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(71) Applicant: **Generale Maatschappij voor Plastiek Internationaal naamloze vennootschap**
9800 Deinze (BE)

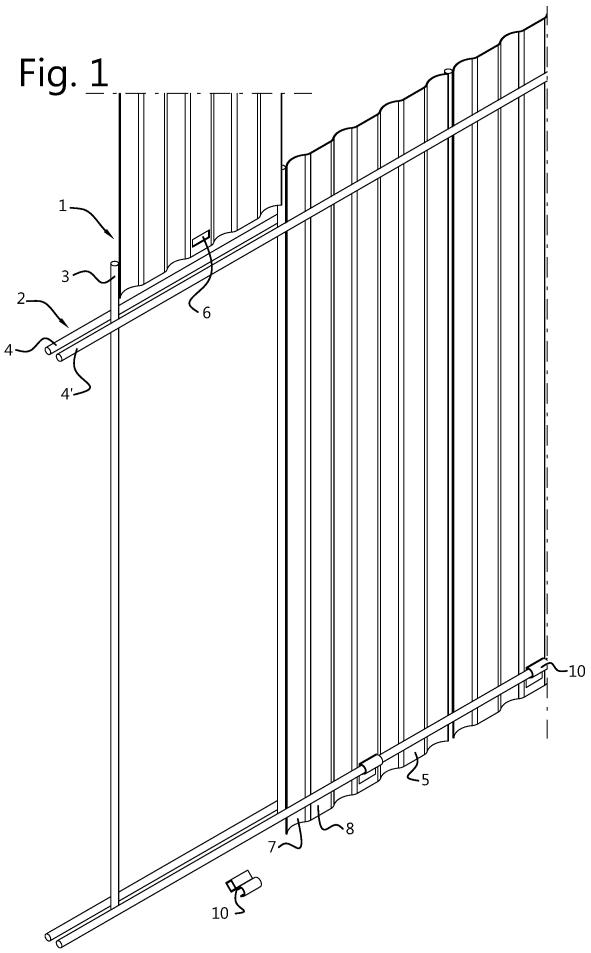
(72) Inventor: **Cnudde, Bart**
9800 Deinze (BE)

(74) Representative: **Brantsandpatents bvba**
Pauline Van Pottelsberghelaan 24
9051 Ghent (BE)

(54) **KIT FOR ASSEMBLING A GARDEN WIRE PANEL AND SUPPORT BRACKET FOR A SLAT OF SUCH A GARDEN WIRE PANEL**

(57) Support bracket for supporting a slat of a garden wire panel of the type constructed from a wire mesh with vertical wires between which the slats are arranged and from horizontal transverse wires, the support bracket being carried out as a profile with a hook-shaped portion with which the support bracket can be hooked over a transverse wire and a support portion for supporting a slat, wherein the support portion substantially consists of a beamlike element.

Fig. 1



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Description

TECHNICAL FIELD

[0001] The present invention relates to a support bracket for supporting a slat of a garden wire panel.

[0002] More specifically, the invention is intended to support the slats of a garden wire panel of the type constructed from a wire mesh with single, vertical wires between which the slats are arranged and of double, horizontal transverse wires between which the slats are clamped.

PRIOR ART

[0003] To ensure the privacy of property owners, garden slats or garden panels have been developed that can be inserted into existing wiring around the property. Such wiring is produced in different sizes, depending on the manufacturer. For example, the distance between two vertical wires can be 50 or 55 mm. Accordingly, the producer of the garden slats must also provide different dimensions for the garden slats to be inserted.

[0004] It is also important for the manufacturer of the garden slats to ensure that the slats are properly clamped into the wiring. It is known that gusty winds can be strong enough to force such garden slats out of the wiring. To this end, restraining elements have been developed as reported for example in EP 2 924 193. EP 2 924 193 describes a restraining element which supports the garden slats and also shows a top profile to enclose the top of the garden slats. In addition, one or more transverse profiles, called 'nose profiles' in jargon, are provided to enclose the garden slats sufficiently firmly. Such transverse profiles are mounted in horizontal passages or loops provided for this purpose and exert a transverse, clamping pressure on the garden slats. To ensure the vertical containment of the slats, the slats are individually supported at the bottom by the aforementioned restraining element and the array of slats is enclosed at the top by a top profile.

[0005] Wire meshes can be made with single transverse wires or with double transverse wires. A shortcoming of garden wire panels according to EP 2 924 193 is that the slats are of double-walled design. These wide, double-walled slats do not always fit between double wire meshes. Another shortcoming is their price, which is quite high for double-walled slats.

[0006] Finally, as known from prior art, the restraining elements are not suitable for slats that are not double-walled. For example, the restraining element is attached to the panels by sliding it into one end of the double-walled slats.

[0007] The present invention aims to solve at least some of the above problems or drawbacks. The aim of the invention is to provide a method which eliminates those disadvantages.

SUMMARY OF THE INVENTION

[0008] In a first aspect, the present invention comprises a support bracket for supporting a slat of a garden wire panel of the type constructed from a wire mesh with vertical wires between which the slats are arranged and from horizontal transverse wires, the support bracket being carried out as a profile with a hook-shaped portion with which the support bracket can be hooked over a transverse wire and a support portion for supporting a slat, wherein the support portion substantially consists of a beamlike element.

[0009] The support bracket according to the first aspect has the advantage that it can be clamped in a plurality of slats and similar applications, including single-walled slats. The bracket can be clamped by providing an opening with dimensions slightly larger than one side of the beamlike element. This makes it possible to clamp the beamlike element in any slat provided with such an opening, irrespective of the further design and/or construction of the slat.

[0010] In addition, a beamlike element-shaped restraining element is easier to mount. The pin-shaped restraining elements from the art are generally clamped at the bottom in hollow slats. The clamping elements run along a transverse wire, onto which they are snapped into place. When mounting a garden wire panel with beamlike element-shaped restraining elements, the slats are slid between the transverse wires of the wire mesh to their final position. After this, the slat is temporarily and partially lifted, such that a support bracket can be clamped in the slat. After this, the support bracket is attached to the transverse wire by no longer supporting the slat.

