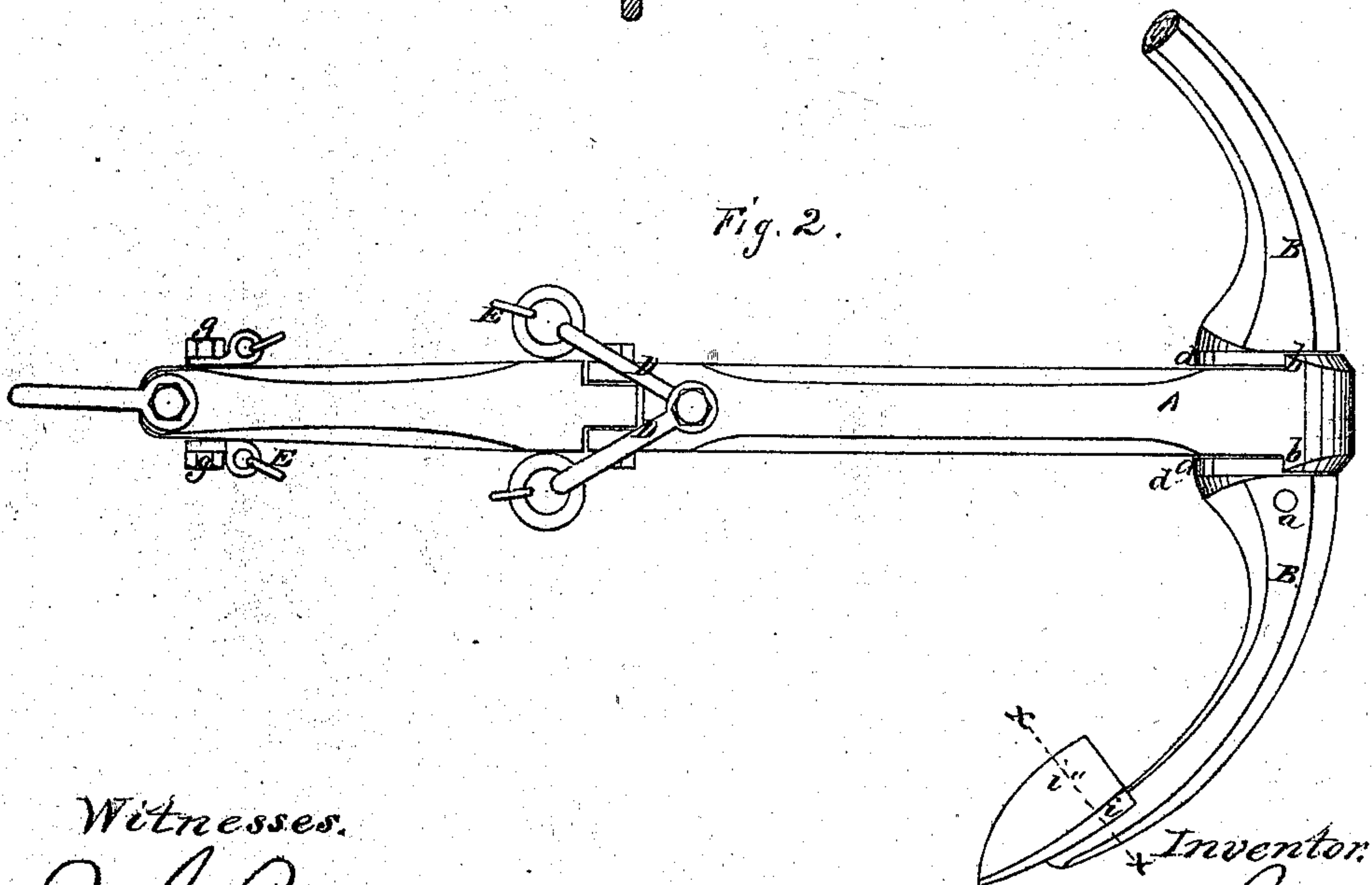
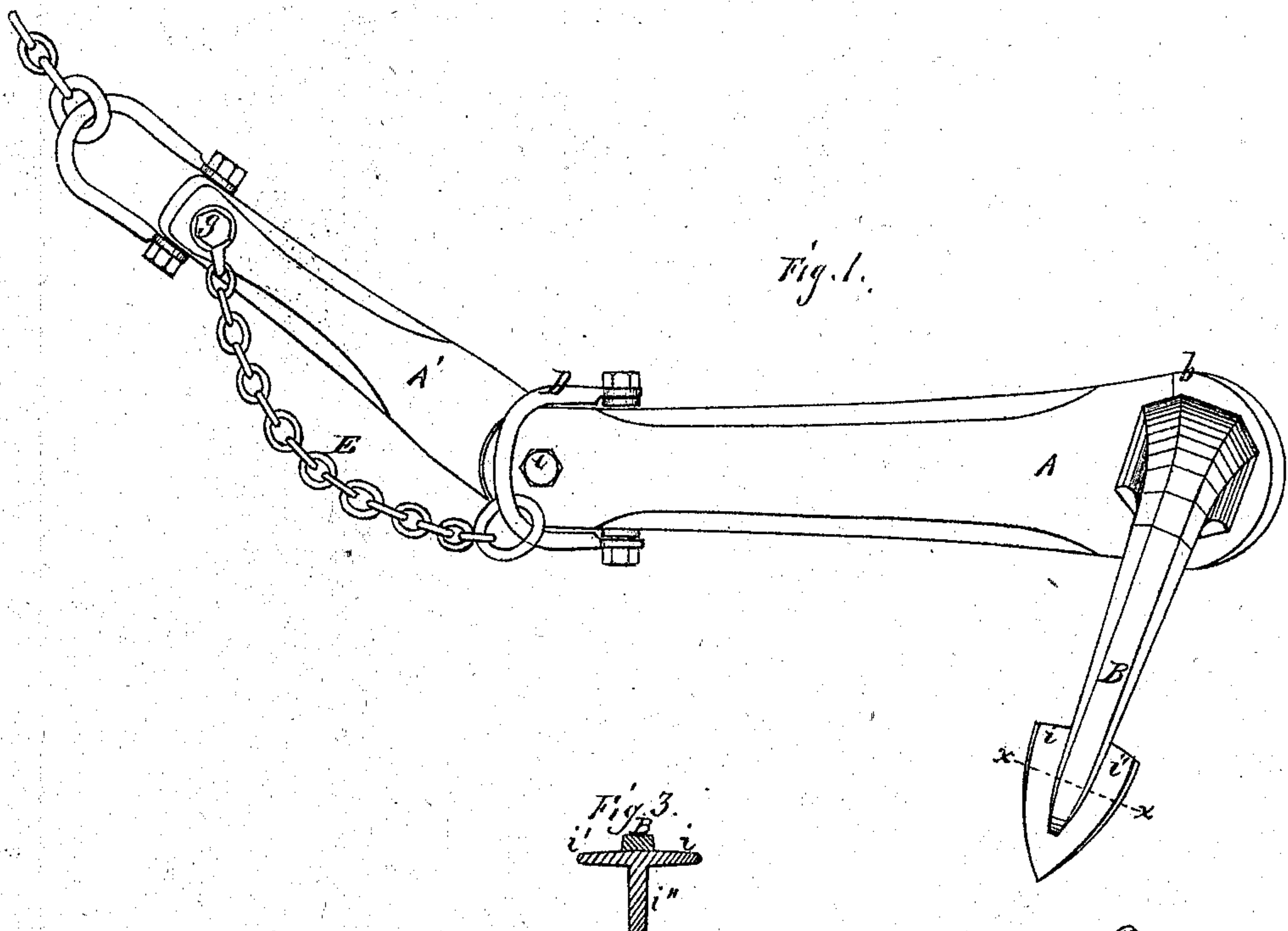


