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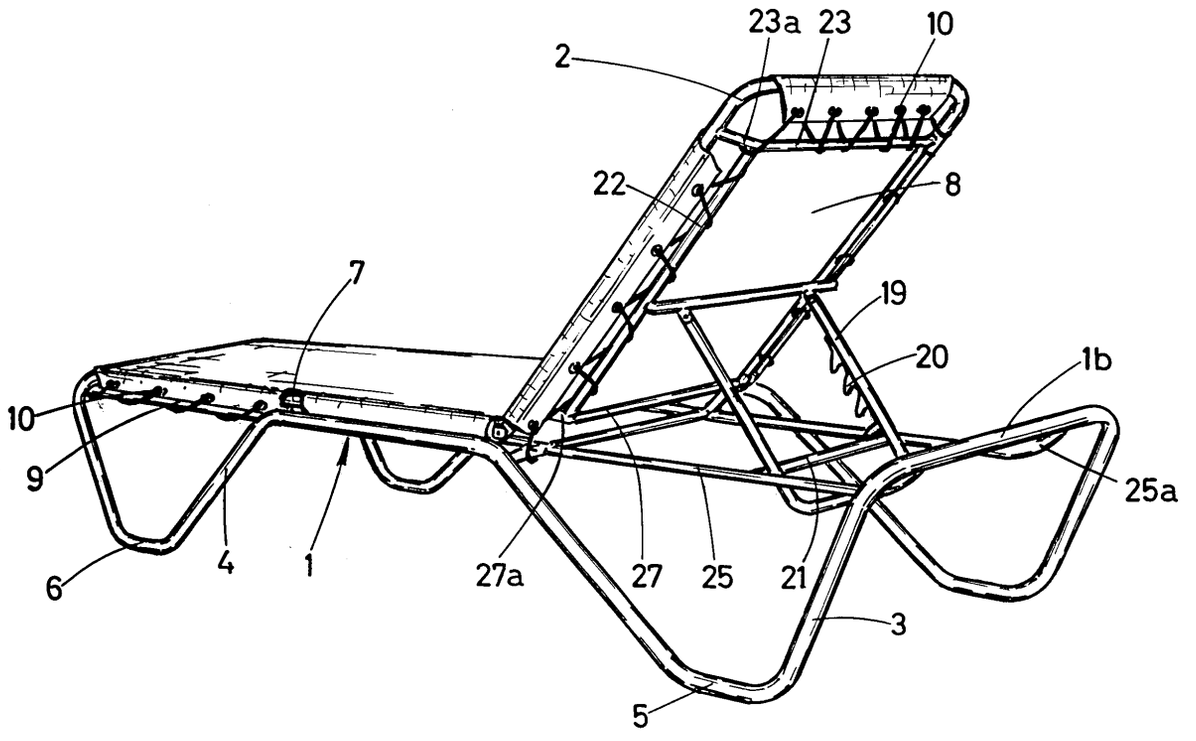
(54) Improvements in the manufacture of stackable deckchairs

(57) The invention improves the articulation means (28) between the framework (1) and the backrest (2) which is adjustable by lowering. The asymmetric V-shaped supports (3) and (4) prevent unbalances in the deckchair when the load is not centred on the framework (1), preventing user accidents. The backrest (2) is held lowered on a horizontal plane overlying the plane of the frame (1) due to a crosspiece (23), providing a hand clearance, preventing hands from being trapped. Means (23) are also provided to eventually lock the frame (2) in its lowered position.

The invention applies to stackable deckchairs made of a metallic material or synthetic resins, of the kind having a seat consisting of a fabric tightened by a lashing or based on slats.

