No. 678,467. Patented July 16, 1901.

A. GROOMES.

SUBMARINE TELESCOPE.

(Application filed Mar. 19, 1901.)

(No Model.)

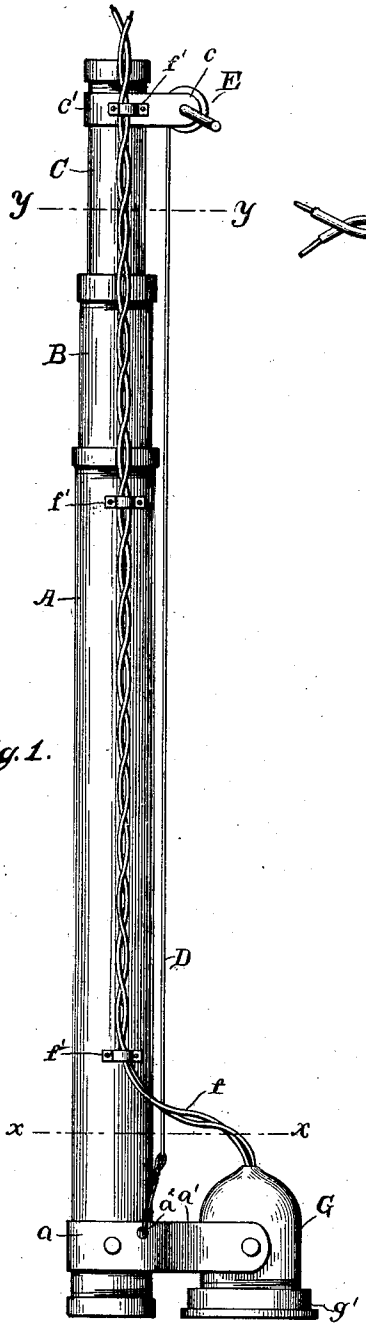


Fig. 1.

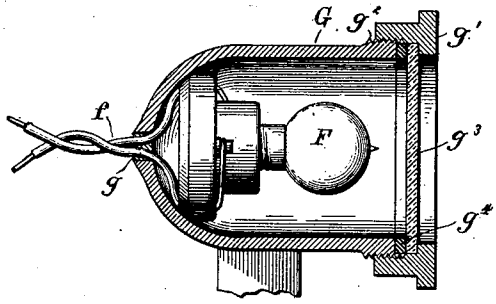


Fig. 4.

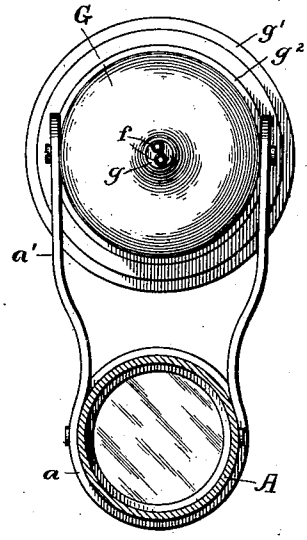


Fig. 2.

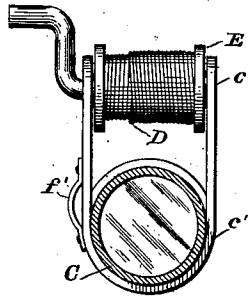


Fig. 3.

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SUBMARINE TELESCOPE.

SPECIFICATION forming part of Letters Patent No. 678,467, dated July 16, 1901.

Application filed March 19, 1901. Serial No. 51,845. (No model.)

To all whom it may concern:

Be it known that I, ASAL GROOMES, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Submarine Telescopes; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved submarine telescope designed primarily to assist in finding articles lost in relatively shallow waters.

The invention embraces the idea of providing the lower section of a telescope with a pivotally-supported lighting means and means for lengthening or shortening the adjustment of the telescopic sections.

Novel details in the construction and operation of the several parts of the telescope will be apparent from an inspection of the accompanying drawings, forming part hereof, and wherein the preferable embodiment of the invention is shown.

In the drawings like reference characters refer to corresponding parts in the several views.

Figure 1 is a side elevation of the complete device. Figs. 2 and 3 are sectional views on the lines $x\ x$ and $y\ y$, respectively, of Fig. 1; and Fig. 4 is a vertical sectional view of the lamp-casing.

Referring more specifically to the drawings, A, B, and C designate the telescopic sections of a telescope of any usual or preferred construction. Near the end of the lowermost section A is secured a substantially U-shaped bracket a, its arms being extended outwardly, as at a', and in suitable apertures a^2 in these arms a rope or cable D is secured, the same extending upwardly around the winding-drum E, pivotally supported in the projecting arms e of the substantially U-shaped brackets e', secured near the upper end of the section C. As this drum is operated in one or the other direction the sections of the telescope will be drawn together, so as to shorten the same, or permitted to drop to lengthen the same, as the case may be. Pivotally supported in the extensions a' of the bracket a is a lamp F of any desired type, that shown in the drawings being preferably an electric light, receiving its power through a suitable flexible conductor f, passing through guides f' on the respective sections and leading to a convenient source of supply. The lamp is protected by a metallic or other casing G, preferably bell-shaped, as shown, having a suitable aperture g at its top for the passage of the flexible conductor f and a screw-threaded cap g', adapted to engage the screw-threaded extension g^2 in the lower portion thereof. This cap is provided with a glass or other transparent central portion g^3 to permit light from the incandescent lamp to pass therethrough. The cap is provided with a rubber gasket g^4 to prevent the passage of water into the casing. The interior of the casing is highly polished, and by reason thereof and its peculiar configuration an effective reflector is provided.

Many alterations in the details of construction may obviously be made without departing from the nature and spirit of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In combination with a submarine telescope comprising a series of adjustable sections, guides on the exterior surfaces of the respective sections, a bracket secured to the exterior of the lowermost section, an electric light secured in said bracket, and a flexible foldable conductor passing from said light through the guides on the respective sections and adapted to establish communication between the light and a suitable source of supply, substantially as described.

2. In combination with a submarine telescope, a bracket secured to the lower end thereof, and illuminating means pivotally supported in said bracket, substantially as described.

3. In combination with a submarine telescope comprising a series of adjustable sections, guides on the exterior surface of the respective sections, a bracket secured to the exterior of the uppermost section, a winding-drum in said bracket, a second bracket se-

cured to the exterior of the lowermost section, a lamp supported by said second bracket, a cord fastened to a part of said second bracket and extending upward to the winding-drum adapted to collapse the sections when wound, and a flexible foldable conductor passing from said lamp through the guides on the respective sections and adapted to establish communication between the lamp and a suitable source of supply, substantially as described.

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

ASAL GROOMES.

Witnesses:
MARTIN G. MCYUTT,
JESSIE A. GORDON.