A. SMITH.

Anchor.

No. 165,036. Patented June 29, 1875.

Fig. 1.

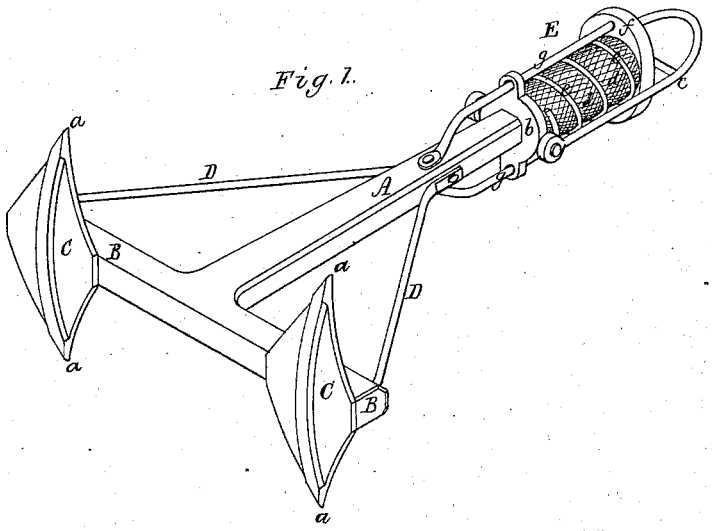


Fig. 2.

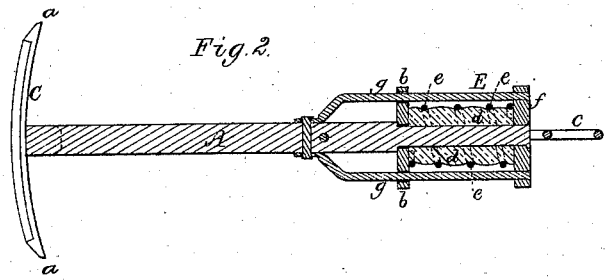
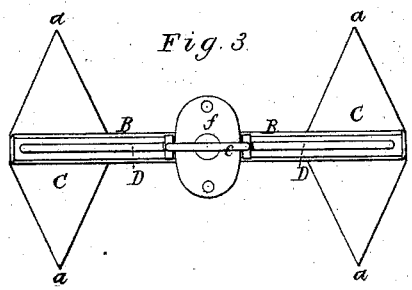


Fig. 3.



Witnesses
S. N. Piper
L. N. Höller.

Amos Smith,
by his attorney.
R. H. Eddy

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

AMOS SMITH, OF BANGOR, MAINE.

IMPROVEMENT IN ANCHORS.

Specification forming part of Letters Patent No. **165,036**, dated June 29, 1875; application filed October 1, 1874.

To all whom it may concern:

Be it known that I, AMOS SMITH, of Bangor, of the county of Penobscot and State of Maine, have invented a new and useful Improvement in Anchors; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a perspective view, and Fig. 2 a longitudinal section, and Fig. 3 a front-end view, of an anchor provided with my invention.

In this anchor there is applied directly to the shank a surge-reliever, consisting, mainly, of a bail and slide and one or more springs. Furthermore, the arms of the anchor stand at, or about at, right angles with the stock, and each has a duplex fluke, or a fluke with two points, all being arranged as represented.

In the drawings, A denotes the shank; B B, the arms, and C C the duplex flukes. Each fluke projects not only above but below its arm, and terminates in two points, *a a*, one of which is above and the other below the arm. The fluke is arranged on the front edge of the arm, so that a straight line going through the points of the fluke shall be at right angles with the arm, all being as shown. A guard brace or rod, D, is fixed to, and extends obliquely from, each arm at or near its outer end, it being also fixed to the shank of the anchor. This guard-brace not only aids in supporting the arm, but is mainly to prevent the chain from fouling or catching on the arm and fluke while the anchor may be in use.

The double-pointed flukes, arranged with the arms in manner as described, enable the anchor to be used either side up; and when the anchor is down, it holds by two flukes instead of by one only, as is the case with the common anchor.

The surge-reliever is shown at E as composed not only of a slide, *b*, and a bail, *c*, (pivoted to such slide,) but of one or more springs, *d e*, the slide and spring or springs being arranged to encompass and slide or move on the shank lengthwise. Such stock is provided at its upper end with a shoulder or head, *f*, to support the spring or springs. From the said head two rods, *g g*, are projected, in manner as shown, one being above and the other below the shank and the spring or springs.

These rods go through the slide, are parallel for some distance to the stock, and finally are bent down and fastened to it, all as shown. They not only serve as guides to the slide, and prevent it from revolving on the stock, but as guards to the spring or springs, to prevent such from being injured or clogged by earth or other matters. The surge-reliever, combined directly with the anchor, instead of being fixed on the deck of a vessel, saves the necessity, while the chain or cable is being taken in, of the usual turning back of the windlass while the vessel may be suddenly rising at the bow. The surge-reliever, fixed to the deck, does not cushion the chain while it is being taken in, but, when applied to the anchor, it not only cushions the chain while the vessel is swinging at anchor, but while the chain is being drawn in by the windlass.

I claim as my invention—

1. The combination of the anchor and the surge-reliever E, directly applied to it, all being substantially as described and represented.

2. The combination and arrangement of the guard and guide rods *g g* with the anchor and the surge-reliever E, applied to such anchor, as specified.

3. The anchor having the double-pointed flukes C C arranged with its arms B B, and such arms arranged with the stock A, all substantially as described.

4. The arrangement and combination of the guard-braces D D with the arms B B, the stock A, and the double-pointed flukes C C, arranged as set forth.

AMOS SMITH.

Witnesses:
R. H. EDDY,
J. R. SNOW.