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(56) Related Art
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A TRUSS

Abstract

A safety mesh assembly (10) to be fixed to the floor (11) of building under construction. Trusses (13) provide track members (33) that provide for extension and retraction of a net assembly (14)

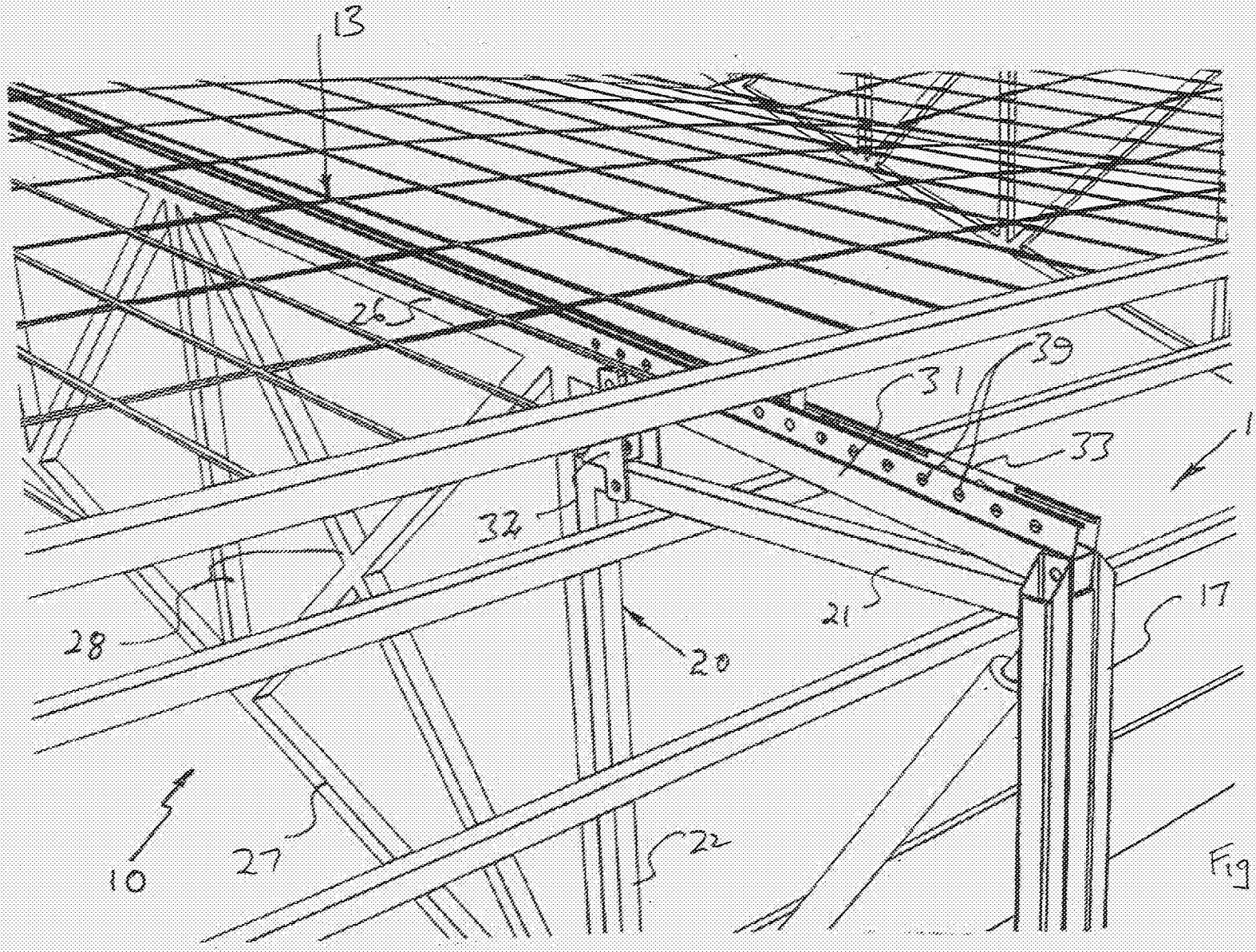

Fig 2

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A TRUSS

Technical Field

[0001] The present invention relates to beams (including trusses) that are used to support safety nets employed in the construction industry.

Background of the Invention

[0002] On constructions sites, falling debris and objects pose a substantial safety risk. With the view of improving safety, the construction industry employs nets that are attached to the building under construction and extend laterally therefrom. The nets are provided to "catch" objects and debris that may fall from the building under construction.

[0003] Currently available nets and their supporting structures suffer from a number of disadvantages including difficulty and cost associated with installation and removal.

