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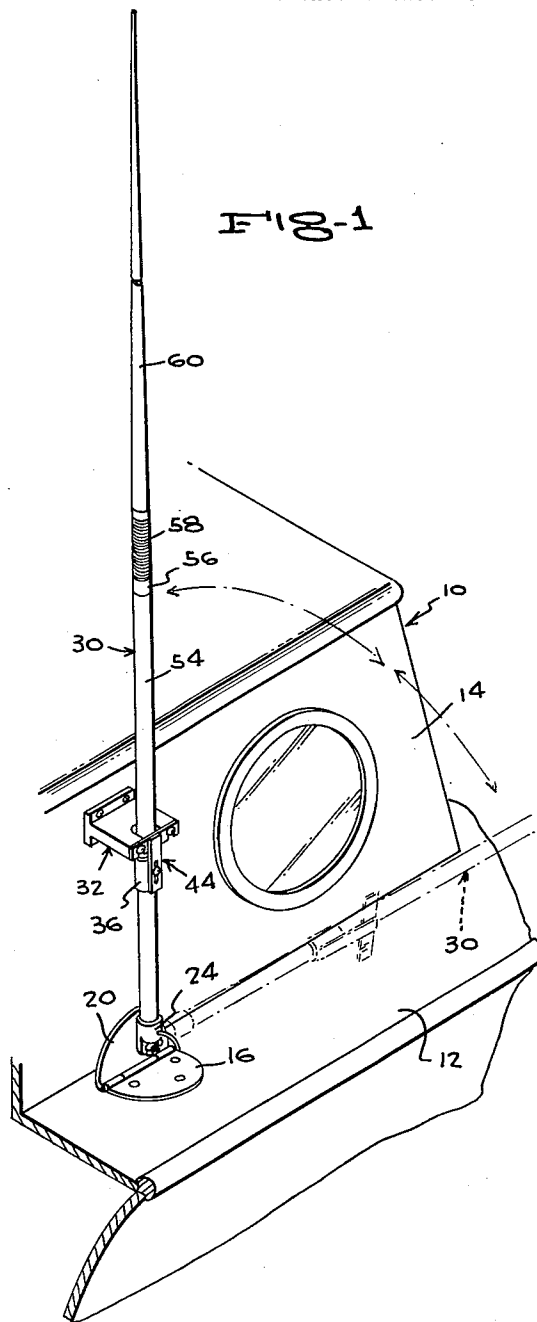
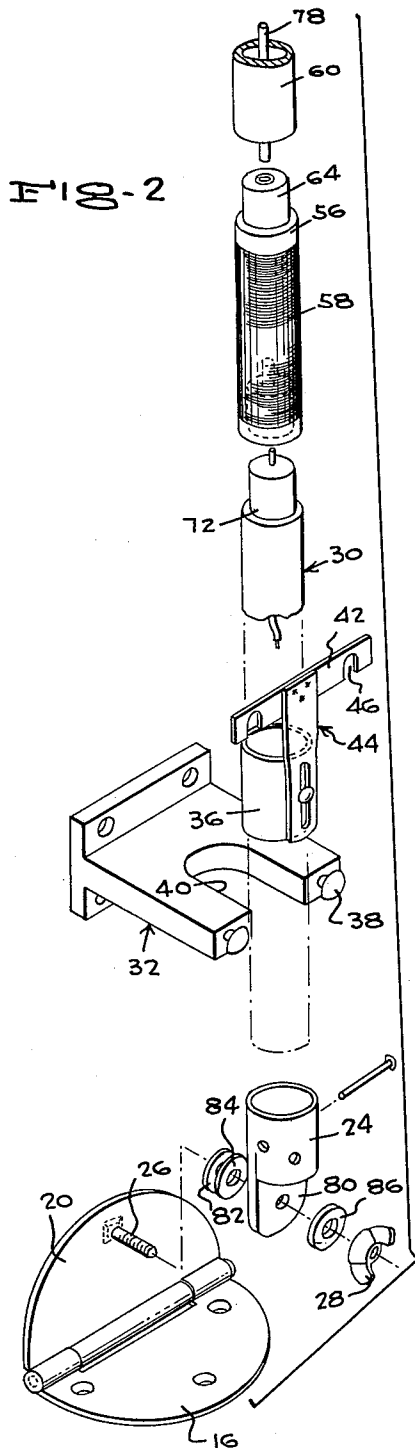
J. ARVAY, JR

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BOAT MOUNTED PIVOTED ANTENNA MAST

