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(54) **Furnishing construction for supporting racks, shelves, panels and fittings**

(57) A functional furnishing construction, for supporting racks, shelves, panels and fittings in general, is **characterized** in that said furnishing construction comprises a female wall construction, to which is coupled, by fixing means, a male system.

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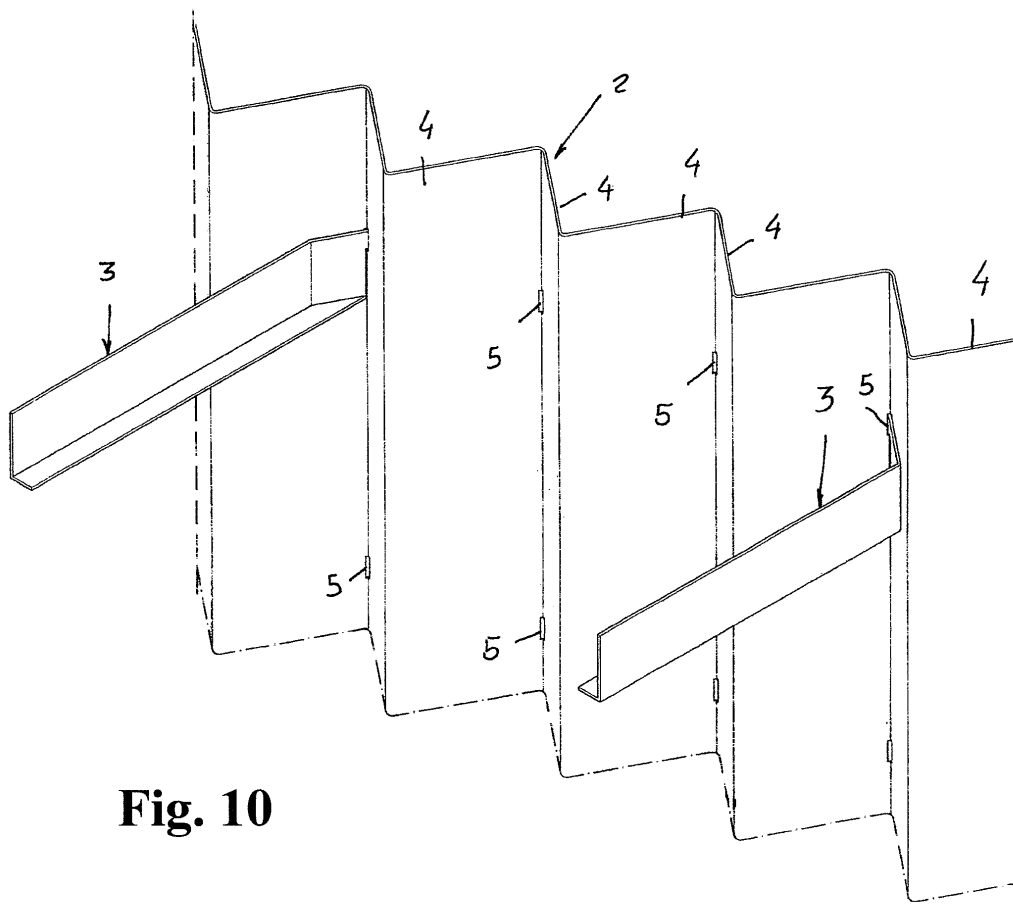


Fig. 10

Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a functional furnishing construction, in particular for supporting racks, shelves, panels and fittings in general.

[0002] As is known, in the furnishing field are conventionally used supporting constructions or structures to be associated with a wall to connect thereto racks or brackets, shelves, panels, and other supporting elements.

[0003] The above mentioned furnishing constructions, used in shopping places and the like, to exhibit thereon goods being sold, as well as in offices and homes, generally comprise metal upright elements coupled to a wall by coupling plugs.

[0004] The upright elements usually comprise a plurality of slots to which fittings such as shelves or brackets are connected by connecting screws, hook elements and other fixing systems.

SUMMARY OF THE INVENTION

[0005] The aim of the present invention is to provide such a furnishing construction which is much more operatively flexible and aesthetically attractive than prior supporting constructions.

[0006] Within the scope of the above mentioned aim, a main object of the invention is to provide such a furnishing construction which may be used as a furnishing assembly for making operatively flexible modular walls.

[0007] Another object of the present invention is to provide such a furnishing construction which, owing to its specifically designed structural features, is very reliable and safe in operation.

