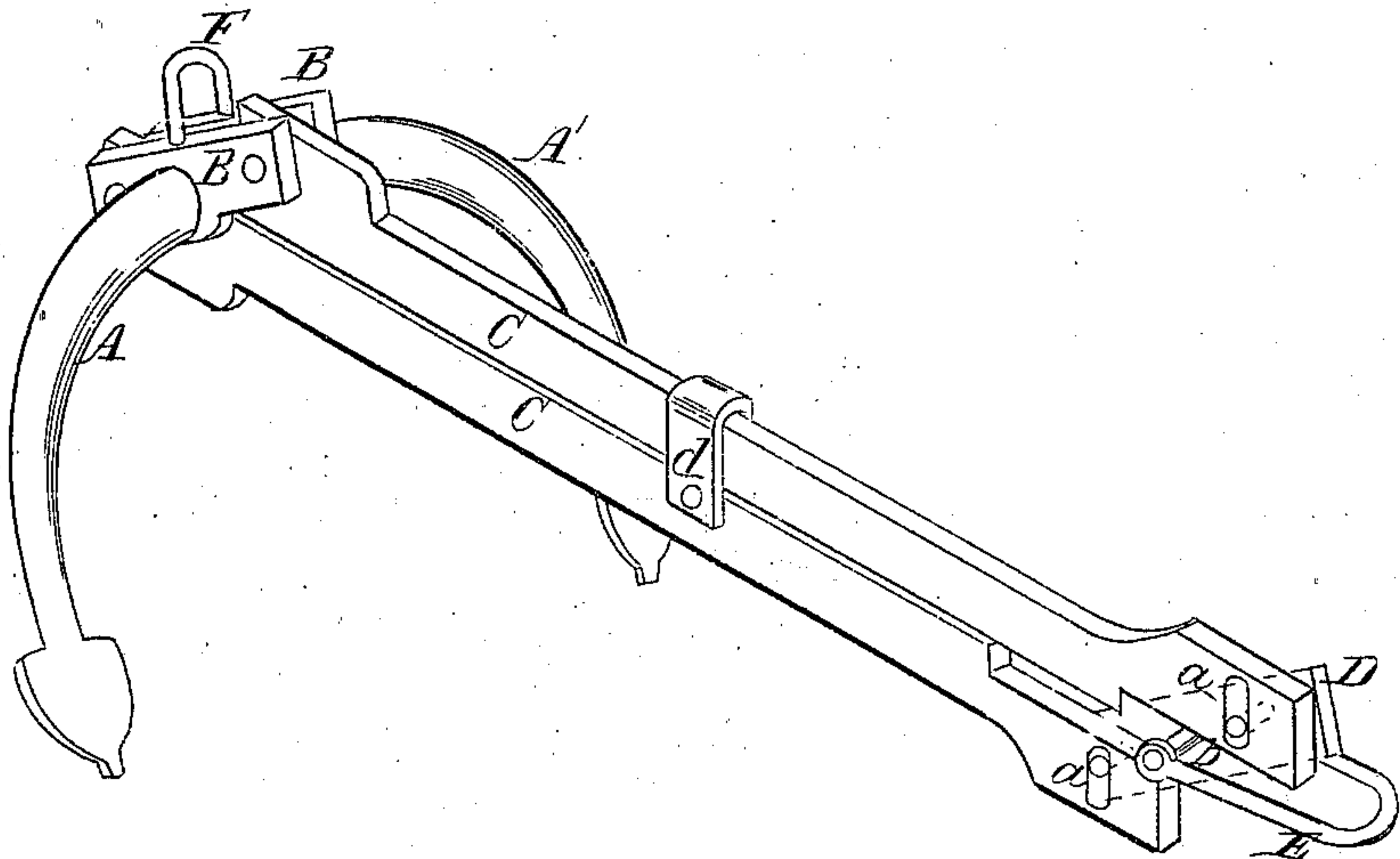


E. T. Barlow,

Anchor.

No. 97342.

Patented. Nov. 30 1869.



Witnesses.
Geo. H. Strong
J. L. Borne

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ELISHA TRASK BARLOW, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 97,342, dated November 30, 1869.

IMPROVED ANCHOR.

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, ELISHA TRASK BARLOW, 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 invention relates to that class of ship's anchors in which the flukes move from side to side of the shank, for the purpose of assuming the proper position for taking hold of the ground; and

It consists in constructing the arms or flukes in two separate parts, and attaching them to distinct and separate crown-pieces.

The anchor is provided with two shanks, moving parallel to each other, to one end of which the crown-pieces, with their respective flukes, are attached, being bolted to each shank, so that the opposite longitudinal movement of the shanks will cause the flukes to move from side to side, to the proper position for laying hold of the ground.

