CLAIMS

1. A reconfigurable web having opposite web faces including a main web face, said web comprising:

direction-sensitive displacement facilitating means provided within a thickness of said web for facilitating rolling or folding of at least one portion of said web in at least one direction to form a unidirectionally stiff and leveled surface; and

force transmitting means which is suitable to set said web at a predetermined configuration by which said web, when leveled, is rollable or foldable in the at least one direction and stiff in at least one other direction,

A. wherein said web is a first web that is segmented and further comprises additional force transmitting means which facilitate transmission of forces derived from moments, axial forces and shear forces within segments of said first web and that is imparted with all of the following characteristics:
   a. said main web face is continuous or semi-continuous;
   b. said first web, when comprising a common sheet or a lamination layer that is attached to a continuous or semi-continuous surface of the segments, is configured to ensure that said common sheet or said lamination layer remains undamaged and undetached at any attached point and for any configuration of said first web, wherein said common sheet or said lamination layer, when used, provides an illusive appearance of a monolithic plate;
   c. said first web is capable of comprising both said additional force transmitting means and said common sheet or said lamination layer while being configured to prevent transmission of forces to said common sheet and to said lamination layer, when used and when said first web is subjected to moments, axial forces producing tensile or compressive forces, or shear forces, at any configuration of said first web;
   d. said first web is configured to transmit axial forces producing tensile or compressive forces, shear forces and moments within the segments exclusively by using the additional force transmitting means in any configuration of said first web; and
   e. stress within said first web is dispersable in more than one direction at any configuration of the first web; or

B. wherein said web is a second web that is segmented and further comprises a common sheet and optionally a lamination layer, and additional force transmitting means which facilitate transmission, within segments of said second web exclusively, of shear forces and moments which are derived from an attempt to displace the segments in the at least one other direction,

and of axial forces producing tensile or compressive forces, when said second web is leveled, and wherein said second web is imparted with all of the following characteristics:

f. said main web face is continuous or semi-continuous;

g. said common sheet or lamination layer is attached to a continuous or semi-continuous surface of the segments, and said second web is configured to ensure that said common sheet and said lamination layer when used remains undamaged and undetached at any attached point and for any configuration of said second web, wherein said common sheet and said lamination layer when used provides an illusive appearance of a monolithic plate;

h. said second web in conjunction with said force transmitting means and with said additional force transmitting means, when leveled and subjected to shear forces and moments which are derived from an attempt to displace the segments in the at least one other direction or subjected to axial forces producing tensile or compressive forces, is configured to prevent transmission of forces to said common sheet and to said lamination layer when used;

i. said second web is configured to transmit axial forces producing tensile or compressive forces, shear forces and moments within the segments exclusively by using the additional force transmitting means when said second web is leveled and subjected to moments or shear forces which are derived from an attempt to displace the segments in the at least one other direction or subjected to axial forces producing tensile or compressive forces; and

j. stress within said second web is dispersable in more than one direction when said second web is leveled and loaded by an attempt to displace the segments in the at least one other direction or by tension or compression of said second web; or

C. wherein said web is a third web that is segmented, and further comprises a common sheet and optionally a lamination layer, and is imparted with all of the following characteristics:

k. said main web face is continuous or semi-continuous;

l. said common sheet or lamination layer is attached to a continuous or semi-continuous surface of the segments, and said third web is configured to ensure that said common sheet and said lamination layer when used remains undamaged and undetached at any attached point and for any configuration of said third web, wherein said common sheet and said lamination layer when used provides an illusive appearance of a monolithic plate;

m. said third web in conjunction with said force transmitting means is configured, when leveled and subjected to moments or shear forces which are derived from an attempt to displace segments of said third web in the at least one other direction, to prevent transmission of forces to said common sheet and to said lamination layer when used;

n. said third web is configured to transmit shear forces and moments within the segments exclusively when said third web is leveled and subjected to moments or shear forces which are derived from an attempt to displace the segments in the at least one other direction; and

o. stress within said third web is dispersable in more than one direction, when said third web is leveled and loaded by an attempt to displace the segments in the at least one other direction; or