[0008] According to one aspect of the present invention, the above mentioned aim and objects, as well as yet other objects, which will become more apparent hereinafter, are achieved by a functional furnishing construction, for supporting racks, shelves, panels and fittings, **characterized in that** said furnishing construction comprises a female wall construction, to which a male system is coupled by fixing plug-in male system.

[0009] According to a further aspect of the invention, said female wall has an angled configuration, with wall portions so arranged as to form 90° angles therebetween.

[0010] Each said wall portion being rotated through 45° from a horizontal plane.

[0011] At a coupling region of said wall portions are formed a plurality of discrete and/or continuous slot elements, allowing the male system to be plugged-in.

[0012] According to a further aspect of the invention, the female wall comprises waved patterns therebetween are provided a plurality of either discrete or continuous slots, therein are engaged tongue elements of a male system including a rounded portion thereof mating with the waved patterns of the female wall.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] Further characteristics and advantages of the present invention will become more apparent hereinafter from the following detailed disclosure of a preferred, though not exclusive, embodiment thereof, which is illustrated, by way of an indicative, but not limitative, example in the accompanying drawings, where:

Figure 1 is an exploded side elevation view showing an angled embodiment of the functional furnishing construction according to the present invention;

Figure 2 is a view similar to figure 1, but showing a driving operation for plugging-in the male system into a female wall;

Figure 3 is a view similar to figure 2, but showing the inventive furnishing construction in an operating condition thereof;

Figure 4 is a side elevation view, showing a waved pattern embodiment of the inventive furnishing construction;

Figure 5 is a view similar to figure 4, but showing the male system being driven into the female wall;

Figure 6 is a view similar to figure 5, but showing the inventive furnishing construction in an operating condition thereof;

Figure 7 is a perspective view, on an enlarged scale, showing a portion of the wall female construction, in an angled embodiment thereof;

Figure 8 is a view similar to figure 7, but showing a driving operation for driving the male system or construction into the female wall;

Figure 9 is a view similar to figure 8, but showing the inventive furnishing construction in an operating condition thereof; and

Figure 10 is a further perspective view of an angled embodiment of the functional furnishing construction according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0014] With reference to the number references of the above mentioned figures, the functional furnishing construction according to the present invention, which has been generally indicated by the reference number 1, comprises a wall female construction 2, to which a male system 3 is coupled by fixed plugging-in fixing means.

[0015] More specifically, said female construction or wall has an angled configuration, with wall portions 4 so arranged as to define 90° angles therebetween, each said portion 4 being rotated through 45° with respect to a horizontal plane.

[0016] At the coupling region between said wall portions 4 a plurality of either discrete and/or continuous female slots 5 for allowing the male system to be plugged-in thereto are formed.

[0017] In this connection it should be pointed out that

the slots 5 may have any desired configuration such as a square, circle, triangle and the like shape and that said slots may also be arranged not precisely at the meeting regions of the portions 4, as shown for example in Figure 1, but also at a near region of a said portion 4.

[0018] The male system comprises a plurality of racks, shelves, supporting panels and other fittings, each of which is provided with one or more male rigid angled tongue or lug-pin elements 6, to be plugged-in into their respective slots 5.

[0019] The angled arrangement of said tongues 6 may be adjusted as to allow the male system or construction to be automatically locked as it is arranged at a substantially horizontal position.

[0020] To that end, said male system or construction comprises an angled portion, indicated by the reference number 7, which is arranged at an angle of 45° with respect to the horizontal line, so as to bear on a respective wall portion 4.

[0021] Said angled portion 7, in particular, could also be defined by two angled portions (not shown), the first upward turned and the second downward turned at 90° with respect to the first.

[0022] Figures 4 to 6 show a waved embodiment of the system, in which the female wall, indicated by the reference number 22, comprises a plurality of waved patterns 44 therebetween a plurality of either discrete or continuous slots 55 are formed, for engaging therein tongue means or elements 66 of a male system 33 which is advantageously provided with a rounded portion 77 mating with the waved patterns 44 of said female wall 22.

[0023] Even in this embodiment, the male system 33 comprises a plurality of racks, shelves, supporting panels and other fittings, and having a plurality of rigid tongue elements or means 66 arranged with an angular configuration which can be so adjusted as to allow the male system to be automatically locked as the latter is arranged at a substantially horizontal position.

[0024] In this connection it should be pointed out that the subject system may be made of different materials, with suitably modified cross sections, depending on the processing methods and materials such as: metal materials, wood, plastics material, paperboard glass, stone ceramics and foamed materials.

