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(54) **FOLDABLE SET OF SHELVES**

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Description

Field of the invention

[0001] The present invention relates to a foldable set of shelves, comprising a plurality of shelves for supporting items such as books or leaflets, and at least one support element intersecting each shelf and being pivotably arranged so as to form an X-shaped structure with the shelf, whereby the set of shelves is foldable from a display position to a storage position by adjusting a distance between two adjacent arms of said X-shaped structure (see document US-A-1 035 552).

Background of the invention

[0002] Foldable sets of shelves for displaying for example books and leaflets are particularly useful for movable display arrangements, being set up temporarily during e.g. a trade show or fair. For convenient use of such a set of shelves, it should preferably be foldable to a storage position taking up a relatively small space, so as to facilitate transport and storing. Further, it should be easy to fold up to a display position, and to fold back to the storage position, in order to save time and effort when setting up or moving the movable display arrangement. Also, in display position, the set of shelves should clearly display the books, leaflets etc. supported thereupon in an attractive manner. Finally, the set of shelves should be stable so as to be able to stand up to some pushing that might easily occur in the crowding of a trade fair without falling over.

[0003] A set of shelves for displaying leaflets etc comprising a plurality of shelves and support elements intersecting the shelves so as to form an X-shaped structure with the shelf is known on the market today. The support elements are pivotally arranged to the shelves, whereby the set of shelves is foldable from a display position to a storage position by adjusting a distance between two adjacent arms of the X-shaped structure. In its display position, this shelf is arranged so that the shelves are positioned parallel to each other, thus the shelf does not take up much space. From the display position, the set of shelves is extensible to a display position, in which the shelves are positioned one above the other. The shelves are interconnected by pairs of flat rods, being pivotably attached to the side of the shelves by screws and nuts.

[0004] This set of shelves, although fulfilling many other desired requirements of a display shelf, is relatively expensive. Also, its construction restricts the number of materials that may be used for the shelf, since materials having relatively high weight might make the construction prone to falling over or collapsing.

Summary of the invention

[0005] It is an object of the present invention to provide an alternative foldable set of shelves enabling construc-

tions which fulfils one or several of the requirements of a foldable display shelf, and also enabling a more simple and economical construction.

[0006] This object is achieved by a set of shelves according to the introduction, in which said support element comprises a bar running through said shelf so as to accomplish the pivotable arrangement.

[0007] This construction minimizes the number of parts needed for the set of shelves, in that only the shelf parts and the bars are necessary to provide the foldable X-shaped structures of the set. Less parts result in that the costs for manufacturing the shelf may be reduced. Also, the construction according to the invention enables a shorter manufacturing time, since threading bars through the shelves generally require considerably less time than the known solutions using rods being attached by screws and nuts. The shorter manufacturing time may further reduce costs for the set of shelves.

[0008] Preferably, each shelf is supported by a pair of parallel bars, being pivotally arranged at opposite sides of said shelf.

[0009] Advantageously, each bar has longitudinal portions forming arms of said X-shaped structure, and at least one transversal attachment portion running through an opening provided in the shelf for accomplishing said pivotable arrangement. In this manner, the pivotal connection between the support element and the shelves may be easily accomplished. The transversal attachment portion in the opening will extend along a pivot axis, about which the longitudinal portion of the bar is pivotable. This construction is particularly simple and does not require much assembly time.

[0010] Also, a bar may be provided with a transversal attachment portion at an end of said bar, said transversal attachment portion running through an opening provided in the shelf for accomplishing pivotable arrangement of the end of the bar. Thus, also the ends of the bars may easily be connected to shelves using transversal attachment portions.

[0011] Preferably, the foldable set of shelves is arranged so that a bar at at least one shelf, said shelf being situated between a lower shelf and a higher shelf, is pivotably connected at one end to an upper end of said lower shelf, and at the other end to a lower end of said upper shelf, and at a middle portion to the shelf which the bar intersects to form the X-shaped structure. Using this arrangement, the set of shelves will form a number of X-shaped structures, being interconnected via the support elements. The interconnection causes simultaneous movement of the X-shaped structure; by adjusting the distance between two adjacent arms of one X-shaped structure, the rest of the X-shaped structures of the shelf will automatically be adjusted in the same manner.

[0012] Advantageously, the shelves may have edges forming an angle to a shelf plane, said edges being provided with openings through which the bars run. Preferably, the edges may be substantially perpendicular to the shelf plane.

[0013] The set of shelves may with advantage comprise a shelf base, to which a lowermost end of a lowermost shelf and a lowermost end of a lowermost bar is arranged. The distance between the lowermost ends of the lowermost shelf and bar may be adjustable so as to enable adjustment of the distance between two arms of the X-shaped structure formed between the lowermost shelf and bar. This construction enables control of the movement of the set of shelves between the different positions. The lowermost end of the lowermost bar or the lowermost shelf is advantageously pivotably arranged to the shelf base. Also, at least one of said lowermost ends may be slidably arranged to the shelf base.

[0014] Accordingly, the set of shelves is movable from the storage position to the display position upon approaching the lowermost end of the lowermost shelf to the lowermost end of the lowermost bar at said shelf base, whereby the lowermost shelf and bar will pivot resulting in pivotal movement of all shelves and bars.

[0015] To accomplish sliding and pivotable arrangement of the lowermost end of the lowermost shelf to the shelf base, the lowermost end of the lowermost shelf may be provided with a pair of runners for cooperation with corresponding rails in said shelf base.

