A safety structure (10) for a scaffolding system (100), which extends vertically by means of reciprocally linked portal uprights (20) and horizontal and diagonal stiffening elements (21), such that a supporting seat for working platforms (50) is formed. The uprights (20) have guide means (30) along which temporary protection elements (11) slide, and the temporary protection elements (11) form a balustrade for operators (90) that are working at the top platforms while assembling/disassembling the scaffolding system (100). Furthermore, the guide means (30) provides lock means for temporary protection elements (11). In particular the safety structure (10) comprises a temporary protection element (11) with a balustrade portion (12) and an embracing portion (13), such that the balustrade portion (12) protrudes above the working platform (50) of the first span unit (60 or 61) to protect an operator (90) on the working platform (50), whereas the embracing portion (13) engages integrally with the first span unit (60 or 61) under the working platform (50) such that the temporary protection element (11) is blocked at the first span unit (60 or 61).
FIELD OF THE INVENTION

The present invention concerns the building industry and, in particular, it relates to a safety structure used when assembling and disassembling a scaffolding system.

BACKGROUND OF THE INVENTION

Scaffolding systems are used in building construction or renovation works and comprise safety devices which prevent workers from falling down. They are common in the building industry and are suitable for allowing temporary passages at various elevations, which is necessary for construction or maintenance activities. The main structural element of a scaffolding system is the frame, formed by two vertical tubular elements, i.e. the uprights, linked together by horizontal and diagonal elements, i.e. the ledgers, and finally by two stiffening elements, welded below the scaffolding.

To ensure safety in building yards, such scaffolding systems must be approved before use, and specific use prescriptions must be observed.

However, when assembling and disassembling a scaffolding system, safety to workers is not any more assured, since safety elements are conceived in the scaffoldings to protect workers mainly while the scaffolding system is in use, i.e. while the workers are performing building construction or renovation operations.

The rules concerning assembling and disassembling scaffolding systems provide that workers use additional safety devices, such as appropriate work positioning belts with fall arrest and sit harnesses, and connected to an
appropriate retaining device. The latter is formed by a steel rope stretched between two uprights, and by a snap-hook device sliding along the rope, including a hook-loop energy dissipator or a recovery device. However, a safety rope interferes with and holds up the scaffolding system assembling/disassembling operations, nor is it an ultimate solution for safety problems, since in case of fall of an operator, the rope retains the operator, but at the same time doesn't prevent him from being driven between portions of the scaffolding system or between protruding parts of the building, nor prevents him from violently hitting against the scaffolding system. Furthermore, the rescue of an operator hanging from such a retaining device is a delicate operation and must be assisted by specialized rescue personnel, e.g. firemen, due to life risk in case of wounds.

A further safety device is disclosed in Italian patent application FI2001A000036, and comprises a temporary safety barrier that can work as a protection device when assembling or removing horizontal elements of the scaffolding system. In particular such barriers are mounted by means of special clamps provided at the uprights of the structure.

However, even in this case, a residual risk of accidental falling from these barriers is still present, since once the barriers are disconnected from respective supporting hooks, they are relocated from a working platform to a contiguous one by the worker themselves, who lift up or lower them, thus risking to let them fall down.

There is therefore a need of a safety structure that can effectively work as a safety means when assembling and disassembling a scaffolding system.

Summary of the invention
It is therefore a feature of the present invention to provide a safety structure for scaffolding systems that
improves the well-known safety devices and prevents the workers from falling down when assembling and disassembling a scaffolding system.

It is another feature of the present invention to provide a safety structure for scaffolding systems that is easy to build up and cheap to use.

It is a further feature of the present invention to provide a safety structure for scaffolding systems that allows quick assembling and disassembling always ensuring workers safety.

