March 11, 1930. F. B. JOHNSTON 1,750,269

CABLE SCAFFOLD

Filed Feb. 7, 1928 2 Sheets-Sheet 1

Fig. 1.

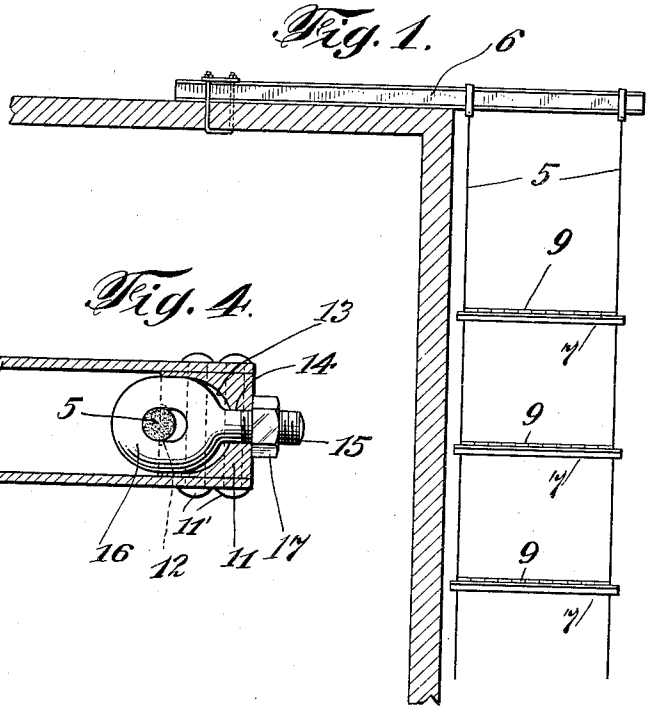


Fig. 4.

Fig. 3.

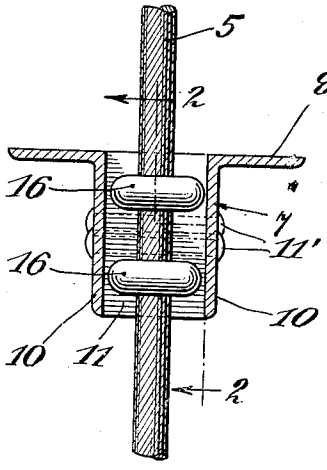
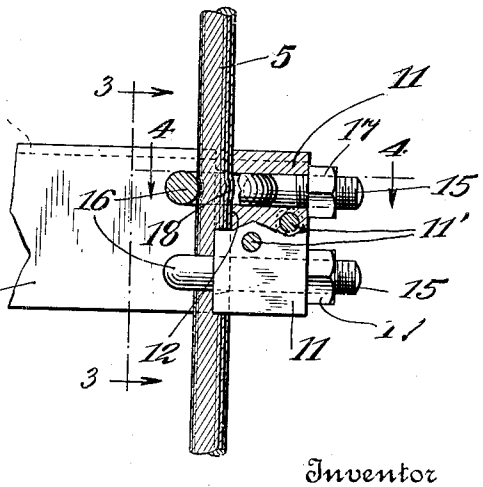


Fig. 2.



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Fig. 6.

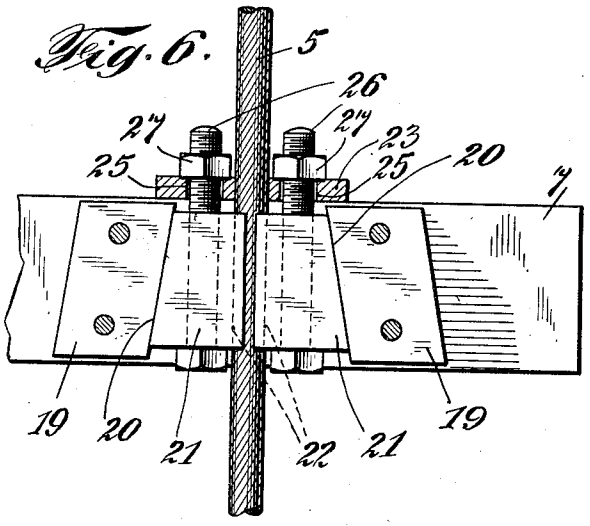


Fig. 5.

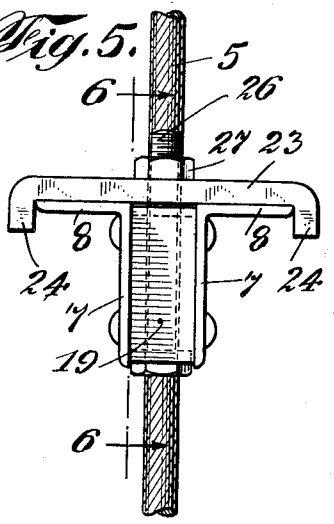


Fig. 8.

