CLAIMS

1. A panel structure for a demountable partition system usable for dividing a room or for forming rooms and/or corridors or other structures,

the panel structure having two opposite major faces and in use being positioned in a generally upright orientation with other such panel structures of the demountable partition system, in which there are provided one or more rolling elements movable using a gearbox mechanism between an extended, ground-contacting position, and a retracted position within the panel structure, wherein

the panel structure comprises a base portion and a panel portion carried on the base portion, and said one or more rolling elements and said gearbox mechanism are self-contained within the base portion,

whereby the one or more rolling elements and the gearbox mechanism are disposed in relation to the panel structure to preserve an operating characteristic of the panel structure.

2. A panel structure as claimed in claim 1, wherein preserving an operating characteristic includes preserving integrity of the said two opposite major faces.

3. A panel structure as claimed in claim 1 or claim 2, wherein an operating characteristic of the panel structure includes one or both of: bullet proofing, acoustic proofing.

4. A panel structure as claimed in any of claims 1 to 3, in which the said one or more rolling elements comprises a plurality of wheels mounted in groups with each group on a common support.

5. A panel structure as claimed in claim 4, in which each group comprises two or four wheels.

6. A panel structure as claimed in claim 4 or claim 5, in which the said wheels are castor wheels.

7. A panel structure as claimed in any of claims 4 to 6, in which two or more groups of rolling elements are linked together for displacement of the rolling elements between the said extended and the said retracted positions in unison upon operation of a control member.

8. A panel structure as claimed in claim 7, in which operation of said control member is effected by a lever or crank handle.

9. A panel structure as claimed in claim 7 or claim 8, in which the mechanism for effecting displacement of the one or more rolling elements between the said extended and the said retracted positions comprises or includes a lead screw which causes or allows the one or more rolling elements to move between the said extended and the said retracted positions when turned about its longitudinal axis.

10. A panel structure as claimed in claim 10, in which there is provided between the control member and the lead screw one of: a bevel gear or helical or worm gear.

11. A panel structure as claimed in any of claims 4 to 10, in which a plurality of said common supports are linked together by a chain and sprocket which causes or allows the rolling elements to move together between the said extended and the said retracted positions.

12. A panel structure as claimed in any claims 4 to 10, in which a plurality of said common supports are linked together by a gear train which causes or allows the rolling elements to move together between the said extended and the said-retracted positions.

13. A panel structure as claimed in any preceding claim, in which there is provided a reinforced substantially bullet-proof layer between the said two opposite major faces of the panel structure.

14. A panel structure as claimed in claim 13, in which the said reinforced substantially bullet-proof layer lies in a plane inclined to the family of planes defined by the said two opposite major faces of the panel structure.

15. A panel structure as claimed in claim 14, in which at least part of the space between the said two opposite major faces of the panel structure contains a particulate material.

16. A panel structure as claimed in claim 15, in which the said particulate material comprises a hard stone aggregate, ceramic or metal balls or other particles, or sand.

17. A panel structure as claimed in any preceding claim, the panel structure being defined along at least two opposite sides by edges having half lap tongues which overlap one another when two such panel structures are placed in juxtaposition with respect to one another.

18. A panel structure as claimed in claim 17 when dependent on claim 13 or claim 14, in which the said half lap tongues on opposite edges of the panel structure are aligned with respective opposite major faces of the panel structure and the said bullet-proof layer extends into each said half lap tongue, whereby the bullet-proof layers of adjacent panel structures of the demountable partition system overlap one another.

19. A demountable partition system incorporating one or more panel structures as claimed in any preceding claim.

20. A base unit for providing the base portion of a panel structure as claimed in claim 1, wherein

said base unit comprises one or more rolling elements and a gearbox mechanism are self-contained within the base unit,

whereby the one or more rolling elements and the gearbox mechanism are disposed in relation to any superstructure mounted thereon to preserve an operating characteristic thereof.

CLAIMS

1. A panel structure for a demountable partition system usable for dividing a room or for forming rooms and/or corridors or other structures,

the panel structure having two opposite major faces and, in use, being positioned in a generally upright orientation with other such panel structures of the demountable partition system, in which there are provided one or more rolling elements movable using a gearbox mechanism between an extended, ground-contacting position, and a retracted position within the panel structure, wherein

the panel structure comprises a base portion and a panel portion carried on the base portion, and

said one or more rolling elements and said gearbox mechanism are self-contained within the base portion, whereby the one or more rolling elements and the gearbox mechanism do not intrude into the panel portion to thereby maintain the integrity of and preserve an operating characteristic of the panel portion; in which

there is provided a reinforced substantially bullet-proof layer between the said two opposite major faces of the panel structure,

the said reinforced substantially bullet-proof layer lies in a plane inclined to the family of planes defined by the said two opposite major faces of the panel structure,

the panel structure being defined along at least two opposite sides by edges having half lap tongues which overlap one another when two such panel structures are placed in juxtaposition with respect to one another,

the said half lap tongues on opposite edges of the panel structure are aligned with respective opposite major faces of the panel structure, and

the said bullet-proof layer extends into each said half lap tongue, whereby the bullet-proof layers of adjacent panel structures of the demountable partition system overlap one another.

2. A panel structure as claimed in claim 1, wherein the base portion is fixed to the underside of the panel portion.

3. A panel structure as claimed in claim 1 or claim 2, wherein said operating characteristic of the panel portion includes one or both of: bullet proofing, acoustic proofing.

4. A panel structure as claimed in any of claims 1 to 3, in which the said one or more rolling elements comprises a plurality of wheels mounted in groups with each group on a common support.

5. A panel structure as claimed in claim 4, in which each group comprises two or four wheels.

6. A panel structure as claimed in claim 4 or claim 5, in which the said wheels are castor wheels.

7. A panel structure as claimed in any of claims 4 to 6, in which two or more groups of rolling elements are linked together for displacement of the rolling elements between the said extended and the said retracted positions in unison upon operation of a control member.

8. A panel structure as claimed in claim 7, in which operation of said control member is effected by a lever or crank handle.

9. A panel structure as claimed in claim 7 or claim 8, in which the mechanism for effecting displacement of the one or more rolling elements between the said extended and the said retracted positions comprises or includes a lead screw which causes or allows the one or more rolling elements to move between the said extended and the said retracted positions when turned about its longitudinal axis.

10. A panel structure as claimed in claim 9, in which there is provided between the control member and the lead screw one of: a bevel gear or helical or worm gear.

11. A panel structure as claimed in any of claims 4 to 10, in which a plurality of said common supports are linked together by a chain and sprocket which causes or allows the rolling elements to move together between the said extended and the said retracted positions.

12. A panel structure as claimed in any claims 4 to 10, in which a plurality of said common supports are linked together by a gear train which causes or allows the rolling elements to move together between the said extended and the said-retracted positions.

13. A panel structure as claimed in any of claims 1 to 12, in which the base portion is wider than the thickness of the panel portion.

14. A panel structure as claimed in any of claims 1 to 13, in which at least part of the space between the said two opposite major faces of the panel structure contains a particulate material.

15. A panel structure as claimed in claim 14, in which the said particulate material comprises a hard stone aggregate, ceramic or metal balls or other particles, or sand.

16. A demountable partition system incorporating one or more panel structures as claimed in any preceding claim.