These and other objects are achieved by a safety structure for a scaffolding system, said scaffolding system having a vertical structure comprising uprights, and having reciprocally linked horizontal and diagonal stiffening elements, such that supporting seats are created for working platforms, characterised in that said uprights comprise guide means along which temporary protection elements can slide, said temporary protection elements forming a balustrade for operators who are assembling/disassembling the scaffolding system at a top working platform, said guide means providing lock means for said temporary protection elements at a determined height.

In a preferred exemplary embodiment, for each working platform said scaffolding system comprises at least two portal uprights arranged at a determined distance from each other and a plurality of horizontal and diagonal rods for reciprocally joining said portal uprights, wherein two portal uprights assembled with respective rods form a stiff span unit, footboards being provided resting on said span unit to form one of said working platforms, wherein said portal uprights are suitable for being stacked on one another in such a way that, once a first span unit for a lower working platform has been formed, it is possible to form a second span unit for an upper
working platform resting on said first span unit located below, wherein said safety structure comprises said temporary protection element providing a balustrade portion and an embracing portion, such that said balustrade portion protrudes above said working platform of said first span unit to protect an operator walking on said working platform of said first span unit, whereas said embracing portion engages solidly with said first span unit under said working platform of said first span unit, in order to block said temporary protection element to said first span unit, said safety structure being characterised in that said portal uprights provide a guide means, and that said temporary protection element is slidingly arranged in said guide means, such that said temporary protection element that is slidingly engaged between said guide means can be caused to slide from a first position, where said balustrade portion is completely below said working platform of said first span unit, to a second position, where said balustrade portion protrudes above said working platform of said first span unit.

Advantageously, said portal upright extends in a plane and said guide means extends perpendicularly to said plane.

In particular, portal uprights are provided at end positions on the scaffolding system, wherein a lateral guide means is also provided that extends parallel to said plane. This way, it is possible to put a temporary protection element at side ends of said scaffolding system.

Advantageously, said guide means comprises a guide portion having a predetermined length and, in particular, said guide means comprises a plurality of guide portions reciprocally located at a predetermined distance, wherein...
said or each guide portion has a substantially U-shaped profile and said temporary protection element is slidi

This way, once the temporary protection element has been inserted in the U-shaped guide portions, at the first span unit the U-shaped guide portions allow moving a temporary protection element from a working platform to another, preventing the temporary protection element from going off said guide in a direction perpendicular to said guide.

Preferably, the length of said guide portions is set between 10 and 40 cm, preferably between 15 and 30, in particular between 15 and 20 cm.

In particular said guide portions are connected to said portal upright by means of a connection selected from the group comprised of welding and bolting.

Advantageously, said engaging means of said guide portions comprises a through hole in which a pin is inserted for supporting said temporary protection element.

Preferably, said temporary protection element comprises a plurality of balustrade rods and a fall-preventing portion which is arranged in use at the height of said working platform. This way, the rods ensure a suitable protection to operators while the fall-preventing portion avoids any accidental fall of objects from the working platform.

According to another aspect of the invention, a method for assembling and disassembling a safety structure for a scaffolding system comprises:

- assembling said scaffolding system, which extends vertically,
reciprocally linking portal uprights, horizontal and diagonal stiffening elements and creating supporting seats for working platforms, said method being characterised in that said portal uprights have a guide means for slingly guiding said temporary protection elements forming a balustrade for operators who are assembling/disassembling the scaffolding system at a top working platform, and in that a temporary protection element is slingly arranged between said guide means of two consecutive portal uprights on which a working platform is based, and a first step of slingly raising or slingly lowering said temporary protection element along said guide means is provided, and a second step of locking said temporary protection element with respect to said guide means is provided, at a height such that said temporary protection element offers a balustrade protection at a preferred working platform.

