGY CO LTD
- TI - **Device** for **linking** and conveying household ceramic blank **conveyor** belt
- AB - The invention discloses a **device** for **linking** and conveying a blank **conveyor** belt applied to the automated production process of household ceramics. The **device** comprises a fixed seat, a belt and rotating wheels, wherein a bracket is arranged above a position between two linear **conveyor belts** which run at a uniform and same speed, and the **conveyor** belt forms a loop through three rotating wheels which are arranged in a shape like an inverted Chinese character 'pin' and an arc-shaped guide rail; one rotating wheel is connected with any one rotating wheel of a belt to be transitioned through the belt, and the two **conveyor belts** are parallel to each other; and the distance between the two **conveyor belts** is smaller than the diameter of a bowl blank. On the production line such as bowl and dish blank production lines, when the bowl blank needs to be transitioned from one belt to the other belt, the **device** provided by the invention is arranged between the **belts** to be transitioned, so that the bowl blank can be smoothly transitioned from one belt to the other belt, and thus the number of employees on the production line can be reduced, the labor cost is reduced, and meanwhile, the production efficiency and the yield are obviously improved, and the economic benefits are obvious. The **device** has the advantages of simple structure, durability and the like.

6/28 © EPODOC / EPO

- PN - [EP2586732](#) A1 20130501
- PNFP - EP2586732 B1 20140416
- PR - IT2008BO00662 20081029; EP20090821407 20091026
- AP - EP20130152124 20091026
- DT - **
- CT - || STSE (A1)
[US3604552](#) A 19710914 [X] (MARSHALL LESLIE JAMES)
[X] 1,2,5
* column 2, line 67 - column 3, line 55; figures 1b, 3-5 *
* column 3, line 15 *;
[EP1084968](#) A1 20010321 [A] (CASMATI SPA [IT])
[A] 1
* paragraphs [0014] , [0 15]; figures 3-6; claims 1-4 *
- CCI - [B65G37/005](#) ; [B65G47/647](#) ; [B65G47/71](#)
- PA - (A1 B1)
AZIONARIA COSTRUZIONI ACMA SPA [IT]

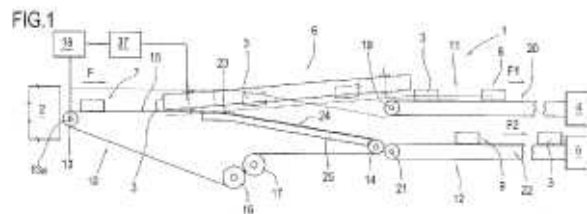
- TI - (A1 B1)
A **device** for dividing a single file of products
- AB - (A1)
Products (3) advancing in single file are divided into at least two files by a **device** comprising a main **conveyor** (10) from which the products (3) of the single file (7) pass onto a first outfeed **conveyor** (11) and onto a second outfeed **conveyor** (12) positioned with infeed ends at different heights, one above the other; the **device** also comprises a **linking conveyor** (6) between the main **conveyor** (10) and the outfeed conveyors (11, 12), consisting in a pair of looped **belts** presenting outer surfaces faced along a portion of predetermined length with L-shaped elements, thereby creating a support for the transfer of products (3) to the upper outfeed **conveyor** (11). Products (3) which are not borne by L-shaped elements are transferred to the lower outfeed **conveyor** (12).

7/28 © EPODOC / EPO

- PN - [JP2011236004](#) A 20111124
- PR - JP20100108533 20100510
- AP - JP20100108533 20100510
- DT - I
- FI - B65G47/52&D
- FT - 3F044/AA01; 3F044/BB08; 3F044/CD11
- PA - NIPPON DONETSUKI SEISAKUSHO:KK
- TI - CONVEYING **DEVICE** FOR FOOD
- AB - PROBLEM TO BE SOLVED: To smoothly transfer a spreading plate onto a joint portion of a conveying **device** including a plurality of conveyors, from a preceding conveyor to a succeeding **conveyor** without giving vibration to the spreading plate. SOLUTION: The conveying **device** 1 is made up by connecting the plurality of conveyors on a conveying route S **linking** a final fermentation process F and a baking process X in a bread manufacturing process. Endless chain **belts** 4a, 4b are arranged along **conveyor** frames 3a, 3b on the both side edges in the width direction H of the plurality of conveyors, These chain **belts** 4a, 4b are looped around, and driven to rotate by drive motors each equipped on each of the conveyors. Transfer conveying means 8 is equipped on the joint portion of the plurality of conveyors so as to suck and hold, in contact or non-contact, the bottom surface of the spreading plate 2 being conveyed, and transfer from the preceding conveyor to the succeeding **conveyor** without giving vertical vibration to the spreading plate 2.

8/28 © EPODOC / EPO

- PN - [MX2011004507](#) A 20110524
- PR - IT2008BO00662
20081029; WO2009IB54714
20091026
- AP - MX20110004507 20091026
- DT - I
- CCI - [B65G37/005](#) ; [B65G47/647](#) ;
[B65G47/71](#)
- PA - AZIONARIA COSTRUZIONI ACMA
SPA [IT]
- TI - A **DEVICE** FOR DIVIDING A SINGLE
FILE OF PRODUCTS INTO AT LEAST
TWO FILES.
- AB - Products (3) advancing in single
file are divided into at least two
files by a **device** comprising a
main **conveyor** (10) from which
the products (3) of the single file
(7) pass onto a first



outfeed **conveyor** (11) and onto a second outfeed **conveyor** (12) positioned with infeed ends at different heights, one above the other; the **device** also comprises a **linking conveyor** (6) between the main **conveyor** (10) and the outfeed conveyors (11, 12), consisting in a pair of looped **belts** presenting outer surfaces faced along a portion of predetermined length with a layer of resilient material, thereby creating a channel by which the main **conveyor** (10) is linked to the outfeed **conveyor** (11) positioned uppermost, and along which the products (3) are transferred cyclically to this same **conveyor** (11).

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PN - [CN102177080](#) A 20110907

PNFP - CN102177080B B 20140903

PR - WO20091B54714
20091026; IT2008BO00662
20081029

AP - CN20098140538 20091026

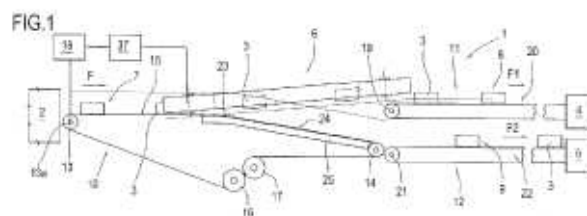
DT - I

CCI - [B65G37/005](#) ; [B65G47/647](#) ;
[B65G47/71](#)

PA - (A B)
AZIONARIA COSTRUZIONI ACMA
SPA

TI - (A B)
A **device** for dividing a single file of products into at least two files.

AB - (A)
Products (3) advancing in single file are divided into at least two files by a **device** comprising a main **conveyor** (10) from which the products (3) of the single file (7) pass onto a first outfeed **conveyor** (11) and onto a second outfeed **conveyor** (12) positioned with infeed ends at different heights, one above the other; the **device** also comprises a **linking conveyor** (26) between the main **conveyor** (10) and the outfeed conveyors (11, 12), consisting in a pair of looped **belts** (27, 28) presenting outer surfaces faced along a portion of predetermined length with a layer (35) of resilient material, thereby creating a



channel (34) by which the main **conveyor** (10) is linked to the outfeed **conveyor** (11) positioned uppermost, and along which the products (3) are transferred cyclically to this same **conveyor** (11).

