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(11)

**EP 3 738 476 A1**

(12)

**EUROPEAN PATENT APPLICATION**

(43) Date of publication:  
**18.11.2020 Bulletin 2020/47**

(51) Int Cl.:  
**A47C 23/00** <sup>(2006.01)</sup> **A47C 23/043** <sup>(2006.01)</sup>  
**A47C 23/06** <sup>(2006.01)</sup> **A47C 23/30** <sup>(2006.01)</sup>

(21) Application number: **19174018.2**

(22) Date of filing: **13.05.2019**

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**  
Designated Extension States:  
**BA ME**  
Designated Validation States:  
**KH MA MD TN**

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(54) **FRAME BED**

(57) The invention is a frame bed (1) with spring suspension, the panel of bed ribs (3) of which includes springs (7). The added layer of springs (7) ensures com-

fort level similar to a continental bed to the frame bed (1), while retaining the light weight of the frame bed (1).

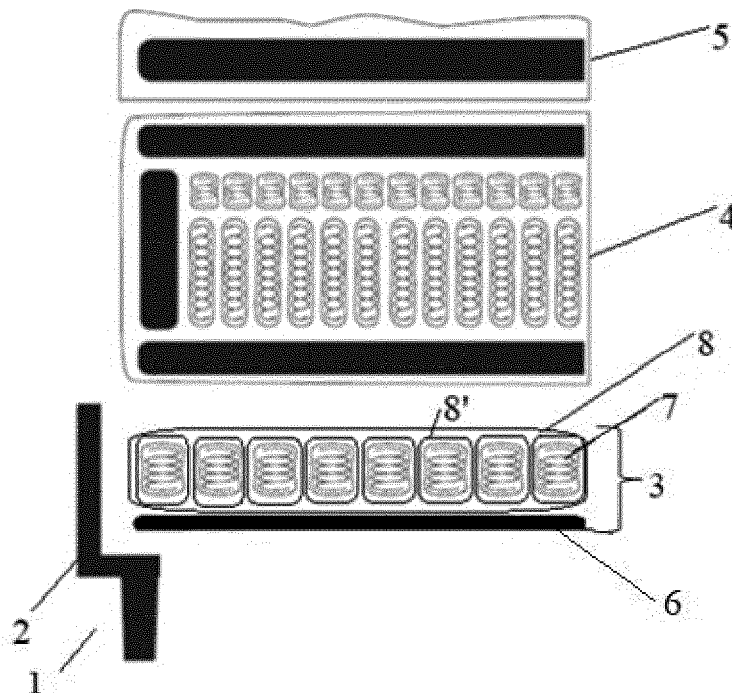


FIG 1

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## Description

### Technical field

[0001] The invention relates to the field of beds, more specifically, frame beds. The invention is a frame bed with spring suspension.

### Prior art

[0002] The frame beds of prior art comprise bed frame and bed ribs located on it, onto which a selected mattress and cover mattress is placed to ensure suitable comfort. Unlike continental beds, frame beds never ensure sufficient comfort to the user with their layer of bed ribs and a single mattress and cover mattress.

[0003] A continental bed consists of a bed box, mattresses, and a cover mattress. All these elements together provide comfort level, which cannot be achieved with a frame bed. However, a continental bed is very heavy and massive, unlike a light frame bed.

### Summary of the invention

[0004] The invention provides a frame bed with a spring layer added onto the bed ribs, which is attached to the bed frame and can be easily removed, if necessary. The added spring layer ensures comfort level similar to a continental bed. The frame bed of the invention is lighter than a continental bed with similar comfort level.

### List of drawings

[0005] A preferred embodiment of the invention is described by reference to the accompanying drawings, where the following is depicted:

FIG 1: cross section of the frame bed with mattresses;

FIG 2: top view of the bed frame and the layer of bed ribs with springs of the frame bed;

FIG 3: top view of the disassembled bed frame of a double frame bed together with panels of bed ribs with springs;

### Detailed description of the invention

[0006] Frame bed 1 of the invention includes bed frame 2, panel of bed ribs with springs 3, mattress 4 and cover mattress 5, as shown on FIG 1.

