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(54) **FENCE, KIT FOR PRODUCING A FENCE AND RELATED METHOD FOR PRODUCING A FENCE**

(57) The present invention concerns a fence comprising:

- a repetition of hollow posts, wherein each of the hollow posts is erected vertically; and
 - panels, wherein each of the panels is mounted between two successive hollow posts; and
- wherein panels are mounted on the hollow posts with at least one mounting bracket; wherein

the mounting bracket is provided through the hollow post; or
the mounting bracket engages in the cavity of the hollow post;
and wherein successive panels (3) are connected together with at least one mounting bracket (4).

The invention furthermore provides a kit for producing the fence and methods for producing the fence.

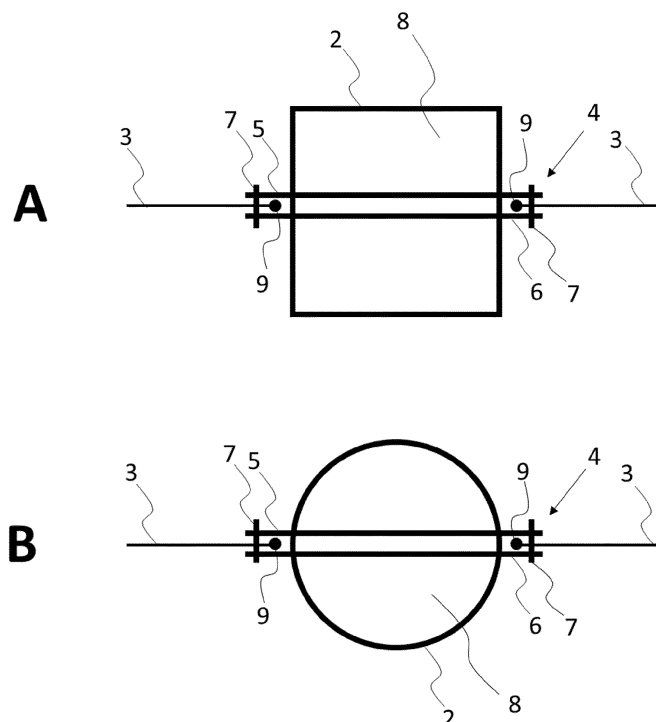


Fig. 2

Description

AREA OF THE INVENTION

[0001] The invention concerns a boundary closure, more specifically a fence, more particularly a fence made of posts and panels.

BACKGROUND OF THE INVENTION

[0002] Fences often have a protective function. Thus the fences must be robust. Commercially, kits are offered for producing fences consisting of posts and panels. The panels are then assembled in advance in a factory. However, many such fences have posts with a complex shape which makes it possible to attach the panels thereto with a type of bracket or clip which fits on the post or on the outer surface of the post. Such complex forms are expensive to produce and difficult to adapt to the local situation, for example if a heavier design is required. Brackets and clips which are attached to the outer surface of the posts often form a weak point in the fence. There is therefore a demand for robust fences which are easy to produce. Preferably, such fences are easy to install and even more preferably can be installed with a small number of tools or little equipment. Preferably, the panels are connected to the posts, while reducing the mechanical integrity of the posts as little as possible. Preferably, the fence may be erected according to the local situation. This phrase means amongst others that the panels can easily be shortened or the panels can be erected at an angle relative to one another which is not necessarily 90° or 180°. Preferably, the length of the panels is optimally used in erecting the fence, which preferably is also cost-saving. Preferably, the points at which the panels are connected to the post are protected from corrosion. Preferably, all parts of the fence are made of steel, which amongst others increases the protection against break-in.

[0003] Many of the existing fences have one side, the front, which is intended to be seen. Aesthetically disruptive elements, but ones which are necessary for the construction of the fence, are often directed towards the back. Examples of aesthetically disruptive elements include loose wire ends, folded wire ends, weld seams, mounting systems, nuts or even the posts if the fencing is mounted on one side of the post. The back is often aesthetically less attractive than the front. There is a demand for fencing in which the front and the back are aesthetically the same. There is a demand for symmetrical fences, symmetrical with respect to the length direction. There is a demand for fences which can be erected symmetrically along a border, preferably wherein the centre of the posts can be placed on the border and wherein the panels can be placed on the border. This is for example important if neighbours jointly decide to erect a fence and share the costs, so that each neighbour obtains an equal share of the fence.

SUMMARY OF THE INVENTION

[0004] The present invention provides a solution to one or more of the above-described challenges and/or demands.

[0005] In a first aspect, the invention provides a fence comprising

- a repetition of hollow posts, wherein each of the hollow posts is erected vertically; and
- panels, wherein each of the panels is mounted between two successive hollow posts; and wherein panels are mounted on the hollow posts with at least one mounting bracket;

wherein

- the mounting bracket is provided through the hollow post; or
- the mounting bracket engages in the cavity of the hollow post;
- and wherein successive panels are connected together with at least one mounting bracket.

[0006] In one embodiment, the hollow posts have a rectangular or square cross-section.

[0007] In one embodiment, the panels are wire panels.

[0008] In one embodiment, the mounting bracket comprises a first mounting element and a second mounting element which are connected together via at least two connecting elements, wherein each connecting element is arranged through successive panels.