Object of Invention

[0004] It is the object of the present invention to overcome or to substantially ameliorate at least one of the above disadvantages.

Summary of Invention

[0005] There is disclosed herein an assembly including:

an elongated beam providing a track extending longitudinally of the beam;

a sheet supported by the beam;

at least one track follower located in the track but moveable longitudinally of the track, with the track follower being attached to the sheet and to provide for movement of the sheet longitudinally of the beam; and

a spring biased catch including a catch member pivotally attached to the elongated beam, wherein the catch is located substantially in the track and the catch member is urged to a position at which the track follower is retained at a position adjacent a remote end of the elongated beam.

[0006] Preferably the track follower is captively located in the track.

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[0007] Preferably the beam is a truss so as to have an upper elongated beam member that provides the track, with truss members being attached to the beam member but located below the beam member.

[0008] Preferably the upper beam member includes a longitudinally extending tubular member having an upwardly facing longitudinally extending face, and a track member attached to tubular member, the track member having a longitudinally extending upwardly open face through which the track follower extends to be attached to the sheet.

[0009] Preferably the assembly includes a plurality of track followers, each of the track followers being captively located with respect to the track and moveable there along and being attached to the sheet.

[0010] Preferably the sheet is mesh.

[0011] Preferably the sheet is nylon mesh.

Brief Description of Drawings

[0012] Preferred forms of the present invention will now be described, by way of an example only, with reference to the accompanying drawings wherein:

[0013] Figure 1 is the schematic isometric view of a safety mesh assembly for a building under construction;

[0014] Figure 2 is the schematic isometric view of portion of the assembly of Figure 1;

[0015] Figure 3 is the schematic isometric view of a truss employed in the assembly of Figure 1;

[0016] Figure 4 is a schematic side elevation of the truss of Figure 3;

[0017] Figure 5 is a schematic side elevation of the portion 5 of Figure 4;

[0018] Figure 6 is a schematic end elevation of portion of the assembly of Figure 1;

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[0019] Figure 7 is a schematic elevation of portion of the assembly of Figure 1; and

[0020] Figure 8 is a schematic side elevation of the portion 8 of Figure 4.

Description of Embodiments

[0021] In the accompanying drawings there is schematically depicted a safety mesh assembly 10 that would be fixed to the floor 11 of a building under construction. As a particular example, the floor 11 may be provided by a concrete slab.

[0022] Typically the assembly 10 would be mounted on the floor 11 adjacent an edge thereof.

[0023] The assembly 10 includes a plurality of bases 12 that are fixed to and extend upwardly from the floor 11. Each base 12 has attached to it and supports a truss 13. Supported by the trusses 13 is a safety net assembly 14 that includes a net 15 to which there is attached edge members 16. Typically the edge members 16 would be tubular rods, with the net 15 fixed thereto and extending between the members 16.

[0024] Each base 12 includes a generally vertically oriented post 17 to the lower end of which there is fixed a mounting plate 18. Threaded fasteners would pass through the plate 18 to anchor the base 12 to the floor 11.

[0025] Fixed to an upper portion of the post 17 is a brace member 24 that includes a generally horizontally extending first part 21 and a generally upwardly extending second part 20. The lower end of the part 22 is attached to a lower portion of the post 17 by means of a metal strap 23.

[0026] A diagonal member 20, that is preferably adjustable in longitudinal length, is attached to a lower portion of the part 22, and an upper part of the post 17.

[0027] A plate 25 is attached is attached to a lower portion of the part 22, with the strap 23 and brace 24 also being attached to the plate 25.

[0028] The truss 13 includes a generally horizontally extending upper truss beam 23 supported by braces 28, and a lower beam 27.

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[0029] The braces 28 include an end brace 29 with pairs of flanges 30 within which the part 20 is located.

[0030] The upper beam 26 has an end length 31 with the end extremity thereof attached to the upper end of the post 17.

[0031] The upper beam 26 has an upwardly facing longitudinally extending face 31 to which there is attached a longitudinally extending track member 33. The track member 33 provides a longitudinally extending track 47.

[0032] Attached to the edge members 16 are track followers 34.

[0033] Each track follower 34 includes a carriage 35 with wheels 36 that move along the track 47 and engage an internal surface of the track member 33.

[0034] The track member 33 has longitudinally extending flanges 38 that retain the wheels 35 inside the track member 33 so that the track followers 34 are essentially captive with respect to the track members 33. The track followers 34 each include a bolt 48 that projects out of the track 47 to be fixed to the edge member 16. That is the bolt 48 projects through an upwardly open face of the track member 33.