[0011] With pin-shaped restraining elements, the slats are temporarily lifted higher, so that the underside is above the transverse wire to be attached. The pin-shaped restraining element is then clamped in the hollow slat. This restraining element and slat assembly must be supported. The restraining element and the slat are lowered together to the transverse wire to which the restraining element is attached. Fingers can hereby be clamped between the panel and/or the restraining elements and/or the wire mesh. Premature release of the pin-shaped restraining element and slat assembly, i.e. before the restraining elements are clamped to the wire mesh, will cause the restraining elements to fall out of the hollow slats under the influence of gravity, thus necessitating a new start of the assembly.

[0012] In the second aspect, the invention comprises a kit suitable for assembling a garden wire panel composed of (i) a wire mesh formed by interconnected longitudinal wires and transverse wires, the transverse wires being provided on both sides of the longitudinal wires, and (ii) a series slats which are clamped in the longitudinal direction between the longitudinal wires by the transverse wires in said wire mesh, said kit comprising: a series of slats provided with a recess for clamping a

support bracket, a series of support brackets according to the first aspect, suitable for suspending or supporting said slats from/on said transverse wires.

[0013] This kit is advantageous because the slats do not have to be double-walled for good clamping. For example, single-walled slats can be used for double wire meshes, making this kit also suitable for these double wire meshes. The brackets in this kit are easier, safer and faster to install. Furthermore, single-walled slats can be used for this kit, which are cheaper.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014]

Figure 1 shows a schematic representation of a garden wire panel according to an embodiment of the present invention.

Figure 2 shows a side view of a beamlike element-shaped support bracket according to an embodiment of the present invention.

Figure 3 shows a perspective view of a beamlike element-shaped support bracket according to an embodiment of the present invention.

Figure 4A shows a detailed side view of a beamlike element-shaped support bracket which clamps a slat between two single transverse wires according to an embodiment of the present invention.

Figure 4B shows a side view of a beamlike element-shaped support bracket which clamps a slat between two single transverse wires according to an embodiment of the present invention.

Figure 5 shows a schematic front view of a garden wire panel according to an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0015] Unless otherwise defined, all terms used in the description of the invention, including technical and scientific terms, have the meaning as commonly understood by a person skilled in the art to which the invention pertains. For a better understanding of the description of the invention, the following terms are explained explicitly.

[0016] In this document, 'a' and 'the' refer to both the singular and the plural, unless the context presupposes otherwise. For example, 'a segment' means one or more segments.

[0017] When the term 'around' or 'about' is used in this document with a measurable quantity, a parameter, a duration or moment, and the like, then variations are meant of approx. 20% or less, preferably approx. 10% or less, more preferably approx. 5% or less, even more preferably approx. 1% or less, and even more preferably approx. 0.1% or less than and of the quoted value, insofar as such variations are applicable in the described invention. However, it must be understood that the value of a quantity used where the term 'about' or 'around' is used, is itself specifically disclosed.

[0018] The terms 'comprise', 'comprising', 'consist of', 'consisting of', 'provided with', 'include', 'including', 'contain', 'containing', are synonyms and are inclusive or open terms that indicate the presence of what follows, and which do not exclude or prevent the presence of other components, characteristics, elements, members, steps, as known from or disclosed in the prior art.

[0019] Quoting numerical intervals by endpoints comprises all integers, fractions and/or real numbers between the endpoints, these endpoints included.

[0020] The term 'fence' is to be understood as synonymous with the term 'fence structure', 'fencing', 'trellis', 'barrier', 'enclosure', 'hoarding', 'palisade', 'paling', and refers to one or more garden wire panels which are mainly arranged abbutingly in a predefined, closed or open geometry. Thus, the fence can define a separation between two ground surfaces and/or enclose part or all of a ground surface.

[0021] The term 'picket' is to be understood as synonymous with the term 'rod', 'stick', 'stake', 'bar', 'paling', 'upright', and refers to a thin, elongated, usually cylindrical wire, preferably a coated steel wire or a stainless steel wire.

[0022] The term 'transverse wire' is to be understood as synonymous with the term 'cross beam' and refers to a generally thin, cylindrical rod to which several pickets are attached, for example by thermal welding, where the cross-bar is mainly transverse to said pickets. Thus a framework is obtained. Preferably, said cross-bar comprises a coated steel wire or a stainless steel wire.

[0023] The term 'framework' is to be understood as synonymous with the term 'garden wire mesh', 'frame', 'mesh', and refers to the assembled set of pickets with cross-bars. Said framework can be fixed upright in a subsoil by means of one or more piles which are anchored at least partially in the subsoil. Alternatively, said framework can be mounted against a wall.

[0024] The terms 'single wire' and 'single wire mesh' refer to wire meshes consisting of pickets to which a 'single transverse wire' is applied, i.e. transverse wires that are always arranged on the same side of the pickets for a certain height relative to the pickets. A wire mesh with different transverse wires at different heights, with the transverse wires arranged at different heights along different sides of the picket, is still a single wire mesh.

[0025] This is in contrast to a 'double wire panel' or 'double wire', where a 'double' or 'dual' transverse wire is applied to the pickets. At least one double or dual transverse wire is herein connected to the pickets. A double transverse wire consists of two transverse wires that are provided at a certain height on both sides of the picket, whereby the space between the two transverse wires

thus comprises more or less the diameter or width of a picket. A wire mesh with one or more double transverse wires is a double wire panel. Thus, a wire mesh with one double transverse wire and four single transverse wires is still a double wire panel.

[0026] The term 'slat' is to be understood as a predominantly beamlike element-shaped object with a length, width and depth, wherein in the longitudinal direction the slat is bounded by a first, lower and a second, upper end.

[0027] A 'double-walled slat' is said slat, carried out hollow with an open ground and top surface; by this it is meant that the first, lower and the second, upper ends comprise an open surface which defines the internal cavity of the slat.

