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Flaschenkasten

Casier à bouteilles

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Description

OBJECT OF THE INVENTION

[0001] The present invention refers to a bottle container, of the type formed by a prismatic-rectangular metal box, with a rigid angular frame, onto which metal grids are attached, thereby forming the faces of the container, so that the latter, when conveniently loaded with bottles, is liable to adopt two working positions in which the bottles are laid horizontally and vertically, whereas there are supports for both of these positions, allowing the containers to be placed on the floor or stacked together.

[0002] The object of the invention is to improve the structure of this type of containers, with a view to avoiding handling problems that occur when that handling is carried out by robots.

BACKGROUND TO THE INVENTION

[0003] This same applicant holds the Spanish utility model ES 103679' U, which describes a bottle container module, with the general characteristics described in the preceding paragraph and the preamble of claim 1, i.e. a robust metallic frame corresponding to the angles of the rectangular prism formed by the container, which is the support for a series of interlaced rods which in turn form the closed faces of the container, whereas a drop door is established on one of these faces, namely, one of the lateral faces, affecting the upper half of this face, equipped with fastening bolts, whereas there is an upper grid that functions as a lid to hold in the bottles when the container moves sideways, which is also fastened with bolts which, like the above-mentioned, tend to remain closed due to the effect of respective springs.

[0004] Furthermore, at the base of the container and also on one of its lateral faces, the one opposite the door, there are supporting runners which allow to slide and move the container on the floor or on conveyor platforms, so that no matter which position the container adopts, i.e. whether the bottles are horizontal or vertical, it is always supported by the aforementioned runners, which also create a convenient distance between the container and the floor, allowing to introduce the fork of a lift truck.

[0005] However, this type of bottle container, which offers excellent functional features from the theoretical point of view, presents structural and handling problems in practice, which are for the most part based on the following aspects:

- Although the use of arms for the fork on the lift truck is recommended, whose length should be at least the same as the width of the container, in practice and in many cases the arms or catches that are used are considerably shorter, which although the container is not at risk of falling while being handled, does mean that the metallic grid on which they are supported is deformed, meaning that the container loses its theoretical geometry and when the bottles are being handled by a robotised system, given that they are moved slightly more sideways than they should be, handling errors occur as the robot's catches close without supporting the necks of the bottles and are functionally inoperative.
- The container is loaded with the opening facing upwards, position in which it is supported by a pair of runners, and then it is turned 90°, so that it is now supported by the runners that are situated on one of its faces, the one opposite the side door, so that from this position, in which the bottles are lying down, the container is then handled on roller platforms that make it easier to move the container. The existence of just two runners on this face of the container allows it to be moved correctly on the roller platform when in position but this movement is impossible if, for any reason, the support position on the platform is turned 90°, as in this case the runners are parallel to the rollers and these elements are blocked.
- As the bolts stay in the closed position due to the effect of the springs, one of the springs could accidentally break or the bolt could retract due to a blow or any other cause, thereby accidentally disconnecting the grid lid or even the side door itself.

DESCRIPTION OF THE INVENTION

[0006] The bottle container proposed by this invention is based on the aforementioned utility model and includes a series of improvements that fully solve the aforementioned problems. This is achieved by means of a bottle container according to appended claim 1.

[0007] To this end, to be more specific and in accordance with one of the characteristics of the invention, diagonal stiffening bars are placed on the side wall of the container opposite the door, on which in any case the arms or catches of the fork lift are to rest, whether they are short or long, so that it is the stiffening bars that bear the weight of the container's load and undesirable deformation of the metal grid, which constitutes the closure of this face is avoided.

[0008] In accordance with another characteristic of the invention, on this same side face of the container and as well as the two classical runners situated on the parallel edges, there are two more runners on the other two edges of the same face, so that the container may be moved on a roller platform in any position, no matter how the container is placed on the roller platform.

[0009] Finally and in accordance with another characteristic of the invention, a substantial modification has been proposed for the mechanism that fastens the lid, including modifications to the lid itself and to the side walls of the container to which the latter is attached.