[0007] In turn, the panel of bed ribs with springs 3 includes bed ribs 6 and springs 7 placed on bed ribs 6, surrounded by fabric 8. The height of springs 7 surrounded by fabric 8 is chosen such that the height of panel of bed ribs 3 matches the height of bed frame 2, ensuring level surface for mattress 4 upon the insertion of the panel

of bed ribs 3 into bed frame 2. Springs 7 surrounded by fabric 8 may form spring blocks and the number of springs in spring blocks is not limited (not shown on the figures). In the spring blocks, springs 7 are each located in their own slots, which means that each spring 7 is surrounded with fabric 8'. In an embodiment of the invention, there is also fabric on bed ribs 6 (not shown on the figures). In a preferred embodiment of the invention, the fabric is textile fabric.

[0008] The number, size, and location of springs 7 depend on the required comfort level. In a preferred embodiment of the invention, microcoil springs are used. The smaller diameter of springs 7 enables increasing their number on the panel of bed ribs with springs 3, thus increasing the comfort level of the bed.

[0009] The panel of bed ribs with springs 3 is resting on a part protruding from the inner side of bed frame 2 (not shown on the figures).

[0010] Selected mattress 4 is added onto the panel of bed ribs with springs 3 as shown on FIG 1.

[0011] Bed frame 2 can be made of wood or metal, or any other material suitable for bed frames.

[0012] Bed frame 2, panel of bed ribs with springs 3, mattress 4, and cover mattress 5 are all mutually removable.

[0013] In the case of a single bed, the frame bed 1 includes bed frame 2, one panel of bed ribs with springs 3, mattress 4, and cover mattress 5. In the case of a double bed, the frame bed 1 includes bed frame with cross beam 9 between the head and foot part of the bed for reinforcing the bed frame, two panels of bed ribs with springs 3, each of which is located with one outer edge on the cross beam 9 and with the other outer edge at the inner side of bed frame 2 on the protruding part, on opposite sides, as shown on FIG 3, whereby on the figure, the frame bed is shown disassembled.

### Claims

1. Frame bed (1), which comprises bed frame (2), panel of bed ribs (3), mattress (4), and cover mattress (5), **characterised in that** the panel of bed ribs is a panel of bed ribs with springs (3).
2. Frame bed (1) according to claim 1, wherein the panel of bed ribs with springs (3) includes bed ribs (6) and springs (7).
3. Frame bed (1) according to claim 2, wherein springs (7) of the panel of bed ribs (3) are surrounded with fabric (8).
4. Frame bed (1) according to claims 2 and 3, wherein the bed ribs (6) are covered with fabric.
5. Frame bed (1) according to claims 2-4, wherein springs (7) are each located in their own slots so that

each spring (7) is surrounded with fabric (8').

6. Frame bed (1) according to claims 3-5, wherein the fabric (8, 8') is textile fabric. 5
7. Frame bed (1) according to any of claim 2-6, wherein the height of springs (7) matches the height of bed frame (2). 10
8. Frame bed (1) according to any of claim 2-7, wherein the springs (7) are microcoil springs. 15
9. Frame bed (1) according to any of preceding claim, wherein the bed frame (2) is made of metal or wood. 20
10. Frame bed (1) according to any of preceding claim, wherein the bed frame (2), panel of bed ribs with springs (3), mattress (4), and cover mattress (5) are all mutually removable. 25
11. Frame bed (1) according to any of preceding claim, wherein a cross beam (9) is located between the head and foot parts of the bed frame (2) and the frame bed (1) includes two panels of bed ribs with springs (3), each of which is located with one outer edge on the cross beam (9) and with the other outer edge at the inner side of bed frame (2) on the protruding part on opposite sides. 30