Filed Jan. 29, 1960

2 Sheets-Sheet 1



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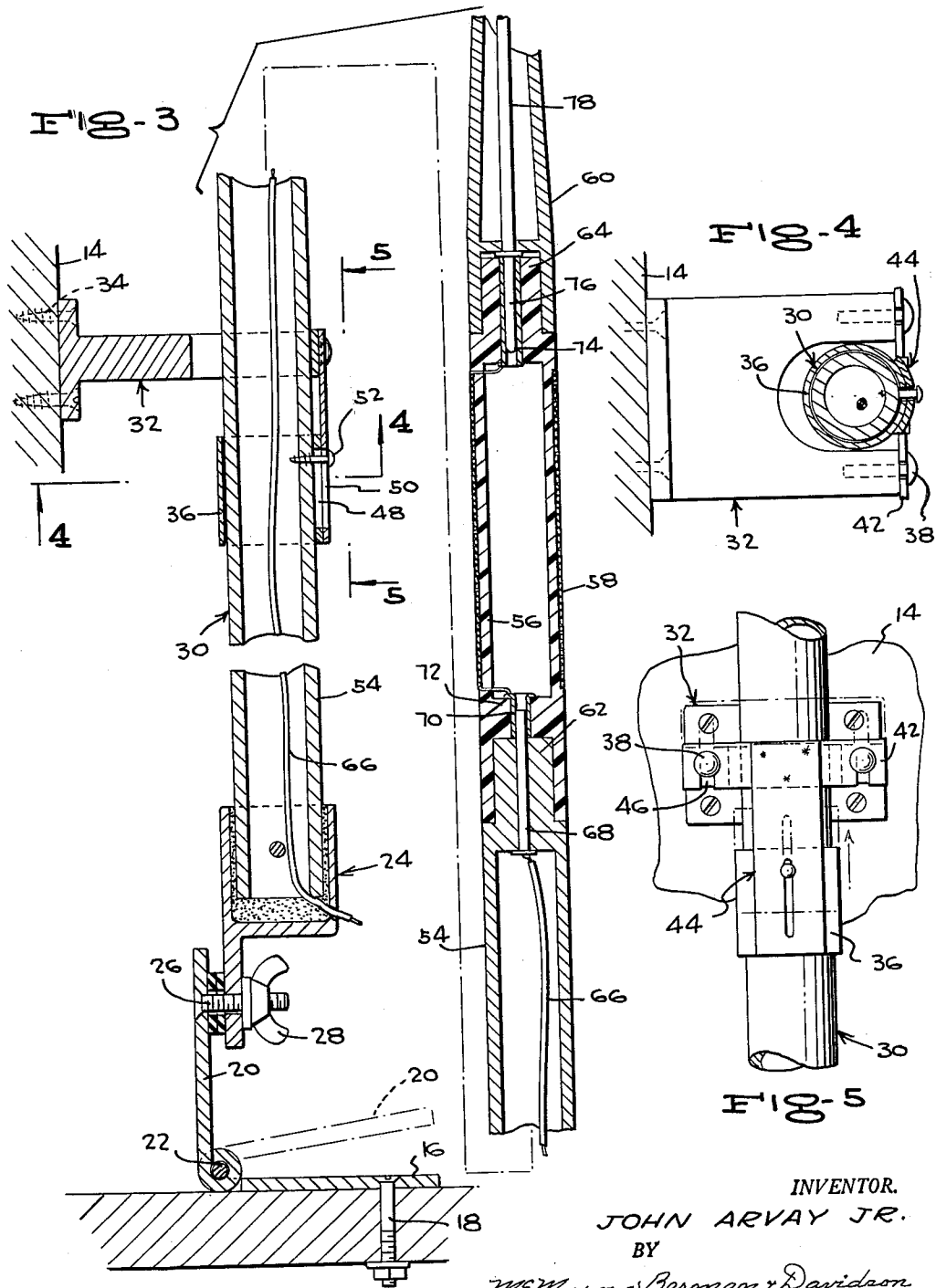
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3,134,978 BOAT MOUNTED PIVOTED ANTENNA MAST

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The present invention relates to a marine antenna assembly.

In the charter, fishing, and pleasure boat industry, most sea-going boats are equipped with marine transmitting and receiving radios, each radio requiring an antenna mounted exteriorly of and above the boat. Frequently, boats are required to traverse stretches of water under bridges, into overhanging shelters and the like. Heretofore, it has been the practice that the antenna of such a boat is made demountable so that it can be shifted from the extended operative position to a retracted or horizontal inoperative position out of the way of such obstruction as the overhead bridge, shelter entrance or the like.

