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(54) **CENTRALIZATION AND LOCK SYSTEM USED IN FOLDED CARRYING BOXES**

ZENTRALISIERUNGS- UND VERRIEGELUNGSSYSTEM FÜR ZUSAMMENGEKLAPPT
TRANSPORTKISTEN

SYSTEME DE CENTRALISATION ET DE VERROUILLAGE UTILISE DANS DES CAISSES DE
TRANSPORT PLIEES

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(73) Proprietor: **Ay Kasa Polimer Ambalaj Ve Tasima
Sistemleri
Sanayi Ticaret A.S.
Besiktas-Istanbul (TR)**

(72) Inventor: **KARAKULLUKCU, Cem D.
Besiktas-Istanbul (TR)**

(74) Representative: **Handanoglu, Erdal
SIMAJ Patent Limited Sirketi
Tunus Cad. No: 46 Kat:2
Kavaklidere
Ankara 06680 (TR)**

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EP 2 117 941 B1

Description

Subject of the Invention

[0001] This invention pertains to a locking and centering mechanism for the interlocking of long and short sides of collapsible containers that are used in carrying and storage of food and similar products.

State of Prior Art

[0002] Collapsible containers which are used for various purposes are currently manufactured with differing locking mechanisms. Undoubtedly, the most important issue with respect to locking mechanisms is the strength of the locks. Unless designed robustly, the locks can disengage or break easily due to bumps to the sides of the collapsible containers. Thus, these locks should be locking firmly.

[0003] In the known technique, different types and models of locking mechanism are used. Although various locking mechanisms are used, these applications are significantly handicapped with respect to durability since they lack the centralizing pieces mentioned above.

[0004] On the other hand, there are also locking mechanisms which employ centralization used in collapsible containers' lock mechanisms. Nevertheless, these systems are applied to two (centralization + lock) or three (centralization + lock + centralization) piece systems.

[0005] One of the prior art inventions US 2002/0108950 A1, describes a collapsible container that comprises first and second sidewalls and first and second sidewalls pivotally connected to a base. The first sidewall of the container includes at least one latching member that cooperates with a latching member of the first end wall to secure the first sidewall and the first end wall are in upright positions. In the system mentioned with this document, there is only one lock. In addition to that, centering pieces are above and below the lock; however, in the present application there is one centering protrusion between the upper and lower lock and one centering protrusion above the upper lock and one below the lower lock. Additional centering protrusion between the locks in the present application protects the locks from the heavy lift effecting and damaging the lock. It is not possible to place a centering protrusion between the locks and to protect the lock effectively in the mentioned patent since there is only one lock in the mentioned system.

[0006] Another example to the prior art is the document numbered FR 2272907. Considering the container disclosed in this document, there is plurality of locks, however there are no centering protrusions between the locks to protect the lock pieces in this application. As seen from the figures of the said application, locks are arranged consecutively.

[0007] In neither of these cases centralizations fulfill their duties as required, which leads to a limited durability of locks. Besides, since the centralizations in these sys-

tems are more protrusions, their durability against physical conditions is affected negatively and they are easily bent or broken in regular usage.

[0008] The locking system used in this invention is a five piece centering structure and it is superior to its counterparts due to its specific cross-section usage as well as its durability.

Detailed Description of the Invention

[0009] The lock and centering system used in the collapsible container is comprised of lock and centering protrusions (4a, 4b, 5a, 5b and 6) ; mounts to which lock and centering protrusions (4a', 4b', 5a', 5b' and 6') are fixed; and lock strip (3) which has the lock/ centering notches on.

[0010] The lock and centering system used in the preferred application of the invention has the lock strip (3) that is approximately 1,5 cm thick and which makes a 90° orientation on the long side (2) of the container on right and left, parallel to the short side. The upper portion of this lock strip (3) houses five cavities (mounts) of various sizes. The lower portion of the strip (3) does not have any cavities.

[0011] The lock strip (3) extends along the vertical axis of the long side (2) of the collapsible container. But this strip (3) which is not adjacent to the bottom of the container ends at about 3 cm above the bottom elevation of the container. Thus, there is a gap of about 3 cm below the at the bottom portion of this lock strip (3). When the container is locked, this gap is filled by the portion of the short side (1) of the container which has the same length but larger width (not shown in figure).

[0012] This thicker portion, which is located on the vertical axis of the short side (1) and which has the same length as the lock strip (3), serves as the base for the lock strip (3) and supports the locks. Thus, the stresses incurred on this portion are taken at the lower portion and this prevents the locks (5a, 5b) from being subjected to free loads.

[0013] In the preferred embodiment of the invention, the five rectangular cavities (mounts) that are on the top half of the lock strip (3) form the lock mounts. These portions are, from top to bottom, as follows:

- i. Upper centering mount (4a')
- ii. Upper lock mount (5a')
- iii. Middle centering mount (6')
- iv. Mower lock mount (5b') and
- v. Lower centering mount (4b')

[0014] These mounts are being fixed (locked) to the centering/lock pieces on the left and right portion which will be locked and the third piece of the centering system. This third piece, the subject of the invention, is along the vertical axis of the short sides (1) which face the long side (2) and it will be locked with the left and right portions on the long sides (2). The protrusions on the short sides

(1) are lined from top to bottom as follows:

- i. top centering (4a)
- ii. top lock (5a)
- iii. middle centering (6)
- iv. lower lock (5b) and
- v. lower centering (4b)

[0015] As can be seen, the lock/ centering system of the invention is comprised of five main pieces. Three of these five pieces, centerings (4a, 4b and 6), support the lock portions (5a, 5b) firmly. In addition, the middle centering (6) provides balance and robustness in the whole of the locking system to the utmost extent as well as serving the purpose of transferring the loads to the bottom in a controlled fashion.

