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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



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Ref: Expediente No. **12-047796**
Patente de Invención **“APARATO Y MEDIOS DE PLEGADO
PARA ENVOLVER UNA PALETA”**
Solicitud Internacional: **PCT/EP2010/005788**
Titular: **CFS WEERT B.V.**

RECURSO DE REPOSICIÓN CONTRA LA
RESOLUCIÓN NO. 51442 DE 29 DE AGOSTO DE 2013,
NOTIFICADA POR FIJACION EN LISTA DE 3 DE
SEPTIEMBRE DE 2013, DESFIJADA EL 3 DE
OCTUBRE DE 2013

HUMBERTO RUBIO CAMACHO, mayor de edad, domiciliado en Bogotá, D.C., con la Oficina 506 de la Carrera 7 No. 74-64 de ésta ciudad, Abogado en Ejercicio, portador de la Tarjeta Profesional No. 50.007 expedida por el Consejo Superior de la Judicatura, actuando en carácter de apoderado de la sociedad **CFS WEERT B.V.**, domiciliada De Fuus 8, NL-6006 RV Weert, Países Bajos (Holanda); reconocido por su despacho y encontrándome dentro de la debida oportunidad procesal, por medio del presente escrito interpongo **RECURSO DE REPOSICIÓN** contra la Resolución No. 51442 de 29 de agosto de 2013, notificada por fijación en lista de 3 de septiembre de 2013, desfijada el 3 de octubre de 2013; con el propósito que sea revocada y en su lugar proferir otra, en que se **OTORGUE** el privilegio de la Patente de Invención denominada: **“APARATO Y MEDIOS DE PLEGADO PARA ENVOLVER UNA PALETA”**.

En esta etapa de la manera mas atenta solicitamos a ese respetable Despacho, se sirva efectuar un estudio mas profundo, de la invención solicitada, para que se profiera un fallo equitativo y acorde a las disposiciones vigentes; pues es la resolución que estamos impugnando se ha efectuado un estudio muy limitado y se ha rechazado una solicitud de patente de invención, que cumple con todos los presupuestos, señalados en la Decisión 486 de la Comunidad Andina.

1. MOTIVOS DE INCONFORMIDAD

Base de la Negativa

- 1.1. Mediante la Resolución objeto del presente recurso, su Despacho niega el privilegio de patente de invención denominada: **"APARATO Y MEDIOS DE PLEGADO PARA ENVOLVER UNA PALETA"** solicitado por mí representada la sociedad **CFS WEERT B.V.**; al considerar que no cumple con los requisitos dispuestos en la legislación comunitaria vigente.
- 1.2. La División de Nuevas Creaciones decidió negar el derecho de patente de invención por no cumplir con el requisito de novedad. Se puede establecer con la simple lectura de la Resolución que esa división de ninguna manera considera la inversión, la importancia y el alcance de la presente solicitud y a pesar de tener novedad y nivel inventivo, decide negarla haciéndose una interpretación equivocada de la invención.

2. Determinación del Estado de la Técnica

Nivel Inventivo

- 2.1. Nos permitimos respetuosamente indicar que no compartimos la interpretación realizada por el examinador con respecto al documento citado, en el cual se fundamento el rechazo de las reivindicaciones 1 a 7 de la presente solicitud, interpretación equivocada teniendo en cuenta los siguientes hechos:

- La técnica anterior citada en el mencionado acto administrativo no describe los rasgos que caracterizan la presente invención como se reivindica en la reivindicación 1. Las características expuestas en la reivindicación 1, son novedosas por la **combinación de características "esenciales"** requisito de novedad que está completamente satisfecho para la presente invención

- Al respecto, nuestro representado manifiesta respetuosamente estar en desacuerdo con dicha opinión, ya que dicho documento D1 no describe la siguiente característica:

"cada medio de plegado comprende dos secciones, una que es de una sola pata y una con dos patas" (ver reivindicación 1 de la presente solicitud de patente)

Como se puede apreciar claramente de las Figuras 6A-6C del documento D1, el medio de plegado 52, 52a es únicamente de una sola pata y el medio de plegado 51, 51es únicamente con dos patas. Por consiguiente, ninguno de los medios de plegado 51, 52 comprende dos secciones, una que es de una sola pata y una con dos patas. Las dos secciones 7, 8 de los medios de plegado 3, 4 pueden ser vistas claramente en las Figuras 3 y 4 de la presente solicitud. El documento D1 no divulga tales secciones de una sola pata y de dos patas.

Los argumentos anteriormente indicados ya fueron mencionados en la respuesta a la última Acción Oficial.

El efecto de los medios de plegado de acuerdo al documento D1 no es el mismo que los medios de plegado de la presente solicitud, porque debido a las dos secciones que presentan estos últimos, la guía y el plegado del material de envoltorio es más eficiente. Por lo tanto, dados y analizados estos argumentos, la solicitud cumple con los requisitos de novedad y nivel inventivo.

El mismo estado del arte fue citado en el procedimiento de concesión de patentes por la Oficina Europea de Patentes, no obstante lo anterior se concedió la patente con el mismo contenido de las reivindicaciones de la presente solicitud. (Se adjunta patente concedida EP2298650 B1 como antecedente).

Por tanto la presente solicitud cumple con lo dispuesto por la Decisión 486 por cuanto se debe apreciar que contiene novedad y

nivel inventivo sobre el estado de la técnica de los documentos anteriores.

En consecuencia, las **reivindicaciones 1 a 7**, si resultan lo suficientemente novedosas, cumpliendo las exigencias dispuestas en los artículos 14 y 18 de la Decisión 486 de la Comunidad Andina y por tanto a ellas también debe ser extendido el privilegio de la patente otorgado.

2. PETICIONES.

a) Pretensión Principal.

De acuerdo a lo señalado en el transcurso de este recurso, solicito respetuosamente a su despacho, tener en cuenta los argumentos anteriormente propuestos y con base a ello, proceder con la concesión de la Patente de Privilegio de Invención, **“APARATO Y MEDIOS DE PLEGADO PARA ENVOLVER UNA PALETA”**.

b) Pretensiones Subsidiarias.