Advantageously, said uprights are portal uprights, and said method comprises the steps of:

- prearranging guide means on portal uprights, in particular said guide means comprises a guide portion with a predetermined length or a plurality of guide portions reciprocally arranged at a predetermined distance;

- assembling a first working platform wherein for each working platform said scaffolding system is formed by at least two of said portal uprights, and by a plurality of horizontal and diagonal rods for reciprocally joining said portal uprights, wherein two portal uprights assembled with respective rods form a stiff span unit, footboards being provided resting on said span unit to form said working platform;

- engaging a temporary protection element in said guide portion/portions, according to an assembling movement extending from above to below, such that said temporary
protection element slides with clearance between said guide portion/portions;
- connecting an engaging means, in particular a pin inserted in a respective hole made on said guide portion/portions, such that a stopping abutment is obtained that prevents said temporary protection element from sliding any further;

In particular further steps are provided of:
- prearranging two portal uprights above said first working platform;
- engaging each upper portal upright on a respective lower portal upright of the lower span unit, at the same time putting said guide portions of said upper portal upright with said temporary protection element which is integral to said lower span unit;
- completing the production of an upper span unit.

Advantageously, further steps are provided of:
- causing said temporary protection element of said upper span unit to slide up along said guide means once said upper span unit has been completed, until a height is reached such that said temporary protection element offers a balustrade protection at the working platform of said upper span unit;
- connecting said engaging means in said guide portion/portions of said upper span unit such that a stopping abutment is obtained that prevents said temporary protection element from sliding any further.

In particular the disassembly of said scaffolding system provides the steps of:
- dismantling an upper span unit located in a top position, leaving said temporary protection element as balustrade for the working platform of the lower span unit, and drawing said portal uprights away from said upper span unit leaving said temporary protection element;
- climbing down to a working platform at the level of the lower span unit;
- unlocking said engaging means;
- causing said temporary protection element to slide down along said guide means up to reaching a height such that said temporary protection element protects the working platform at said lower span unit;
- engaging fit said engaging means in said guide portion/portions such that a stopping abutment is obtained that prevents said temporary protection element from sliding any further.

**Brief description of the drawings**

The invention will be made clearer with the following description of some exemplary embodiments, exemplifying but not limitative, with reference to the attached drawings, in which like reference characters designate the same or similar parts, throughout the figures of which:

- Fig. 1 is a representation of the safety structure, according to the invention, when assembling a scaffolding system;
- Fig. 2 represents how the safety structure according to the invention protects a working platform of the scaffolding system, after the assembling step of Fig. 1;
- Fig. 3 is shows a safety structure when it is translated upwards along the reference guides;
- Fig. 4 shows the safety structure protecting an upper working platform, after the translation of Fig. 1;
- Fig. 5 is an enlarged view of a temporary protection element;
- Fig. 6 shows an exemplary embodiment of the temporary protection element;
- Fig. 6A shows temporary protection element of Fig. 6, suitable for protecting the working platform along the lateral ends;
- Fig. 7 shows a particular view of the portal upright with respective guide means;
- Fig. 8 shows a lock pin for the protection element;
- Fig. 9 is an enlarged view of the guide portion which allows translating the temporary protection element along the portal upright;
- finally, Fig. 10 shows an exemplary embodiment of the guide portions angularly spaced apart of 90° from each other, to allow assembling a side protection element.

Description of preferred exemplary embodiments

Fig. 1 shows a safety structure 10 for a scaffolding system 100, which has a vertical structure comprising portal uprights 20; the scaffolding system 100 is stiffened by reciprocally linked horizontal and diagonal stiffening elements 21, and provides a support for working platforms 50.

With reference to Figs. 1 to 4, the safety structure 10 provides for each working platform 50 of the scaffolding system 100, two portal uprights 20 arranged at a predetermined distance from each other. Furthermore, the scaffolding system 100 provides a plurality of horizontal and diagonal rods 21 which link together the portal uprights 20, such that the two portal uprights 20 and the respective rods 21 form a stiff span unit 60 and 61. Besides, footboards 51 are provided resting on the span units 60 and 61 to form a working platform 50.

In particular the portal uprights 20 are suitable for being stacked on each other such that, once the first span unit 60 or 61 has been completed on working platform 50, it is possible to form a second span unit 60' or 61' (partially shown in Fig. 4) for supporting an upper working platform 50' and based on the first span unit 61 that is arranged below.

