June 11, 1963 A. MELETTI 3,093,341

CORD REEL

Filed Aug. 10, 1962

Fig. 1

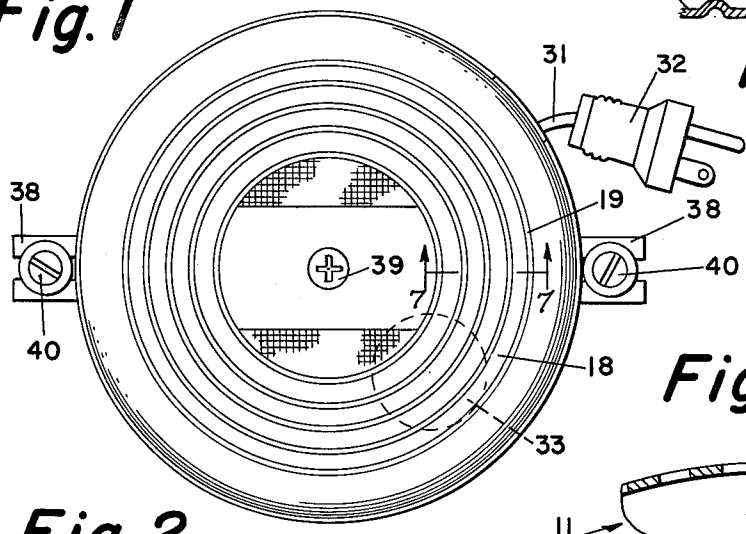


Fig. 7



Fig. 4

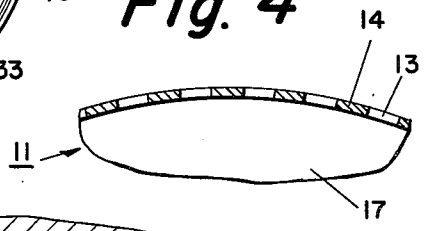


Fig. 2

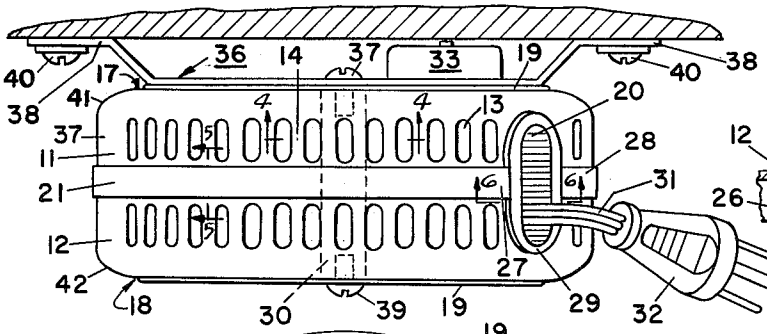
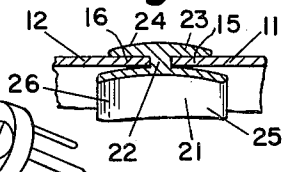


Fig. 5



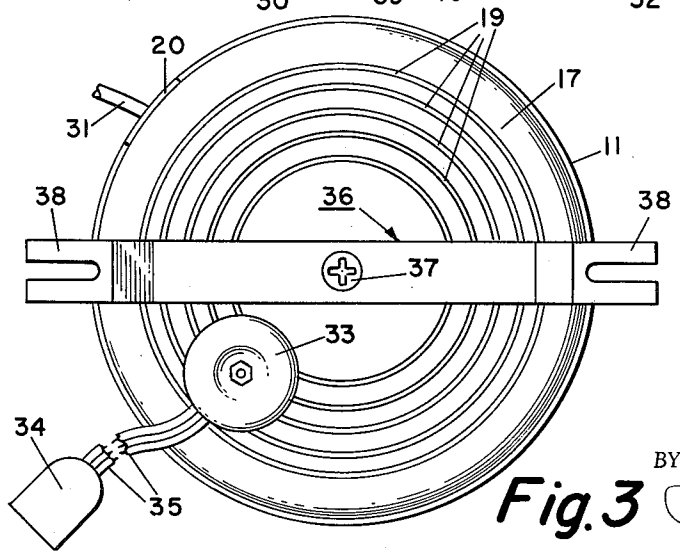
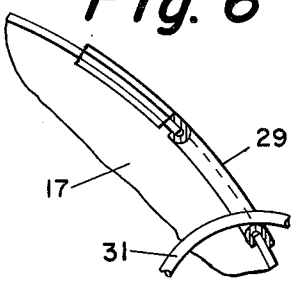


Fig. 3

Fig. 6



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CORD REEL

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The present invention relates to a marine power electric cord reel, for use on boats, such as motor boats, pleasure cruisers and yachts, for connecting the electrical system of the boat to a shore source of electric power while the boat is moored to or is alongside a dock or anchorage.

