No. 860,286. PATENTED JULY 16, 1907.

A. F. EELLS.

ANCHOR.

APPLICATION FILED AUG. 20, 1906.

Fig. 4

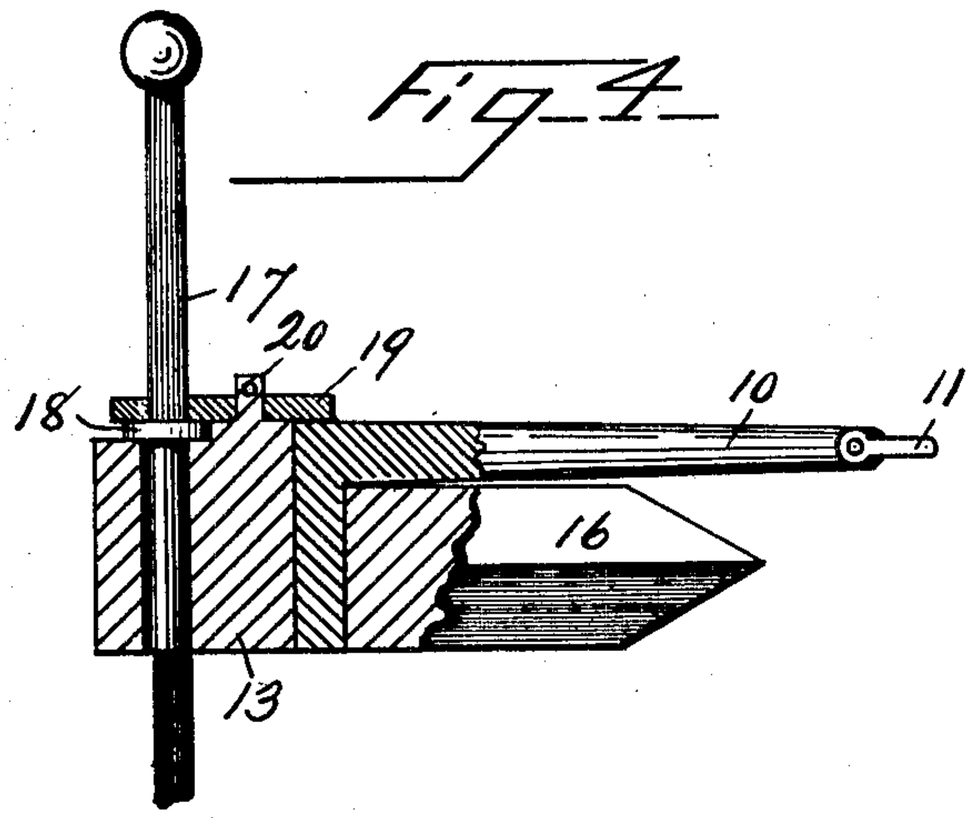

Fig. 1

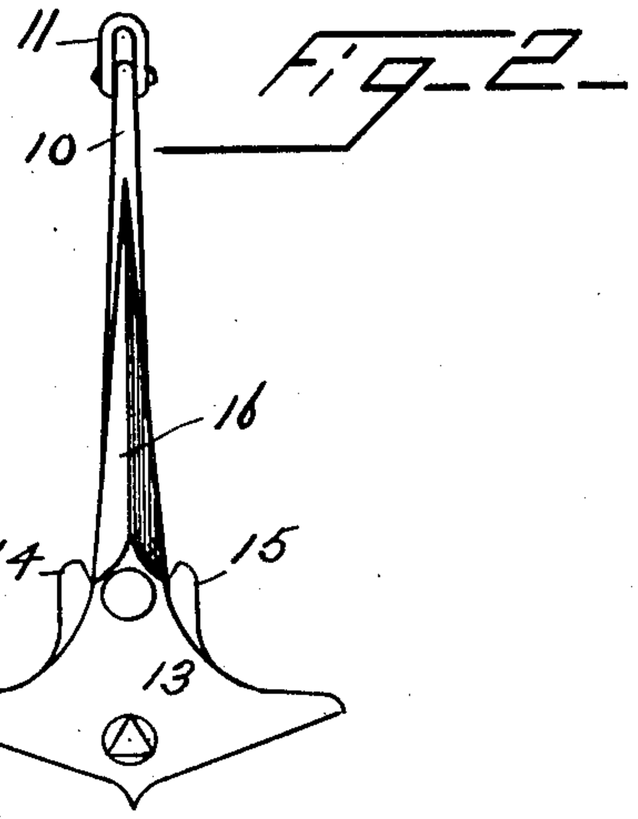

Fig. 2

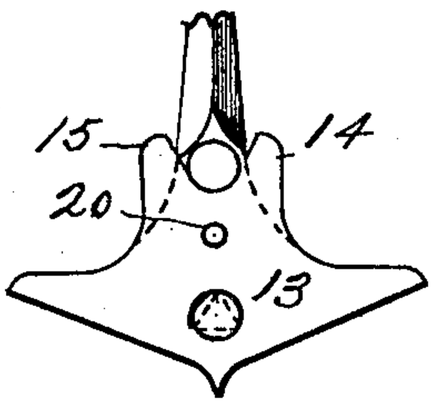

Fig. 3

WITNESSES:

C. Frank Palmer

Frank H. Allen

INVENTOR

Albert F. Eells

UNITED STATES PATENT OFFICE.

