A. H. LESSELLS.

ELECTRIC CABLE CARRYING OR SUPPORTING MEANS.

APPLICATION FILED JAN. 26, 1920.

1,344,514.

Patented June 22, 1920.

3 SHEETS—SHEET 1.

FIG. 1.

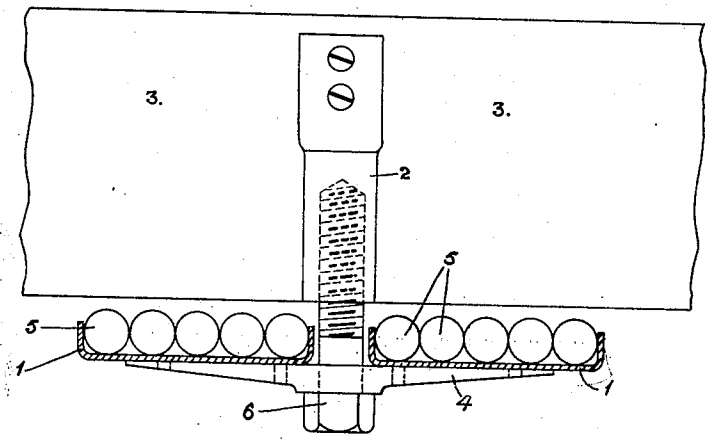
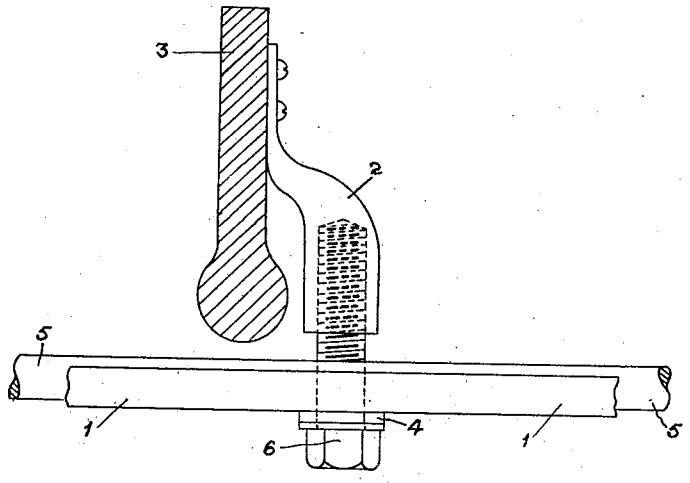


FIG. 2.



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3 SHEETS—SHEET 2.

FIG. 3.

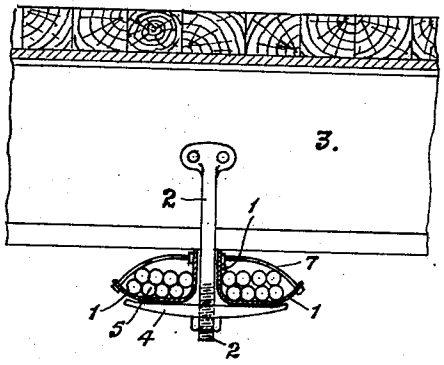


FIG. 4.

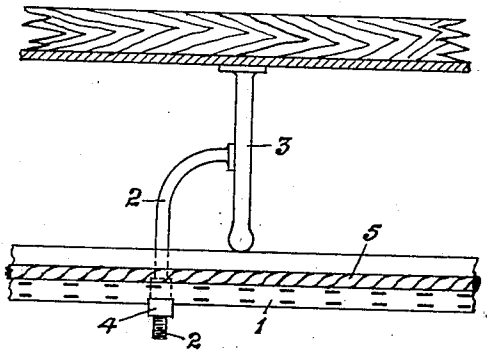


FIG. 6.

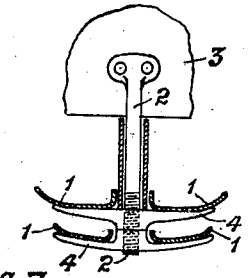


FIG. 5.

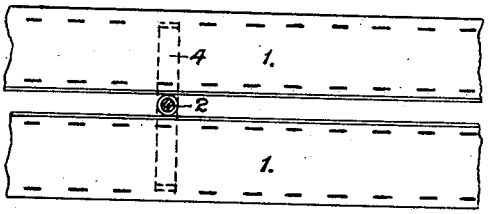
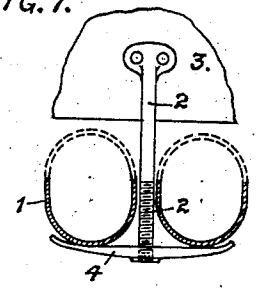


FIG. 7.