Indeed, modularity is the main feature of this kind of
scaffolding system 100, which allows developing a plurality of horizontal, vertically spaced, working platforms 50, to cope with the profile of the building to be restored or built.

The safety structure 10, according to the invention, comprises a temporary protection element 11 (shown in detail in Figs. 5, 6, and 6A) having a balustrade portion 12 and an embracing portion 13, such that the balustrade portion 12 protrudes above working platform 50 of the first span unit 60 or 61, as shown in Fig. 2, to protect an operator 90 standing on working platform 50, whereas the embracing portion 13 integrally engages with the first span unit 60 or 61 below working platform 50, in such a way that the temporary protection element 11 is locked to the first span unit 60.

The safety structure 10 provides that the uprights 20 have temporary protection elements 11, forming a balustrade for operators 90 assembling/disassembling the scaffolding system 100 at a top working platform.

According to the invention, the temporary protection element 11 is mounted between guide means 30, (shown in detail in Fig. 9) provided on the portal uprights 20. More precisely, the temporary protection element 11 engages between the guide means 30 such that it can slide from a first position, where the whole temporary protection unit 11 is located below a working platform of a span unit, to a second position, where the temporary protection unit 11 protrudes above the working platform of the span unit. In particular the guide means 30 provide, furthermore, locks 36 (shown in Fig. 9) to fasten the temporary protection elements 11 at a determined height.

More precisely, portal upright 20 extends in a plane 74 and the guide means 30 extend perpendicularly to plane 74. Furthermore, portal uprights 20 are provided (shown in detail in Fig. 10) for end positions on the scaffolding
system 100, wherein lateral guide means 31 are provided which extend parallel to plane 74.

In the depicted exemplary embodiment, the guide means 30 are a plurality of guide portions 30 spaced apart at a predetermined distance. Instead, in an alternative exemplary embodiment, the guide means (not shown) comprises a single guide portion 31 having a predetermined length.

Each guide portion 31 has a substantially U-shaped profile such that the temporary protection 11 element is slidingly engaged with clearance between two U-shaped guide portions, said guide portions belonging to two opposite portal uprights 20.

This way, once the temporary protection element has been inserted in the U-shaped guide portions 30, at the first span unit 60 or 61 the guide portions 30 allow moving a temporary protection element 11 from a working platform 50 to another working platform preventing the temporary protection element 11 from going off the guide means 31 in a direction perpendicular to it.

In this exemplary embodiment, the temporary protection element is a barrier obtained by welding together tubular elements, and horizontal protecting rods. In particular, the portions of tube 17 can easily slide with enough precision along the U-shaped groove of guide portions 30.

Otherwise, the guide means 30 may have any preferred shape, and may form with the temporary protection element 11 any preferred female-male or male-female sliding coupling. In the latter case, the female element may be arranged on the temporary protection element 11, whereas the male element may be a protruding T-shaped element arranged on the portal upright, or a tubular element welded parallel to the upright.

The locks 36 which support and lock the temporary protection element 11 (shown in detail in Fig. 9) can be
made on the central guide portions 31, for example they may comprise a through hole 27 in which a pin 16 is inserted (shown in Fig. 8).

Figs. 1 and 2 show a first exemplary sequence of assembling operations comprising: prearranging portal uprights 20 with guide means 30 that are facing each other; completing the stiff span unit 60, 61 by assembling a plurality of horizontal and diagonal rods 21; forming working platform 50.

Then, in guide portions 30, according to an assembling movement extending from above to below, a temporary protection element 11 slidingly engages with the guide portions 30 with clearance, up to a lock 36 which stops the protection element, so that the upper portion 12 is completely above working platform 50. In particular the lock 36 is obtained arranging the pin 16 into a respective hole 27 made on the guide portions 30, such that the pin 16 extends through the guide portion 31 and a stopping abutment is obtained that prevents said temporary protection element 11 from sliding any further.