D. wherein said web is a fourth web which is an unsegmented web.

2. The web according to claim 1, wherein the first web comprises the common sheet or the lamination layer, and wherein the additional force transmitting means are:

at least one inner axis unit mounted in a cavity formed in two adjacent segments of the first web having an axis of rotation coinciding with, or spaced from, the main web face, each of said at least one inner axis units comprising two arcuate end plates subtending an angle of less than 180 degrees, and a corresponding intermediate arcuate plate interposed between said two end plates,

wherein each of said end plates is configured with an inwardly protruding arcuate protrusion subtending an angle of less than 180 degrees and with an inwardly protruding extension, and each side of said intermediate plate is configured with a corresponding arcuate recess subtending an angle of less than 180 degrees and with a recess extension, the protrusion and extension of each of said end plates being insertable into the corresponding recess and recess extension, respectively, of said intermediate plate, to facilitate angular displacement of each of said end plates relative to said intermediate plate that is restricted by the protrusion extension; or

a continuous joint comprising an elastic and elongated strap which is interconnected to a corresponding wall of first and second adjacent segments, wherein a face of said strap develops a continuous curvature when the first and second coupling panels undergo relative angular displacement and has an axis of rotation which is spaced from the main face of the adjacent coupling panel; or

the at least one inner axis unit and the continuous joint, wherein the axis of rotation coincides with, or is spaced from, the main web face.

3. The web according to claim 1, wherein the first web or the second web, when leveled, is in emulation of a monolithic plate in the at least one other direction such that:

when the web is leveled and subjected to external axial forces, internal compressive and tensile forces resulting from the external axial forces are transmitted within the segments or the additional force transmitting means exclusively,

when the web is leveled and loaded by an attempt to displace the segments in the at least one other direction, the shear forces are transmitted within the segments or the additional force transmitting means exclusively, and

when the web is leveled and loaded in the at least one other direction, internal moments are produced by resulting internal tensile and compressive forces that are transmitted within the segments or the additional force transmitting means exclusively, wherein a cross section of each of the segments that is perpendicular to the main web face is subjected to tensile forces in a first part of the cross section and to compressive forces in a second part of the cross section.

4. The web according to claim 1, which is capable of being cut through said opposite web faces while retaining all of the characteristics a-e, f-j or k-o.

5. The web according to claim 1, wherein adjacent portions of the segmented first and second web that are each configured with the direction-sensitive displacement facilitating means, the force transmitting means, and the additional force transmitting means, and adjacent portions of the segmented third web that are each configured with the direction-sensitive displacement facilitating means and the force transmitting means are suitably interjoined to facilitate foldable displacement in either a first direction or in a second direction.

6. The web according to claim 1, which has maximum lengthwise and axial dimensions, wherein the first and second webs comprise direction-sensitive angular displacement facilitating means, angular force transmitting means and angular additional force transmitting means, and the third web and the fourth web comprise the direction-sensitive angular displacement facilitating means and the angular force transmitting means, for facilitating angular displacement of said web about an axis of a roll defined by said web in a first rotational direction in order to be maintained in roll form and in a second rotational direction opposite to the first rotational direction to form the unidirectionally stiff and leveled surface of a desired lengthwise dimension that is less than or equal to said maximum lengthwise dimension, when unrolled relative to a portion of said web remaining in roll form.

7. The web according to claim 5, which is segmented and adjacent portions of the segmented web that are each configured with the direction-sensitive angular displacement facilitating means are suitably interjoined to facilitate the angular displacement in either the first rotational direction or in the second rotational direction.

8. The web according to claim 6, wherein a first of two lengthwise interjoined portions is angularly displaceable relative to a second of said two lengthwise interjoined portions about a corresponding axis of rotation coinciding with, or spaced from, the main web face,
wherein, when the web is leveled, each of a plurality of said lengthwise interjoined portions is angularly displaceable in the first rotational direction about the axis of the roll relative to an adjacent lengthwise interjoined portion and is prevented from being angularly displaced in the second rotational direction in emulation of a rigid monolithic plate.