[0016] Advantageously, a locking device (6) for locking the lowermost end of said lowermost shelf (1.1) and lowermost end of said lowermost bar (2.1) at a distance from each other in which the set of shelves assumes a display position. Thus, the set of shelves may conveniently be locked in its display position.

[0017] The shelf base may be provided with an extendible support being arranged so as to extend or retract from the shelf base upon movement of the lowermost bar or the lowermost shelf in relation to the shelf base. With such an arrangement, the extendible support will be retracted and thus not take up much space when in the storage position. When in the display position, it will extend from the shelf base thus increasing the general support area of the set of shelves and enhancing the stability of the set of shelves. The automatic extension or retraction of the extendible support upon adjustment from a display position to a storage position or vice versa contributes to the easy handling of the set of shelves.

[0018] An alternative or additional way of accomplishing locking of the set of shelves in the display position is to provide a locking means at the uppermost end of the set. Thus, a locking means may be provided for locking an uppermost bar and an uppermost shelf at a distance from each other in which the set of shelves assumes a display position.

[0019] Additional features and advantages of the invention will appear more clearly from the following detailed description of some preferred embodiments of the invention, which is given by way of non-limiting example only and with reference to the accompanying drawings.

Brief description of the accompanying drawings

[0020]

5 Fig. 1 is a perspective view of an embodiment of a set of shelves according to the invention when in a storage position.

Fig. 2 is a perspective view of the set of shelves of Fig. 1 when in a display position.

10 Fig. 3a is a perspective view from below of the set of shelves of fig. 1 when in the storage position.

Fig. 3b is the same view as Fig. 3a, where the bottom portion of the shelf base has been removed.

15 Fig. 4 depicts a support element of the set of shelves of Fig. 1.

Detailed description of preferred embodiments of the invention

20 **[0021]** Fig. 1 depicts an embodiment of a set of shelves according to the invention when in a storage position, and Fig. 2 depicts the same set of shelves when in a display position.

25 **[0022]** The set of shelves comprise a plurality of shelves 1, in this particular case five shelves, for supporting items such as books or leaflets. A support element in the form of a bar 2 intersect each shelf at a mid portion thereof so as to form an X-shaped structure with the shelf. By adjusting a distance between two adjacent arms of the X-shaped structure, the set of shelves is foldable from a display position as seen in Fig. 2 to a storage position as seen in Fig. 1.

30 **[0023]** The bars 2 are arranged at each shelf 1.3 being situated between a lower shelf 1.2 and a higher shelf 1.4, so as to be pivotably connected at one end to an upper end of said lower shelf 1.2, at the other end to a lower end of said higher shelf 1.4, and at a mid-portion of the shelf 1.3. Accordingly, the shelves 1 and bars 2 of the set forms a number of X-shaped structures arranged one above the other. Adjustment of the distance between two adjacent arms of one of the X-shaped structures will automatically lead to the same adjustment between the other X-shaped structures of the set.

35 **[0024]** Each shelf is in this case actually supported by a pair of parallel bars 2, being attached to opposite sides of said shelf 1. The pairs of bars 2 will be arranged in a similar manner at the corresponding sides of the shelf 1 and both bars 2 will in all situations assume corresponding positions. Hereinafter, we will only discuss the arrangement and position of one of the bars 2 at each shelf 1. The arrangement on the opposite side of the shelf 1 will mirror the one described.

40 **[0025]** In the storage position, the shelves 1 are arranged in parallel to each other, and with a rather small distance in between each shelf 1. The shelf planes form a rather small angle with a horizontal plane, and are arranged on top of each other. In the display position, the shelves has been pivoted so that the shelf planes form

a greater angle with a horizontal plane; and assume a position in which the shelves 1 are suitable for displaying leaflets etc. Accordingly, in the storage position the set of shelves is more compact and has a considerably less height than in the display position.

[0026] In accordance with the invention, the bar 2 at each shelf 1 is running through said shelf 1 so as to accomplish the pivotable attachment. As best seen in Fig. 4, each bar 2 has longitudinal portions 2a that extend between the different shelves 1. Further, each bar has a transversal attachment portion 2b located at the middle of the bar 2 for attachment to a mid-portion of the shelf 1. In this case, the transversal attachment portion 2b is formed by a kink on the elongated bar 2. The longitudinal portions 2a run along a straight line from which said kink departs to form the transversal attachment portion 2b. Also, the ends of the bar 2 is provided with end transversal attachment portions 2c, for attachments to the lower end and the upper end of a higher and a lower shelf, respectively.

[0027] The transversal attachment portions 2b and 2c run through openings 3 provided on the shelves 1, so as to accomplish the pivotal attachment of the bar 2 to the shelves 1. The openings 3 through which the bars run are provided on edges provided along the sides of the shelves, each edge being substantially perpendicular to the shelf plane. Each shelf has openings 3 adjacent to the upper portion of the shelf, to the lower portion of the shelf, and to the mid portion of the shelf.

[0028] Via the transversal attachment portions 2b, 2c, most bars 2 interconnect three shelves 1: a lower shelf, a middle shelf and a top shelf. The lowermost bar 2 of the set of shelves is however attached to a shelf base 5 and not to a lower shelf 1. Likewise, the uppermost bar 2 of the set of shelves is not attached to a top shelf, but extends freely and is in this case is connected to the uppermost bar 2 at the other side of the set of shelves.

