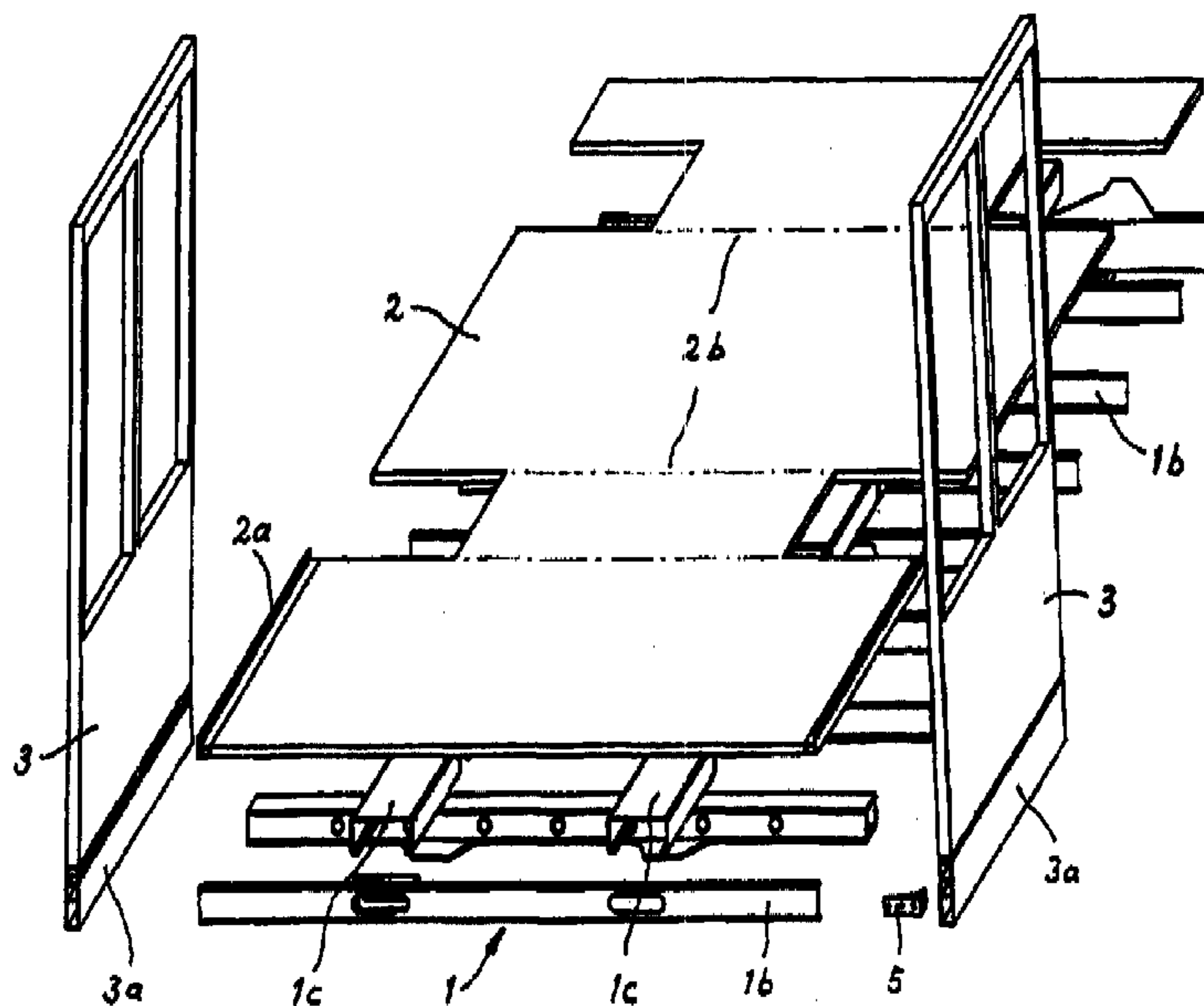




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(54) **CAISSE DE WAGON**
(54) **WAGON BODY**



(57) La présente invention concerne un wagon comprenant pour l'essentiel un châssis (1), une structure de plancher en une ou plusieurs parties (2), des éléments de parois latérales (3) ainsi qu'un toit (4). La structure de plancher (2) sert de dispositif pour l'assemblage de la caisse et définit par sa largeur - ainsi que par l'épaisseur des deux éléments opposés de paroi latérale (3) - la largeur fonctionnelle de la caisse de wagon.