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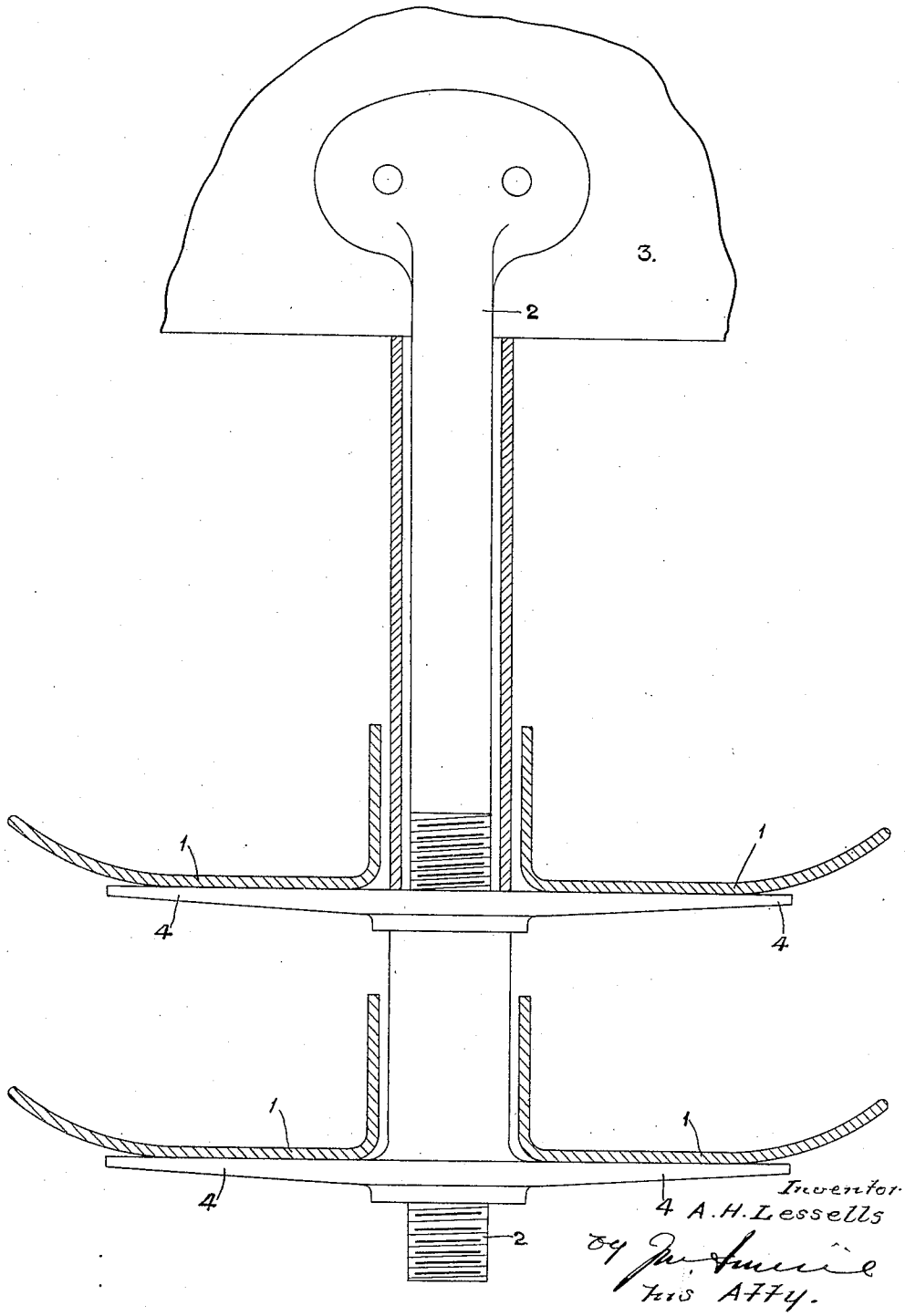
ELECTRIC CABLE CARRYING OR SUPPORTING MEANS.

APPLICATION FILED JAN. 26, 1920.

1,344,514. **Patented June 22, 1920.**

3 SHEETS—SHEET 3.

FIG. 6A.



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UNITED STATES PATENT OFFICE.

ALLAN HENDERSON LESSELLS, OF NEW BRIGHTON, ENGLAND.

ELECTRIC CABLE CARRYING OR SUPPORTING MEANS.

1,344,514. Specification of Letters Patent. Patented June 22, 1920.

Application filed January 26, 1920. Serial No. 354,285.

To all whom it may concern:

Be it known that I, ALLAN HENDERSON LESSELLS, a subject of the King of England, and residing at New Brighton, in the county of Chester, England, have invented Improvements in Electric Cable Carrying or Supporting Means, of which the following is a specification.

This invention has reference to carrying or supporting electric cables in ships, especially ships where the cables are generally supported by an open carrier.

