W. R. CASE.

MUSHROOM ANCHOR.

APPLICATION FILED DEC. 8, 1919.

1,384,824. Patented July 19, 1921.

Fig. 2

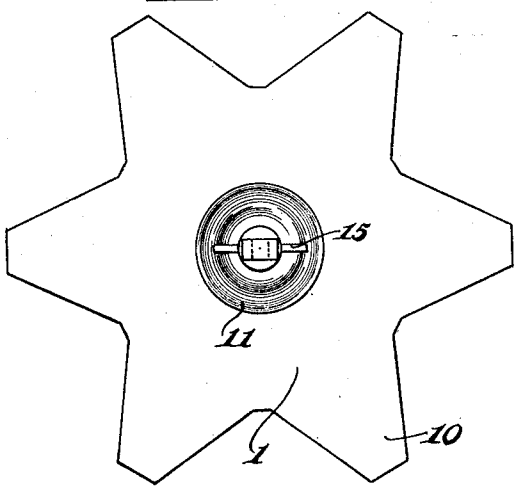


Fig. 1

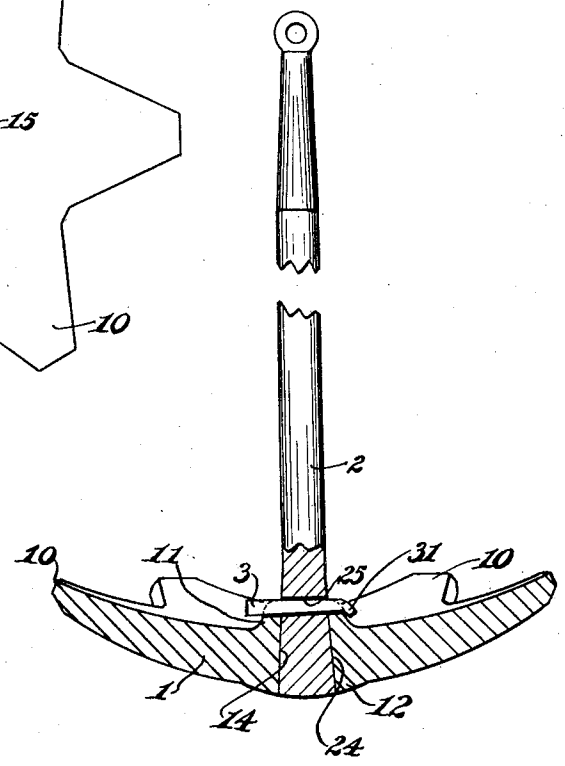


Fig. 3

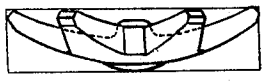
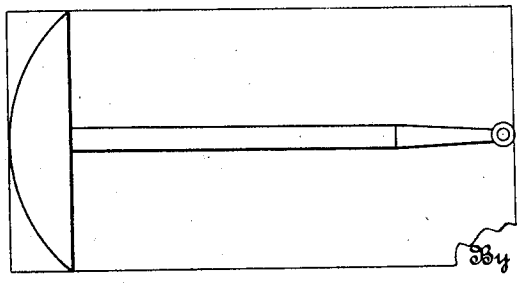


Fig. 4



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UNITED STATES PATENT OFFICE.

WILLIAM R. CASE, OF SEATTLE, WASHINGTON.

MUSHROOM ANCHOR.

1,384,824. Specification of Letters Patent. Patented July 19, 1921.

Application filed December 8, 1919. Serial No. 343,229.

To all whom it may concern:

Be it known that I, WILLIAM R. CASE, a citizen of United States of America, and resident of Seattle, county of King, State of Washington, have invented certain new and useful Improvements in Mushroom Anchors, of which the following is a specification.

My invention relates to anchors and particularly to the type of anchors known as mushroom anchors.

The object of my invention is to provide an anchor which is made up of two separable parts, a head and a shank, which may be shipped separately and assembled where desired. In this way shipping space may be greatly diminished and freight costs lowered.

Another object of my invention is to provide a mushroom anchor which will more surely and securely engage the ocean floor and provide secure anchorage.

My invention comprises the novel parts and combinations thereof which are shown in the accompanying drawings, described in the specification and particularly defined in the claims terminating the same.