[0035] When attaching the safety net assembly 14 to the beams 13, the carriages 35 are engaged in the track member 33 adjacent the post 17 and move longitudinally of the track member 33 towards the remote end of the beam 13. As the leading edge member 16 moves along the track member 13, the net 15 is spread between the remote ends of the beams 13. The edge member 16 adjacent the post 17 can be retained in position by a fastener or pin passing through a selected pair of aligned passages 39 in the end length 31.

[0036] The edge member 16 most remote from the post 17 is retained adjacent the end extremity of the beam 13 by a catch 40. The catch 40 includes a catch member 41 pivotally attached to the beam 26 via a pivot shaft 42. A spring 43 extends between the beam 26 and catch member 41to urge the catch member 41 to a position at which the end track follower 34 is retained at a position adjacent the remote end of the beam 13. An elongated flexible element, such as a wire 43 extends from the catch member 41 to a position adjacent the post 17 that is pulled (tensioned)

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to pivot the catch member 41 in the direction 44 so that the track follower 34 is released for movement in the direction 45.

[0037] A cable or other flexible element 46 extends from adjacent the post 17 to the edge member 16 that is to be positioned most remote from the post 17 so that an operated can pull the element 46 to move the edge member 16 towards the remote extremity of each beam 13 to aid in assembly.

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CLAIMS:

1. An assembly including:

an elongated beam providing a track extending longitudinally of the beam;

a sheet supported by the beam;

at least one track follower located in the track but moveable longitudinally of the track, with the track follower being attached to the sheet and to provide for movement of the sheet longitudinally of the beam; and

a spring biased catch including a catch member pivotally attached to the elongated beam, wherein the catch is located substantially in the track and the catch member is urged to a position at which the track follower is retained at a position adjacent a remote end of the elongated beam.

2. The assembly of claim 1, wherein the track follower is captively located in the track.

3. The assembly of claim 1 or 2, wherein the beam is a truss so as to have an upper elongated beam member that provides the track, with truss members being attached to the beam member but located below the beam member.

4. The assembly of claim 3, wherein the upper beam member includes a longitudinally extending tubular member having an upwardly facing longitudinally extending face, and a track member attached to tubular member, the track member having a longitudinally extending upwardly open face through which the track follower extends to be attached to the sheet.

5. The assembly of any one of claims 1 to 4, further including a plurality of track followers, each of the track followers being captively located with respect to the track and moveable there along and being attached to the sheet.