[0025] It has been found that the invention fully achieves the intended aim and objects.

[0026] In fact, the invention provides a functional furnishing construction for supporting racks, shelves, panels and fittings in general, which is very operatively flexible and aesthetically pleasant.

[0027] The inventive furnishing structure may be used in all architectural applications, for making cantilever brackets or shelves for covering arrangements, balcony structures, cantilever surfaces in general, so-called "brise soleil" constructions, and so on.

[0028] The inventive furnishing construction may be moreover used for urban furnishing applications, park bench systems or the like, lamp latching arrangements

or other similar applications.

[0029] In practicing the invention, the used materials, as well as the contingent size and shapes, can be any, depending on requirements.

Claims

1. A functional furnishing construction for supporting racks, shelves, panels and fittings, **characterized in that** said furnishing construction comprises a wall female construction to which is coupled a male system by fixed plug-in coupling means.
2. A furnishing construction, according to claim 1, **characterized in that** said wall female construction has an angled configuration with wall portions so arranged as to define 90° angles therebetween, each said wall portion being rotated through 45° with respect to a horizontal plane, said wall portions comprising a plurality of either discrete and/or continuous slots for plugging-in therein said male system or construction.
3. A furnishing construction, according to claim 2, **characterized in that** said slots are arranged through a connecting region of said wall portions.
4. A furnishing construction, according to claim 2, **characterized in that** each said slot is arranged through said wall portion at a region thereof near a connecting region of two adjoining said wall portions.
5. A furnishing construction, according to claim 1, **characterized in that** said male system comprises a plurality of racks, shelves, supporting panels and other fittings, each of which comprises one or more rigid angled male tongue or lug or pin means, susceptible to engage into said slots, said male tongue or lug or pin means being arranged at an angle which may be adjusted so as to allow said male system to be automatically locked as said male system is arranged at a substantially horizontal position thereof.
6. A furnishing construction, according to claim 1, **characterized in that** said male system comprises an angled portion arranged with a 45° angle with respect to a horizontal line so as to bear on respective wall portions therefor.
7. A furnishing construction, according to claim 1, **characterized in that** said male system comprises a first angled portion and a second angled portion, said first angled portion being upward directed and said second angled portion being downward directed at 90° from said upward directed first portion.
8. A furnishing construction, according to claim 1, **char-**

acterized in that said female wall construction comprises a plurality of waved patterns therebetween are provided a plurality of either discrete or continuous slots for engaging therein a plurality of tongue means of said male system including a rounded portion mating with said waved patterns of said female wall construction.

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9. A furnishing construction, according to claim 1, **characterized in that** said male system comprises a plurality of racks, shelves, supporting panels and fittings comprising a plurality of rigid tongue means arranged at a respective angle which may be so adjusted as to allow said male system to be automatically locked as said male system is arranged at a substantially horizontal position.

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10. A functional furnishing construction, according to claim 1, **characterized in that** said furnishing construction is made of different materials and having cross-sections selected depending on processing methods performed thereon and on said materials such as: metal, wood, plastics, paperboard, glass, stone, ceramics materials and foamed applied products.

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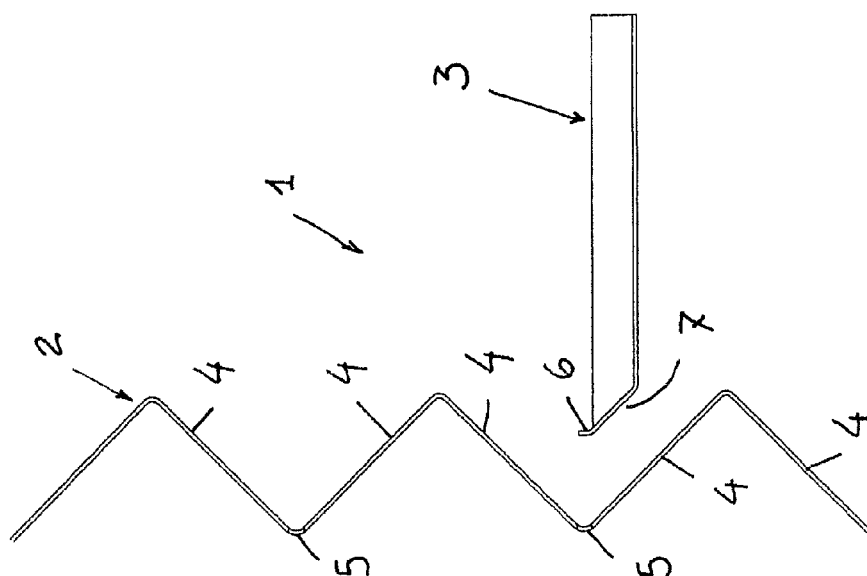