In the accompanying drawings I have shown my invention in the form which is now preferred by me.

Figure 1 is a sectional view of my improved anchor assembled.

Fig. 2 is a plan view of the same.

Fig. 3 illustrates the amount of shipping space required by the head of my anchor.

Fig. 4 illustrates the amount of shipping space required by the commonly used mushroom anchor.

The anchor herein described and illustrated in the drawings is more particularly designed for use where it is to be kept down for a more or less permanent anchorage, rather than for temporary holding purposes, as for instance for holding fish traps, buoys and the like.

Mushroom anchors are commonly made of two parts, a head and a shaft or shank, and the two parts are secured together inseparably at the foundry and are shipped in this manner. As a consequence the anchors in shipping require a very large space and the shipping costs, especially when shipped by water, where measurement determines cost, make the final cost of the anchor very high. By providing an anchor which is formed of two parts which may be shipped separated and assembled where the anchor is to be used, shipping charges are reduced to a minimum.

Anchors of this type seldom wear out, they are usually lost through accident long before they are worn out. What is desired is a secure and permanent joint between the head and the shank, yet one which may be broken so as to separate the shank from the head when desired. At the same time it is desirable to form a tight joint between the two in order to prevent corrosion and electrolysis between the two surfaces. This is secured in my improved construction by means which I shall hereafter describe.

The head of the anchor shown is formed somewhat similarly to the ordinary mushroom anchor. It consists of a dished head 1 having its edge serrated to form points 10 at intervals about its circumference. Upon the concave side of the head I may form an integral boss 11 and I may also provide a slight boss 12 upon the convex side of the head.

Extending centrally through the head and through the bosses 11 and 12, is an axial hole 14. Preferably this is tapered inwardly toward the concave side of the head. The shank 2 has a tapered end 24, which is adapted to fit into and be secured in the tapered bore 14 in the head. In the boss 11 I provide a pair of transversely extending notches 15 and in the shank 2 I provide a transversely extending slot 25, which is adapted to register with the notch 15. To secure the shank in place, a tapered key 3 may be driven through the notches 15 and the slot 25 and, if desired, may be turned over as shown at 31, to secure it in place. The pull upon the anchor will be in a direction which will tend to tighten the tapering end 24 in the head, and the key 3 would only be needed to prevent removal of the shank during the periods when the anchor was not in use.

The hole 14 and the tapered end 24 should be well fitted so that there is no leakage between them. With the shank driven in from the convex side of the head and the surfaces 14 and 24 fitting perfectly, there can be no water entering between the shank and head and consequently no corrosion can take place at this joint. The tapered key 3 may also be driven into the slot 25 and the notches 15 in such manner as to close these openings and to prevent corrosion here. I

prefer to form the lower end of the shank so that it is flush with the surface of the boss 12. This will eliminate any undue projection and will do away with any projecting point or shank end.

In shipping the type of mushroom anchor now in use, the weight is figured by the space required for shipment. This is measured as the over-all cubic space required by the anchor. In shipping my anchor in the knock down form, the shipping space is reduced to approximately one sixth of the space required by the present type of anchor, as shown in Fig. 3. A series of heads may be shipped in this manner and a series of shanks may be shipped together, thus saving a large amount of space in any shipment.

What I claim as my invention is:

1. As an article of manufacture, an anchor comprising a mushroom head having a central boss upon its concave side, and having an axial hole extending centrally therethrough, and tapered inward from the convex side of the head, a shank having a tapered end securable in said hole, and having a transverse slot therein, a notch in the upper side of said boss at opposite sides of the central hole registrable with said transverse slot, and a tapered key securable in said slot and notches.

2. An anchor having a head provided with a tapered hole, a shank adapted to be passed through said hole and having a tapered head fitting said hole, and a key passing through the shank at the inner face of the head, the head having a groove in its face to receive said key.

3. As an article of manufacture, an anchor having a head provided with a shank-receiving hole, a headed shank adapted to be passed through said hole to be secured therein, and a key passing through said shank to prevent removal thereof, the head having a groove in its face to receive said key.

Signed at Seattle, King county, Washington, this 1st day of December, 1919.

WILLIAM R. CASE.