[0009] In one embodiment, the first mounting element is arranged through a first pair of mutually opposing slots arranged in the hollow post; and the second mounting element is arranged through a second pair of mutually opposing slots arranged in the hollow post.

[0010] In one embodiment, the slots of the first pair of mutually opposing slots are arranged parallel to the slots of the second pair of mutually opposing slots.

[0011] In one embodiment, the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged symmetrically with respect to the centre line in the length direction of the hollow post.

[0012] In one embodiment, the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged in the length direction of the hollow post.

[0013] In one embodiment, the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged parallel to one another with a mutual distance which is at least equal to the thickness of the panel.

[0014] In one embodiment, the mounting elements are longer than the thickness of the hollow post.

[0015] In one embodiment, the wire panel is constructed from a layered structure comprising a first layer of

transverse wires, a layer of longitudinal wires, and a second layer of transverse wires.

[0016] In one embodiment, the wire panel is constructed from parallel folded longitudinal wires which are connected together with parallel transverse wires, wherein the folds of the longitudinal wires stand squarely to the plane formed by the parallel transverse wires.

[0017] The invention furthermore provides a kit for producing a fence, comprising

- hollow posts, wherein each hollow post is provided with mutually opposing openings or slots;
- panels suitable for mounting between two hollow posts;
- mounting brackets suitable for mounting the panels on the hollow posts, preferably suitable for connecting two panels together;

wherein

the mounting brackets can be provided through mutually opposing openings or slots; or
can be engaged in the cavity of the hollow post.

[0018] The invention provides a method for producing a fence, preferably a fence according to an embodiment described herein, comprising hollow posts and panels, wherein each hollow post is provided with mutually opposing openings or slots; the method comprising the steps of:

- a) vertically erecting hollow posts at a distance from one another, wherein the distance is at least equal to the length of a panel;
- b) arranging n th mounting brackets through the mutually opposing openings or slots in an n th vertically erected hollow post;
- c) fixing an n th panel to the n th mounting brackets arranged through the n th vertically erected hollow post;
- d) arranging the $(n+1)$ th mounting brackets through the mutually opposing openings or slots in an $(n+1)$ th vertically erected hollow post;
- e) connecting the n th panel to the $(n+1)$ th mounting brackets through the mutually opposing openings or slots in an $(n+1)$ th vertically erected hollow post;
- f) repeating steps c) to e) for the other panels.

[0019] The invention provides a method for producing a fence, preferably a fence according to an embodiment described herein, comprising hollow posts and panels, wherein each hollow post is provided with mutually opposing openings or slots; the method comprising the steps of:

- a) vertically erecting hollow posts at a distance from one another, wherein the distance is at least equal to the length of a panel;

b) mounting n th mounting brackets on a first side of an n th panel;

c) arranging the mounting brackets mounted on the n th panel through the mutually opposing openings or slots in an n th vertically erected hollow post;

d) mounting $(n+1)$ th mounting brackets on a first side of an $(n+1)$ th panel;

e) arranging the $(n+1)$ th mounted mounting brackets through the mutually opposing openings or slots in an $(n+1)$ th vertically erected hollow post;

f) mounting the n th panel on the $(n+1)$ th mounted mounting brackets which are arranged through the $(n+1)$ th vertically erected hollow post;

g) repeating steps d) to f) for the other panels.

BRIEF DESCRIPTION OF THE FIGURES

[0020] In order to better present the features, structures or characteristics of the present invention, the appended figures show, without restrictive character, some preferred embodiments of the present invention. The following description of these appended figures is purely explanatory in nature and is not intended to restrict the present material, its application and/or use. The numbering used in the appended figures serves for easier identification of specific elements, without restricting the elements shown and/or embodiments of the present invention thereto.

Figure 1 shows a fence (1) according to an embodiment of the invention.

Figure 2 shows a cross-section through a hollow post (2) of a fence (1) according to two embodiments of the invention at the level of the mounting brackets (4).

[0021] An expert will understand that different combinations can be produced between the examples presented in order thus to obtain an embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0022] Before the aspects and embodiments of the present invention are described, it must be understood that this invention is not restricted to specific fences, kits, methods and/or combinations as described herein, since such aspects and embodiments may naturally vary. It should also be clear that specific aspects and embodiments described herein are not intended to be restrictive, since the scope of the present invention is determined solely by the appended claims. Reference signs in the present description and in the appended claims are also not restrictive for the scope of the present invention.

[0023] The terms "comprise", "comprises", "comprising" as used below are synonymous with "inclusive", "include", "including", or "contain", "contains", "containing", and are inclusive or open and do not exclude additional unnamed parts, elements, components and/or method

steps. Where reference is made to specific parts, elements, components and/or method steps in a specific embodiment of the present invention, the possible presence of other parts, elements, components and/or method steps is not excluded.

[0024] The singular forms "a" and "the" comprise both the singular and the plural unless the context clearly indicates otherwise.