Generally, the antennas presently in use or proposed have been provided with socket means secured to the deck or roof of the cabin of a boat, the antenna requiring manual force to unscrew it from the socket in order to disassemble it or shift it to the inoperative position.

An object of the present invention is to provide a marine antenna assembly which lends itself for ready erection upon a boat having a deck and cabin, and when erected, the mast may be shifted between an upstanding or operating position to a horizontal or inoperative position.

Another object of the present invention is to provide a marine antenna assembly wherein releasable latching means is provided which is easily manipulable by an operator to releasably hold the mast in the upstanding or operating position and to uncouple the latching means to permit the mast to be shifted to the horizontal or inoperative position.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in conjunction with the annexed drawings, in which:

FIGURE 1 is an isometric view of the antenna assembly of the present invention shown installed upon the deck of a boat adjacent a wall of a cabin thereon, portions of the boat cabin being broken away;

FIGURE 2 is an isometric exploded view of the lower end portion of the antenna with its mounting means;

FIGURE 3 is a sectional exploded view on an enlarged scale, of the assembly shown in FIGURE 2;

FIGURE 4 is a view taken on the line 4-4 of FIGURE 3; and

FIGURE 5 is a view taken on the line 5-5 of FIGURE 3.

Referring in greater detail to the drawings in which like numerals indicate like parts throughout the several views, the reference numeral 10 designates generally a boat having a deck 12 and a cabin 14 rising from the deck 12.

The assembly of the present invention comprises a first flat plate member 16 positioned so as to rest upon the deck 12 adjacent the wall of the cabin 14. The plate member 16 is secured to the deck 12 by wood screws 18 or other conventional means such as a bolt and nut assembly, as shown in FIGURE 3 and designated by the reference numeral 18.

A second flat plate member 20 is arranged in an upstanding direction adjacent one side edge of the plate member 16 and is hingedly connected, by a pin 22, to the plate member 16 for movement from the upstanding

position to a position overlying the first plate member 16, as shown in dotted lines in FIGURE 3.

A socket 24 is arranged adjacent one face of the plate member 20 and is connected to the second plate member 20 for swinging movement about a bolt 26 as a horizontal axis transversely arranged with respect to the plate member 20. A thumb nut 28 secures the socket 24 in any position of its movement on the bolt 26.

A mast 30, arranged in an upright direction, has its lower end portion fixedly secured within the socket 24 by means of an appropriately chosen adhesive or plastic material insulating the mast 30 from the socket 24.

A bracket element 32 is arranged in cooperative relation and positioned above the plate member 16 and has one end fixedly secured on the cabin wall 14 by conventional wood screws, shown in dotted lines in FIGURE 3 and designated by the reference numeral 34.

The present invention provides releasable latching means on the mast 30 and upon the bracket element 32 for holding the mast 30 in the upright position. Specifically, this latching means consists in a sleeve 36 slidably mounted upon the mast 30 below and adjacent to the bracket element 32. The interengaging elements consists of headed studs 38 projecting from the bifurcated end portion of the bracket element 32 having the slot 40 receivably engaging the mast 30 when it is in the upright position. The cooperating releasable latching means includes the arms 42 of a T-shaped element 44 fixedly secured to the sleeve 36, the arms 42 each being provided with a slot 45 receiving the adjacent stud 38 when the sleeve 36 is in its downward movement position relative to the mast 30.

The sleeve 36 and the face of the T-shaped element 44 are provided with registering slots 48 and 50, respectively, through which extends a wood screw 52 having its free end anchored in the mast 30, as shown in FIGURE 3.

The mast 30 includes a lower section 54, an intermediate section 56 having a coil 58 wound thereon, and an upper section 60. As shown in FIGURE 3, the lower section 54 has its upper end formed with a reduced portion 62 received within the lower open end of the coil section 56. The upper end of the coil section 56 is also provided with a reduced portion 64 received within the lower upper end of the upper section 60. A feed line 66 extends exteriorly of the socket 24 through the lower section 54 and terminates at a coupling pin 68 extending through and projecting above the reduced portion 62 of the lower section 54. A coupling sleeve 70 is anchored in a plug 72 which bridges the coil section 56 inwardly of the lower end, the coupling sleeve 70 making electrical contact and being circumposed about the upper end portion of the coupling pin 68.

