

O. H. HARNEY;
 UNDERSEA SEARCHLIGHT.
 APPLICATION FILED JULY 15, 1918.

1,332,124.

Patented Feb. 24, 1920.
 2 SHEETS—SHEET 1.

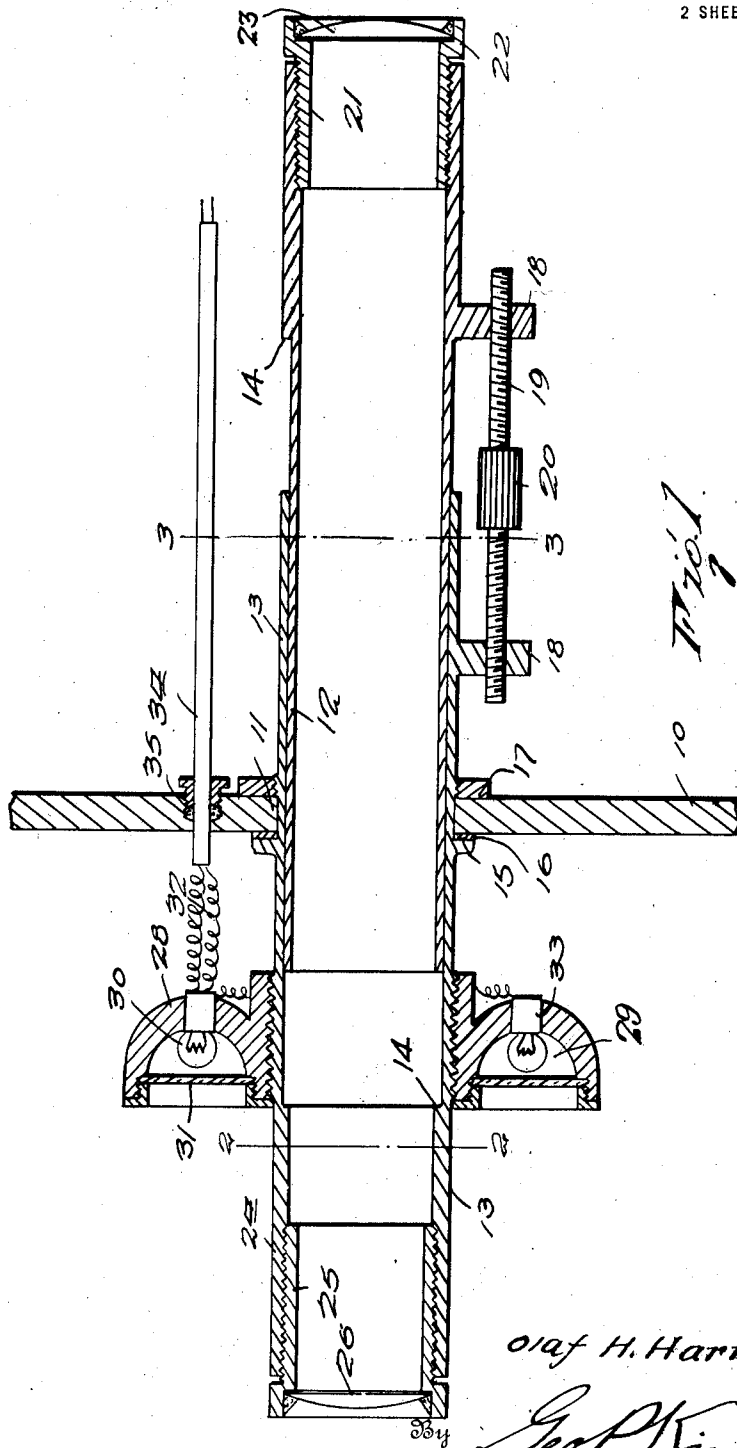


Fig. 1

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Geo. P. Kimmel
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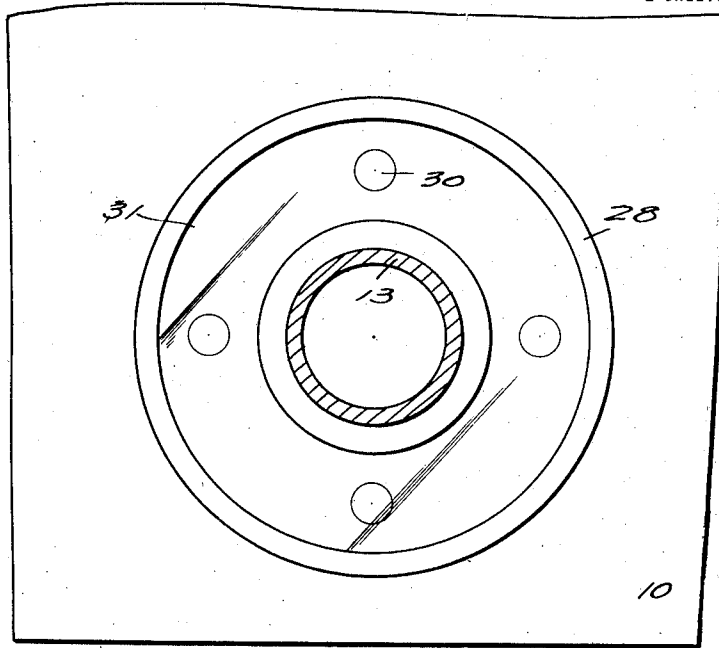


Fig. 2.