[0016] The top and (4a') and bottom (4b') pieces of centering/lock mounts which are on the lock strip (3) are narrower, whereas lock mounts 5a' and 5b' are wider and centering mount (6') is the widest.

[0017] In the same way, to facilitate full interlocking, the centering and locking protrusions corresponding to these mounts match them and they are nearly the same size as these mounts are.

[0018] In the preferred application, the centering/locking protrusions (4a, 4b, 5a, 5b and 6), which are on the short side (1) of the collapsible container, have different cross sections. This way, a gradual and controlled support is provided and thus the loads are taken as such. According to this, as can be seen in figure 1, the top (4a) and bottom (4b) ones of the centering and lock protrusions are horizontal (I), the locks (5a, 5b) are in shaped as thick sticks and the middle centering (6) has a horizontal (A) cross section.

[0019] For the installation of the collapsible container and interlocking of the sides (1, 2) (Figure 2), force is applied from the inside of the container towards the outside and perpendicular to the lock strip (3) on the short sides (1), thus making the lock/ centering protrusions (4a, 4b, 5a, 5b and 6) to fit into the corresponding mounts (4a', 4b', 5a', 5b' and 6') perfectly.

[0020] Figures 4 and 5, which depict the container's locking system from the rear view, show the lock/centering system on the lock strip (3) to have technical and design related differences from its counterparts from another angle.

[0021] As can be seen here, the two locks (5a and 5b), which are situated in the mid section of the locking and centering system and the middle centering (6) form a monolithic piece (7), and bottom and top centerings 4a and 4b which protect this monolithic piece (7) and fix it are on the locking strip (3) as two separate top/bottom pieces.

[0022] In the centering systems existing in the current technique, the monolithic piece in the middle serves only as a lock and while the centering pieces supporting it are located at the bottom and top portions, the middle monolithic piece (7) itself has a (middle) centering piece (6);

moreover, this centering piece has two different locks (5a and 5b) at the top and bottom portions of it.

[0023] This five element system which has two locks and three centerings both provides a perfect centering and decreases the stress applied on the lock, thereby protecting it. As a matter of fact, the main purpose of centering is to decrease the stress applied on the lock and thereby protecting the most valuable piece of the container, the lock.

[0024] The hinges (8) used in the collapsible container which is the subject of the invention allow a 90° movement of the sides on which they are attached, from the vertical axis towards the horizontal axis inside the container.

[0025] The hinges (8) in figure 6 are made up of at least one male hinge piece (8a) on each side that are lined at the bottom of each long and short side (1, 2) as well as same number of female pieces (7b) as male pieces 8a that are lined at the circumference of the bottom of the collapsible container.

[0026] The reverse U cavities (8a') of reverse U shaped male hinges 8a are designed such that they will fit perfectly with the (8b) bolts of female hinges and the openings of male hinges' reverse U shaped cavities (8a') are as much as widths of the bolts of the female hinges (8b), thus overlapping perfectly.

[0027] The plus sign like (+) cross section of female hinges (bolts) (8b) allow these hinges to connect with the reverse U shaped (8a') cavities of the male hinges very firmly. This firm structure, which is obtained by the firm interlocking of (+) cross section of the protrusions/cavities of female hinge bolts (8b) with male hinges (8a) allows the sides of the container (1, 2) to connect with the bottom of the container firmly meanwhile allowing for movement.

Alternative Structures

[0028] In other applications of the invention, the lock strip, centering (7) lock protrusions and centering/lock mounts can be located at different sides of the container, with different geometrical configurations, in various numbers and various cross sections. Obviously, this fact should be considered in the scope of the invention.

[0029] As an example, the lock strip is explained to have the mount and the short side to have the centering protrusions in the preferred configuration and figures, but the reverse of this situation is also possible. In such an application, the lock strip has the centering and locking protrusions on the long side, while the short side has the mounts into which these centering and lock protrusions will fit. In such a structure, locking would occur differently, in such a way that the short side, which has the mounts, would be pressed against the lock strip which has the protrusions. Such a structure is enclosed in claim 2.

[0030] In yet another application other than explained here, the monolithic piece (7) that can be seen clearly in figures 4 and 5 may not have two locks (5a, 5b) and the

middle centralizer (6) as mentioned. This piece can be in many configurations, like a monolithic piece which encompasses the top and bottom centerings, or two monolithic pieces each of which have top centering + top lock and middle centering + middle lock + lower centering, etc. These many configurations should also be considered to be in the scope of the invention. These differing configurations are enclosed in claims 6, 7, and 8.

[0031] The subject of the invention is, in essence, an at least five piece locking and centering system which is comprised of at least two locks and three centerings.

[0032] This locking and centering system which is comprised of more than one locks allows for the usage of they collapsible container even when one of the locks does not function, also providing the container protection with one or more supplementary locks.

Description of the Drawings

[0033] The invention is explained in detail below, using the following figures:

Figure 1-2 : Locking system, frontal view - unlocked
 Figure 3 : Locking system, frontal view - locked
 Figure 4 : Locking system, rear view - unlocked
 Figure 5 : Locking system, rear view - locked
 Figure 6 : Hinge section view

[0034] References which show pieces that are in the aforementioned figures are listed below, under the title references.