Fig. 1

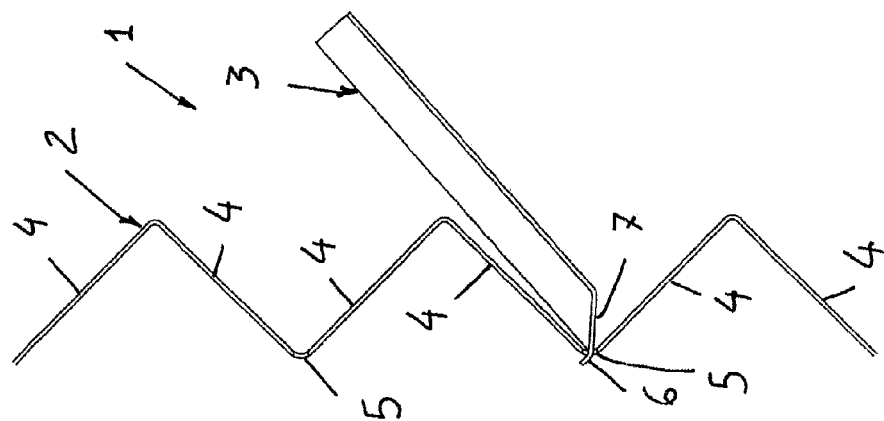


Fig. 2

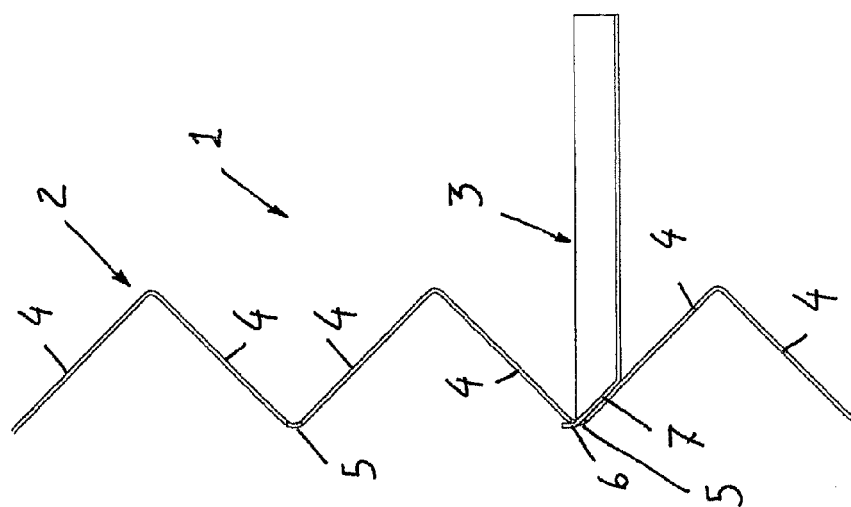