[0028] A 'single-walled slat' or 'single' slat is said slat, wherein the slat does not comprise any internal cavity(ies). The slat consists of a single layer. However, this has no implication on the dimensions of the slat, only on the lack of an internal cavity.

[0029] The term 'restraining element' is to be understood as synonymous with the term 'support bracket' and refers in the context of the present invention to a transition element connecting element suitable for fixing a slat relative to a framework. Said restraining element preferably comprises (i) a support foot or support portion and (ii) a suspension or hook-shaped portion. Support foot and suspension are preferably connected to each other by means of a transition bridge which is designed as a common wall with a first side facing the support foot and a second side facing the suspension.

[0030] A 'pin-shaped' restraining element is a restraining element of a support bracket according to the prior art, wherein said restraining element is to be understood as a supporting pin which can be slid at the bottom into the internal cavity of a double-walled slat to support said slat.

[0031] The slats according to the present invention can be either 'suspended' or 'supported', depending on the placement of the support bracket. In this text, reference will generally be made to 'support' of the slats, but this support can also always mean suspension.

[0032] In a first aspect, the present invention comprises a support bracket for supporting a slat of a garden wire panel of the type constructed from a wire mesh with vertical wires between which the slats are arranged and from horizontal transverse wires, the support bracket being carried out as a profile with a hook-shaped portion with which the support bracket can be hooked over a transverse wire and a support portion for supporting a slat, characterised in that the support portion substantially consists of a beamlike element.

[0033] A 'beamlike' restraining element is a restraining element with a beamlike crosssection. The restraining element of a support bracket is to be understood as a clamping element. This clamping element is suitable for sliding frontally into an opening provided for this purpose. This allows the support portion to be clamped onto a slat, by means of an opening provided in the slat. Since the opening in the slat is just large enough for the beamlike element-shaped support portion, it can easily be slid into the opening. When the clamp-shaped portion experiences a force in the longitudinal direction, the beamlike element-shaped support portion is twisted in the opening. Since the opening is too small for this, the twisting force will clamp the support portion of the support bracket in the opening of the slat. This opening can be provided in both single-walled and double-walled slats.

[0034] Preferably, the support portion consists of a beamlike element, consisting of at least four sides and at least four ribs, the beamlike element being attached to the hook-shaped portion in a first rib. This results in a more reliable clamping that is more difficult to release.

[0035] Another advantage of the support bracket is that the support portion has a clamping effect which additionally prevents the slat from being lifted out of the wire mesh by the wind and carried along. For example, a slat mounted on a pin-shaped bracket can come loose due to a violent upward force, whereby the slat is lifted out of the pin. However, a beamlike element-shaped clamping element prevents both upward and downward movement of the slat.

[0036] According to one embodiment, the beamlike element is attached to the hook-shaped portion in a first rib, and the beamlike element is provided with a lip on a second, opposite rib.

[0037] Opposite is herein understood to mean a non-abutting rib. In a beamlike element, abutting ribs are connected by one side, and opposite ribs are connected by the diagonal. The lip improves the clamping effect. It is important that the support brackets cannot come loose from the slats. This can be caused by strong winds, but also by incorrectly produced support brackets or slats with deviating dimensions.

[0038] Furthermore, the opening in the slat slowly expands with repeated oscillating forces. The larger this opening, the worse the clamping effect, until the support portion comes free from the slat. The lip counteracts these effects, mainly the release of the support portion from the opening under a twisting force such as suspension or support of the slat.

[0039] Preferably, the lip is parallel to the plane along which the support bracket is applied. This means that the lip is in line with a 'clamping side'. The clamping sides are the sides which, when clamped in an opening, press against this opening. Providing the lip parallel to a clamping side means that the lip, during mounting, does not hinder the sliding in of the beamlike element-shaped clamping element. However, the lip does prevent the beamlike element from being released from the opening by a twisting force.

[0040] A preferred embodiment comprises the support bracket wherein the hook-shaped portion is formed by a substantially C- or U-shaped circumflex portion with two legs, of which at least one leg is an S-shaped bent leg which forms a constriction together with the other leg.

[0041] A preferred embodiment comprises the support

bracket, wherein the legs of the hook-shaped portion form a constriction, the first leg being attached to the clamping portion, the first leg forming an angle α near the constriction, where α is between 15° and 120°, preferably between 30° and 90°.

[0042] A preferred embodiment comprises the support bracket, wherein the legs of the hook-shaped portion form a constriction, wherein the second leg, which has a free end, forms an angle 3 near the constriction, wherein 3 is between 15° and 120°, preferably between 30° and 90°.

[0043] Both of the above preferred embodiments have the same advantages. First, attaching and detaching the support brackets to a wire is easier. The above-mentioned angles ensure that when the wire is pressed against the constriction, both during assembly and disassembly, the leg is pressed away from the opening at the angle. This will widen the opening by pressing a wire against the constriction.

[0044] Preferably, both the first and second legs are angled. Preferably these angles, α and β, are more or less equal. These corners may be rounded. For the effect, only the angle in the legs is important for pushing open the constriction under an external pressure, not the sharp feeling of a corner point. Rounding of corners α and β is desirable for finger safety during assembly.

[0045] This is advantageous for the assembly and disassembly of the garden wire panel. When a round wire which is pressed against the constriction approximately in the hook-shaped portion, the hook-shaped portion is elastically deformed such that the constriction widens. Once the wire is in the hook-shaped part, the constriction will, if possible, narrow again. Thus, the hook-shaped part can be easily clicked onto a wire.

[0046] Preferably, the hook-shaped portion is designed in such a way that it is suitable for clamping on transverse wires with two or more different diameters. This can be done, for example, by a sufficiently large internal hook shape, with a narrow constriction. This narrow constriction allows the thinner wires to be clamped. The large internal hook shape allows thicker wires to be clamped. For this, the material must be sufficiently deformable, as is the case, for example, with many plastics.