References

[0035]

1 : Carrying container short side
 2 : Carrying container long side
 3 : Lock strip
 4a : Upper centering
 4a' : Upper centering mount
 4b : Lower centering
 4b' : Lower centering mount
 5a : Upper lock
 5a' : Upper lock mount
 5b : Lower lock
 5b' : Lower lock mount
 6 : Middle centering
 6' : Middle centering mount
 7 : Lock system monolithic middle section (contains 5a, 6, 5b)
 8 : Hinges
 8a : Male section of hinge
 8a' : Male section reverse U cavity
 3b : Female section of hinge

Claims

1. A collapsible container having a pair of short sides (1) and a pair of long sides (2) and a locking and centering system comprising the following:

a) a fixed width lock strip (3), arranged on a long side (2) and extending along the vertical axis of the long side (2), the strip (3) extending perpendicular from the long side (2) towards the adjacent short side (1), such that the short side (1) can be locked onto the strip (3)
 b) the strip (3) comprising at least five locks and centering mounts (4a', 4b', 5a', 5b' and 6'), extending in the following order: centering mount (4a')/lock mount (5a')/centering mount (6')/lock mount (5b')/centering mount (4b'),
 c) corresponding locking and centering protrusions (4a, 4b, 5a, 5b, and 6) on the short sides (1) facing towards the lock strip (3), and which can fit with and are the same size and number as mounts (4a', 4b', 5a', 5b' and 6') which are located on the lock strip (3).

2. A collapsible container according to claim 1, **characterized in** having the following locking mechanism:

a force is applied on the short sides (1), on which the locking and centering protrusions (4a, 4b, 5a, 5b and 6) are present, directed perpendicular to the axis of these sides towards the locking strips (3) thereby fitting the locking and centering protrusions perfectly into the corresponding locking and centering mounts (4a', 4b', 5a', 5b' and S').

3. A collapsible container according to any one of the claims above, characterized as fitting the locking and centering mounts (4a', 4b', 5a', 5b' and 6') which have the same dimensions and fit perfectly with corresponding locking and centering protrusions (4a, 4b, 5a, 5b and 6).

4. A collapsible container according to any one of the claims above, **characterized in that** the locking and centering mounts (4a', 4b', 5a', 5b' and 6') have different dimensions and fit perfectly with corresponding locking and centering protrusions (4a, 4b, 5a, 5b and 6).

5. A collapsible container according to any one of the claims above, **characterized in that** each and every one of the protrusions and mountings (4a, 4b, 5a, 5b and 6) have the same or different cross sections.

6. A collapsible container according to any one of the claims above, **characterized in that** the locking and

centering pieces (4a, 4b, 5a, 5b and 6) of the locking and centering system arc monolithic with each other.

7. A collapsible container according to any one of the claims above, **characterized in that** the locking and centering pieces (4a, 4b, 5a, 5b and 6) of the locking and centering system are all separate parts. 5
8. A collapsible container according to any one of the claims above, **characterized in that** the locking and centering pieces (4a, 4b, 5a, 5b and 6) of the locking and centering system can be grouped in various ways. 10
9. A collapsible container according to any one of the claims above, **characterized in that** the centering and locking mounts (4a', 4b', 5a', 5b' and 6') have rectangular cavities or cavities in various geometrical shapes and the corresponding centering/locking protrusions (4a, 4b, 5a, 5b and 6) also have similar corresponding geometrical shapes so that they will fit with these mounts. 15
10. A collapsible containers according to any one of the claims above, **characterized in that** the collapsible container on which it is attached is preferably made of plastic based material in various sizes. 25
11. A collapsible container according to any one of the claims above, **characterized in that** the five mounts on the lock strip (3) are lined in order as follows: 30
 - a) Top centering mount (4a')
 - b) Top lock mount (5a')
 - c) Middle centering mount (6')
 - d) Bottom lock mount (5b') and
 - e) Bottom centering mount (4b')

and the lock and centering protrusions corresponding to these are listed as follows: 40

 - a) Top centering (4a)
 - b) Top lock (5a)
 - c) Middle centering (6)
 - d) Bottom lock (5b) and
 - e) Bottom centering (4b)
12. A collapsible container according to claim 11 **characterized in that** on the lock strip the top (4a') and the bottom (4b') centering mounts are the narrowest, lock mounts (5a', 5b') are wider and the middle centering mount (6') is the widest, and the corresponding lock and centering protrusions are such that they can be fixed with their corresponding mounts perfectly. 50
13. A collapsible container according to claim 11-12 **characterized in** having the following aspects in it 55

to provide gradual and controlled support: the top (4a) and bottom (4b) portions of centering pieces as horizontal (1); locks (5a, 5b) as thick sticks; and middle centering (6) as having a horizontal cross section (A).

14. A collapsible container according to claims 12-13 **characterized in** having the following aspects: the two locks (5a, 5b) which are located at the middle section of the locking and centering system and middle centering (6) as a monolith (7), and the bottom and top centerings (4a, 4b) which protect this monolith (7) and serve the purpose of immobilizing it are located as separate top/bottom pieces on the lock strip (3).

