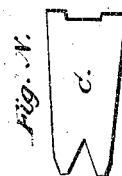
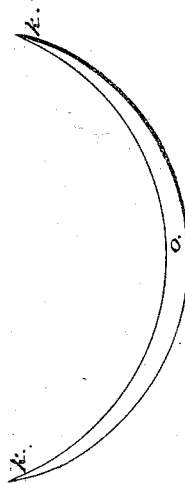
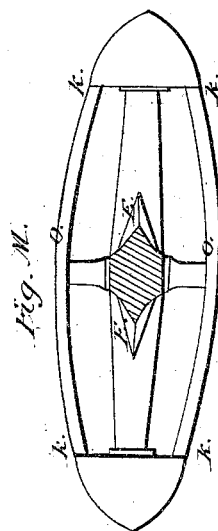
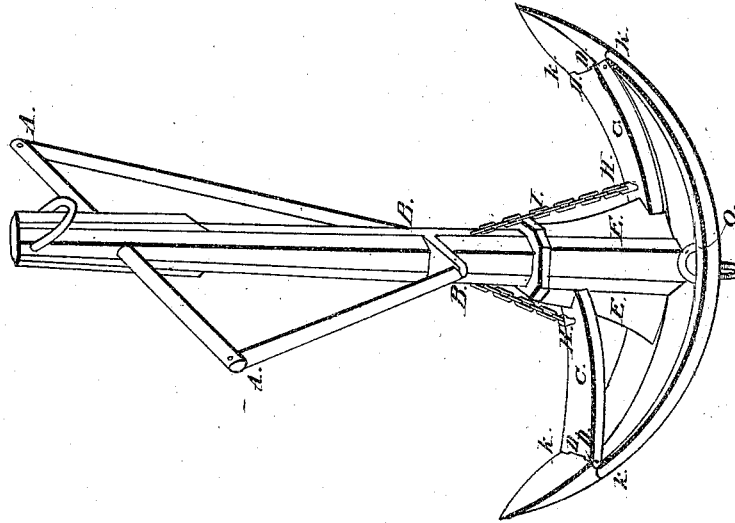


# Isaacs & Raigbeek. Anchors

No 4,096.

Patented Jul 5, 1845.



# UNITED STATES PATENT OFFICE.

NICHOLAS P. ISAACS AND JAMES RAISBECK, OF NEW YORK, N. Y.

## IMPROVEMENT IN SHIPS' ANCHORS.

Specification forming part of Letters Patent No. 4,096, dated July 5, 1845.

### *To all whom it may concern:*

Be it known that we, NICHOLAS PETER ISAACS and JAMES RAISBECK, of the city, county, and State of New York, have invented a new and improved mode of preventing the accidental fouling of the cable upon the stock and arms of the common ship-anchor, and method of fishing the same; and we do declare that the following is a full and exact description of our improvements, reference being had to the drawings hereto annexed.

To prevent the fouling of the cable upon the stock of the anchor, we attach to the stock of the anchor (which we make either of wood or iron; if of the former material our improvements can be adapted to the form of stock commonly used; if we construct one of iron we take a straight firm bar of uniform size throughout) bars of metal, pieces of cable, or any other suitable substance, which we call "protectors." These are fastened to the extremities thereof by fitting into sockets or holes and held by means of pins or pegs, as at A A, and are of such a length as to extend down and are fastened by similar means into permanent sockets made below the trend of the anchor, as at B B. These protectors are fastened temporarily, so as to be easily taken out from their places and laid alongside of the shank in the stowage or housing of the anchor.

The second invention we claim is a method for obviating the fouling of the cable upon the arms of the anchor. In order to prevent this occurrence, we construct two flat plates of iron C C, which we call "sliding flukes." Their form can be better understood by referring to the drawings, Figure N. We attach one of these plates to each fluke of the anchor by means of a hinge, hooks, rings, or any other flexible means upon which it works, as at D D D D. The plates lie upon the arms of the anchor and extend to the shank, where they slide upon projections or ridges E E, one situated upon each side of the shank, and extending from a point just below where the protectors join the shank to the throat of the anchor. These projections or ridges fit into grooves cut into the extremities of these plates or sliding flukes, upon which they work from a position at nearly right angles with the shank to a position parallel with the arms of the anchor. The extremities of these

plates next to the shank are connected with each other by means of a rope or chain I, passing through a hole made through the shank at a point G. The ends of the chain or rope are fastened the one to the one plate and the other to the other, as at H H, by means of small rings, bolts, or similar fastenings. This connecting chain or cable is of such a length that when the one plate is forced down flat upon the arms of the anchor by the force of the ground acting upon it (when in actual operation) the opposite plate may be drawn up to a position at right angles, or nearly so. To each side of the fluke of the common ship-anchor at its widest part we attach a guard K O K, consisting of a narrow strip of iron of sufficient strength to bear the entire weight of the anchor by firmly welding each extremity to each fluke, as at K K K K, these guards extending from fluke to fluke. The middle of each of these guards we connect with the side of the crown of the anchor by means of a short shoulder O, leaving a space between them and the arms and crown of the anchor. These guards are to be adapted to the same curvature of the arms and crown of the anchor. These additions and modifications to and about the common ship-anchor and their application for the purposes herein minutely described are improvements which we claim to be of our own invention, which are briefly enumerated as follows:

1. The method by which the cable is prevented from fouling upon the stock of the anchor by attaching protectors to the extremities thereof, which extend down and are fastened to the shank at a point below the trend of the shank. These protectors from their oblique position clear the cable whenever it touches it. They also obviate another difficulty which is frequently presented when the anchor is lashed to the cat-head, which occurs in the entangling of the ropes and the obstructing and tearing of the sails upon the portion of the naked stock which stands above the gunwale. This is prevented by warding off whatever comes in contact with it.

2. The mode of protecting the arms of the anchor against the fouling of the cable by means of movable plates of metal attached to the flukes by means of rings or hinges, and covering the entire arm, the same being

combined and operating as herein set forth. The inner ends of these plates move longitudinally upon ridges or projections made upon each side of the shank by means of a connecting chain or rope, by which when the one plate is forced down upon the arm of the anchor the other is drawn up to a position at right angles, or nearly so, with the shank, so that when the one arm lies buried in the soil the opposite one stands defended by the raised plate against the fouling of the cable, which plate assumes a position nearly perpendicular to the soil.

3. For clearing the cable from off the arms of the anchor whenever it comes in contact with it, the combination of the hinged sliding plates C C with the two guards K O K of the same curvature of the arms and crown, consisting of narrow strips of iron extending from fluke to fluke and welded upon the sides

of each. These guards are also attached to the crown of the anchor by means of a short shoulder, leaving a space between them and the arms of the anchor. These guards so situated create a great width across the crown of the anchor, presenting a form, as shown in Fig. M, by means of which width and the curvature of the guards it is impossible to foul the cable effectually upon the arms, and it requires but the smallest force to cause the anchor to cant and bite the ground. The space left between the guards and arms presents a means by which the fish-hook can be fastened about the guards or arms in such a manner as to fish the anchor.

N. P. ISAACS.

JAMES RAISBECK.

In presence of—

SAMUEL M. RAISBECK,

MATTHIAS CARSTENS.