(57) Disclosed is a wagon comprising mainly a chassis (1), a single-piece or multi-pieces floor structure (2), sidewall elements (3) and a roof (4). The floor structure (2) is used as a device for the body assembly and defines through its width - as well as through the thickness of the two opposed sidewall elements (3) - the functional length of the wagon body.

(57) Abstract

Disclosed is a wagon comprising mainly a chassis (1), a single-piece or multi-pieces floor structure (2), sidewall elements (3) and a roof (4). The floor structure (2) is used as a device for the body assembly and defines through its width – as well as through the thickness of the two opposed sidewall elements (3) – the functional length of the wagon body.

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WAGON BODY

The invention relates to a carriage body of a railroad car, formed at least from an undercarriage, a one-piece or multiple-part floor slab, side wall parts, and a roof.

It is usual in railroad car building to form at least the undercarriage of the carriage body from steel or lightweight metal profiles which are joined together by welding. The outer transverse spacing of lateral longitudinal girders of the undercarriage determines the functional size of the carriage body width. In order among other goals to achieve this functional size within existing tolerances, heavy and expensive production equipment and tools are employed. Furthermore, the dimensional changes in the undercarriage, above all from shrinkage, that occur in welding work must be taken suitably into account and as a rule must be compensated for later by expensive straightening work.

The object of the invention is considered to be attaining the functional size of the carriage body width, in a carriage body of the above generic type, in an especially simple and economical way, without special production equipment and independently of tolerances of the undercarriage.

According to the invention, this object is attained in that the floor slab by its width together with the thickness of two facing side wall parts defines the functional size of the carriage body width, and the undercarriage has a width which is less than the functional size of the carriage body width, and the side wall parts are connected in force-

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transmitted fashion to the undercarriage.

In the carriage body of the invention, the functional size of the carriage body width is no longer affected by the design of the undercarriage. Thus wide dimensional tolerances can be allowed for the undercarriage with respect to its width and also with respect to its dimensions in the direction toward the rail. The undercarriage should merely be such on its top side that large-area support of the one-piece or multiple-part floor slab exists. It is easy to achieve the exact width, required for the functional size of the carriage body width, of the floor slab, which in the simplest case is of plywood. The carriage body of the invention can be made especially inexpensively, and because the complicated production equipment required earlier can be dispensed with, it can be made practically anywhere.

Advantageous features of the invention are recited in claims 2-8.

The invention is described in further detail below in conjunction with exemplary embodiments shown in principle in the drawing. Fig. 1 and Fig. 2 show construction modules of carriage bodies embodied according to the invention.

Fig. 3 and Fig. 4 are cross sections as supplements to Fig. 1 and Fig. 2, respectively. Fig. 5 shows a modification of Fig. 3.

The carriage bodies of Figs. 1 and 2 substantially each comprise an undercarriage 1, a floor slab 2, side wall parts 3, and a roof 4 that can be seen in Fig. 2.

center axis of the floor slab 2 are disposed in alignment with one another.

The floor slab 2 serves as a device for joining together the carriage body, or in other words as a stop for the side wall parts 3, and in this way by its width, together with the thickness of two facing side wall parts 3, it defines the functional size of the carriage width. The width of the undercarriage 1 is always less than the aforementioned functional size; there is a transverse spacing, in Fig. 3 between the undercarriage 1 and a lower longitudinal girder 3a included in the side wall part 3, and in Fig. 4 between the lateral longitudinal girder 1a of the undercarriage 1 and the outer face of the side wall part 3.