Patentansprüche

1. Es handelt sich um ein faltbares Gefäß mit einem Paar kurzen Kanten (1) und einem Paar langen Kanten (2) und einem Befestigungs- und Zentrierungssystem, das die folgenden Eigenschaften aufweist:

a) eine entlang der langen Kante (2) angeordnete und sich entlang der vertikalen Achse der langen Kante (2) erstreckende Befestigungsleiste (3) mit einer konstanten Länge, und diese Befestigungsleiste (3) erstreckt sich senkrecht von der langen Kante (2) zu der benachbarten Kante (1) hin, und auf diese Weise kann die kurze Kante (1) an der Leiste (3) befestigt werden,

b) die Leiste (3) weist mindestens fünf Befestigungs- und Zentrierungsmontagen (4a', 4b', 5a', 5b' und 6') in der unten angegebenen Reihenfolge auf: Zentrierungsmontage (4a') / Befestigungsmontage (5a') / Zentrierungsmontage (6') / Montage mit Befestigung (5b') / Zentrierungsmontage (4b'),

c) in gleicher Anzahl und Größe wie die an den kurzen Kanten (1) zur Befestigungsleiste (3) gerichteten und an der Befestigungsleiste (3) befindlichen Montagen (4a', 4b', 5a', 5b' und 6') diesen anpassbare und entsprechende Befestigungs- und Zentrierungsvorsprünge (4a, 4b, 5a, 5b, und 6).

2. Ein faltbares Gefäß gemäß Anspruch 1, dessen Eigenschaft darin besteht, über den unten angeführten Befestigungsmechanismus zu verfügen:

auf die kurze Kante (1), auf der sich die Befestigungs- und Zentrierungsausbaute (4a, 4b, 5a, 5b und 6) befinden, wird eine Kraft ausgeübt, die zu den Befestigungsleisten (3) hin ausgeübt wird und senkrecht zur Achse dieser Kanten liegt, auf diese Weise werden die Befestigungs- und Zentrierungsausbaute an die entspre-

chenden Befestigungs- und Zentrierungsmontagen (4a', 4b', 5a', 5b' und 6') befestigt.

3. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit der folgenden Eigenschaft: es weist über die gleichen Abmessungen verfügende und sich den entsprechenden Befestigungs- und Zentrierungsvorsprüngen (4a, 4b, 5a, 5b und 6) einwandfrei anpassende Befestigungs- und Zentrierungsmontagen (4a', 4b', 5a', 5b' und 6') auf. 10
4. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit der folgenden Eigenschaft: die Befestigungs- und Zentrierungsmontagen (4a', 4b', 5a', 5b' und 6') haben andere Abmessungen als die Befestigungs- und Zentrierungsvorsprünge (4a, 4b, 5a, 5b und 6) und passen sich diesen einwandfrei an. 15
5. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit der folgenden Eigenschaft: jeder Vorsprung und Montage (4a, 4b, 5a, 5b und 6) verfügt über die gleichen bzw. über unterschiedliche Querschnitte. 20 25
6. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit den folgenden Eigenschaften: die Befestigungs- und Zentrierungsteile (4a, 4b, 5a, 5b und 6) des Befestigungs- und Zentrierungssystems sind miteinander monolithisch. 30
7. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit der folgenden Eigenschaft: alle Befestigungs- und Zentrierungsteile (4a, 4b, 5a, 5b und 6) des Befestigungs- und Zentrierungssystems sind separate Teile. 35
8. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit der folgenden Eigenschaft: die Befestigungs- und Zentrierungsteile (4a, 4b, 5a, 5b und 6) des Befestigungs- und Zentrierungssystems sind auf verschiedene Weisen gruppierbar. 40 45
9. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit der folgenden Eigenschaft: die Zentrierungs- und Befestigungsmontagen (4a', 4b', 5a', 5b' und 6') verfügen über vertikale Hohlräume bzw. über Hohlräume in verschiedenen geometrischen Formen und die entsprechenden Zentrierungs-/Befestigungsvorsprünge (4a, 4b, 5a, 5b und 6) verfügen über zu diesen Montagen passende, ähnliche geometrische Formen. 50 55
10. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit der folgenden

Eigenschaft: das darauf befestigte faltbare Gefäß wird aus einem Material auf Kunststoffbasis in unterschiedlichen Größen hergestellt.

- 5 11. Ein - irgendeinem der oben angeführten Ansprüchen entsprechendes - faltbares Gefäß mit der folgenden Eigenschaft: die fünf Montagen an der Verschlussleiste (3) sind in der unten angeführten Reihenfolge angeordnet:

- a) Obere Zentrierungsmontage (4a')
- b) Obere Befestigungsmontage (5a')
- c) Mittlere Zentrierungsmontage (6')
- d) Untere Befestigungsmontage (5b') und
- e) Untere Zentrierungsmontage (4b')

und die diesen entsprechenden Befestigungs- und Zentrierungsvorsprünge sind in der unten angeführten Reihenfolge angeordnet:

- a) Obere Zentrierung (4a)
- b) Obere Befestigung (5a)
- c) Mittlere Zentrierung (6)
- d) Untere Befestigung (5b) und
- e) Untere Zentrierung (4b)

12. Ein faltbares Gefäß gemäß Anforderung 11 mit der folgenden Eigenschaft: die oberen (4a') und unteren (4b') Zentrierungsmontagen sind eng, die Verschlussmontagen (5a', 5b') sind breiter, und die mittlere Zentrierungsmontage (6') ist am breitesten, und die entsprechenden Befestigungs- und Zentrierungsausbauteile sind derartig angeordnet, dass sie sich den entsprechenden Montagen einwandfrei anpassen.