According to this invention the carrier trays or troughs are perforated with the sides extending upward; and supported from the deck beams of the ship by arms secured to them, and projecting below them; and to the depending ends of each arm, a cross horizontal member is screwed or otherwise suitably connected, so that it can be readily put up and removed, and this member extends outward on each side of the arm, so as to carry a tray or trough on each side of it. The tray or trough may extend up a considerable depth either on the inside next the carrier arms, or on the outside, or both, as may be desired; and when in position they may be secured together by readily detachable thin metal straps extending around both trays or troughs and the cables lying in them; one end of each strap having a loop through which the free end is passed. By bending the metal back when fastening, the strap is fastened and secured in position.

The invention will be further described with the aid of the accompanying drawings, in which Figure 1 is a cross section, and Fig. 2 a longitudinal view of one and a preferred arrangement and construction of parts; and Figs. 3, 4, and 5 are respectively cross section, longitudinal view, and a plan underneath view of a modification.

Figs. 6, 6[A] and 7 show two other modifications.

In the drawings 1 represents the troughs or trays which may be assumed to be perforated as usual; 2 are the arms fixed to the deck beams 3; 4 are the carriers which are secured to and are supported by the arms 2; and 5 are the cables lying in the troughs or trays 1. The troughs or trays 1 are in this case shallow, and rest on the carriers 4 which are secured to the arms 2 by screw bolts 6 screwing into threaded holes in the arms, as shown, so that they can be raised and lowered as and when desired, for any purpose, and fixed and held in any position vertically.

The tray or trough 1, and carrier 4, may be fastened together by screws or the like, and they—*i. e.* the trays or troughs—may be raised up and screwed to the deck beams 3.

This invention enables the trays or troughs and cables to be changed or altered quickly, and with great ease and simplicity, and hence with little expense. One of the reasons for the arrangements hitherto adopted being disadvantageous was that the cable, on leaving the tray to the various boxes or apparatus, had, in some cases, to be led through the tray, thereby making it impossible to alter the tray or trough, and necessary that another lead should be made if more cables were required.

By the arrangement shown in Figs. 1 and 2 the use of metal straps may be obviated, as the dished trays having turned edges of the full depth of the cable, so that they lie flush, can be screwed up to the beams, so that nothing further is required to hold them in position. The trays or troughs will be made, of course, to suit the various requirements of different cables.

In the modification shown in Figs. 3 to 5, the trays or troughs 1 are slightly different in form from those shown in Figs. 1 and 2; and the carriers 4 have threaded holes in them and screw on to the threaded end of the arms 2. Also holding bars 7 are fitted to the troughs, and lie on the cables, holding them down in position. If desired however, the cable may be held down in the troughs or trays by readily detachable thin metal straps. Each strap has a loop end through which the other or free end is passed. By bending this thin metal strap back after having pulled it up tight through the loop, when fastening, the strap is fastened and secured in position. The strap extends around under the trough, and also over the cable in it.

In some cases the cross carriers 4 may at each end project up so as to prevent the troughs from moving outward.

In some cases the carriers 4 may be in duplicate one below the other, and multiple sets of troughs used; or a continuous tray or trough may be secured into the lower ends of the arms 2, which will be extended down through the upper horizontal carrier 4, the continuous tray being secured by a nut or the like on its under side, screwing

into the arm end. In this case say there will be four sets of cables; two above and two below.

A double set of trays or troughs and carriers is shown in Figs. 6, 6A, the pairs of trays being supported by the carriers 4, which are screwed onto the lower end of the arm 2. The inner adjacent sides of the pairs of troughs may be fastened together if desired, by screws or bolts and nuts or equivalent fastening means.

In another modified arrangement or form, the trough or tray may be more or less round, as shown in Fig. 7, say in the form of an ordinary rain water gutter, in which the cables lie; and this may have fitted over it a similar inverted cover, which may overlap it at the sides; and it may be held down in position by the metal straps above referred to; in which case the system of cable supports would be of the closed conduit type.

By the arrangement and construction herein set out, the cables can be more easily and quickly laid and installed in a ship; and as in such installations it is frequently required to change or shift them and add to them, it avoids all unfastening of clips and like, and the disturbing of the cables already in position, which otherwise require relaying and fastening and making taut and snug.

Branches can be taken from the cables, and carried upward to and through beams or as desired; and these connections or leads from the lower troughs or trays, when used, can be passed up through the space between the upper trays or troughs to the beams or otherwise as the case may be.

What is claimed is:—

1. A means for carrying electric cable on shipboard, including a fixed support, a carrier mounted for adjustment relative to said support and including cross arms, and trays removably supported on said cross arms.

2. An electric cable supporting device for ships, including a fixture and bracket secured thereto terminating in line with the free edge of the fixture, a carrier, a supporting member for said carrier having threaded connection with said bracket and cable-receiving troughs mounted on the carrier.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALLAN HENDERSON LESSELLS.

Witnesses:
SOMERVILLE GOODALL,
MABEL PECK.