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(71) Applicant: **SGB Services Limited**
Leatherhead, Surrey KT22 7SG (GB)

(72) Inventor: **Taylor, Mark J.**
Brighton East Sussex BN1 5FF (GB)

(74) Representative: **Parry, Simon James et al**
Forrester & Boehmert,
Pettenkoferstrasse 20-22
80336 München (DE)

(54) Improvements in or relating to a scaffolding post

(57) A scaffolding post is disclosed for use in supporting a safety barrier. The scaffolding post comprises a retaining member which is slidably movable along the post between a retaining position and a release position. The retaining member is configured so as to engage part of a safety barrier when located in its retaining position in order to prevent substantial movement of the safety barrier away from the post.

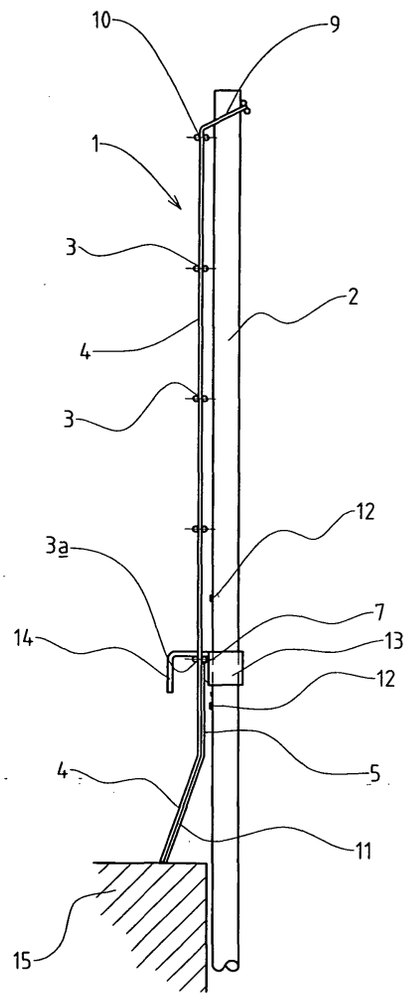

FIG 3

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Description

[0001] THE PRESENT INVENTION relates to a scaffolding post, and more particularly relates to a scaffolding post for use in supporting a safety barrier. The present invention also relates to a connection between a scaffolding post and a safety barrier.

[0002] It is known in the field of construction, to provide temporary safety barriers at least partially around construction sites. The purpose of such temporary safety barriers is often two-fold. Firstly, the barriers, when provided at ground level, can define an outer perimeter to a construction site, thereby providing safety to members of the public such as passers-by, by preventing unauthorised access to the construction site. However, it is also important to provide temporary safety barriers around the sites of construction work occurring above ground level, for example around the first or higher floors of a multi-storey building under construction. In such an application, the temporary safety barriers clearly serve to prevent construction workers and/or tools and the like from falling down from the construction area towards the ground, thereby preventing serious injury both to the construction workers working above ground level and to passers-by.

[0003] It is known to provide temporary safety barriers in the form of generally rectangular and elongate mesh panels which are supported between substantially vertically-extending scaffolding posts. This type of temporary safety barrier system is sometimes known as an "edge-protection system". As will be appreciated, it is advantageous to be able to provide quick and simple form of connection between each scaffolding post of this type of edge-protection system, with part of an adjacent mesh panel, in order to provide sufficient support to the mesh panel to prevent it falling over or being blown over by wind.

[0004] It is therefore an object of the present invention to provide an improved scaffolding post for use in supporting a safety barrier, and also to provide an improved connection between a scaffolding post and a safety barrier.

[0005] Accordingly, the present invention provides:-

> a scaffolding post for use in supporting a safety barrier, the scaffolding post comprising a retaining member slidably moveable along the post between a retaining position and a release position, the retaining member being configured to engage part of a safety barrier when located in said retaining position so as to prevent substantial movement of the safety barrier away from the post, wherein the uppermost edge of said safety barrier is provided with an outwardly directed flange, said flange having an aperture which receives part of said post therethrough.

[0006] Preferably, said retaining member comprises a bracket to engage said part of the safety barrier.

[0007] Advantageously, said retaining member comprises a collar slidably received over part of said scaffolding post.

[0008] Conveniently, the scaffolding post has a pair of projections provided at positions spaced apart from one another along the longitudinal axis of the post, each projection being configured to engage part of the retaining member to limit movement of the retaining member along the post.

[0009] According to another aspect of the present invention, there is provided a connection between a scaffolding post of the type defined above and a safety barrier, the safety barrier comprising a longitudinal toe-board oriented substantially orthogonal to the post, and wherein said retaining member engages the safety barrier in the region of the upper edge of the toe-board when the retaining member is located in said retaining position.