Figs. 3 and 4 show a second sequence of operations following the first sequence represented in Figs. 1 and 2 and above described. These operations are carried out by the operator 90 that can safely walk on working platform 50 due to the temporary protection element 11. Such operations comprise picking up further portal uprights 20' to be arranged above the first working platform 50 engaging each of them with respective lower portal upright 20 of the lower span unit 60 or 61. In this step, the guide portions 30' of the upper portal upright 20' engage at the same time with the tubular portions 17 of the temporary protection element 11, which is based on the lower span unit 60 or 61. This way, the temporary protection element 11 is contained between two opposite guide portions 30' of two consecutive portal uprights 20'.
such that the tubular portions 17 can slide along the guide portions 30'. The upper span unit 60' or 61' are then completed.

Once the upper span unit 60' or 61' has been completed, the temporary protection element 11 is caused to slide upwards along guide portions 30' up to a height such that the temporary protection element 11 can provide a balustrade at working platform 50'. This way, the upper working platform 50' is safe before that any operator may climb on it. Then the temporary protection element 11 is lifted up slightly above this height and the locks 36A are set to a locking position, such that the temporary protection element 11 can be supported by the locks 36A through the embracing portion 13. At this point, also working platform 50' is safe for any operator, and no further fall-preventing system is required. Besides, the temporary protection element 11 was not necessary any longer to protect working platform 50 (Fig. 4, left side) since the diagonal and horizontal elements 21 were already operative as protection elements.

Conversely, reverse steps are provided for disassembling the scaffolding system. At first, for dismantling a top span unit (shown for example in Fig. 3, right side), portal uprights and horizontal/diagonal rods are safely dismantled, while the temporary protection element 11 is left as balustrade for the working platform of the lower span unit; then the portal uprights 20' of the upper span unit are drawn away, still leaving the temporary protection element 11 in its position. Afterwards, the operator can safely get down off working platform 50. Then, the operator releases the locks 36 and cause the temporary protection element 11 to slide downwards along the guide means 30, up to such a height that the working platform laying below the lower span unit is protected.
Fig. 5 represents a detailed view of protection element 11 which comprises the balustrade portion 12 protruding above working platform 50 of the span unit 60 or 61, as well as the embracing portion 13 integrally engaging the span unit 60 or 61 laying under working platform 50 in such a way that it blocks the temporary protection element 11.

In particular the balustrade portion 12 comprises a rod 14 and a fall-preventing portion 15 which is arranged in use at the height of working platform 50. This way, the fall-preventing portion 15 avoids any accidental fall of objects from working platform 50. Furthermore, the embracing portion 13 comprises an element 18 that enables the operators 90 to grasp and handle protection element 11 while assembling/disassembling the scaffolding system.

Figs. 6 and 6A show an exemplary embodiment of the protection elements 11', H'', which differ from that shown in Fig. 5 concerning grasping element 18, which has now a simplified and cheaper shape. In particular, protection element H'' of Fig. 6A is substantially as wide as the footboards of working platform 51. In fact, protection element H'' can protect an end side of a working platform of the scaffolding system. Instead, element 11' of Fig. 6, is as wide as necessary to protect the front side and/or the rear side of the working platform, in a similar way as shown in Figs. 1 to 4.

Fig. 7 shows a detailed view of a portal upright 20 to which the guide means 30 are welded. In particular each guide means 30 is arranged at a distance such that, while arranging the portal uprights, the lower guide portion 30 engages with the tubular portion 17 (Fig. 5 or 6, 6A) of temporary protection element 11 arranged at the span unit which is being mounted.

This ensures perfect alignment between the temporary protection element 11 and the portal uprights 20' that
build the new working platform. Besides, this arrangement facilitates handling protection element 11 (or 11' H'') when translated to protect the operator on an upper working platform.

