

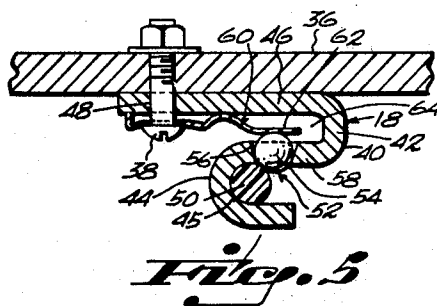
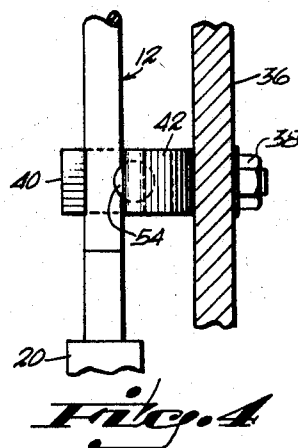
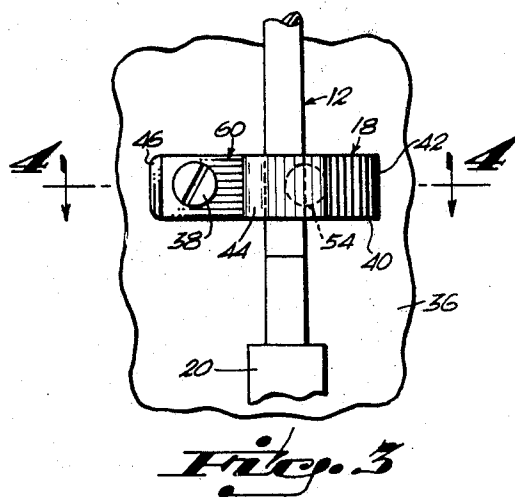
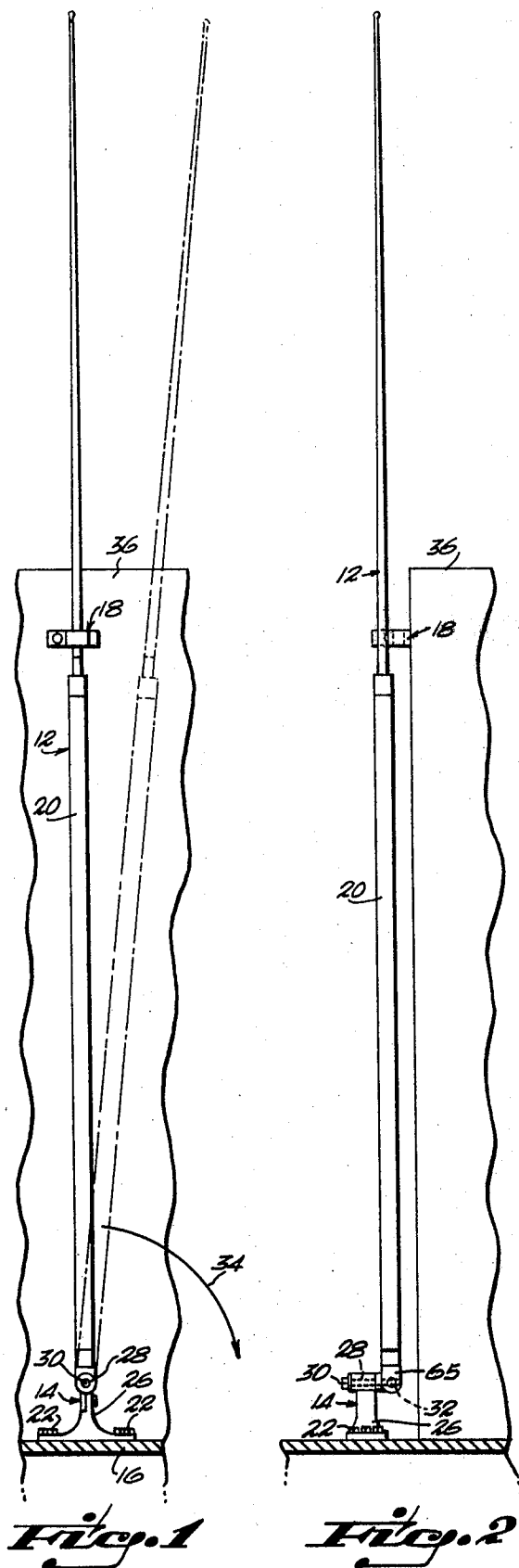
July 21, 1970

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3,521,285

ANTENNA MOUNT

Filed May 9, 1968



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3,521,285

ANTENNA MOUNT

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Filed May 9, 1968, Ser. No. 727,852

Int. Cl. H01q 1/08, 1/34, 3/02

U.S. Cl. 343-709

5 Claims

ABSTRACT OF THE DISCLOSURE

An improved antenna mount including an elongate tapered mast, a pedestal to support the mast and pivot means effective to accommodate swinging movement of the mast of the antenna from a collapsed position to an upright position and means to hold the upper portion of the antenna and yieldable to release the antenna to fall to a collapsed position in response to a sharp impact upon the upper portion of the antenna.

It is a general object of this invention to provide an improved camera mount to provide protection for antennas when installed on boats or the like so that when the upper distalmost portion is hit, as by a low bridge, the antenna will collapse and fall to its supporting surface or deck so that it can be raised and used again without damage having been caused to it.