[0010] More specifically and maintaining the aforementioned bolt system, which may be adapted to cases where the necks of the bottles come out through the lid, the proposal is that the bars that receive the shanks of

the afore-mentioned bolts should include, as well as at least one vertical line of holes to selectively receive the bolts, a middle line of transversal slots intended to selectively receive the bars that slide over the lid itself, more specifically, where each of them will be guided between a pair of bars, at intervals equal to those of the bars, forming a guide that is closed at the bottom by the grid of the lid itself and on the top with the collaboration of a pair of transversal rounds, which also act as slide limit stops for the bars, which include in the intermediate area between both stops a blocking element which determines that the bar is in turn blocked in the open or closed position, depending on which side of the bars of the grid it is situated.

[0011] More specifically, the outer end of the sliding bar is doubly and orthogonally elbowed, first downwards and then outwards, so that the free end fits into one of the slots of the corresponding matching bar to the side wall of the container, thereby allowing to adjust the height of the lid to suit different sizes of bottles and turn the bottle container into a "universal" element.

DESCRIPTION OF DRAWINGS

[0012] In order to complete the description and with the aim of allowing for a better understanding of the characteristics of this invention, according to an example of the preferred embodiment of same, a set of drawings is attached as an integral part of this description, representing the following in an illustrative and non-restrictive manner:

Figure 1.- Shows a perspective view of a bottle container manufactured in accordance with the object of this invention, with the lid unattached.

Figure 2.- Shows an enlarged detail of the bars that reinforce the side face supporting the container.

Figure 3.- Shows a perspective detail of the lid of the bottle container with the two sliding bars and in an inoperative or open situation for same.

Figure 4.- Shows a detail that is similar to that of Figure 3, in which the sliding bars are shown in the locked position.

Figure 5.- Shows a partial detail of the bottle container as a whole, with the lid also in the closed position.

PREFERRED EMBODIMENT OF THE INVENTION

[0013] In the aforementioned figures and especially in Figure 1, we can see that the bottle container in question is structured, in the conventional manner, based on a metallic frame (1) that forms the angles of an imaginary rectangular prism, open at the top, whose floor and side walls are closed by means of the respective metallic grids (2), whose lower base rests on two lateral and parallel runners (3) that make it easier to move the container along the floor and at the same time raise the base conveniently so as to allow the catches or arms of a lift truck to pass underneath and that there is a drop door (4) on one of the side walls, which affects approximately the upper half of same and is kept in a stable closed position by means of bolts (5), incorporating on the lateral wall that is opposite the aforementioned door (4) another two lateral and parallel runners (6), on the same plane as the aforementioned runners (3), which in turn allow to slide the container when it has rotated to the horizontal bottle position and that there is a lid (7) similarly manufactured of a metallic grid with bolts (8) which are identical or similar to the aforementioned bolts (5) and that in this case cross through perforated bars (9), conveniently welded to the lateral walls of the container beside the door (4), whereas both types of bolts are retractable against the tension of respective springs that tend to keep them in the closed position.

[0014] In accordance with the invention, the side wall (10) of the container opposite the door (4) includes strong diagonal bars (11), placed between its corners, which with the collaboration of an intermediate crossbar (12) ensure maximum structural rigidity on this face, thereby avoiding that when the catches or arms on a lift truck function, even when they are short, the metal grid that closes the bottles for this lateral wall (10) should be deformed.

[0015] Furthermore, on this same lateral wall (10), as well as the two traditional parallel runners (6), there are two other similar runners (13), corresponding to the other two edges, so that no matter which position the container is placed on a roller platform, there will always be runners (6-13) on this side transversal to the rollers of the platform, that will ensure it is easy to move the container.

[0016] Instead of the lid (7) with the traditional bolts (8), specifically when the necks of the bottles should not cross through this lid and with a view to allowing to position this lid according to the different sizes of bottles, a second gridded lid (14) may be attached to the container, with rods that are considerably closer to each other, with the particularity in this case that the lid includes, in correspondence with each of its closing edges, a girder (15), considerably dephased outwardly and upwardly, to which the ends of a series of crossbars (16) are fixed, which are superimposed on the lid itself and fixed to same, preferably forming two pairs in which the crossbars are substantially close together and, with the collaboration of the girders (17-17'), form a guide or rail for a sliding bar (18), whose outer end is orthogonally and downwardly angled, determining a wide vertical descending section (19), and a second outward angle, determining a terminal section (20) which functions like a blocking element on the corresponding bar (9), which in this case and as well as the holes (21) for selective reception of the traditional bolts (8) if the lid (7) is being used, includes a vertical line

of slots (21) that are able to selectively receive the operative end (20) of the sliding bar (18), as may be specially seen in Figure 5, allowing in turn to adjust the height of the lid (14).

