

⑫ **EUROPEAN PATENT APPLICATION**

⑲ Application number: **84830129.7**

⑥ Int. Cl.<sup>3</sup>: **E 04 C 2/34**

⑳ Date of filing: **26.04.84**

⑳ Priority: **09.06.83 IT 8339883**

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④ Date of publication of application: **19.12.84**  
Bulletin 84/51

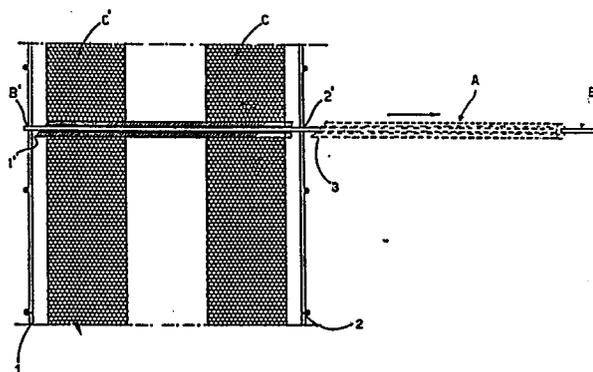
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⑧ Designated Contracting States: **AT BE CH DE FR GB LI LU NL SE**

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④ **Guideway device and method for guiding a connection steel-wire through a light panel structure enclosed between opposed steel-nets.**

⑦ A guideway device (A) is inserted through a first metallic net (2) into the light structure (C, C') without tearing same, separating elastically the fibers, for then stopping on the opposite net (1), letting the wire (B) to slide free in the interior thereof, finally positioning at (B') where it will be secured to said opposite nets (1', 2') wherein, when the guide device (A) will be retracted to starting position, the light structure fibers elastically separated during crossing will be released locking the wire and making same integral with the structure.  
Udine, June 5, 1984.



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Guideway device and method for guiding a connection steel-wire through a light panel structure enclosed between opposed steel-nets

5 The present invention relates to a guideway device and method for guiding a connection steel-wire through a light panel structure enclosed between opposed steel-nets.

The invention is particularly suitable for use in construction of prefabricated elements for building and especially for connecting  
10 a light material between two metallic nets in order to obtain a cage-shaped single structure. This type of cage provides in its interior a hollow space obtained by inserting rectangular or whatever-shaped light preformed or injected materials, hollow  
15 inside, in superimposed blocks, in order to obtain a continuous cavity for permitting, once installed e.g. for carrying out walls, concrete casting in their interior, thus obtaining a very safe connection, providing a remarkable solidity, or it can be used for carrying out only one wall providing in the interior thereof an  
20 integral structure between metallic wire and foamed material.

At the current state of the art similar devices are not known and at present cage enclosure by means of electric welding between net and net with light material enclosed therein, is carried out with  
25 well known methods which do not need explanations as they have been known for a long time.

The disadvantages of the currently-used solutions and of the above-mentioned prior art consists essentially in that the cages with light material enclosed therein, when cage enclosure has to  
30 be made, by inserting transversally a metallic wire so as to sew

the metallic structure for all its height and width, being said wire inserted passing through a first net and inserting into a light material, and being said wire flexible and thus susceptible to change of direction thereof, it cannot be positioned parallel to the inserting point in the desired position for being further secured on the second net by means of electric welding and further sheared and electric welded on the first net, the result thus being a structure entirely different from the characteristics for which it has been carried out, being not aligned and impairing safety and solidity of the prefabricated structure. A further drawback consists in that at present the elements used inside the cage are realized in blocks for permitting wire inserting through net, inner material and further net, through junction points, without wire being deviated just because it does not meet with resistance while inserting, thus making the operator to position the wire only where it is possible, decreasing resistance of the structure and impairing connection between net and net. A further disadvantage consists in that, in other solutions, cage forming and insulating material inserting are two distinct operations, so that working times are double and therefore onerous.