Fig. 8 shows a top plan view of a connecting pin 16 to be inserted into hole 27 that has been made in the guide portion 30, which opposes an abutment to a sliding movement of protection element 11. In particular pin 16 has a head 16' and an articulated portion 16'' which arranges itself according to gravity and gets a position that is in use substantially perpendicular to fixed part of pin 16 preventing an accidental extraction from hole 27. In fact, to extract the pin, the operator must align the articulated portion 16'' with the fixed part 16 and then extract the pin from the hole 27.

Fig. 9 shows a detailed view of two guide portions 30 oppositely oriented with respect to tubular portion 23 of portal upright 20. In particular Fig. 9 depicts the U-like shape of guide means 30 in whose groove 38 upright 17' of the embracing portion 13 of the temporary protection element 11 slides.

The length of guide portions 30 is set between 10 cm and 40 cm, preferably between 15 cm and 30 cm, in particular between 15 cm and 20 cm, and the guide portions are connected to tubular portion 23 of portal upright 20 by a connection obtained for example by welding or bolting. In the present exemplary embodiment the connection is obtained by a welding 32.

Fig. 10 shows a detail of a portal upright 20 arranged at an end part of the scaffolding system 100. In fact, the guide portions 30, 31 are connected both to tubular portion 23, in order to form two U-shaped guiding elements spaced apart a prefixed angle. This way, the temporary protection element of Fig. 6A can be inserted into the
guiding element 31 to protect the working platform at a lateral end.

The foregoing description of a specific embodiment will so fully reveal the invention according to the conceptual point of view, so that others, by applying current knowledge, will be able to modify and/or adapt for various applications such an embodiment without further research and without parting from the invention, and it is therefore to be understood that such adaptations and modifications will have to be considered as equivalent to the specific embodiment. The means and the materials to realise the different functions described herein could have a different nature without, for this reason, departing from the field of the invention. It is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.
CLAIMS

1. A safety structure for a scaffolding system, said scaffolding system having a vertical structure comprising uprights and reciprocally linked horizontal and diagonal stiffening elements, such that supporting seats are created for working platforms, characterised in that said uprights comprise guide means along which temporary protection elements can slide, said temporary protection elements forming a balustrade for operators who are assembling/disassembling the scaffolding system at a top working platform, said guide means providing lock means for said temporary protection elements at a determined height.

2. A safety structure, according to claim 1, wherein for each working platform said scaffolding system comprises at least two portal uprights arranged at a determined distance from each other, and a plurality of horizontal and diagonal rods for reciprocally joining said portal uprights, wherein two portal uprights assembled with respective rods form a stiff span unit, footboards being provided resting on said span unit to form one of said working platforms, wherein said portal uprights are suitable for being stacked on one another in such a way that, once a first span unit for a lower working platform has been formed, it is possible to form a second span unit for an upper working platform resting on said first span unit located below, wherein said safety structure comprises said temporary protection element providing a balustrade portion and an embracing portion, such that said balustrade portion protrudes above said working platform of said first span unit to protect an operator walking on said working platform of said first span unit, whereas said
embracing portion engages solidly with said first span unit under said working platform of said first span unit, in order to block said temporary protection element to said first span unit,

said safety structure being **characterised in that** said portal uprights provide a guide means, and that said temporary protection element is slidingly arranged in said guide means, such that said temporary protection element that is slidingly engaged between said guide means can be caused to slide from a first position, where said balustrade portion is completely below said working platform of said first span unit, to a second position, where said balustrade portion protrudes above said working platform of said first span unit.

3. A safety structure, according to claim 1, wherein said portal upright extends in a plane and said guide means extends perpendicularly to said plane.

4. A safety structure, according to claim 1, wherein portal uprights are provided at end positions on the scaffolding system, wherein a lateral guide means is also provided that extends parallel to said plane.

