H. L. BETHEL.

GUARD FOR BUOYS.

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1,037,111.

Patented Aug. 27, 1912.

Fig. 1.

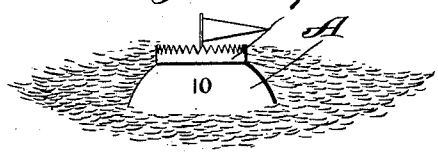


Fig. 2.

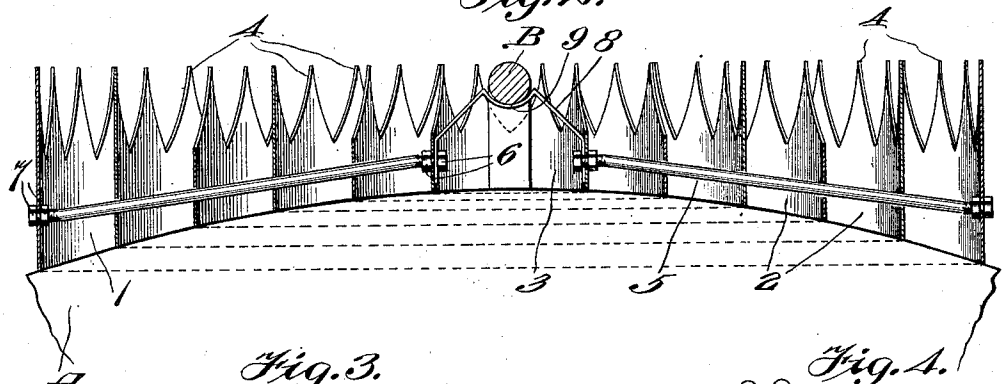


Fig. 3.

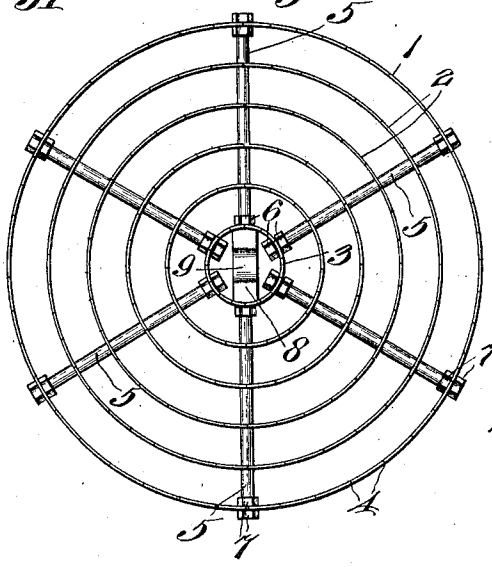
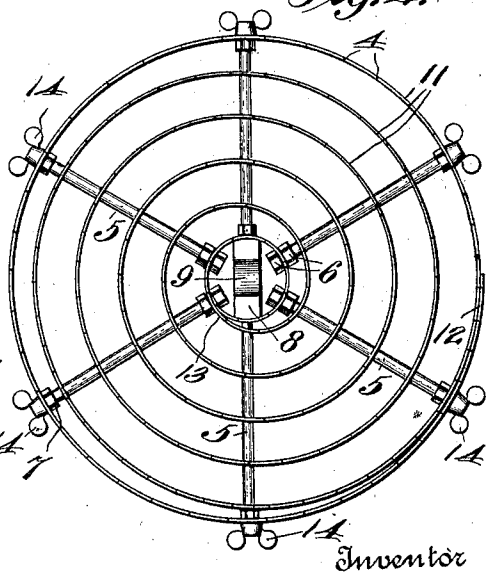


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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GUARD FOR BUOYS.

1,037,111. Specification of Letters Patent. Patented Aug. 27, 1912.

Application filed April 15, 1912. Serial No. 690,807.

To all whom it may concern:

Be it known that I, HARRY L. BETHEL, a citizen of the United States, residing at Tampa, in the county of Hillsboro and State of Florida, have invented certain new and useful Improvements in Guards for Buoys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to guards for buoys for preventing birds from alighting thereon, and has for its purpose to provide a device of that character which is readily applicable for mounting on buoys of spherical or flat top design; and wherein the guard itself will not act as a hindrance to the buoy during rough weather.