[0029] Thus, the bars in between the lowermost bar and the uppermost bar all extend from a first end transversal portion, being attached at a top portion of the lower shelf, via a first longitudinal portion to a kink, being attached at a mid-portion of the middle shelf, via a second longitudinal portion to a second end transversal portion being attached at a bottom portion of the top shelf.

[0030] Each shelf 1 has a shelf plane portion and a support portion at an end thereof, being essentially perpendicular to the shelf plane portion. When in display position, the shelf plane portion will extend in a direction being more vertical than horizontal, whereas the support portion will extend in a direction being more to the horizontal than to the vertical. Books or leaflets to be supported by the set of shelves are intended to be placed with their cover portions against the shelf plane portion and their end portions against the support portion.

[0031] The lowermost end of the lowermost bar 2.1 is arranged to a shelf base 5. In this case, the location of the lowermost end of the lowermost bar 2.1 is fixed, but the bar 2.1 is pivotable about the fixed position in the

shelf base 5. The lowermost end of the lowermost shelf 1.1 is also attached to the shelf base 5, at a distance from the lowermost bar 2.1. The lowermost shelf 1.1 is also pivotable in relation to the shelf base 5, but in contrast to the lowermost bar 1.1, it is slidably arranged in the shelf base 5. Thus, for moving the set of shelves from the storage position to the display position, the lowermost end of the lowermost shelf 1.1 may be slid in direction towards the position of the lowermost end of the lowermost bar 2.1. As the lowermost ends of the lowermost shelf and bar closes in against each other, both the shelf 1.1 and the bar 2.1 will pivot, moving the shelf 1.1 towards a more upright position. This results in simultaneous pivoting of all the shelves 1 and bars 2 of the system. When the lowermost end of the lowermost shelf is at a distance from the lowermost end of the lowermost bar corresponding to the set of shelves having attained the display position, it may be locked in this position by a locking device such as a hatch. In this manner, the set of shelves may be locked in the display position. For returning to the storage position, the locking means is released and the lowermost end of the lowermost shelf 1.1 is slid away from the lowermost bar 2.1.

[0032] As is best seen in Fig. 3b, in this particular embodiment, the lowermost end of the lowermost shelf is slidably arranged to the shelf base 5 by means of a pair of runners 8 running in corresponding rails in the shelf base 5. The locking means 6 is formed by a kink 6 of a thread structure in the shelf base 5, in which kink the runners 8 of the lowermost shelf 1.1 may be locked.

[0033] The set of shelves is further provided with an extendible support 7 being arranged so as to extend or retract from the shelf base 5 upon the sliding movement of the lowermost shelf 1.1. Thus, when the lowermost end of the lowermost shelf 1.1 slides towards the lowermost bar, causing the set to attain the display position, the support 7 is automatically extended. Likewise, the support 7 is retracted when the set of shelves is moved to the storage position. In this case, the support 7 is formed by a thread structure being connected to the lowermost end of the lowermost shelf 1.1.

[0034] At the uppermost end of the set of shelves, the pair uppermost bars 2.5 are interconnected via a transverse thread member. A locking means 9, in this case also formed by a thread structure, is provided for locking said uppermost bar 2.5 to the uppermost end of the uppermost shelf 1.5 when the set of shelves is in display position.

[0035] It is appreciated that it is enough to provide one locking means anywhere along the set of shelves, since a fixed relationship between shelves and bars at one location will result in the fixed position of the entire set of shelves. Thus, the locking means described at the lowermost end of the set, and the locking means described at the uppermost end of the set, may each be used separately. However, in this embodiment they are combined. This arrangement with one locking means at each end of the set results in further enhanced stability of the set.

[0036] The bars 2 are preferably resilient enough so as to be conveniently threaded through the openings of the shelves, and yet not more resilient than that they provide the stability required. Advantageously, the bars 2 may be made of metal or steel such as stainless steel. The shelves may be manufactured of sheet metal, such as aluminium or stainless steel. The construction enables however use of a wide range of materials for the bars and the shelves.

[0037] Although in the depicted embodiment the bars and the shelves are interconnected adjacent to the lowermost or uppermost ends of said shelves, one could imagine that the bars and shelves are interconnected so that the shelves extend somewhat beyond the position of interconnection. The depicted embodiment is a preferred embodiment in which all connections between bars and shelves are made by transverse portions of the bars being introduced into openings in the shelves. This is a particularly simple and economical construction. One could however imagine that some other components are used such as a bearing in the opening of the shelves or an attachment plug attached to the ends of the bars.

Claims

1. A foldable set of shelves, comprising a plurality of shelves (1) for supporting items such as books or leaflets, and at least one support element (2) intersecting each shelf (1) and being pivotably arranged thereto so as to form an X-shaped structure with the shelf (1), whereby the set of shelves is foldable from a display position to a storage position by adjusting a distance between two adjacent arms of said X-shaped structure, **characterised by** said support element comprising a bar (2) running through said shelf (1) so as to accomplish the pivotable arrangement.
2. A foldable set of shelves according to claim 1, wherein each bar (2) has longitudinal portions (2a) forming arms of said X-shaped structure, and at least one transversal attachment portion (2b) running through an opening provided in the a shelf (1) for accomplishing said pivotable arrangement.
3. A foldable set of shelves according to claim 1 or 2, wherein a bar (2) at at least one shelf (1.3), said shelf (1.3) being situated between a lower shelf (1.2) and a higher shelf (1.4), is pivotably connected at one end to an upper end of said lower shelf (1.2), and at the other end to a lower end of said upper shelf (1.4), and at a middle portion to the shelf which the bar intersects to form the X-shaped structure.
4. A foldable set of shelves according to any one of the preceding claims, wherein at least one bar (2) is provided with a transversal attachment portion (2c) at

an end of said bar (2), said transversal attachment portion (2c) running through an opening (3) provided in the shelf (1) for accomplishing pivotable attachment of the end of the bar (2).