5. A safety structure, according to claim 1, wherein said guide means comprises a guide portion having a predetermined length and, in particular, said guide means comprises a plurality of guide portions reciprocally located at a predetermined distance, wherein said or each guide portion has a substantially U-shaped profile and said temporary protection element is slidingly engaged with clearance between two U-shaped guide portions, said guide portions belonging to two opposite portal uprights.

6. A safety structure, according to claim 1, wherein the length of said guide portions is set between 10 and 40
cm, preferably between 15 and 30, in particular between 15 and 20 cm.

7. A safety structure, according to claim 1, wherein said guide portions are connected to said portal upright by means of a connection selected from the group comprised of welding and bolting.

8. A safety structure, according to claim 1, wherein said engaging means of said guide portions comprises a through hole in which a pin is inserted for supporting said temporary protection element.

9. A safety structure, according to claim 1, wherein said temporary protection element comprises a plurality of balustrade rods and a fall-preventing portion which is arranged in use at the height of said working platform.

10. An temporary protection element, suitable for slidingly engaging between guide means of a safety structure according to the previous claims.

11. A method for assembling and disassembling a safety structure for a scaffolding system comprising:
- assembling said scaffolding system, which extends vertically,
- reciprocally linking portal uprights, horizontal and diagonal stiffening elements and creating supporting seats for working platforms,
said method being characterised in that
- said portal uprights have a guide means for slidingly guiding said temporary protection elements forming a balustrade for operators who are assembling/disassembling the scaffolding system at a top working platform, and in that
- a temporary protection element is slindingly arranged between said guide means of two consecutive
portal uprights on which a working platform is based, and a first step of slidingly raising or slidingly lowering said temporary protection element along said guide means is provided, and a second step of locking said temporary protection element with respect to said guide means is provided, at a height such that said temporary protection element offers a balustrade protection at a preferred working platform.

12. A method, according to claim 10, wherein said uprights are portal uprights, and said method comprises the steps of:
   - prearranging guide means on portal uprights, in particular said guide means comprises a guide portion with a predetermined length or a plurality of guide portions reciprocally arranged at a predetermined distance;
   - assembling a first working platform wherein for each working platform said scaffolding system is formed by at least two of said portal uprights, and by a plurality of horizontal and diagonal rods for reciprocally joining said portal uprights, wherein two portal uprights assembled with respective rods form a stiff span unit, footboards being provided resting on said span unit to form said working platform;
   - engaging a temporary protection element in said guide portion/portions, according to an assembling movement extending from above to below, such that said temporary protection element slides with clearance between said guide portion/portions;
   - connecting an engaging means, in particular a pin inserted in a respective hole made on said guide portion/portions, such that a stopping abutment is obtained that prevents said temporary protection element from sliding any further;
13. A method, according to claim 10, wherein further steps are provided of:
   - prearranging two portal uprights above said first working platform;
   - engaging each upper portal upright on a respective lower portal upright of the lower span unit, at the same time putting said guide portions of said upper portal upright with said temporary protection element which is integral to said lower span unit;
   - completing the production of an upper span unit.

14. A method, according to claim 12, wherein further steps are provided of:
   - causing said temporary protection element of said upper span unit to slide up along said guide means once said upper span unit has been completed, until a height is reached such that said temporary protection element offers a balustrade protection at the working platform of said upper span unit;
   - connecting said engaging means in said guide portion/portions of said upper span unit such that a stopping abutment is obtained that prevents said temporary protection element from sliding any further.

15. A method, according to claim 10, wherein said scaffolding system provides the steps of:
   - dismantling an upper span unit located in a top position, leaving said temporary protection element as balustrade for the working platform of the lower span unit, and drawing said portal uprights away from said upper span unit leaving said temporary protection element;
   - climbing down to a working platform at the level of the lower span unit;
   - unlocking said engaging means;
- causing said temporary protection element to slide down along said guide means up to reaching a height such that said temporary protection element protects the working platform at said lower span unit;

- putting said engaging means in said guide portion/portions such that a stopping abutment is obtained that prevents said temporary protection element from sliding any further.