6. The assembly of any one of claims 1 to 5, wherein the sheet is mesh.

7. The assembly of any one of claims 1 to 6, wherein the sheet is nylon mesh.

Workright Edge Protection Systems Pty Ltd

Patent Attorneys for the Applicant/Nominated Person

SPRUSON & FERGUSON

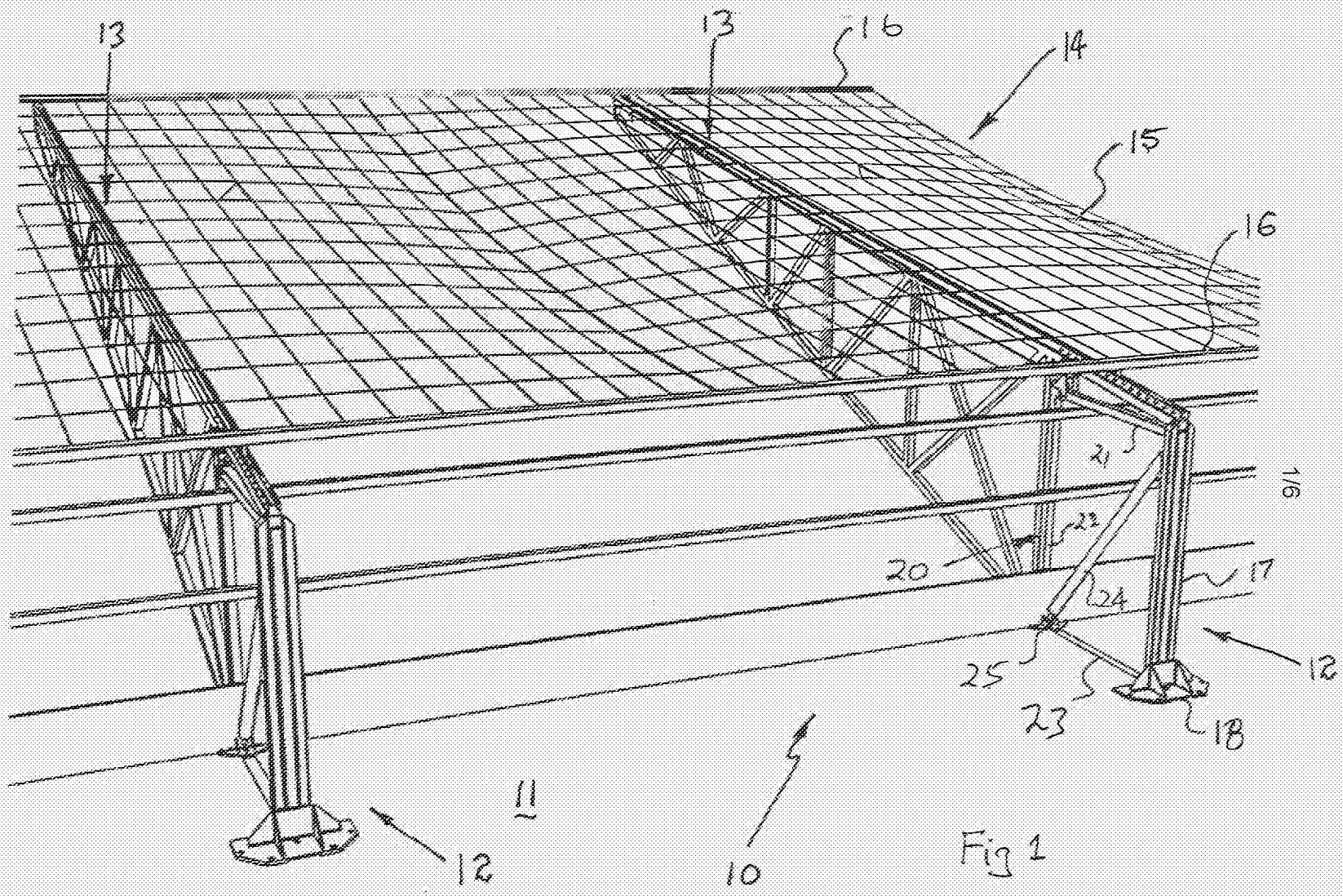

Fig 1

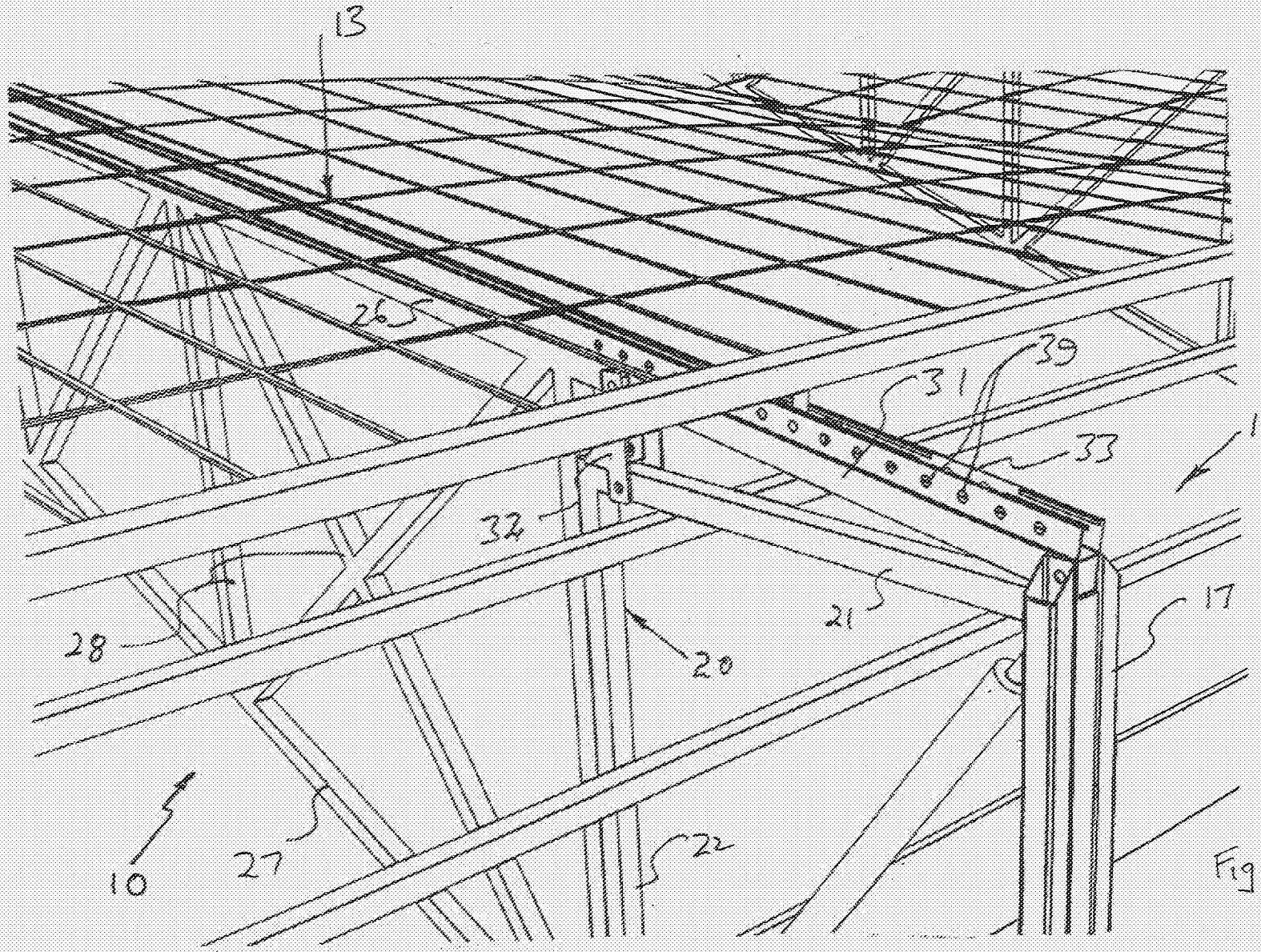

Fig 2

