W. M. Hughes,

Anchor.

No. 112247. Patented. Feb. 28. 1871.

Fig 1.

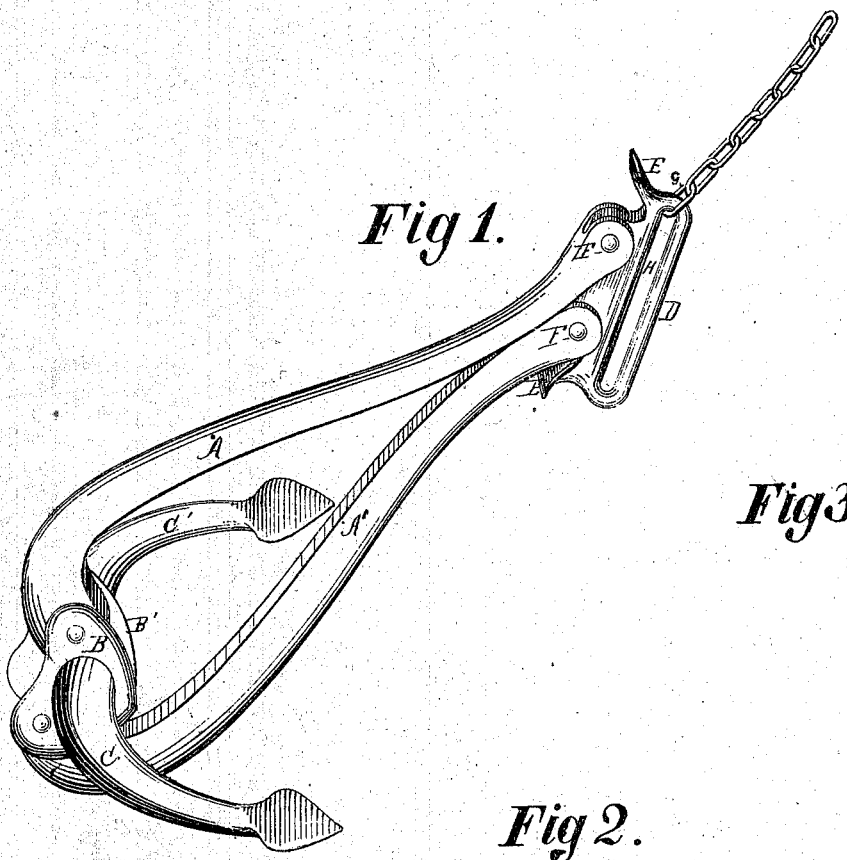


Fig 3.

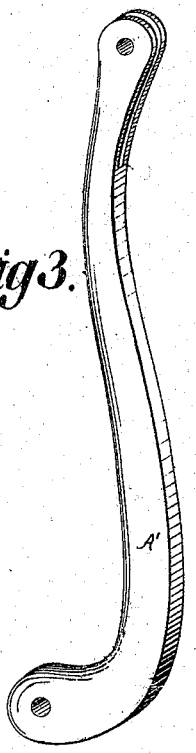
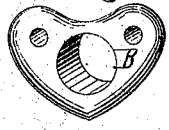


Fig 2.



Witnesses:

S. J. Noyes.

J. Theodore Laug.

Inventor:

Wm. M. Hughes by
H. W. Beadle
associate atty

UNITED STATES PATENT OFFICE.

WILLIAM M. HUGHES, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN ANCHORS.

Specification forming part of Letters Patent No. **112,247**, dated February 28, 1871.

To all whom it may concern:

Be it known that I, WILLIAM M. HUGHES, of San Francisco, in the county of San Francisco and State of California, have invented an Improved Ship's Anchor; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention relates to that class of anchors which is employed without stocks, and is so constructed as to hold with both flukes, the object of which is to provide an anchor that will have great holding power in proportion to its weight, non-liability to fouling, will be easy to cat and fish, and certain to bite when a strain is applied; will have no flukes standing up out of the ground ready to go through the bottom of a ship, or always likely to catch the bight of the chain as it is dragged around when a gale arises and a ship swings to her anchor, and will at the same time have superior strength and simplicity.

This invention consists in making the shank of two similar curved pieces or rods, hinged to a shackle or ring-plate and to heart-shaped flanges or disks at the throat or crown of the anchor in such a manner that the curved pieces or rods, flanges, and shackle-plate may move in relation to each other exactly like corresponding parts of our ordinary parallel ruler, the heart-shaped flanges being formed in one piece with or rigidly and securely attached to the arms in such a position that the flukes or palms will be thrown or directed from one side to the other of the line of the shank by the movements of the parts of the shank actuated by the cable in the ring or shackle plate, as hereinafter more fully described and shown.

In the annexed drawing, Figure 1 is a side elevation of an anchor having my improvement. Fig. 2 shows the heart-shaped flange; Fig. 3, one of the rods forming the shank.

Like letters refer to like parts in all of the figures.

A A′ are the parts of the shank. B B′ are parallel heart-shaped flange-plates, formed of one piece with the arms C C′. D is the ring or shackle plate, provided with small flukes or plates E E′. F are the joint pins or rivets by which the parts A A′ of the shank are hinged to the shackle-plate D and flanges B B′.

It is obvious that if my anchor should drop to the bottom in the position shown in Fig. 1, the weight of the chain would carry the upper part over, and the flukes or palm E would penetrate the ground and act as a fulcrum, over which, when a strain was brought upon the cable, the shackle-plate would be drawn, bringing the rod A′, and, consequently, the arms C′ and flukes of the anchor, over with it, and the ring G of the cable, slipping up the groove or slot H of the shackle-plate, would cause the flukes of the anchor to penetrate the ground. By this construction, also, of forming the shank in two parts, it will be seen that the curved ends of the shank will elevate the head and secure a better angle for penetration of the flukes, as well as provide a recess against which the throat rests when in position, and when the power is applied the ring of the cable will ascend the inclined link until it comes in line with the leverage or strain, and not have the tendency to lift the flukes of the anchor from the ground.

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

1. An anchor having the double shank A A′, flanges B B′, the shackle or ring plate D, with the flukes E E′ and grooves or slot H, and the rivets or joint-pins F, when combined and arranged to operate substantially as herein described.

2. The combination of the shackle-plates with the flukes E E′ and the double shank A A′ of the anchor, as described.

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

WM. M. HUGHES. [L. S.]

Witnesses:

C. W. M. SMITH,

H. S. TIBBEY.