[0025] Sequential terms such as "first", "second", "third" etc. are used in the present description and in the appended claims to distinguish between comparable elements, and not necessarily to describe a sequential or chronological order unless clearly indicated to the contrary. It is clear that these terms are interchangeable under the correct circumstances and that the embodiments of the invention described in this application are able to function in orders other than that described or explained in this application. The term "approximate" in the present description and in the appended claims is used to offer flexibility to a numerical range by determining that a specific value may lie "a bit above" or "a bit below" a stated value or numerical range. For example, if reference is made to a measurable value such as a parameter, a quantity, a time duration etc., it is intended to include variations of $\pm 10\%$ or less, preferably $\pm 5\%$ or less, more preferably $\pm 1\%$ or less, and even more preferably $\pm 0.1\%$ or less, of and from the specified value, insofar as these variations are able to function in the invention described herein. It should be understood that the value to which the term "approximate" refers is also disclosed in itself. The listing and/or summary of numerical values using a digit range includes all numbers and fractions which fall within the associated ranges, including the specified end points.

[0026] The terms "substantially", "mainly" or "roughly" refer to the complete or almost complete scope or degree of an action, feature, property, state, structure, object and/or result. For example, an object which is "mainly" enclosed means for example that the object is completely or almost completely enclosed. For example, an object which stands "roughly" perpendicularly means for example that the object stands completely or almost completely perpendicularly to a reference plane. The exact permissible extent of deviation from absolute completeness may in some cases depend on the specific context. In general however, the extent of fulfilment is such that the general result is the same as with absolute and total fulfilment. The use of "mainly" is equally applicable if used in a negative connotation to refer to the complete or almost complete absence of an action, feature, property, state, structure, object or result. For example, a composition which is "roughly free" from particles may be completely free from particles or almost free from particles, such that the effect would be the same as if the composition were completely free from particles. In other words, a composition which is "roughly free from" an ingredient or element may still contain such an ingredient or element if there is no measurable effect thereof. Relative terms

such as "left", "right", "in front of", "behind", "above", "below" etc. are used in the present description and in the appended claims for descriptive purposes and not necessarily to describe permanent positions or orientations, depending on the context in which these terms are used. It is understood that the terms used may, under suitable circumstances, be mutually interchangeable, so that the embodiments described herein may for example also be used in positions or orientations other than those shown. The terms "adjacent to", "next to" or "against" one another are used in the present description and in the appended claims for descriptive purposes and not necessarily to describe permanent positions, depending on the context in which these terms are used. For example, objects which are described as "adjacent to" each other may be in physical contact with each other, or in each other's immediate vicinity, or in the same general region or area, depending on the context in which the term is used.

[0027] In the following passages, various aspects of the invention are defined in more detail. Each aspect so defined may be combined with another aspect or aspects unless the contrary is clearly indicated. In particular, a feature described as "preferred" or "advantageous" may be combined with other features or properties which are described as "preferred" and/or "advantageous". A reference in this description to "one embodiment" or "an embodiment" means that a particular function, structure or characteristic described in connection with the embodiment is applicable in at least one embodiment of the present invention. Where the phrases "in one embodiment" or "an embodiment" appear at different points in this specification, they do not necessarily refer to the same embodiment, although this is not excluded. Also, the described features, structures or characteristics may be combined in any suitable fashion, as will be clear to the person skilled in the art on the basis of this description. The embodiments described and claimed in the claims may be used in any combination.

[0028] In the present description, reference is made to the appended drawings which form part thereof and which illustrate specific embodiments of the invention. References in brackets or in bold linked to specific elements illustrate the elements concerned as examples, without thereby restricting the elements. It must be understood that other embodiments may be used, and structural or logical changes may be made, without leaving the scope of the present invention. The following detailed description should not be regarded as restrictive, and the scope of the present invention is defined by the appended claims. Unless defined otherwise, all terms as used in the present description and in the appended claims, including technical and scientific terms, have the meaning usually understood by the person skilled in the art. As a further guidance, definitions are included for further explanation of terms which are used in the description of the invention. All documents which are mentioned in the present description are hereby included as a whole by reference.

[0029] The term "fence" as used herein should be understood as a structure of successively vertically erected posts on or between which a structure is arranged which prevents or hinders free passage between two successive posts. Preferably, the structures which are arranged between or on the posts are panels. The term "panel mounted between posts" as used herein means that in the length direction of the fence there is no overlap between the posts and the panel. The panel fits completely between two successive posts. The distance between two successive posts is equal to or preferably greater than the length of the panel.

[0030] The term "hollow post" as used herein should be understood as a post which has an internal cavity, preferably a cavity over the entire length of the post. At the ends of the post, the cavity may be in contact with the environment or the cavity may be closed by a stop and/or a plug.

[0031] The term "successive panels" as used herein should be understood as panels which follow one another in the length direction of the fence. Accordingly, successive panels are connected to a common post. Successive panels are panels on either side of one post.

[0032] The term "slot" as used herein should be understood as an opening in the material forming the hollow post, so that an object can be pushed through the opening into the cavity of the hollow post. The form of the slot may be round, oval, elongate, rectangular or square, preferably a slot is rectangular, possibly with rounded corners.

[0033] In a first aspect, the invention provides a fence comprising

- a repetition of hollow posts, wherein each of the hollow posts is erected vertically; and
- panels, wherein each of the panels is mounted between two successive hollow posts; and wherein panels are mounted on the hollow posts with at least one mounting bracket, preferably at least two mounting brackets;

wherein

the mounting bracket is provided through the hollow post; or
the mounting bracket engages in the cavity of the hollow post;
and wherein two successive panels are connected together with at least one mounting bracket.