FIG. 2



EP 1 040 777 A1

FIG. 3

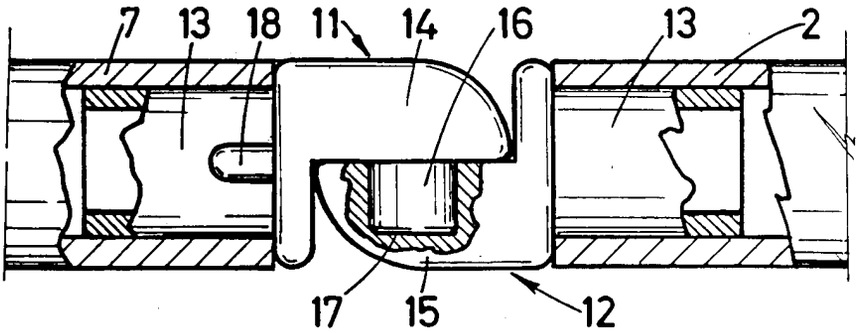
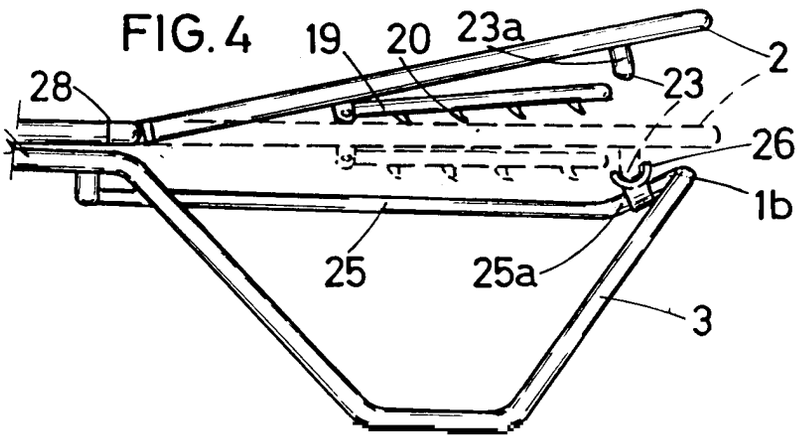


FIG. 4



Description

FIELD OF THE INVENTION

[0001] The present invention relates to certain improvements in the manufacture of stackable deckchairs, of the kind specifically designed to be used on the beach, in the countryside, gardens, swimming-pools and the like, which, in addition to the function for which they were designed, contribute a number of advantages that shall be set out hereinafter, besides others inherent in the arrangement and construction thereof.

BACKGROUND OF THE INVENTION

[0002] Deckchairs of the above type are known to have a framework comprising two main parts, one of which is fixed, including the feet and the seat, and a mobile part associated to the first part, which forms an adjustable backrest with a positioning device on either side.

[0003] These prior art deckchairs have certain structural and functional drawbacks.

[0004] Noteworthy among the first are the articulation means between the fixed and mobile parts, i.e. between the seat and the adjustable backrest. At present, such means generally consist of a part fixed at the ends of the backrest frame, which part has two lugs forming a U shape to clamp the seat ledger section, to which they are linked by means of a hinge pin. Said means are complicated to manufacture and assemble, demanding an additional pin acting as a hinge to allow the backrest frame to swing articulately.

[0005] Another structural drawback lies in the shape of the deckchair supports, consisting of two V-shaped parts whose angular opening and symmetrical sides result in either end of the deckchair being lifted when a user fails to sit in the centre of the deckchair.

[0006] Another structural and functional drawback could be said to be caused by the adjustable backrest on reaching its lowermost position coplanar with the seat. In that position, the top side of the backrest is borne on the cross side of the seat frame, and may thus trap the user's fingers, causing an injury.

[0007] Another drawback lies in the lashing of the fabric, which is known to have buttonholes to allow the rope through, which must also pass through the holes in the structure, with the ensuing difficulty of so doing.

[0008] There are currently no prior art deckchairs of the above type which have favourably and rationally solved the above problems, which are common in generic deckchairs.

SUMMARY OF THE INVENTION

[0009] The applicants for the present Invention have, relying upon their expertise in the industrial field at issue, devised improvements to be made in the manufacture of stackable deckchairs which advantageously solve the drawbacks summarily described in the preceding section.

