

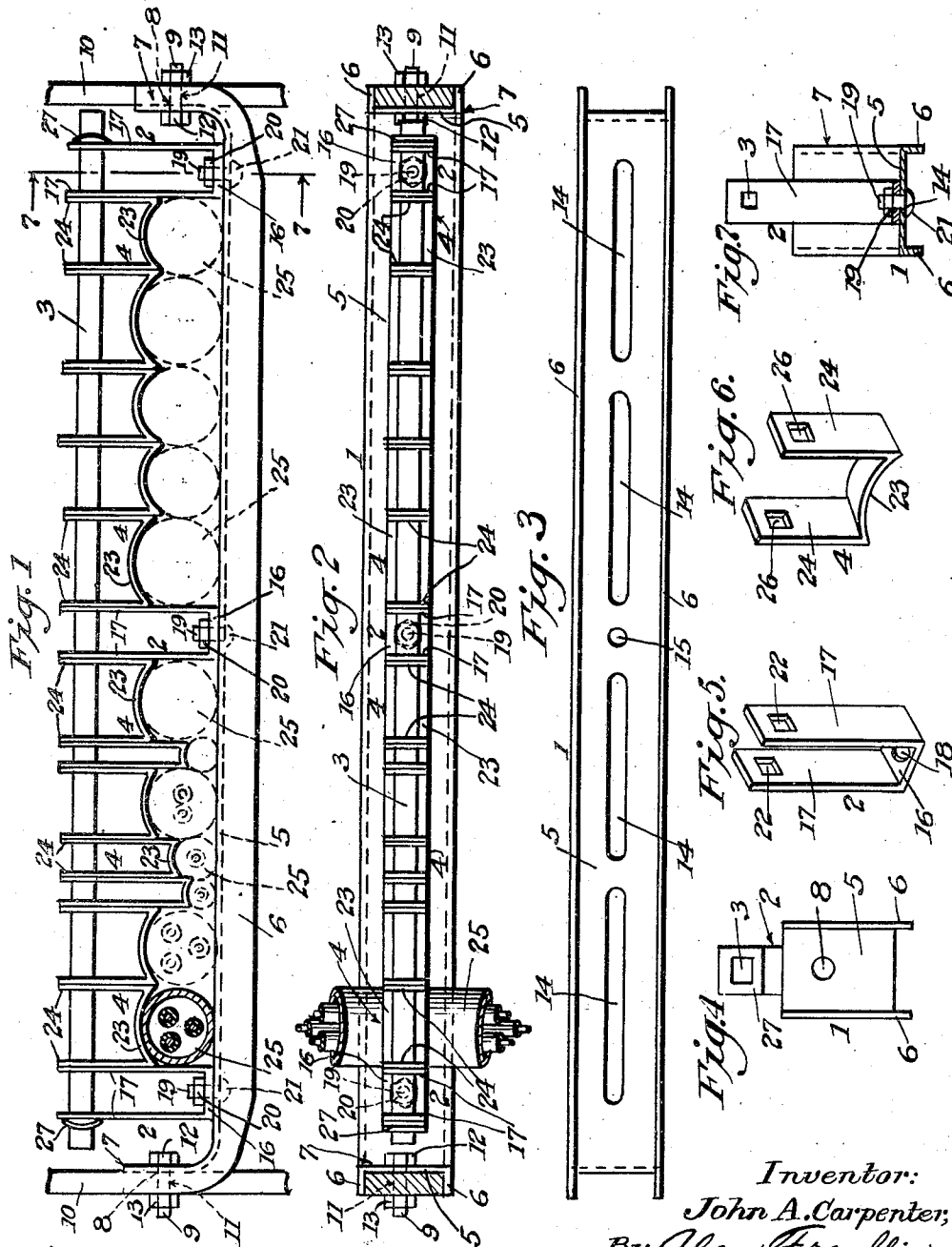
April 29, 1947.

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2,419,675

HANGER

Filed May 30, 1944



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UNITED STATES PATENT OFFICE

2,419,675

HANGER

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Application May 30, 1944, Serial No. 539,477

5 Claims. (Cl. 248—68)

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This invention is a hanger for supporting and disposing marine cables, pipes, conductors and the like in ships, buildings and other places, and it is an improvement on my hanger disclosed in my application for United States Letters Patent, Serial No. 499,793, filed August 24, 1943.

The general object of the invention is to provide a simplified and improved hanger of the character stated, which may be more readily assembled or taken apart and its clamp members interchanged and rearranged for supporting and disposing cables, conductors, pipes and the like of the same or of different diameters, as desired.

Other objects and advantages will appear hereinafter.

The invention is illustrated in the annexed drawings which forms a part of this specification and in which:

Fig. 1 is a side elevation of my invention.

Fig. 2 is a plan view of my invention as shown in Fig. 1.

