June 16, 1942. A. W. SCRUTTON 2,286,936

LIFE SAVING SIDE NET FOR SHIPS

Filed Nov. 3, 1941 2 Sheets-Sheet 1

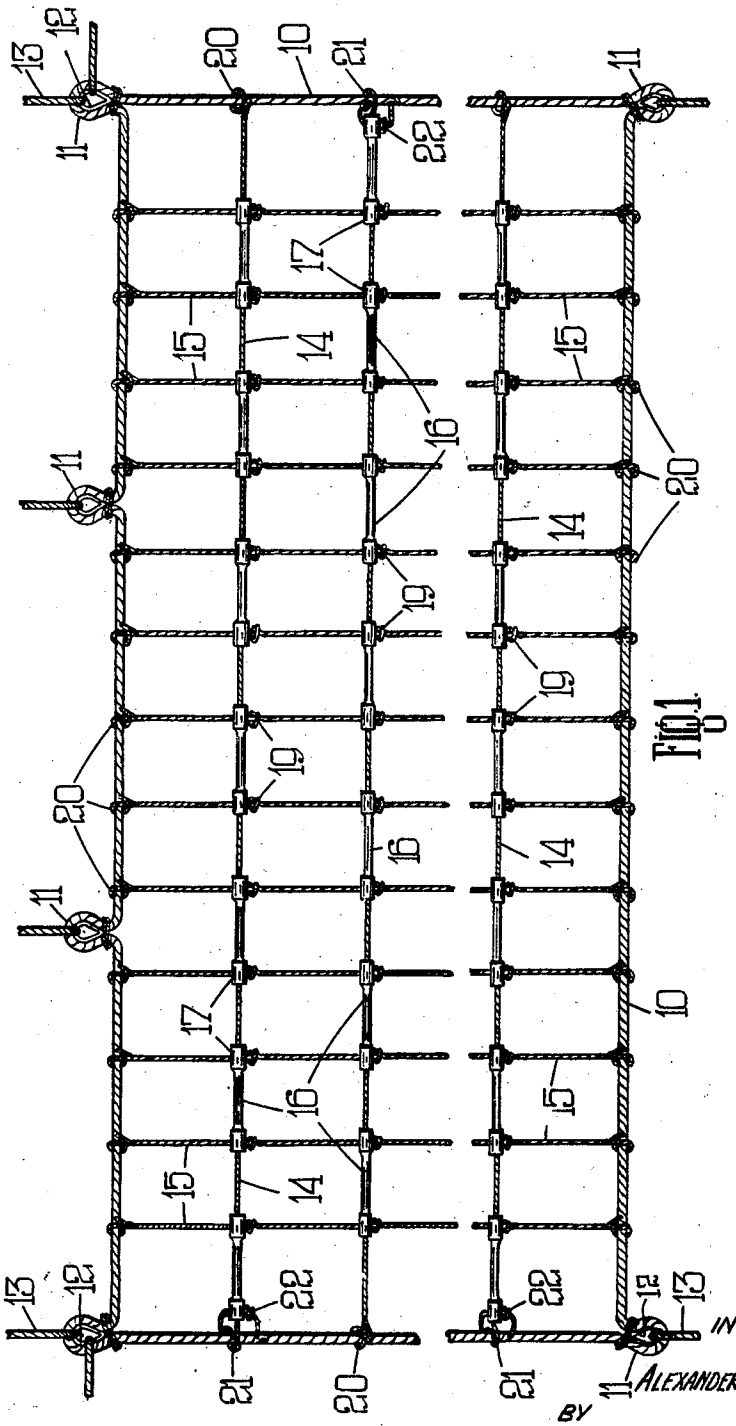


Fig. 1.