- 1). REVOCAR** la Resolución No. 51442 de 29 de agosto de 2013, y en su lugar proferir otra en la que otorguen en forma total o parcial las reivindicaciones solicitadas, todo de conformidad con los documentos que hacen parte esencial del trámite.
- 2). REVOCAR** la Resolución No. 51442 de 29 de agosto de 2013, y en su lugar proferir otra en la que si su Despacho, no obstante la claridad de la invención, considera que es necesaria alguna precisión, se requiera a mi representada con las explicaciones pertinentes, pues reiteramos que la invención solicitada encaja dentro de las normas vigentes, por lo tanto en aras de los principios de equidad y justicia deberá ser otorgada, como respetuosamente lo solicito.

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3. PRUEBAS.

- 3.1. Todos y cada uno de los documentos que reposan en el expediente citado en la referencia.
- 3.2. La actuación surtida.
- 3.3. Patente concedida en Europa EP2298650 B1

4.- FUNDAMENTOS DE DERECHO.-

Las disposiciones legales que invoco como fundamento para promover el presente recurso son los artículos 14, 16, 18, y 34 y demás aplicables de la Decisión 486 de la Comunidad Andina, en las normas aplicables del Código Contencioso Administrativo, y en las demás disposiciones vigentes.

5.- OPORTUNIDAD.-

La Resolución recurrida fue notificada por fijación en lista de 3 de septiembre de 2013 y desfijada el 3 de Octubre de 2013, por lo tanto me encuentro dentro de la debida oportunidad legal, consagrada en el Código Contencioso Administrativo.

6.- NOTIFICACIONES.-

Mí representada y el suscrito recibiremos notificaciones en la Secretaría de su Despacho o en mi Oficina de Abogado, situada en la Carrera 7 No. 74-64 de Bogotá.

Atentamente,



HUMBERTO RUBIO CAMACHO

C.C. 17'192.062 de Bogotá

**T.P. 50.007 Consejo Superior
de la Judicatura**

COD. 4134

Dependencia: 2020	Fecha: 13 / 10 / 09 / AAAA MM DD	Recorrido: 3
Tipo de Radicación: Entrada: ☒ Salida: ☐ Traslado: ☐ Convenio: ☐		
Radicator:		Planilla:

ID	No. Radicación	Consecutivo	Item
1	12-47796	8	2
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Item	Unidad de Conservación
1	Bolsa
2	Caja
3	Libro
4	Sobre
5	Tomo
6	Otro
Item	Soporte Documental
7	CD
8	Disquete
9	DVD
10	Folleto
11	Foto
12	Periódico
13	Plano
14	Publicación Periódica
15	USB
16	Otro

Observaciones:

El CD Anexo contiene un total de 7 Archivos.
Y en Formato pdf, el cual fue procesado.

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(11) **EP 2 298 650 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
16.05.2012 Bulletin 2012/20

(51) Int Cl.:
B65B 11/54 (2006.01) B65B 25/00 (2006.01)

(21) Application number: **09012019.7**

(22) Date of filing: **22.09.2009**

(54) **Apparatus and folding means for wrapping a lollipop**

Vorrichtung und Faltmittel zum Einpacken von Lutschern

Appareil et moyens de pliage pour envelopper une sucette

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL
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50668 Köln (DE)**

(56) References cited:
**EP-A1- 0 718 192 WO-A1-03/086871
WO-A1-2006/014107**

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

[0001] The present invention is related to an apparatus for wrapping a lollipop with a stick in a wrapping material by twisting, said apparatus being provided with:

- a lollipop-holder, which is rotatable around an axis and which is preferably axially movable to and fro,
- a pair of folding means being continuously rotatable, synchronously with the lollipop holder around the axis, the folding means defining both a folding opening and are movable relative to each other to increase and reduce the folding opening
- means for feeding wrapping material between the folding means and the lollipop holder and for cutting the wrapping material and twisting means, continuously rotatable around axis, synchronously with the lollipop holder, for twisting one end of the wrapping material round the lollipop stick.

[0002] The present invention is further related to a pair of folding means.

[0003] The above mentioned apparatus and the above mentioned folding means are for the example known from EP 0 718 192 and from WO 03/086871. However, this apparatus and this folding means have the disadvantage that the twisting and sealing of the wrapping material around the sticks is often insufficient.

[0004] It was therefore the objective of the present invention to provide an apparatus and folding means which do not have the deficiencies of the state of the art.

[0005] The problem is solved with an apparatus for wrapping a lollipop with a stick in a wrapping material by twisting, said apparatus being provided with

- a lollipop-holder, which is rotatable around an axis and which is preferably, axially movable to and fro
- a pair of folding means being continuously rotatable, synchronously with the lollipop holder around the axis the folding means defining both a folding opening and are movable relative to each other to increase and reduce the folding opening
- means for feeding wrapping material between the folding means and the lollipop holder and for cutting the wrapping material, and
- twisting means continuously rotatable around axis, synchronously with the lollipop holder, for twisting one end of the wrapping material round the lollipop stick,

whereas each folding means comprises two sections one being single-legged and one being double-legged.

[0006] The problem is further solved with a pair of folding means to fold a wrapping material around a lollipop and seal it to its stick with a pair of folding means, being continuously rotatable, synchronously with the lollipop holder around the axis, the folding means defining both a folding opening and are movable relative to each other

to increase and reduce the folding opening, whereas each folding means comprises two sections, one being single-legged and one being double-legged.

[0007] The following disclosure relates to the apparatus and to the folding means likewise.

[0008] Preferably the single legged section of one holding means is inserted into the double legged section of the other holding means, when the folding means are moved relative to each other.

[0009] According to a preferred embodiment of the present invention, the double legged section is made of two parts; i.e. two separate legs, which are, more preferably, connected by connecting means. The legs are connected to each other or the connecting means by form fit, force closure and/or an adhesive bond. The connecting means and/or the legs may comprise means to position the legs correctly relative to the connecting means and/or relative to each other.