One end of the coil 58 is electrically connected to the coupling sleeve 70. The other end of the coil 58 is electrically connected to another sleeve 74 extending through the reduced portion 64 of the section 56 and receiving therein, in electrical contact, another coupling pin 76 projecting out of the lower open end of the other section 60.

A radiator rod 78 extends axially through the section 60 and is formed integrally with the coupling pin 76.

The flat mounting plate 80 projects from the bottom of the socket 24 and is provided with an aperture through which extends the bolt 26. Washers 82 and 84 on one side of the plate 80 and a washer 86 on the other side of the plate 80 underneath the thumb nut 28 provides means for connecting the socket 24 to the plate member 20 for free movement about the bolt 26 as a transverse axis.

In use, the plate member 16 is mounted upon a deck or cabin roof of the boat and the bracket element 32 is mounted upon the wall of the cabin at a convenient location accessible to the operator of the boat.

When it is desired to lower the mast 30 from the vertical

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position in order to pass under a bridge or other overhead obstruction, the operator need only to shift the sleeve 36 upwardly on the mast 30 to disengage the studs 38 from the slots 46 and the arms 42 of the T-shaped element 44, thereby permitting swinging movement of the mast 30 outwardly of the bracket element 32 and then downwardly to a horizontal position resting upon the deck 12, as shown in dotted lines in FIGURE 1.

When it is desired to return the mast 30 to the vertical position, it is only necessary to hold the sleeve 36 upwardly on the mast 30 while the mast is slipped between the bifurcated free end portion of the bracket element 32, then shifting of the sleeve 36 downwardly will again bring the interengaging fastening elements of the mast 30 and bracket element 32 into releasable locked condition, as shown in FIGURE 1.

What is claimed is:

1. The combination with a boat including a deck and a cabin rising from said deck, of an antenna mast assembly comprising a first flat plate member positioned so as to rest upon said deck adjacent to a wall of said cabin, means fixedly securing said plate member to said deck, a second flat plate member arranged in an upstanding direction and connected at its lower end to said first plate member for movement from the upstanding position to a position overlying said first plate member, a socket on one face of said second plate member, an upright antenna mast having its lower end portion fixedly supported in said socket, a bracket element cooperatively positioned above said first plate member and fixedly supported on said cabin wall, and releasable latching means on said mast and said bracket element for holding said mast upright.

2. The combination with a boat including a deck and a cabin rising from said deck, of an antenna mast assembly comprising a first flat plate member positioned so as to rest upon said deck adjacent to a wall of said cabin, means fixedly securing said plate member to said deck, a second flat plate member arranged in an upstanding direction and connected at its lower end to said first plate member for movement from the upstanding position to a position overlying said first plate member, a socket arranged adjacent one face of said second plate member and connected to said second plate member for swinging movement about a horizontal axis, an upright antenna mast having its lower end portion fixedly supported in said socket, a bracket element cooperatively positioned above said first plate member and fixedly supported on said cabin wall, and releasable latching means on said mast and said bracket element for holding said mast upright.

3. The combination with a boat including a deck and a

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cabin rising from said deck, of an antenna mast assembly comprising a first flat plate member positioned so as to rest upon said deck adjacent to a wall of said cabin, means fixedly securing said plate member to said deck, a second flat plate member arranged in an upstanding direction adjacent one side edge of said second plate member and hingedly connected at its lower end to said first plate member for movement from the upstanding position to a position overlying said first plate member, a socket arranged adjacent one face of said second plate member and connected to said second plate member for swinging movement about a horizontal axis, an upright antenna mast having its lower end portion fixedly supported in said socket, a bracket element cooperatively positioned above said first plate member and fixedly supported on said cabin wall, and releasable latching means on said mast and said bracket element for holding said mast upright.

4. The combination with a boat including a deck and a cabin rising from said deck, of an antenna mast assembly comprising a first flat plate member positioned so as to rest upon said deck adjacent to a wall of said cabin, means fixedly securing said plate member to said deck, a second flat plate member arranged in an upstanding direction and connected at its lower end to said first plate member for movement from the upstanding position to a position overlying said first plate member, a socket on one face of said second plate member, an upright antenna mast having its lower end portion fixedly supported in said socket, a bracket element cooperatively positioned above said first plate member and fixedly supported on said cabin wall, and releasable latching means on said mast and said bracket element for holding said mast upright, said latching means including a sleeve slidably mounted on said mast adjacent to and below said bracket element, and interengaging latch elements on said bracket and on said sleeve.

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