In accordance with these and other objects which will become apparent hereinafter, the instant invention will now be described with reference to the accompanying drawings in which:

FIG. 1 is a side elevation view of the antenna installed on a boat deck and indicating by chain dot lines its direction of rotation when released;

FIG. 2 is a rear elevation view of the antenna seen in FIG. 1;

FIG. 3 is an enlarged partial view of the upper portion of FIG. 1;

FIG. 4 is a view partly in cross-section taken along the plane indicated by the line 4-4 of FIG. 3 and looking in the direction of the arrow; and

FIG. 5 is a plan view of the structure seen in FIG. 4.

Referring to the drawings and particularly to FIG. 1, there is shown an antenna generally designated by the numeral 12 which is supported by an antenna mount base 14 supported on a deck or support surface 16, at its lower end, and by a clamp or bulkhead mount 18 at its upper end. The antenna includes a mast 20 which is of a Fiberglas material preferably of a spiral finish and having a maximum diameter in the order of about one and one-half inches. Referring to the base 14, it is seen that it comprises a pedestal securely fastened as by the bolts 22 to the deck 16 and that it includes a standard 26 provided with a lateral throughbore 28 to receive a pivot pin 30 which passes through a lateral opening 32 in the lower end of the antenna, whereby pivotal movement of the antenna with respect to the pedestal is accommodated in the direction of the arrow 34 seen in FIG. 1. The clamp 18, which is seen in plan in FIG. 5, is secured to a bulkhead 36 by suitable means such as the screw and nut assembly 38. The clamp comprises a generally S-shaped member 40 having oppositely bent looped portions 42 and 44 with the innermost leg 46 of the inner loop 42 overlaying the bulkhead and having a screw hole 48 to accommodate the bolt of the assembly 38. The bight 45

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of the outer loop is sized to nest and accommodate the upper mast diameter 50 to limit it to one direction of pivotal rotation, namely the direction indicated in FIG. 1. Holding means 52 are provided to hold the antenna within the bight 46, the holding means comprising the ball 54 which is received in an outwardly converging conical recess 56 in the intermediate leg 58 of the S-shaped member of the bulkhead clamp or mount. An adjustment means is provided to exert an outward force on the ball 54 so that the surface thereof which projects with the bight 45 and out of the intermediate leg 58 will bear against the antenna periphery within a predetermined pressure range. The adjustment means comprises a spring member 60 of leaf form having an end 62 which projects into the bight 64 of the innermost loop and which is adjustable by tightening the tension thereon by manipulating the bolt of the assembly 38 which modifies the pressure exerted by the spring.

In operation, it will be seen that in response to an impact on the upper terminal portion of the antenna of a sufficient magnitude to overcome the spring pressure of the adjustment means holding the antenna mast within the bight 45 of the bulkhead mount, it will be free to fall to the deck without damage so that it may be raised after the obstruction has been passed. The spring tension may be adjusted by tightening the assembly 60. There has thus been provided in combination a flexible whip type antenna which includes a mount or laydown assembly which adapts the antenna for swinging movement about an axis adjacent the base and with the antenna being normally held by an adjustable force in an upstanding or upright position and yieldable to a collapsed attitude in response to the application of a force at the upper portion thereof of sufficient magnitude to overcome the force of the adjustment means holding the antenna in the upright attitude.

The lower end of the antenna preferably includes a receptacle 65 or adapter carried on the pivot pin to adapt the same to receive various types of antennas.

While the instant invention has been shown and described herein in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is therefore not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent apparatus and articles.

What is claimed is:

1. For use on a boat, in combination, an antenna and mount for the antenna,
 - said antenna comprising an elongate mast member having a tapered upper end and a lateral opening in the opposite end;
 - said mount including a pedestal having a base plate and means to mount said base plate to the deck of a boat, said pedestal comprising an upright standard with a lateral opening and pivot means interconnecting said opposite end of said antenna at said openings effective for relative swinging movement of said antenna mast with respect to said pedestal about a horizontal axis into and out of an upright position; and
 - a bulkhead mount to hold the upper portion of said antenna in an upright position;
 - said bulkhead mount including an S-shaped member having oppositely opening loop portions with an in-

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intermediate leg there between, and an outer leg on the other side of one of the looped portions, and an inner leg on the other side of the other one of the looped portions, said legs and looped portions defining a first and a second bight portion between said intermediate leg and said outer leg and inner leg respectively;

said first bight portion being sized to snugly nest tapered upper portion of the mast and means secured in said intermediate leg and extending into said first bight portion to releasively captivate the tapered upper end of the mast in said first bight.

2. The device as set forth in claim 1 wherein said means in said intermediate leg comprises a ball secured in said intermediate leg and spring means arranged to normally urge the ball into said first bight to hold the mast.

3. The device as set forth in claim 2 wherein spring means are provided in said second bight portion and normally urge said ball into said first bight.

4. The device as set forth in claim 3 wherein said spring

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means include adjustment means to vary the amount of pressure exerted by said spring on said ball.

5. The improvement as set forth in claim 4 wherein the opposite end of said mast comprises a receptacle connected to said pivot means.

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U.S. Cl. X.R.

74—527; 248—38; 343—881, 882, 900