10/28 © EPODOC / EPO

PN - [US2011180371](#) A1 20110728

PNFP - US8678170 B2 20140325

PR - IT2008BO00662
20081029; WO2009IB54714
20091026

AP - US200913121744 20091026

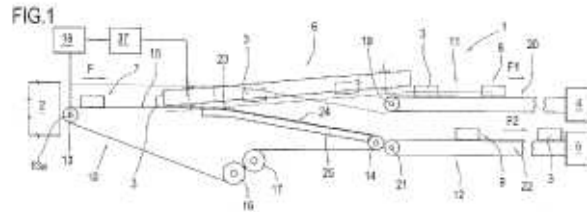
DT - **

CT - || STSE (B2)
[US3604552](#) A 19710914 [
] (MARSHALL LESLIE JAMES)
[US4284187](#) A 19810818 [
] (KRAMER ULRICH, et al)
[US4424966](#) A 19840110 [
] (CHANDHOKE MOHANJIT S [US])
[US4754867](#) A 19880705 [] (DE
ANDA JESUS T [US])
[US5772000](#) A 19980630 [
] (SERRES PAUL J [US])
[US5984078](#) A 19991116 [
] (BONNET HENRI [US])
[US6082521](#) A 20000704 [
] (MAIER WILHELM [CH], et al)
[US6227377](#) B1 20010508 [
] (BONNET HENRI [US])
[US8079457](#) B2 20111220 [
] (HEINZ ALOIS [DE])
[US2011186404](#) A1 20110804 [
] (AMBROISE STEPHANE [FR], et
al)
[US2011272241](#) A1 20111110 [
] (VAN HAASTER PATRICK
THEODORUS JOHANNES [NL], et al)

- || R141 (A1)
[US3604552](#) A [];
[US2011272241](#) A1 [];
[US2011186404](#) A1 [];
[US6227377](#) B1 [];
[US5984078](#) A [];
[US4754867](#) A [];
[US4424966](#) A [];
[US4284187](#) A [];
[US8079457](#) B2 [];
[US6082521](#) A [];
[US5772000](#) A [];
[US5421446](#) A []

CCI - [B65G37/005](#) ; [B65G47/647](#) ;
[B65G47/71](#)

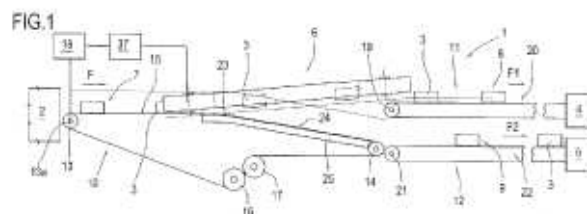
PA - (A1)
AZIONARIA COSTRUZIONI ACMA



	SPA [IT]
	- (B2) CARRARA MARCO [IT]; CIVOLANI DANIELE [IT]; AZIONARIA COSTRUZIONI ACMA SPA [IT]
TI	- (A1 B2) DEVICE FOR DIVIDING A SINGLE FILE OF PRODUCTS INTO AT LEAST TWO FILES
AB	- (A1 B2) Products (3) advancing in single file are divided into at least two files by a device comprising a main conveyor (10) from which the products (3) of the single file (7) pass onto a first outfeed conveyor (11) and onto a second outfeed conveyor (12) positioned with infeed ends at different heights, one above the other; the device also comprises a linking conveyor (26) between the main conveyor (10) and the outfeed conveyors (11, 12), consisting in a pair of looped belts (27, 28) presenting outer surfaces faced along a portion of predetermined length with a layer (35) of resilient material, thereby creating a channel (34) by which the main conveyor (10) is linked to the outfeed conveyor (11) positioned uppermost, and along which the products (3) are transferred cyclically to this same conveyor (11).

11/28 © EPODOC / EPO

PN	- WO2010049869 A2 20100506
PNFP	- WO2010049869 A3 20100930
PR	- IT2008BO00662 20081029
AP	- WO2009IB54714 20091026
DT	- *; Rep
CT	- [EP] ISR (A3) US3604552 A 19710914 [XY] (MARSHALL LESLIE JAMES) [X] 1-3,6,8 * column 2, line 67 - column 3, line 55; figures 1b, 3-5 * * column 3, line 15 * [Y] 4,5; EP1084968 A1 20010321 [XY] (CASMATIC SPA [IT]) [X] 1-3,8 * paragraphs [0014] , [0 15]; figures 3-6; claims 1-4 * [Y] 4,5;



[US5421446](#) A 19950606
 [X] (KOCH THOMAS J [US], et al)
 [X] 1,2
 * figures 1,2 *;
[DE9207724U](#) U1 19920820
 [X] (KRONES AG)
 [X] 1,8
 * figure 1 *

- CCI - [B65G37/005](#) ; [B65G47/647](#) ;
[B65G47/71](#)
- PA - (A2 A3)
 AZIONARIA COSTRUZIONI ACMA
 SPA [IT]; CARRARA MARCO [IT];
 CIVOLANI DANIELE [IT]
- TI - (A2 A3)
 A **DEVICE** FOR DIVIDING A SINGLE
 FILE OF PRODUCTS INTO AT LEAST
 TWO FILES.
- AB - (A2)
 Products (3) advancing in single
 file are divided into at least two
 files by a **device** comprising a
 main **conveyor** (10) from which
 the products (3) of the single file
 (7) pass onto a first
 outfeed **conveyor** (11) and onto a
 second outfeed **conveyor** (12)
 positioned with infeed ends at
 different heights, one above the
 other; the **device** also comprises
 a **linking conveyor** (26) between
 the main **conveyor** (10) and the
 outfeed conveyors (11, 12),
 consisting in a pair of
 looped **belts** (27, 28) presenting
 outer surfaces faced along a
 portion of predetermined length
 with a layer (35) of resilient
 material, thereby creating a
 channel (34) by which the
 main **conveyor** (10) is linked to
 the outfeed **conveyor** (11)
 positioned uppermost, and along
 which the products (3) are
 transferred cyclically to this
 same **conveyor** (11).
- (A3)
 Products (3) advancing in single
 file are divided into at least two
 files by a **device** comprising a
 main **conveyor** (10) from which
 the products (3) of the single file
 (7) pass onto a first
 outfeed **conveyor** (11) and onto a
 second outfeed **conveyor** (12)
 positioned with infeed ends at
 different heights, one above the
 other; the **device** also comprises
 a **linking conveyor** (6) between

the main **conveyor** (10) and the outfeed conveyors (11, 12), consisting in a pair of looped **belts** presenting outer surfaces faced along a portion of predetermined length with a layer of resilient material, thereby creating a channel by which the main **conveyor** (10) is linked to the outfeed **conveyor** (11) positioned uppermost, and along which the products (3) are transferred cyclically to this same **conveyor** (11).

12/28 © EPODOC / EPO

PN - [ZA200107018](#) B 20021125

PR - FR20000000735 20000119

AP - ZA20010007018 20010824

DT - I

CCI - [F16G3/00](#) ; [F16G3/08](#)

PA - ASER SARL

TI - **Device for linking conveyor belts**, method for making same and method for mounting same on a **conveyor** belt.