INVENTOR
ALEXANDER W. SCRUTTON
BY
J. J. V. Armstrong
ATTORNEY

June 16, 1942. A. W. SCRUTTON 2,286,936

LIFE SAVING SIDE NET FOR SHIPS

Filed Nov. 3, 1941 2 Sheets-Sheet 2

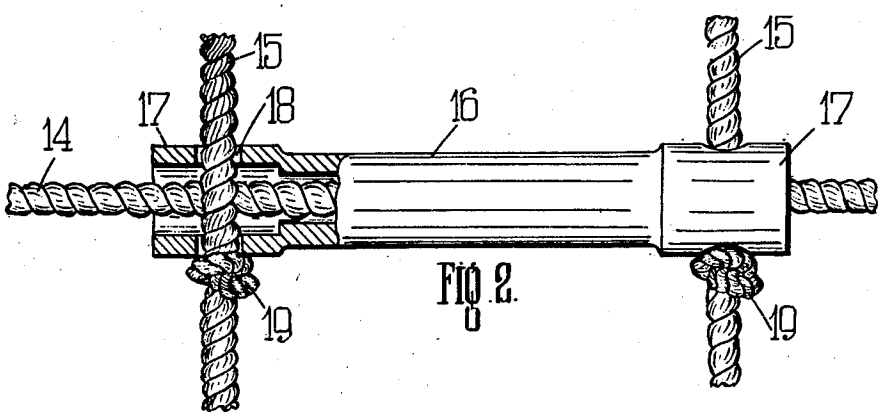


FIG. 2.

INVENTOR
ALEXANDER W. SCRUTTON
BY
J. J. V. Armstrong
ATTORNEY

Patented June 16, 1942 2,286,936

UNITED STATES PATENT OFFICE

2,286,936

LIFESAVING SIDE NET FOR SHIPS

Alexander Willis Scrutton, Liverpool, England

Application November 3, 1941, Serial No. 417,700
In Great Britain April 23, 1941

3 Claims. (Cl. 228—40)

The present invention relates to life-saving side nets for ships, known in the trade as scrambling or rope side nets, and has for its primary object to provide means, without materially adding to the weight of the net, for imparting rigidity to those ropes of the net which function as rungs during rescue work by a ship from whose side the net is hung, and for rendering them unyielding during use.

For convenience, reference is made herein to wefts and warps, not for the purpose of indicating that the net is woven to fabric form, but solely to distinguish between ropes extending laterally or horizontally across the net as in the case of wefts, and ropes lying longitudinally and vertically of the net when in use as in the case of warps.

According to the present invention relative angular displacement between hollow rung elements of rigid material and weft ropes which are threaded therethrough is substantially prevented by warp ropes constituting the side ropes of said weft or rung ropes so as to render the hollow rung elements unyielding during use.

In a convenient form of construction the wefts are threaded through axial bores of rigid rung elements extending between adjacent warps which in turn are threaded through radial bores in, and adjacent, the ends of the elements.

It will be seen that immediately a load is applied to the warps such as, for example, by one or more persons endeavouring to climb the net, sagging or bending of the wefts between adjacent warps is prevented as is also the rotation of the rigid rung elements, both of these advantages being obtained without adversely influencing the rolling up of the net when not in use.

The invention is more particularly described with reference to the accompanying drawings, in which:

Figure 1 is a diagrammatic view of a life-saving or scrambling side net for ships according to the present invention.

Figure 2 is a detail of a rigid rung element shown partly in section and with a weft and a pair of adjacent warps passing therethrough.

In the construction according to the drawings, the rope frame of the net, which may be of manila, sisal, or any other fibre or thread, is of substantially rectangular form as shown at 10 the rope being bent upon itself at spaced intervals, i. e., at the corners and at other points between the top corners to form eyelets 11 each of which is adapted to receive a metallic thimble 12 by which a lanyard 13, adapted to be tied to a suitable support such as the deck rail of a ship, is connected to the net.