[0017] Consequently, the operative end (20) of the sliding bar (18) is able to adopt two limit positions, one in which it is retracted with respect to the girder (15), as may be seen in Figure 3, and another in which it juts out over same, as may be seen in Figure 4, whereas these two limit positions are stabilised by the existence of a blocking element (22) mounted on the bar itself (18) and able to accommodate both sides of the girder (17'), stopping the latter, as may also be seen in the aforementioned figures 3 and 4.

[0018] Each pair of crossbars (16) is also stiffened by a pair of upper rounds (23), which could act as limit stops for the blocking element (22), although in the example represented in the figures, the displacement of the sliding bar (18) is limited by the incidence of its first elbow either on the nearest girder (17) or on the outer girder (15).

[0019] In the example of practical embodiment represented in the figures, the lid (14) includes four sliding bars (18), corresponding to four blocking points for this lid with respect to the body of the container, but evidently this number may vary and be higher or lower without affecting the essence of the invention.

Claims

1. A bottle container, of the type formed by a metallic rectangular prismatic body, open at the top and with a pair of runners (3) at its base, a drop door on one of its side walls and on the opposite side wall, a second pair of runners (6), which like the lower runners (3), separate the corresponding face from the floor or supporting plane; a body which is complemented by a lid (7) in the form of a metallic grid that may be attached to the opening of the body with the collaboration of retractable bolts (8), **characterised by** the fact that on the side wall opposite that of the drop door (4) there are robust diagonal stiffening bars (11), which preferably come together over an intermediate crossbar (12), forming a rigid supportive structure for the catches or arms on the fork lift truck, when the latter are short, measuring less than the width of the container, and that on the same side wall holding the second pair of runners (6), there are another two runners (13), corresponding to the other two edges, which ensure optimum movement of the container on a roller platform, no matter which position the container adopts on the platform.

2. A bottle container, according to the 1 st claim, **characterised by** the fact that the lid (7) includes, in correspondence with each pair of perforated side bars (9) which receive the bolts (8) that close the lid (7), two pairs of crossbars (16) which function as sliding rails for sliding bars (18), with a double orthogonal elbow (19-20) on their outer ends, the former pointing downwards (19) and the second pointing outwards (20), so that the free end of each of the sliding bars (18) is liable to fit selectively into a transversal slot (21) on the corresponding lateral bar (9) on the body of the container, along which a line of slots is also established in longitudinal alignment, with a view to adjusting the height of the lid (7) in the locked position at will.

3. A bottle container, according to the 2nd claim, **characterised by** the fact that the aforementioned crossbars (16) that function as rails for the sliding bars (18) have two girders (15) on their outer ends, which constitute limit stops for outward movement of these bars (18), while under these crossbars there is another girder (17), significantly behind the latter, which in turn constitutes the limit stop for retraction of the sliding bars (18).

4. A bottle container, according to the 2nd claim, **characterised by** the fact that each sliding bar (18) includes a blocking element (22) established on same, able to act on both sides of a third girder (17) established on the lid, blocking this bar (18) in the open or closed position for the operative end of same.

