

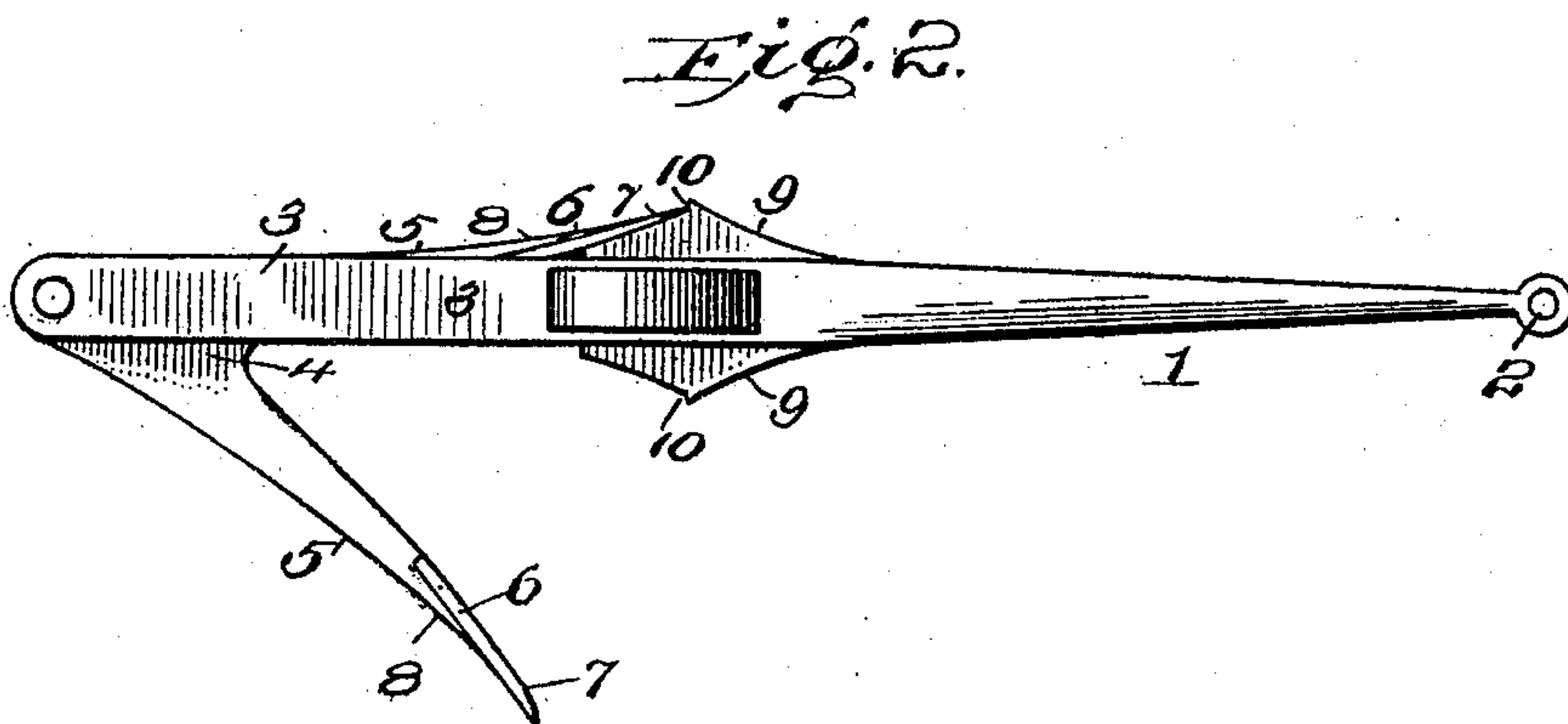
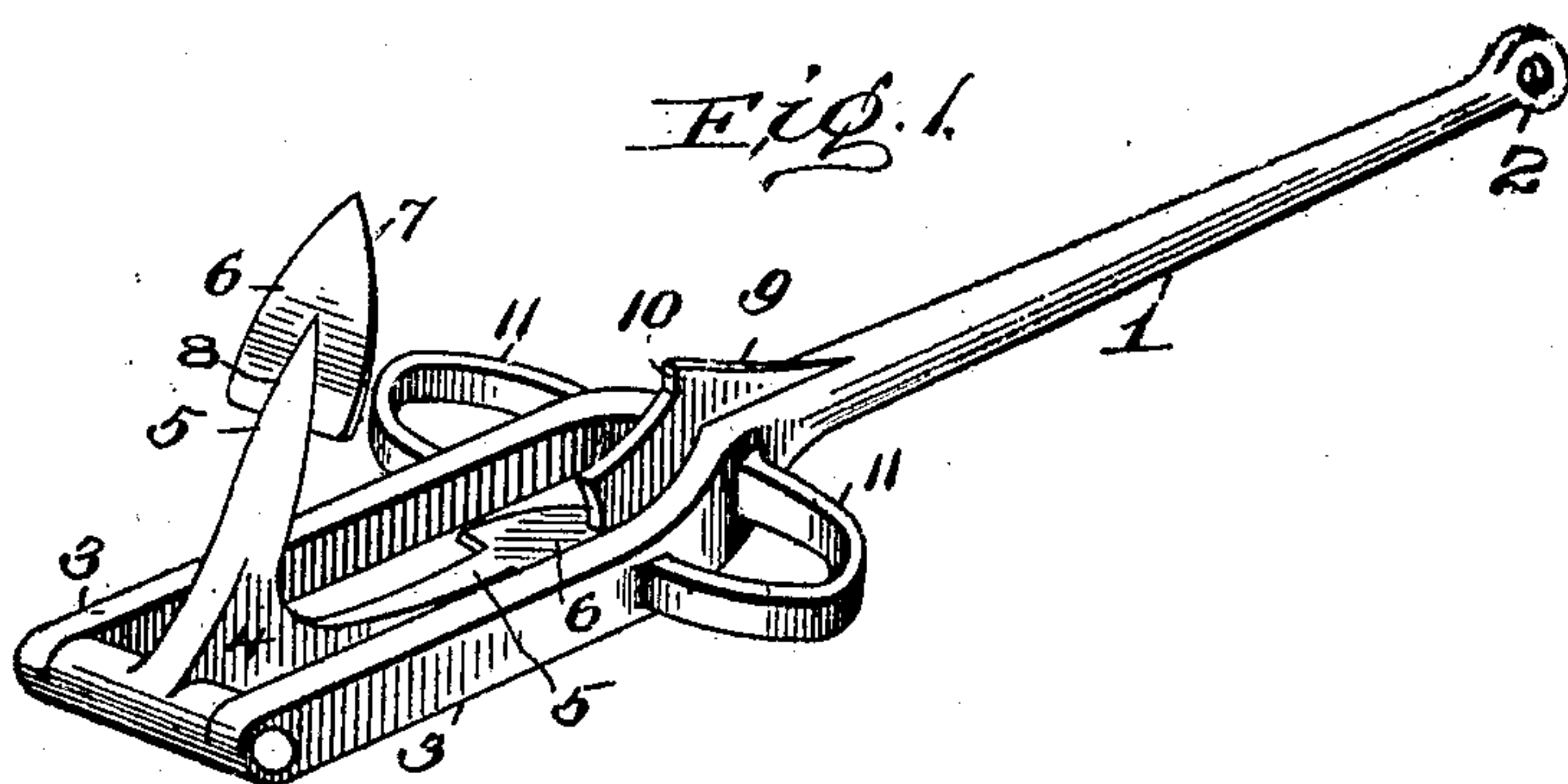
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PATENTED JULY 25, 1905.

