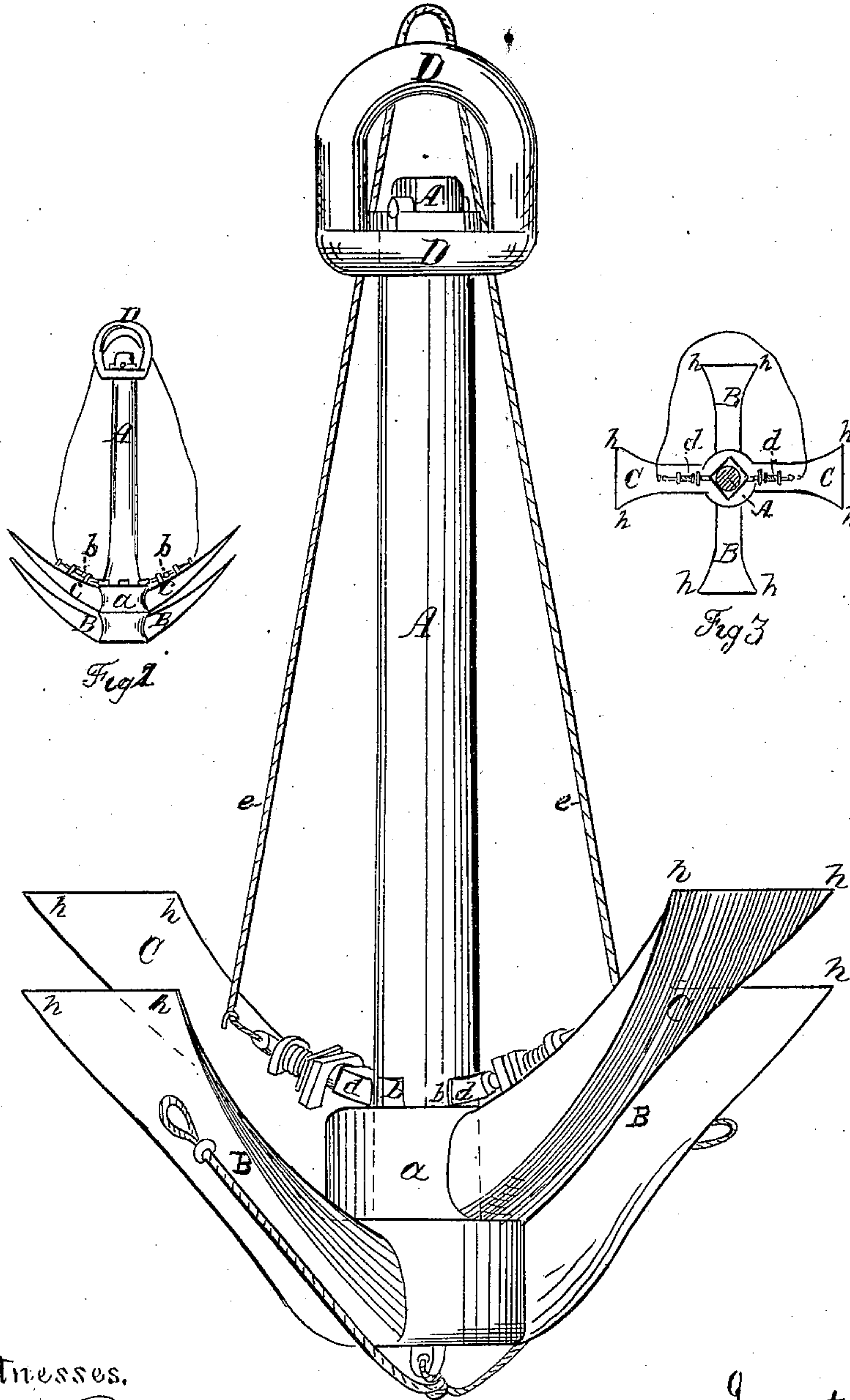


*F. Howes.*

*Anchor.*

*No. 85,228.*

*Patented. Dec. 22, 1868.*



Witnesses.

*Chas. F. Sleeper.*  
*J. E. Maynard*

*Fig 2*

Inventor.

*Frederic Howes*

# United States Patent Office.

FREDERIC HOWES, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 85,228, dated December 22, 1868.

## IMPROVEMENT IN ANCHORS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, FREDERIC HOWES, of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Anchors; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which different views of my improved anchor are given.

The objects of my invention are to provide an anchor that will always take hold of the bottom, whatever its nature may be, to dispense with the cumbersome stock commonly used, and to so arrange the anchor that it shall be simple in its construction, not liable to get out of order, and, when cattd or taken on board the vessel, will occupy the smallest amount of space.

To accomplish these results, I make the shank A, to which the arms B B are rigidly affixed.

Above these arms, and upon a sleeve, *a*, around the shank, are two other arms, C C.

The shank is round in its upper part, and square at the lower part, and the inside of the sleeve is fitted to the square portion of the shank, in order to hold the arms C C in the desired position; but I do not confine myself to this method of holding the arms, as it is obvious that other methods may be adopted.

Notches, *b b*, are made in the angles of the square portion of the shank, to receive the catches *d d*, which are attached to the arms C C near the throat.

In some anchors I prefer a spring-catch, as shown, but it is obvious that the catch may be pivoted or go in ways, without a spring.

From the outer ends of the catches a rope or chain, *e e*, passes through eye-bolts, as shown, and serves not only to withdraw the bolts when a spring-catch is used, but also to raise up the adjustable arms in order to cat the anchor.

On the crown and on the arms B B are shown eye-bolts, through which a rope or chain is passed, to be used in fishing the anchor, or to attach a buoy-rope.

The shackle D, I make to swivel upon the end of the shank, and hold it by a washer and pin, as shown by the drawings.

The operation of my anchor is as follows:

In fig. 1 it is shown with the arms C C directly above and in the same line with the arms B B, and in this position it occupies the least possible space when it is to be cattd or stowed away. To prepare it for use, the catches *e e* are drawn out of the notches *b b*, and the arms C C slipped up as far as the round portion of the shank, when they are turned to the position shown in Figure 3, and slipped down until the crown of these arms comes against the throat of the other arms, as shown in Figure 2, where they are held by the catches.

It is plain that in this position the anchor has a form well adapted for taking hold of the bottom, whether it be rocky or muddy, for in whatever way it may happen to fall, either one or two of the arms will be presented to the surface, and will take a firm hold, to insure which, in all cases, I prefer to make my palm flat, as shown in the drawings, with two bills, *h h*, so that when two arms are brought to the ground, the bills will catch and enter. But I do not wish to confine myself to this form.

The chief feature of my invention is the adjustable arms, so constructed that the anchor requires no stock, as each pair of arms performs for the other all the functions required of a stock when the adjustable arms are at right angles to the stationary arms, thus securing all the advantages and escaping all the disadvantages of a four-armed anchor.

The advantage of having the shackle made to swivel on the shank, so as to accommodate the various positions in which the anchor may fall, and also its positions in catting and stowing, will be apparent without explanation.

What I claim as new, and desire to secure by Letters Patent, is—

1. The adjustable arms, when constructed substantially as shown, and for the purpose specified.
2. The combination of the shank, adjustable arms, and catch, substantially as and for the purpose specified.

FRED'C HOWES.

Witnesses:

J. E. MAYNADIER,  
CHAS. F. SLEEPER.