Patentansprüche

1. Flaschenständer-Container, derart welche einen metallischen, rechteckigen-prismatischen, oben offenen Körper beinhalten, der an seiner unteren Grundfläche mit einem Paar an Gleitkufen (3), an einer seiner Seitenwände mit einer Klapptür und an seiner entgegengesetzten Seitenwand mit einem zweiten Paar an Gleitkufen (6) versehen ist, welche ebenso wie die unteren Gleitkufen (3) die entsprechende Fläche vom Boden oder von der Stützebene distanzieren, wobei sich der Körper mit einem Dekkel (7) ergänzt, der in einem metallischen Gitter verwirklicht ist, das an die Öffnung des Körpers in Zusammenwirkung mit einziehbaren Riegeln (8) gekoppelt werden kann, wobei zudem vorgesehen ist, dass auf der Seitenfläche, die jener der Klapptür (4) entgegengesetzt ist, robuste Querversteifungsplatinen (11) eingeschlossen sind, welche vorzugsweise über einer Zwischenstrebe (12) zusammenlaufen, welche eine steife Stützstruktur für die Krallen oder Arme eines Bedienungshubwagens darstellen, wenn diese kurz sind und eine geringere Länge als die Breite des Containers haben, **dadurch gekennzeichnet, dass** auf derselben, das zweite Paar an Gleitkufen (6) tragenden Seitenfläche zwei weitere Gleitkufen (13) gebildet werden, die ihren beiden anderen Rändern entsprechen, welche ein optimales Verfahren des Containers auf einer Rollenplattform

in jeglicher Position gewährleisten, in welcher der Container sich auf der genannten Plattform abstützt.

2. Flaschenständer-Container nach Anspruch 1, **dadurch gekennzeichnet, dass** der Deckel (7) für jedes Paar an zur Aufnahme der Verschlussriegel des Deckels (7) perforierten Seitenplatinen (9) jeweils ein Paar an Streben (16) beinhaltet, welche Gleitführungen für Gleitplatinen (18) darstellen, die an ihrem äußeren Ende mit einer orthogonalen Doppelkröpfung versehen sind, wobei die erste nach unten (19) und die zweite nach Außen (20) ausgerichtet ist, so dass das freie Ende jeder Gleitplatine (18) für ein wahlweises Verriegeln in einer Quernut (21) der entsprechenden Seitenplatine (9) des Körpers des Containers anfällig ist, in welcher wiederum eine Vielzahl an Nuten mit Längsausrichtung gebildet werden, um das Höhenniveau des Deckels (7) in dessen blokkierten Stellung nach Belieben zu regeln.

3. Flaschenständer-Container nach Anspruch 2, **dadurch gekennzeichnet, dass** die genannten Streben (16), die zur Führung der Gleitplatinen (18) dienen, an ihrem äußeren Ende jeweils in Leisten (15) enden, welche einen Anschlag zur Begrenzung des Verfahrens nach Außen für die genannten Platinen (18) darstellen, während unter den genannten Streben (16) eine weitere Leiste (17) gebildet wird, die merklich in Bezug auf die vorherige eingesteckt ist, welche wiederum den Anschlag zur Begrenzung des Einzugs für die Gleitplatinen (18) darstellt.

4. Flaschenständer-Container nach Anspruch 2, **dadurch gekennzeichnet, dass** jede Gleitplatine (18) ein auf derselbigen gebildetes Blockierelement (22) beinhaltet, das auf beide Seiten einer dritten Leiste (17) einwirken kann, die an dem Deckel (7) gebildet ist, wobei es die genannte Platine (18) in der Öffnungs- oder Schließstellung für das Bedienende derselbigen blockiert.

Revendications

1. Conteneur-casier à bouteilles, du type de ceux qui incorporent un corps prismatique rectangulaire, de nature métallique, ayant la partie supérieure ouverte, pourvu sur sa base inférieure d'une paire de patins (3), sur une de ses parois latérales d'une porte escamotable et sur sa paroi latérale opposée d'une deuxième paire de patins (6), qui tout comme les patins inférieurs (3) éloignent la face correspondante par rapport au sol ou plan d'appui, corps étant complémenté par un couvercle (7) matérialisé en une grille métallique pouvant être couplée à l'embouchure du corps avec la collaboration de verrous rétractiles (8), en étant prévu, en outre, que sur la face latérale opposée à celle de la porte escamotable (4) soient inclues des platines robustes diagonales de rigidification (11), de préférence en confluence sur une traverse intermédiaire (12), constituant une structure rigide d'appui pour les fourches ou les bras d'un chariot élévateur de manipulation, lorsque ceux-ci sont courts, de longueur inférieure à la largeur du conteneur, **caractérisé en ce que** sur la même face latérale porteuse de la deuxième paire de patins (6), sont établis deux autres patins (13), en correspondance avec ses deux autres bords, qui assurent un déplacement optimal du conteneur sur une plate-forme de rouleaux, dans n'importe quelle position à laquelle le conteneur prend appui sure ladite plate-forme.