[0034] Such a fence has the advantage that the panels are fixed between the posts, so that there is no overlap between the posts and the panels. The panels are also partly not provided in the hollow post. This has the advantage that the length of the panels can be optimally used. The mounting brackets are either arranged through the post or they engage in the cavity of the post, which makes it more difficult to remove the mounting brackets after erecting the fence. The part of the mounting bracket

ets situated in the post is difficult to reach, so a burglar cannot force this to prise a panel free. Furthermore, preferably no bolts or screws are required to connect the mounting bracket to the post, which again reduces the possibility of malicious attempts to break down the fence. Because the mounting brackets are placed through the cavity or in the cavity of the hollow posts, these are rigidly mounted in the hollow post.

[0035] All this benefits the anti-burglary properties of the fence. Because the fence has the panels erected between the posts, a symmetrical fence may be created which is symmetrical with respect to the length direction of the fence. Because the panels are mounted between the posts and not over a surface of the post, the angles between successive panels may differ from 90° or 180°. As a result, successive panels may be erected with both acute and obtuse angles relative to one another.

[0036] In one embodiment, the fence comprises

- a repetition of hollow posts, wherein each of the hollow posts is erected vertically; and
- panels, wherein each of the panels is mounted between two successive hollow posts; and wherein two successive panels are connected together with at least one mounting bracket;

wherein

the mounting bracket is provided through the hollow post.

[0037] In one embodiment, the mounting brackets are provided through openings or slots in the posts. This ensures that only holes or slots need be provided to accommodate the mounting brackets, whereby the mechanical integrity of the posts is retained as far as possible. Preferably, the mounting bracket has two ends, wherein a panel can be mounted at each end, and the two ends of the mounting bracket are connected together by a part which may extend through the post.

[0038] In one embodiment, successive panels are connected together by at least one mounting bracket, preferably said mounting bracket passes through the hollow post, preferably said mounting bracket passes through mutually opposing openings, holes or slots in the hollow post.

[0039] In an embodiment, the hollow posts have a rectangular or square cross-section. This has the advantage that the posts are stiffer and less easy to bend. An additional advantage is that such posts are easier to stack and transport than for example round posts or posts with an irregular cross-section.

[0040] In an embodiment, the panels are solid panels, perforated panels, transparent panels, semi-transparent panels or wire panels, preferably wire panels. Above all, wire panels have the advantage that the openings between the wires can be used for attaching the panels, since either the mounting bracket or the connecting element can be arranged through the openings. This again simplifies installation of the fence since no extra holes need be made in the panels. For example, by cutting a

number of rows of wires of the wire panels, the length of the panels can easily be adapted so that the fence can be adapted to the local situation.

[0041] In one embodiment, the mounting bracket comprises a first mounting element and a second mounting element which are connected together via at least one, preferably at least two connecting elements, wherein each connecting element is arranged through a panel, preferably through successive panels. Preferably, a panel is arranged between the first mounting element and the second mounting element, after which the first mounting element and second mounting element are connected together in the overlapping part of the panel, via a connecting element which passes through an opening in the panel. Preferably, said opening is a mesh opening in the wire panel. By choosing relatively different mesh openings for two successive panels through which the connecting elements are arranged, two successive panels can be mounted at a different height relative to one another. In this way, height differences in the terrain can be followed during erection of the fence. Preferably, the first mounting element and the second mounting element can be pushed partly through a slot or opening in the hollow post, so that parts which must attach the connecting element remain outside the hollow post. By connecting the connecting element of the first mounting element to the second mounting element, the mounting elements which form the mounting bracket are blocked from being pushed back out of the hollow post. For mounting brackets which are provided completely through the hollow post, at least two connecting elements are necessary to block these, preferably a connecting element on both sides of the hollow post. For mounting brackets which engage in the cavity of the hollow post, at least one connecting element is necessary for blocking these.

[0042] In one embodiment, the mounting brackets which engage in the cavity of the hollow post comprise a first hook-like mounting element and a second hook-like mounting element, wherein the first mounting element and the second mounting element are connected together by at least one connecting element, wherein the connecting element is arranged through a panel. Preferably, the hook-like mounting elements comprise a first leg and a second leg at an angle to one another, wherein the first leg is intended to be arranged in the cavity of the hollow post and wherein the second leg is intended to extend outside the post, partly along the panel. When the second leg of the first hook-like mounting element and the second leg of the second hook-like mounting element are connected together by a connecting element through the panel, it is impossible for the first legs of the mounting elements, which stand at an angle in the cavity of the post, to come out of the post. Such mounting elements may be used for example to attach an end panel of the fence to an end hollow post. In this way, the end post may for example be placed flat against a wall, at right angles to the fence. In an embodiment, the angle between the first leg and the second leg is at least 0° to

maximum 180°, preferably at least 15° to maximum 165°, preferably at least 30° to maximum 150°, preferably at least 45° to 135°, preferably at least 65° to maximum 115°, preferably at least 75° to maximum 105°, preferably at least 85° to maximum 95°, preferably 90°. In one embodiment, the second leg is wider than the first leg. In one embodiment, the cross-section of the second leg is larger than the cross-section of the first leg. In one embodiment, the cross-section of the second leg is larger than the slot. In this way, only the first leg can be introduced through the slot, which simplifies installation.

