T. A. WOOD.

DIVING HELMET.

APPLICATION FILED MAY 28, 1921.

1,409,808. Patented Mar. 14, 1922.

Fig. 1.

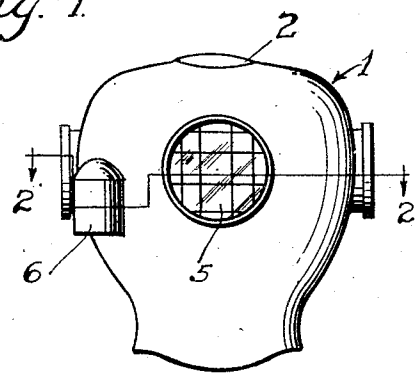


Fig. 2.

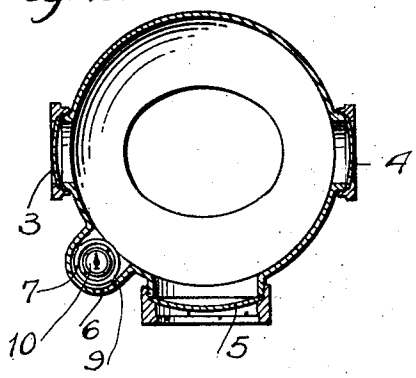


Fig. 3.

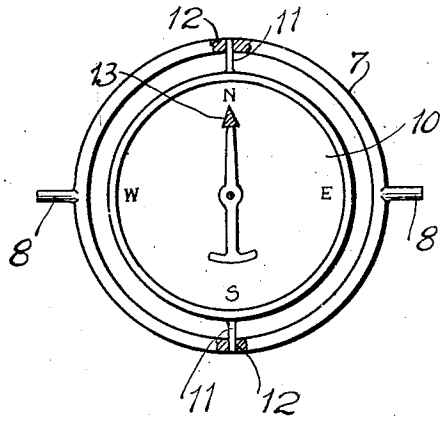
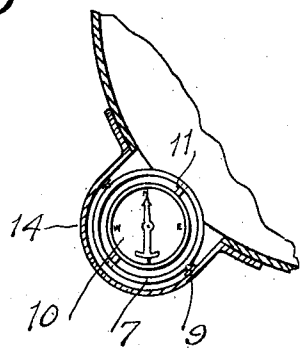


Fig. 4.



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DIVING HELMET.

1,409,808. Specification of Letters Patent. Patented Mar. 14, 1922.

Application filed May 28, 1921. Serial No. 473,501.

To all whom it may concern:

Be it known that I, THOMAS A. WOOD, residing at Portsmouth, in the county of Norfolk and State of Virginia, a citizen of the United States, have invented certain new and useful Improvements in Diving Helmets; 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 pertains to make and use the same.

My invention relates to improvements in diving-helmets, and more particularly to direction indicating means for such helmets.

Divers have to depend almost entirely on their sense of feeling in order to guide them in their explorations on the bottoms of rivers, oceans and other bodies of water and have great difficulty in sensing their direction when the water is clear, but when the water is cloudy or muddy it is almost, if not impossible, for them to see clearly or tell the direction in which they are travelling and the aim of my invention is to obviate or do away with this difficulty by providing a direction indicator which is accessible and is under the eyes of the diver at all times so that he may know his bearings.

The object of the invention is to provide a diving-helmet with means whereby the diver may, at all times, be able to ascertain the direction in which he is travelling without depending for guidance on feeling his way by means of familiar objects below the surface of the water, or being assisted by the situation of the cables, tubes &c, of the diving apparatus which very often become twisted and do not always remain in the same position relative to the diver.

A further object is to provide a diving helmet with a compass or other similar direction indicator.

A still further object is to provide means for mounting a compass in a diving helmet which is simple, inexpensive and durable in construction and very convenient and reliable in use.

The invention consists in the several features and in the construction, combination and arrangement of such features as is more fully hereinafter described and claimed.

Referring to the drawings:—

Fig. 1 is a front view of a diving helmet with my invention installed therein ready for use.

Fig. 2 is a horizontal section on the line 2—2 of Figure 1.

Fig. 3 is a detail plan view, partly in section, of the compass and its mounting.

Fig. 4 is a view, similar to Figure 1, showing a modified form of housing for the compass in which the housing is detachable.

In the drawings in which similar reference characters denote similar parts throughout the several views, 1 represents a diving-helmet provided with the usual windows, 2, 3, 4 and 5 and a housing 6 which projects outwardly from the helmet, at a point between the front and one of the side windows, the housing being preferably formed by being pressed or punched out of the drawn metal casing of which the helmet is formed, but which may be formed in any other desired manner.

A ring 7 is provided having trunnions 8 pivotally mounted in suitable bearings 9 in the side of the housing and inside this ring 7 a compass 10 is pivotally mounted by means of trunnions 11 in bearings 12 in the ring 7, the pivoted ring adapted to turn or swing on its trunnions at right angles to the turning or swinging of the compass.

Although I preferably use what is generally known as a magnetic needle compass, a gyro, card or other compass or direction indicator may be used equally as well and which will accomplish equally good results.

In order to render the needle of the compass visible under varying conditions of light and water it may be tipped with radium, asbestos or other illuminating substance.

In order to adapt my invention to the helmets now in general use I make the housing for the compass in a separate piece 13 from the helmet and after making a suitable aperture or hole in the helmet attach or secure the housing 13 to the helmet over the aperture by brazing or by screw-bolts with suitable packing interposed between the housing and helmet in order to provide a water tight joint between the housing and helmet.

I do not wish to be understood as limiting myself to the specific details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various con-

ditions of use without departing from the spirit and scope of my invention and improvements. I therefore reserve the right to all such variations and modifications as properly fall within the scope of my invention and the terms of the following claims.

What I claim is:—

1. A diving-helmet provided with a housing formed in the wall thereof, a ring pivotally mounted in the wall of said housing and a compass pivotally mounted in said ring.

2. A diving-helmet provided with a detachable housing adapted to project therefrom, a compass pivotally mounted in said housing and means for mounting said compass.

In testimony whereof I have affixed my signature.

THOMAS A. WOOD.