13. Ein faltbares Gefäß gemäß den Anforderungen 11-12, mit der folgenden Eigenschaft: zur Gewährleistung einer stufenweisen und kontrollierten Abstützung verfügt es über die unten angeführten Aspekte: die oberen (4a) und unteren (4b) Abschnitte der Zentrierungsteile sind horizontal; bei den Befestigungen (5a, 5b) handelt es sich um dicke Stäbe; und die mittlere Zentrierung (6) verfügt über einen horizontalen Querschnitt (A).

14. Ein faltbares Gefäß gemäß den Anforderungen 12-13, mit der Eigenschaft, dass es über die unten angeführten Aspekte verfügt: die im mittleren Querschnitt des Befestigungs- und Zentrierungssystems befindlichen zwei Befestigungsteile (5a, 5b) und das mittlere Befestigungsteil (6) sind monolithisch (7), und die unteren und oberen Zentrierungsteile (4a, 4b), die diesen Monolithen (7) schützen und die Funktion erfüllen, diesen bewegungsfest zu machen, sind an der Befestigungsleiste (3) als separate obere/untere Teile angeordnet.

Revendications

1. C'est une récipient pliable ayant une paire de cotes courtes (1) et une paires de cotes longs (2) et il a une système de centrage et comporte les propriétés existes ci-joint:
 - a) Il y a une bande détection (3) s'étend vers une arrête longitudinale (2) et il dispose le long du bord du long (2) le long de l'axe vertical de la courroie de longueur fixe détecté (3), et la bande de détection (3) existe au bord long (2) adjacente au cote court (1) qui s'étend verticalement vers au bord court qui peut être détecte sur l'axe verticale du cote long (2) vers le cote court (1) comme étant une axe verticale, ainsi, le cote court (1) peut designer sur la bande détection (3),
 - b) La bande de détection (3) contient cinq montage de désigne et le centrage dénommes (4a', 4b', 5a', 5b' ve 6') : Le montage de centrage (4a') / Le montage de désigne (5a') / Le montage de centrage (6')/Le montage désigne (5b')/Le montage de centrage (4b'),
 - c) Les bords courts (1) existe sur la bande de détection (3) tournée vers le fixant la bande (3) situe sur les ensembles (4a', 4b', 5a', 5b' et 6') et qu'ils peuvent s'adapter avec le même nombre et la taille de la détection correspondus et conforme au centrage (4a, 4b, 5a, 5b, et 6)
2. C'est une récipient pliable selon la demande (1) **caractérise en ce que** le mecanisme de détection dans le quel détermine ci dessus:

Il ya les pattes de centrage (4a, 4b, 5a, 5b et 6) existe sur le petit cote (1), les bandes de retenue (3) pour appliquer une force utilise perpendiculairement a ces bords ce qui centrage protubérance conformément a la détection et l'identification et les installations de centrage de fixation (4a, 4b, 5a, 5b et 6)
3. Les récipients repliable selon l'une quelconque des revendications précédents dont ils **caractérise en ce que** les mêmes dimensions et la détection correspondante et les projections de centrage (4a, 4b, 5a, 5b et 6) qui s'adaptent parfaitement avec la détection et assembles de centrage (4a, 4b, 5a, 5b, et 6)
4. Le récipient repliable selon l'une quelconque des demandes précédentes caractérise avec la détection et les ensembles de centrage (4a, 4b, 5a, 5b et 6) de détection correspondant et ceux qui conforme avec le centrage (4a, 4b, 5a, 5b et 6). Ces dimensions ont très différents mais ces derniers doivent correspondre avec les eux parfaitement.
5. Le récipient repliable selon l'une quelconque des demandes précédentes qui sont caractérise avec chaque saillie et l'ensemble (4a, 4b, 5a, 5b, et 6) sont d'avoir les mêmes ou différents sections transversales.
6. Le récipient repliable selon l'une quelconque des demandes précédentes **caractérisés en ce que** le système de centrage dont il détecte et déterminée, et les parties de centrage (4a, 4b, 5a, 5b et 6) qui est monolithique selon l'autre
7. Le récipient repliable selon l'une quelconque des demandes précédents dont ils caractérises avec le système de centrage dont il détecté et détermine et les parties de centrage (4a, 4b, 5a, 5b et 6) comme tous les parties séparees.
8. Le récipient repliable selon l'une quelconque des revendications précédentes **caractérise en ce que** le système de centrale est détecte et détermine, et les parties de centrage (4a, 4b, 5a, 5b et 6) peuvent regrouper selon les divers moyens.
9. Le récipient repliable selon l'une quelconque des revendications précédentes **caractérise en ce que** les ensembles de centrage de fixation (4a, 4b, 5a, 5b et 6) perpendiculaire aux fentes ou des espaces ayant diverses formes géométriques et apprécié saillie de centrage de détection (4a', 4b', 5a', 5b', et 6') avec une forme géométrique apprécié ce qui est similaire pour s'adapter ensemble.
10. Le récipient repliable selon l'une quelconque des revendications précédentes **caractérise en ce que** le récipient repliable est attache a un matériaux a bas plastique est effectue avec une gamme de tailles
11. Le récipient repliable selon l'une quelconque des demandes précédents dont il caractérisé ce que la bande de verrouillage (3) sur l'alignement de l'ordre de cinq montage existe ci-joint:
 - a) Le montage de centrage au haut (4a')
 - b) Le montage de désignation existe au haut (5a')
 - c) Le montage de centrage moyen (6')
 - d) Le montage de désignation au dessous (5b') et
 - e) Le montage de centrage existe au dessous (4b')

et leur détection correspondant et la séquence des saillies de centrage comme suit:

 - a) Le centrage au haut (4a)
 - b) La désignation au haut (5a)
 - c) Le centrage moyen (6)

- d) La désignation au dessous (5b) et
- e) Le centrage au dessous (4b)

12. Le récipient pliable selon la revendication 11 ce qui **caractérisé en ce que** sur la bande détermine supérieure (4a') et inférieure (4b') qui est la plus étroite des ensembles de centrage, les ensembles de verrouillage (5a', 5b') est plus large et l'ensemble intermédiaire de centrage (6') qui est les projections plus importantes et la détection apprécié de centrage est le type qu'ils pourraient s'intégrer parfaitement assembles apprécies. 5 10

13. Le récipient pliable selon la revendication 11-12 **caractérise en ce qu'**une progressive et contrôlée pour fournir un soutien aux aspects suivantes: le sommet des pièces de centrage (4a) et inférieure (4b) portions horizontales (1) est le détections (5a, 5b) d'épaisseur est barres et de centrage moyen (6) qui est une section transversale horizontale (A) 15 20

14. Le récipient pliable selon les revendications 12 a 13 qu'ils sont caractérisés des instructions suivantes:

la détection de deux sections de système de retenue et du partie de centrage milieu (5a, 5b) et la pièce central de centrage (6) monolithe (7) et le monolithe (7) est sert a protéger et d'immobilisation des pièces supérieure et inférieure de centrage (4a, 4b) de bande de détection (3) existes séparément sur le haut /bas de l'une des parties. 25 30

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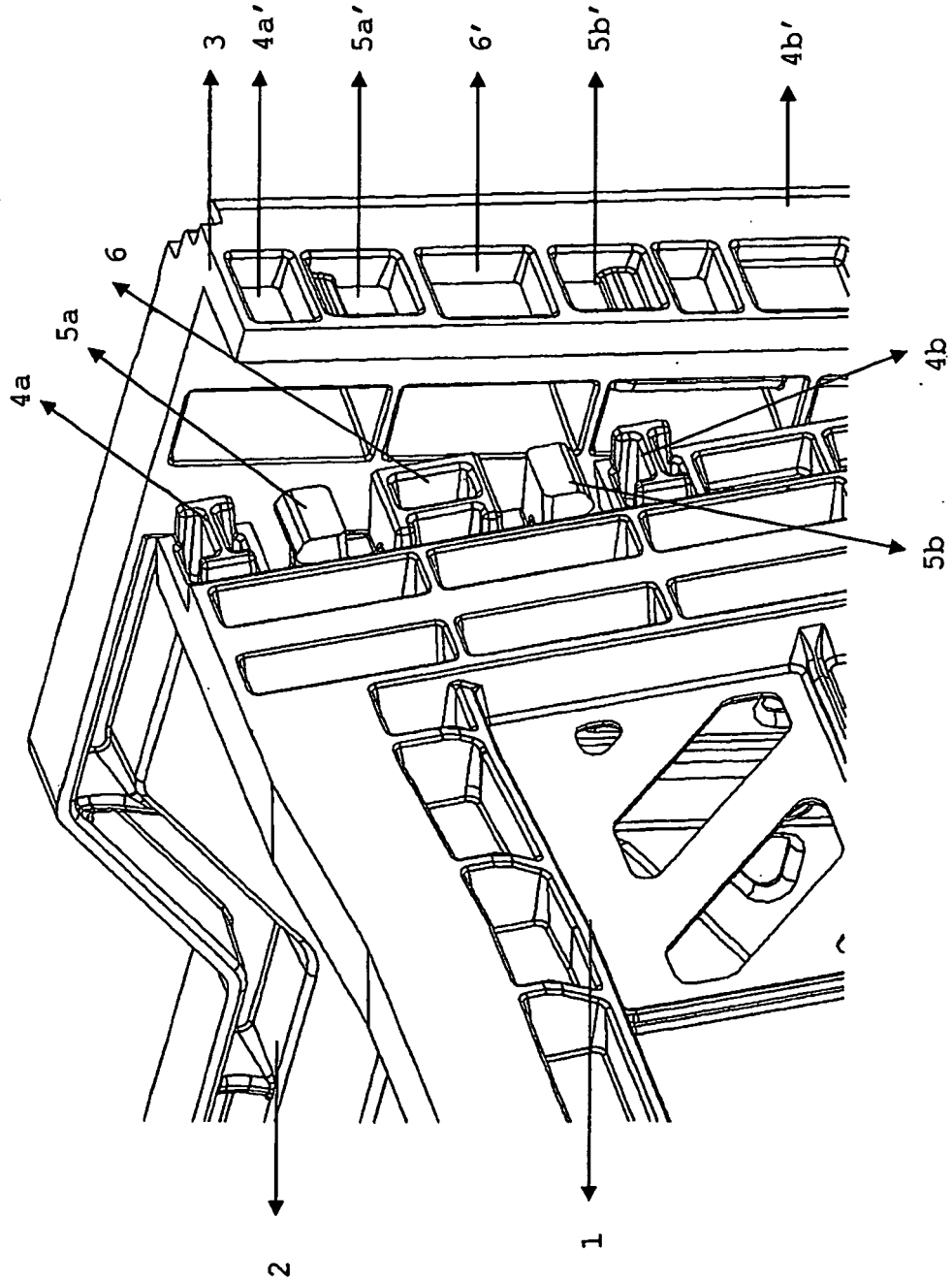