13/28 © EPODOC / EPO

PN - [US2002134652](#) A1 20020926

PNFP - US6601698 B2 20030805

PR - FR20000000735
20000119; WO2001FR00130
20010116

AP - US20020936896 20020102

DT - **

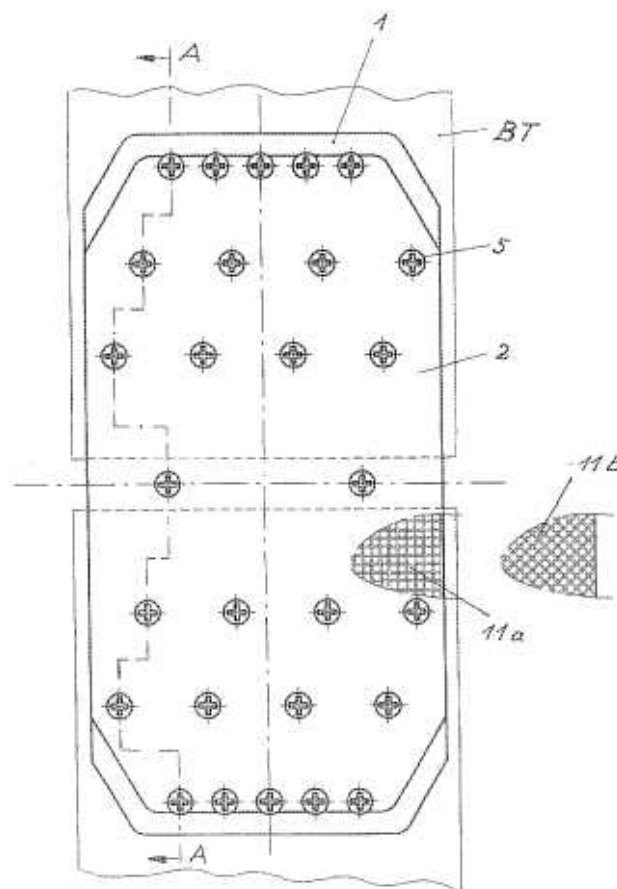
CT - (B2)
[US752512](#) A []; [US2446311](#) A [];
[US3279090](#) A []; [US5573470](#) A [];
[US5839571](#) A []

CCI - [F16G3/00](#) ; [F16G3/08](#)

PA - (B2)
ASER SARL [FR]

TI - (A1 B2)
Device for linking conveyor belts,
method for making same and
method for mounting same on
a **conveyor** belt

AB - (A1 B2)
One of the junction devices for a **conveyor** belt comprises three parts, namely an upper part (2), a lower part (3) and an intermediate part (4). Inserts (6') and (7') are used to assemble parts (2) and (3) using screws (5). Inserts (6) and (7) are used to assemble the junction **device**



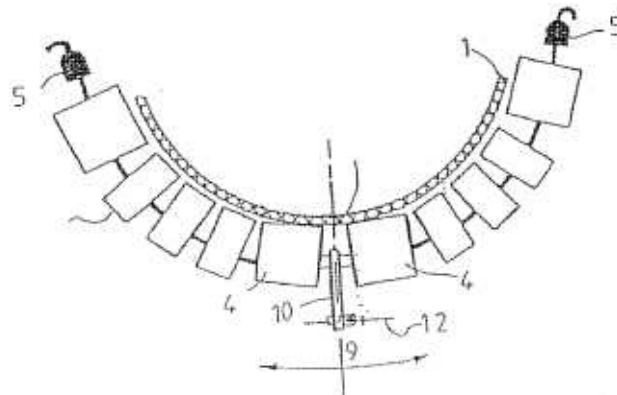
on the ends of a **conveyor** belt.

14/28 © EPODOC / EPO

- PN - [US5279254](#) A 19940118
- PR - US19920903170 19920624
- AP - US19920903170 19920624
- DT - **
- CT - [US2707924](#) A []; [US3166175](#) A [];
[US3626905](#) A []; [US3672485](#) A [];
[US3770107](#) A []; [US3789802](#) A [];
[US4159696](#) A []; [US4345682](#) A [];
[US4846337](#) A []; [US5002016](#) A [];
[US5058749](#) A []; [DE2235767](#) A1 [];
[NL8002232](#) A []; [GB2224986](#) A []
- CCI - [A01K31/165](#)
- PA - CTB INC [US]
- TI - Egg collector having separate continuous flexible **belts** of baskets for each cage **conveyor**
- AB - An egg collection **device** for collecting eggs from an array of confinement cage rows comprises separate continuous flexible **belts** of individual, interchangeable basket members themselves **linking** together to form the egg collector. Each individual basket member includes a pair of sidewalls for containing the egg transported therein. This unique design enables the separate continuous flexible **belts** forming the egg collector to be spaced apart to conform to the spacing between the confinement cage rows with which the collector is being used, thereby making the collector adaptable to a wide variety of cage arrangements. Another improvement is directed to the manner in which the individual continuous flexible **belts** are driven and provides for a sprocket wheel which does not protrude into the basket member carrying the eggs.

15/28 © EPODOC / EPO

- PN - [US2003094351](#) A1 20030522
- PNFP - US6640964 B2 20031104
- PR - FR20000005550
20000425; WO2001FR01003
20010404
- AP - US20020279440 20021024
- DT - **
- CT - (B2)
[US736905](#) A []; [US1973095](#) A [];
[US3240321](#) A []; [US4936443](#) A []
- CCI - [B65G39/16](#) ; [B65G39/04](#)
- PA - (B2)
VALCALDA FLORENT [FR]
- TI - (A1 B2)
Device for automatic centering of belt conveyors
- AB - (A1)
A **device** for automatic centering of a **conveyor** with **belts** supported by chain flexible rollers is disclosed. The **device** includes a central attachment receiving rollers with a V-shaped angular orientation. The **device** also includes a rocking lever



subjected to a displacement along a curved trajectory according to variation in altitude. The lever cooperates at its lower end with a fixing lug secured to a tensioning cable mounted to the frame bearing the **conveyor**. The invention is characterized in that the rollers (20) of the central attachment are mounted for rotation on their independent shafts (21) and the shafts are detachably secured to the central attachment by central **linking** means (22). **Linking** means (22) is attached to fastening means (23). Fastening means (23) is adapted to receive rocking lever (24), which is mounted to the cable by fixing lug (25).

- (B2)

A **device** for automatic centering of a **conveyor** with **belts** supported by chain flexible rollers is disclosed. The **device** includes a central attachment receiving rollers with a V-shaped angular orientation. The **device** also includes a rocking lever subjected to a displacement along a curved trajectory according to variation in altitude. The lever cooperates at its lower end with a fixing lug secured to a tensioning cable mounted to the frame bearing the **conveyor**. The invention is characterized in that the rollers (20) of the central attachment are mounted for rotation on their independent shafts (21) and the shafts are detachably secured to the central attachment by a central fastening **device** or stirrup (22). The central fastening **device** (22) is attached to a fastening **device** (23). Fastening **device** (23) is adapted to receive rocking lever (24), which is mounted to the cable by fixing lug (25).

16/28 © EPODOC / EPO

PN - [MXPA01009288](#) A 20030714

PR - FR20000000735 20000119; WO2001FR00130 20010116

AP - MX2001PA09288 20010116

DT - I

CCI - [F16G3/00](#) ; [F16G3/08](#)

PA - ASER SARL [FR]
 TI - **DEVICE FOR LINKING CONVEYOR BELTS**, METHOD FOR MAKING SAME AND METHOD FOR MOUNTING SAME ON A **CONVEYOR BELT**.