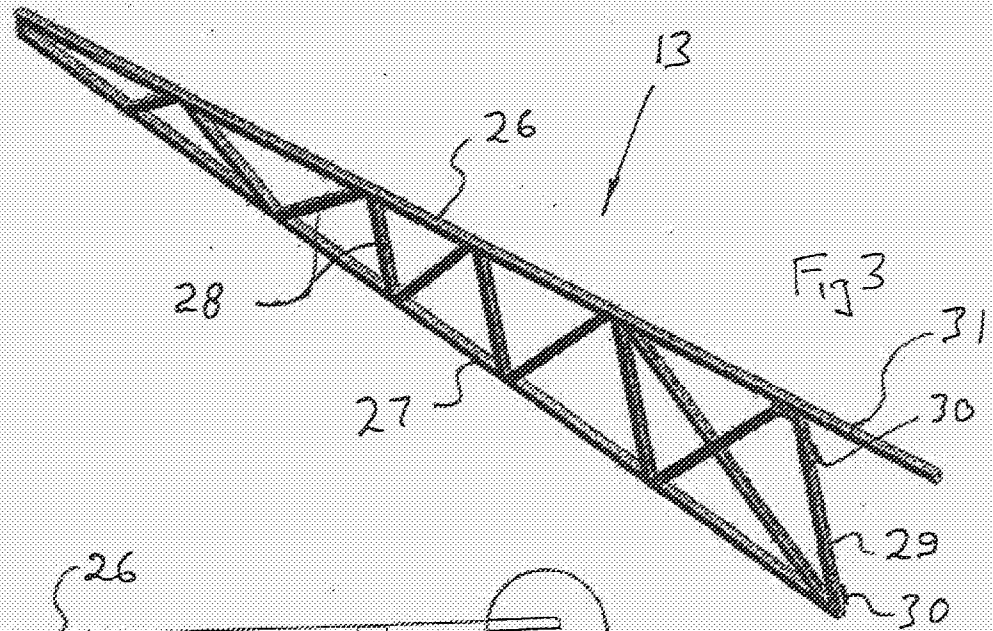

Fig 3

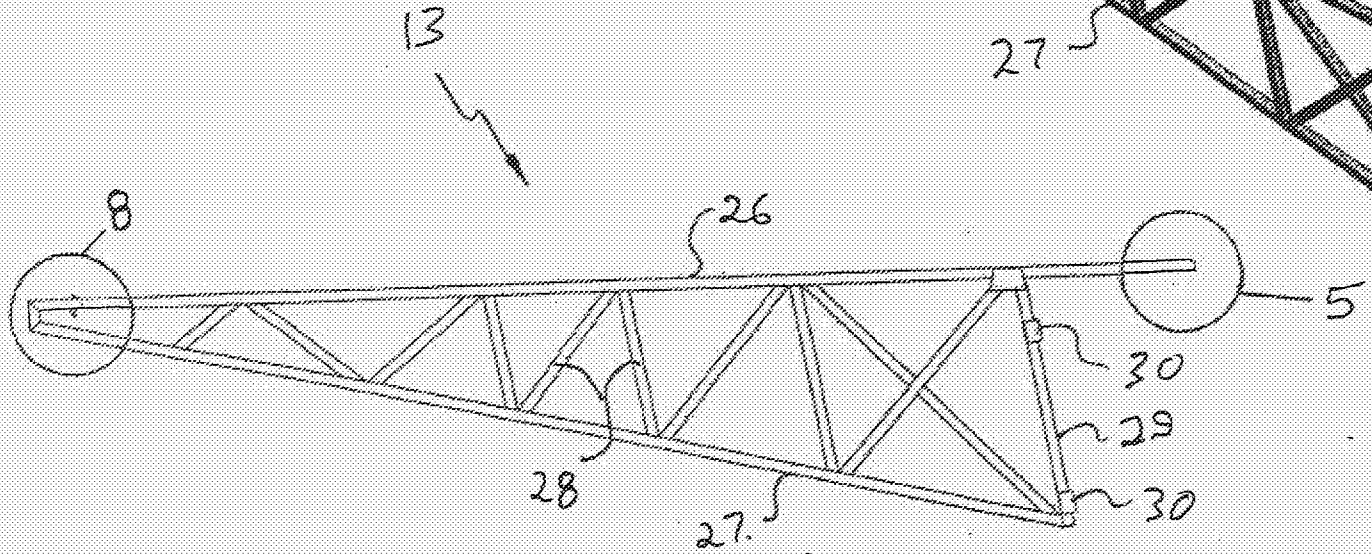

Fig 4

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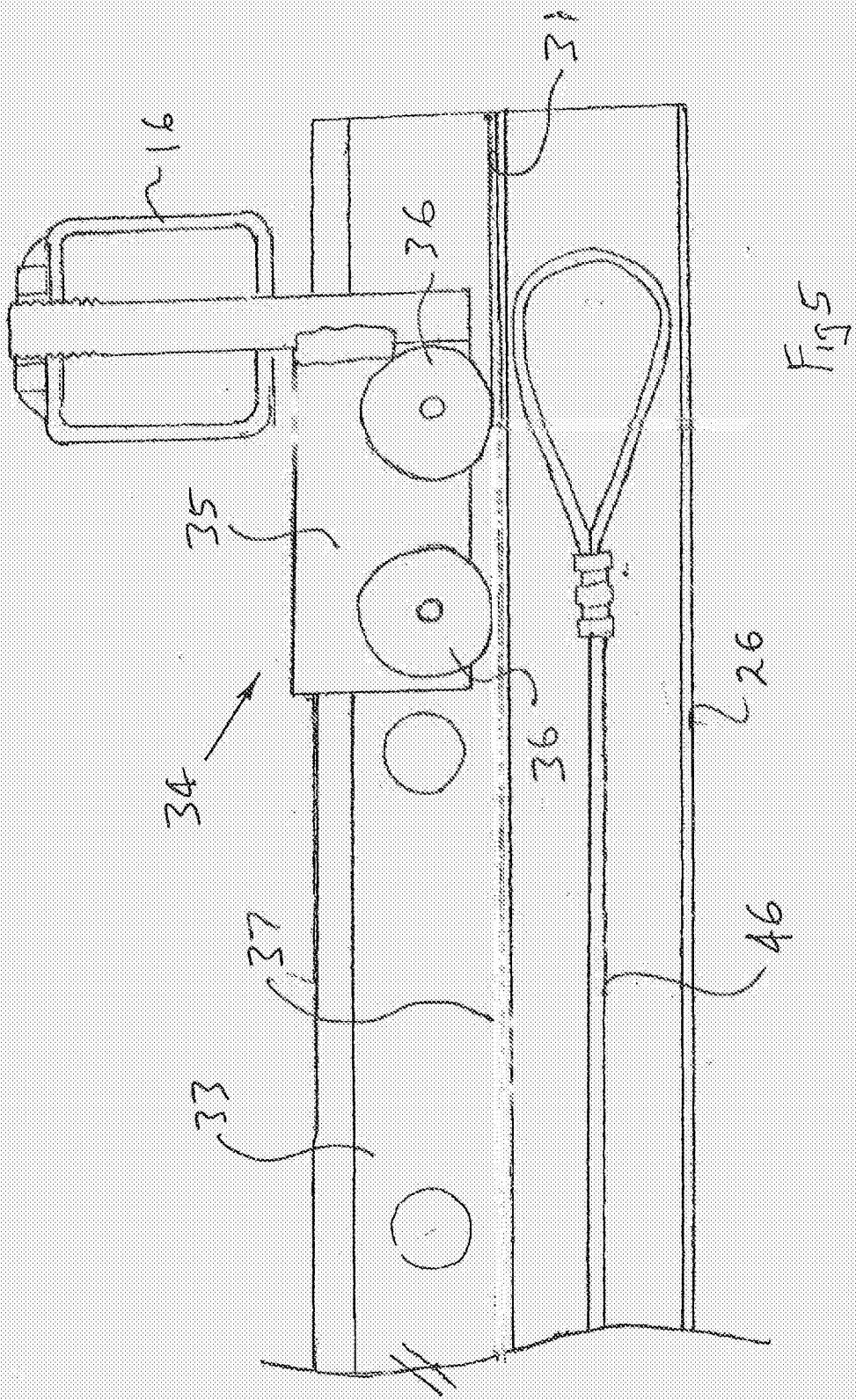