5. A foldable set of shelves according to any one of the preceding claims, wherein the shelves have edges (4) forming an angle to a shelf plane, said edges (4) being provided with openings (3) through which said bars (2) run.
6. A foldable set of shelves according to any one of the preceding claims, further comprising a shelf base (5), to which a lowermost end of a lowermost shelf (1.1) and a lowermost end of a lowermost bar (2.1) is arranged, the distance between said lowermost end of the lowermost shelf (1.1) and the lowermost end of the lowermost bar (2.1) being adjustable so as to enable adjustment of the X-shaped structure formed between the lowermost shelf and bar (1.1, 2.1).
7. A foldable set of shelves according to any one of the preceding claims having a locking device (6) for locking the lowermost end of said lowermost shelf (1.1) and lowermost end of said lowermost bar (2.1) at a distance from each other in which the set of shelves assumes a display position.
8. A foldable set of shelves according to any one of the preceding claims said shelf base being provided with an extendible support (7) being arranged so as to extend or retract from the shelf base (4) upon movement of the lowermost bar (2.1) or the lowermost shelf (1.1) in relation to the shelf base (4).
9. A foldable set of shelves according to any one of the preceding claims, wherein a locking member (9) is provided for locking an uppermost bar (2.5) and an uppermost shelf (1.5) at a distance from each other in which the set of shelves assumes a display position.
10. A foldable set of shelves according to any one of the preceding claims, wherein each shelf (1) is supported by a pair of parallel bars (2), being pivotally attached to opposite sides of said shelf (1).

Patentansprüche

1. Klappbarer Regalsatz, welcher mehrere Regalfächer (1) zum Tragen von Gegenständen wie beispielsweise Büchern oder Prospekten und wenigstens ein Stützelement (2) aufweist, welches jedes Regalfach (1) kreuzt und schwenkbar daran befestigt ist, so dass es mit dem Regalfach (1) eine x-förmige Struktur bildet, wodurch der Regalsatz von

einer Präsentationsstellung in eine Aufbewahrungsstellung geklappt werden kann, indem ein Abstand zwischen zwei benachbarten Armen der x-förmigen Struktur eingestellt wird, **dadurch gekennzeichnet, dass** das Stützelement eine Stange (2) aufweist, welche durch das Regalfach (1) verläuft, so dass die schwenkbare Anordnung bewerkstelligt wird.

2. Klappbarer Regalsatz gemäß Anspruch 1, wobei jede Stange (2) Längsabschnitte (2a), welche Arme der x-förmigen Struktur bilden, und wenigstens einen quer verlaufenden Befestigungsabschnitt (2b) aufweist, welcher durch eine Öffnung verläuft, die in dem bzw. einem Regalfach (1) vorgesehen ist, um die schwenkbare Anordnung zu bewerkstelligen.
3. Klappbarer Regalsatz gemäß Anspruch 1 oder 2, wobei eine Stange (2) an wenigstens einem Regalfach (1.3), welches zwischen einem tiefer gelegenen Regalfach (1.2) und einem höher gelegenen Regalfach (1.4) angeordnet ist, schwenkbar an einem Ende mit einem oberen Ende des tiefer gelegenen Regalfachs (1.2) und an dem anderen Ende mit einem unteren Ende des oberen Regalfachs (1.4) sowie an einem mittleren Abschnitt mit dem Regalfach verbunden ist, welches von der Stange gekreuzt wird, so dass die x-förmige Struktur gebildet wird.
4. Klappbarer Regalsatz gemäß einem der vorhergehenden Ansprüche, wobei wenigstens eine Stange (2) mit einem quer verlaufenden Befestigungsabschnitt (2c) an einem Ende der Stange (2) versehen ist, wobei der quer verlaufende Befestigungsabschnitt (2c) durch eine Öffnung (3) verläuft, welche in dem Regalfach (1) vorgesehen ist, um eine schwenkbare Befestigung des Endes der Stange (2) zu bewerkstelligen.
5. Klappbarer Regalsatz gemäß einem der vorhergehenden Ansprüche, wobei die Regalfächer Kanten (4) aufweisen, welche zu einer Regalfachebene einen Winkel bilden, wobei die Kanten (4) mit Öffnungen (3) versehen sind, durch welche die Stangen (2) verlaufen.
6. Klappbarer Regalsatz gemäß einem der vorhergehenden Ansprüche, welcher weiterhin eine Regalbasis (5) aufweist, an der ein unterstes Ende eines untersten Regalfachs (1.1) und ein unterstes Ende einer untersten Stange (2.1) angeordnet sind, wobei der Abstand zwischen dem untersten Ende des untersten Regalfachs (1.1) und dem untersten Ende der untersten Stange (2.1) einstellbar ist, so dass eine Einstellung der x-förmigen Struktur ermöglicht wird, welche zwischen dem untersten Regalfach und der untersten Stange (1.1, 2.1) gebildet wird.
7. Klappbarer Regalsatz gemäß einem der vorherge-

henden Ansprüche mit einer Feststellvorrichtung (6) zum Feststellen des untersten Endes des untersten Regalfachs (1.1) und des untersten Endes der untersten Stange (2.1) in einem Abstand voneinander, bei dem der Regalsatz eine Präsentationsstellung annimmt.