The invention has for its further purpose to provide a construction which is of simple design, and wherein the cost of manufacture thereof will be comparatively little.

With these and other objects in view the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals designate like parts in all the views:—Figure 1 is an elevational view of the guard as applied to a buoy; Fig. 2 is a transverse sectional view of the guard; Fig. 3 is a top plan view thereof; and Fig. 4 is a top plan view of a modified construction.

Referring to the construction in detail, the guard consists of a plurality of rings or circular strips 1, 2 and 3, concentrically arranged and constructed preferably of galvanized iron. Said rings are disposed edgewise, and are of decreasing widths toward the center ring 3, the purpose whereof being to permit of the guard readily conforming with the surface of a buoy of spherical design. This construction does also permit of the guard being readily mounted on a buoy of the flat top type. The upper edges of the rings or metal strips 1, 2 and 3 are serrated to provide a plurality of sharp teeth 4, whose function is to offer obstruction to prevent the alighting of birds, as heretofore stated. The several rings are held in proper concentric relation through the medium of a frame consisting of a plurality of radially disposed bars or rods 5, whose respective ends are secured to the inner and outermost of said rings through the medium of ordinary nuts 6 and 7 respectively, and which are disposed in pairs for engaging with opposite sides of said rings, as indicated in Fig. 3.

In applied position, the guard is secured to the buoy A through the medium of its ring or eye-bolt B, which latter member engages with a yoke 8 having a depression 9 to receive said ring B, and which is secured to the adjacent ends of two of the rods 5 through the medium of the inner securing nuts 6 thereof.

In the construction proposed as illustrated in Fig. 4, the guard is made of a single and spirally wound metallic strip 11, as distinct from a plurality of separate and independent rings, which is characteristic of the form described above. The respective ends of the strip 11 are secured at the points 12 and 13 by riveting, or in any other approved manner. This construction contemplates using the radial bars 5 which are secured to the inner and outermost convolutions of the strip 11. The inner securing means consists in the nuts 6, while the outer securing means consists in each instance of a nut 7 and a coöperating thumb screw 14, as shown.

It will be obvious that those skilled in the art may vary the details of construction and arrangement of parts without departing from the spirit of my invention, and therefore I do not wish to be limited to such features except as may be required by the claims.

What I claim is:—

1. In combination with a buoy, of a guard therefor comprising a plurality of circular metallic elements mounted edgewise on said buoy and the opposite edges thereof providing the guard; a plurality of bars securing said elements in relative relation; and means for securing the guard to the buoy, substantially as described.

2. The combination with a buoy of a guard therefor comprising a plurality of circular and concentrically arranged metallic strips mounted edgewise on said buoy and the opposite edges thereof providing the guard; a plurality of radially disposed

bars securing said strips in concentric relation; and means for securing the guard to the buoy, substantially as described.

3. The combination with a buoy, of a guard therefor comprising a plurality of circular and concentrically arranged metallic strips having the upper edges thereof serrated and providing the guard; a plurality of radially disposed bars passing through said strips and secured at their respective ends to the inner and outermost of said strips; and means for securing the guard to the buoy, substantially as described.

4. The combination with a buoy, of a guard therefor comprising a plurality of circular and concentrically arranged strips, said strips mounted edgewise on the buoy and being of decreasing widths toward the center strip, whereby to effect a secure setting on the buoy; means securing said strips in relatively concentric relation; and means for securing the guard to the buoy, substantially as described.

5. The combination with a buoy, of a guard therefor comprising a plurality of metallic strips mounted edgewise on said buoy, and the opposite edges thereof providing the guard; a plurality of bars engaging said strips and securing the same; means securing said bars to the inner and outermost of said strips; and a member for securing the guard to the buoy, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses:

HARRY L. BETHEL.

Witnesses:
W. L. FLYNT,
H. H. SCARLETT.