9. The web according to claim 7, wherein the web is additionally configured with a plurality of axially interjoined portions provided in at least one of the plurality of lengthwise interjoined portions and are interjoined with another one of the plurality of lengthwise interjoined portions,
wherein the direction-sensitive angular displacement facilitating means provided between each two of said axially interjoined portions facilitates unidirectional angular displacement of a first of said two axially interjoined portions relative to a second of said two axially interjoined portions about a corresponding lengthwise axis of rotation coinciding with, or spaced from, the main web face.

10. The web according to claim 6, wherein the first web further comprises a common sheet applied to the segmented web.

11. The web according to claim 1, wherein strain developed within the common sheet of the second or third web and overlying a local axis of rotation between first and second adjacent portions of the segmented web when the first portion is angularly displaced with respect to the second portion is in an elastic regime.

12. The web according to claim 5, wherein the fourth web is rollable or foldable, and the direction-sensitive angular displacement facilitating means are concealed and inextensible means provided along a cross section of the web to facilitate direction-sensitive angular displacement in a

first and an opposite second direction exclusively and prevent the angular displacement in other directions,

wherein, when the fourth web is leveled, the fourth web provides an illusive appearance of a monolithic plate a rigid monolithic plate.

13. The web according to claim 1, which is in contact with a base surface.

14. The web according to claim 1, wherein the direction-sensitive displacement facilitating means comprises the force transmitting means or the additional force transmitting means.

15. The web according to claim 1, wherein the direction-sensitive displacement facilitating means comprises means for reconfiguring at least a portion of the web in a widthwise direction.

16. The web according to claim 6, which comprises at least first and second portions, wherein a rolling direction of the first portion is opposite to the rolling direction of the second portion, the main web face of the first and second portions is located at a same face of the web, and each portion of the web when leveled, is rollable or foldable in at least one direction and stiff or rigid in at least one other direction.

17. The web according to claim 3, which is in emulation of a stiff or rigid monolithic plate in the at least one other direction.

18. An unrollable link material leveling system for covering even and uneven surfaces, comprising:

i. means for applying link material to an exposed constructed surface;
ii. an elongated sheet, at least a portion of which positioned in force applying relation with said constructed surface; and
iii. means for differentially applying a force to said elongated sheet which comprises at least one of the web defined rolls according to claim 8, such that said applied link material becomes compressed upon application of the force to said elongated sheet and that an interior surface of said elongated sheet becomes uniformly leveled upon solidification of said compressed link material.

19. The leveling system according to claim 18, further comprising:

iv. means for displacing excess link material, such that, upon application of the force to said elongated sheet and successive differential displacement of said elongated sheet, said applied link material becomes compressed and the excess compressed link material is pushed and displaced while said elongated sheet is deployed against the link material and the constructed surface; and

v. means for leveling said elongated sheet while said elongated sheet is deployed against the link material and the constructed surface.

20. The leveling system according to claim 18, wherein said elongated sheet is configured with an uninterrupted interiorly faceable surface, a plurality of vertically extending and exteriorly facing cavities, an inter-cavity protrusion provided between an adjacent pair of the cavities, and a plurality of vertically spaced and longitudinally extending recesses,

wherein the means for differentially applying a force to said elongated sheet is a rolled structure of the sheet by which a differential curved sheet portion is urged in pressing relation with the constructed surface and which is capable of being horizontally leveled by a plurality of the web defined rolls,

wherein each of the web defined rolls is inserted with a corresponding one of the recesses and attached to the interiorly faceable surface to constitute a reinforcement band for the sheet,

wherein a uniform volume of unsolidified link material applied to the constructed surface is forced to flow into each of the cavities which are in fluid communication with the unsolidified link material upon application of an unrolling force to a roll of the elongated sheet having a vertical axis and attached reinforcement bands, to ensure that the interiorly facing surface will be leveled while secured to the constructed surface following solidification of the link material.

21. The leveling system according to claim 20, wherein each of the inter-cavity protrusions is a rounded T-shaped inter-cavity protrusion, wherein a corresponding wall of the plurality of cavities is configured with an arc having an angle greater than 180 degrees.

22. The leveling system according to claim 18, wherein the means for differentially applying a force to said elongated sheet is a sheet holding structure.