17/28 © EPODOC / EPO

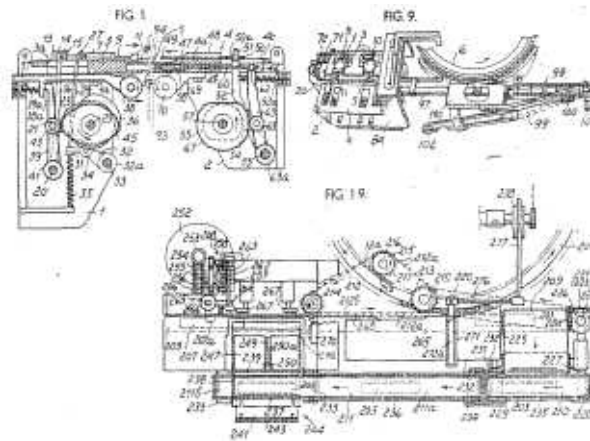
PN - [JPH0624575](#) A 19940201
 PR - NL19900002906 19901228
 AP - JP19920035528 19920104
 DT - I
 CCI - [B65G21/14](#) ; [B65G67/603](#)
 FI - B63B25/02; B65G67/60&F
 FT - 3F077/AA01; 3F077/BA03; 3F077/BA06; 3F077/CA01; 3F077/DA01; 3F077/DA10; 3F077/DB01; 3F077/DB07
 PA - D C G HOLDING AMUSUTERUDAMU BV
 TI - TRANSFER **DEVICE**
 AB - PURPOSE: To obtain a conveying **device** capable of suitably **linking** various kinds of **conveyor belts** with each other by providing a helical belt **conveyor** transferring cargo along a helical path, an upper feed or release **conveyor** and a lower feed or release **conveyor**, which respectively have specific constitution and a specific function. CONSTITUTION: In the case of loading ship's cargo, the free end part of an end part **conveyor** 4c is slidable on the upper-side belt 3a of an upper **conveyor** belt 3a extending at least at 360 deg.. Thus, a helical belt conveyor 1 is made rotatable together with a central shaft 2 and when all of a **conveyor** belt 3 and the belt 3A are moved as a whole, the end part **conveyor** 4c of an upper feed or release conveyor 4c is displaced along the upper-side belt 3a of the belt 3A and made synchronous with each other by an adjuster 11 to move in a vertical direction, and its angle is held constant. The angle and length of an intermediate **conveyor** 4b are surely linked with each other between a main part 4a and the **conveyor** 4c.

18/28 © EPODOC / EPO

PN - [JPH07205709](#) A 19950808
 PR - JP19940019892 19940119
 AP - JP19940019892 19940119
 DT - I
 FI - B60P1/00&Z; B60P1/52&Z
 PA - ASAHI ENG KOGYO KK
 TI - CIRCULATING TURN TABLE **DEVICE** FOR TRUCK
 AB - PURPOSE: To provide in a truck, a circulating turn table **device** by which cargoes can be loaded/unload by one man handling. CONSTITUTION: A circulating turn table **device** is provided with an operating/driving **device** plate 1 set on the load-carrying platform of a truck and directly placed and fixed on the load-carrying platform and a conveying **device** plate 2 mounted on and connected to the operating/driving **device** plate 1, and the conveying **device** plate 2 is provided with rotary tables 3 in those parts positioned in the front and rear of the load-carrying platform; and with roller **conveyor belts** 4 on both side parts of the hand drum-like gap formed between both rotary tables 3. Furthermore, a guide partition wall 5 is provided between the the shaft center parts 3a of both rotary tables 3 independently of the rotating motion of both rotating tables 3 or in such a manner as being rotated by **linking** to the rotating action of both rotating tables 3 by hanging a **conveyor** belt 7 on a driven vertical shafts 6 connected to the shaft centers 3a of both rotating tables 3; and the operating/driving **device** plate 1 has a rotating shaft 8 driven by a motor M in the direction of the load-carrying platform, mounted thereon, and also provided with a connecting part 10 to be connected to the shaft center parts 3a of the rotary tables 3 through a direction converting gear mechanism 9 in front and in rear of the rotating shaft 8 and provided with a control panel 11 for the motor M in some desirable position.

19/28 © EPODOC / EPO

- PN - [GB1148038](#) A 19690410
- PR - IT19660029403
19661028; IT19670014649
19670406
- AP - GB19670045377 19671005
- DT - **
- CCI - [D05B3/06](#) ; [D05B7/00](#)
- PA - ACHILLE PELOGGIO [IT]; SANDRO
PELOGGIO [IT]; GIOVANNI
CARDANO [IT]
- TI - A **device** for the so-called blind
feeding of articles of hosiery to
the needle-holder rim of a **linking**
machine
- AB - 1,148,038. Sinking machines. A.
PELOGGIO, S. PELOGGIO and G.
CARDANO [trading as OFFICINA
MECCANICA DI PRECISIONE
EXACTA DI PELOGGIO ACHILLE,
CARDANO GIOVANNI & C.S.A.S.]. 5
Oct., 1967 [28 Oct., 1966; 6 April,
1967], No. 45377/67. Heading
DIG. Means for running a knitted
article on to the points of
a **linking** machine comprises a
pair of plate-like members
separated by an article-receiving
gap disposed tangentially to the
point dial, a guideway provided
in one member along the gap, a
comb member slidable in the
guideway, and means for
engaging the comb member with
a knitted article disposed in the
gap. Horizontal plates 3 and 4,
Figs. 1 and 9, supported by
respective structures 1 and 2,
are separated by a gap 5
adapted to receive knitted
articles 93 supported thereat by
thickened upper ends 94, gap 5
being disposed tangentially to
the point dial 6 of a **linking**
machine. Rods 9, 10, rotatable
and axially-slidable on plate 3
at respective ends of gap 5, are
provided adjacent gap 5 with
respective crank arms 11 each
having a row of teeth 12
normally parallel to plate 3. A
groove 14 at the other end of
each rod engages the upper end
of a lever 16 which is pivoted on
a shaft 20 and carries
intermediately a follower roller
21 biased by spring means



against a cam 23 on a shaft 25. Each rod is formed intermediately with a crankarm 27 engaged by the upper end of a rod 29 the lower end of which engages a lever 32 pivoted on a shaft 33, and which carries a follower roller 34 biased by a spring 35 against a cam 36 on shaft 25. A plate 37, slidable in structure 1 on lugs 1a, carries a roller 38 adjacent gap 5. A lug 38a on plate 38 abuts the upper end of a lever 39 which is pivoted on shaft 20 and carries a follower roller 43 biased against a cam 45 on shaft 20 by a spring 39a. Plate 4 is formed in its edge along gap 5 with a groove 47 slidably receiving a comb member 58 in the form of a bar having two rows of teeth 59 projecting towards gap 5. Rods 60, slidable in plate 4, project into groove 47 to abut comb 58, and are coupled to levers 63 which are pivoted on a shaft 53 and carry follower rollers 65 biased by spring means against a cam 67 on a shaft 57. A plate 49, slidable on plate 4, is coupled to levers 52 which are pivoted on shaft 53 and carry follower rollers 54 biased by spring 52a against cams 55 on shaft 57. Brackets 69 on plate 4 journal a roller 70 adjacent gap 5. In operation, shafts 25 and 57 are driven in opposite directions through a single revolution by a motor 26, while the rollers 38 and 70 are also driven in opposite direction during this period. Initially, the rods 9, 10 and plates 37, 49 move inwardly towards gap 5, whereby the teeth 12 pierce the articles 93 and pass under plate 49, while the rollers 38, 70 co-act to tension the article. Plates 37, 49 are then withdrawn and rods 9, 10 are rotated, whereby the teeth 12 are inclined upwardly to raise the ends of the article. Plate 37 then again advances and the rollers impart a predetermined degree of stretch to the articles. Rods 60 are then advanced, whereby the teeth 59 pass through the stretched articles. Finally all

elements return to their initial positions. A fresh comb 58 is then slid into groove 47, whereby the original comb 58 is forced along guideway 97 and the articles carried thereon are transferred to the points of dial 6 by a pair of pivoted members 98. The stripped comb 58 passes on to a bar 99 which pivots downwards to transfer the comb to a receiving channel 102. In an automatic arrangement, Fig. 19, a comb 203 moves along a guide groove 205 to convey a workpiece impaled thereon to a point dial 201. The stripped comb passes via successive **conveyor belts** 209, 210, 211 to a loading station 204 where the comb rests on belt 211 within fixed walls 237, 238, 239. Operation is initiated by displacing a plate member 241 against spring bias, whereby member 241 pushes comb 203 through an aperture in walls 239, and comb 203 slides down an inclined surface 249 to pass into guideway 205 through an aperture 248. The passage of comb 203 momentarily actuates a microswitch 250 to start a motor 252 corresponding to motor 26. A cam 257 on a driven shaft 256 then actuates a microswitch 258, whereby shaft 256 is driven for a single revolution for transferring the workpiece, supported in a gap 206, on to the teeth of comb 203. Near the end of the revolution of shaft 255, a cam 256 thereon acts upon a linkage to turn a shaft 265 carrying a radial lug 266 disposed in a notch 207a formed in a bar 207 disposed in guideway 205. Bar 207 thereby shifts comb 203 out of the loading position, and the workpiece thereon engages a pivoted bar 268 to actuate a microswitch 270 for starting the **linking** machine. Peripheral teeth 218 on the point dial drive a sprocket 215 connected by a chain 212 to sprockets 213, 214, the length of chain 212b between the latter being adjacent and parallel to guideway 205. Teeth