[0047] According to a preferred embodiment, the hook-shaped portion except for the constriction 20 is ellipsoidal, the ellipsoidal shape being determined by a large and a small diameter, the constriction being at least 1.5 times smaller than the large diameter, preferably at least 2 times smaller than the large diameter.

[0048] According to another preferred embodiment, the support bracket is suitable for use with transverse wires with a usual diameter of 4 mm and 5 mm, respectively, the width (A) of the constriction is between 2.4 and 2.8 mm, preferably about 2.6 mm.

[0049] It is namely common for garden wire panels with larger dimensions to also use wire meshes with wires with a greater strength and thus with a larger diameter. For example, it is common to use transverse wires with diameters of 4 mm and 5 mm.

[0050] The advantage of a support bracket that fits multiple sizes of wires is that only one type of support brackets is needed and therefore only one type of support brackets has to be manufactured and stored and therefore no multiple moulds are needed, which usually represent a significant cost.

[0051] According to a preferred embodiment, the support bracket is mechanically strong enough to support double-walled slats.

[0052] A sturdy support bracket is advantageous, as the support brackets are subject to different and often oscillating forces. A higher mechanical strength, whereby the strength primarily means sufficient stiffness. Secondly, a high yield point is also necessary. Furthermore, the support bracket must be sufficiently tough. Namely, the support bracket is subject to a plurality of oscillating and/or irregular alternating forces due to weather conditions and the like. These alternating forces can lead to fatigue fracture, especially for overly elastic or insufficiently rigid support brackets. It is advantageous that the support bracket can support both single and double-walled profiles of different weight. This allows the support bracket to be used for different types of slats and garden wire panels, and again saves mould and production costs.

[0053] According to a preferred embodiment, the support portion is a hollow beamlike element consisting of at least four sides and at least four ribs. Hollowing out the support portion saves plastic. Furthermore, this allows the support bracket to be produced in more methods. Since the bracket can now be formed by reforming a single layer of plastic. Forming a solid beamlike element of plastic from a layer of plastic of uniform thickness requires more processing.

[0054] According to the present invention, a single support bracket with suspension from one transverse wire is sufficient. However, if the slats are heavy, for example not made of light plastics, the use of double clamping is recommended. Such a double clamping can comprise, on the one hand, one bracket with two clamps. Both the clamp and the beamlike element must then fit through the opening in the bracket. Alternatively, several openings may be provided, or the opening may be sufficiently wide to clamp multiple clamping elements. For example, the weight of a slat can be carried by different transverse wires.

[0055] Garden wire panels are usually sold as a kit containing slats, whether or not identical, one or more transverse profiles and one or more support brackets and, if necessary, a top profile to cover the top of the slats. The invention also relates to such kit in which the support brackets are specifically support brackets according to the invention as described.

[0056] In the second aspect, the invention comprises a kit suitable for assembling a garden wire panel composed of (i) a wire mesh formed by interconnected longitudinal wires and transverse wires, the transverse wires

being provided on both sides of the longitudinal wires, and (ii) a series slats which are clamped in the longitudinal direction between the longitudinal wires by the transverse wires in said wire mesh, said kit comprising:

- a series of slats provided with a recess for clamping a support bracket,
- a series of support brackets according to the first aspect, suitable for suspending or supporting said slats from said transverse wires.

[0057] The advantage of the kit is simple assembly of the garden wire panel in an existing wire mesh. Thus, the slats can first be slid into the wire mesh, after which the brackets are applied.

[0058] The slats are provided at one end with a 'cut-out', 'recess' or 'opening', the cut-out in the longitudinal direction of the slat having internal dimensions corresponding to the external dimensions of a side of the support element of the support bracket. This allows the support portion of the bracket to slide into the cut-out of the slat. When the beamlike element-shaped support element twists, it will be clamped in the clamping element.

[0059] According to a preferred embodiment of the kit, the slats are single-walled.

[0060] This makes the slats thinner, so that they fit in a wire mesh with double transverse wires. They are also cheaper to produce and especially to transport. Hollow, double-walled slats take up significantly more space during transport than single-walled slats, which can easily be transported very compactly.

[0061] Another preferred form comprises slats which are provided with notches. According to a further preferred form, the slats comprise 4 to 6 round notches per slat. These notches provide strength, especially with single-walled slats. For example, the notches increase the stiffness and torsional stiffness of the slats. Preferably, the slats are produced with the aid of extrusion, whereby the notches are provided in the extrusion profile. The design of the slats then remains unchanged throughout the longitudinal direction of the slat. Furthermore, the notches give the slats a texture.

[0062] A further preferred embodiment comprises the kit wherein the slats are flat between the round notches, the slats preferably being flat in the centre of the recess for clamping the support bracket.

[0063] The beamlike element-shaped clamping elements release more easily from non-planar cut-outs or openings. It is therefore advantageous to make the cut-outs flat at least centrally, where the clamping elements are arranged. Also, mounting thin, flat panels is easier for flat openings. For example, it is easier to slide the beamlike element-shaped clamping element into a corresponding flat, beamlike element-shaped and/or rounded opening than into a non-planar opening. Matching the dimensions, which makes the assembly intuitively clearer for a person performing the assembly, also helps to set up a garden wire panel according to the current kit.

[0064] According to a preferred embodiment, the support bracket is made transparent or in a non-contrasting colour with the slats.

[0065] This ensures that the brackets do not stand out in the garden wire panel. Garden wire panels are often used as neutral barrier. An emphasis on the design of this garden wire panel, for example through striking brackets or support portions that protrude through the slats, is undesirable.

[0066] A preferred embodiment comprises the kit, wherein the recess of the slat is provided near the middle of the width of the slat. As a result, the slat is centrally supported, which counteracts a second, twisting force of the slat relative to the support bracket. This second twisting force of the slat relative to the support bracket lies in the plane of the slat and does not contribute to the proper clamping of said slat. Central support of the slat is therefore desirable.

