CLAIMS

1. An anchoring device comprising:

a finger-mountable work channel defining assembly defining a finger mounting axis and a work channel axis angled with respect to said finger mounting axis, said finger-mountable work channel defining assembly defining an aperture lying generally in an aperture plane angled with respect to said finger mounting axis and with respect to said work channel axis;

an anchor insertion assembly arranged for limited axial displacement along said work channel axis with respect to said aperture so as to intersect said aperture plane; and

an anchor assembly including at least a penetrating element, an anchoring portion and a flexible elongate portion attached to said penetrating element, said anchoring portion having a non-compressed state, defining a pre-anchoring operative orientation, and a compressed state, defining an anchoring operative orientation,

said penetrating element including a pointed forward portion, a neck portion and a rearward engagement portion, said rearward engagement portion including a pair of flexible retaining fingers; and

said anchoring element including a pair of retaining apertures, said pair of retaining apertures arranged for retaining engagement with said pair of flexible retaining fingers.

2. An anchoring device according to claim 1 and wherein said anchor insertion assembly is arranged so as to intersect said aperture plane adjacent said aperture.

3. An anchoring device according to claim 2 and wherein said anchoring portion is displaceable along said work channel axis across said aperture plane by said anchor insertion assembly while in said pre-anchoring operative orientation.

4. An anchoring device according to claim 1 and wherein said finger-mountable work channel defining assembly defines a finger anchoring location engagement portion lying generally in an orientation angled with respect to said work channel axis; and

said anchor insertion assembly is arranged for axial displacement along said work channel axis with respect to said engagement portion so as to engage an anchoring location adjacent said engagement portion.

5. An anchoring device according to any of claims 1 - 4 and wherein said finger mounting axis lies in a finger mounting axis plane, said work channel axis lies in a work channel axis plane, which is parallel to said finger mounting axis plane, and said aperture plane is orthogonal to said mutually parallel finger mounting axis plane and to said work channel axis plane.

6. An anchoring device according to any of claims 1 - 5 and wherein said finger mountable work channel defining assembly comprises a finger mount element, an elongate work channel defining element and an insertion and stop defining element, which is fixedly mounted onto said elongate work channel defining element.

7. An anchoring device according to claim 6 and wherein:

said finger mounted element defines a forward mounting channel and a rearward mounting channel for mounting said elongate work channel defining element; and

a first end of said elongate work channel defining element is seated at a location intermediate along said forward mounting channel.

8. An anchoring device according to any of claims 1 - 7 and wherein said finger mountable work channel defining assembly is formed as a single piece of a partially flexible plastic material and defines two side walls joined at an end wall and underside wall and is configured to enable an underside of the operator's finger to engage an anchoring site.

9. An anchoring device according to claim 7 or claim 8 and wherein said finger mountable work channel defining assembly defines forward and rearward throughgoing fixed mounting channels for fixedly mounting of said elongate work channel defining element.

10. An anchoring device according to any of claims 1 - 9 and wherein said work channel axis is angled with respect to said finger axis by 7 degrees.

11. An anchoring device according to any of claims 1 - 10 and wherein said work channel axis is angled with respect to said aperture plane by 40 degrees.

12. An anchoring device according to claim 6 and wherein said insertion and stop defining element is a hollow element including a generally cylindrical hollow portion which communicates with a hollow funnel-shaped portion defining an edge, which serves as a precise stop limiting the axial extent of displacement of the anchor insertion assembly therethrough.

13. An anchoring device according to any of claims 1 - 12 and wherein said anchor insertion assembly comprises first and second housing portions onto which are mounted an inner tube and button assembly, said inner tube and button assembly including a button and a first elongate tube, said button being fixedly mounted to said first elongate tube at an end of said first elongate tube.

14. An anchoring device according to claim 13 and also comprising an outer tube and retainer assembly mounted onto said first and second housing portions.

15. An anchoring device according to claim 14 and wherein said outer tube and retainer assembly includes a second elongate tube, a retaining disk, which is fixedly mounted onto an end of ~~an~~ said second elongate tube and a coil spring, said coil spring being mounted over said first elongate tube between said button and said retaining disk.

16. An anchoring device according to claim 15 and wherein each of said first and second housing portions include multiple structural internal ribs, said ribs defining:

a first pair of sockets for accommodating said button and permitting limited axial translation thereof along an axis; and

a second pair of sockets for accommodating said retaining disk and not permitting axial translation thereof along said axis.

17. An anchoring device according to claim 15 or claim 16 and also comprising a button guard element pivotably mounted onto said first and second housing portions for selectable protective engagement with said button.

18. An anchoring device according to any of claims 13 - 17 and wherein said button is configured to have an engagement surface formed with a pair of retaining recesses arranged on opposite sides of a transverse slit and an axial bore, which extends therethrough and defines an aperture in said engagement surface at said transverse slit.

19. A method for utilizing an anchoring device according to any of claims 1 - 18 for positioning and inserting an anchoring assembly into an anchoring substrate, the method comprising:

inserting a finger of a user into said finger-mountable work channel defining assembly, whereby a distal phalanx of said finger is arranged so as to engage said anchoring substrate; and

inserting said anchor insertion assembly into said finger-mountable work channel defining assembly with said anchor assembly preloaded therein, such that the orientation of said finger of said user precisely defines the location of anchoring engagement of said anchor assembly with said anchoring substrate.

20. A method according to claim 19 and wherein an extent of insertion of said anchor assembly in said anchoring substrate is precisely limited by engagement between said anchor insertion assembly and said finger-mountable work channel defining assembly.