2. Conteneur-casier à bouteilles, selon revendication 1, **caractérisé en ce que** le couvercle (7) incorpore, en correspondance avec chaque paire de platines latérales (9) perforées pour la réception des verrous de fermeture du couvercle (7), des paires de traverses (16) constituant des guides de glissement pour des platines glissantes (18) pourvues sur leur extrémité externe d'un coude orthogonal double, le premier étant orienté vers le bas (19) et le deuxième étant orienté vers l'extérieur (20), afin que l'extrémité libre de chaque platine glissante (18) soit susceptible de s'enclencher sélectivement dans une rainure transversale (21) de la platine latérale (9) correspondante du corps du conteneur, dans laquelle sont établies, à leur tour, une pluralité de rainures d'alignement longitudinal, pour régler à volonté le niveau en hauteur du couvercle (7) en situation de verrouillage pour celle-ci.

3. Conteneur-casier à bouteilles, selon la revendication 2, **caractérisé en ce que** lesdites traverses (16) en guise de guide pour les platines glissantes (18) se terminent à leur extrémité externe par des longerons (15) qui constituent une butée limitatrice de déplacement vers l'extérieur pour lesdites platines (18), tandis que sous lesdites traverses (16) est établi un autre longeron (17), sensiblement retrait par rapport à l'antérieur, qui à son tour constitue la butée limitatrice de rétraction pour les platinas glissantes (18).

4. Conteneur-casier à bouteilles, selon la revendication 2, **caractérisé en ce que** chaque platine glissante (18) incorpore un élément de verrouillage (22) établi sur celle-ci, qui peut agir d'une part et d'autre d'un troisième longeron (17) établi dans le couvercle (7), en verrouillant ladite platine (18) en situation d'ouverture ou de fermeture pour l'extrémité opérationnelle de celle-ci.