[0010] Advantageously, said safety barrier comprises a mesh panel.

[0011] Conveniently, said flange is formed as a folded over part of the mesh panel.

[0012] So that the invention may be more readily understood, and so that further features thereof may be appreciated, an embodiment of the present invention may now be described, by way of example, with reference to the accompanying drawings, in which :-

> FIGURE 1 is a front elevational view of a safety barrier and a scaffolding post in accordance with the present invention;
> FIGURE 2 is an enlarged view of the safety barrier and scaffolding post illustrated in Figure 1, showing in more detail the connection between the scaffolding post and the safety barrier; and
> FIGURE 3 is an end elevational view of the scaffolding post and the safety barrier illustrated in Figures 1 and 2, showing further details of the arrangement.

[0013] Referring initially to Figure 1, there is illustrated a safety barrier 1 being supported at one end by a scaffolding post 2. It should be appreciated that in practice, the safety barrier 1 will usually be supported by at least two scaffolding posts 2, so that a separate scaffolding post 2 is located at each end of the safety barrier 1.

[0014] It can been seen from Figure 1 that the safety barrier 1 has an elongate, generally rectangular form. The safety barrier 1 takes the form of mesh panel defined principally by a plurality of horizontal wires 3 which are intersected by and secured to a plurality of vertical wires 4.

[0015] Running along the lowermost edge of the safety barrier 1, there is provided an elongate toe-board 5 which is secured to the safety barrier 1 by a number of stitch welds 6. It will be seen that the uppermost edge 7 of the toe-board 5 is located so as to be substantially

adjacent one of the horizontal wires 3a. The toe-board 5 is intended to provide a solid barrier at the lowermost part of the safety barrier 1, thereby preventing tools or other equipment from falling through the apertures defined by the horizontal wires 3 and the vertical wires 4, in the lower region of the safety barrier 1. The outermost face of the toe-board 5 can carry indicia 8 such as, for example, advertising material or public information notices.

[0016] Turning briefly to consider Figure 3, it can be seen that the upper edge of the safety barrier 1 is folded over to define an outwardly and upwardly directed angled flange or "return" 9 which is oriented so as to make an acute angle to the plane of the safety barrier 1 in which the horizontal wires 3 and the vertical wires 4 lie. The top flange 9 is formed simply by bending each vertical wire 4, as indicated at 10.

[0017] The lower region of each vertical wire 4 is bent rearwardly, from a point spaced substantially half-way up the height of the toe-board 5, so as to extend downwardly, and rearwardly from the plane of the safety-barrier 1. The lower region 11 of toe-board 5 is also angled relative to the upper portion of the toe-board and the plane of the mesh barrier 1 so that the lower region 11 of the toe-board lies substantially against the rearwardly-bent regions of the vertical wires 4. It will therefore be seen that the lower region 11 of the toe-board extends rearwardly, in the opposite direction to the top flange 9.

[0018] The scaffolding post 2 preferably has a cylindrical configuration having a substantially uniform circular cross-section. It is envisaged that the scaffolding post 2 will usually be formed from a length of extruded steel, aluminium or other convenient metal.

[0019] The scaffolding post 2 is provided with a pair of vertically spaced-apart and aligned projections 12, each of which preferably takes the form of an outwardly-directed spigot or stud secured to the side-wall of the scaffolding post 2. Received over the scaffolding post 2, at a position between the two projections 12, is a slidable retaining member 13 which takes the form of a generally circular collar extending around the outer periphery of the scaffolding post 2 as a close sliding fit. The retaining member 13 is provided with an outwardly and downwardly-directed retaining bracket 14.

[0020] As illustrated most clearly in Figure 3, the safety barrier 1 and scaffolding post 2 can conveniently be provided to form a temporary safety barrier along the edge of a floor structure 15 which can, for example, form a first floor or higher floor of a building under construction. The scaffolding post 2 can be secured in position relative to the floor structure 15 by any convenient means (not illustrated) so as to extend substantially vertically upwardly from the edge region of the floor structure 15. The safety barrier 1 is then positioned adjacent the or each scaffolding post 2 so that the lower edge of the rearwardly extending part 11 of the toe-board 5 rests upon the uppermost surface of the floor structure 15 in the region of the edge of the floor structure 15. The safety barrier 1 is carefully lowered into the position illustrated in Figure 3 so that the uppermost end of the scaffolding post 2 is received through the aperture defined in the top flange 9 by adjacent vertical wires 3 and horizontal wires 4 defining the top flange 9. The top end of the scaffolding post 2 therefore provides support to the uppermost edge region of the safety barrier 1.