The invention as claimed is intended to remedy the above-mentioned drawbacks. It solves the problem providing a guide device for inserting a wire, such as a steel wire, through a metallic net, a light structure and a further metallic net, in order to cage the light inner structure making the whole, i.e. the two nets and the inner structure, unitedly integral between them in a single solution.

The advantages offered by this invention are mainly that

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production times of prefabricated material will be considerably reduced with consequent cost decreasing, and moreover, due to the structure compactedness, a highly safe prefabricated material will be obtained with unchanged characteristics, lightness, manageability, etc..

One way of carrying out the invention is described in detail below with reference to one drawing which illustrates one preferred embodiment, in which:

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Figure 1 is a front sectional view of the guide device at the end of its forward travel for positioning wire inside the light structure and on the respective nets; Figure 2 is an example of the guide device.

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As shown in the above figures, the guide device in accordance with the invention is referred to with (A), while the wire is referred to with (B). In detail, installation of the device is carried out as follows:

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- on a horizontal surface two nets, 1 and 2 respectively, are advanced, placed at the sides of the preformed or injected foamed inner structure (C,C'), as far as reaching the end thereof, where said two nets will stop. Then the guide device (A) will be laterally advanced, positioning on the predetermined inserting point on the first net 2' for continuing its travel, due to its being tubular with few millimetres thickness, hollow inside for permitting further sliding of the wire and having a characteristically pointed extremity 3, through a light structure (C,C'), without tearings as the device due to the special shape thereof can separate elastically the fibers, sliding parallel to

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the starting point 2', without any deflections, unless desired,  
finally positioning with the extremity 3 on the net 1'. A wire (B)  
will be also advanced inside the device (A), free to slide in the  
interior thereof, without any obstacles, finally placing in the  
5 desired final position of (B'). At this moment the wire (B) will  
be secured at point (B') by means of electric welding. The device  
(A) will then return to starting position releasing elastically  
the fibers which will compress on the inserted wire making same  
integral with the structure and allowing shearing of the wire (B)  
10 on the net 2' for being then secured by electric welding.

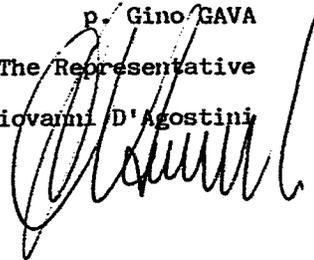
Obviously this operation will be repeated several times until the  
prefabricated cage will be finished.

Of course, changes and modifications can be made without departing  
15 from the spirit or scope of the invention as defined in the  
appended claims.

Udine, June 5, 1984.

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## Claims:

1. Guideway device and method for guiding a connection steel-wire through a light panel structure enclosed between opposed steel-  
5 nets, characterised in that said guide device (A) is inserted through a first metallic net (2) into a light structure (C, C') without tearing same, separating elastically the fibers, for then stopping on the net (1), letting the wire (B) to slide free in the interior thereof, finally positioning to the other side (B') where  
10 it will be secured to the net (1') in which, when the guide device (A) will be retracted to starting position, the fibers elastically separated during crossing will be released locking the wire and making same integral with the structure.
  
- 15 2. A guideway device as claimed in claim 1, characterised in that it consists in a guide (A) which can slide along an ideal positioning line of a wire (B) in order to positioning said wire in a predetermined point without changes of direction, and where said wire is made integral with the structure.
  
- 20 3. A guideway device as claimed in claims 1 and 2, characterised in that the end portion thereof (3) has a generally pointed shape, like the point of a needle.
  
- 25 4. A guideway device as claimed in claims 1, 2 and 3, characterised in that said device has a generally cylindrical tubular shape.
  
- 30 5. A guideway device as claimed in claim 4, characterised in that said device is hollow inside for permitting sliding of a wire (B)

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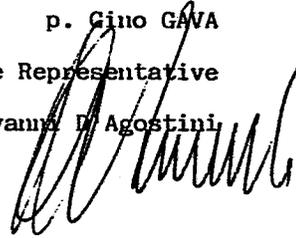
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free from any obstacles.