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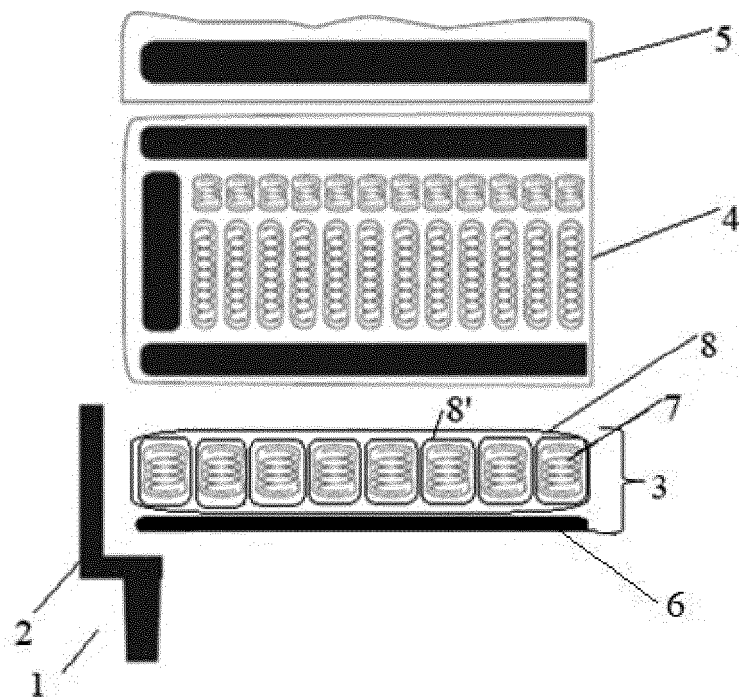