23. The leveling system according to claim 22, wherein a first section of the holding structure is configured to compress and level the elongated sheet against the link material that has already been applied to the building wall, and a second section of the holding structure is configured to maintain vertical stiffness of the holding structure to ensure leveling of the elongated sheet while the elongated sheet is applied against the constructed surface.

24. The leveling system according to claim 22, wherein the holding structure comprises a plurality of the web defined rolls which are arranged in a coiled formation such that an outer loop surrounds an inner loop adjacent to the outer loop, to provide a gap between each pair of adjacent loops within which the elongated sheet is received prior to being applied onto the constructed surface.

25. The leveling system according to claim 24, wherein each of the web defined rolls comprises a plurality of coupling panels that are each interjoined with an adjacent coupling panel, and two of the coupling panels which are peripherally adjacent to each other are interconnected by a vertically oriented pivot element extending throughout a height of the holding structure.

26. A parquet system, comprising a plurality of rollable or foldable parquet segments, wherein each of said parquet segments comprises the web according to any one of claims 1 to 17 and is interconnectable with an adjacent parquet segment upon being unrolled or unfolded.

27. A system for applying paneling material to an existing constructed surface, comprising:

a) a rollable or foldable paneling material unit comprising the web according to any one of claims 1 to 17;
b) a stationary member associated with said constructed surface; and
c) a plurality of spaced connecting means provided with one or both of said paneling material unit and said stationary member,

wherein each of said connecting means is configured to cause a region of said paneling material unit to be connected with a corresponding region of said stationary member upon unrolling or unfolding said paneling material unit until the unrolled paneling material unit is leveled.

28. A hinge for continuous and uninterrupted surfaces, which is the first web according to claim 1, wherein said hinge comprises two sections exclusively that are pivotally displaceable one relative to the other about an axis of rotation and each of said sections comprises the direction-sensitive displacement facilitating means, the force transmitting means, and the additional force transmitting means,

wherein each of said two sections is connectable to a corresponding planar board in such a way to produce completely coplanar surfaces that include both of said two sections and said two boards when said hinge is set to an unpivoted position and the axis of rotation of said hinge is coincident with, or spaced from, a main web face of said two sections.

29. A coupling panel connecting system according to claim 1, wherein each interjoined portion of the first web, second web or third web is a lengthwise interjoined portion that is interjoined in a way such that each of a plurality of coupling panels is angularly displaceable with respect to an adjacent coupling panel about a corresponding axis of rotation which coincides with, or is spaced from, a common edge adjoining two adjacent coupling panels.

30. The coupling panel connecting system according to claim 29, wherein each of the plurality of coupling panels is configured with a first planar surface and with a second surface parallel to said first surface.

31. The coupling panel connecting system according to claim 30, which is a tongue and groove connecting system that is, when leveled, rollable or foldable in a first direction and stiff or rigid in a second direction, wherein each or most of the plurality of coupling panels is configured with a tongue and an opposed groove.

32. The coupling panel connecting system according to claim 31, wherein the corresponding axis of rotation about which each of the plurality of coupling panels is angularly displaceable coincides with, or is spaced from, the main web face, and each pair of the plurality of coupling panels are lockingly joinable together after the tongue of a first coupling panel has been completely inserted within the groove of a second coupling panel.

33. The coupling panel connecting system according to claim 29, wherein the plurality of coupling panels are storable in a roll or folded form, and are unrollable or foldable unidirectionally.

34. The coupling panel connecting system according to claim 29, wherein, when the web is leveled, a surface of a first coupling panel of the plurality of coupling panels interfaces with a corresponding surface of a second coupling panel of the plurality of coupling panels to assist in lockingly joining together the first and second coupling panels.

35. The coupling panel connecting system according to claim 34, wherein, in a leveled configuration, rotation of the first coupling panel in one rotational direction is restricted by an abutting relation of the corresponding surfaces of the first and second coupling panels and is unrestricted in at least another rotational direction.

36. The coupling panel connecting system according to claim 31, wherein, in an unleveled configuration, the tongue of the first coupling panel undergoes interference-free rotation within the groove of the second coupling panel when the first coupling panel is angularly displaced with respect to the second coupling panel.