Udine, June 5, 1984.

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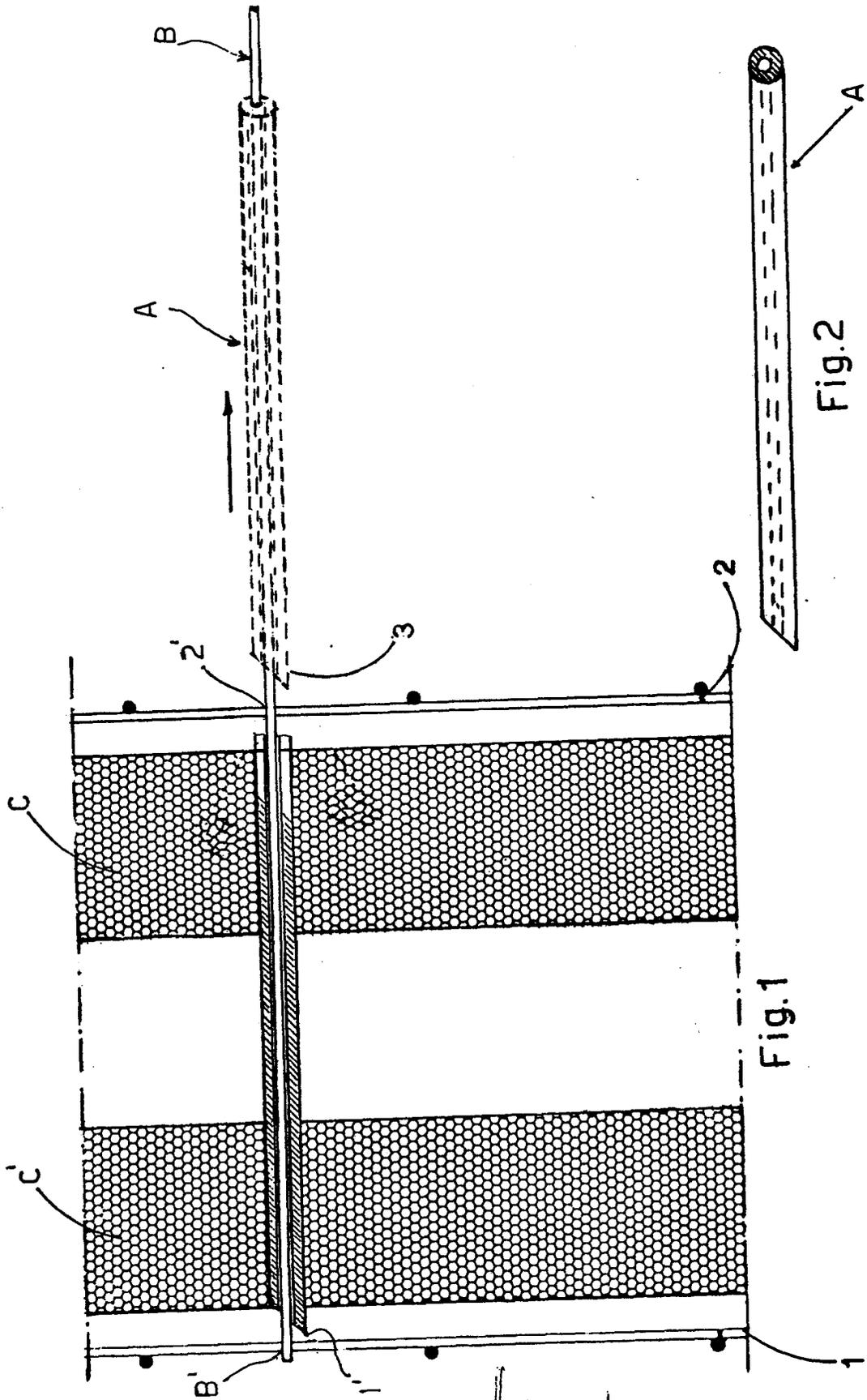


Fig.1

Fig.2

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