[0043] In one embodiment, connecting elements are arranged through a mesh opening in the wire panel. This has the advantage that no extra holes need be provided in the panel. Preferably, a connecting element is passed through a mesh opening in the wire panel, wherein the mesh opening is provided along the edge of the panel. This has the advantage that only one wire, namely the outermost wire, is provided between the mounting elements so that the panel can rotate around this outermost wire. Consequently, the panel can be erected at an angle relative to the post or relative to the preceding panel, wherein the angle deviates from 90° or 180°.

[0044] In one embodiment, the first mounting element is arranged through a first pair of mutually opposing slots arranged in the hollow post, and the second mounting element is arranged through a second pair of mutually opposing slots arranged in the hollow post.

[0045] The term "mutually opposing slots" as used herein refers to slots which are arranged in mutually opposing faces of the hollow post, or slots which are arranged diametrically opposite one another if the post is round. The term preferably refers to a symmetry relative to a mirror-image plane which coincides with the centre line of the post in the length direction of the post, and preferably runs parallel to the plane in which mutually opposing slots are provided. Preferably, the opposing slots are diametrically opposing slots.

[0046] In an embodiment, the slots of the first pair of mutually opposing slots are arranged parallel relative to the slots of the second pair of mutually opposing slots. In this way, the first mounting element and the second mounting element lie next to one another, preferably on either side of a panel to be attached.

[0047] In an embodiment, the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged symmetrically with respect to the centre line in the length direction of the hollow post, preferably relative to a mirror-image plane in the length direction of the hollow post, preferably with respect to two mirror-image planes in the length direction of the hollow post which stand at right angles to one another, preferably with respect to a mirror-image plane at right angles to the surfaces in which the slots are made through the centre line of the hollow post. This ensures that the panels can be mounted so that a symmetrical erection is obtained relative to the length direction of the fence. This makes it possible for the front of

the fence and the back of the fence to be aesthetically the same.

[0048] In an embodiment, the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged in the length direction of the hollow post. Thus the first mounting element and the second mounting elements stand vertically when they are arranged in the slots. The first mounting element and the second mounting element can then extend vertically on both sides of the panel to be attached.

[0049] In an embodiment, the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged parallel to one another with a mutual distance which is at least equal to the thickness of the panel. This allows the panel to be provided between the first mounting element and the second mounting element.

[0050] In an embodiment, the slots are provided in two adjacent edges of the square post and not in opposite sides. In this way, the fence can be erected at an angle of 90°, preferably by using the mounting brackets which engage in the hollow post.

[0051] In one embodiment, the mounting elements are longer than the thickness of the hollow post. In this way, the ends of the mounting elements protrude from the post and the protruding ends can be used for mounting a panel between the posts.

[0052] In an embodiment, the wire panel is constructed from a layered structure comprising a first layer of transverse wires, a layer of longitudinal wires, and a second layer of transverse wires. This ensures that the wire panel is symmetrical, preferably in the sense that the front is aesthetically the same as the back. In an embodiment, the wire panel is constructed from parallel folded longitudinal wires which are connected together with parallel transverse wires, wherein the folds of the longitudinal wires stand squarely to the plane formed by the parallel transverse wires. Consequently, the wire panel has a three-dimensional structure.

[0053] In an embodiment, the connecting element comprises a screw and a nut, preferably safety screws are used, which preferably benefits the protection against break-in.

[0054] In an embodiment, a top tube is provided which connects two successive posts and extends over the panel.

[0055] In an embodiment, an edging stone, preferably a concrete panel, is provided between two successive hollow posts. Certainly if the fence is constructed symmetrically, this has the advantage that the fence can be mounted above the edging stone and not at the front or back, as is the case if the panels are attached to the front or back of the posts.

[0056] In an embodiment, the hollow posts are folded from a sheet metal material, preferably wherein the slots, holes or openings are provided in the sheet metal material before folding. Preferably, the slots, holes or openings are punched into the sheet metal material. Punching is

a simpler and/or faster production process than milling, which is necessary for more complex forms.

[0057] In one embodiment, the posts are coated, preferably after creating the slots, holes or openings, preferably the inside of the panel is partly coated around the slots.

[0058] In an embodiment, the first mounting element and the second mounting element are flat. Preferably, the first mounting element and the second mounting element are flat and rectangular. In this way, they can easily be arranged through the slots. Preferably, the first mounting element and the second mounting element are produced flat from a sheet metal material.

[0059] In an embodiment, both the posts, the panels and the mounting brackets consist of steel, preferably S250 steel. This benefits the rigidity of the fence.

[0060] The invention furthermore provides a kit for producing a fence, comprising

- hollow posts, wherein each hollow post is provided with mutually opposing openings or slots;
- panels suitable for mounting between two hollow posts;
- mounting brackets suitable for mounting the panels on the hollow posts, preferably suitable for connecting two panels together;

wherein

- the mounting brackets can be provided through mutually opposing openings or slots; or
- can be engaged in the cavity of the hollow post, preferably through an opening or slot.

[0061] In an embodiment, the kit comprises:

- hollow posts, wherein each hollow post is provided with mutually opposing openings or slots;
- panels suitable for mounting between two hollow posts;
- mounting brackets suitable for connecting two panels together;

wherein the mounting brackets may be arranged through mutually opposing openings or slots.