Fig. 3 is a bottom plan view of my invention as shown in Figs. 1 and 2.

Fig. 4 is an end elevation of my invention.

Fig. 5 is a perspective of one of the stanchions of my invention.

Fig. 6 is a perspective of one of the clamp members of my invention.

Fig. 7 is a transverse vertical section of my invention taken on line 7—7 of Fig. 1.

Referring more particularly to the drawing in which corresponding parts are designated by the same reference characters in all of the figures, my invention includes generally a supporting channel bar 1; stanchions 2 supported on said supporting bar; a square clamp bar 3 detachably extending through the upper ends of said stanchions; and clamp members 4 detachably carried on said clamp bar.

The supporting channel bar 1 is formed with a base wall 5 and with flanges 6 extending from the side edges, respectively, of said base wall at right angles to said base wall. The supporting bar 1 is bent upwardly at right angles near its ends into securing members 7, and the base wall 5 is provided with openings 8 in said securing members, respectively, to receive bolts 9 for detachably securing said securing members 7 to supports 10, said bolts extending through said openings 8 and through openings 11 in said supports, with the heads 12 of said bolts engaging the base wall 5 of said securing members 7 and with nuts 13 threaded on the ends of said bolts in engagement with the outer sides of said supports 10, respectively. The supporting bar 1 is provided with a

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plurality of control longitudinal bolt slots 14 and with a bolt opening 15 in its base wall 5 between the end securing members 7, which bolt opening is located between two of the slots 14 intermediate the ends of the supporting bar 1.

Each of the stanchions 2 comprises a single piece of strap metal bent U-shape and formed with an intermediate base wall 16 and a pair of side walls 17 upstanding from opposite side edges, respectively, of said base wall. Said base wall is provided with a bolt opening 18 to receive a screw bolt 19 which is extended upwardly through one of the slots 14 or through the opening 15 in the base wall 5 of the supporting bar 2, and on the end of which bolt is threaded a nut 20 which engages the base wall 16 of the stanchion 2, while the head 21 of said screw bolt engages the under side of said base wall 5 of said supporting bar 1, for detachably securing said stanchion on said supporting bar 1. The side walls 17 of said stanchion 2 are provided with registering square openings 22 near their upper ends to receive the square clamp bar 3, whereby said clamp bar is carried by said stanchions.

Each of the clamp members 4 comprises a single piece of strap metal bent U-shape into the form of an arcuate seat 23, and a pair of side walls 24 upstanding from opposite side edges of said seat at the ends, respectively, of the arc formed by said seat. The radius of the arcuate seat 23 corresponds substantially to the radius of the cable, pipe or other cylindrical element 25 to which said seat is fitted; while the distance between the side walls 24 or the width of the clamp member 4 corresponds to the diameter of said cable, pipe or other cylindrical element. Said side walls 24 of said clamp member 4 are provided with registering square openings 26, respectively, to receive the square clamp bar 3, whereby said clamp member is carried on said clamp bar.

On the ends of the clamp bar 1 are placed spring lock washers 27 against the outer side walls 17 of the end stanchions 2 of my hanger for preventing longitudinal displacement of said clamp bar in my hanger.

The operation of my invention is as follows: The cables 25 or their cylindrical elements are extended over and across the supporting bar 1, the clamp bar 3 is first introduced through the opening 22 in the upper ends of the side walls 17 of one of the stanchions 2 until said stanchion is positioned midway between the ends of said clamp bar; the ends, respectively, of said clamp bar 3 are introduced through the openings 27 in the upper ends of the side walls 26 of two