H. F. WARD.

ANCHOR.

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Inventor

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Witnesses

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ANCHOR.

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To all whom it may concern:

Be it known that I, HEZEKIAH F. WARD, a citizen of the United States, residing at Churchton, in the county of Anne Arundel and State of Maryland, have invented certain new and useful Improvements in Anchors; 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 appertains to make and use the same.

My invention relates to improvements in ships' anchors, and particularly to that class of anchors having pivoted flukes; and it consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter described and specifically claimed.

The object of my invention is the production of a ship's anchor which when it is "cast" will right itself immediately upon striking bottom and which when it is drawn toward the vessel for the purpose of engaging one of the flukes in the material forming the bed of the stream the under fluke upon engaging the soil will be drawn downwardly, so as to secure a firm purchase therein, and the upper fluke will be drawn down substantially flat or close to the body portion of the anchor, so that the chain connected with the anchor can readily pass over the said upper fluke without becoming "fouled" therewith.

In the accompanying drawings, Figure 1 is a perspective view of an anchor constructed in accordance with my invention; and Fig. 2 is a view showing the same as it appears when engaging the earth at the bottom of a stream, the upper fluke being in a position to permit the hoisting-chain to slide over the same without becoming fouled.

It is the purpose of my invention to construct a non-fouling pivoted-armed anchor which shall be free from all unnecessary attachments and which will have the metal of the flukes so disposed that they will be very sensitive to the action of gravity—that is, so that the tendency of the flukes will be to always drop down into the position shown in Fig. 2 of the drawings.

One of the essential features of the invention is the construction and shape of the flukes, said flukes being substantially concaved on their outer surfaces, the outer end of the said flukes being turned slightly outward, so as to

readily engage the material at the bottom of the stream when the anchor is drawn forward.