212a on chain 212 thereby engage the workpiece and move the latter and comb 203 towards the point dial 201. Sprocket 213 is connected by a chain 220 to sprocket 221 on a shaft 222 arranged to drive the conveyors 209 and 210, **conveyor** 211 being driven via a chain 231 from **conveyor** 210. The **linking** machine stops when the workpiece. disengages from bar 268 adjacent the point dial 201. The apparatus completes a similar cycle each time plate 241 is actuated to pass a comb 203 into the guide groove 205.

20/28 © EPODOC / EPO

- PN - [WO9500774](#) A1 19950105
- PR - FR19930007454 19930621
- AP - WO1994FR00741 19940620
- DT - *; Rep
- CT - |EP| ISR (A1)
[FR2116609](#) A5 19720721 [X] (GORO)
[X] 1,7-10,14,29
* page 2, line 32 - page 5, line 3; figures 1,5,6 *;
[FR1013901](#) A 19520806 [X] (TEXTI METAL)
[X] 1,7,8,14,16,29
* the whole document *;
[FR1195056](#) A 19591113 [X] (MOULIN DE SALIENS)
[X] 1,2,14,19,20,30
* page 1, column R, line 6 - line 35; figures 1-3 *;
[FR1065983](#) A 19540601 [X] (CABLE BELT LTD)
[X] 1,3,4,6,14,19,26
* the whole document *;
[FR1140516](#) A 19570724 [XA] (DUNLOP RUBBER CO)
[X] 1,2,5,6,14,16,17,25,26
* the whole document *
[A] 15;
[FR1222376](#) A 19600609 [X] (DUNLOP RUBBER CO)
[X] 1-4,6,16,17,27,28
* page 2, column L, line 23 - column R, line 24; figures 1,2 *;
[FR917596](#) A 19470115 [X] (MATHIEU)
[X] 1-4,6,14,19,27
* page 2, line 83 - page 4, line 21; figures 1,2,5 *;
[DE2901752](#) A1 19800731 [A] (GORO SA)
[A] 21
* page 8, line 1 - line 18; figure 2 *;
[FR2055625](#) A5 19710507 [A] (HEIMBACH THOMAS JOSEF CO)
[A] 23
* page 4, line 21 - line 34; figures 1,3 *
- CCI - [F16G3/00](#)
- PA - ASER SARL [FR]; JAKOB HORST [FR]
- TI - FLEXIBLE JOINT **DEVICE** FOR **CONVEYOR BELTS**
- AB - In a preferred embodiment, the joint **device** consists of two joint components made of a flexible and resilient material and each provided with a pair of flexible flanges (4) fastened to the **conveyor** belt (6) by rivets (10). A reinforcement (5) extends through the

flanges (4) and the portion of the joint **device** which forms the actual joint, and is secured to rings (7) or tabs (8) for strengthening the fastening holes. A link rod extends through channels in the **linking** members.

21/28 © EPODOC / EPO

PN - [WO0181214](#) A1 20011101
 PR - FR20000005550 20000425
 AP - WO2001FR01003 20010404
 DT - *; Rep
 CT - |EP| ISR (A1)
[EP0504036](#) A1 19920916 [DA] (VALCALDA FLORENT [FR])
 [DA] 1
 * the whole document *
 CCI - [B65G39/04](#) ; [B65G39/16](#)
 PA - VALCADA FLORENT [FR]
 TI - IMPROVED **DEVICE** FOR AUTOMATIC CENTRING ON BELT CONVEYORS
 AB - The invention concerns a **device** for automatic centring on a **conveyor** with **belts** supported by chain flexible rollers, comprising a central attachment receiving rollers with V-shaped angular orientation. Between the latter is arranged a rocking lever subjected to a displacement along a curved trajectory according to variation in altitude. The lever co-operates at its lower end with a fixing lug secured to a tensioning cable relative to the frame bearing the **conveyor**. The invention is characterised in that the rollers (20) of the central attachment are mounted in free rotation on their independent shaft (21) with V-shaped orientation, said shafts being detachably secured to an opposite end according to an angulation, by central **linking** means (22), secured to fastening means (23) for receiving and articulating the rocking lever (24), whereof the other end is secured to the fixing lug.

22/28 © EPODOC / EPO

PN - [WO0153715](#) A1 20010726
 PR - FR20000000735 20000119
 AP - WO2001FR00130 20010116
 DT - *; Rep
 CT - |EP| ISR (A1)
[WO9511393](#) A1 19950427 [A] (ASER SARL [FR], et al)
 [A] 1,18,20
 * page 5, line 1 - line 17 *
 * page 9, line 9 - line 25; figure 5 *;
[DE2532409](#) A1 19770203 [A] (WALTER BECKER KG);
[WO9726466](#) A1 19970724 [A] (ASER SARL [FR], et al)
 CCI - [F16G3/00](#) ; [F16G3/08](#)
 PA - ASER SARL [FR]; JAKOB HORST [FR]
 TI - **DEVICE FOR LINKING CONVEYOR BELTS**, METHOD FOR MAKING SAME AND METHOD FOR MOUNTING SAME ON A **CONVEYOR** BELT
 AB - The invention concerns a **linking device** for a **conveyor** belt comprising three parts: a top part (2), a bottom part (3), an intermediate part. Inserts (6' and 7') are provided to enable the parts (2 and 3) to be assembled by means of screws (5). Inserts (6 and 7) enable the **linking device** to be mounted on the ends of a **conveyor** belt.

23/28 © EPODOC / EPO

PN - [EP1163459](#) A1 20011219
 PNFP - EP1163459 B1 20060322
 PR - WO2001FR00130 20010116; FR20000000735 20000119
 AP - EP20010903960 20010116

DT - I

CCI - [F16G3/00](#) ; [F16G3/08](#)

PA - (A1 B1)
ASER SARL [FR]

TI - (A1 B1)
DEVICE FOR LINKING CONVEYOR BELTS AND METHOD FOR MANUFACTURING THE SAME

24/28 © EPODOC / EPO

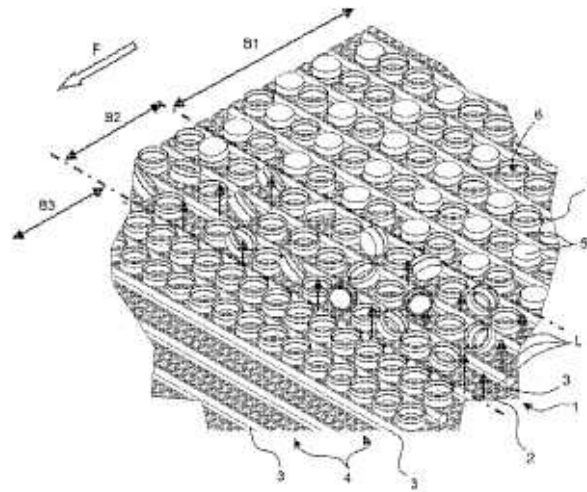
PN - [DE102007004418](#) A1 20080731

PR - DE20071004418 20070130

AP - DE20071004418 20070130

DT - *; Rep

CT - || STSE (A1)
[DE69508624T](#) T2 19990722 [] (BAUSCH & LOMB [US]);
[US4337633](#) A 19820706 [] (GEN ELECTRIC);
[US3835985](#) A 19740917 [] (WIEBE MFG INC);
[US3734268](#) A 19730522 [] (CARSON & BURGER INC)



CCI - [B65G47/256](#) ; [B65G47/525](#)

PA - WEIDENMUELLER RALF ACHIM [DE]

TI - Sorting **device** for arranging cylindrical closure lids on unending rotating **conveyor** belt, comprises air-permeable channeling for receiving of unsorted conveying closure lids and unit for discharging of all aligned closure lids

AB - The sorting **device** comprises of multiple **linking belts** (2) linked with each other and are arranged diagonally to a conveying direction. An air-permeable channeling (4) is provided for receiving of the unsorted conveying closure lids (5) and a unit for discharging of all aligned closure lids into a downstream subsequent processing. The channel of the running **conveyor** belt (1) over a certain horizontal extraction area (B2) is blown from bottom by a controlled air flow (L) perpendicularly upward against the closure lids.