[0021] The retaining member 13 can therefore be manipulated by sliding it along the scaffolding post 2 between two extreme positions of movement defined by engagement between the two projections 12 and the retaining member 13, such that the bracket 14 extends between an pair of adjacent vertical wires 4 so as to extend over the horizontal wire 3a located adjacent the uppermost edge 7 of the toe-board 5. The retaining member 13 can thereafter be lowered or simply release such that it falls under gravity, so that the bracket 14 engages and rests upon the horizontal wire 3a running along the uppermost edge 7 of the toe-board 5. In this position, the bracket 14 extends adjacent the region of the uppermost edge 7 of the toe-board 5.

[0022] It will therefore be seen that the slidable retaining member 13 of the scaffolding post 2 and the top flange 9 of the safety barrier 1 provide two points of securement between the scaffolding post 2 and the safety barrier 1, thereby preventing movement of the safety barrier 1 away from the scaffolding post 2 such as, for example, under the action of wind or the like.

[0023] In the present specification "comprises" means "includes or consists of" and "comprising" means "including or consisting of'.

[0024] The features disclosed in the foregoing description, or the following claims, or the accompanying drawings, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, as appropriate, may, separately, or in any combination of such features, be utilised for realising the invention in diverse forms thereof.

Claims

1. A scaffolding post for use in supporting a safety barrier, the scaffolding post comprising a retaining member slidably moveable along the post between a retaining position and a release position, the retaining member being configured to engage part of a safety barrier when located in said retaining position so as to prevent substantial movement of the safety barrier away from the post.

2. A scaffolding post according to claim 1, wherein said retaining member comprises a bracket to engage said part of the safety barrier.

3. A scaffolding post according to any preceding claim, wherein said retaining member comprises a collar

slidably received over part of said scaffolding post.

4. A scaffolding post according to any preceding claim having a pair of projections provided at positions spaced apart from one another along the longitudinal axis of the post, each projection being configured to engage part of the retaining member to limit movement of the retaining member along the post.

5. A connection between a scaffolding post according to any preceding claim and a safety barrier, wherein the safety barrier comprises a longitudinal toe-board oriented substantially orthogonal to the post, and wherein said retaining member engages the safety barrier in the region of the upper edge of the toe-board when the retaining member is located in said retaining position.

6. A connection according to claim 5, wherein the uppermost edge of said safety barrier is provided with an outwardly directed flange, said flange having an aperture which receives part of said post therethrough.

7. A connection according to claim 5 or claim 6, wherein said safety barrier comprises a mesh panel.

8. A connection according to claim 7 as dependant upon claim 6, wherein said flange is formed as a folded over part of the mesh panel.

