

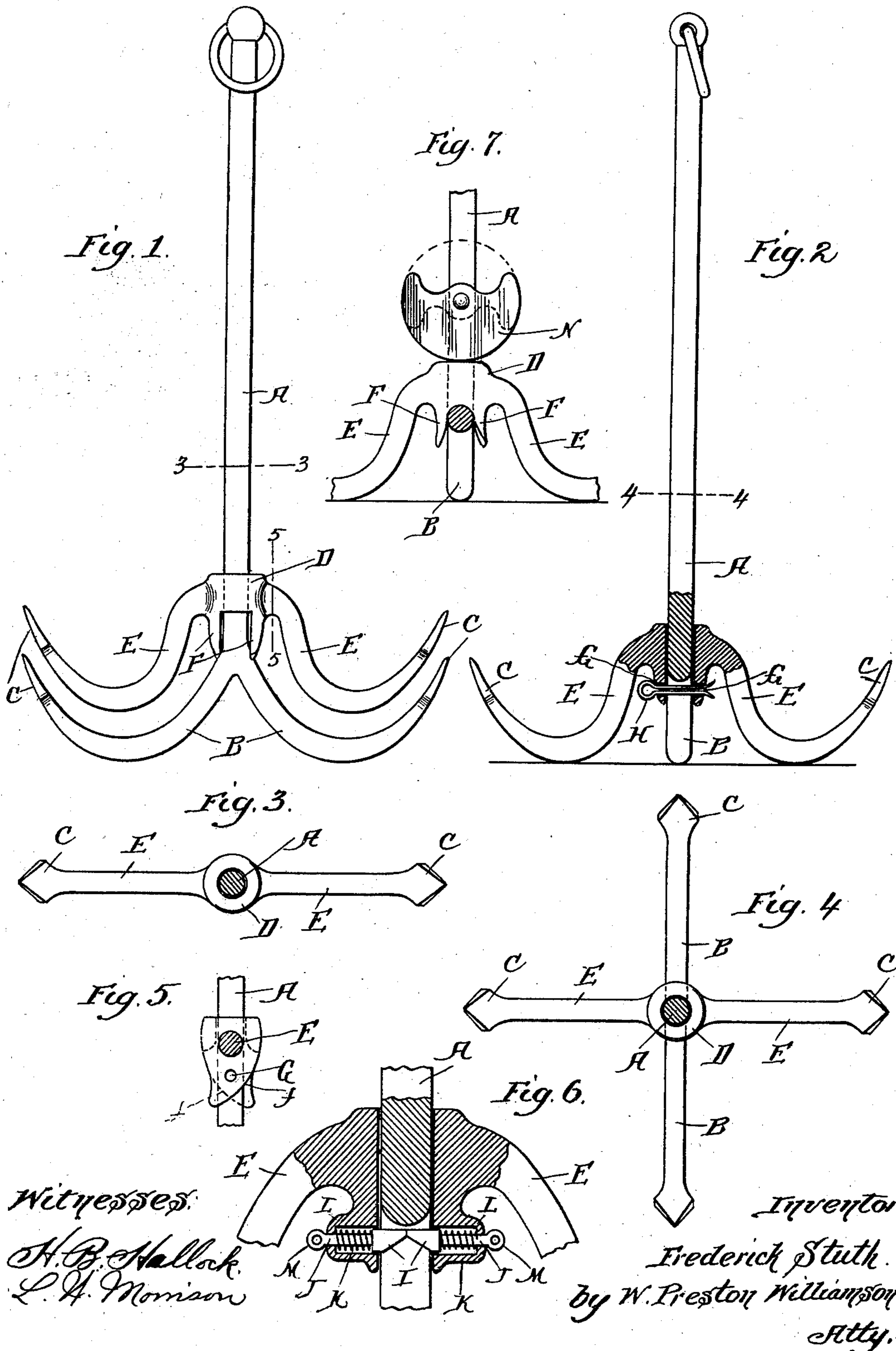
No. 671,246.