8. Klappbarer Regalsatz gemäß einem der vorhergehenden Ansprüche, wobei der Regalsatz mit einer verlängerbaren Stütze (7) versehen ist, welche so angeordnet ist, dass sie von der Regalbasis (5) aus verlängert oder eingezogen wird, wenn die unterste Stange (2.1) oder das unterste Regalfach (1.1) im Verhältnis zu der Regalbasis (5) bewegt wird.
9. Klappbarer Regalsatz gemäß einem der vorhergehenden Ansprüche, wobei ein Feststellelement (9) vorgesehen ist, um eine oberste Stange (2.5) und ein oberstes Regalfach (1.5) in einem Abstand zueinander festzustellen, bei dem der Regalsatz eine Präsentationsstellung annimmt.
10. Klappbarer Regalsatz gemäß einem der vorhergehenden Ansprüche, wobei jedes Regalfach (1) durch ein Paar paralleler Stangen (2) gestützt wird, welche schwenkbar an entgegengesetzten Seiten des Regalfachs (1) angeordnet sind.

Revendications

1. Etagère pliable, comprenant une pluralité de tablettes (1) pour supporter des articles tels que des livres ou des brochures, et au moins un élément support (2) venant en intersection avec chaque tablette (1) et étant disposé de façon pivotante par rapport à celle-ci, de façon à former une structure en forme de X avec la tablette (1), de sorte que l'étagère est pliable depuis une position de présentation jusqu'à une position de stockage en ajustant une distance entre deux bras contigus de ladite structure en forme de X, **caractérisé en ce que** ledit élément de support comprend une barre (2) s'étendant à travers ladite tablette (1) de façon à réaliser l'agencement pivotant.
2. Etagère pliable selon la revendication 1, dans lequel chaque barre (2) présente des portions longitudinales (2a) formant des bras de ladite structure en forme de X et au moins une portion de fixation transversale (2b) s'étendant à travers une ouverture disposée sur une tablette (1) pour réaliser ledit agencement pivotant.
3. Etagère pliable selon la revendication 1 ou 2, dans lequel une barre (2) sur au moins une tablette (1.3), ladite tablette (1.3) étant située entre une tablette inférieure (1.2) et une tablette supérieure (1.4), est

raccordée de façon pivotante en une extrémité à une extrémité supérieure de ladite tablette inférieure (1.2) et en l'autre extrémité à une extrémité inférieure de ladite tablette supérieure (1.4) et en une portion médiane sur la tablette avec laquelle la barre vient en intersection pour former la structure en forme de X.

4. Etagère pliable selon l'une quelconque des revendications précédentes, dans lequel au moins une barre (2) est munie d'une portion de fixation transversale (2c) à une extrémité de ladite barre (2), ladite portion de fixation transversale (2c) s'étendant à travers une ouverture (3) disposée dans la tablette (1) pour réaliser la fixation pivotante de l'extrémité de la barre (2). 10
5. Etagère pliable selon l'une quelconque des revendications précédentes, dans lequel les tablettes présentent des bords (4) formant un angle par rapport à un plan de tablette, lesdits bords (4) étant munis d'ouvertures (3) à travers lesquelles passent lesdites barres (2). 15
6. Etagère pliable selon l'une quelconque des revendications précédentes, comprenant de plus une base d'étagère (5) sur laquelle une extrémité inférieure extrême d'une tablette inférieure extrême (1.1) et une extrémité inférieure extrême d'une barre inférieure extrême (2.1) sont disposées, la distance entre ladite extrémité inférieure extrême de la tablette inférieure extrême (1.1) et l'extrémité inférieure extrême de la barre inférieure extrême (2.1) étant ajustable, de façon à permettre l'ajustement de la structure en forme de X formée entre la tablette inférieure extrême et la barre (1.1, 2.1). 20 25 30 35
7. Etagère pliable selon l'une quelconque des revendications précédentes, comportant un dispositif de verrouillage (6) pour verrouiller l'extrémité inférieure extrême de ladite tablette inférieure extrême (1.1) et l'extrémité inférieure extrême de ladite barre inférieure extrême (2.1) à une distance l'une de l'autre dans laquelle l'étagère prend une position de présentation. 40 45
8. Etagère pliable selon l'une quelconque des revendications précédentes, ladite base d'étagère étant munie d'un support extensible (7) disposé de façon à sortir ou à rentrer par rapport à la base d'étagère (4) lors du mouvement de la barre inférieure extrême (2.1) ou de la tablette inférieure extrême (1.1) par rapport à la base d'étagère (4). 50
9. Etagère pliable selon l'une quelconque des revendications précédentes, dans lequel un élément de verrouillage (9) est prévu pour verrouiller une barre supérieure extrême (2.5) et une tablette supérieure 55

extrême (1.5) à une distance l'une de l'autre dans laquelle l'étagère prend une position de présentation.