The side wall parts 3, after being brought to the floor slab 2, are connected in force-transmitting fashion to the undercarriage 1. Simple connection angle irons, visible in Figs. 1, 3 and 5, serve as force-transmitting elements 5; they are screwed on the one hand to the transverse girders 1b of the undercarriage 1 and on the other to the lower longitudinal girder 3a of the respective side wall part 3 (see Fig. 3) or to a stop profile 2a of the floor slab 2 (Fig. 5). In Fig. 5, the lower longitudinal girder 3a of the side wall part 3 is held by screws 5a on the connection profile 2a of the floor slab 2; the force transmission is effected by area pressure on wedgelike sets of teeth 6, which cooperate in form-locking fashion, of the side wall part 3 and of the floor slab 2. In the version of the carriage body in Figs. 2 and 4, the force-transmitting connection of the side wall part 3 to the lateral longitudinal girders 1a of the undercarriage 1 is achieved by connection screws in the working lines 5b.

The floor slab 2, side wall parts 3 and roof 4 can each be designed as an integral sandwich, in which two outer cover

layers are glued to load-bearing and insulating structural foam. This integral sandwich also includes the interface, not visible from outside and embodied for the sake of simple dismantling - such as the connection profile 2a or the lower longitudinal girders 3a - with the adjacent components. For forming this kind of interface in the roof, an upper fastening profile 3b for the roof 4 or for a top flange 7 is also integrated into the side wall part 3 in Fig. 3; the roof 4 is retained on the two opposed top flanges 7 - see Fig. 2.

10	<u>List of Reference Numerals</u>	
	1	Undercarriage
	1a	Lateral longitudinal girder
	1b	Transverse girder
	1c	Middle longitudinal girder
15	2	Floor slab
	2a	Stop profile
	2b	Partition line in the multiple-part version
	3	Side wall part
	3a	Lower longitudinal girder
20	3b	Upper fastening profile
	4	Roof
	5	Force-transmitting element
	5a	Screw
	5b	Working line of a connecting screw
25	6	Wedgewise set of teeth
	7	Top flange

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Claims:

1. A carriage body of a railroad car, formed at least from an undercarriage (1), a one-piece or multiple-part floor slab (2), side wall parts (3), and a roof (4), characterized in that the floor slab (2) by its width together with the thickness of two facing side wall parts (3) defines the functional size of the carriage body width, and the undercarriage (1) has a width which is less than the functional size of the carriage body width, and the side wall parts (3) are connected in force-transmitted fashion to the undercarriage (1).

2. The carriage body of claim 1, characterized in that between the respective side wall part (3) and the undercarriage (1), a transverse spacing exists which is spanned by force-transmitting elements (5) - for instance, simple connecting angle irons.

3. The carriage body of claim 1 or 2, characterized in that the side wall parts (3) include a lower longitudinal girder (3a), which replaces a lateral longitudinal girder (1a) that would otherwise be assigned to the undercarriage (1).

4. The carriage body of one of claims 1-3, characterized in that the floor slab (2), on its long edges, has stop profiles (2a) for the side wall parts (3), and the transverse spacing of these stop profiles (2a) in conjunction with the thickness of the side wall parts (3) determines the functional size of the carriage body width.

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5. The carriage body of one of claims 1-4, characterized in that the floor slab (2) and the side wall parts (3) are joined together in force-transmitting fashion.

6. The carriage body of one of claims 1-5, characterized in that the floor slab (2) and the side wall parts (3) cooperate in form-locking fashion via wedgelike sets of teeth (6), and force transmission is effected by flank pressure on these sets of teeth (6).

7. The carriage body of one of claims 1-6, characterized in that at least one of the components in the group comprising the floor slab (2), side wall parts (3) and roof (4) is designed as an integral sandwich.

8. The carriage body of claim 7, characterized in that the integral sandwich includes an interface with adjacent components, which is not visible from outside and is embodied for the sake of simple dismantling - an example being a connection profile (2a) or longitudinal girder (3a).