[0010] Preferably each means comprises a forming-and/or a sealing area. More preferably, the forming-and/or sealing area of the two folding means cooperate in forming and/or sealing the wrapping material around the stick of the lollipop. Even more preferably, the forming and/or sealing area is a corrugation, which extends over the entire width of the folding means.

[0011] Preferably, the folding means are heated, especially in the vicinity of the corrugation. Therefore, the folding means either comprises heating means or is heated by induction or radiation.

[0012] According to another preferred embodiment, the folding means are made from metal.

[0013] The invention is now explained according to Figures 1-7. These explanations do not limit the scope of protection of the present invention. The explanation apply to both inventions likewise.

Figures 1 and 2 show the inventive apparatus.

Figure 3 shows the first folding means.

Figure 4 shows the second folding means.

Figures 5-7 shows details of the inventive apparatus and detail of the inventive folding means.

[0014] Figure 1 shows a schematic view, and figure 2 shows a schematic section, of an apparatus for wrapping a lollipop in a single-twist wrapping. The apparatus is provided with a known holder, not shown, for a lollipop 2. The holder of lollipop 2, 6, which holds the stick 6, is continuously rotatable around a first axis 5 and axially; e.g. parallel to axis 5, moveable to and fro, as depicted by arrow 20. The apparatus further comprises a number of pairs of folding plates 3, 4 being rotatable synchronously with the lollipop holder around the axis 5. The folding plates 3, 4 are only depicted schematically and can be seen in more detail in figures 3-7. One first folding plate 4 of each pair is, in the present case, connected

via a lever 12 to a curve roll 11, which curve roll contacts a curve path 10 and runs over it. The second folding plate 3 is, according to the present example, connected via a rack to the first folding plate 4. Each pair of folding plates 3, 4 form a folding opening 14. Due to the shape of the curve path 10, when the curve roll 11 runs over the curve path 10, the folding plates 3, 4 will move towards and away from each other, by which the folding opening 14 can be increased or reduced as desired. The person skilled in the art understands, that the folding plates 3, 4 can also be driven by any other means. They are, however, preferably synchronized. The apparatus also comprises a known feeding apparatus, not shown, for feeding the wrapping material 1 between a pair of folding plates 3, 4 and the lollipop 2, 6 in the lollipop holder. This feeding apparatus is also provided with a cutting apparatus for cutting a piece wrapping material at the desired size.

[0015] Wrapping a lollipop head 2 in a single-twist wrapping, in which the lollipop holder and the pair of folding plates 3, 4 are driven continuously around axis 5, is done as follows:

[0016] The wrapping material 1 is placed, as depicted by arrow 19, by the feeding apparatus (not depicted) between the lollipop 2, 6 in the lollipop holder (not depicted) and the pair of folding plates 3, 4. Due to the cooperation between the curve path 10 and the curve roll 11, the mutual position of the folding plates 3, 4 is herein such, that the folding opening 14 is maximum. The lollipop 2 is subsequently moved axially by the lollipop holder against the wrapping material 1. At which same time a piece of wrapping material is cut off and the lollipop 2, 6 is moved further through the folding opening 14 between the folding plates 3, 4. Hereby the wrapping material is taken along by the head 2 of the lollipop and, when the head of the lollipop is located beyond the folding plates 3, 4, the piece of wrapping material will be folded partially around the head of the lollipop 2. At the moment at which the head of the lollipop 2 is located beyond the folding plates 3, 4, rotation of the lollipop holder and the pair of folding plates 3, 4, around axis 5, has brought the curve roll 11 in such a position of the curve path 10 in which the folding plates 3, 4 move towards each other, thereby reducing the folding opening 14, as a consequence of which the piece of wrapping material is folded further around the head of the lollipop. The reduction of the folding opening 14 continues until the lollipop stick 18 is clamped by the folding plates 3, 4. In this moment, the head of the lollipop 2 is located in a twisting apparatus 17 which is rotatable synchronously with the lollipop holder around a third axis 5 being in line with the first axis and which finishes the single-twist wrapping by twisting the ends of the piece of wrapping material with a twisting movement around the lollipop stick 6. After this, cooperation of the curve roll 11 and the curve path 10 increases the folding opening 14 so that the lollipop holder can retract the wrapped lollipop through the folding plates 3, 4 and can deliver it for further processing and the wrapping of another lollipop can be started.

[0017] Figure 3 shows one of the folding means 3. This folding means comprises a first single-legged section 7 and a second double-legged section 8. One end of section 7 is connected to means 13, here a clamp, which fixes the folding means 3 to the inventive apparatus. The other end of the first section 7 is connected to the two legs 8', 8" of the second section 8 via connecting means 9. Here, the double legged section is further away from the means 13 than the single legged section. The connecting means 9 as well as the two legs 8', 8" each comprises a groove 8.1', 8.1", 9.1, which forms a sealing- and forming area for twisting, shaping and/or sealing the wrapping material around the stick 6 of the lollipop. This area can be preferably heated to facilitate the forming and/or sealing of the wrapping material.

[0018] Figure 4 shows the other folding means 4. This folding means 4 comprises a first single-legged section 7 and a second double-legged section 8. In this embodiment, the double-legged section 8 is closer to the means 13 than the single-legged section 7. The double-legged section 8 comprises two parts which are at one end connected preferably via connecting means with the single leg 7, and the other end is connected to the inventive apparatus. In the present case, the connecting means can be made in one piece with the leg 7. The single leg 7, the double legs 8 and/or the connecting means 9 may comprise a groove 7.1, 8.1', 8.1", 9.1 to improve the twisting, forming and/or sealing of the wrapping material around the stick 6. Furthermore, as already explained above, this folding means 4 can also be heated in order to improve the forming and sealing of the wrapping material. However it can also be sufficient, that only one of the folding means 3, 4 is heated.

[0019] Figures 5 to 7 show the cooperation of the two folding means 3, 4 during the wrapping of the lollipop. Both folding means are connected to the apparatus (not depicted) and can be moved, here rotated, relative to each other back and forth. The folding means 3 and 4 are positioned at the apparatus such that the single-legged section 7 of folding means 4 can be inserted between the two legs 8', 8" of section 8 of folding means 3 and vice versa.

