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Draftman

G. A. MICKELSON.

SIGHT TUBE.

APPLICATION FILED MAY 10, 1919.

1,357,887.

Patented Nov. 2, 1920.

T2653

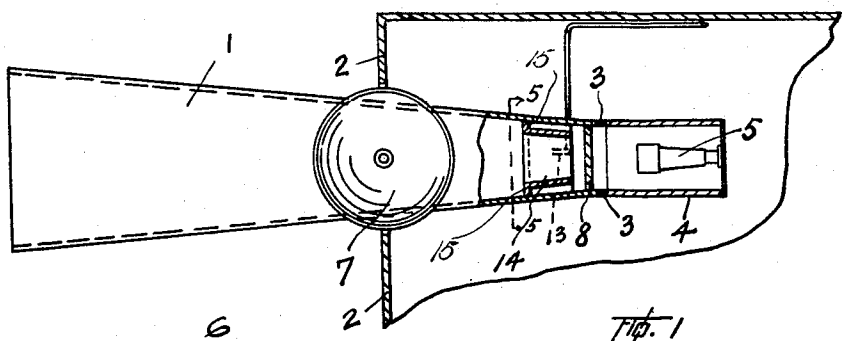


Fig. 1

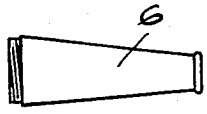


Fig. 3

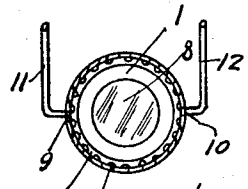


Fig. 2

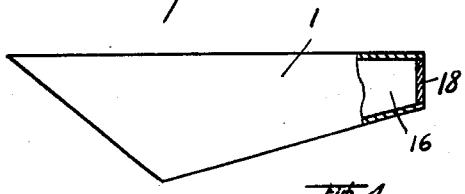


Fig. 4

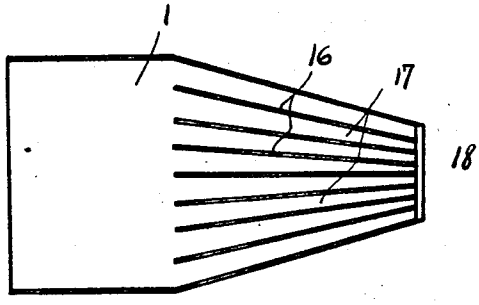


Fig. 5

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BY Kuhlstadt & Co.

ATTYS.

OPTICS

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UNITED STATES PATENT OFFICE.

GEORGE ARTHUR MICKELSON, OF VANCOUVER, BRITISH COLUMBIA, CANADA.

SIGHT-TUBE.

1,357,887. Specification of Letters Patent. Patented Nov. 2, 1920.

Application filed May 10, 1919. Serial No. 296,160.

To all whom it may concern:

Be it known that I, GEORGE ARTHUR MICKELSON, a citizen of the United States, and a resident of the city of Vancouver, in the Province of British Columbia, Canada, have invented certain new and useful Improvements in Sight-Tubes, of which the following is a specification.

My invention relates to improvements in sight tubes, and the object of my invention is to provide a tube the use of which, when arranged in front of the eyes, preserves the vision of the observer therethrough clear and unobstructed in cold weather, storms, blizzards or the like and which is of great advantage to sailors, aviators, locomotive engineers and others engaged in outdoor occupations.

I attain this object by the construction illustrated in the accompanying drawings in which—

Figure 1 is a side view of the tube with parts broken away to disclose the interior construction.

Fig. 2 is a section taken on the line 5—5 of Fig. 1.

Fig. 3 is a view of the megaphone attachment.

Fig. 4 is a view similar to Fig. 1 of a modified form of tube.

Fig. 5 is a plan view of Fig. 4 with the top plate removed.

Similar figures of reference indicate similar parts throughout the several views.

The tube, indicated by the numeral 1, is intended to be mounted on the pilot house of vessels, cabs of locomotives, on aeroplanes, or the like, and in Fig. 1, the numeral 2 indicates the front wall of a pilot house through which the forward end of the tube extends, its rear end projecting into the interior of the house. The tube is funnel shaped, being wider at its mouth than at its inner end, which is threaded as at 3, so that a tubular section 4 containing a pair of binoculars 5 may be secured thereto, or in place of the binoculars when removed, a megaphone 6. The tube is mounted on a ball-and-socket bearing 7 so that it may be readily swung in any direction and adjacent its rear end it is fitted, if desired, with a removable glass window 8, while through apertures 9 and 10 in the side of the tube adjacent and in front of the window are extended air supply pipes 11 and 12 the ends of which are carried forwardly as nozzles a short distance along the inner wall of the tube as at 13, and within an annular chamber 14 extending around the tube so that air may be discharged forwardly into the tube through openings 15 in the forward end of the chamber.

When in operation a continuous blast of air is forced through the pipes 11 and 12 into the tube to emerge under pressure from the mouth of the same, thus clearing away from the front end of the tube fog, rain, snow, smoke or the like, so that the observer looking from the inner end of the tube has a clear vision ahead of him, the glass window, when used, remaining in an unblurred condition.

In Figs. 4 and 5 a modification of the device is shown which is particularly applicable to street cars and other moving vehicles, the tube 1 in this case being formed as indicated and having its interior divided by a series of partitions 16 into a number of small tubes 17 at the rear of which a window 18 is also provided. The modified form is fixed on the front window of a car, automobile windshield, or the like and is used in the same manner as already described with reference to the pilot house single tube, giving a wide area of vision although secured stationary in front of the observer.

What I claim as my invention is:

An observing tube open at its forward end and fitted with a removable transparent closure at the rear end, an annular chamber formed within the tube adjacent to and in advance of said transparent closure, the forward wall of said chamber being provided with a circular series of apertures disposed in immediate proximity to the inner wall of the tube, air pipes leading into said chamber from opposite sides of the tube and provided at the inner ends with forwardly directed nozzles located within said chamber and adapted to force air outwardly through the apertures in the forward wall of the chamber and along the inner wall of the tube.

Dated at Vancouver, B. C., this 24th day of April, 1919.

GEORGE ARTHUR MICKELSON.