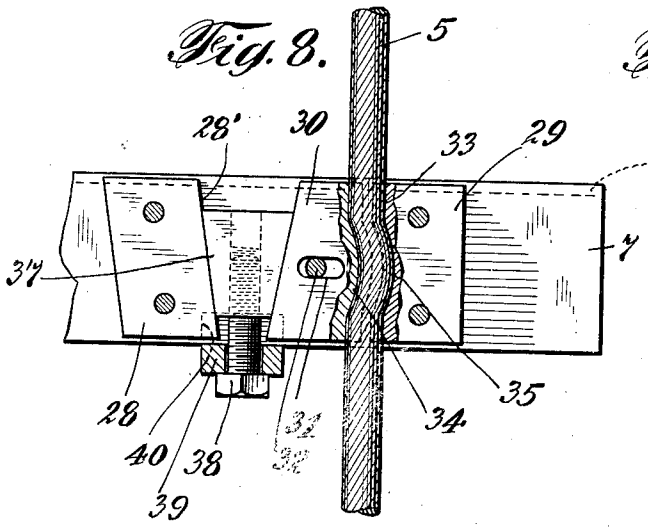
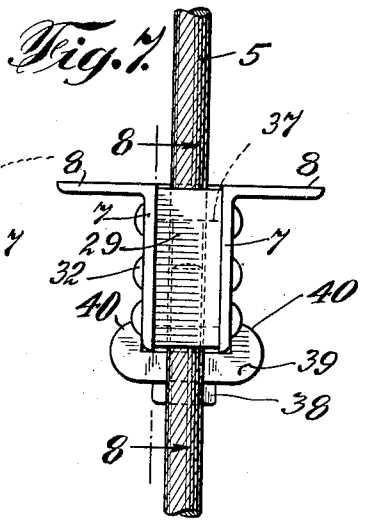


Fig. 7.



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UNITED STATES PATENT OFFICE

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CABLE SCAFFOLD

Application filed February 7, 1928. Serial No. 252,443.

This invention relates to cable scaffolds, and more particularly to a platform supporting putlog and means for securely locking said putlog at its ends in connection with the flexible scaffold suspending cables.

It is the primary object and purpose of my present invention to provide a device of the above character which will enable a plurality of putlogs for supporting vertically superposed platforms to be easily and quickly adjusted relative to each other along the suspending cables, and then rigidly locked at their ends to said cables to preclude any possibility of slipping of the putlogs on the cables under the weight of the workmen on the suspended platform.

It is another object of my invention to provide a putlog of novel construction consisting of spaced beams of inverted L-shaped form in cross section and means arranged between and rigidly connecting the beams with each other at their ends and manually adjustable cable clamping means associated with said connecting means between the beams for adjustment relative thereto and adapted to rigidly lock and hold the end of the putlog in connection with the cable.

With the above and other objects in view, the invention consists in the improved cable scaffold and in the form, construction and relative arrangement of the platform supporting putlog and the cable clamping means thereof as will be hereinafter more fully described, illustrated in the accompanying drawings and subsequently incorporated in the subjoined claims.

In the drawings, wherein I have shown several simple and practical embodiments of the invention, and in which similar reference characters designate corresponding parts throughout the several views,—

Figure 1 is an end view of a cable scaffold having multiple platforms;

Fig. 2 is a detail vertical sectional view of the end of one of the putlogs taken substantially on the line 2—2 of Fig. 3;

Fig. 3 is a transverse section taken on the line 3—3 of Fig. 2;

Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 2;

Fig. 5 is an end elevation illustrating a slightly modified form of the device;

Fig. 6 is a longitudinal sectional view taken on the line 6—6 of Fig. 5;

Fig. 7 is a view similar to Fig. 5, showing a further alternative embodiment of the invention, and

Fig. 8 is a sectional view taken substantially on the line 8—8 of Fig. 7.

In multiple platform scaffolds of one well known type used in the construction of buildings, the several platforms are suspended in spaced vertically superposed relation by means of cables shown at 5 in Fig. 1 of the drawings. These cables are arranged in spaced pairs across the face of the building and are suitably connected at their upper ends with beams or outriggers such as that indicated at 6 which project outwardly from the face of the building wall. Each pair of the cables 5 is connected at vertically spaced points by platform supporting putlogs, and it is the principal object and purpose of my present invention to provide means carried by each putlog at its opposite ends whereby a rigidly locked connection between the end of the putlog and the suspending cable may be easily and quickly made.