The present invention relates more particularly to the casing of such cord reel, and comprises a pair of symmetrical ventilated aluminum housing members formed of sheet aluminum or aluminum alloy, and united to each other through the central reel-arbor to the opposite ends of which the respective housing members are secured by corresponding screws, and banded together by an intervening twin-grooved juncture-band and a grooved grommet between the ends of said band, a stationary terminal box or turret secured to one of said housing members and an offsetting support secured to the turret side of the housing.

In the accompanying drawings, in which like reference characters indicate like parts,

FIGURE 1 represents a front elevational view of the marine power electric cord reel of the present invention.

FIGURE 2 represents a top view of the same,

FIGURE 3 represents a rear elevational view of the same,

FIGURES 4, 5 and 6 represent cross-sectional views, on an enlarged scale, on lines 4—4, 5—5 and 6—6 (respectively) of FIGURE 2, while FIGURE 7 represents a fragmentary cross-sectional view, on an enlarged scale, of the disc-like portions of the housing members, taken on line 7—7 of FIGURE 1.

The marine power electric cord reel of the present invention includes a pair of symmetrical housing members 11 and 12, formed of sheet aluminum or aluminum alloy, each housing member comprising a general cylindrical portion 15 and 16 having circumferentially distributed elongated holes 13 therethrough with intervening web portions 14 of sufficient cross-sectional area to connect the inner peripheral portions 15 and 16 of housing members 11 and 12 with the generally disc-like end-walls 17 and 18, respectively (through the fillet portions 41 and 42).

The generally disc-like end-walls 17 and 18 are provided with concentric ribs 19 pressed thereinto and extending outwardly therefrom, as indicated in FIGURE 2.

A generally elongated cord-passage opening 20 is provided in the housing members 11 and 12.

A juncture-band, designated generally by the numeral 21, is extruded either of aluminum or of a generally form-retaining flexible and somewhat resilient plastic, and includes a central connecting web 22, a pair of outer flanges 23 and 24 and a pair of inner flanges 25 and 26. Between the pairs of opposed flanges 23 and 25 and 24 and 26, grooves are formed, in which grooves the inner annular cylindrical portions 15 and 16 of the housing members of 11 and 12 telescoped, in the manner as indicated in FIGURE 5.

Between the ends 27 and 28 of the juncture-band 21, and externally grooved grommet 29 is disposed, with the edges of or the marginal zones surrounding the cord-opening 20 (of the housing members 11 and 12) nested within the grooves of the grommet 29, as indicated in FIGURE 6.

Within the housing members 11 and 12, a cord-reel

and spring-motor and latching or ratchet mechanism is disposed, mounted upon the stationary arbor 30 indicated in dotted lines in FIGURE 2. The reel, motor and ratchet mechanism, which is not shown, may be of any suitable construction including a stationary central arbor 30. Examples of such constructions are shown in Patents 1,921,438, 2,159,004, 2,314,177, 2,521,178, 2,591,214, and 3,029,462.

A three-conductor cord 31 is operatively mounted upon the reel (not shown) within the housing, between the flanges thereof, as indicated in FIGURE 2, and said cord has a three-pronged plug 32 at its outer end.

From the stationary collector-rings or stationary brushes of the reel (not shown), corresponding conductors are extended to stationary terminals within the terminal box or turret 33, and to said terminals a three-hole socket 34 is operatively connected through a three-conductor cord 35, whereby the cord reel may be electrically connected to the electrical system or the storage battery of the boat. However, the three-conductor cord 35 may be directly connected to the electrical system of the boat, without the socket 34.

An offsetting mounting bracket, designated generally by the numeral 36, is secured to the turret side of the housing by means of the screw 37 extending therethrough and through the disc-like wall 17 of the housing member 11 and screw-threaded into a corresponding threaded opening in the end of the reel arbor 30. The bracket 36 is provided with bifurcated offset terminal or leg portions 38. The offsetting between the main body portion of the bracekt 36 and the legs 38 thereof is equal to or slightly greater than the axial dimension of the turret 33 (including the nut or screw which secures the turret to the housing).

The outer housing member 12 is similarly secured to the reel-arbor 30 by means of the screw 39 extending through the disc-like portion 18 thereof and screw-threaded into the outer end of the reel-arbor 30. By means of the screws 40, the legs 38 may be secured to any suitable vertical wall-surface on the deck of the boat, in the manner indicated in FIGURES 1 and 2.