Figure 1

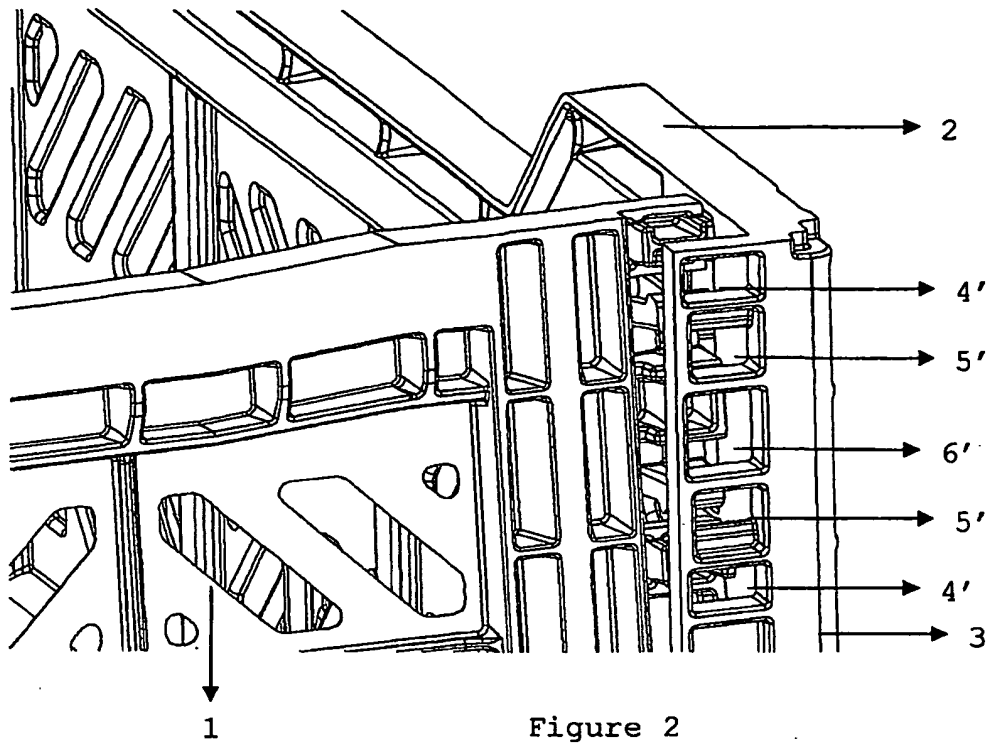


Figure 2

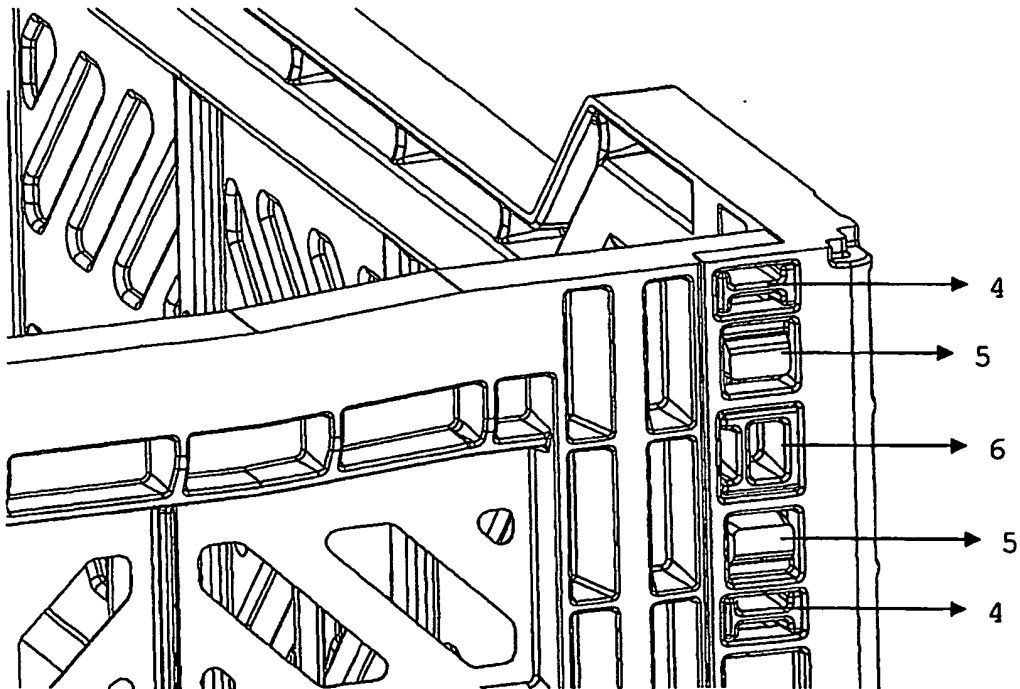


Figure 3

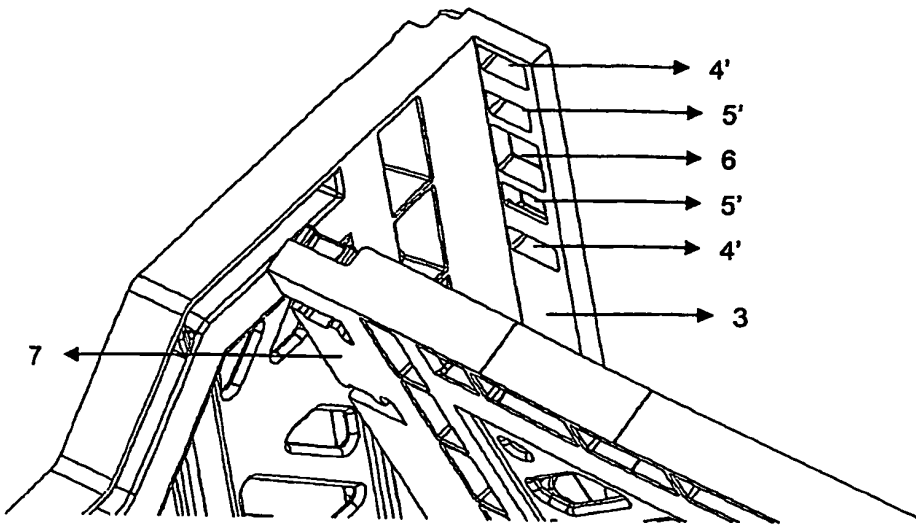


Figure 4