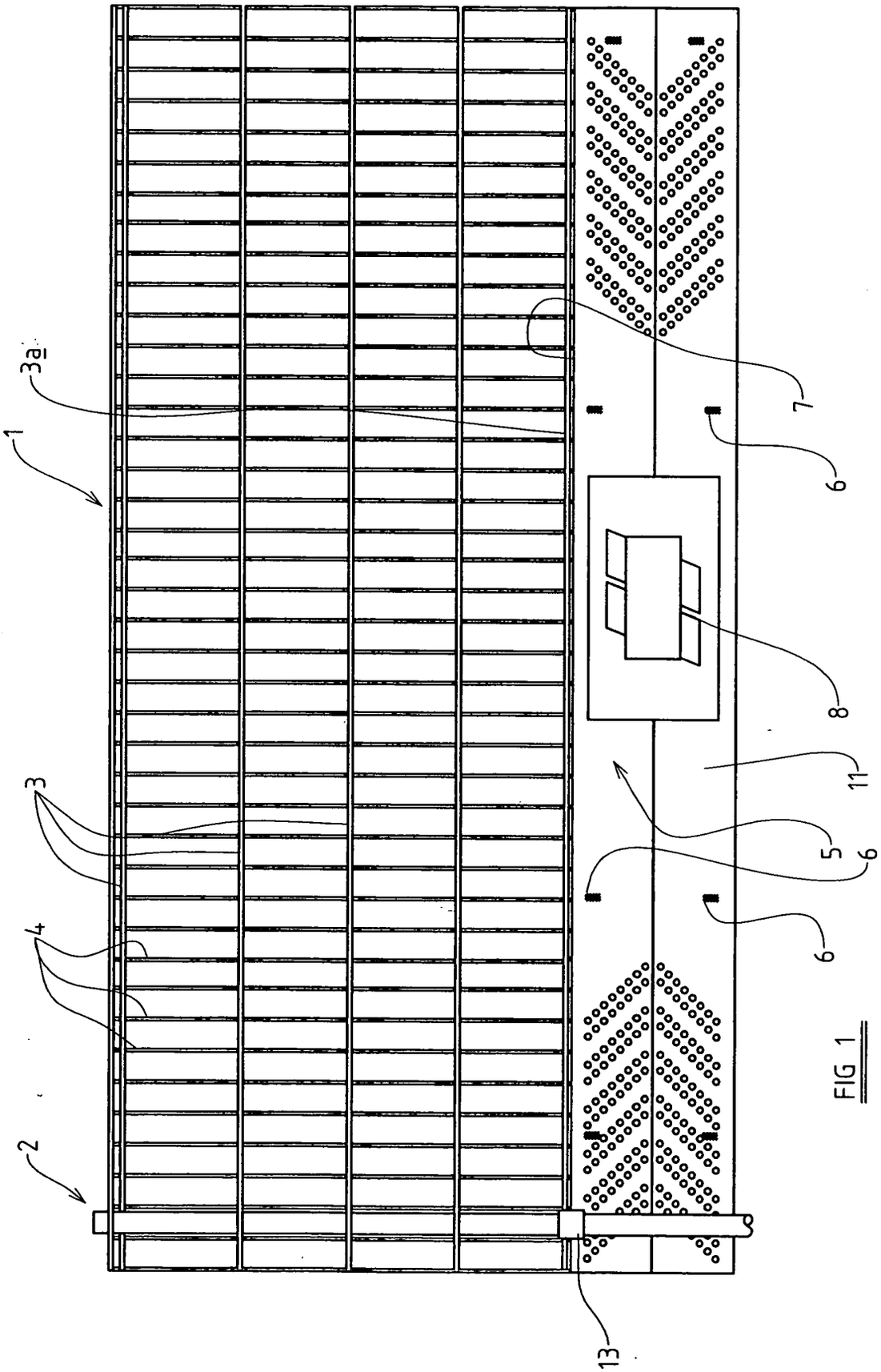

FIG 1

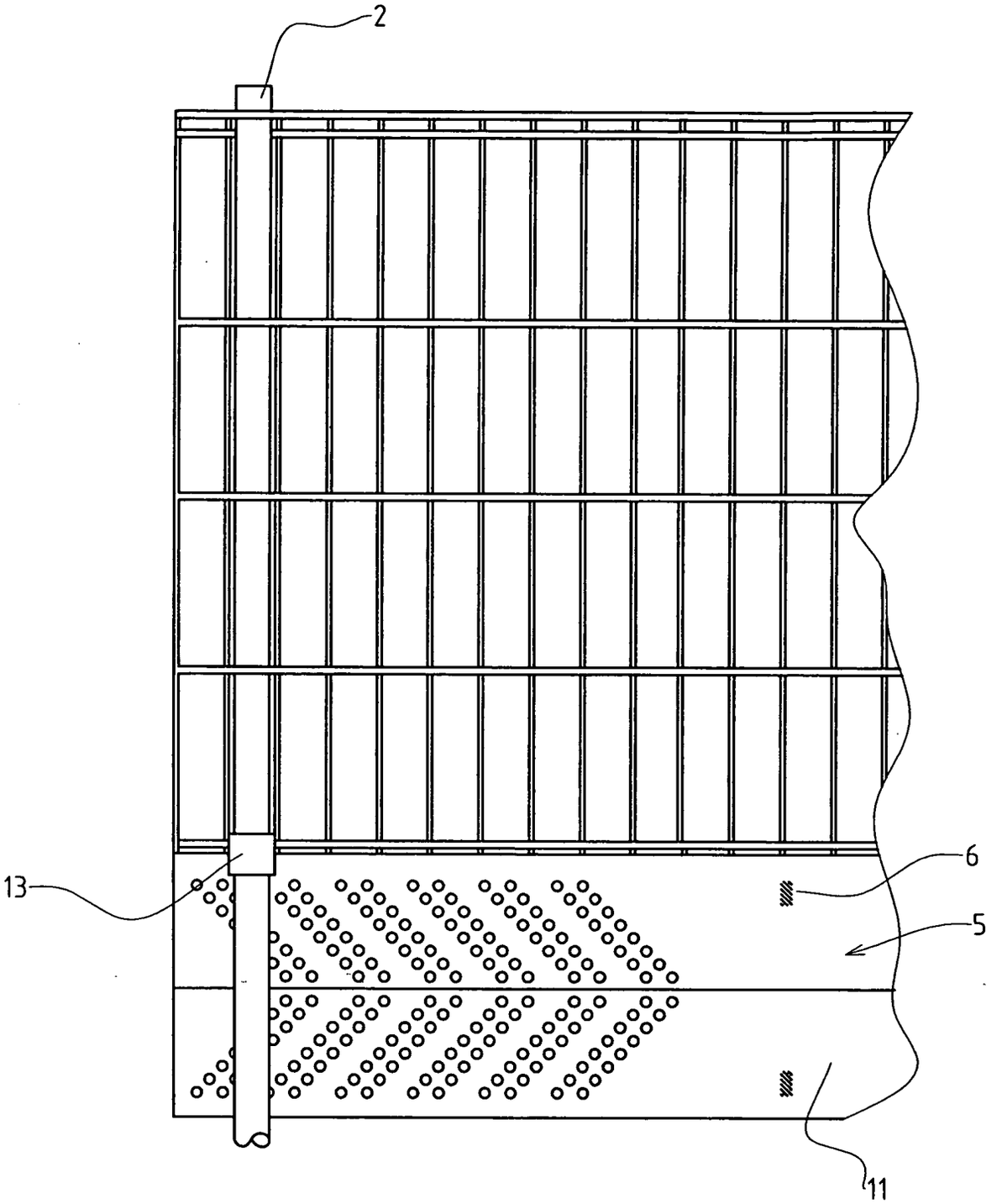