To the opposite end of the shanks are attached metal plates, which are bolted, one on each side, similar to the crown-pieces, and parallel to them, to the centre of which the chain or cable, which connects the anchor with the ship, is attached, so that, by drawing upon the cable, whichever shank happens to lie uppermost will be drawn forward, thus turning the flukes downward to the holding-position.

In order to better explain the construction and arrangement of my anchor, reference is had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my invention.

A and A' are the two arms or flukes of a ship's anchor, each arm being made, of separate pieces of iron, of the entire size required, and bent to the required sweep or angle.

Each of these arms is secured firmly to a crown-piece, B.

These crown-pieces are plates or bars of metal of the exact size required, the particular shape and form of which are not material.

The shank consists of two bars, plates, or pieces of metal, C C, placed close together, and parallel to each other.

It is necessary, to the proper working of the anchor, that these pieces of metal C, which form a double shank, shall be of equal length and thickness; and I prefer making the pieces of greater width than thickness, in order to reduce the weight of metal in the anchor, as well as to gain a greater purchase in operating the flukes, which will be hereafter further explained.

Both ends of each of these parallel shanks are provided with a slot, *a*, cut transversely to the length of the shank, and of a length suitable for allowing the shanks to turn to the holding-position.

The crown-pieces B, to which the flukes are attached, are secured to one end of these double shanks, one being placed on each side, as shown, and the whole secured together by means of bolts, which pass through the crown-pieces and slots, *a*, in the shanks, thus binding the whole together.

If it is desired to have the shanks work closely together at all times, the slots are made of sufficient length to allow the shanks to lie in contact when the crown-pieces are standing in a position at right angles or transversely to them, and a metal strap, *d*, is secured to one of the shanks, so as to clasp the other, as shown.

To the front end of the shanks, and on each side, are attached metal bars or plates D, which are also secured to them through the slots *a*, similar to the attachment of the crown-pieces, and moving simultaneously with and parallel to them at all times.

To this end of the shank, the chain or cable, which connects the anchor with the ship, is attached, so as to operate the flukes, a bolt, *b*, passing through the centre, from side to side, to each end of which is attached the shackle or clevis E, to which the chain or cable is attached.

At the head of the anchor is a strong metal staple, F, the ends of which are firmly fixed, one in each of the crown-pieces B, so as to protect the anchor, in lowering, from being injured by coming in contact with a rock or other solid substance, and which holds the crown-pieces firmly in place when the strain is on the anchor. It also serves as a means of securing the anchor to the cathead when not in use.

The ends of the shanks are, in the present drawings, shown as slightly enlarged. This, in practice, is very essential, as the shoulders thus formed serve as lugs or toggles, for tripping the anchor.

When this anchor is let go from the ship's side, and is descending through the water, the flukes will generally stand in the same plane with the shanks, as the weight of the anchor is suspended from the central bolt *b*, which allows the shanks to hang evenly; but, when the anchor has reached the bottom, and the strain of the ship has come upon the cable, the shank which lies uppermost will be drawn forward, while the lower shank will remain stationary, thus turning the flukes to the holding-position. The movement of the shanks causing the crown-pieces to turn so as to stand at an angle to them, this will be the case at all times, no difference which side of the anchor lies uppermost.

This arrangement of the parts of an anchor is most complete, as the flukes are always governed by the strain on the cable, and can by no possibility become

detached from its position when once it is set in the ground, unless a vertical strain should be brought to bear upon it, or the anchor should be turned over by the movements of the ship, in which case it will immediately take hold again, in the same manner as above described.

In raising the anchor after the cable has been sufficiently taken up to give a vertical strain upon the cable, the shackle E will be lifted, thus moving the upper shank back until it has released the flukes from their hold, when the anchor will be found to be free, and ready to be drawn up.

An anchor of this construction will be sufficiently strong in all its parts, when made of the proper proportions, to hold the largest vessels, and that on any kind of a bottom, as there is no chance for it to drag, as every strain on the cable will induce an effort in the anchor to take hold, while it presents no projections or prominent parts upon which the cable can become fouled.

Having thus described my invention,

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

1. The shanks C C, secured together at one end by the crown-pieces B, and at the opposite end by the metal plates D, substantially as and for the purpose herein described.

2. In combination with the flukes A of an anchor, the crown-pieces B, attached to the oppositely-moving shanks C, substantially as and for the purpose herein described.

3. Constructing an anchor with the two shanks C C, which, by their opposite longitudinal movement, shall move the flukes to the proper position for taking hold of the ground, substantially as herein set forth.

In witness whereof, I have hereunto set my hand and seal.

ELISHA TRASK BARLOW. [L. S.]

Witnesses:

GEO. H. STRONG,
JOHN L. BOONE.