[0010] The improvements substantially improve the articulation means between the components of the deckchair, the fixed framework and the backrest, simplifying their structure and their connection to said parts and to each other, reducing the costs since the traditional hinge pin is eliminated and also because they are manufactured using the same mould.

[0011] Moreover, the improvements also affect the stability of the deckchair, which they improve in order to prevent unbalances when a person's weight is not centred.

[0012] Finally, the risks of fingers being accidentally trapped between the folding backrest and the deckchair framework are eliminated, because supporting and fixing means are provided for said backrest in its lowermost position which leave a hand clearance.

[0013] In addition to the above advantages, the invention contributes other substantial improvements to the general conception of the deckchair framework, which make it easier for the fabric to be fitted, tightened and retightened; the seat surface is made of a highly resistant fabric that is made of a very tough, plasticised and ultraviolet resistant polyester string, obtained in several colours, which may serve as a support for any logotype silk-screened thereon; the framework is made of metallic materials, such as iron, aluminium et al., and is also made of synthetic resins; and an alternative seat and backrest surface is obtained based on variously coloured and easily replaceable slats.

[0014] The improvements of the invention yield the advantages described hereinbefore, and others that will be easily inferred from the example of an embodiment of a stackable deckchair provided with said improvements, described hereinafter to facilitate the understanding of the characteristics set out above, and concurrently revealing several details thereof, a number of drawings being therefore attached which represent, for purely illustrative purposes and not to limit the scope of the invention, a practical embodiment thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] In the drawings:

[0016] Figure 1 is a perspective front view of the deckchair.

[0017] Figure 2 is a perspective rear view of the deckchair.

[0018] Figure 3 is a close-view of the articulation means between the fixed part or framework and the mobile part or backrest of the deckchair.

[0019] Figure 4 is a partial side elevation view of the deckchair, relative to the backrest, showing its rotation toward the lowermost horizontal position, shown in phantom.

[0020] Figure 5 illustrates a perspective bottom view

of the deckchair.

DESCRIPTION OF A PREFERRED EMBODIMENT OF THE INVENTION

[0021] With reference to the figures, the embodiment shows a stackable deckchair of the kind consisting of a framework, generally designated - 1-, and an articulated backrest -2-, which backrest is adjustable by lowering it until it lies at a straight angle to the framework plane.

[0022] The framework -1- and backrest -2- are made using a round section tube made of a metallic material, such as iron, aluminium or the like, or of synthetic resins.

[0023] The framework -1- provides deckchair supports -3- and -4- which have an asymmetric angular V shape, thereby for its sides to lie at a different angle to the floor. Said V shapes have truncated ends along straight sectors -5- and -6-. This configuration of the supports prevents the framework from being lifted at either end when a person's weight is not centred.

[0024] The framework -1- has ledgers -7- which, together with the framework crosspieces -1a-, form a frame for the fabric -8- tightened by the rope -10-.

[0025] Other tubes -9- run parallel to said ledgers -7-, serving for the lashing -10- to be held, advantageously replacing the traditional holes existing in the structure of known deckchairs.

[0026] The ledgers -7- are joined to the backrest frame -2- through articulation means generally designated -28-, consisting of two almost twin parts -11- and -12- made of a moulded material, each comprising tube sections -13- which may be plugged into the ends of the ledgers - 7- and backrest frame -2-. These parts -11- and -12- conform respective heads -14- and -15- provided with a abutment plane, one of which has a frog -16- whereas the other has a housing -17- for the frog, altogether forming an articulated connection. One of the parts has a salient -18- to be fixed in the relevant structural tube of the deckchair.

[0027] The backrest frame -2- has an articulated U-shaped bridge, designated -19-, acting as a brace support, provided on its sides with a number of cogs -20- establishing a number of fixed positions on a crosspiece -21- for the purposes of optionally adjusting the inclination of the backrest down to a straight angle.

[0028] The backrest frame -2- also has ledgers -22- and a crosspiece -23- for the lashing -10- of the fabric -8-.