Fig 5

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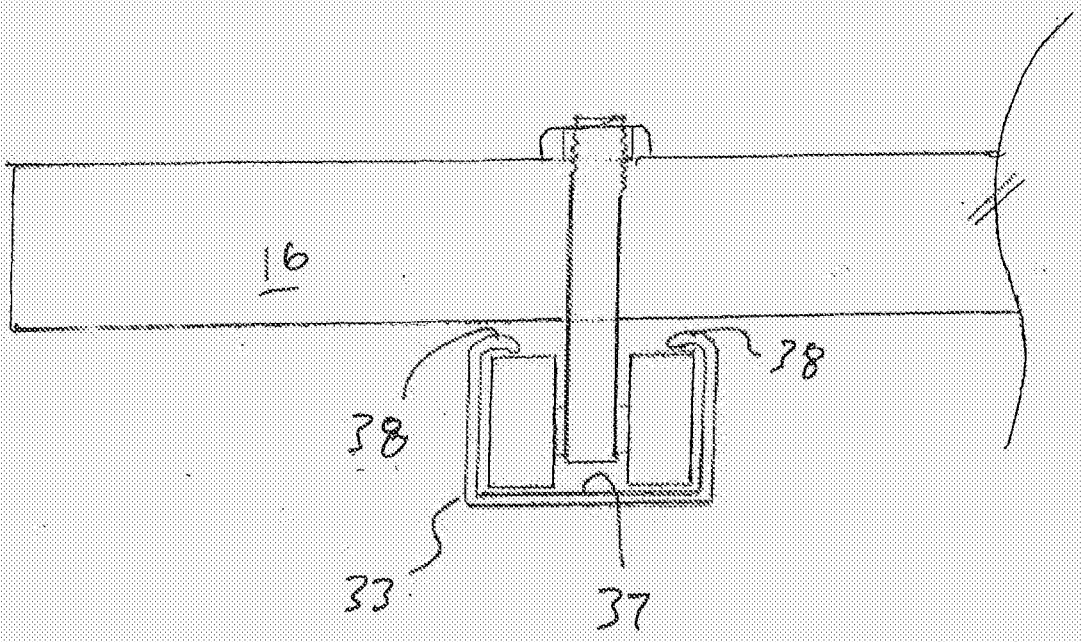