[0020] Figure 5 shows the initial position of the folding means 3 and 4, in which they are spaced far apart in order to provide a folding opening 14 through which the head 2 of the lollipop can be moved, as depicted by the arrow 18. Both folding means 3 and 4 can be moved, here rotated, relative to each other whereas, in the present example, they both have only a single drive and are synchronized via synchronization means 17. The person skilled in the art understands that it is also possible to maintain one folding means in a stationary position and rotate only the other folding means. As soon as the lollipop has been pushed through the folding opening, the area 14 is reduced, by moving the means 3, 4 towards each other, so that the wrapping material is wrapped around the head 2. At this instance or later, the twisting of the lollipop 2, 6 is initiated. The twisting direction is

depicted by arrow 16.

[0021] As can be also seen from figure 5, the single leg 7, the two legs 8', 8" and/or the connecting means 9 form a groove at each folding means 3, 4, respectively, which have, in the present case, reference signs 7.1, 9.1, which facilitate the twisting, forming and/or sealing of the wrapping material. At least one, preferably both, of the folding means 3, 4, preferably in the region around the grooves 7.1, 9.1 is heated in order to facilitate the forming, twisting and/or sealing of the wrapping material.

[0022] In the depiction according to figure 6, the two folding means 3, 4 have already been moved together. Due to this movement, the opening 14 is reduced and the wrapping material is thus formed and/or twisted around the head 2 and/or the stick 6 of the lollipop.

[0023] In figure 7, the twisting and sealing of the wrapping material is in its final stage. The two folding means 3, 4 are now in the closest position, so that the sealing-, forming grooves 7, 1, 9.1 are in direct contact with the wrapping material around the stick. This close contact insures that the twisting of the material around the stick 6 and the sealing of this area is ideal so that it will not open unintentionally.

List of reference signs:

[0024]

1	wrapping material	
2	lollipop	
3	folding means, folding arms, sealing means, second folding means	
4	folding means, folding arms, sealing means, first folding means	
5	first axis, second axis	
6	stick of the lollipop	
7	first section, single leg	
7.1	sealing-, forming- area	
8	second section, double leg	
8'	first leg	
8"	second leg	
8.1	sealing-, forming- area	
8.1'	sealing-, forming- area	
8.1"	sealing-, forming- area	
9	connecting means	
9.1	sealing-, forming area	
10	curve roll	
11	roll	
12	lever	
13	fixing means, clamp	
14	folding opening	
15	twisting means	
16	rotation direction of the lollipop	
17	drive, synchronization	
18	arrow	
19	arrow	
20	arrow	

Claims

1. Apparatus for wrapping a lollipop (2) with a stick (6) in a wrapping material (1) by twisting, said apparatus being provided with

- a lollipop-holder, which is rotatable around an axis (5) and which is preferably axially movable to and fro

- a pair of folding means (3, 4), being continuously rotatable, synchronously with the lollipop holder around the axis (5), the folding means (3, 4) defining both a folding opening (14) and are movable relative to each other to increase and reduce the folding opening (14),

- means for feeding wrapping material between the folding means (3, 4) and the lollipop holder and for cutting the wrapping material,

- and twisting means (17), continuously rotatable around axis (5), synchronously with the lollipop holder, for twisting one end of the wrapping material round the lollipop stick (6),

characterized in, that each folding means (3, 4) comprises two sections (7, 8), one being single-legged (7) and one being double-legged (8).

2. A pair of folding means to fold a wrapping material (1) around a lollipop (2) and seal it to its stick (6), the pair of folding means (3, 4) being continuously rotatable, synchronously with the lollipop holder around the axis (5), the folding means (3, 4) defining both a folding opening (14) and are movable relative to each other to increase and reduce the folding opening (14), **characterized in, that**, that each folding means (3, 4) comprises two sections (7, 8), one being single-legged (7) and one being double-legged (8).

3. Apparatus or pair of folding means according to claim 1 or 2, **characterized in, that** the single legged section (7) of one holding means (3) is inserted into the double-legged section (8) of the other holding means (4)

4. Apparatus or pair of folding means according to one of the preceding claims, **characterized in, that** the double legged section (8) is made of two parts (8', 8").

5. Apparatus or pair of folding means according to one of the preceding claims, that each folding means (3, 4) comprises a forming and/or sealing-area (7.1, 8.1, 8.1', 8.1", 9.1)

6. Apparatus or pair of folding means according to one of the preceding claims, **characterized in, that** the folding means (3, 4) are heated.

7. Apparatus or pair of folding means according to one

of the preceding claims, **characterized in, that** the folding means (3, 4) are made from metal.

Patentansprüche

1. Vorrichtung zum Einwickeln eines Lutschers (2) mit einem Stiel (6) in einem Einwickelmaterial (1) durch Verdrillen, wobei die Vorrichtung mit Folgendem versehen ist:

- einem Lutscherhalter, der um eine Achse (5) drehbar ist und der vorzugsweise axial hin und her beweglich ist,
- ein Paar Faltmittel (3, 4), die synchron mit dem Lutscherhalter um die Achse (5) kontinuierlich drehbar sind, wobei die Faltmittel (3, 4) beide eine Faltöffnung (14) definieren und bezüglich einander beweglich sind, um die Faltöffnung (14) zu vergrößern und zu verkleinern,
- Mittel zum Zuführen von Einwickelmaterial zwischen den Faltmitteln (3, 4) und dem Lutscherhalter und zum Schneiden des Einwickelmaterials,
- und Verdrillmittel (17), die synchron mit dem Lutscherhalter kontinuierlich um die Achse (5) drehbar sind, um ein Ende des Einwickelmaterials um den Lutscherstiel (6) zu verdrillen,

dadurch gekennzeichnet, dass jedes Faltmittel (3, 4) zwei Abschnitte (7, 8) umfasst, wobei einer einen Schenkel aufweist (7) und der andere zwei Schenkel aufweist (8).