In the accompanying drawings, 1 represents the shank of my improved anchor, its upper end being provided with an ordinary eye or ring 2 for the attachment of the chain or cable thereto. The shank is bifurcated for a considerable distance from its lower end upwardly, as at 3, for the accommodation of the fluke-arm 4, which is pivoted between the same. The fluke-arm is provided with two flukes 5 5, which diverge upwardly and outwardly and terminate in broad flat blades. The arm is made quite heavy at its pivotal point and for a considerable distance above said point for the purpose of securing a preponderating weight to said fluke-arm, so that it will respond very quickly to the action of gravity and assist the heads of the flukes to engage the bottom of the stream in coming in contact therewith and upon the anchor being drawn forward. In order to secure as much material as possible in the fluke-arm, the crotched or bifurcated portion 3 is made quite large for this purpose, so that the portion of the arm above the pivotal point can extend a considerable distance upwardly into the crotch. The fluke-arm is formed with journal ends which project laterally from said arm and extend across the space between the side arms constituting the crotch or yoke, said arm being held in a pivotal condition by means of pins or screws passed through the yoke-arms into the journal ends of the arms or in any other suitable manner. As heretofore stated, the flukes project outwardly, are slightly concaved on their under sides, and also concaved on their upper sides, but to a less degree than on their lower sides, and having their extreme outer ends curved slightly outward, as at 7. The fluke-arms are also, as heretofore stated, provided with flat heads corresponding somewhat to the shape of a spade. The object of this construction and arrangement is to enable one of the flukes to readily engage the same or other material constituting the bottom of the stream upon the anchor being drawn forward for that purpose. It is obvious that this construction and arrangement will perfectly accomplish this result and at the same time the fluke-arm which is not engaging the bottom of the stream will be drawn down

close against the shank of the anchor. In order to secure as strong a construction as possible for the flukes, I extend the arm portions beneath the blade portion 6 in the form of a rib 8, as clearly shown in the drawings.

In order to guard against any possibility of the chain or cable of the anchor being fouled with the fluke which is not engaging the bottom of the stream, I provide a fin or projection 9 on the shank of the anchor near the upper portion of the crotch or yoke and permit the same to project a short distance below the upper extremity of said yoke, so as to limit the pivotal movement of the fluke-arm, and by providing a nose or projection, as 10, on said fin the chain or cable will ride over the fluke in any direction without any liability of being engaged thereby and "fouling" the anchor.

In order that the anchor may be properly "thrown down"—that is, lie in a proper position on the bottom of the stream—I provide the shank of the anchor with a stock 11, which is located nearer the crown of the anchor than usual, so that the anchor can be drawn into the hawser-pipe of the vessel until the flukes engage the side of the vessel. The stock 11 is formed, preferably, by loops extending laterally from either side of the shank at right angles to the flukes.

With my construction I dispense with all auxiliary chains for connecting the crown of the anchor with the stock and with horns on the under side of the flukes and with all other unnecessary and complicated devices, my object being to construct a practically "non-fouling" pivoted fluke-armed anchor free from all such devices.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An anchor, comprising a shank, said shank provided with an integral, bifurcated portion at one end, integral notched fins formed upon said shank contiguous to said bifurcated portion, loops formed upon said shank at right angles to said fins, a fluke-arm pivoted upon said shank at the end of the bifurcated por-

tion, said arm provided with blades, each blade being concaved on its under side, said blades adapted to engage the notched portion of said fins.

2. An anchor, comprising a shank provided with a bifurcated end, fins integrally secured to said shank, said fins projecting between the bifurcated portion of said shank each fin provided with a receding notch, comparatively small loops secured near said fins, and a fluke-arm pivoted within the bifurcated portion of said shank.

3. A marine anchor, comprising a shank provided with integral, parallel extensions, fins secured to said shank and extending between the parallel extensions of the same, said fins provided with notches, a stock formed upon said shank contiguous to the fins, and blades secured to said shank between the parallel extensions.

4. An anchor, comprising a shank provided with parallel extensions, fins secured to said shank and extending between said parallel extensions, loops formed upon the parallel extensions of said shank and contiguous to said fins, and a blade pivotally mounted between said parallel extensions.

5. An anchor, comprising a shank provided with a bifurcated end, fins secured to said shank, contiguous to said bifurcated end, comparatively small loops secured to said bifurcated end, and a blade having a concave under side pivoted within the bifurcated portion of said shank.

6. An anchor, comprising a shank provided with integral, parallel extensions, a fluke-arm pivoted between said extensions, means, constituting a stop for said fluke-arm, formed integrally on said shank and extending outwardly from the same, and loops secured to a portion of said parallel extensions and contiguous to said means forming the stop.

In testimony whereof I affix my signature in presence of two witnesses.

HEZEKIAH F. WARD.

Witnesses:

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