37. The coupling panel connecting system according to claim 36, wherein the groove is formed between the first and second surfaces to define a first wall coinciding with the first surface and a second wall coinciding with the second surface, and is delimited by a planar third surface which coincides with said first wall and is parallel with the first surface, a planar fourth surface which coincides with said second wall and is parallel with the second surface, and a fifth surface extending between the first and second walls and orthogonal to the third and fourth surfaces,

wherein the fourth surface extends from the fifth surface by a longer distance than a length of the third distance from the fifth surface, so that said second wall will protrude from said first wall to facilitate transmission of shear forces through said second wall.

38. The coupling panel connecting system according to claim 37, wherein the tongue is configured with parallel sixth and seventh surfaces, the sixth surface of the first coupling panel being completely abuttable with the third surface of the second coupling panel and the seventh surface of the first coupling panel being completely abuttable with the fourth surface of the second coupling panel, when the first and second coupling panels are lockingly joined together,

wherein shear forces are transmittable between the first and second coupling panels through the abutting third and sixth surfaces or through the abutting fourth and seventh surfaces, irregardless of a location of the load, when the first web, second web or third web is leveled during an attempt to displace the coupling panels of the third web in the second direction.

39. The coupling panel connecting system according to claim 38, wherein the interference-free rotation is facilitated when the sixth surface of the first coupling panel has a length which is less than the length of the third surface of the second coupling panel.

40. The coupling panel connecting system according to claim 39, wherein an intersection between the third and fifth surfaces of the second coupling panel is spaced from the corresponding axis of rotation by a distance which is equal to, or greater than, the length from the corresponding axis of rotation to the seventh surface of the first coupling panel.

41. The coupling panel connecting system according to claim 40, wherein the interference-free rotation is also facilitated when a distance between any point on an eighth surface of the first coupling panel extending between the sixth and seventh surfaces, or extending between a ninth surface and the seventh surface, and the corresponding axis of rotation is less than the length from the corresponding axis of rotation to the seventh surface of the second coupling panel, said ninth surface is a surface which is perpendicular to the sixth surface and is a truncation of an intersection of the sixth and eighth surfaces.

42. The coupling panel connecting system according to claim 31, wherein both the tongue and the groove are arcuate and the tongue of a first coupling panel of the plurality of coupling panels is displaceable along an arcuate path within the groove of a second coupling panel of the plurality of coupling panels.

43. The coupling panel connecting system according to claim 31, wherein each of the plurality of coupling panels is additionally configured with a stopper element which is engageable with a coupling panel region at a terminal end of the groove, wherein rotation of the first coupling panel in a second rotational direction is restricted when the tongue abuts the stopper element and remains at least partially within the groove and is unrestricted in a first rotational direction.

44. The coupling panel connecting system according to claim 42, further comprising at least one inner axis unit, wherein each of the inner axis units comprises two arcuate end plates subtending an angle of less than 180 degrees that are attached to opposite walls, respectively, of a first cavity formed within a first coupling panel, and an intermediate arcuate plate subtending an angle of less than 180 degrees that is interposed between said end plates and attached to a wall of a second cavity formed within a second coupling panel adjacent to said first coupling panel,

wherein each of said end plates is configured with a corresponding inwardly protruding arcuate protrusion subtending an angle of less than 180 degrees and each face of said intermediate plate is formed with an arcuate recess subtending an angle of less than 180 degrees within which the corresponding protrusion is receivable and rotatable,

wherein said intermediate plate, upon undergoing rotation about the axis of rotation, forces said second coupling panel to pivot relative to said first coupling panel,

wherein an axis line of the inner axis unit is an axis that coincides with, or is spaced from, the main web face.

45. The coupling panel connecting system according to claim 29, further comprising a continuous joint comprising an elastic and elongated strap which is interconnected to a corresponding wall of first and second coupling panels of the plurality of coupling panels, wherein a face of said strap develops a continuous curvature when the first and second coupling panels undergo relative angular displacement.