2. Paar Faltmittel zum Falten eines Einwickelmaterials (1) um einen Lutscher (2) und zum Verschließen des Einwickelmaterials an seinem Stiel (6), wobei das Paar Faltmittel (3, 4) synchron mit dem Lutscherhalter um die Achse (5) kontinuierlich drehbar ist, wobei die Faltmittel (3, 4) beide eine Faltöffnung (14) definieren und bezüglich einander beweglich sind, um die Faltöffnung (14) zu vergrößern und zu verkleinern, **dadurch gekennzeichnet, dass** jedes Faltmittel (3, 4) zwei Abschnitte (7, 8) umfasst, wobei einer einen Schenkel aufweist (7) und der andere zwei Schenkel aufweist (8).

3. Vorrichtung oder Paar Faltmittel nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** der einen Schenkel aufweisende Abschnitt (7) eines Faltmittels (3) in den zwei Schenkel aufweisenden Abschnitt (8) des anderen Faltmittels (4) eingeführt wird.

4. Vorrichtung oder Paar Faltmittel nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der zwei Schenkel aufweisende Abschnitt (8) aus zwei Teilen (8', 8'') besteht.

5. Vorrichtung oder Paar Faltmittel nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** jedes Faltmittel (3, 4) einen Ausbildungs- und/oder Verschlussbereich (7.1, 8.1, 8.1', 8.1'', 9.1) umfasst.

6. Vorrichtung oder Paar Faltmittel nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Faltmittel (3, 4) erwärmt werden.

7. Vorrichtung oder Paar Faltmittel nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Faltmittel (3, 4) aus Metall hergestellt sind.

Revendications

1. Appareil pour envelopper une sucette (2) avec un bâton (6) dans un matériau d'emballage (1) par torsion, ledit appareil comprenant :

- un support de sucette qui peut tourner autour d'un axe (5) et qui peut être déplacé de préférence axialement d'avant en arrière,
- une paire de moyens de pliage (3, 4) pouvant tourner en continu, de manière synchronisée avec le support de sucette autour de l'axe (5), les moyens de pliage (3, 4) définissant à la fois une ouverture de pliage (14) et étant déplaçables l'un par rapport à l'autre pour augmenter et réduire l'ouverture de pliage (14),
- des moyens pour acheminer du matériau d'emballage entre les moyens de pliage (3, 4) et le support de sucette et pour découper le matériau d'emballage,
- et des moyens de torsion (17) pouvant tourner en continu autour de l'axe (5), de manière synchronisée avec le support de sucette, pour tordre une extrémité du matériau d'emballage autour du bâton (6) de la sucette,

caractérisé en ce que chaque moyen de pliage (3, 4) comprend deux sections (7, 8), une n'ayant qu'une branche (7) et l'autre ayant deux branches (8).

2. Paire de moyens de pliage pour plier un matériau d'emballage (1) autour d'une sucette (2) et pour le sceller à son bâton (6), la paire de moyens de pliage (3, 4) pouvant tourner en continu, de manière synchronisée avec le support de sucette autour de l'axe (5), les moyens de pliage (3, 4) définissant tous deux une ouverture de pliage (14) et étant déplaçables l'un par rapport à l'autre pour augmenter et réduire l'ouverture de pliage (14), **caractérisée en ce que** chaque moyen de pliage (3, 4) comprend deux sections (7, 8), une n'ayant qu'une branche (7) et l'autre ayant deux branches (8).

3. Appareil ou paire de moyens de pliage selon la revendication 1 ou 2, **caractérisé(e)** en ce que la section à une seule branche (7) d'un moyen de pliage (3) est insérée dans la section à deux branches (8) de l'autre moyen de pliage (4). 5
4. Appareil ou paire de moyens de pliage selon l'une quelconque des revendications précédentes, **caractérisé(e)** en ce que la section à deux branches (8) est fabriquée en deux parties (8', 8"). 10
5. Appareil ou paire de moyens de pliage selon l'une quelconque des revendications précédentes, **caractérisé(e)** en ce que chaque moyen de pliage (3, 4) comprend une zone de formage et/ou de scellage (7.1, 8.1, 8.1', 8.1", 9.1). 15
6. Appareil ou paire de moyens de pliage selon l'une quelconque des revendications précédentes, **caractérisé(e)** en ce que les moyens de pliage (3, 4) sont chauffés. 20
7. Appareil ou paire de moyens de pliage selon l'une quelconque des revendications précédentes, **caractérisé(e)** en ce que les moyens de pliage (3, 4) sont fabriqués en métal. 25