Patented Apr. 2, 1901.

F. STUTH.
ANCHOR.

(Application filed Nov. 9, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

FREDERICK STUTH, OF SOMERS POINT, NEW JERSEY.

ANCHOR.

SPECIFICATION forming part of Letters Patent No. 671,246, dated April 2, 1901.

Application filed November 9, 1900. Serial No. 35,997. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK STUTH, a citizen of the United States, residing at Somers Point, county of Atlantic, and State of New Jersey, have invented a certain new and useful Improvement in Anchors, of which the following is a specification.

My invention relates to a new and useful improvement in anchors, and has for its object to provide an anchor which will be of such construction that when not in use it will lie flat upon the deck or along the side of the vessel and not take up any unnecessary room, and when in use will accomplish all the purposes of the present form of anchor, and will, by reason of its four arms instead of the two arms which the present anchors have, afford a better hold, and as two of the flukes will always be dragging it will be more certain to embed itself in the earth and hold the vessel. I accomplish this by doing away with the usual stock which extends across the top of the shank of the vessel at right angles to the arm, and I pivot a supplemental pair of arms upon the shank of the anchor.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings forming a part of this specification, in which—

Figure 1 represents a side view of the anchor with both sets of arms lying parallel with one another in the position they would be when the anchor is not in use. Fig. 2 is a partial section through the center of the anchor as it would be when it was in use, a portion of the shank and arms being left in elevation. Fig. 3 is a section on the line 3 3 of Fig. 1; Fig. 4, a section on the line 4 4 of Fig. 2; Fig. 5, a section on the line 5 5 of Fig. 1; Fig. 6, an enlarged section similar to Fig. 2, showing a modification in the method of lock-

ing the supplemental arms in place; and Fig. 7 is a detail view showing another mode of automatically locking the supplemental pair of arms in place.

In carrying out my invention as here embodied, A represents the shank of the anchor, and B indicates arms made integral with the shank and extending out in opposite directions from one another, these arms having the usual flukes C at their terminals.

D is a hub which is pivoted upon the shank A of the anchor. This hub has two arms E, extending outward from the opposite sides of said hub, the arms E also having the usual flukes C at their terminals.

F F are two side plates extending downward from the hub D. These plates F are of the form shown in Fig. 5—that is, the edge of one of these plates is beveled to the right and the other to the left, as indicated at *f*. These beveled edges will rest, when in the position shown in Fig. 1, upon the rounded surfaces of the arms B near their junction with the shank A. When it is desired to use the anchor, the arms E are swung around to right angles with the arms B, when the plates will then straddle the arms B where they join with the shank A and the hub will drop down until the arms E are upon the same level with the arms B. The purpose of the plates F being beveled each in opposite directions at the point *f* is that by reason of the said beveled edges resting upon the rounded surfaces of the arms B it will facilitate the placing of the arms E in place, for when the anchor is raised upright the beveled edges will have a tendency to slide from off the rounded surfaces of the arms B in opposite directions, and thus swing the arms E around to right angles to the arms B, when the hub D will fall into place. When the arms E are in the position for use, the lower portion of the plates F will extend below the fork formed by the junction of the two arms B.

A hole G is formed through both of the plates F at a point nearly coincident with the fork formed by the junction of the two arms B. For the purpose of securing the arms E in place in small anchors I would simply pass

a spring or cotter-pin H through the holes G, and this pin passing beneath the fork or crotch will then hold the arms E against any upward movement.