FIG 2

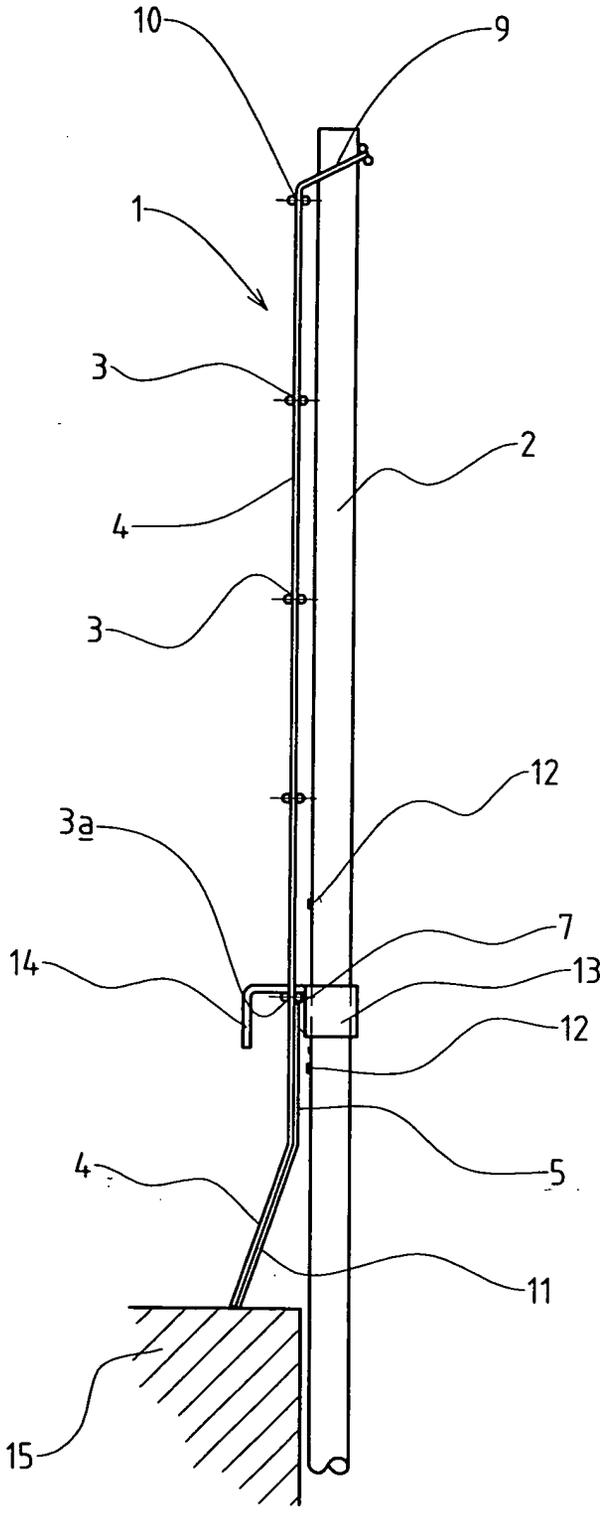

FIG 3