[0029] The ledgers -22- and crosspieces -23- and -27- make up a frame defining a plane parallel to the backrest frame -2-, to which it is attached by means of oblique end sectors -23a- and -27a-. Furthermore, ledgers -25- are connected to the crosspiece -1b- of the framework -1- through similarly oblique sectors -25a-, each provided with open clamps -26- which yield elastically to clamp the crosspiece section -23- at the lowered position of the backrest -2-, as shown in figure 4, leaving a clearance between the crosspiece of the frame -2- and the crosspiece -1b- of the framework, which is sufficient to prevent fingers from being trapped when the user lowers the backrest -2- down to its horizontal position.

Claims

1. Improvements in the manufacture of stackable deckchairs, of the kind comprising a framework (1) and a backrest (2), adjustable by being lowered until it lies at a straight angle to the framework plane, which framework and backrest are made of a metallic material or a material consisting of synthetic resins, forming side pairs of V-shaped supports, (3) and (4), the surface of the seat and the backrest consisting of a highly resistant fabric (8) made of very tough, plasticised and ultraviolet resistant polyester string, optionally serving as a support for any logotype silk-screened thereon, essentially **characterised** in that the supports (3) and (4) of the framework (1) have an asymmetric angular shape, such that their sides lie at a different angle to the floor, the inner sides of the ledgers being longer and more oblique in order to prevent unbalances in the frame (1) when a person's weight is not centred.

2. Improvements in the manufacture of stackable deckchairs, as in claim 1, **characterised** in that the framework (1) has ledgers (7) which, along with the crosspiece (1a), make up a frame for the fabric (8), which is held by a lashing (10) looped about tubes (9) allowing it to be tightened.

3. Improvements in the manufacture of stackable deckchairs, as in claims 1 and 2, **characterised** in that the ledgers (7) of the frame supporting the fabric (8) are joined to the ends of the backrest frame (2) through articulation means (28), consisting of two twin parts (11) and (12), each consisting of tube sections (13) to be inserted in the ends of the ledgers (7) and frame (2), which parts have abutment planes that are respectively provided with a frog (16) and a female housing (17), to form a hinge allowing the backrest (2) to be articulated relative to the deckchair structure.

4. Improvements in the manufacture of stackable deckchairs, as in claims 1 to 3, **characterised** in that the backrest frame (2) has a frame for lashing and tightening the backrest fabric, consisting of ledgers (22) and crosspieces (23) and (27), which frame defines a plane parallel to the frame (2) because of oblique sectors (23a) and (27a) lying at the ends of said ledgers, which favours the crosspiece section (23) eventually being supported by and fitting in clamps (26) lying in oblique sectors (25a) of the tubes (25), extending from the ledgers (7), a

clearance being left between the crosspiece of the frame (2) and the crosspiece (1b) of the framework, preventing the fingers from being trapped in lowering the backrest.