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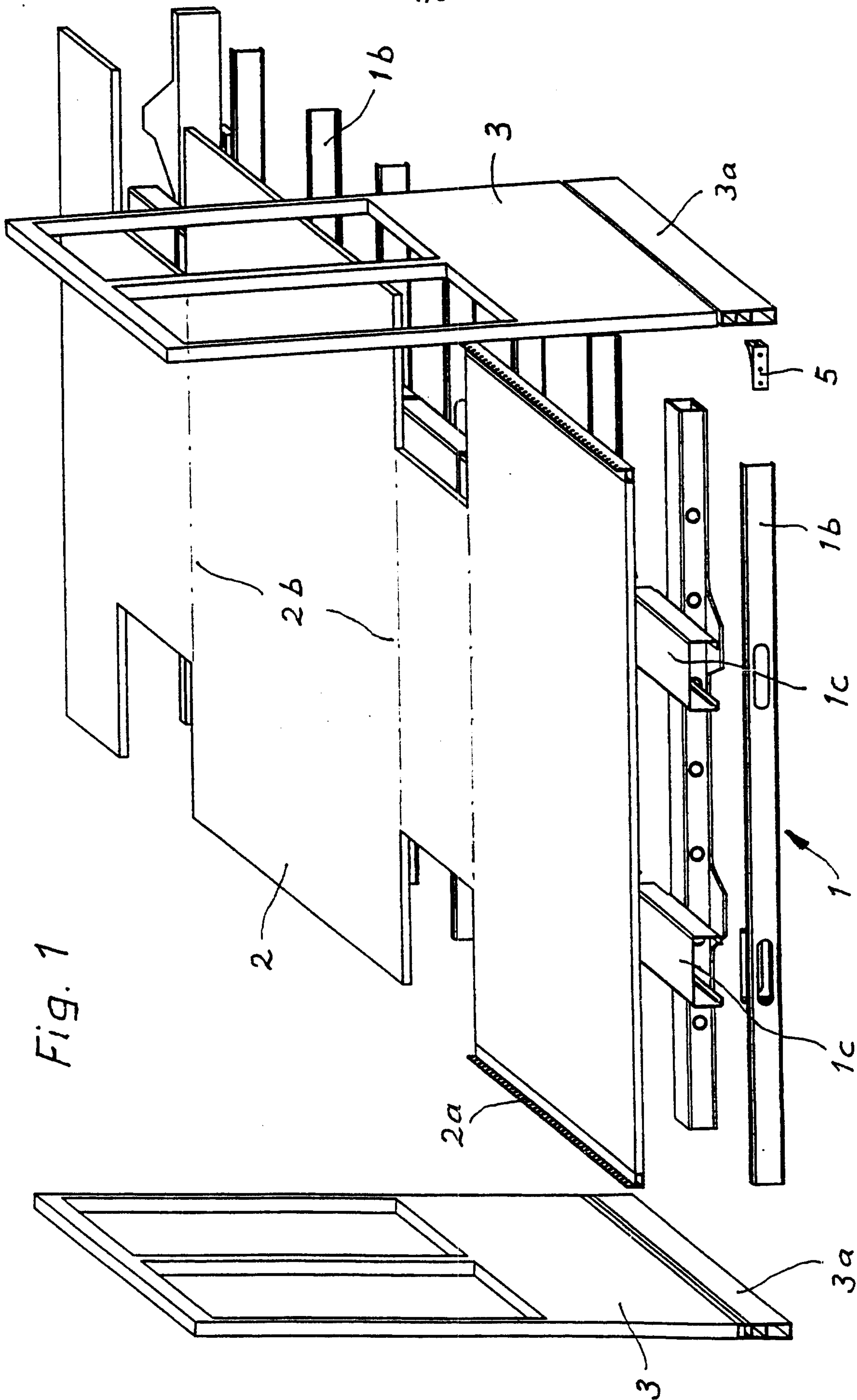