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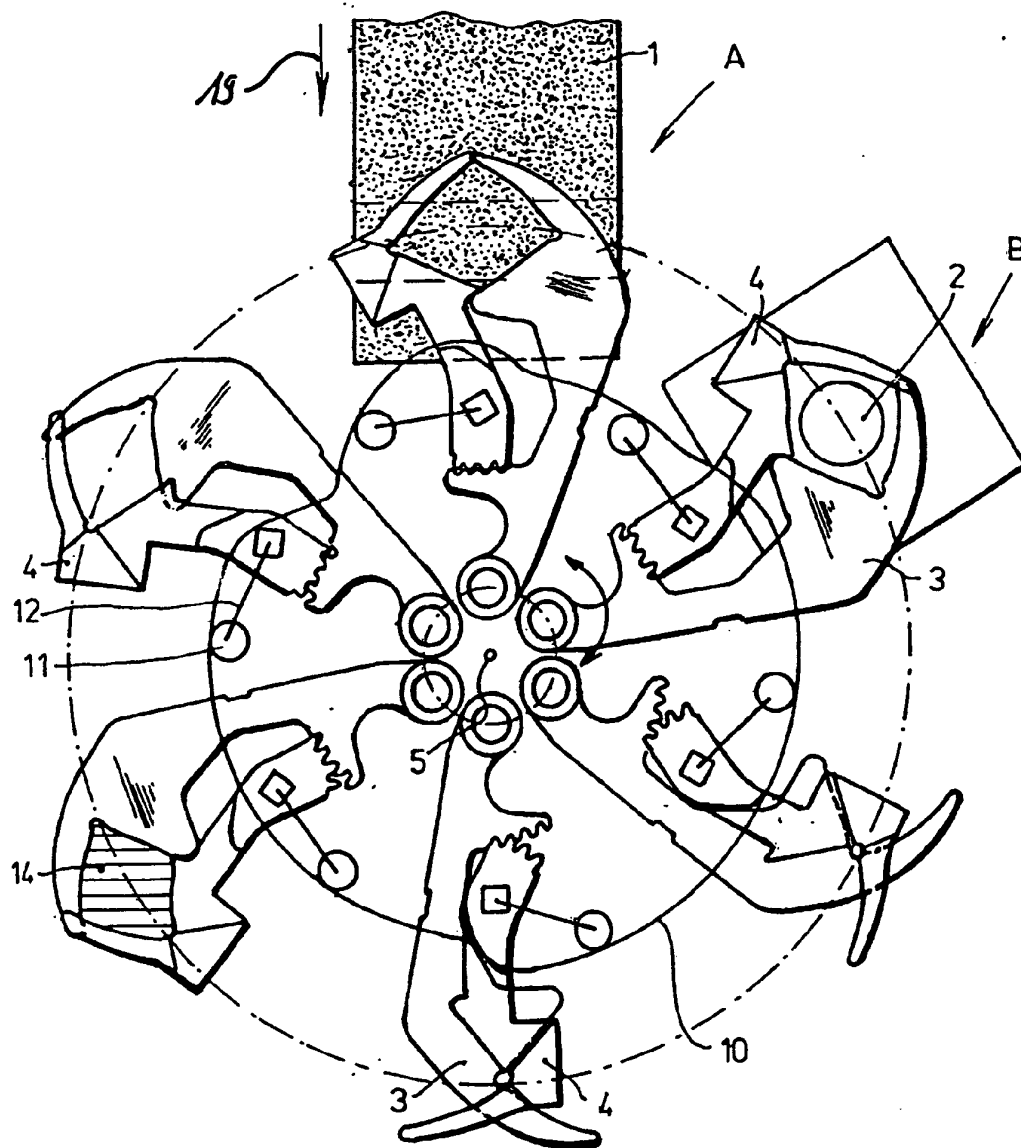