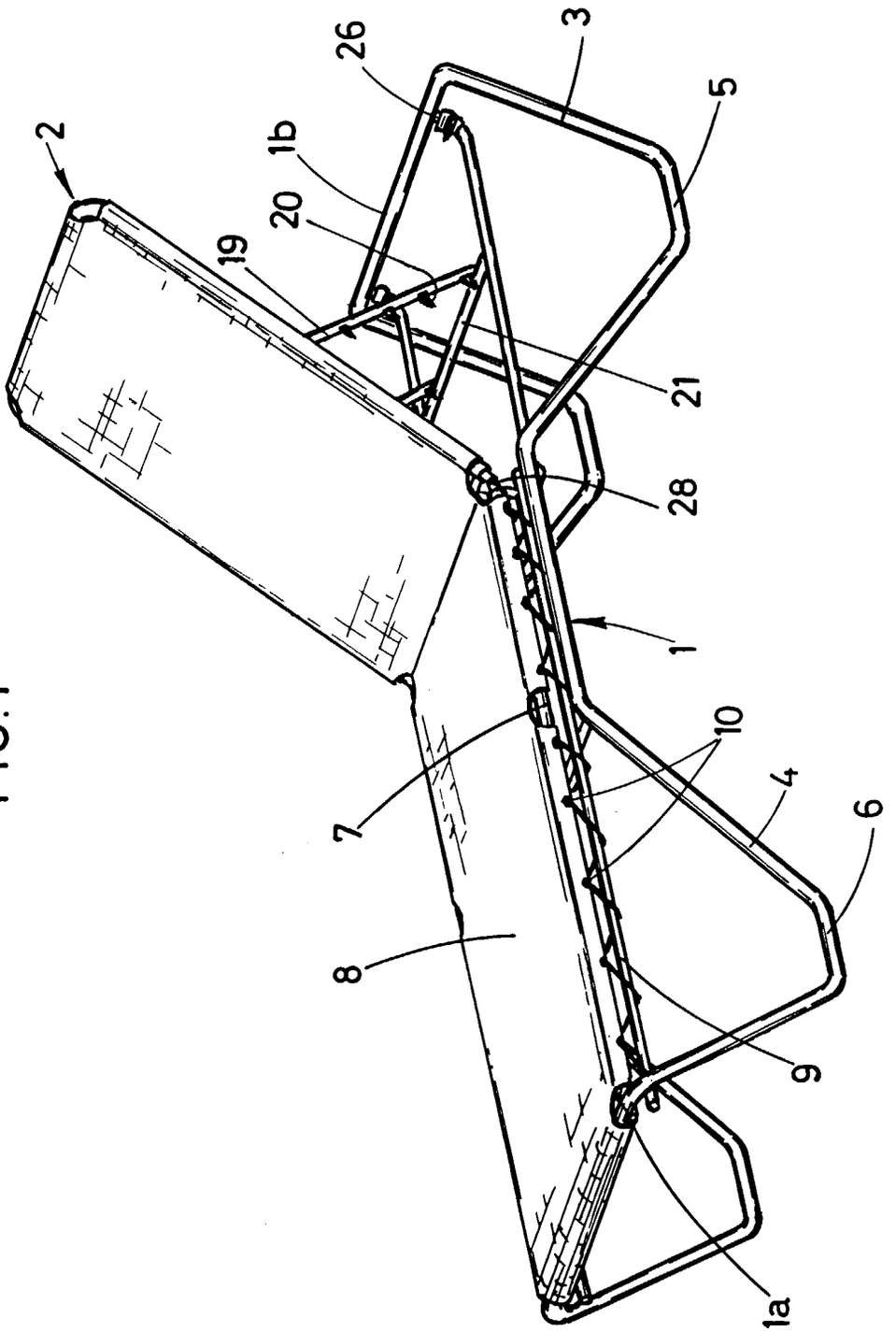