[0067] A preferred embodiment comprises the kit, wherein the recess of the slat is arranged longitudinally near one of the ends of the slat. This allows the slat to be supported or suspended. Since all wire meshes include transverse wires at both the bottom and top, this ensures a point of attachment.

[0068] In what follows, the invention is described by way of non-limiting examples or figures illustrating the invention, and which are not intended to and should not be interpreted as limiting the scope of the invention.

[0069] According to another preferred embodiment, the kit comprises at least one top profile, optionally consisting of at least two top profile parts, wherein the top profile comprises the top of the garden wire panel after the slats have been placed in the garden wire panel in the transverse direction. Preferably, the top profile clamps the slats and the existing wire mesh at the top.

[0070] According to another preferred embodiment, the kit further comprises a top profile, the top profile being adapted to be placed transversely over the wire mesh and the tops of the clamped slats. This way the garden wire panel is nicely finished.

[0071] Furthermore, the alternating forces experienced by the slat and/or support bracket are limited by a further limited freedom of movement of the slats. This limited freedom of movement also prevents the slats from rattling in the wire mesh.

[0072] Optionally, the top profile can consist of different top profile parts. Preferably, the top profile consists of two top profile parts. For example, the length of the top profile can be shortened, making it easier to pack, transport and store the whole.

[0073] The finish of the garden wire panel with a top profile ensures that the slats cannot come out of the wire mesh at the top. The top profile can eliminate or prevent the rattling or clattering of the slats in the wire mesh due to wind or other reasons.

EXAMPLES

[0074] The invention will now be further explained on the basis of the following example, without however being limited to this.

Garden wire panel

[0075] Figure 1 shows a visual barrier or garden wire panel. The example concerns a kit for installing a visual barrier or garden wire panel 1 in an existing wire mesh 2, consisting of pickets 3 and transverse wires 4,4'. The transverse wires are provided on both sides (4,4'), on both sides of the pickets. This kit contains garden slats 5 and support brackets 10.

[0076] The slats are single-walled. Since the transverse wires are provided on both sides, the slats can easily be slid between the transverse wires and between the pickets. An opening 6 is provided in the slats. This opening or recess is used to clamp a support bracket 10 in. This support bracket is then clamped onto the transverse wire. The slat is thus supported by the support bracket.

[0077] The garden slats (and top profiles) can be produced by extrusion. The brackets and connecting elements can be produced using injection moulding. All of the above parts are made of PVC, but different additives were used, including different pigments and plasticisers. The slats (and top profile segments) can be produced in various shades of grey, green, blue, brown, beige and black as well as other mixed colours. The brackets are white.

Bracket

[0078] Figure 2 shows a schematic view of an embodiment of a bracket according to the present invention. These consist of a support portion 15 and a clamp-shaped part 14.

[0079] The support portion 15 consists of a hollow beamlike element provided with a lip 21. The external dimensions of the beamlike element 9 are 6 mm x 6 mm. The internal dimensions of the beamlike element 12 are 4mm x 4mm. The lip protrudes about 1 mm beyond the outer surface 11.

[0080] The clamp-shaped part 14 consists of a C-shape 17 and two legs 18,19. The legs are connected to the C-shape at angles α and β, respectively. The vertices of these angles form a constriction of the clamping shape. The clamping shape is elastic, and the constriction 20 measures 2.4 mm. The long axis 16 of the C-shape measures 8 mm. This clamping shape can clamp wires with a diameter of 4mm and 5mm.

[0081] The support bracket has a constant width 22 of 8mm. Due to the design, the support portion is significantly less flexible than the clamp-shaped portion. In this way, the entire part can be manufactured from the same synthetic material. In this case, it is polyvinyl chloride (PVC).

Slats

[0082] The slats comprise a single-walled extrusion profile. This is in contrast to hollow, double-walled slats that are used with nose profiles and top profiles. Since the garden wire panel comprises double transverse wires, the thinner and cheaper single wall slats are advantageous. The single-walled slats are elongated. They include 4 round notches 8 in the longitudinal direction, which give the slats rigidity. The slats are approximately flat 9 between these round notches. An opening 6 is provided approximately 1.5 cm from one end. This opening is used for mounting the support portion of the brackets. This opening has an internal dimension of 6.5 mm in the longitudinal direction. In the transverse direction, the internal dimension is more than 1 cm. Thus, the bracket is only clamped in the longitudinal direction. In another embodiment, the opening is strongly rounded, so that it appears pill-shaped.

Assembly of the kit into garden wire panel

[0083] Figure 4A shows a detailed side section of the clamping and support or suspension of a slat on a double transverse wire. Figure 4B shows a side section of the clamping and support of a slat on a double transverse wire.

[0084] The clamp-shaped part of the support bracket clamps around the transverse wire. The beamlike element of the support bracket is clamped in the slat. This construction is achieved by first clamping the support bracket in the slat, and then placing the slat with the support bracket between the transverse wires, after which the clamping portion of the support bracket is clamped on a transverse wire.

[0085] A schematic front view of the result is shown in Figure 5. In this case, the lower transverse wire is not provided over the full length to clarify the concept. In a set up garden wire panel, the transverse wires are run over the full length.

Claims

1. Support bracket for supporting a slat of a garden wire panel of the type constructed from a wire mesh with vertical wires between which the slats are arranged and from horizontal transverse wires, the support bracket being carried out as a profile with a hook-shaped portion with which the support bracket can be hooked over a transverse wire and a support portion for supporting a slat, **characterised in that** the support portion substantially consists of a beamlike element.

2. Support bracket according to claim 1, wherein the

beamlike element comprises at least four sides with at least four ribs in between, the support portion being connected to the hook-shaped portion in a first rib.

3. Support bracket according to claims 1-2, wherein the beamlike element is provided with a lip on a second rib, which is preferably an opposite rib of the first rib.

4. Support bracket according to claim 3, wherein the lip is in line with one side, preferably in line with a clamping side.

5. Support bracket according to any of the preceding claims 1-4, wherein the hook-shaped portion is formed by a substantially C- or U-shaped circumflex portion with two legs, of which at least one leg is an S-shaped bent leg which, together with the other leg, forms a constriction (20).