*A.H. Law,
Anchor.*

No. 103,205.

Patented May 17 1870.



Witnesses.

*J. L. Boone
Geo. H. Strong.*

Inventor.
Albert H. Law
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His attorneys

United States Patent Office.

ALBERT H. LAW, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 103,205, dated May 17, 1870.

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, ALBERT H. LAW, of the city and county of San Francisco, State of California, have invented an Improved Anchor; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My improvements relate to that class of ship's anchors in which the arms or flukes revolve simultaneously from side to side of the shank, turning in the crown-piece or end of the shank; and they consist, first, in an improved construction of flukes or holding-palms, in order to more completely adapt them to the purpose for which they are intended; and, secondly, in connecting the two parts of the jointed shank by safety-chains and links, as will be set forth below.

In order to more fully illustrate and explain my improvements, reference is had in the following description to the drawings accompanying this specification, in which—

Figure 1 is a side view of my improved anchor;

Figure 2, a top view; and

Figure 3, a cross-section of one of the flukes, at the line *x x* on fig. 1.

A represents that portion of the shank of my anchor in which the arms or flukes B revolve.

The arms are made in two separate pieces, the journal which passes through the circular aperture in the ends of the shank-piece A being formed on one of the arms, and being of sufficient length to enter a socket in the opposite arm, where the two are secured together by a bolt or rivet, *a*.

On the crown of the shank, at a suitable point for stopping the revolution of the flukes, are projections, *b*, on each side, against which lugs or projections, *d*, on the arms, strike, and, by this means, stop the flukes when they have turned to the proper angle for taking hold of the ground.

The shank-piece or extension A' is united to the shank A by means of a suitable rivet or bolt, *e*, and at a point between the middle of the two shanks and the extreme end of the shank-piece A', to which the cable is secured.

The extension A' permits the flukes to take a

deeper hold upon the ground by shortening the length of the shank, and, when the strain is on the cable, it will stand at an angle to the shank A, as shown, and, consequently, give a downward pull on the flukes, and not a lifting pull, as is the case when the solid shank is used.

Two links D are secured to the end of the shank A, near the joint, by means of a strong bolt or rivet, one of the links being on each side of the shank.

Strong chains, E, are secured to these links, and extend forward to near the extreme end of the shank-piece A', where they are also secured to a bolt, *g*.

These chains serve, in case the bolt which unites the two shank-pieces break, to still hold upon the main portion of the anchor, and prevent the vessel from being turned loose. They also serve in securing the anchor to the cat-head, as a means of raising it to a more convenient position.

The palms are composed of three wings, *i i' i''*, two of which are in the same plane, forming the main fluke, and the third, *i''*, at right angles to these, so that, when the flukes have entered the ground, the peculiar construction of the palms will give a better hold than the ordinary flat palm.

A ship's anchor constructed in the above-described manner will be much more convenient to handle, and will be less liable to drag than other anchors which have a rigid shank, and it will in no case foul, as there are no projections upon it which will hinder the free movement of the cable.

Having thus described my invention,

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

1. The links D, secured to the shank-piece A, and connected to the shank-piece A' by means of the chains E, substantially as and for the purpose set forth.

2. The palms or flukes, consisting of the wings *i* and *i'*, forming the main fluke, and the wing *i''* at right angles to the same, substantially as and for the purpose set forth.

In witness that the above-described invention is claimed by me, I have hereunto set my hand and seal.

ALBERT H. LAW. [L. S.]

Witnesses:

J. L. BOONE,

GEO. H. STRONG.