Fig. 3

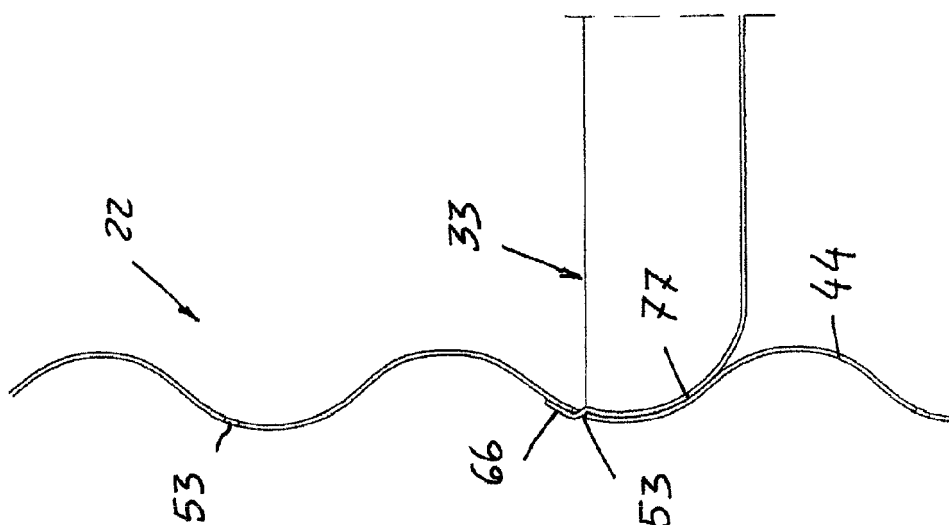


Fig. 4

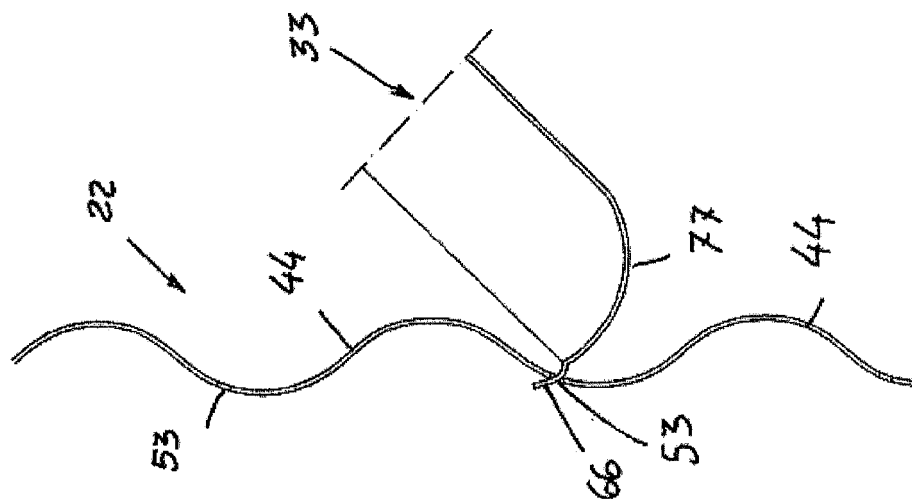