ALBERT F. EELLS, OF BOSTON, MASSACHUSETTS.

ANCHOR.

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To all whom it may concern:

Be it known that I, ALBERT F. EELLS, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Anchors, of which the following is a specification, reference being had to the accompanying sheet of drawings.

This invention relates particularly to the construction of reversible, "heaving in" anchors, my purpose being to provide a simple and reasonably cheap anchor, of light weight, that will bury itself readily and maintain its hold with no tendency to break out and hitch forward spasmodically, as is now common with anchors of this general type.

My said improved form of anchor operates positively and quickly to grasp the sea bottom when the cable is drawn taut, for the reason that the major part of the weight is so located that it serves to hold the point of the fluke in engagement with said bottom when the anchor is in service, and the angle or pitch of the fluke relatively to the shank is such that increased strain on the cable only tends to bury the anchor deeper, although the said anchor may be easily broken out when the cable is hove short, as I shall explain more fully later.

My said anchor has the additional advantage of compactness, requiring little space in which to stow it away on ship-board.

In the accompanying drawings Figure 1 is a side elevation of an anchor embodying my present improvements, the same being partly embedded in the mud. Fig. 2 is a view of said anchor as it appears when being hauled up, showing the fluke folded into parallel relation to the shank. Fig. 3 is a view of the head portion 13 showing the reverse of Fig. 2 and with the other parts removed. Fig. 4 is a sectional view.

The reference numeral 10 indicates the shank of the anchor, said shank being provided at its free end with a shackle 11 to which the cable 12 is fastened. The head 13 of the anchor is hinged to the other end of the shank 10 and is formed with projecting stop shoulders 14—15 adapted to engage the shank to limit the rocking movement of the head relatively to the shank; the engaging parts being so proportioned that the fluke 16 (which is here shown as an integral part of the head) stands at an angle of approximately 40 degrees to the shank when the anchor is in service, and so that the fluke will readily draw downward into the mud and bury the entire anchor.

The stock (denoted by the numeral 17) extends through the head 13, near the outer end portion of the latter, and operates, when the anchor drops upon the sea bottom, to guide the fluke directly downward into the mud. As here shown the stock is formed of a triangular bar whose angles offer somewhat less resistance, when the anchor is being drawn downward into the mud, than a round bar. Said stock is formed with a flanged enlargement 18 which prevents endwise movement of said stock in the head 13, the said flange being held between the head and a plate 19 that is secured to the head. As here illustrated, the plate 19 is mounted upon a stud 20 formed as an integral part, or at all events as a rigid part, of the head 13 and the head and plate are held against accidental separation by a pin 21 extending through the said stud, as is clearly seen in Fig. 1 of the drawings. By referring to Fig. 4 it will be seen that one end of plate 19 over-laps the hinged end of the shank to prevent the separation of the shank and head, and the other end of said plate over-laps the flange 18 to prevent endwise displacement of the stock, as I have already explained.

When it is desired to break out my described anchor the cable is hove short when the fluke may be readily lifted out of the mud.

It should be noted that the pin by means of which the shackle is secured to the shank-end is located at right angles to the stock and so that, when the cable is taut, the shackle does not swing on the pin but serves, in fact, as a rigid extension of the shank.

Having thus described my invention, I claim as new and wish to secure by Letters Patent:—

1. In combination, in an anchor, a shank, a fluked head hinged to said shank, and a stock extending transversely through said head at the outer end portion of the head.

2. In combination, in an anchor, a fluked head, and an angular stock secured to the said head at the outer end portion of the latter.

3. In combination, in an anchor, a shank, a fluked head hinged to said shank, and an angular stock secured to said head at the outer end portion of the latter.

4. In combination, in an anchor, a shank, a fluke hinged to said shank, and a weighted head formed upon said fluke and a stock extending transversely through the head at the outer end portion of the latter; said weight being so disposed that the fluke will be moved into parallel relation to the shank when the complete anchor is suspended by the cable.

5. In combination, in an anchor, a fluked head, and a shank hinged to said head at one side of the fluke.

6. In combination, in an anchor, a fluked head, a shank hinged to said head at one side of the fluke, a stock secured in said head, and a shackle on the free end of the shank; the shackle pin being located at right angles to the said stock.

7. In an anchor, a fluked head, a shank hinged thereto at one side of the head, a stock passed through the head at the outer end portion of the latter, and means on said head retaining both the shank and stock against displacement.

ALBERT F. EELLS.

Witnesses:
FRANK H. ALLEN.
C. FRANK PALMER.