46. The coupling panel connecting system according to claim 29, wherein first and second adjacent coupling panels of the plurality of coupling panels have a completely solid and rectangular cross section, and the first and second coupling panels are interconnected by:

an inner axis unit mounted in a cavity formed in each of the first and second coupling panels, said inner axis unit comprising two arcuate end plates subtending an angle of less than 180 degrees, and a corresponding intermediate arcuate plate interposed between said two end plates,

wherein each of said end plates is configured with an inwardly protruding arcuate protrusion subtending an angle of less than 180 degrees and with an inwardly protruding extension, and each side of said intermediate plate is configured with a corresponding arcuate recess subtending an angle of less than 180 degrees and with a recess extension, the protrusion and extension of each of said end plates being insertable into the corresponding recess and recess extension, respectively, of said intermediate plate, to

facilitate angular displacement of each of said end plates relative to said intermediate plate that is restricted by the protrusion extension; or

a continuous joint comprising an elastic and elongated strap which is interconnected to a corresponding wall of the first and second coupling panels, wherein a face of said strap develops a continuous curvature when the first and second coupling panels undergo relative angular displacement.

47. Apparatus comprising the reconfigurable web according to claim 1, which is selected from the group consisting of:

i. a bi-directionally rigid and displaceable surface;
ii. an extendable table or shelf which is retractable into a wall;
iii. a partition capable of being folded;
iv. a door capable of being folded;
v. a unidirectional sliding door that is slidable to a transversal end of a retaining structure;
vi. a storage structure with shelves that are capable of being folded to redefine internal storage spaces;
vii. wire shelving capable of being folded;
viii. a completely coplanar hinge that is capable of being folded up to 180 degrees;
ix. a unidirectionally stiff and leveled surface used for fence coverings;
x. a unidirectionally stiff and leveled surface used for roof coverings;
xi. a television or screen capable of being rolled or folded;
xii. a surface capable of being rolled or folded for rebuilding and disassembling the surface without need of discrete elements, and capable of being transported in a transportation vehicle when unleveled;
xiii. a protective garment; and
xiv. chair, table, or bed capable of being rolled and comprising the web and also legs which are storable in a core of the web when rolled, wherein one or more faces of the web are smooth or relatively smooth face to prevent bodily injuries or damage to web apparatus in contact with the smooth or relatively smooth faces during rolling and unrolling operations.

48. The apparatus according to claim 47, wherein the web is provided with a permanently applied or releasable lamination layer.

49. The apparatus according to claim 47, wherein the bi-directionally rigid and displaceable surface is prestressed.

50. The apparatus according to claim 47, wherein the unidirectionally stiff and leveled surface is applied to palisade fencing or to a metal fence.

51. The apparatus according to claim 47, wherein the unidirectionally stiff and leveled surface is applied to a fence made of a concrete slab.

52. The apparatus according to claim 47, wherein the unidirectionally stiff and leveled surface used for roof coverings is maintained in roll form when undeployed.

53. The apparatus according to claim 47, wherein the unidirectionally stiff and leveled surface used for roof coverings is folded or stacked when undeployed.

54. The apparatus according to claim 47, wherein the unidirectionally stiff and leveled surface used for roof coverings comprises a plurality of photovoltaic cells.

55. The web according to claim 1, wherein the fourth web is rollable or foldable and comprises first and second layers that are attached together to constitute said direction-sensitive displacement facilitating means,
wherein when the fourth web is leveled, said first layer is longitudinally deformable under tension and substantially or entirely undeformable under compression, and said second layer is longitudinally deformable under compression and substantially or entirely undeformable under tension, such that the fourth web is capable of being rolled or folded in at least a first rotational direction and is capable of resisting deformation in at least one second rotational direction.

56. The web according to claim 1, wherein said direction-sensitive displacement facilitating means comprising one or more means selected from a continuous joint, an inner axis, a folding tongue and groove coupling panel, a folding tongue and groove coupling panel connected with said continuous joint or said inner axis, an inverse folding tongue and groove coupling panel, an inverse folding tongue and groove coupling panel connected with said continuous joint or said inner axis, a polygonal middle axis coupling panel, and a composite coupling panel comprising a plurality of

coupling panel types arranged such that a side of a first coupling panel being of a first type is fixedly interjoined with an adjacent side of a second coupling panel being of a second type, a multidirectional coupling panel, and a safe coupling panel.