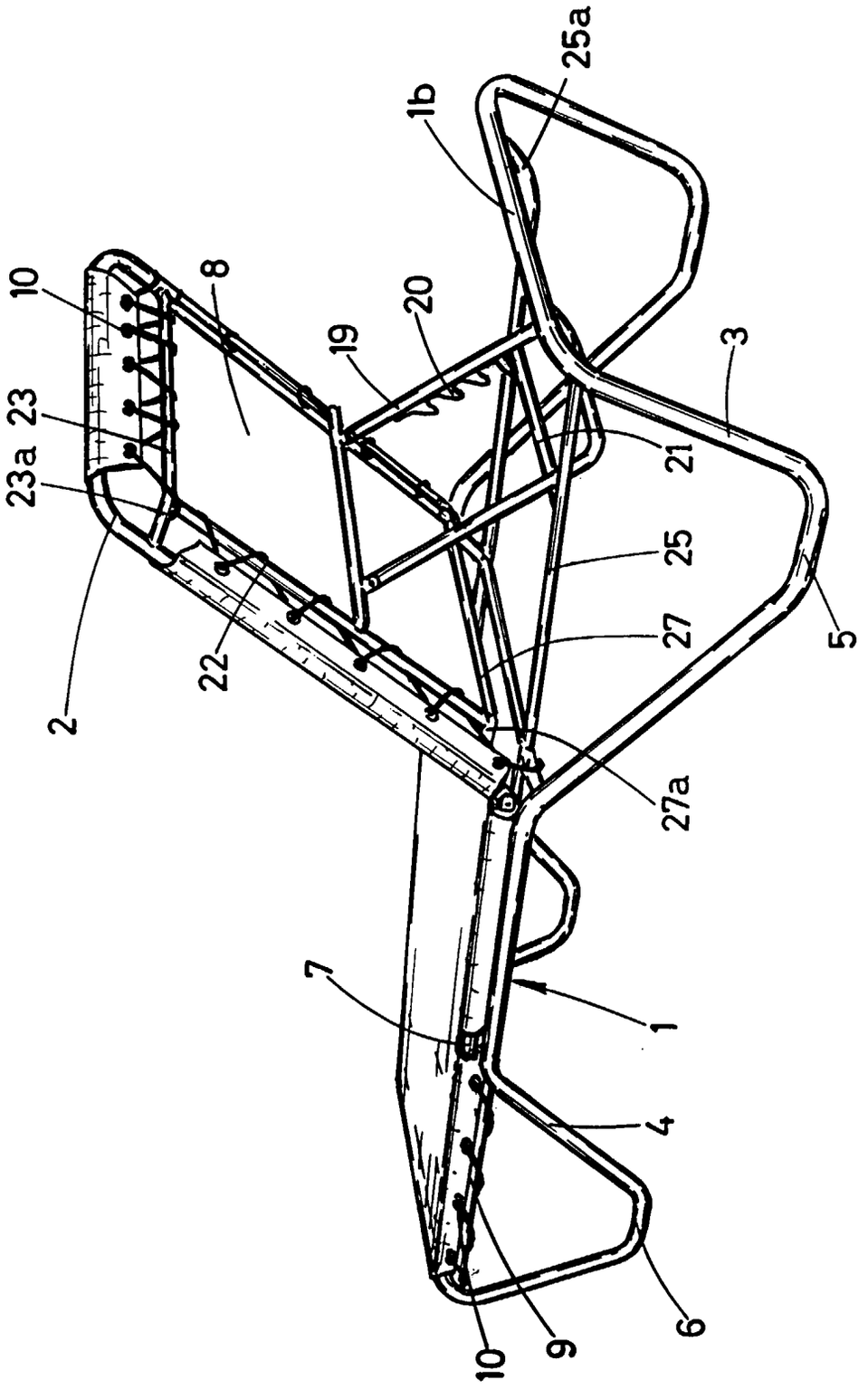