With the above end in view, as clearly shown in Fig. 3 of the drawings, each putlog consists of a pair of angle bars or beams 7 of inverted L-shaped form in cross section, the horizontal flanges 8 thereof projecting in relatively opposite directions to receive and support the ends of the platform planks indicated at 9 in Fig. 1 of the drawings.

The vertically disposed flanges 10 of the bars 7 are rigidly connected with each other at the opposite ends of the putlog by means of the spacer blocks 11 arranged between said flanges and permanently fixed thereto by the transverse bolts or rivets 11'.

The inner face of each spacer block 11 is formed with a vertically extending cable receiving groove 12. At vertically spaced points, horizontally extending pockets or recesses 13 are formed in the spacer block 11 and open upon the inner end face thereof in communication with the groove 12. At their other or outer ends, bolt receiving openings

14 are formed through the blocks 11 and communicate with the recesses 13.

A pair of adjustable clamping members is mounted in each of the blocks 11 and as herein shown each clamping member consists of a threaded bolt 15 having an elongated eye 16 at one of its ends. This eye is movably positioned in the recess 13 and projects inwardly from the block 11 while the threaded shank or bolt 15 extends outwardly through the opening 14 and has the adjusting nut 17 threaded thereon in bearing contact against the outer end of the block 11. The suspended cable 5 is engaged through the eye 16, and these vertically spaced eyes retain the cable in position within the vertical groove 12 in the end face of the block 11.

In the application and use of the invention as above described, after the cables have been threaded through the eyes 16 carried by the several putlogs, the latter are adjusted along said cables and spaced apart from each other for the desired distance. The nuts 17 are then adjusted to draw the eye-bolts outwardly, the eyes 16 moving into the recesses 13 and thereby tightly binding the cable against the wall of the groove 12. At the point of engagement of the eye-bolt with the cable, a slight bend will be formed in the cable as indicated at 18 in Fig. 2 of the drawings, the transverse strain of the eye-bolt against the cable tending to force the cable into the recess 13. The cable will therefore, be locked against the shoulders formed at the juncture of the upper and lower walls of the recess 13 with the wall of the vertical groove 12, thereby effectually preventing any sliding movement of the putlog along the cable under the weight imposed upon the platform 9 supported by the putlog.

In Figs. 5 and 6 of the drawings, I have shown a modified form of the device in which longitudinally spaced blocks 19 are arranged between the bars 7 of the putlog at its opposite ends and securely riveted thereto. The opposed faces of these blocks are vertically inclined in relatively opposite directions as indicated at 20 and with each of these inclined faces, the correspondingly inclined face of a vertically movable wedge member 21 coacts. The opposed vertical faces of these wedge members are grooved as at 22 to receive the cable 5.

A bar 23 extends transversely across the horizontal flanges 8 of the putlog and has its ends angularly extended downwardly over the edges of said flanges as at 24. This bar is provided with the openings 25 therein at opposite sides of the cable 5 to receive the upper threaded ends of the bolts 26 extending through vertical openings in the respective wedge members 21. Nuts 27 threaded upon the upper ends of said bolts have bearing contact upon the bar 23. In this construction, it will be evident that when the nuts 27 are adjusted, the bolts 26 will be drawn upwardly, thereby moving the wedge blocks 21 upwardly whereby, in the coaction of the inclined faces of said members with the faces 20 of the spacer blocks 21, said wedge members will be forced inwardly towards each other to tightly bind and grip upon the cable 5. The openings 25 in the bar 23 are of sufficient diameter to permit of the lateral shifting of the bolts 26 therein in the inward movement of the wedge members 21.

In Figs. 7 and 8 of the drawings, I have shown another alternative form of the device in which the longitudinally spaced blocks 28 and 29 are secured between the angle bars of the putlog, the block 28 having the vertically inclined outer end face 28′. Between these blocks a horizontally movable cable clamping member 30 is arranged, said member being provided with the horizontal slot 31 receiving a guide pin or rivet 32 fixed at its ends in the vertical flanges of the bars 7. The opposed faces of this member and the spacer block 29 are formed with vertically extending cable receiving grooves 33, and the intermediate portion of the groove in the member 30 is convex as shown at 34 while the corresponding portion of the groove in the block 29 is concave as at 35.