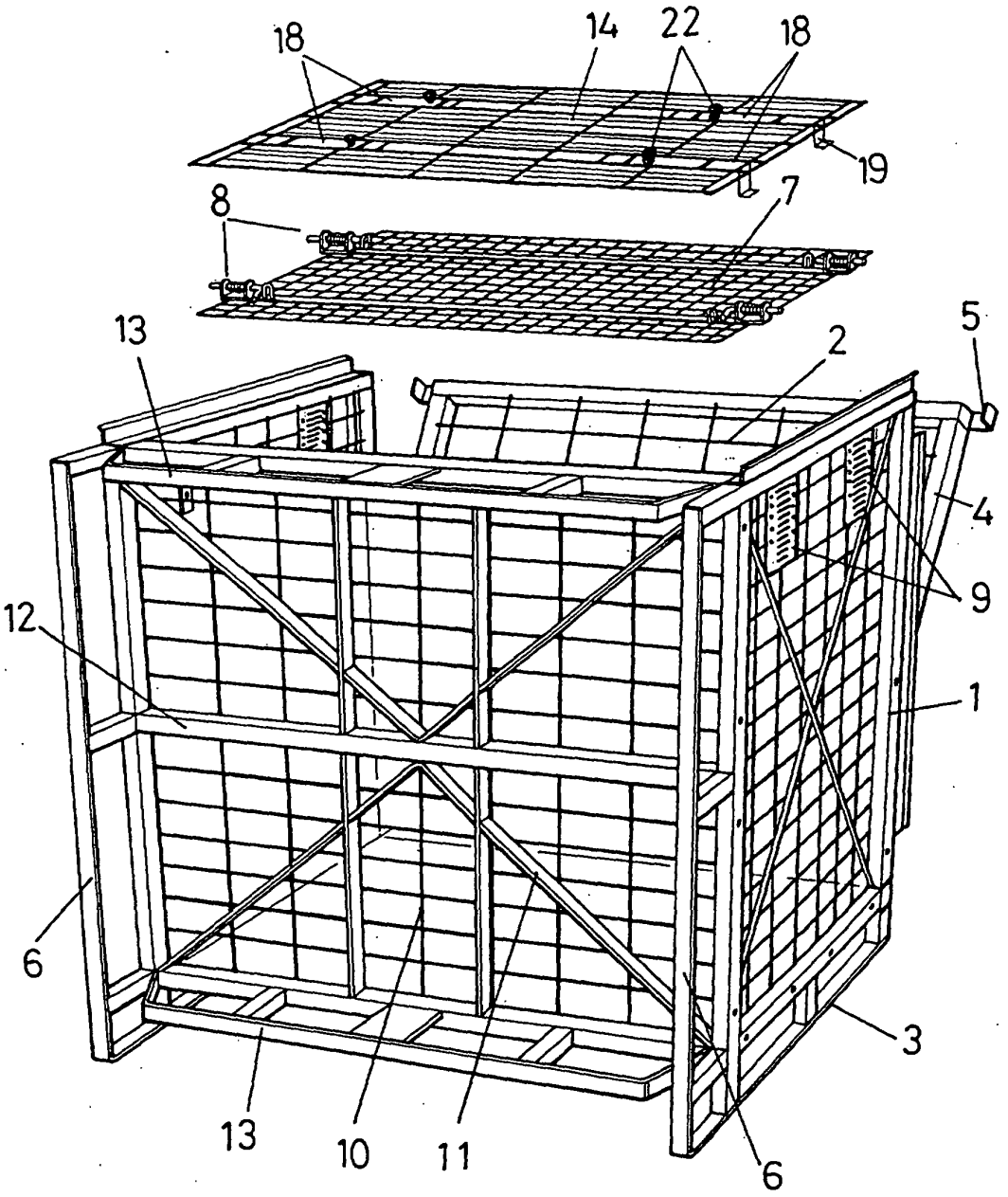

FIG.1

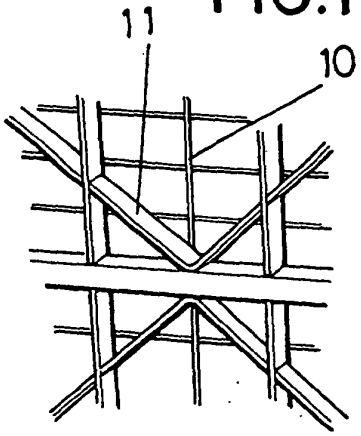

FIG.2