Fig. 1

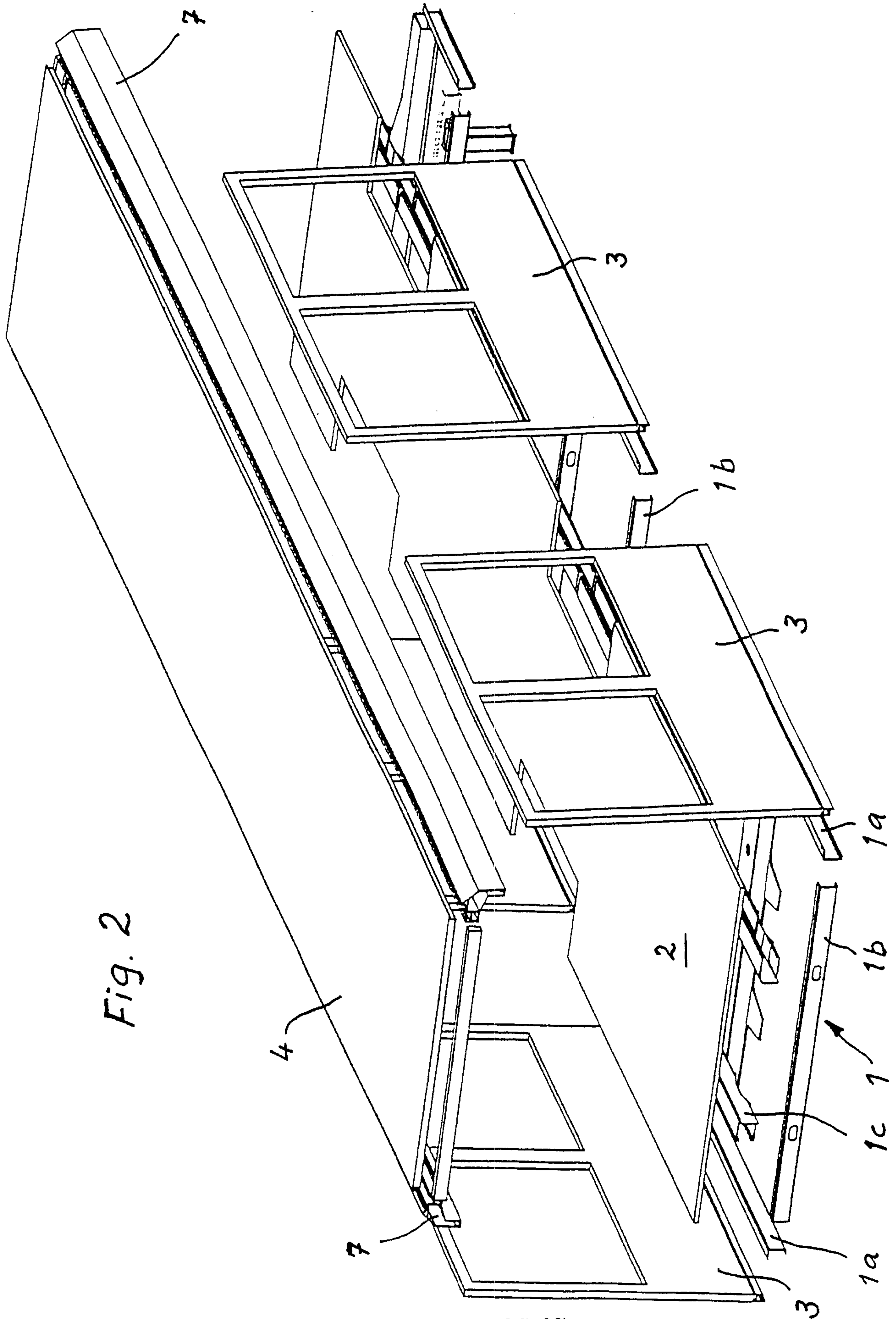