6. Support bracket according to claim 5, wherein a first leg (18) is attached to the clamping portion, the first leg forming an angle α near the constriction (20), wherein α is between 15° and 80°, preferably between 20° and 60°.

7. Support bracket according to any of the preceding claims 5-6, wherein a second leg (19), which has a free end, forms an angle 3 near the constriction, wherein β lies between 15° and 80°, preferably between 20° and 60°.

8. Support bracket according to any of the preceding claims 5-7, wherein the hook-shaped portion except for the constriction (20) is substantially ellipsoidal, the ellipsoidal shape being determined by a large and a small diameter, wherein the ratio between the large diameter and the length of the constriction (20) is at least 1.5, preferably this ratio is at least 2.

9. Support bracket according to any of the preceding claims, suitable for use with transverse wires with a usual diameter of 4 mm and 5 mm, respectively, wherein the width of the constriction is between 2 and 3 mm, preferably between 2.4 mm and 2.8 mm.

10. Kit suitable for assembling a garden wire panel (1) composed of (i) a wire mesh (2) formed by interconnected longitudinal wires and transverse wires (3), the transverse wires (4,4') being provided on both sides of the longitudinal wires, and (ii) a series slats (5) which are clamped in the longitudinal direction between the longitudinal wires by the transverse wires in said wire mesh, said kit comprising:

- a series of slats provided with a recess (6) for clamping a support bracket (10),
- a series of support brackets according to any of the previous claims 1-9, suitable for suspending or supporting said slats from said transverse wires.

11. Kit according to preceding claim 10, wherein the slats are single-walled.

12. Kit according to any of the preceding claims 10-11, wherein the slats are provided with round notches (8) in the longitudinal directions, preferably 4 to 6 per slat.

13. Kit according to any of the preceding claims 10-12, wherein the slats are flat between the round notches (9), the slat preferably being flat in the centre of the recess for clamping the support bracket.

14. Kit according to any of the preceding claims 10-13, wherein a slat is a longitudinal element with a length and a width, the recess (6) being provided centrally in the width of the slat.

15. Kit according to any of the preceding claims 10-14, wherein the kit further comprises a top profile, the top profile being adapted to be placed transversely over the wire mesh and the tops of the clamped slats.