FIG.1

FIG. 2



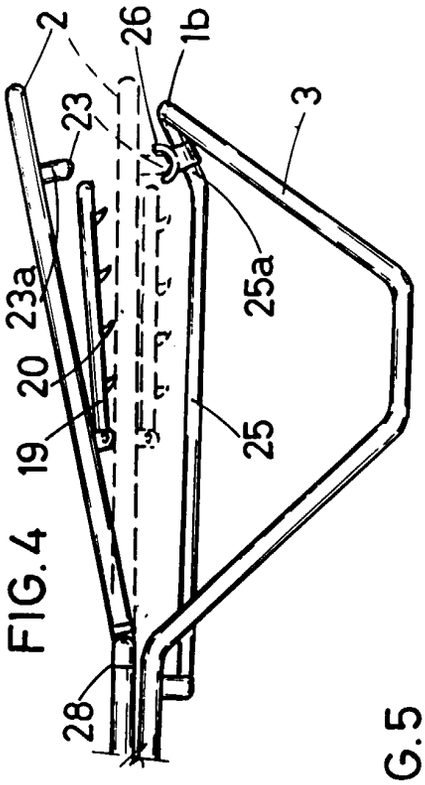


FIG.4

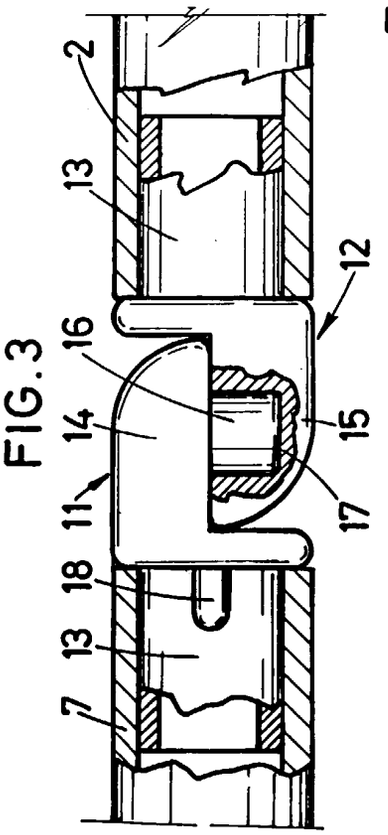


FIG.3

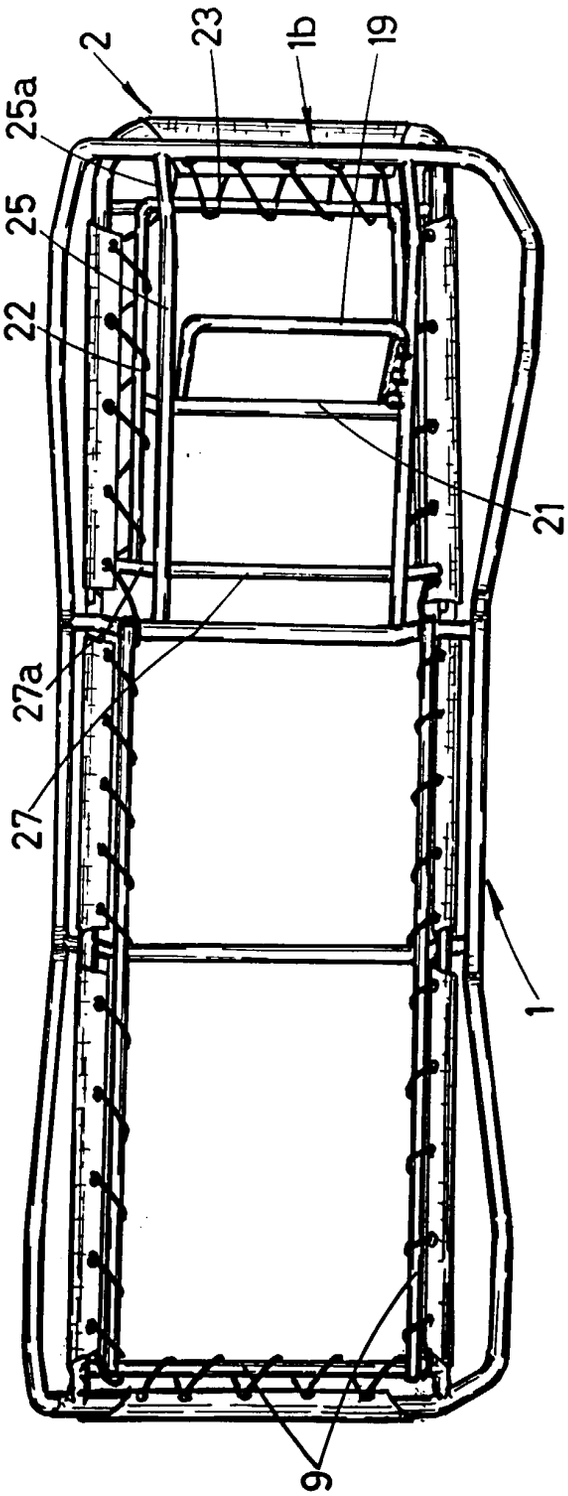


FIG.5

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EUROPEAN SEARCH REPORT

Application Number
EP 99 50 0051

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	26 August 1999	Joosting, T

CATEGORY OF CITED DOCUMENTS

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