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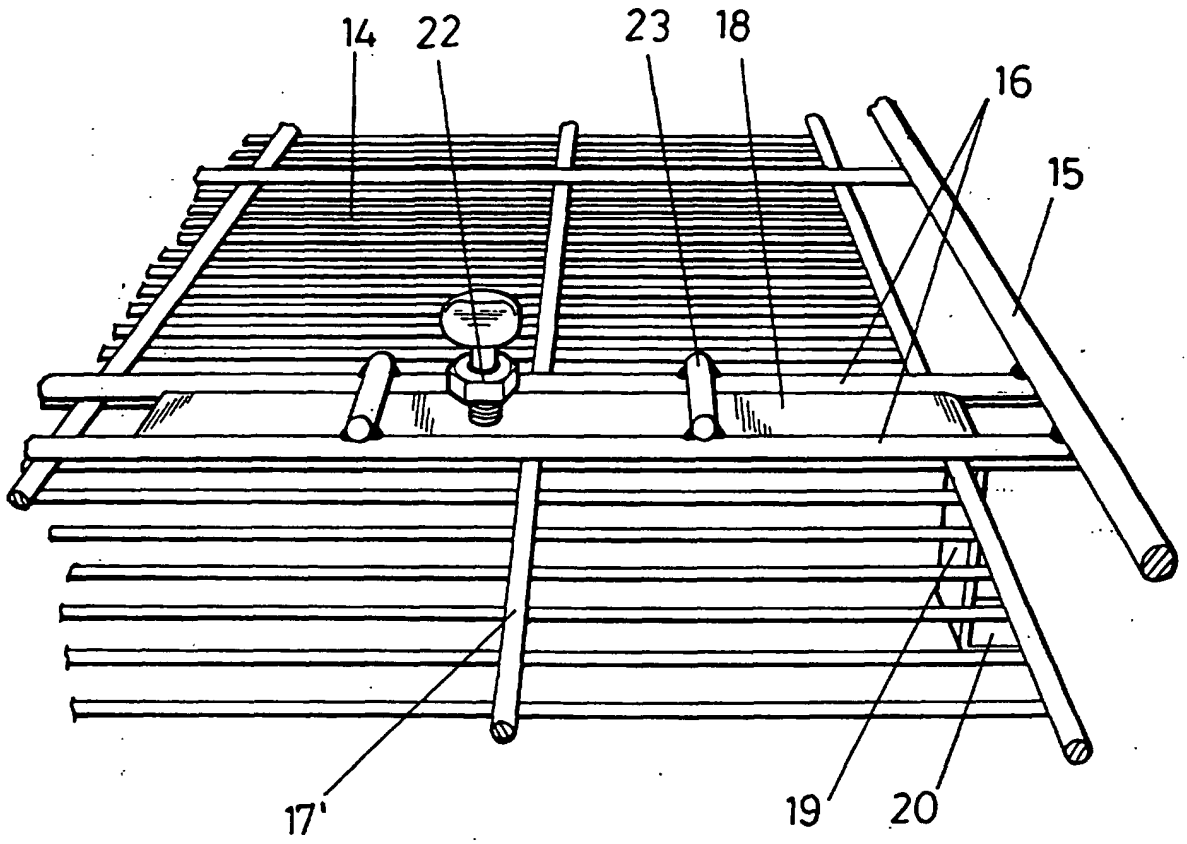