5 In Fig. 6 I have shown a method of securing the arms E in place, which would be preferable for use in large and more expensive anchors and consists of the two spring-catches I, which have the shanks J secured thereto, these shanks passing through the housings K and out through the ends of said housings. A spring L being inclosed in said housings and surrounding the shank J always tends to press the catches I into the position shown in Fig. 6. When the arms E are in the position shown in Fig. 1, the spring-catches I will be pushed back within the housing K by reason of their ends abutting against the shank A; but as soon as the anchor is raised up-
10 right all of the weight of the arms E and the hub D will come upon the beveled edges f of the plates F, and this will cause the arms E to swing around at right angles to the arms B, when they will drop into place, and as soon as the spring-catches I pass the fork formed by the junction of the two arms B they will spring into place, as shown in Fig. 6. Thus the locking of the anchor will be entirely automatic, it simply being necessary
20 to raise the anchor and lower it into the water, and the arms E will swing the plates and lock themselves. This will be of great advantage when it is necessary to lower the anchor very quickly. When it is desired to unlock the arms and return them to the position shown in Fig. 1, the spring-catches are pulled back by means of the eyes M, formed in the ends of the shanks J, when the arms can be raised.

40 In Fig. 7 I have shown another method whereby the movable pair of arms E E are automatically locked in place when the anchor is raised. This consists of a flat segment N, which is pivoted to the shank A of the anchor. When the arms E E are raised and the anchor is out of use, the segment N will be in the position shown in dotted lines in Fig. 7, the segment being placed in this position by hand; but as soon as the hub D and the arms
50 E E drop into place this segment will swing around, as shown in full lines in Fig. 7, and thus prevent the arms E E from being accidentally displaced. By reason of the shape of this segment it will also lock the arms in place. When said arms are at right angles to one another, the flukes on the end of two of the arms are resting upon the ground and the end of the shank being at the same time in contact with the ground when the anchor
60 is lying with the end of the shank resting upon the ground, as well as the flukes.

The advantages of my invention are obvious, in that it does away with the usual stock which never will allow the anchor to lie flat in any position, for the purpose of the stock is to keep the anchor from lying flat; but by

reason of my invention having two pairs of arms at right angles to one another this accomplishes all the purposes of the stock; for two of the flukes C will always drag upon the ground.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

1. In an anchor, a shank, two arms integral with or secured rigidly thereto extending outward in opposite directions therefrom, flukes formed upon the outer end of said arms, a supplemental pair of arms journaled upon the shank, flukes formed upon the end of said arms, plates extending downward from said supplemental pair of arms upon each side of the shank, said plates adapted to hold the pair of supplemental arms against rotation when the anchor is in use, means for locking said supplemental pair of arms against longitudinal movement along the shank when the anchor is in use, substantially as and for the purpose specified.

2. In an anchor, a shank, two arms integral with or secured rigidly thereto extending outward in opposite directions thereto, flukes formed upon the outer end of said arms, a supplemental pair of arms journaled upon the shank, flukes formed upon the end of said arms, plates extending downward from said supplemental pair of arms upon each side of the shank, said plates being beveled in opposite directions from one another, said plates also adapted to straddle the stationary arms at their junction with the shank when the anchor is in use, means for automatically locking the supplemental pair of arms against longitudinal movement along the shank when the anchor has been raised, and the arms have dropped in place at right angles to one another, substantially as described and for the purpose specified.

3. In combination, in an anchor, a shank A, two arms B integral with or secured rigidly thereto and extending outward in opposite directions from one another, a hub D journaled upon the shank, a supplemental pair of arms E formed with and extending outward from said hub in opposite directions from one another, side plates F formed with and extending downward from said hub, the edges of said plates being beveled in opposite directions from one another, said side plates adapted to straddle the two arms B at the junction of the shank when the anchor is in use, a swinging member pivoted to the shank of the anchor for the purpose of automatically locking the supplemental pair of arms against longitudinal movement along the shank when the anchor is in use, substantially as and for the purpose specified.

4. In an anchor, a shank, two arms integral with said shank and extending outward in op-

posite directions to one another, a supplemental pair of arms pivoted upon said shank, said arms adapted to lie parallel with the fixed arms when the anchor is out of use, said arms
5 also adapted to swing automatically at right angles with the fixed arms when the anchor is raised, and means for locking said movable arms against longitudinal movement along the shank when the anchor is in use, sub-

stantially as described and for the purpose to specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

FREDERICK STUTH.

Witnesses:

MARY E. HAMER,
L. W. MORRISON.