- 5 10. Etagère pliable selon l'une quelconque des revendications précédentes, dans lequel chaque tablette (1) est supportée par une paire de barres parallèles (2), étant fixées de façon pivotante sur les côtés opposés de ladite étagère (1).

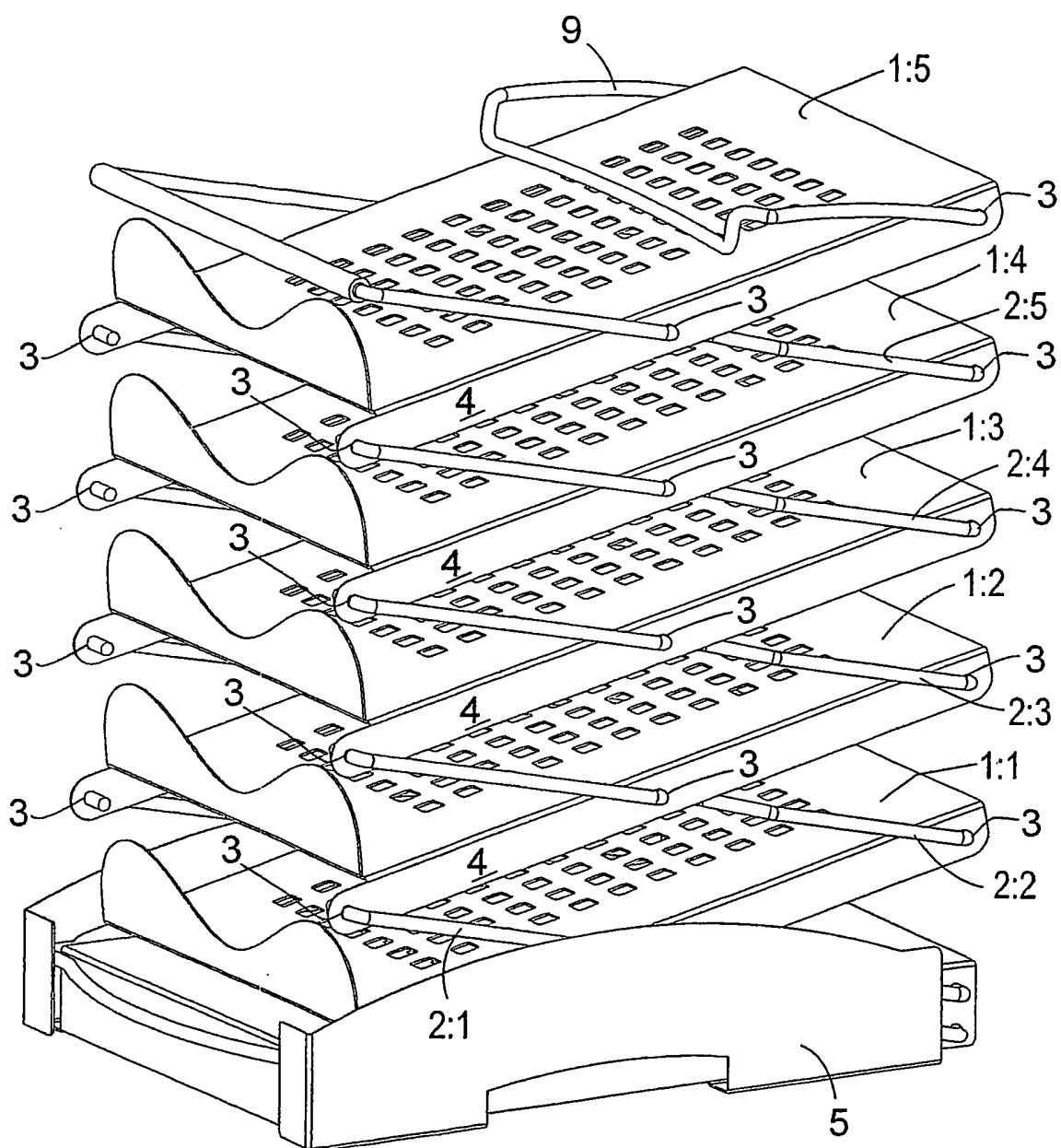


Fig.1

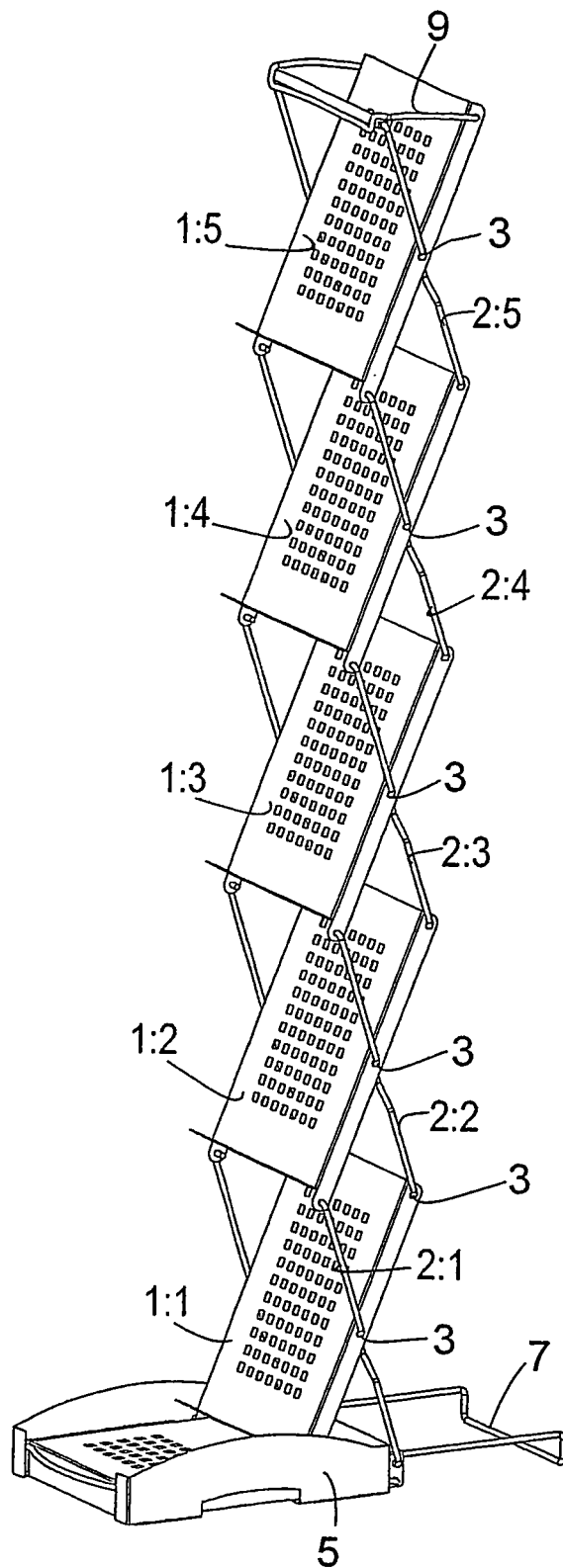


Fig. 2

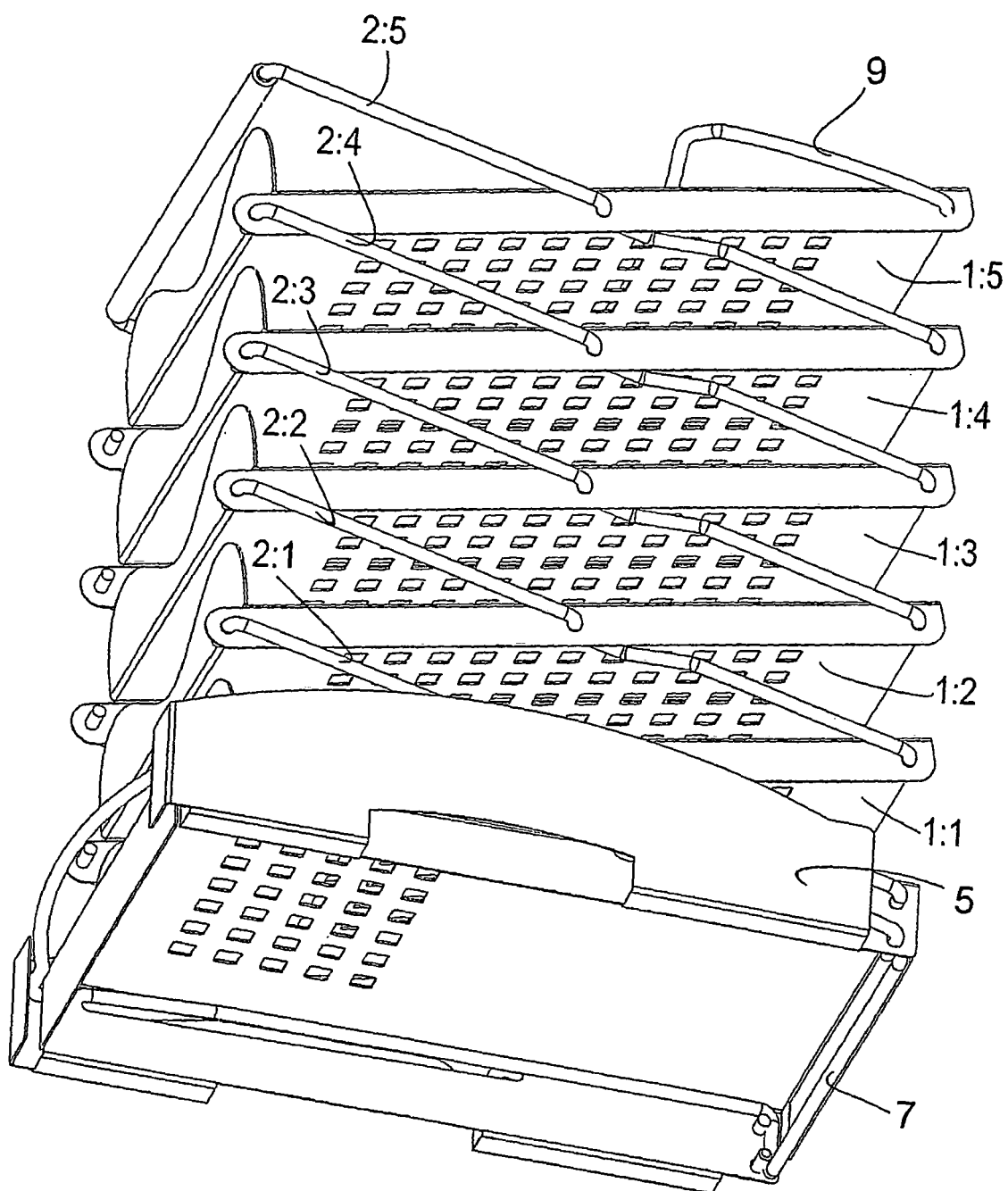