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groups of clamp members 4 and through the openings 22 in the upper ends of the side walls 17 of two stanchions 2, with the innermost clamp members 4 of said groups of clamp members adjacent opposite sides, respectively, of said first stanchion positioned midway between the ends of said clamp bar, and with the clamp members, respectively, of said two groups adjacent each other and said two stanchions 2 adjacent the outermost clamp members of said two groups of clamp members, respectively; the clamp bar 3 together with the stanchions 2 and the clamp members 4 are placed over the supporting bar 1, with the stanchion intermediate the ends of the clamp bar 3 positioned between two of the cables 25 and the stanchions at the ends of said clamp bar positioned adjacent the outermost cables, respectively, and with the seats 23 of the clamp members 4 positioned upon the upper sides of said cables 25, respectively, and holding said stanchions in position with their lower ends slightly above the base wall 5 of the supporting bar 1, so that the bolt opening 18 in the base wall 16 of the stanchion 2 positioned intermediate the ends of the clamp bar registers with the bolt opening 15 in the base wall 5 of the supporting bar 1 intermediate the ends of said bar, and the bolt openings 18 in the base walls 16 of the outermost stanchions 2 on the ends of said clamp bar 3 register with slots 14, respectively, in the base wall 5 of the supporting bar 1 near the ends, respectively, of said bar; one screw bolt 19 is inserted upwardly through the opening 15 in the base wall 5 of the supporting bar 1 and through the opening 18 in the base wall 16 of the stanchion 2 positioned intermediate the ends of the clamp bar 3 and a nut 20 is placed on the upper end of said screw bolt, while two other screw bolts 19 are inserted upwardly through the end of slots 14, respectively, in the base wall 5 of the supporting bar 1 and through the openings 18 in the base wall 16 of the outermost stanchions 2 on the ends respectively, of the clamp bar 3 and nuts 20 are placed on the upper ends of said screw bolts; upon turning said nuts 20 on the screw bolts 19, the stanchions 2, clamp bar 3 and clamp members 4 are drawn down by the engagement of said nuts with the upper sides of the base walls 16 of said stanchions and by the engagement of the heads 21 of said screw bolts with the under side of the base wall 5 of the supporting bar 1, until the base walls 16 of said stanchions engage the base 5 of said supporting bar 1, while the clamp members 4, by the engagement of their seats 23 with the upper sides of the cables 25, apply downward pressure to said cables, whereby said cables are clamped in the hanger between the base wall 5 of the supporting bar 1 and the said seats 23 of said clamp members 4, respectively; and the spring lock washers 28 and then slipped over the ends of the clamp bar 3 against the outer side walls 17 of the outermost stanchions 2 for locking said clamp bar in position against longitudinal displacement in the stanchions 2 and the clamp members 4.

To remove one or more cables 25 from my hanger and to substitute therefor another or other cables, a spring lock washer 27 may be slipped off one end of the clamp bar 3 and said clamp bar withdrawn from an end stanchion 2, and from the clamp member or members engaging said cable or cables to be removed; said clamp member or members and said cable or cables may then be removed from the hanger

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and another or other cables of the same or different size or sizes, substituted for said removed cable or cables; said removed clamp member or members 3, or a clamp member or clamp members of different size or sizes may then be placed over the substituted cable or cables with the seat or seats 23 of said clamp member or members resting upon the upper side of said substituted cable or cables; the clamp bar 3 may then be inserted through the openings 26 in the clamp member or members 4 engaging said substituted cable or cables, and through the openings 22 in said end stanchion 2 from which said clamp bar was withdrawn; and said removed spring lock washer 27 may then be slipped back over said end of said clamp bar 3 against said end stanchion for locking said clamp bar in position against longitudinal displacement as hereinafter described.

I claim:

1. A hanger as disclosed including a supporting bar provided with a bolt opening intermediate its ends, and with longitudinal slots at opposite sides of said bolt opening, U-shaped stanchions, each formed with a base wall provided with a bolt opening and with a pair of spaced side walls upstanding from said base wall and provided with openings, respectively, in their upper ends, one of said stanchions being positioned on said supporting bar over said bolt opening and a screw bolt extending through said bolt openings in said supporting bar and in the base wall of said stanchion, respectively, two of said stanchions positioned on said supporting bar over said slots at opposite sides, respectively, of said bolt opening in said supporting bar, and screw bolts extending through said slots, respectively, and the bolt openings in the base wall of said two stanchions, respectively, nuts threaded on the ends of said screw bolts against the base walls of said stanchions, respectively, clamp members each formed with a seat and with side walls upstanding from said seat and provided with openings in their upper ends, said seats of said clamp members engaging cables extending across said supporting bar, and a clamp bar extending through the openings in the upper ends of the side walls of said stanchions and through the openings in the upper ends of said side walls of said clamp members.

2. A hanger as disclosed including a supporting bar, stanchions provided with openings in their upper ends, clamp members provided with openings and formed with seats for engaging cables, respectively, extending over said supporting bar, a clamp rod extending through said openings in said stanchions and said openings in said clamp members, and spring lock washers fitted over the ends, respectively, of said clamp bar and engaging the outer sides of two stanchions, respectively.

3. A hanger as disclosed including a supporting bar provided with slots therein, U-shaped stanchions, each formed with a base wall provided with a bolt opening, and with a pair of spaced side walls upstanding from said base wall and provided with openings, respectively, in their upper ends, said stanchions being positioned on said supporting bar in spaced relation with the bolt openings in their base walls in registration with said slots, respectively, clamp members provided with openings and formed with seats engaging cables, respectively, extending over said supporting bar, a clamp bar extending through said openings in said side walls of said stanchions and through said openings in said clamp members, screw bolts extending upwardly through said

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slots, respectively, in said supporting bar and through said bolt openings, respectively, in the base walls of said stanchions, and nuts threaded on the upper ends of said screw bolts, respectively.

4. A hanger as claimed in claim 3 including means for locking said clamp bar in position against longitudinal displacement.

5. A hanger as claimed in claim 3 including spring lock washers fitted on the ends, respectively, or the clamp bar against said stanchions, respectively.

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