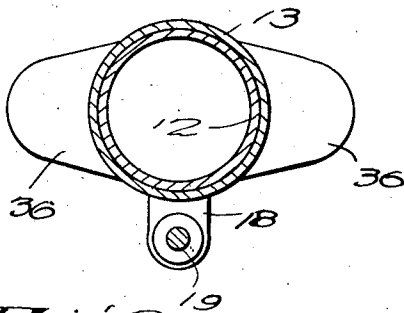


Fig. 3.

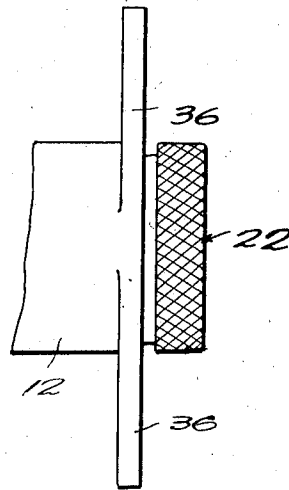


Fig. 4.

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UNITED STATES PATENT OFFICE.

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UNDERSEA-SEARCHLIGHT.

1,332,124.

Specification of Letters Patent.

Patented Feb. 24, 1920.

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To all whom it may concern:

Be it known that I, OLAF H. HARNEY, a citizen of the United States, and resident of Madison, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Undersea-Searchlights, of which the following is a specification.

This invention relates to improved devices for projecting light rays under the water, and more particularly to one adapted for use in connection with submarines, so that objects under the water can be readily seen, thereby rendering the device of special advantage in reconnoitering and observing objects which might destroy the submarine.

With the above objects and others in view, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

Reference is had to the accompanying drawings, forming a part of this application, in which like reference characters indicate the corresponding parts throughout the several views, in which—

Figure 1 is a sectional view of the hull of a submarine provided with my improved device, shown in section,

Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1,

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1, and

Fig. 4 is a detailed view of the end portion shown in Fig. 3, representing the inner end of the device disposed within the submarine or the like.

Referring to the drawings in detail, there is shown the hull 10 of a submarine or like undersea vessel which is provided with an opening 11 therethrough designed to receive my device. This search light device, consists of an inner tube 12 and outer tube 13 telescopically mounted thereon, shoulders 14 being provided to limit the movement of one with respect to the other. A suitable flange 15 is provided on the tubular section 13 and an intermediate packing washer or gland 16 so as to produce a watertight joint, in connection with a securing member 17 threaded on the outer section 13.

In order to slide the sections one with respect to the other, said sections are provided

with depending apertured ears 18 threaded to receive an oppositely threaded stem 19, which in connection with a manipulating part 20 constitutes a turnbuckle well known for this purpose. By rotating the screw 19, the sections will be moved on one another, depending upon the direction of rotation of the screw.

At the inner end, the section 12 is internally threaded to receive a lens holding annulus 21, the same being externally knurled as shown at 22 to facilitate rotation thereof and a lens 23 being carried therein, the position of the lens being capable of being varied, to suit different visions or depending upon the work to be done. At the outer end, the section 13 is internally threaded as shown at 24, so as to receive the externally threaded and adjustable annulus 25 therein, the same having a suitable watertight peering glass 26 at the outer end thereof.

Mounted on the outer tubular section 13, as by threading the same, as shown at 27, is a circular reflector plate 28, the same having a series of depressions 29 having reflecting surfaces, for receiving electric light bulbs 30 suitably protected from the water by closure plates 31 made watertight. The circuit wires 32 for the lights, pass through plugs in suitable apertures in the portions 29 of the reflector plate 28, as shown at 33, the same passing through a tube 34 having watertight connection with the hull 10 as shown at 35 and being connected in circuit with a suitable source of current supply.

By this means, it will be seen that I have provided an improved device which may be used for projecting light rays under water and for viewing therethrough, and observing objects as desired. If desired, the annulus 21 and also the annulus 25, may be provided with shade members 36.

From the foregoing description taken in connection with the accompanying drawings, it is thought that a clear and comprehensive understanding of the construction, operation and advantages of my invention may be had, and while I have shown and described the device as embodying a specific structure, I desire that it be understood that such changes may be made in said structure as do not depart from the spirit and scope of the invention as claimed.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent of the United States, is:

1. In an undersea searchlight, a hull, telescopic sections positioned through the hull, means for adjusting said sections, lens carrying members at the inner and outer ends of said sections, a light reflector carried upon one section outwardly of the hull, and electric light bulbs mounted therein and having conduit wires disposed through the hull in watertight connection, said electric light bulbs being inclosed, and adapted to project rays forwardly of the peering end of the device.

2. An undersea searchlight device, comprising adjustable telescopic tubular sections, means for securing the same through an opening in the hull of a submarine or the like, an adjustable transparent member at the exposed end of the outer tube, a similar member at the inner end of said tubular section, a reflector plate having an annulus threaded on said outer tube outwardly of the hull and having concaved depressions therein, spaced illuminating lights mounted in said depressions, cover plates for said reflector plate and inclosing the lighting

means, and a tube disposed through the hull for receiving the conductor wires for the lighting means therethrough.

3. An undersea searchlight device, comprising adjustable telescopic tubular sections, means for securing the same through an opening in the hull of a submarine or the like, an adjustable transparent member at the exposed end of the outer section, a similar member at the inner end of the inner section, a reflector plate having an annulus threaded on said outer tube outwardly of the hull and having concaved depressions therein, spaced illuminating lights mounted in said depressions, cover plates for said reflector plate and including lighting means, a tube disposed through the hull for receiving the conducting wires for the lighting means, lugs carried by said tubular sections, and having internally threaded apertures, and a screw having oppositely threaded terminals engaged with said apertures and adapted to be turned for adjusting said sections one on the other.

In testimony whereof, I affix my signature hereto.

OLAF H. HARNEY.