The lanyards 13 connected to the thimbles 12 at the lower corners of the net may, for example, be fastened to a life-boat in the case where the net is used as the means by which persons in the life-boat board a rescuing vessel, to which the upper end of the net is connected.

The net may be made up of any number of wefts 14 disposed horizontally from one side of the net to the other and by any desired numbers of warps 15 disposed vertically of the net at laterally spaced intervals, the warps and wefts being connected at their ends in any desired manner to the frame 10.

Each weft passes through the longitudinal bores of a number of hollow rigid rung elements 16 made of ash, teak, or other wood or of light metal, or again of a synthetic resin, such as, for example, the phenol formaldehyde condensation product sold under the trade-mark "Bakelite."

As will be seen from the drawings, and with the object of maintaining the weight of the net at a minimum, the rigid rung elements 16, when considering each vertical flight, i. e., between any two adjacent warps 15, are disposed on alternate wefts 14 leaving the intermediate wefts of such vertical flight uncovered.

Again, as can be seen from the drawings, the rigid rung elements 16 are also disposed in staggered relationship, that is to say, on the weft 14 immediately below the upper horizontal limb of the frame 10 the rigid rung elements 16 are disposed in the first, third, fifth . . . flights, whilst on the second and even numbered wefts 14 from the top, the rigid rung elements 16 are disposed in the second, fourth, sixth and even numbered flights throughout the width of the net.

Each rigid rung element 16 is of a length slightly greater than the lateral spacing of two adjacent warps 15 and at each enlarged end 17 is radially bored as shown at 18 to permit of the passage of the vertical warps 15 radially through the ends of the rigid rung elements.

During the formation of a net each warp 15 after being passed through the bores 18 at one end 17 of a rigid rung element 16 is knotted as shown at 19 so that when a load is applied to the net by a person climbing it, the knots 19 maintain the rungs 16 in the required vertical relationship whilst again under such conditions not only are the rungs rigid for the purpose of facilitating climbing of the net by the person being rescued but the rigid rungs are unyielding in the sense that they will not rotate when stepped

upon, rotation being prevented by the passage of the loaded warps 15 through the rungs.

In the particular form of the invention illustrated in the drawings, each end of each warp 15 and one end of each weft 14 is passed around the rope constituting the frame and is then spliced thereto as shown at 20 but in the case of each weft the opposite end, after emerging longitudinally from that rigid rung element 16 lying adjacent the frame 10 of the net, is first passed around the frame as at 21 and thence downwardly through the radial bores 18 of the rigid rung element whence it is knotted at 22 and then finally spliced to the frame. Thus, at one end of each weft 14, i. e., at that end where a rung 16 lies adjacent a side limb of the frame 10 of the net the weft 14 functions to take the place of the missing warp 15 thereby enabling rigid rung elements to be used between the frame 10 and the first warp 15 of the net.

It will be appreciated that when not in use the net may be rolled up and held in the slung position and when rescue work is called for its may be readily released to allow its free end to descend to sea level with the upper end maintained on its support such as for example, in spaced relationship with a number of similar nets on a guide rail of a ship.

I declare that what I claim is:

1. A life-saving side net for ships comprising a flexible frame, a plurality of spaced weft ropes across said frame, a plurality of spaced warp ropes longitudinally of said frame, hollow rigid rung elements having a longitudinal bore and transverse communicating bores on each end with the weft ropes passing through the longitudinal bores of the elements and the warp ropes passing through the transverse end bores, and means for maintaining the mesh of the ropes between the frame members.

2. A life-saving side net for ships as claimed in claim 1 and wherein each warp is knotted immediately below a hollow rung element to form a seating for said element and to prevent enlargement of a mesh.

3. A life-saving side net for ships as claimed in claim 1 and wherein in each vertical flight between a pair of adjacent warp ropes the hollow rigid rung elements are disposed about alternate weft ropes and in staggered relationship with the rigid rung elements of adjacent vertical flights.

ALEXANDER WILLIS SCRUTTON.