Fig. 5

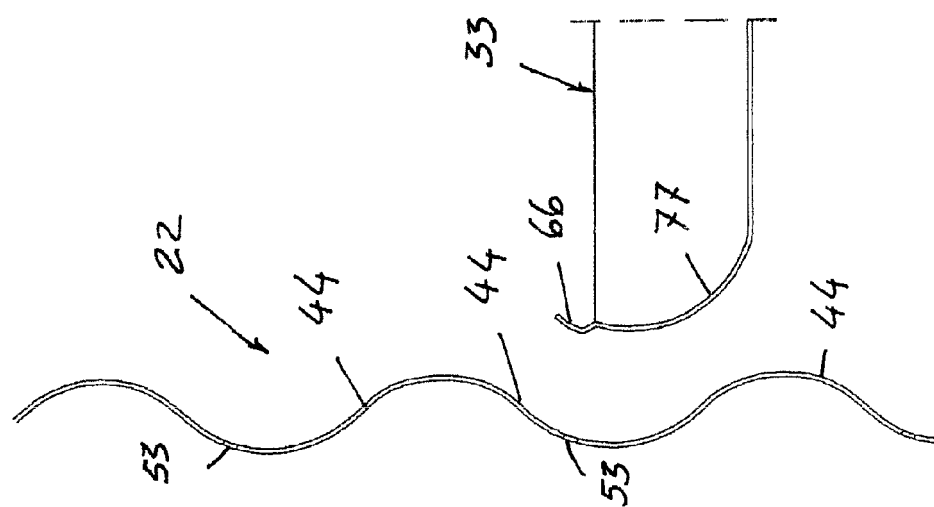


Fig. 6