FIG.1

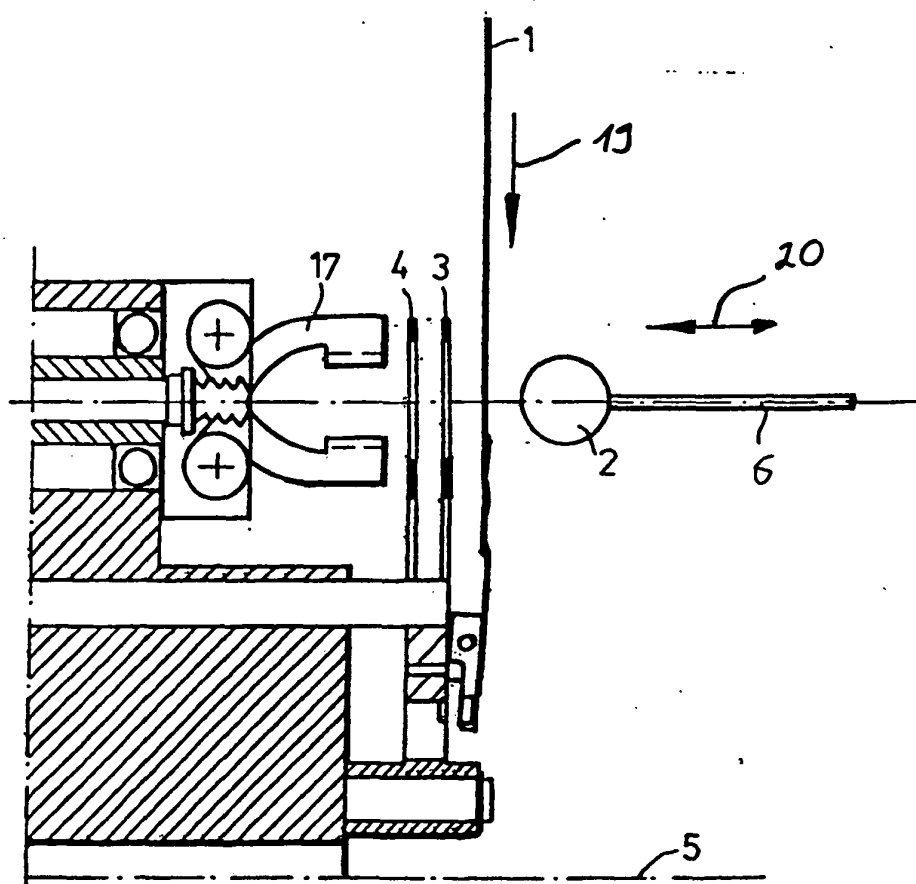


FIG. 2

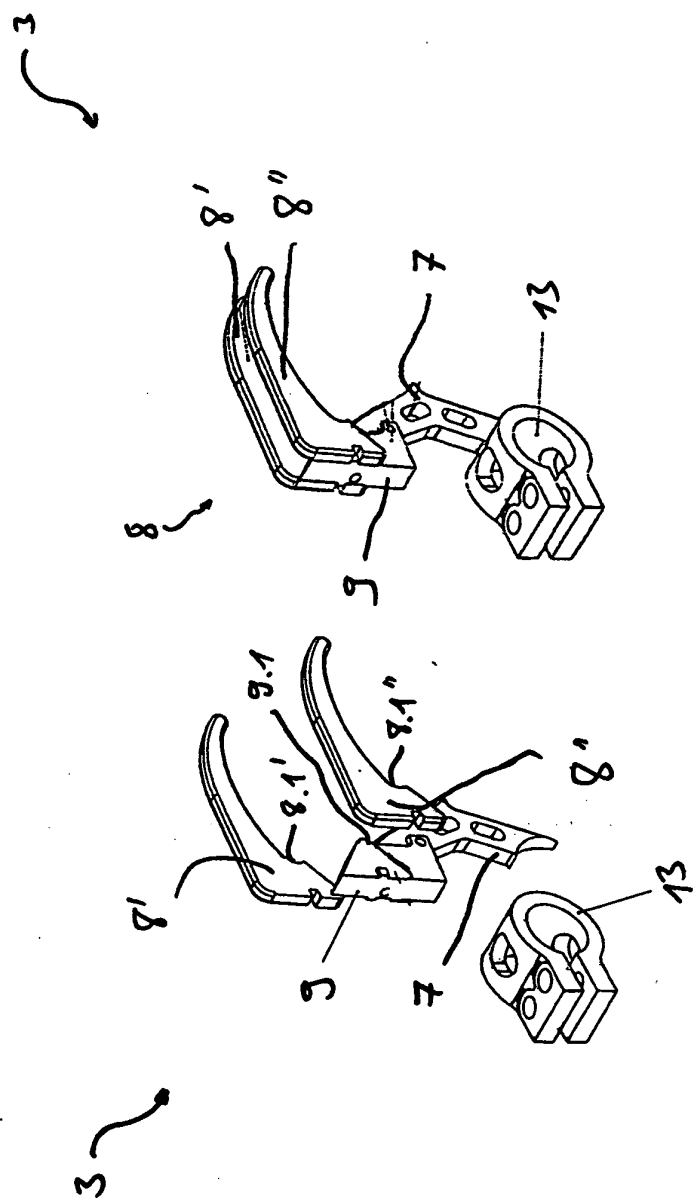


Fig. 3

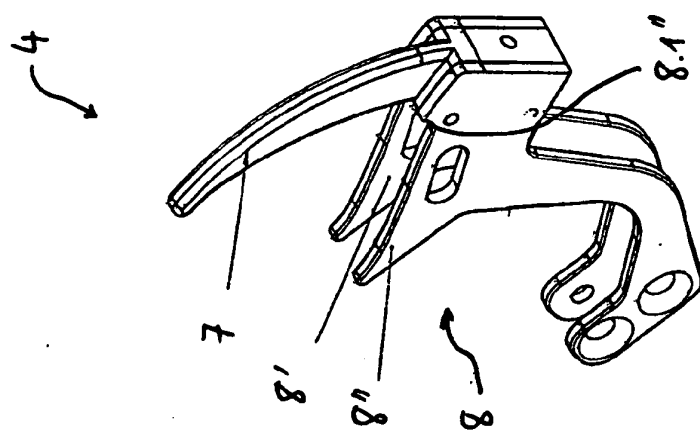
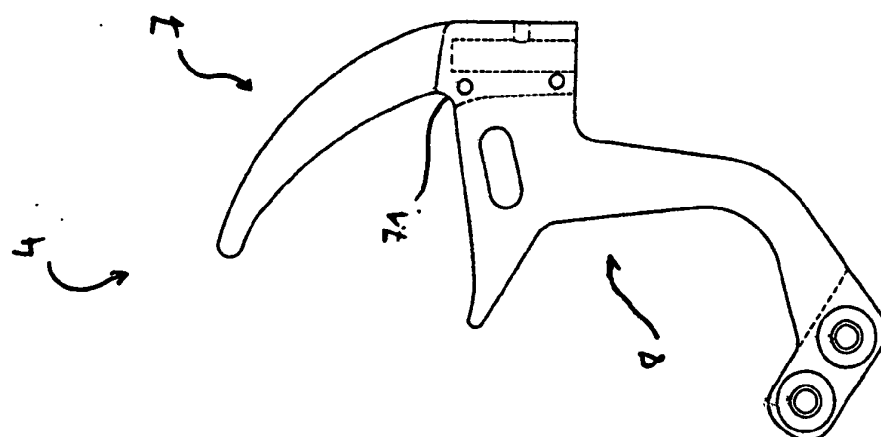
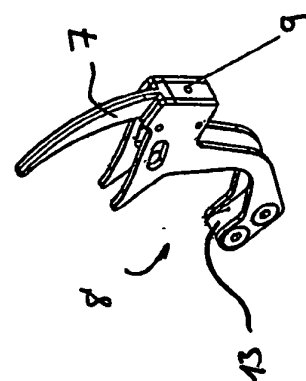


