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COMPACT AND PORTABLE UNDER-WATER VIEWING DEVICE

Filed June 11, 1941

H. H. PIERSON



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Harry H. Lieson





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STATES PATENT OFFICE

2,343,473

COMPACT AND PORTABLE UNDERWATER VIEWING DEVICE

Harry H. Pierson, Auburn, N. Y.

Application June 11, 1941, Serial No. 397,582

1 Claim. (Cl. 88—1)

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The invention relates to improvements in the usual water glass of long tubular or conical shape requiring the use of one or both hands to hold or guide while viewing under water objects; and the objects of the improvements are, first, to provide for more compactness to facilitate stowing in very small space on a cruiser or any small boat where space is of requisite importance; second, to afford the free use of both hands for spearing fish, retrieving objects, etc., while at the same time 10 viewing the objects below the surface of the water: third, ease of use; the large viewing glass in my improved device floats on the surface of the water in the manner of a glass-bottom boat. This reduces causes of physical fatigue commonly 15 observed in the older types of tubular or conical glasses caused by weight of the metal tube or cone and also the upward thrust caused by buoyancy requiring continual steadying of the device by either one or both hands, fourth, less bodily ten- 20 sion, therefore, less fatigue from continual bending of one's body over the side of a boat or dock while observing. The single figure in the accompanying drawing illustrates this point by showing a full view (right side of user) in which it will be seen that the cone I is purposely not symmetrical but hangs lower directly in front of the user on the further side from him. The cone i is sealed water tight around its lower periphery by means of a contractable ring 5 which at the same time grips the periphery of the observing glass 2 sealing it water tight. Since the glass floats level on the surface of the water due to the shape of the cone that is just described it is seen that the user is not compelled to bend out over so far but may make his observations from an off-center angle.

natural and more comfortable position for long periods of observations. Number 6 is the side nearest the user, while 7 is the side furthest from the user. I is a collapsible conical shape of cloth or other suitable folding material. 3 is the headpiece of metal or fiber or other suitable hard material completely sheathed in soft sheet rubber and attached to smaller end of cone 1 as by means of metal contractable rings 8. Number 4 is an adjustable headstrap being attached to headpiece on wearer's right and left side. In this way the head of the user guides the device in operation and keeps the cone I from collapsing while in use thus leaving both hands free for other purposes.

I am aware that prior to my invention sea or water glasses have been made with solid tubes or cones of more or less cumbersome proportions. I, therefore, do not make my claim broadly; but I claim:

A portable and collapsible under-water viewing device comprising an elongated cone-shaped member of flexible and foldable material forming a sight tube, a head-piece mounted on the small end of the cone-shaped member, the head-piece 25 having a sighting aperture and having means for attaching the device to the head of the user to hold the sight aperture in alignment with the user's eyes, and a transparent observation window facing the viewing aperture mounted in the other end in watertight relation thereto, the observa-30 tion window being adapted to float substantially level on the surface of the water while permitting limited movement of the head of the user due to the flexible and foldable material, the device when 35 not in use being collapsible for storing in a small space.