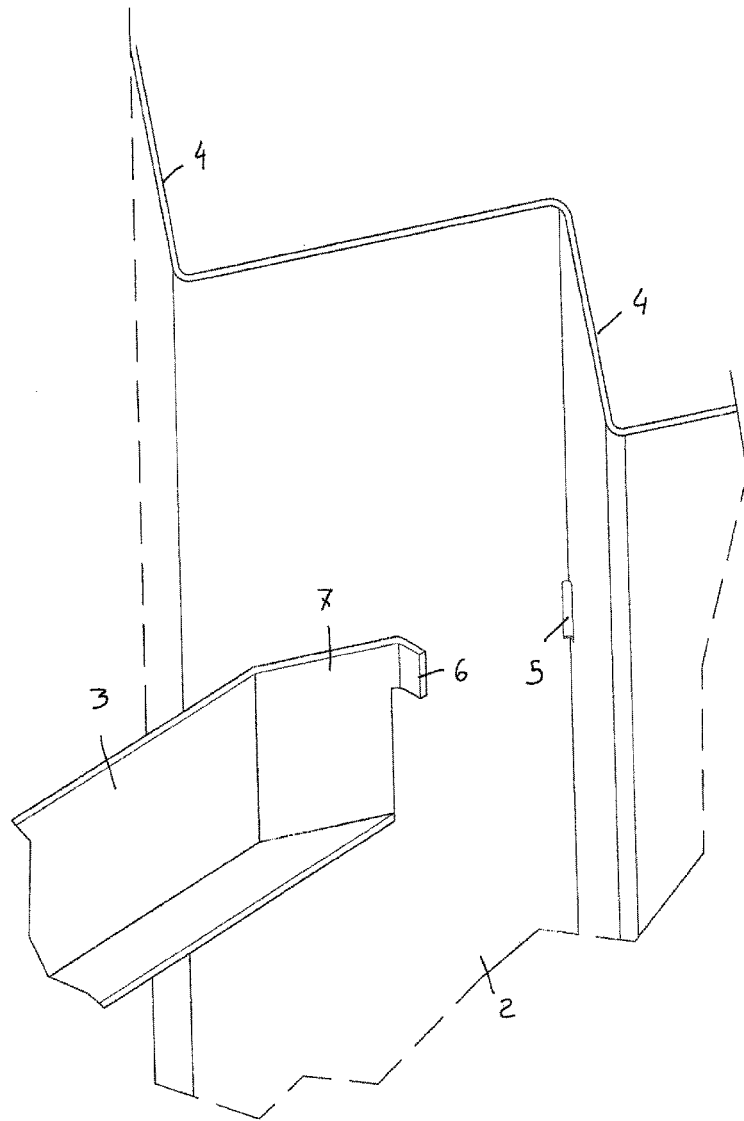


Fig. 7

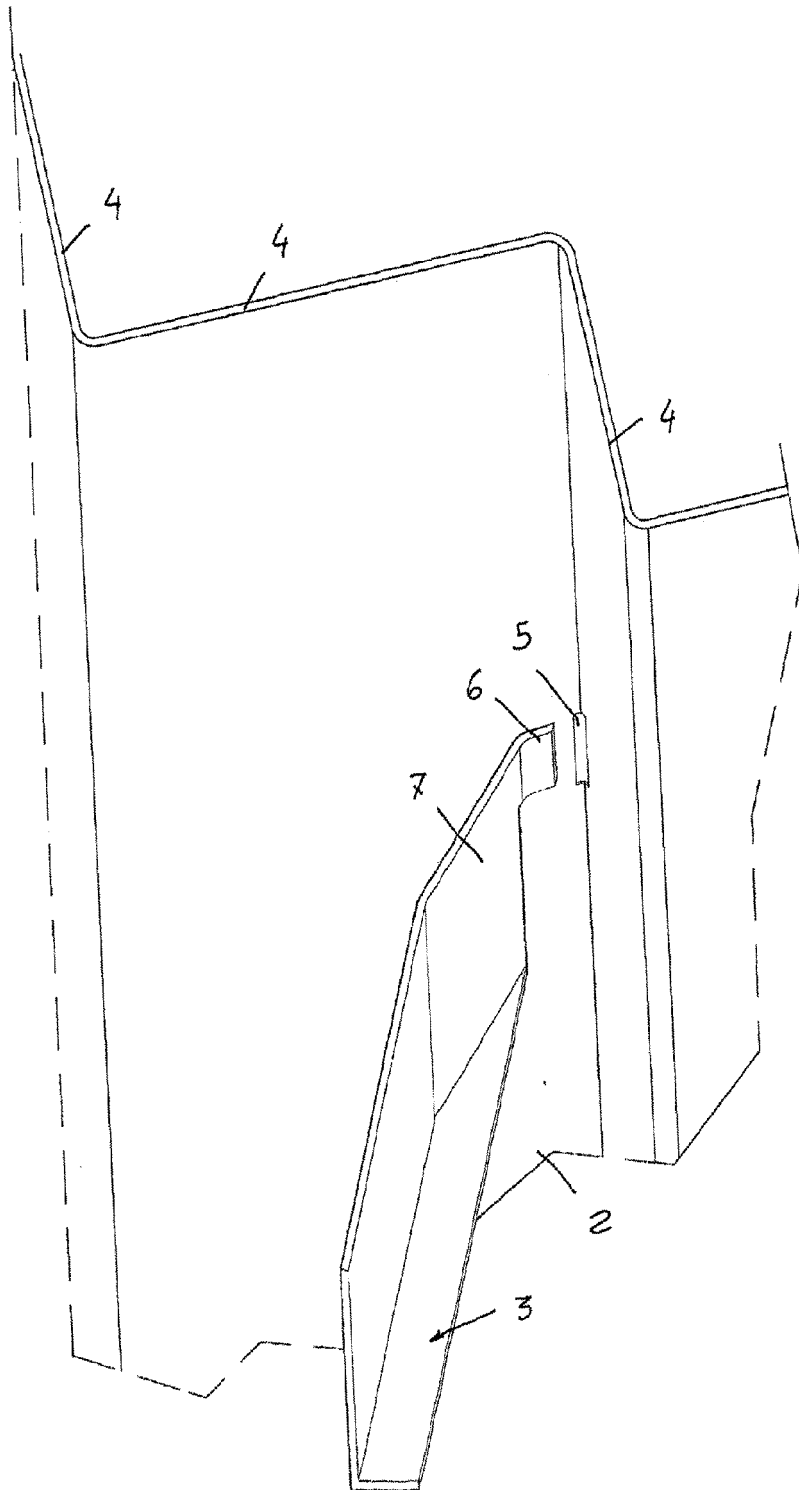


Fig. 8