FIG.3

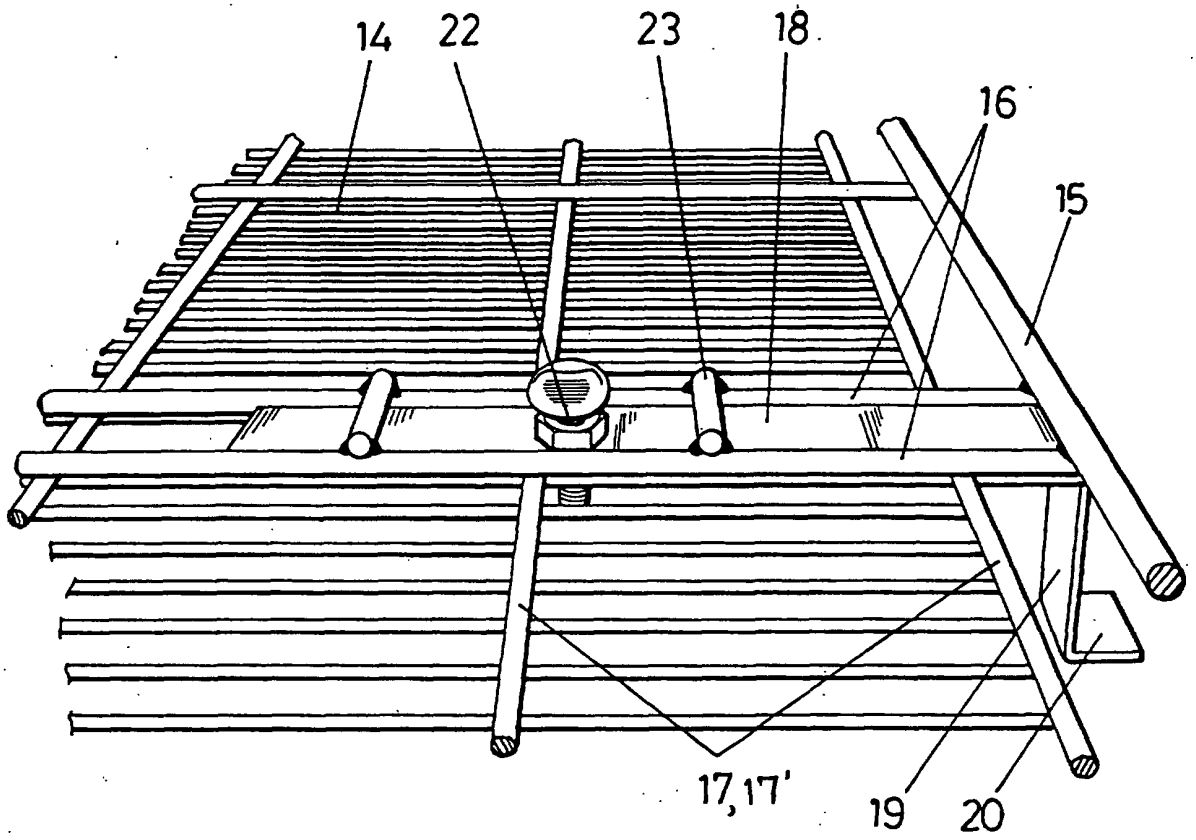

FIG.4

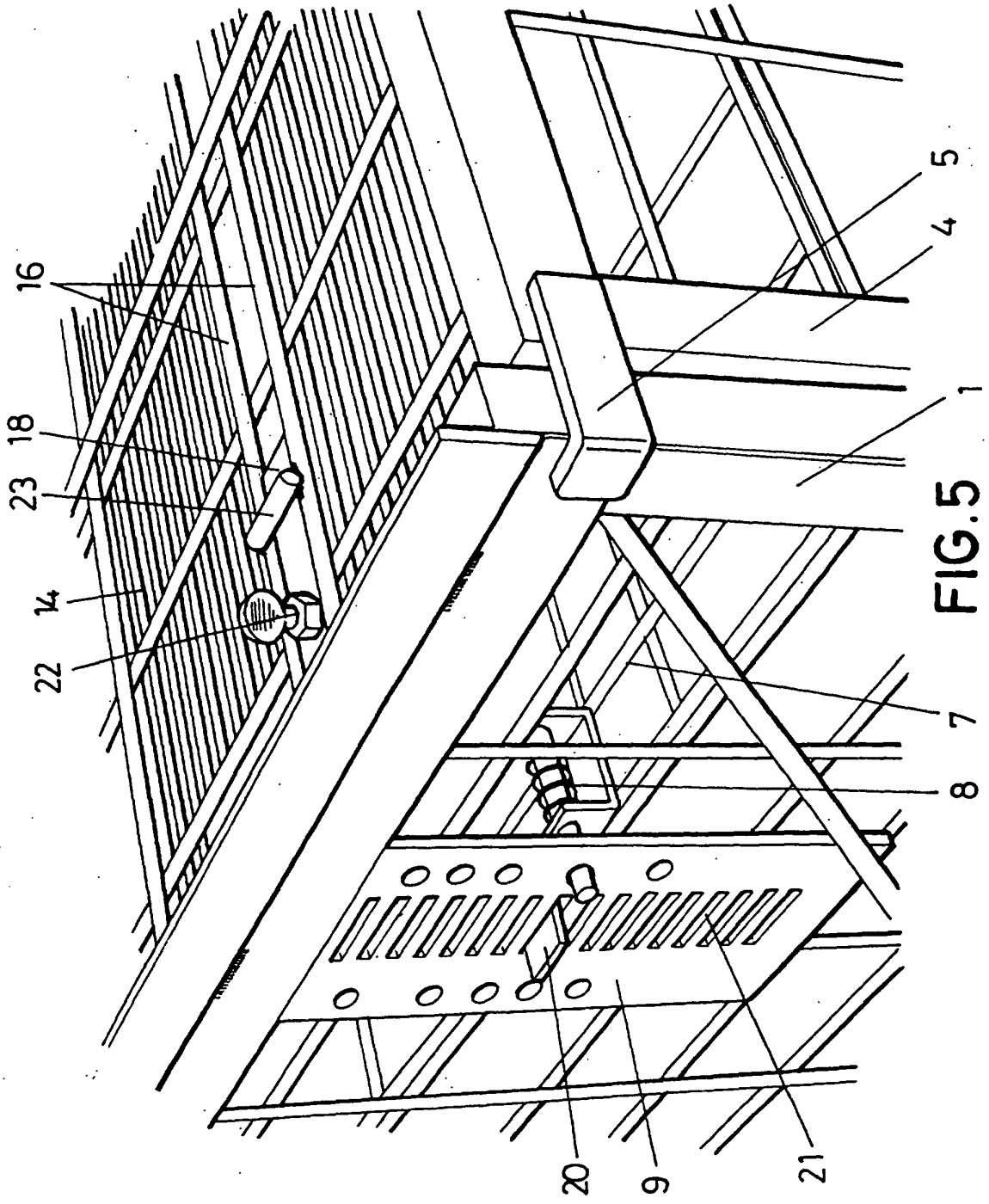

FIG.5

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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