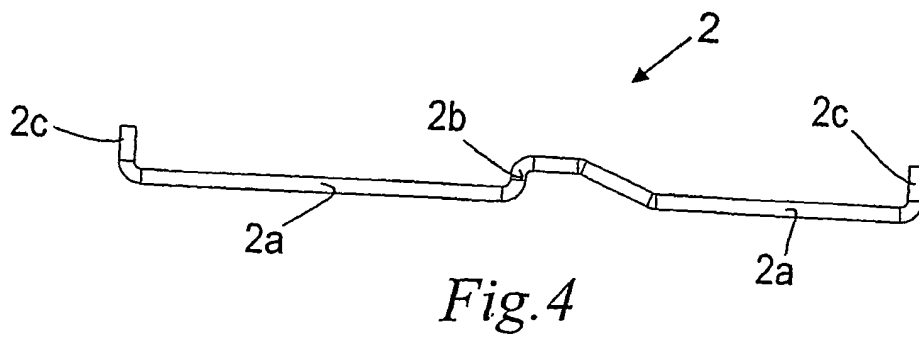
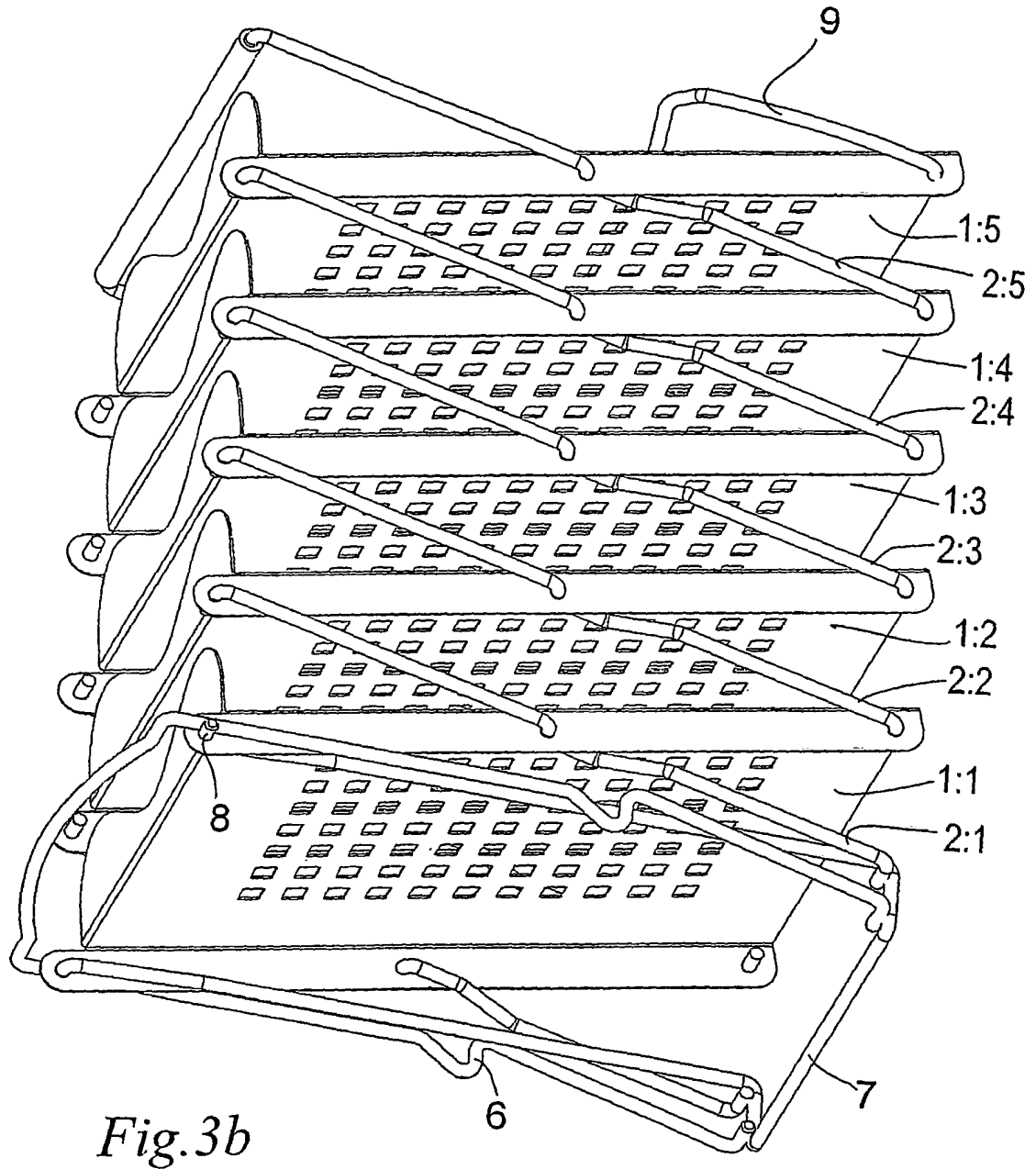


Fig.3a



REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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