25/28 © EPODOC / EPO

PN - [DE3515388](#) A1 19861030

PNFP - DE3515388 C2 19900118

PR - DE19843416082
19840430; DE19853515388
19850429

AP - DE19853515388 19850429

DT - **

CTNP - (A1)
[] DE-Z.: Das Papier, 27. Jhg.
1973, H. 6, S. 239
[] DE-Z.: Das Papier, 27. Jhg.
1973, H. 10 A, S. 553-564
[] CA-Z.: Pulp & Paper Canada,
Vol. 84, No. 12, Dez. 1983, S.
42 uns 43
[] DE-Z.: Wochenblatt für
Papierfabrikation, 114, Nr. 4, S.
119-120

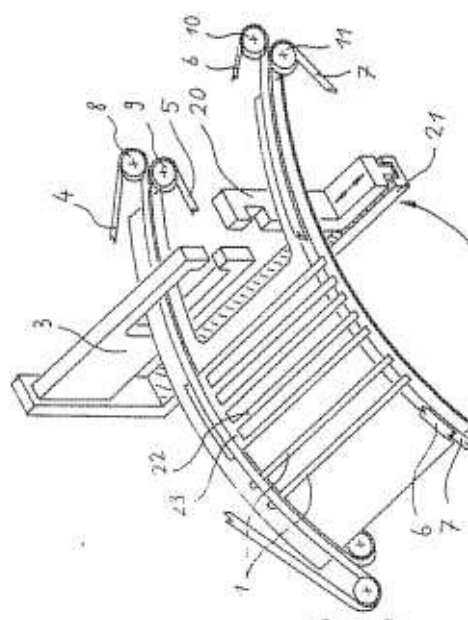
CCI - [G01N3/08](#) ; [G01N3/04](#)

CCA - [G01N33/34](#) ; [G01N2203/0206](#) ;
[G01N2203/0278](#) ;
[G01N2203/0282](#)

PA - (A1)
MAREK KONRAD [DE]

TI - (A1)
Simplified method, test strip
and **device** for testing paper,
cardboard and the like

AB - (A1)
The invention relates to an
automatic tensile strength-
measuring instrument for testing
sheet-like materials or threads.
To this end, a multiplicity of test
strips is combined into a unit by
mutually **linking** the ends of the
test strips aligned in parallel.
This is achieved by clamping the
test strips between **conveyor**
belts which run on a curved
support plate. The **belts** convey
the test strips in a stepwise
manner to the measuring
clamps. Two specially designed
measuring clamp types are used
for the measurement, which are
able to embrace or bypass the
connecting parts between the
test strips. The measuring clamp
type having a bypass part is
suitable, by virtue of the
measuring unit swivelling out of
the plane of the test strips, even
for materials having a high
elongation. <IMAGE>



PN - [CZ9602025](#) A3 19970716

PNFP - CZ291990 B6 20030716

PR - FR19940013918 19941121; WO1995FR01519 19951117

AP - CZ19960002025 19951117

DT - I

CCI - [F16G3/00](#)

CCA - [Y10T24/1628](#) ; [Y10T24/1664](#) ; [Y10T24/1676](#)

PA - (A3 B6)
ASER SARL [FR]

TI - (A3)
DETACHABLE CONNECTING **DEVICE** FOR **CONVEYOR BELTS**

- (B6)
Disconnectable and reconnectable junction **device** for **conveyor belts** and process for producing thereof

AB - (B6)
The present invention concerns a disconnectable and reconnectable junction **device** for **conveyor belts** made up of two flat flexible elements (a, A) presenting at the front side complementary shapes capable of interleaving in one same plane, connected rearwardly to the ends of a **conveyor** band, by adhesive bonding, vulcanization, riveting, clamping, thermoplastic molding, or formed directly by molding over the ends of the **conveyor** belt. Each one of the flexible elements (a, A) comprises at the front side oblong strips (li1, li2, li3, Li1, Li2) projecting forward and in the longitudinal direction, separated from each other by notches (Ei1, Ei2, Ei3, ei1, ei2) of a contour complementary to that of the strips (li1, li2, li3, Li1, Li2) of the other flexible element (a, A). Said strips (li1, li2, li3, Li1, Li2) of each flexible element (a, A) have at least two holes (1) intended for **linking** stems, which cross through them in an approximately transversal direction. The stems being located in the center of the strip (li1, li2, li3, Li1, Li2) thickness and spaced apart in longitudinal direction are aligned in position of latching snap of the strips (li1, li2, li3, Li1, Li2) and the flexible elements (a, A). The junction **device** further comprises a reinforcement formed by at least two layers (2) to which adheres the elastomer material of the junction **device** and which are arranged inside the junction **device** flexible elements (a, A) in two planes parallel to each another and parallel to faces of the junction **device** above and below the holes (1) for the **linking** stems, and extending in the rear portion of the flexible elements (a, A), whereby these layers (2) are elastic.

27/28 © EPODOC / EPO

PN - [CA2142864](#) A1 19950105

PNFP - CA2142864 C 20040504

PR - FR19930007454 19930621; WO1994FR00741 19940620

AP - CA19942142864 19940620

DT - I

CCI - [F16G3/00](#)

PA - (A1 C)
ASER SARL [FR]

TI - (A1 C)
FLEXIBLE JOINT **DEVICE** FOR **CONVEYOR BELTS**

AB - (A1)
23 SUMMARY JOINING **DEVICE** FOR **CONVEYOR** BELT In a preferred embodiment, the joining **device** comprises two halves of a joining **device** made up of a flexible and elastic material each one comprising a pair of flexible wings (4). These wings are fixed to the **conveyor** belt (6) by means of rivets (10). A frame (5) extends in the wings (4) and in the part of the joining **device** which constitutes actually the joining itself. The frame (5) is trimmed to washers (10) or to small plates (8) used as reinforcement for the fixing holes. A **linking** stem is threaded across through holes or passages provided in the **linking** elements.

- (C)

In a preferred embodiment, the joining **device** comprises two halves of a joining **device** made up of a flexible and elastic material each one comprising a pair of flexible wings (4). These wings are fixed to the **conveyor** belt (6) by means of rivets (10). A frame (5) extends in the wings (4) and in the part of the joining **device** which constitutes actually the joining itself. The frame (5) is trimmed to washers (10) or to small plates (8) used as reinforcement for the fixing holes. A **linking** stem is threaded across through holes or passages provided in the **linking** elements.