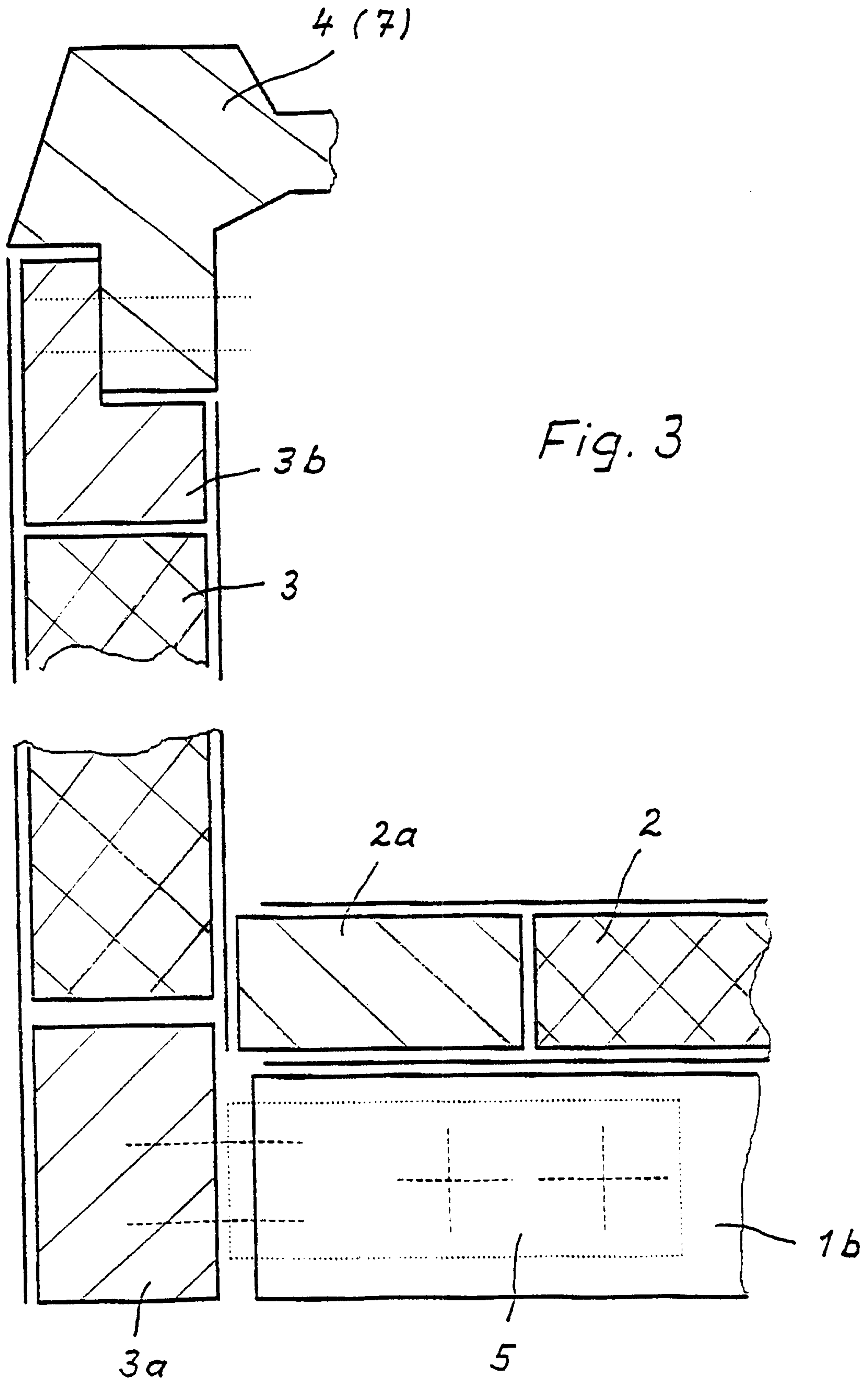


Fig. 2

ERSATZBLATT (REGEL 26)