57. The web according to claim 34, wherein one of the first and second coupling panels of each pair of adjacent coupling panels is configured with a stopper element that restricts relative angular displacement of the first and second coupling panels in the at least one direction ,
wherein a coiled formation of the plurality of coupling panels is produced when angular displacement of the first and second coupling panels of each pair of adjacent coupling panels is sufficiently restricted in the at least one direction to define a radius for each half loop of the coiled formation,
wherein an outer loop of the coiled formation surrounds an inner loop adjacent to the outer loop and defines a gap between each pair of adjacent loops within which the main face of the web or of an additional web is protected and undamaged.

58. The web according to claim 31, wherein the first web or the second web comprises a plurality of peripherally adjacent and interconnected inverse folding tongue and groove (IFTG) coupling panels,

wherein each of said IFTG coupling panels has a forwardly facing tongue that is connected to a solid core and configured with two opposed tongue side faces and a rearwardly disposed arcuate wall, and a rearward face formed with a groove defined by two opposed interior faces within which the tongue of an adjacent IFTG coupling panel is receivable,

wherein one of said two tongue side faces and two groove interior faces is configured with corresponding arcuate protrusions and the other of said two tongue side faces and two groove interior faces is configured with corresponding arcuate recesses,

wherein each of said arcuate protrusions is slidably receivable within a corresponding arcuate recess to facilitate relative angular displacement between interconnected first and second IFTG coupling panels.

59. The web according to claim 58, which comprises one or more composite IFTG coupling panels, wherein each of the composite IFTG coupling panels comprises a plurality of the IFTG coupling panels that are each interjoined to an adjacent IFTG coupling panels at their side.

60. The web according to claim 16, wherein the first portion comprises at least one foldable tongue and groove (FTG) coupling panel each configured with a tongue and an opposed groove that is lockingly joinable with an adjacent FTG coupling panel after a first FTG coupling panel has been angularly displaced with respect to an adjacent second FTG coupling panel and the tongue of a first FTG coupling panel has been completely inserted within the groove of a second FTG coupling panel,

wherein the groove of the FTG coupling panel is formed between first and second parallel surfaces to define a first wall coinciding with the first surface and a second wall coinciding with the second surface, and is delimited by a planar third surface which coincides with said first wall and is parallel with the first surface, a planar fourth surface which coincides with said second wall and is parallel with the second surface, and a fifth surface extending between the first and second walls and orthogonal to the third and fourth surfaces,

wherein the second portion comprises at least one composite inverse folding tongue and groove (IFTG) coupling panel, each of said IFTGs has a forwardly facing tongue that is connected to a solid core and configured with two opposed tongue side faces and a rearwardly disposed arcuate wall, and a rearward face formed with a groove defined by two opposed interior faces within which the tongue of an adjacent IFTG coupling panel is receivable, and wherein each of the composite IFTG coupling panels comprises a plurality of the IFTG coupling panels that are each interjoined to an adjacent IFTG coupling panels at their side,

wherein one of said two tongue side faces and two groove interior faces is configured with corresponding arcuate protrusions and the other of said two tongue side faces and two groove interior faces is configured with corresponding arcuate recesses,

wherein each of said arcuate protrusions is slidably receivable within a corresponding arcuate recess to facilitate relative angular displacement between interconnected first and second IFTG coupling panels,

wherein the first portion and the second portion of the web are interconnected by a coupling panel having a tongue or groove of the FTG coupling panel at one side and a tongue or groove of the IFTG coupling panel at a second side,

wherein, when the web is leveled, each of the FTG coupling panels is rollable or foldable in a second angular direction and stiff or rigid in a first angular direction, and each of the IFTG coupling panels is rollable or foldable in the first angular direction and stiff or rigid in the second angular direction.

61. The web according to claim 1, wherein a plurality of the webs constitute a rollable or foldable frame,

wherein the webs of the frame are optionally arranged in a coiled formation such that an outer loop surrounds an inner loop adjacent to the outer loop, to provide a gap between each pair of adjacent loops within which the main web face of the web or of an additional web is protected and undamaged.