[0062] In an embodiment, the kit is suitable for producing a fence according to an embodiment described herein. The invention provides a method for producing a fence, preferably a fence according to an embodiment described herein, comprising hollow posts and panels, wherein each hollow post is provided with mutually opposing openings or slots; the method comprising the steps of:

- a) vertically erecting hollow posts at a distance from one another, wherein the distance is at least equal to the length of a panel;
- b) arranging nth mounting brackets through mutually

opposing openings or slots in an nth vertically erected hollow post;

c) fixing an nth panel to the nth mounting brackets arranged through the nth vertically erected hollow post;

d) arranging the (nth+1) mounting brackets through the mutually opposing openings or slots in an (nth+1) vertically erected hollow post;

e) connecting the nth panel to the (nth+1) mounting brackets through the mutually opposing openings or slots in an (nth+1) vertically erected hollow post;

f) repeating steps c) to e) for the other panels.

[0063] The invention provides a method for producing a fence, preferably a fence according to an embodiment described herein, comprising hollow posts and panels, wherein each hollow post is provided with mutually opposing openings or slots; the method comprising the steps of:

a) vertically erecting hollow posts at a distance from one another, wherein the distance is at least equal to the length of a panel;

b) mounting nth mounting brackets on a first side of an nth panel;

c) arranging the mounting brackets mounted on the nth panel through the mutually opposing openings or slots in an nth vertically erected hollow post;

d) mounting the (nth+1) mounting brackets on a first side of an (nth+1) panel;

e) arranging the (nth+1) mounted mounting bracket through the mutually opposing openings or slots in an (nth+1) vertically erected hollow post;

f) mounting the nth panel on the (nth+1) mounted mounting brackets which are arranged through the (nth+1) vertically erected hollow post;

g) repeating steps d) to f) for the other panels.

[0064] In an embodiment of the methods described herein, the mounting brackets are arranged through mutually opposing openings or slots by a pushing movement. Preferably, no irreversible connection is formed between the posts and the mounting brackets, or between the mounting brackets and the panels. Thus the fence can be dismantled again without damage and the fence is reusable.

EXAMPLES

[0065] Figure 1 shows a fence (1) according to an embodiment of the invention. The fence (1) comprises panels (3) which are mounted between successive hollow posts (2) by mounting brackets (4) which are provided through the hollow post (2). The panels (3) are wire panels constructed from transverse wires (11) and longitudinal wires (11). The mounting brackets (4) secure the panels (3) through mesh openings at the edge of the panel, with the outermost transverse wires (9).

[0066] Figure 2 shows a cross-section of a hollow post (2) of a fence (1) according to an embodiment of the invention at the level of the mounting brackets (4). Figure 2A shows a cross-section of the square hollow post (2), while Figure 2B shows a cross-section through a round hollow post (2). The mounting bracket (4) comprises a first mounting element (5) and a second mounting element (6) which extend in parallel through the hollow post (2) and the cavity (8) of the hollow post (2). The first mounting element (5) and the second mounting element (6) are connected together on either side of the hollow post (2) by a connecting element (7) which is arranged through mesh openings at the edge of successive panels (3), whereby the outermost transverse wire (9) of a panel (3) lies between the mounting elements (5, 6).

Claims

1. Fence (1), comprising:

- a repetition of hollow posts (2), wherein each of the hollow posts (2) is erected vertically; and
- panels (3), wherein each of the panels (3) is mounted between two successive hollow posts (2); and wherein panels (3) are mounted on the hollow posts with at least one mounting bracket (4);

characterized in that

- the mounting bracket (4) is provided through the hollow post (2); or
- the mounting bracket (4) engages in the cavity (8) of the hollow post (2);
- and wherein successive panels (3) are connected together with at least one mounting bracket (4).

2. Fence (1) according to Claim 1, wherein the hollow posts (2) have a rectangular or square cross-section.

3. Fence (1) according to Claim 1 or 2, wherein the panels (3) are wire panels.

4. Fence (1) according to at least one of Claims 1 to 3, wherein the mounting bracket (4) comprises a first mounting element (5) and a second mounting element (6) which are connected together via at least one, preferably at least two connecting elements (7), wherein each connecting element (7) is arranged through a panel (3), preferably through successive panels (3).

5. Fence (1) according to at least one of Claims 1 to 3, wherein the first mounting element (5) is arranged through a first pair of mutually opposing slots arranged in the hollow post (2); and wherein the second mounting element (6) is arranged through a second pair of mutually opposing slots arranged in the hollow

post (2).