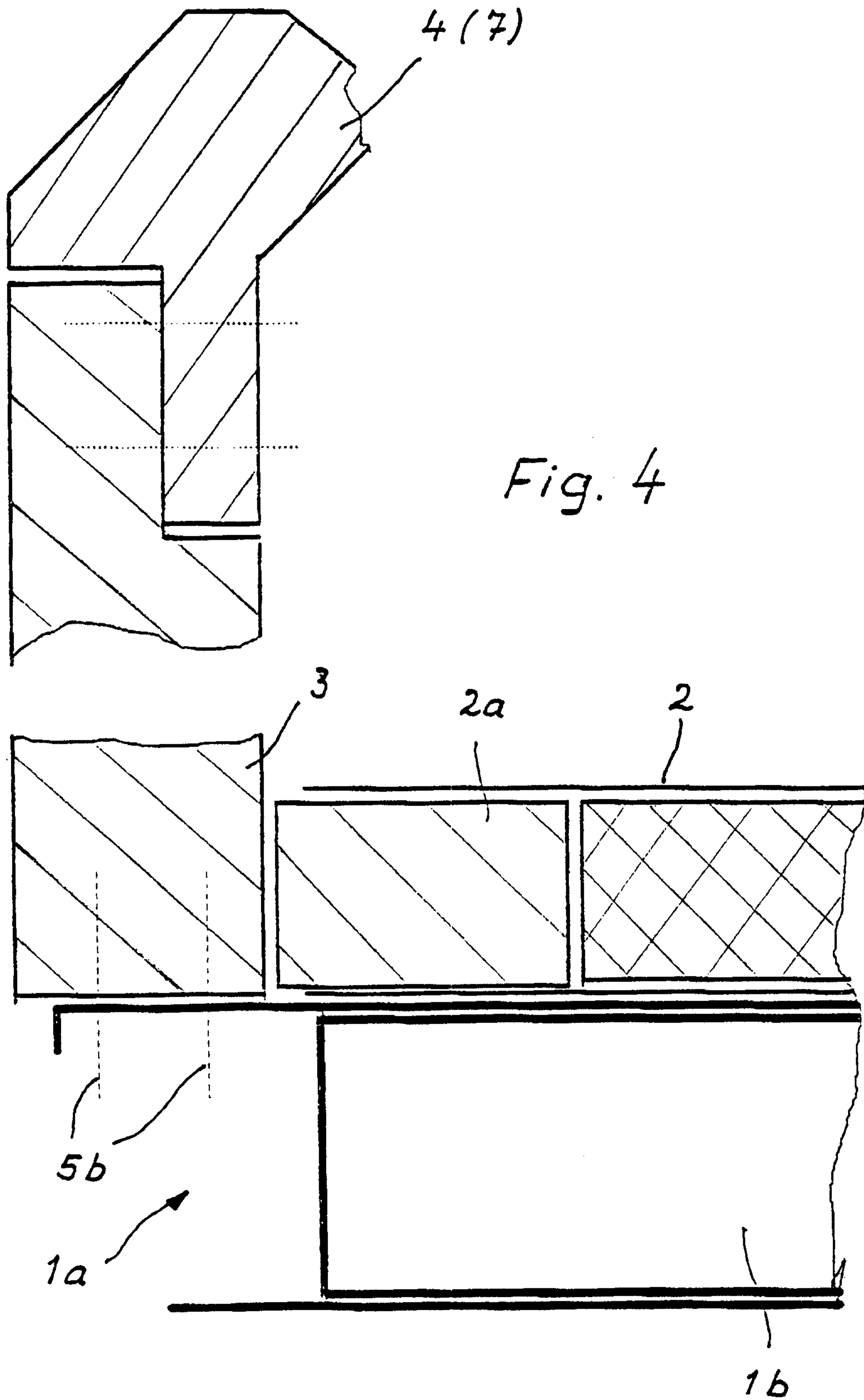


Fig. 4