The circumferential width of the webs 14 is generally of the same order of magnitude as the corresponding transverse dimensions of the openings 13. The length of the apertures 13 is such that the inner ends thereof are in close proximity of the outer flanges 23 and 24 of the juncture-band 21 and so that their outer ends are in close proximity of the curved fillet portions 41 and 42 which intervene the cylindrical portions 15 and 16 of the housing members 11 and 12 and the disc-like portions 17 and 18 thereof.

Having shown and described an embodiment of my invention, I claim the following:

1. A cord-reel housing including two generally symmetrical housing members each comprising a general cylindrical portion having circumferentially distributed perforations therethrough and a generally disc-like end portion and a fillet portion intervening the cylindrical portion and the disc-like portion thereof, a twin-grooved juncture-band intervening the free edges of the cylindrical portions of said housing members, with said edges telescoped into the opposite grooves thereof, a co-axial reel-arbor between the disc-like portion of said housing members, and means securing said disc-like portions to the opposite ends of said arbor for maintaining the aforementioned cylindrical edges of said housing members in telescoped relation to said juncture-band.

2. A cord-reel housing including two generally symmetrical sheet-aluminum housing members each comprising a general cylindrical portion having circumferentially distributed perforations therethrough and a generally disc-

like end portion and a fillet portion intervening the cylindrical portion and the disc-like portion thereof, a twin-grooved extruded-plastic juncture-band intervening the free edges of the cylindrical portions of said housing members with said edges telescoped into the opposite grooves thereof, a co-axial reel-arbor between the disc-like portion of said housing members, and means securing said disc-like portions to the opposite ends of said arbor for maintaining the aforementioned cylindrical edges of said housing members in telescoped relation to said juncture-band.

3. A cord-reel housing including two generally symmetrical housing members each comprising a general cylindrical portion having circumferentially distributed perforations therethrough and a generally disc-like end portion and a fillet portion intervening the cylindrical portion and the disc-like portion thereof, a twin-grooved juncture-band intervening the free edges of the cylindrical portions of said housing members with said edges telescoped into the opposite grooves thereof, a co-axial reel-arbor between the disc-like portion of said housing members, means securing said disc-like portions to the opposite ends of said arbor for maintaining the aforementioned cylindrical edges of said housing members in telescoped relation to said juncture-band, a terminal-turret secured to the disc-like portion of one of said housing members and a mounting bracket secured to the same disc-like portion and having its terminal portions offset with respect to the main body portion thereof, said offsetting being such that a plane common to such offset portions clears said terminal-turret.

4. A cord-reel housing including two generally symmetrical housing members each comprising a general cylindrical portion, a generally disc-like portion and a fillet portion therebetween, a twin-grooved extruded juncture-band intervening the free edges of the cylindrical portions of said housing members, with said edges telescoped into the opposite grooves thereof, a co-axial reel-arbor between the disc-like portions of said housing members, and means securing said disc-like portions to the opposite ends of said arbor for maintaining the aforementioned cylindrical edges of said housing members in telescoped relation to said juncture-band.

5. In a spring-motored electric cord-reel having a three-conductor reeled cord, a housing including two generally symmetrical housing members each comprising a general cylindrical portion having circumferentially distributed perforations therethrough, a generally disc-like portion and a fillet portion therebetween, a twin-grooved juncture-band intervening the free edges of the cylindrical portions of said housing members with said edges telescoped into the opposite grooves thereof, a co-axial reel arbor between the disc-like portion of said housing members, and means securing said disc-like portions to the opposite ends of said arbor for maintaining the aforementioned cylindrical edges of said housing members in telescoped relation to said juncture-band.

6. A cord-reel housing including two generally symmetrical housing members each comprising a general cylindrical portion, a generally disc-like portion and a fillet portion therebetween, a plurality of concentric stiffening ribs formed in said disc-like portions, a twin-grooved juncture-band intervening the free edges of the cylindrical portions of said housing members, with said edges telescoped into the opposite grooves thereof, a co-axial reel-arbor between the disc-like portions of said housing members, and means securing said disc-like portions to the opposite ends of said arbor for maintaining the aforementioned cylindrical edges of said housing members in telescoped relation to said juncture-band.

References Cited in the file of this patent

UNITED STATES PATENTS

2,344,490	Brach	Mar. 21, 1944
2,732,148	Lummis	Jan. 24, 1956
2,926,865	Humphreys	Mar. 1, 1960
3,012,736	Brust	Dec. 12, 1961
3,049,317	Kessler	Aug. 14, 1962
3,062,478	Adachi	Nov. 6, 1962