6. Fence (1) according to Claim 5, wherein the slots of the first pair of mutually opposing slots are arranged parallel to the slots of the second pair of mutually opposing slots. 5
7. Fence (1) according to Claim 5 or 6, wherein the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged symmetrically with respect to the centre line in the length direction of the hollow post (2). 10
8. Fence (1) according to at least one of Claims 5 to 6, wherein the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged in the length direction of the hollow post (2). 15
9. Fence (1) according to at least one of Claims 5 to 8, wherein the slots of the first pair of mutually opposing slots and the slots of the second pair of mutually opposing slots are arranged parallel to one another with a mutual distance which is at least equal to the thickness of the panel (3). 20
10. Fence (1) according to at least one of Claims 4 to 9, wherein the mounting elements (5, 6) are longer than the thickness of the hollow post (2). 25
11. Fence (1) according to at least one of Claims 3 to 10, wherein the wire panel (3) is constructed from: 30
 - a layered structure comprising a first layer of transverse wires (11), a layer of longitudinal wires (10), and a second layer of transverse wires (11); or 35
 - parallel folded longitudinal wires (11) which are connected together with parallel transverse wires (10), wherein the folds of the longitudinal wires (11) stand squarely to the plane formed by the parallel transverse wires (10). 40
12. Kit for producing a fence (1), comprising 45
 - hollow posts (2), wherein each hollow post (2) is provided with mutually opposing openings or slots;
 - panels (3) suitable for mounting between two hollow posts (2); 50
 - mounting brackets (4) suitable for mounting the panels (3) on the hollow posts (2) and suitable for connecting two panels (3) together;

characterized in that

the mounting brackets (4) can be provided 55 through mutually opposing openings or slots; or can be engaged in the cavity (8) of the hollow post (2).

13. Method for producing a fence (1), preferably according to at least one of Claims 1 to 11, comprising hollow posts (2) and panels (3), wherein each hollow post (2) is provided with mutually opposing openings or slots; the method comprising the steps of:

- a) vertically erecting hollow posts (2) at a distance from one another, wherein the distance is at least equal to the length of a panel (3);
- b) arranging nth mounting brackets (4) through mutually opposing openings or slots in an nth vertically erected hollow post (2);
- c) fixing an nth panel (3) to the nth mounting brackets arranged through the nth vertically erected hollow post (2);
- d) arranging the (nth+1) mounting brackets (4) through the mutually opposing openings or slots in an (nth+1) vertically erected hollow post (2);
- e) connecting the nth panel (3) to the (nth+1) mounting brackets (4) through the mutually opposing openings or slots in an (nth+1) vertically erected hollow post (2);
- f) repeating steps c) to e) for the other panels (3).

14. Method for producing a fence (1), preferably according to at least one of Claims 1 to 12, comprising hollow posts (2) and panels (3), wherein each hollow post (2) is provided with mutually opposing openings or slots; the method comprising the steps of:

- a) vertically erecting hollow posts (2) at a distance from one another, wherein the distance is at least equal to the length of a panel (3);
- b) mounting nth mounting brackets (4) on a first side of an nth panel (3);
- c) arranging the mounting brackets (4) mounted on the nth panel through the mutually opposing openings or slots in an nth vertically erected hollow post (2);
- d) mounting the (nth+1) mounting brackets (4) on a first side of an (nth+1) panel (3);
- e) arranging the (nth+1) mounted mounting bracket (4) through the mutually opposing openings or slots in an (nth+1) vertically erected hollow post (2);
- f) mounting the nth panel (3) on the (nth+1) mounted mounting brackets (4) which are arranged through the (nth+1) vertically erected hollow post (2);
- g) repeating steps d) to f) for the other panels (3).