The inner face of the member 30 is vertically inclined as at 36 in an opposite direction with respect to the inclined face 28′ of the block 28 and between said faces the vertically movable wedge member 37 is arranged. This member has a vertically extending threaded opening to receive the adjusting bolt 38 which is loosely positioned through a central opening in a transverse bar 39 extending beneath the vertical flanges of the putlog bars 7 and having upwardly projecting lugs 40 at its opposite ends to engage the outer faces of said flanges. It will thus be seen that by adjusting the bolt 38, the wedge member 37 may be drawn downwardly to thereby force the member 30 laterally and thus securely bind said cable between the walls of the vertical grooves in the member 30 and the block 29. The convex and concave sections of these grooves form a bend in the length of the cable which increases the security of the wedging or clamping action.

From the foregoing description considered in connection with the accompanying drawings, the construction and manner of operation of the several described embodiments of my invention will be clearly and fully understood. It will be seen that by means of a device of this kind wherein the connecting means between the putlogs and the suspending cables is permanently mounted upon and carried by the putlogs, the assemblage of the cables and the putlogs and the operation of rigidly locking or connecting the same together may be easily and quickly effected. Each embodiment of the device as herein de-

scribed is of relatively simple mechanical form and may be manufactured at low cost so that the device will not add materially to the production costs of cable scaffolds of this type as heretofore used.

While I have herein shown and described several practical examples of my present improvements, it is nevertheless, to be understood that the essential features of the invention might also be incorporated in various other alternative structural forms, and I accordingly reserve the privilege of resorting to all such legitimate changes therein as may be fairly embodied within the spirit and scope of the invention as claimed.

I claim:

1. In a scaffold, spaced scaffold suspending cables, a platform supporting pultlog extending between said cables, and means mounted on each end of the pultlog and adjustable with relation thereto to rigidly fix the end of the putlog in adjusted position upon the cable.

2. In a scaffold, scaffold suspending cables arranged in spaced relation to each other, platform supporting pultlogs extending between said cables, means for adjustably connecting the ends of the putlog with the respective cables including a member fixed to the putlog and engaging one side of the cable, a manually adjustable clamping member movable longitudinally of the putlog and engaging the opposite side of the cable, and means for adjusting the latter member to rigidly grip the cable between said fixed and movable members.

3. In a scaffold, spaced scaffold suspending cables, a platform supporting putlog extending between said cables, and a pair of independently adjustable cable clamping members mounted upon the opposite ends of the putlog and engaging the cable to rigidly fix the end of the putlog in adjusted relation thereto.

4. In a scaffold, spaced scaffold suspending cables, a platform supporting putlog extending between said cables, and a pair of independently adjustable cable clamping members mounted upon each end of the putlog and spaced apart longitudinally of the cable, and means for adjusting said clamping members to rigidly clamp the cable at spaced points between the respective members and a part of the putlog.

5. A platform supporting putlog for cable scaffolds comprising parallel angle bars having their corresponding flanges disposed in spaced relation, spacer blocks between said flanges at opposite ends of the putlog and rigidly fixed thereto, vertically spaced cable clamping members mounted in each spacer block, and means for independently adjusting said clamping members to rigidly grip and clamp the scaffold suspending cable at vertically spaced points between said members and the spacer block.

6. A platform supporting putlog for cable scaffolds comprising parallel angle bars having their corresponding flanges spaced apart, spacer blocks arranged between said flanges at their opposite ends and rigidly fixed thereto, the inner faces of the spacer blocks having vertically extending cable receiving grooves, vertically spaced transverse recesses in the inner sides of the spacer blocks communicating with said grooves, said blocks having openings extending to the outer faces of the blocks from the respective recesses, bolts loosely positioned through said openings having eyes on their inner ends positioned in said recesses and through which the scaffold suspending cable extends, and means for independently adjusting said bolts in the spacer blocks to rigidly clamp said cable at vertically spaced points against the wall of said vertical groove in the inner face of the block.

7. A supporting putlog for scaffold platforms having spaced parallel parts, spacing members rigidly fixed between the opposite ends of said parts of the putlog, and a manually adjustable means cooperatively associated with each of said spacing members and adapted for engagement with a flexible scaffold suspending cable to immovably secure the end of the putlog in an adjusted position with respect to the cable.

8. A supporting putlog for scaffold platforms having spaced parallel parts, spacing members rigidly fixed between the opposite ends of said parts of the putlog, an adjustable clamping member arranged between the spaced parts of the putlog in opposed relation to each of said spacing members, the end of the putlog being adapted for adjustment along a flexible scaffold suspending cable with the cable extending between said clamping and spacing members, said members being provided with means for bending the flexible cable, and means for adjusting said movable clamping members to rigidly secure the ends of the putlog to the suspending cables.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

FRANK B. JOHNSTON.