Claims

1. A tensioning frame for tensioning a printing screen, the tensioning frame being planar in a plane and comprising a plurality of elongate beams which extend around a periphery of the tensioning frame to define the tensioning frame, each beam having a length and comprising:

an engagement side arranged such that the engagement side of each beam is co-planar and orientated parallel to the plane of the tensioning frame,

a beam body,

an elongate channel formed within the beam body which extends parallel to the length of the beam and has an opening at the engagement side,

an engagement body located within the channel carrying an engagement surface for engaging with the printing screen in use, the engagement surface being movable with respect to the beam body along a range of travel in a plane normal to the length of the beam, and

an actuator operatively connected to the engagement body for moving the engagement body, and hence engagement surface, relative to the beam body,

wherein at least one beam comprises at least one strut which spans the elongate channel, so that the engagement surface projects outwardly of the beam from the opening of the elongate channel and beyond the strut, during at least part of the engagement surface's range of travel.

2. The tensioning frame of claim 1, comprising a brace plate adapted to fit to the beam body adjacent the opening of the elongate channel, the brace plate comprising an aperture sized to receive the engagement surface, and wherein the strut is formed within the brace plate to delimit the aperture.

3. The tensioning frame of claim 2, wherein the brace plate comprises first and second interfaces respectively located at opposite sides thereof, which in use engage with respective features located on the beam body at opposite sides of the opening of the elongate channel.

4. The tensioning frame of either of claims 2 and 3, wherein the brace plate and beam body are mutually detachable.

5. The tensioning frame of any preceding claim, wherein the engagement body is rotatably movable with respect to the beam body, about an axis arranged parallel to the length of the beam.

6. The tensioning frame of any of claims 1 to 4, wherein the engagement body is linearly movable with respect to the beam body.

7. The tensioning frame of claim 1, wherein the elongate channel is discontinuous along the length of the beam to form a plurality of pockets separated by respective walls, the engagement body being located within a pocket, and wherein the strut comprises one such wall separating adjacent pockets.

8. The tensioning frame of claim 7, comprising an elongate shaft which runs within the beam and parallel to the length of the beam through holes located in the beam body, and through a through-bore formed in the engagement body, such that the engagement body is retained within the pocket.

9. The tensioning frame of claim 8, wherein the elongate shaft has an axis and the engagement body is rotatably movable about the axis.

10. The tensioning frame of claim 8, wherein the through-bore is formed as an elongate slot, and wherein the engagement body is linearly movable with respect to the shaft within an extent constrained by a relative movement of the shaft along the elongate slot.

11. The tensioning frame of any preceding claim, comprising at least one additional engagement body carrying a respective engagement surface, such that the engagement surfaces of each engagement body form a composite engagement surface extending along the beam.

12. The tensioning frame of claim 11, wherein each engagement surface is spaced apart by at least a width of a strut, such that the composite engagement surface is discontinuous.

13. The tensioning frame of claim 11 when dependent on claim 7, wherein each engagement surface is longer than a part of the engagement body located in the elongate channel, such that the composite engagement surface is substantially continuous along the length of the beam.

14. The tensioning frame of any preceding claim, being of rectangular form and comprising four elongate beams.

15. The tensioning frame of any preceding claim, wherein adjacent beams are connected by corner sections.

16. A tensioning frame for tensioning a printing screen, the tensioning frame being planar in a plane and comprising a plurality of elongate beams which extend around a periphery of the tensioning frame to define the tensioning frame, each beam having a length and comprising:

an engagement side arranged such that the engagement side of each beam is co-planar and orientated parallel to the plane of the tensioning frame,

a beam body,

an elongate channel formed within the beam body which extends parallel to the length of the respective beam and has an opening at the engagement side,

an engagement body located within the channel carrying an engagement surface for engaging with the printing screen in use, the engagement surface being movable with respect to the beam body along a range of travel in a plane normal to the length of the beam, and

an actuator operatively connected to the engagement body for moving the engagement body, and hence engagement surface, relative to the beam body,

wherein the engagement body comprises a through-bore, and the beam comprises an elongate shaft which passes through both the beam body and the through-bore of the engagement body, to retain the engagement body within the elongate channel.

17. The tensioning frame of claim 16, wherein the elongate shaft runs within the beam and parallel to the length of the beam through holes located in the beam body.

18. The tensioning frame of either of claims 16 and 17, wherein the elongate channel is discontinuous along the length of the beam to form a plurality of pockets separated by respective walls, the engagement body being located within a pocket.

19. The tensioning frame of claim 18, comprising at least one additional engagement body located in a respective pocket, each engagement body carrying a respective engagement surface, such that the engagement surfaces of each engagement body form a composite engagement surface extending along the beam.

20. The tensioning frame of any of claims 16 to 19, wherein the elongate shaft has an axis and the engagement body is rotatably movable about the axis.

21. The tensioning frame of any of claims 16 to 19, wherein the through-bore is formed as an elongate slot, and wherein the engagement body is linearly movable with respect to the shaft within an extent constrained by a relative movement of the shaft along the elongate slot.

22. The tensioning frame of claim 17, wherein the holes are formed as elongate slots, and wherein the engagement body is linearly movable with respect to the beam body, within an extent constrained by a relative movement of the shaft along the elongate slots.