28/28 © EPODOC / EPO

PN - [AU3190701](#) A 20010731

PNFP - AU779123B B2 20050106

PR - FR20000000735 20000119; WO2001FR00130 20010116

AP - AU20010031907 20010116

DT - I

CT - || STSE (B2)

[WO9511393](#) A1 19950427 [] (ASER SARL [FR], et al);

[DE2532409](#) A1 19770203 [] (WALTER BECKER KG);

[WO9726466](#) A1 19970724 [] (ASER SARL [FR], et al)

CCI - [F16G3/00](#) ; [F16G3/08](#)

PA - (A B2)
ASER SARL

TI - (A B2)

Device for **linking conveyor belts**, method for making same and method for mounting same on a **conveyor** belt

[SS 2] DEVICE AND LINKING AND CONVEYOR AND BELTS

Results in EPODOC **28**

[SS 3] CONVEYOR AND BELT AND JOINTING

Results in EPODOC **125**

[SS 4] /ic F16G3/08

Results in EPODOC **616**

[SS 5] 3 and 4

Results in EPODOC **11**

[SS 6] ..li



1/11 © EPODOC / EPO

PN - [US2017016512](#) A1 20170119

PR - UA20130013457 20131119; WO2014UA00124 20141117

AP - US201415037398 20141117

DT - *; Rep

CT - || R141 (A1)

[US754567](#) A 19040315 [] (JACKSON ISAAC [GB]);

[US1659001](#) A 19280214 [] (PURPLE GEORGE E);

[US3093005](#) A 19630611 [] (DEAN VAL B);

[US3141346](#) A 19640721 [] (DEAN VAL B);

[US4558492](#) A 19851217 [] (HITE JOHN B [US], et al);

[US5467867](#) A 19951121 [] (MUSIL EDWARD C [US], et al);
[US5599131](#) A 19970204 [] (JULEN DONALD L [US], et al);
[US2004045136](#) A1 20040311 [] (MUSIL EDWARD C [US], et al);
[US7077263](#) B1 20060718 [] (RICHARDSON THOMAS W [US], et al);
[US2010200374](#) A1 20100812 [] (JAKOB HORST [FR])

CCI - [F16G3/08](#)
PA - KOVALCHUK VOLODYMYR [UA]
TI - FASTENER FOR MECHANICALLY LINKED **CONVEYOR BELTS**
AB - Fastener for the mechanical **jointing** of **conveyor** belts comprises two plates and two connecting elements, each plate has two identical through holes arranged as concave toward the inner surface of the plate and lugs for fixing to the surface of the **conveyor belt**, each connecting element is arranged in the form of a bolt the head of which corresponds to the fit socket of the upper plate. Both plates are flat with bosses in cylindrical form at the ends for compressing the **conveyor belt** ends in butt joint, the diameter of the bosses is larger than the width of the plate also having shaped bosses for fixation with **conveyor belt** placed in circular section by straight sections of its inner surface, each plate at circular sections is provided with holes arranged symmetrically between the profiled bosses, in the bottom plate both through holes are arranged with threading for a bolt.

2/11 © EPODOC / EPO

PN - [ZA200608082](#) B 20080730
PR - FR20040002888 20040318
AP - ZA20060008082 20050317
DT - I
CCI - [F16G3/08](#)
PA - ASER SARL
TI - **Jointing** elements incorporated into the ends of a **conveyor belt**

3/11 © EPODOC / EPO

PN - [SI1725787T](#) T1 20080229
PR - FR20040002888 20040318; WO2005FR00654 20050317; EP20050739421 20050317
AP - SI20050030105T 20050317
DT - I
CCI - [F16G3/08](#)
PA - ASER SARL [FR]
TI - **JOINTING** ELEMENTS INCORPORATED INTO THE ENDS OF A **CONVEYOR BELT**

4/11 © EPODOC / EPO

PN - [PL112466U](#) U1 20020225
PNFP - PL62240Y Y1 20060531
PR - PL20010112466U 20010822
AP - PL20010112466U 20010822
DT - I
PA - (U1 Y1)
PAJAK JAN [PL]
TI - (U1 Y1)
PLATE-TYPE **BELT CONVEYOR JOINTING** FASTENER

5/11 © EPODOC / EPO

PN - [PL112465U](#) U1 20020225
PNFP - PL62262Y Y1 20060531
PR - PL20010112465U 20010822

AP - PL20010112465U 20010822
 DT - I
 PA - (U1 Y1)
 PAJAK JAN [PL]
 TI - (U1)
 PLATE-TYPE **BELT CONVEYOR JOINTING** FASTENER
 - (Y1)
 Plate-type **belt conveyor jointing** fastener

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PN - [MXPA06010661](#) A 20070117
 PR - FR20040002888 20040318; WO2005FR00654 20050317
 AP - MX2006PA10661 20050317
 DT - I
 CCI - [F16G3/08](#)
 PA - ASER SARL [FR]
 TI - **JOINTING** ELEMENTS INCORPORATED INTO THE ENDS OF A **CONVEYOR BELT**.
 AB - The inventive **jointing** elements are embodied in the form of two half-joints, i.e. the male (3) and female (4) half-joints which are incorporated into the ends (1, 1') of a **conveyor belt**. Said male half-joint (3) is shape complementarily to the shape of the female half-joint (4). The assembly of the two half-joints is carried out by means of screws (15) which penetrate into insert-cavities fixed to the male half-joint (3) material and the **conveyor belt** end (1') fittings and are screwed into the insert-sockets fixed to the **conveyor belt** end (1) fittings. Said screws (15) are implanted in a perpendicular direction with respect to the general plane of the male half-joint (3), the insert-sockets being implanted in a perpendicular direction with respect to the general plane of the female half-joint (4). The fittings are folded up in such a way that each of them forms two layers fixed to the insert-cavities and to the insert-sockets, respectively.

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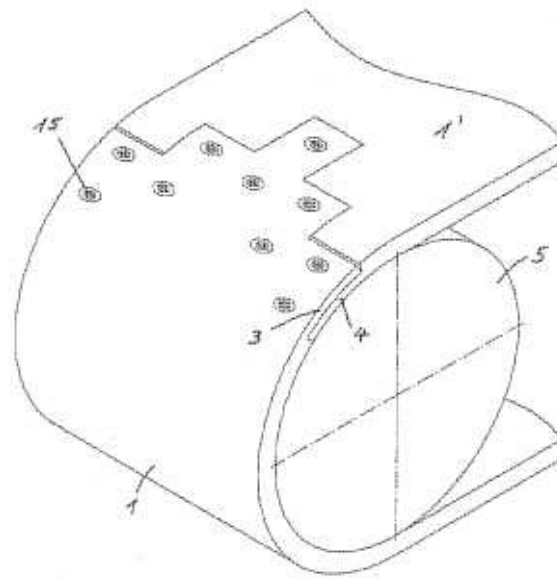
PN - [JP2007276905](#) A 20071025
 PNFP - JP4905922B B2 20120328
 PR - JP20060102232 20060403
 AP - JP20060102232 20060403
 DT - I
 FI - B65G15/30&Z; F16G3/08
 FT - 3F024/AA19; 3F024/CB03; 3F024/CB10; 3F024/CB13
 PA - (A)
 BRIDGESTONE CORP
 TI - (A)
CONVEYOR BELT, ITS SIMPLE JOINTING METHOD AND BELT FOR JOINTING
 AB - (A)
 PROBLEM TO BE SOLVED: To provide **conveyor** belts having configurations capable of **jointing** the **conveyor** belts to each other by using a smaller number of fastening bolts, and a method for **jointing** the **conveyor** belts.
 - SOLUTION: Upper and lower cover rubber 10b, 10c in one end parts of the **conveyor** belts 10 is cut, and plates 12 with a plurality of bolt insertion holes 12h of which axes correspond to one another are embedded into the cut portions. Upper and lower cover rubber 11b, 11c in both end parts is cut, and plates 15, 15 having bolt insertion holes 15h similar to those of the plates 12 are embedded into the cut portions, so as to prepare a **belt** 11 for temporary **jointing**. When the two **conveyor** belts 10 are temporarily jointed, the plates 12, 12 are overlapped with the plates 15, 15, and the **belt** 11 for temporary **jointing** is connected with the respective **conveyor** belts 10, 10 by the fastening bolts 13 and nuts 14.