FIG 1

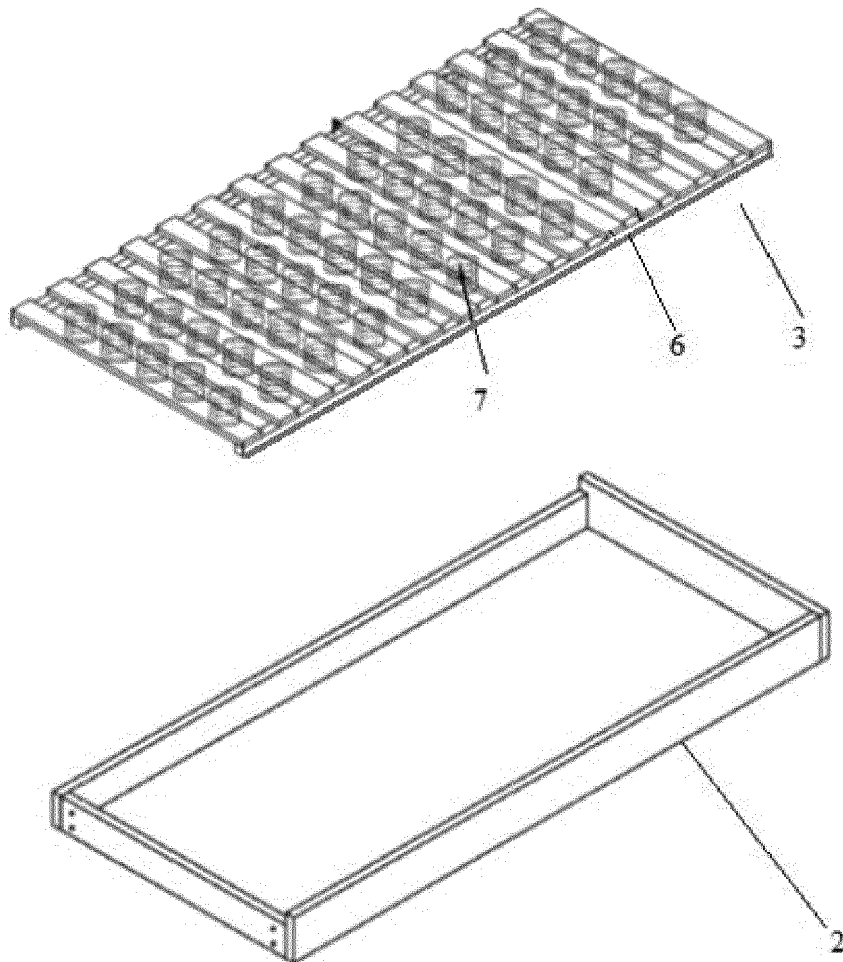


FIG 2

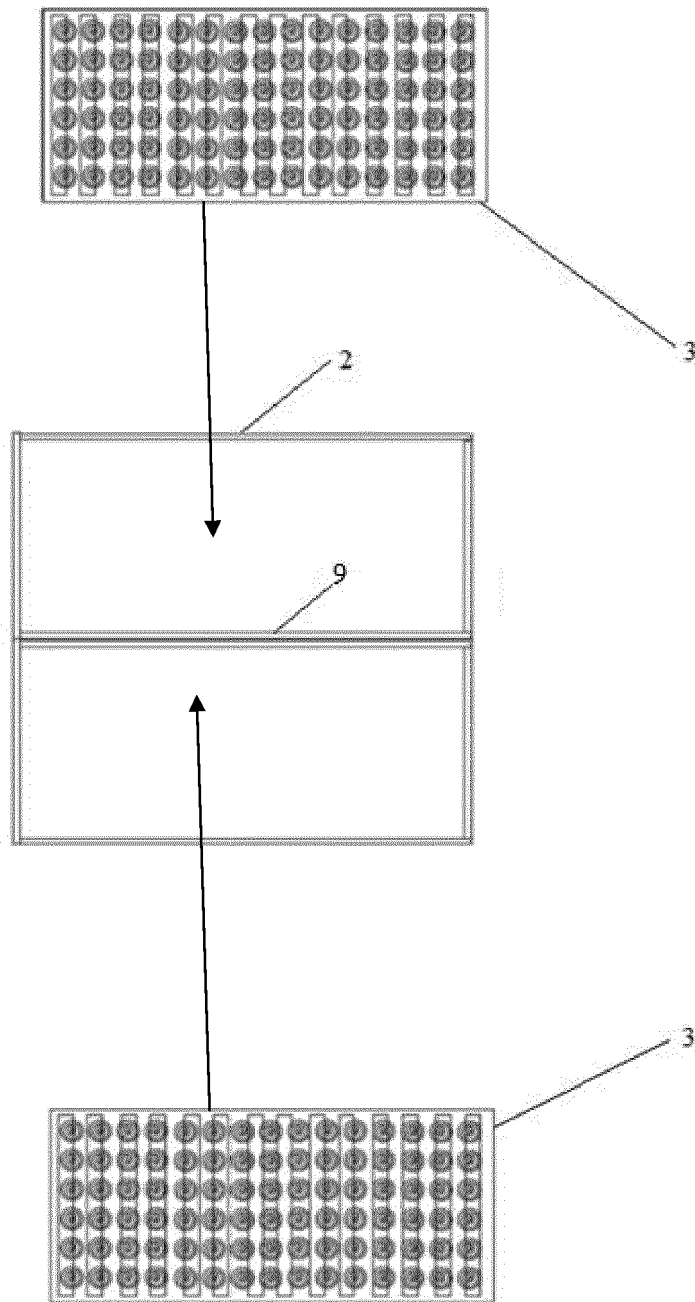


FIG 3



## EUROPEAN SEARCH REPORT

Application Number  
EP 19 17 4018

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
			A47C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 22 October 2019	Examiner Kus, Slawomir
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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22-10-2019

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82