Fig. 1

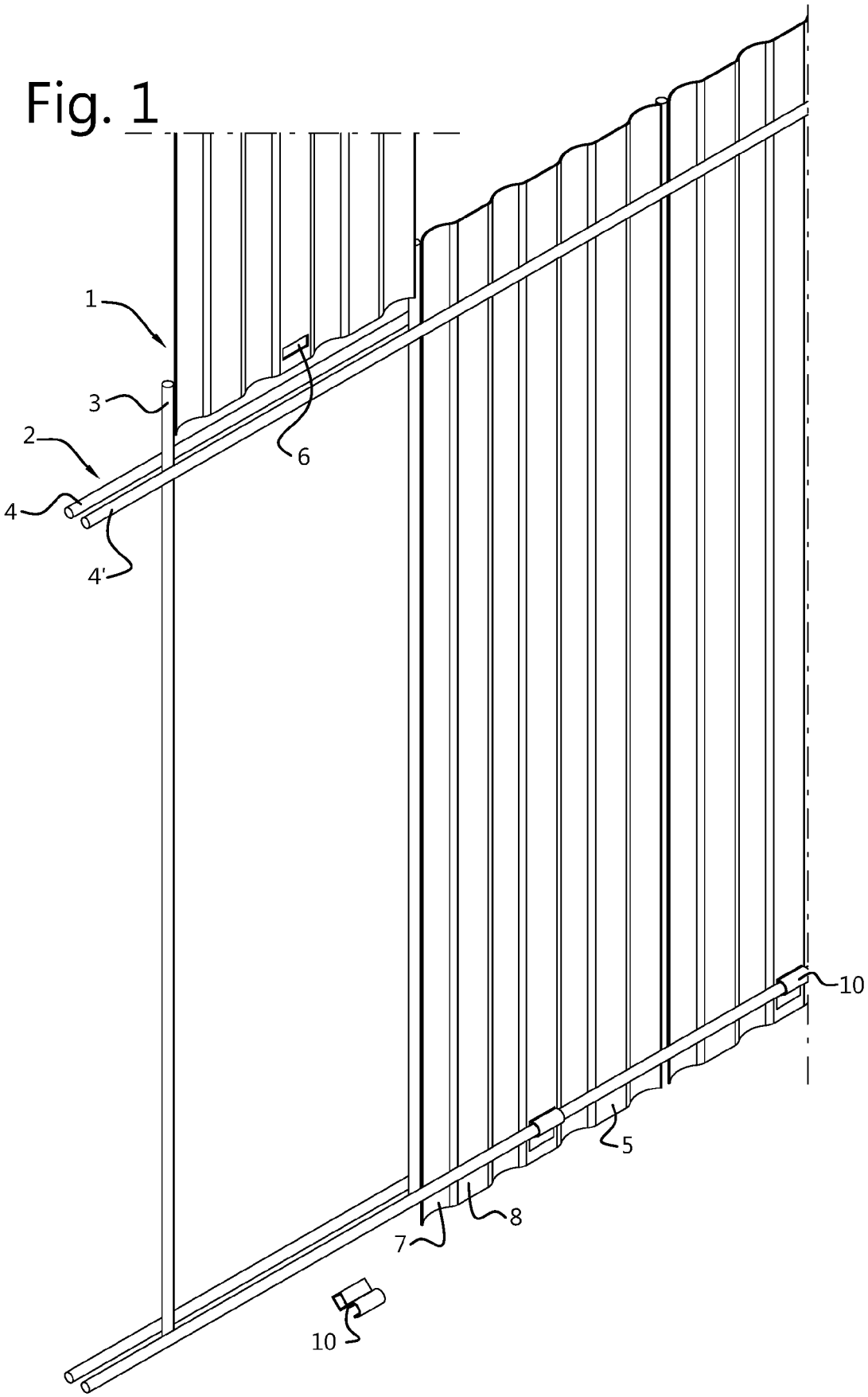


Fig. 2

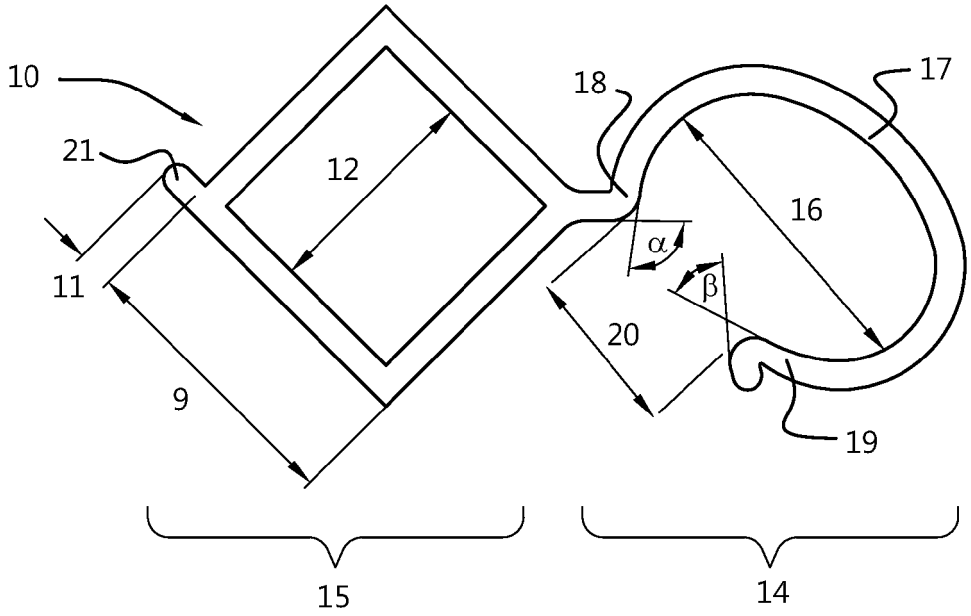


Fig. 3

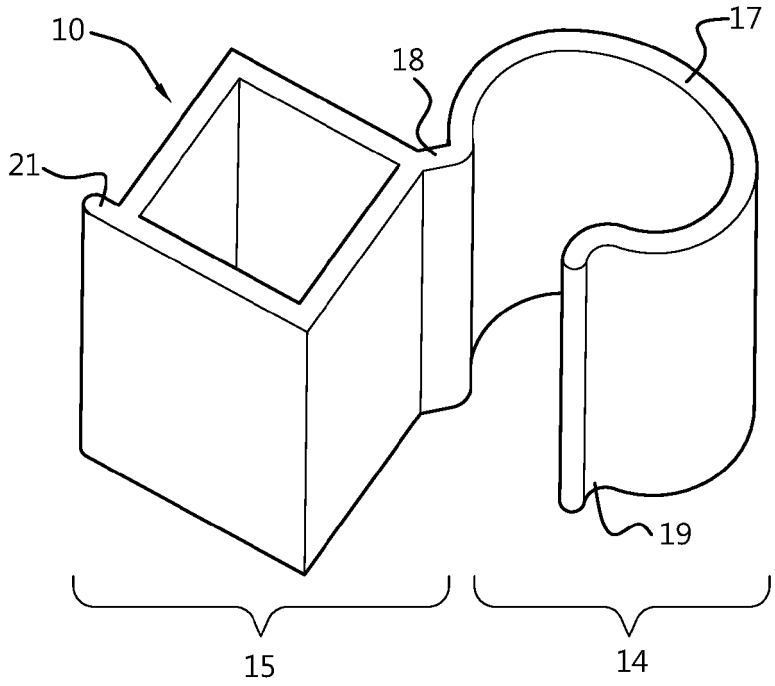


Fig. 4A

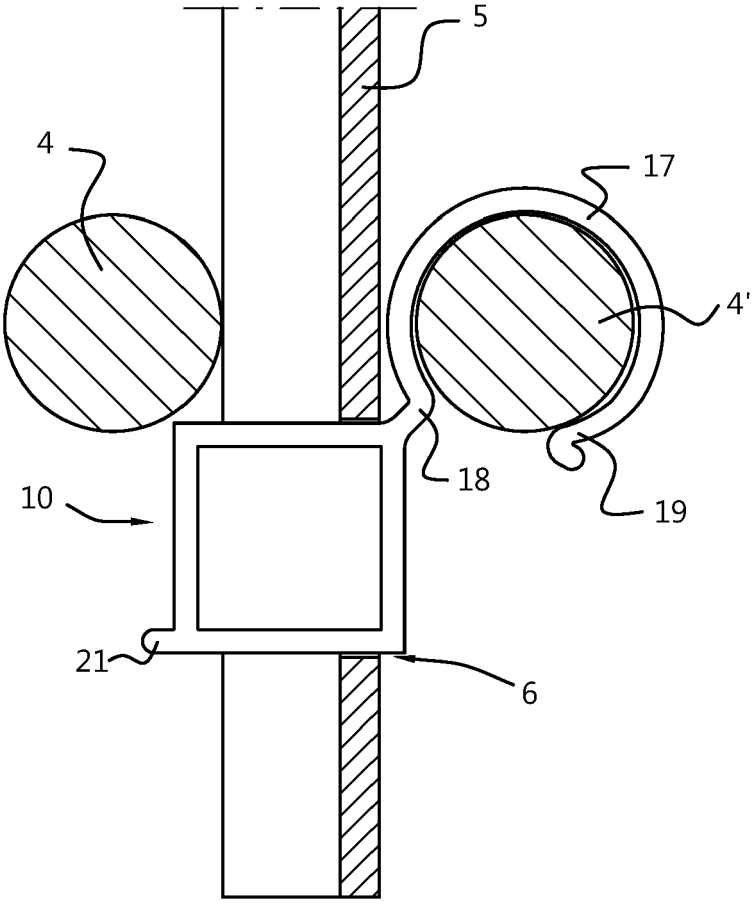
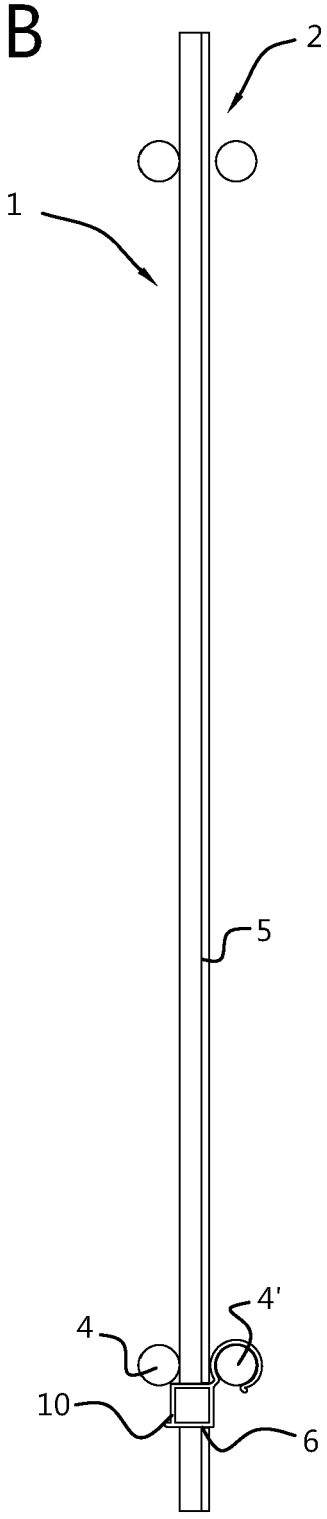