Fig. 4



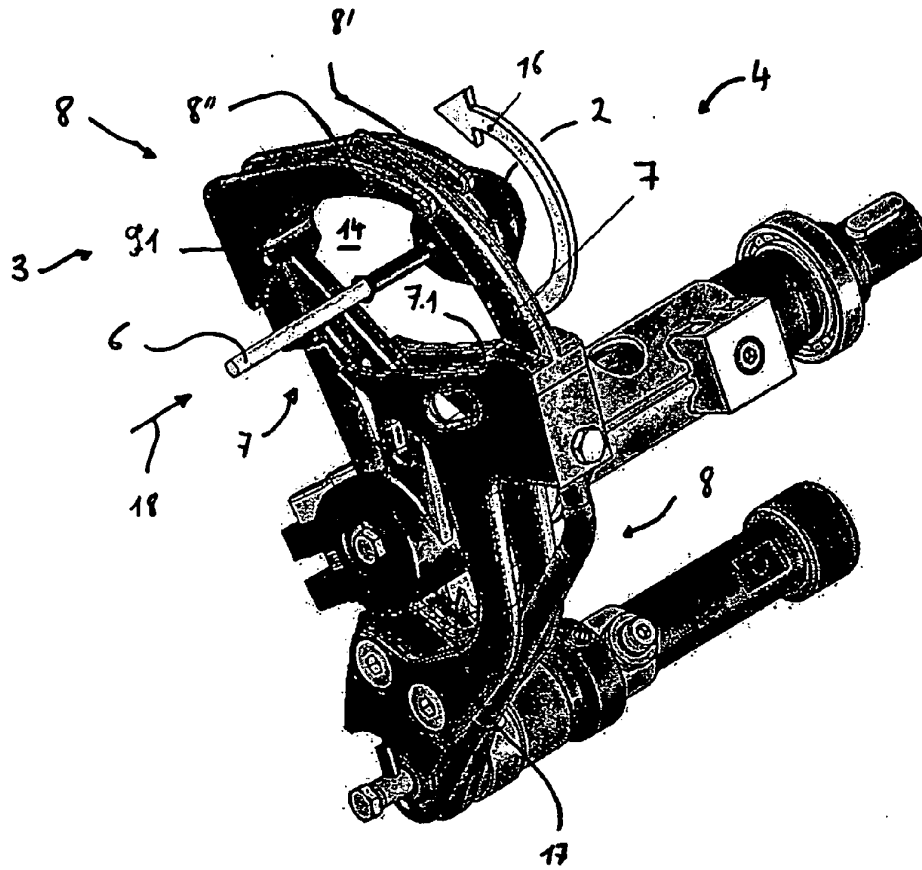


Fig. 5

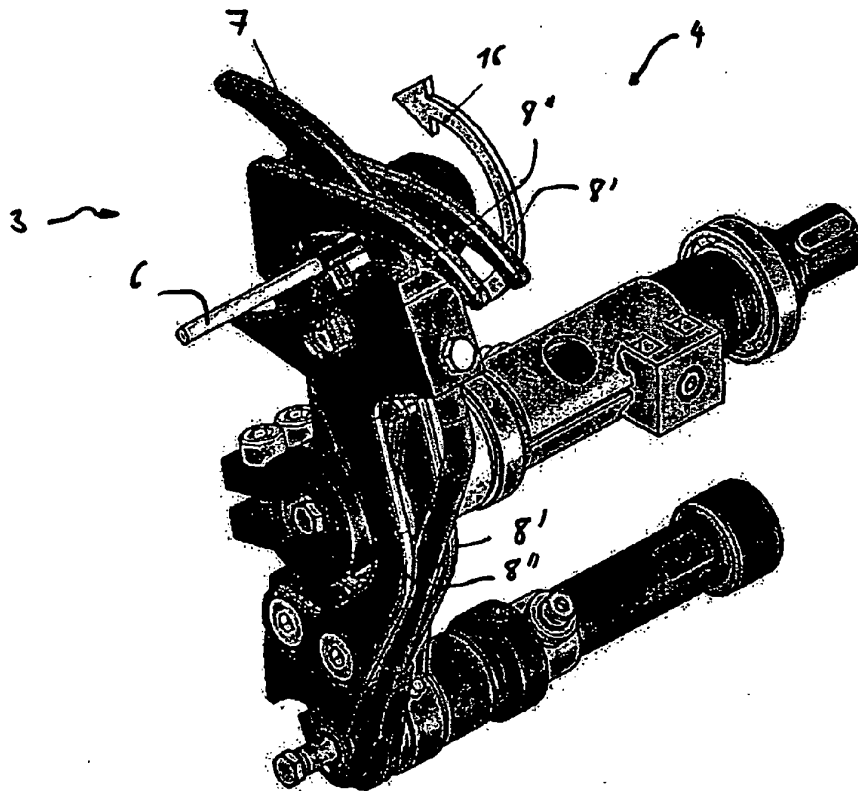


Fig. 6

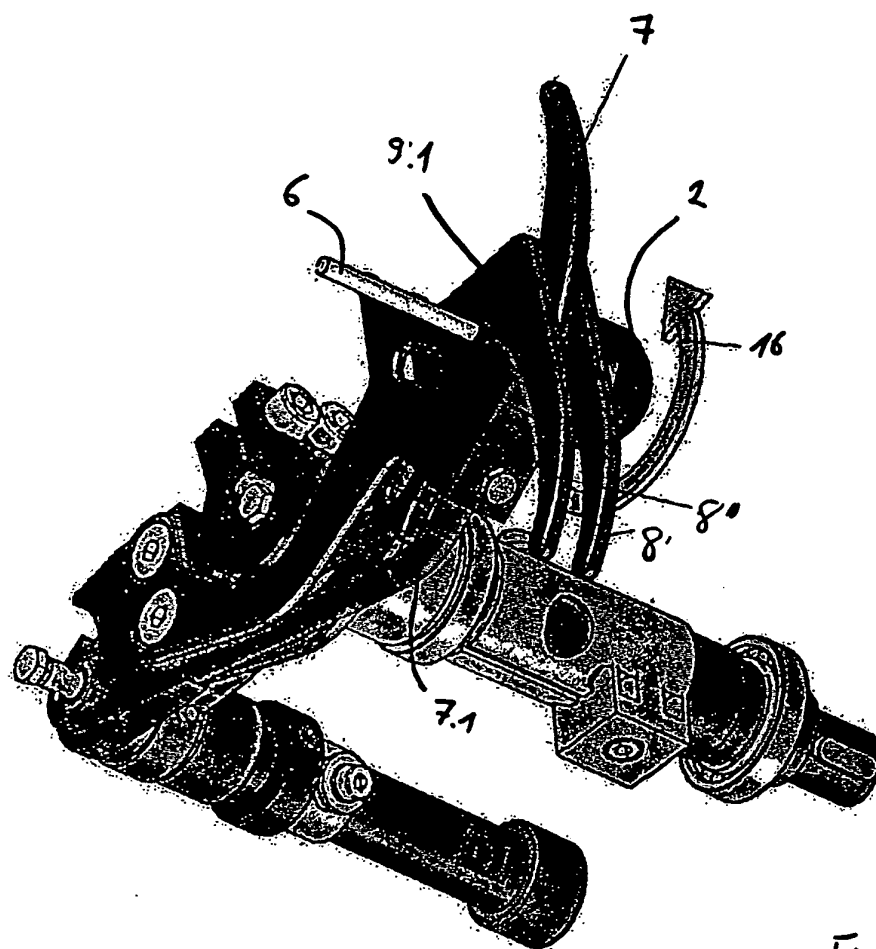


Fig. 7

REFERENCES CITED IN THE DESCRIPTION

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