Fig 6

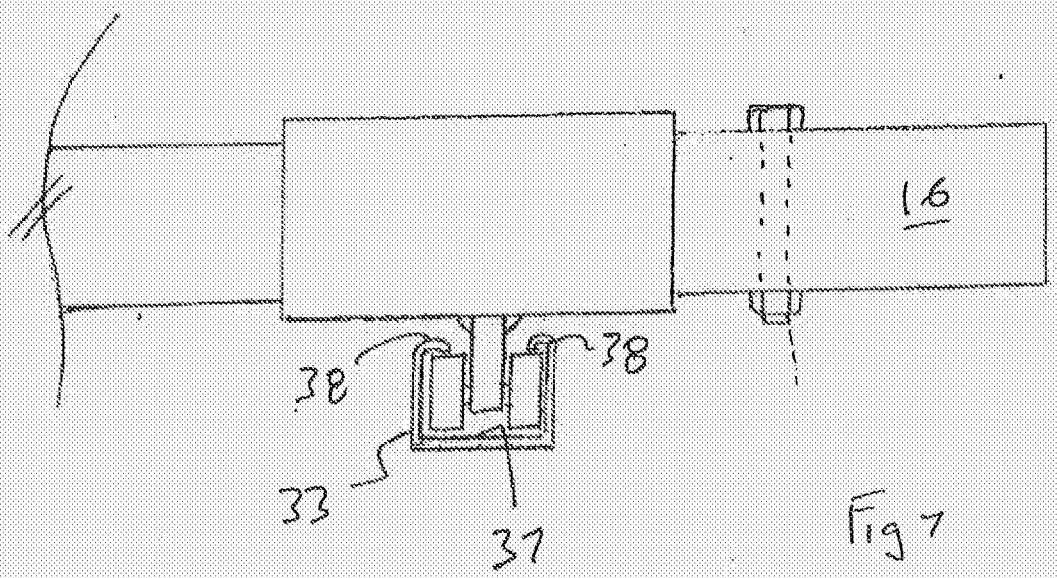

Fig 7

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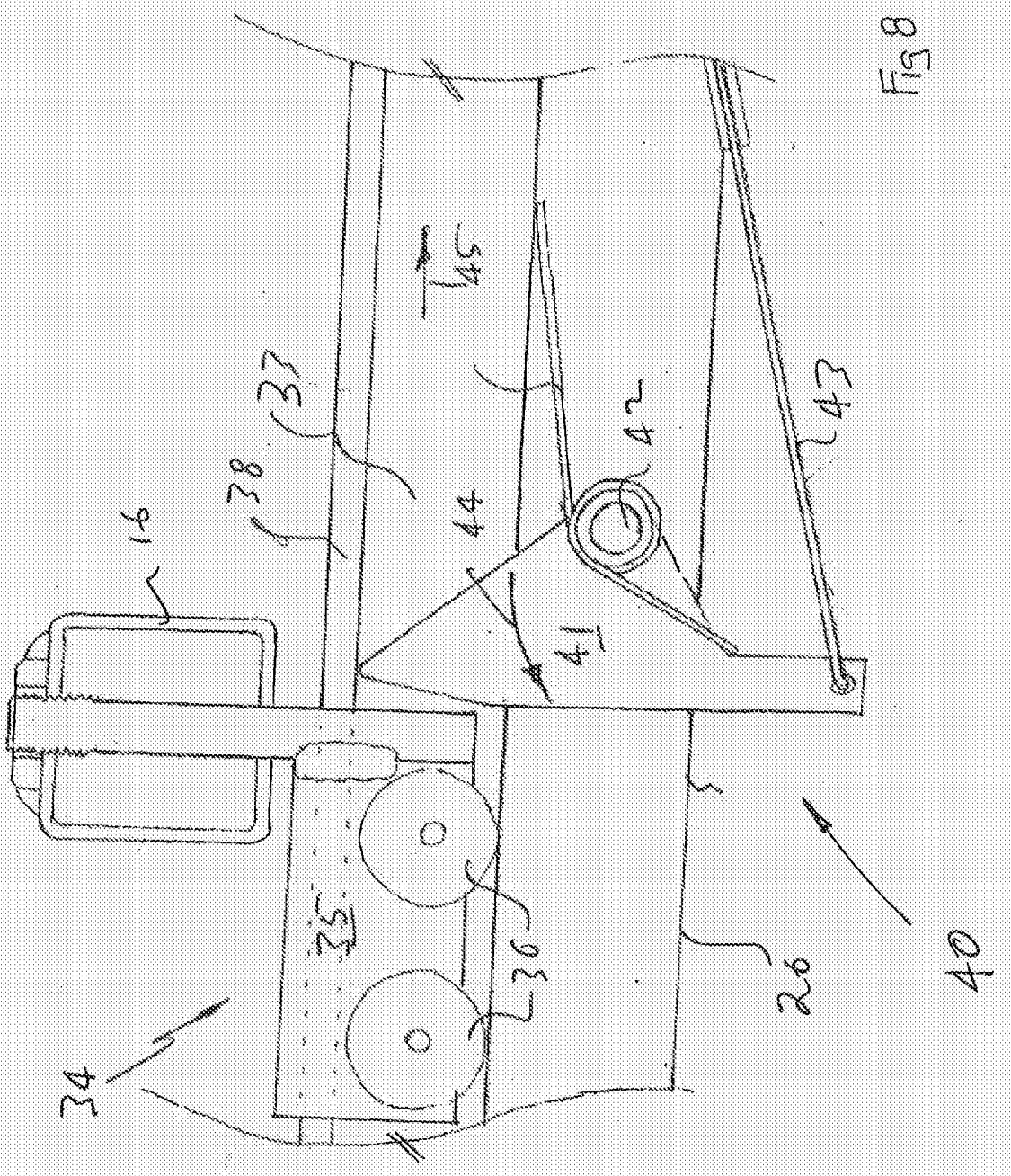

Fig 8