Fig. 4B



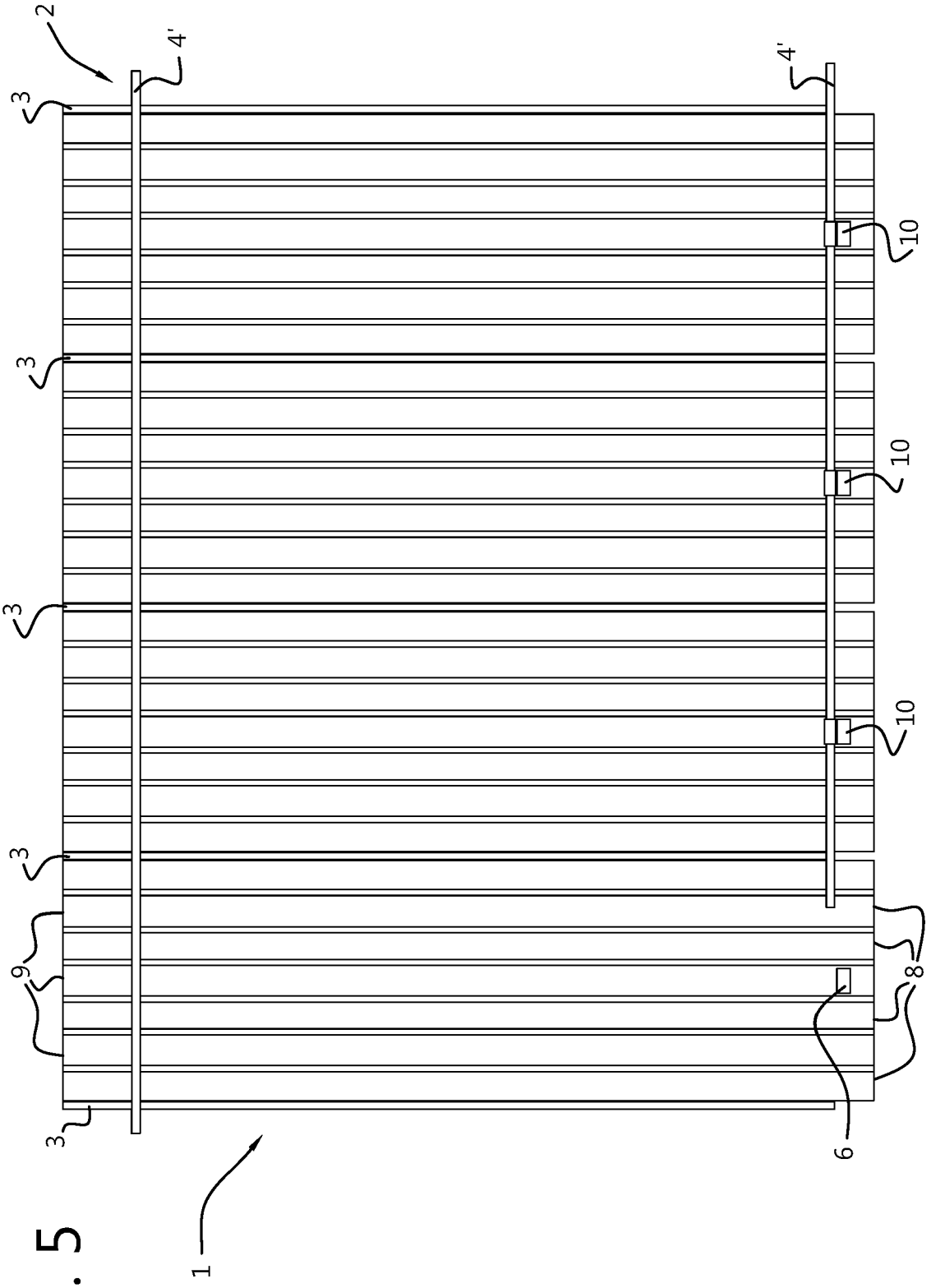


Fig. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 21 20 1694

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Place of search	Date of completion of the search	Examiner
Munich	1 February 2022	Schnedler, Marlon

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