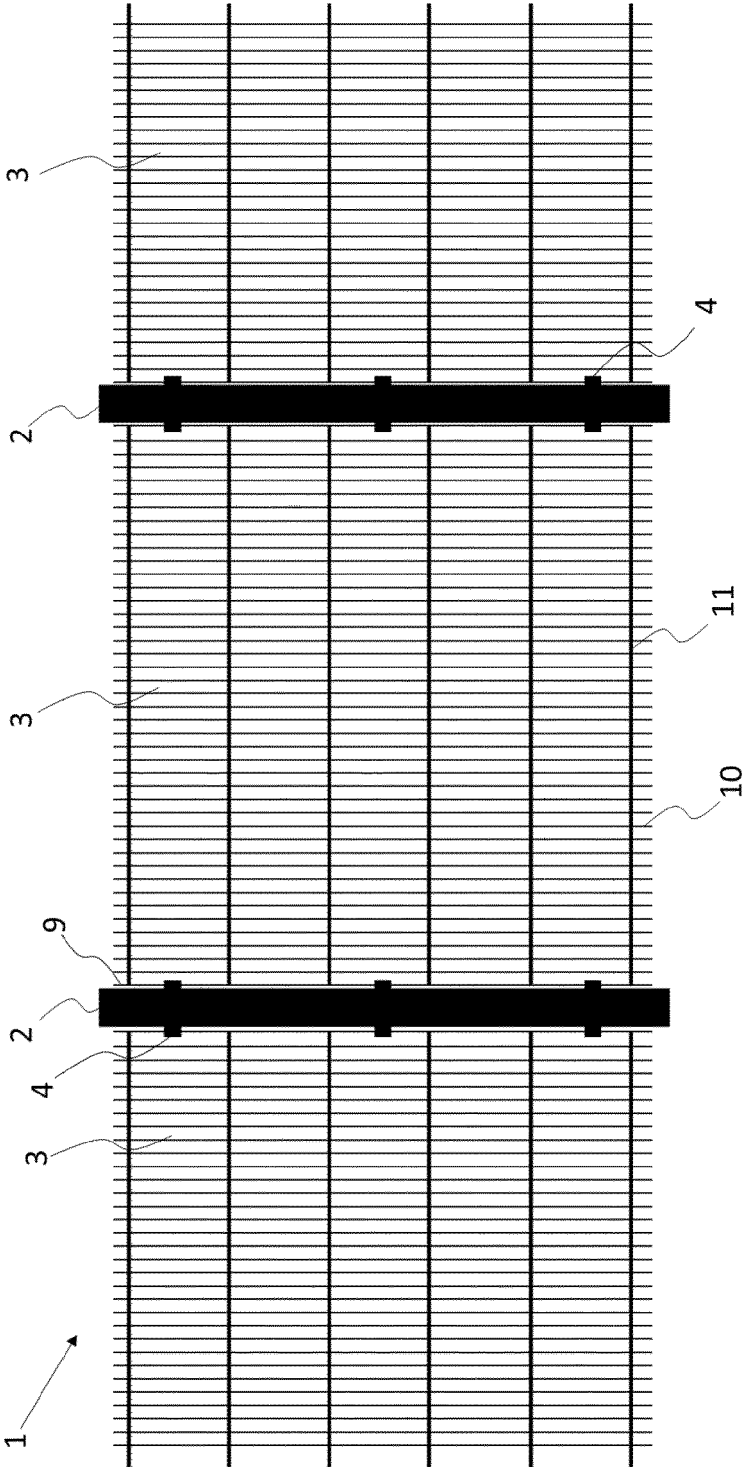


Fig. 1

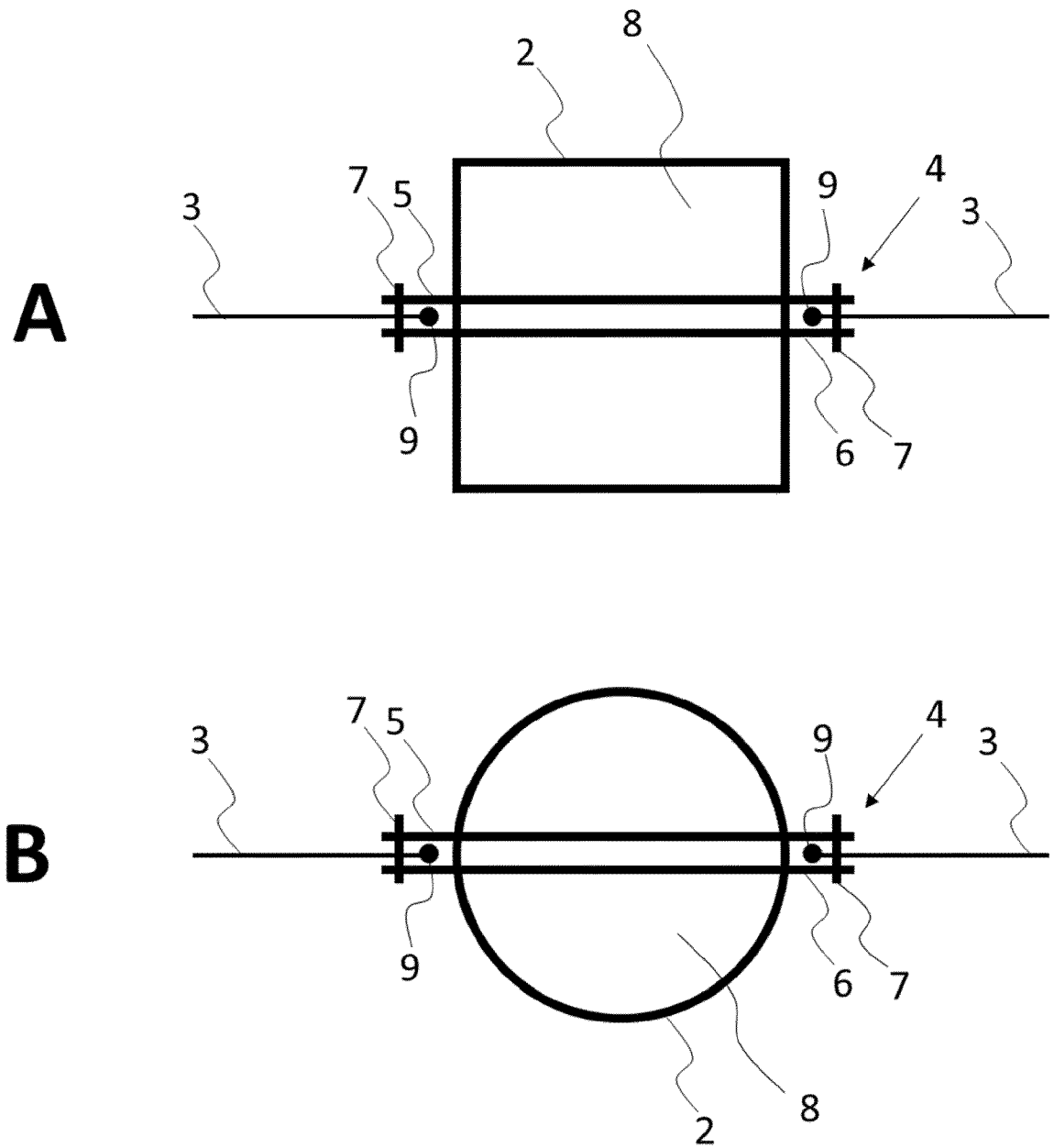


Fig. 2



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Application Number

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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 16 March 2023	Examiner Schnedler, Marlon
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	

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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