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PN - [WO2005093287](#) A1 20051006
 PR - FR20040002888 20040318
 AP - WO2005FR00654 20050317
 DT - **
 CT - [EP] ISR (A1)
[US5724706](#) A 19980310
 [A] (JAKOB HORST [FR])
 [A] 1
 * column 3, line 66 - column 4,
 line 21; figures 1-9 *;
[US6601698](#) B2 20030805
 [AD] (JAKOB HORST [FR])
 [AD] 1
 * the whole document *;
[US2883871](#) A 19590428
 [A] (RUDOLF POESCHL);
[US1792718](#) A 19310217
 [A] (STOLL ROBERT E);
[GB548209](#) A 19420930
 [AD] (DUNLOP RUBBER CO, et al);
[US5839571](#) A 19981124
 [AD] (JAKOB HORST [FR]);
[GB708461](#) A 19540505
 [AD] (CABLE BELT LTD);
[FR1140516](#) A 19570724
 [AD] (DUNLOP RUBBER CO)

CCI - [F16G3/08](#)
 PA - ASER SARL [FR]; JAKOB HORST [FR]
 TI - **JOINTING ELEMENTS**
 INCORPORATED INTO THE ENDS
 OF A **CONVEYOR BELT**

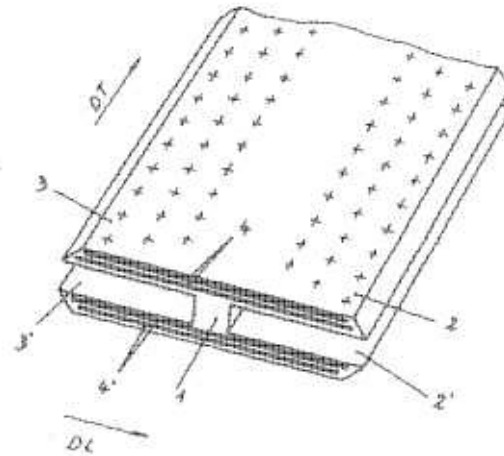
AB - The inventive **jointing** elements are embodied in the form of two half-joints, i.e. the male (3) and female (4) half-joints which are incorporated into the ends (1, 1') of a **conveyor belt**. Said male half-joint (3) is shape complementarily to the shape of the female half-joint (4). The assembly of the two half-joints is carried out by means of screws (15) which penetrate into insert-cavities fixed to the male half-joint (3) material and the **conveyor belt** end (1') fittings and are screwed into the insert-sockets fixed to the **conveyor belt** end (1) fittings. Said screws (15) are implanted in a perpendicular direction with respect to the general plane of the male half-joint (3), the insert-sockets being implanted in a perpendicular direction with



respect to the general plane of the female half-joint (4). The fittings are folded up in such a way that each of them forms two layers fixed to the insert-cavities and to the insert-sockets, respectively.

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- PN - [FR2743611](#) A1 19970718
- PNFP - FR2743611 B1 19980313
- PR - FR19960000465 19960117
- AP - FR19960000465 19960117
- DT - **
- CT - || STSE (A1)
[WO9511393](#) A1 19950427
 [A] (ASER SARL [FR], et al)
 [A] 1
 * page 7, line 23 - page 8, line 31; figures 8,3,4,7 *;
[FR2116609](#) A5 19720721
 [A] (GORO)
 [A] 1
 * page 3, line 12 - line 18; figure 1 *;
[DE2532409](#) A1 19770203
 [A] (WALTER BECKER KG)
- CCI - [F16G3/00](#)
- CCA - [Y10T24/1652](#)
- PA - (A1 B1)
 ASER SARL [FR]
- AB - (A1)
 A **conveyor belt jointing** device with a generally H-shaped cross-section comprising a central portion (1) forming the crossbar of the H, and two pairs of flanges (2, 2'; 3, 3') connected to respective sides of the central portion (1) and integral therewith. The **jointing** device comprises two separate reinforcing elements (4, 4'). The reinforcing elements consist of stacked plies of cables made of metal or a synthetic material and having little or no inherent stretchability, the ply cables being arranged at angles of around 45 DEG to the longitudinal direction and around 90 DEG to the cables in the ply located immediately above or below.



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- PN - [AU2005225769](#) A1 20051006

PNFP - AU2005225769B B2 20100923
 PR - WO2005FR00654 20050317; FR20040002888 20040318
 AP - AU20050225769 20050317
 DT - I
 CT - (B2)
[US5724706](#) A []
 CCI - [F16G3/08](#)
 PA - (A1 B2)
 ASER SARL
 TI - (A1 B2)
Jointing elements incorporated into the ends of a **conveyor belt**

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PN - [EP1725787](#) A1 20061129
 PNFP - EP1725787 B1 20070905
 PR - WO2005FR00654 20050317; FR20040002888 20040318
 AP - EP20050739421 20050317
 DT - I
 CCI - [F16G3/08](#)
 PA - (A1 B1)
 ASER SARL [FR]
 TI - (A1 B1)
JOINTING ELEMENTS INCORPORATED INTO THE ENDS OF A **CONVEYOR BELT**

[SS 6] Flexible and jointing and belt

Results in EPODOC **50**

[SS 7] 4 and 6

Results in EPODOC **0**

[SS 8] BELT AND CONVEYER AND POSITION

Results in EPODOC **10.495**

[SS 9] ALMOST AND INEXTENSIBLE AND FABRIC

Results in EPODOC **1**

[SS 10] Device and linking and conveyor and belts

Results in EPODOC **28**

[SS 11] Conveyor and belt and jointing and apparatus

Results in EPODOC **8**

[SS 12] Filament and blend and conveyor and belts

Results in EPODOC **0**

[SS 13] Filament and blend and conveyor

Results in EPODOC **2**

[SS 14] shaped and connecting and device and belts

Results in EPODOC 311

[SS 15] 4 and 14

Results in EPODOC 1

[SS 16] ..li



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PN - [GB1106069](#) A 19680313

PR - GB19650022050 19650525

AP - GB19650022050 19650525

DT - *

CCI - [B65G15/42](#) ; [F16G3/08](#)

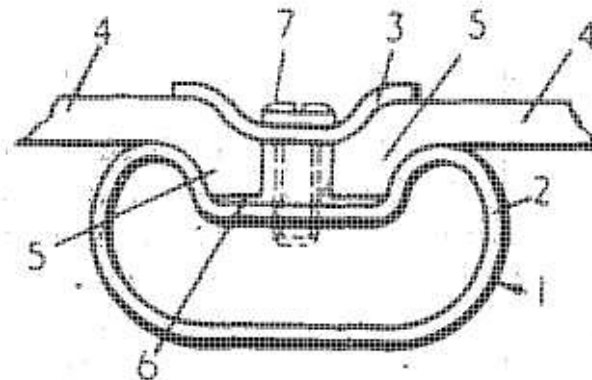
CCA - [B65G2201/04](#)

PA - CYRIL GODFREY ALSTON HALL

TI - Improvements in or relating to a **connecting device** for sectional conveyor **belts**

AB - 1,106,069. Belt fastenings C. G. A. HALL. 24 May, 1966 [25 May, 1965], No. 22050/65. Heading F2Q. A conveyor belt fastener comprises a transverse cradle member 1 formed as an arcuate tube having a substantially U-section inset 6, between which inset 6 and a clamping strip 3 belt ends 4 are clamped by bolts 7. The clamping strips 3 may be provided with baffle plates **shaped** to conform to the cross-section of the belt and dividing the belt into individual pockets.

FIG. 2.



[SS 16]