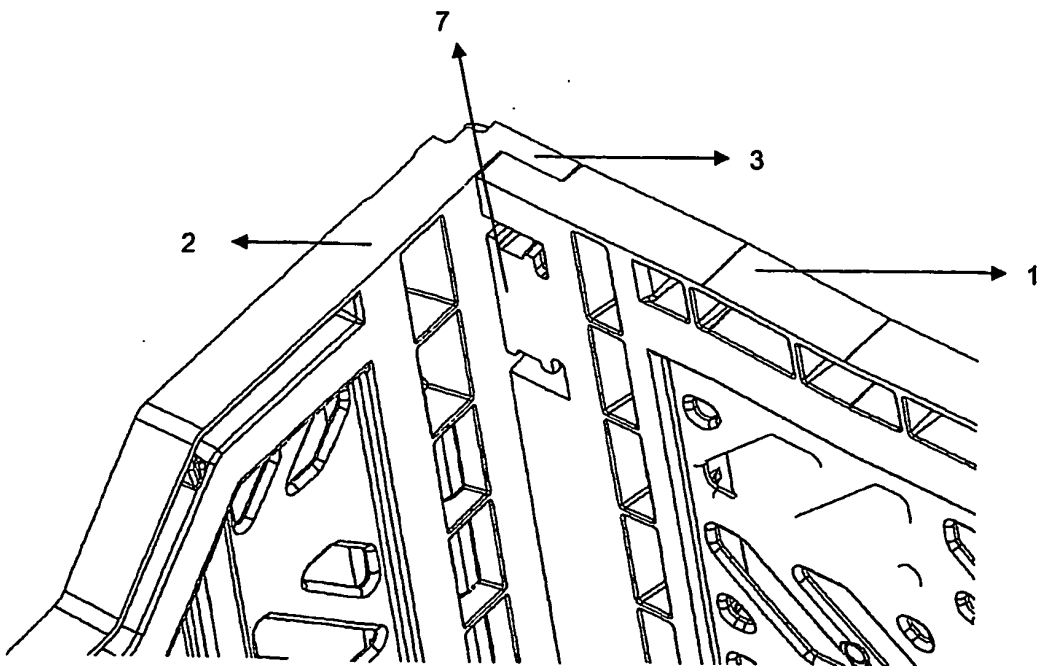


Figure 5

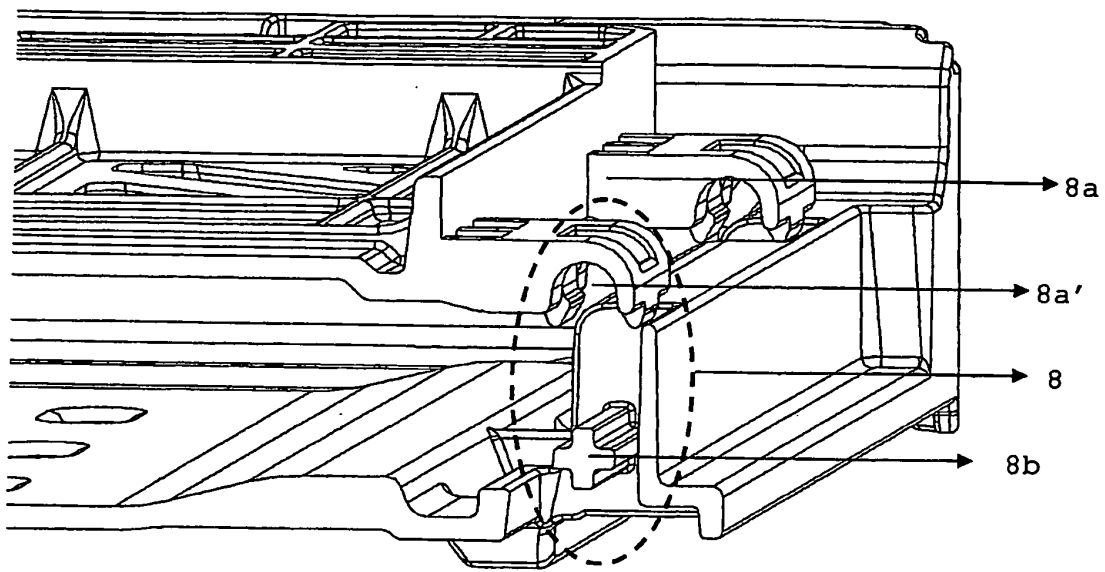


Figure 6

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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