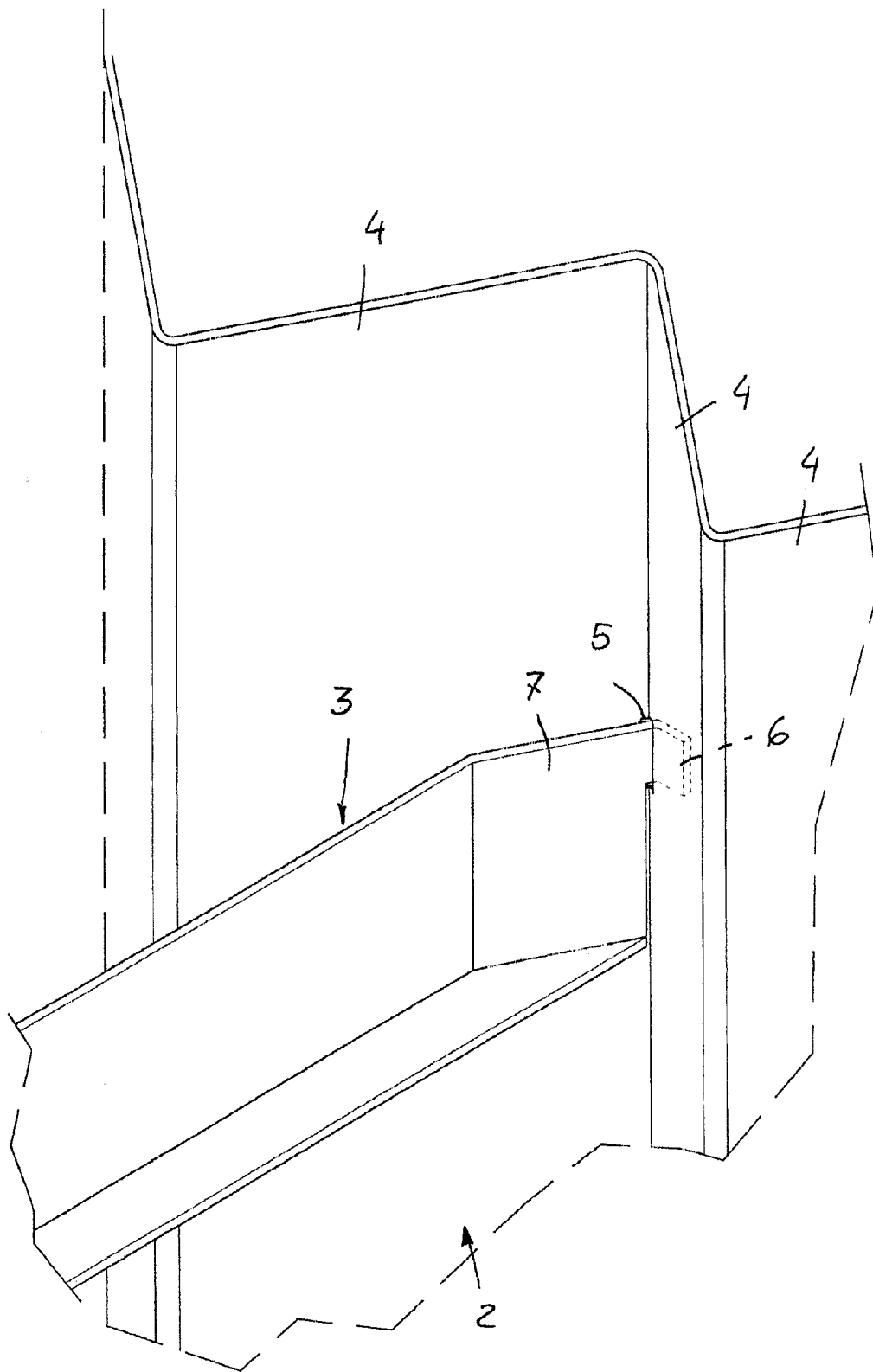


Fig. 9

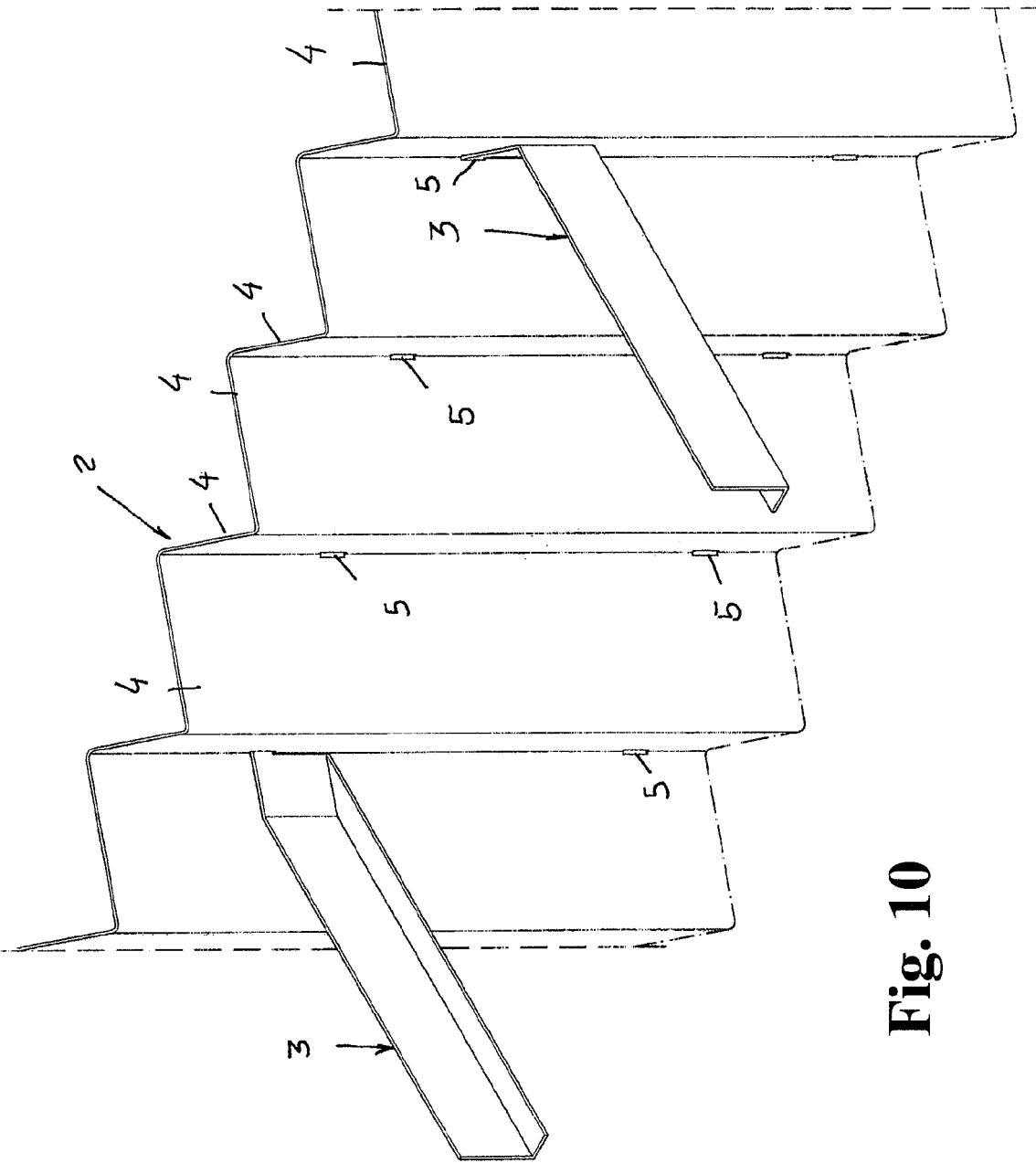


Fig. 10