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G. C. Pattison.
Improvement in Non-fouling Anchors.

Fig. 1. PATENTED MAY 3 1870

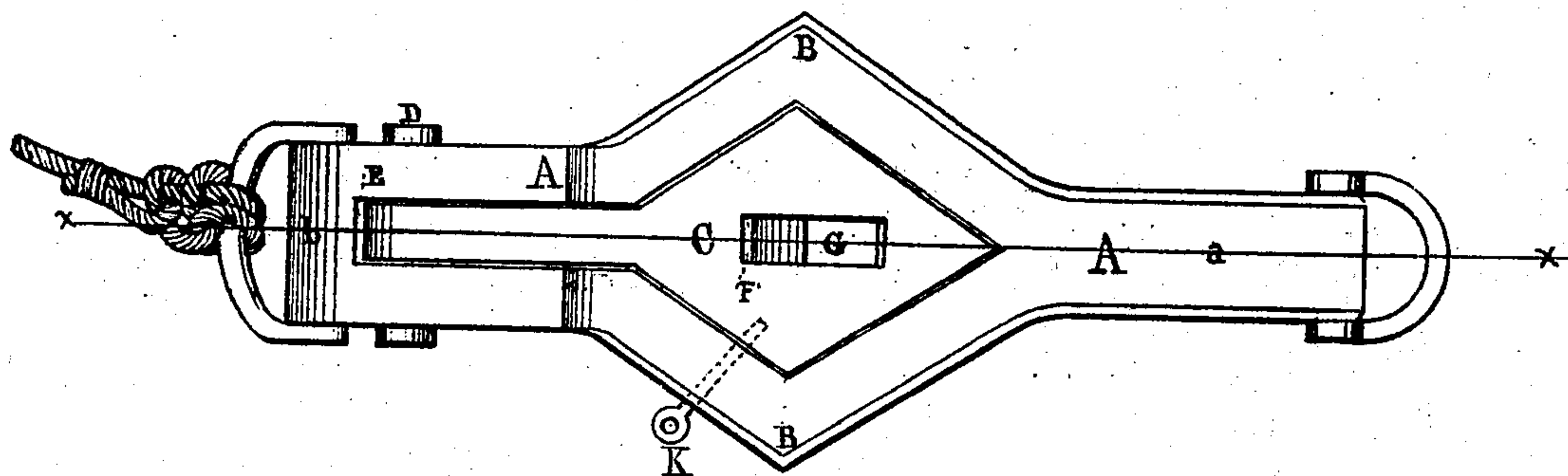


Fig. 2.

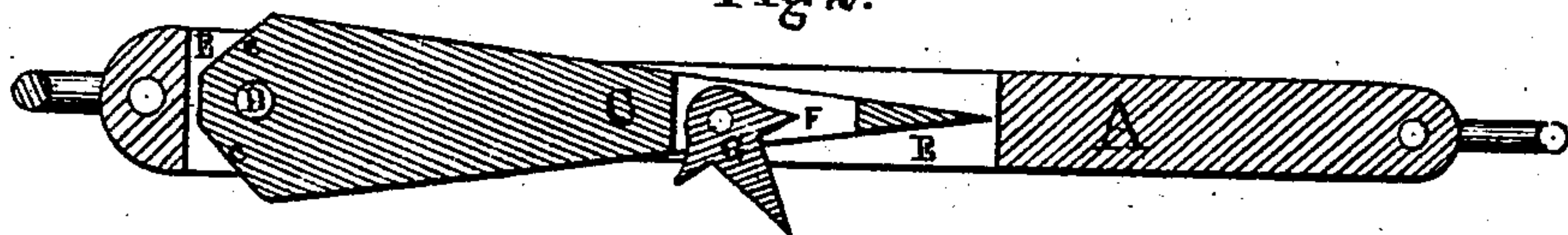


Fig. 3.

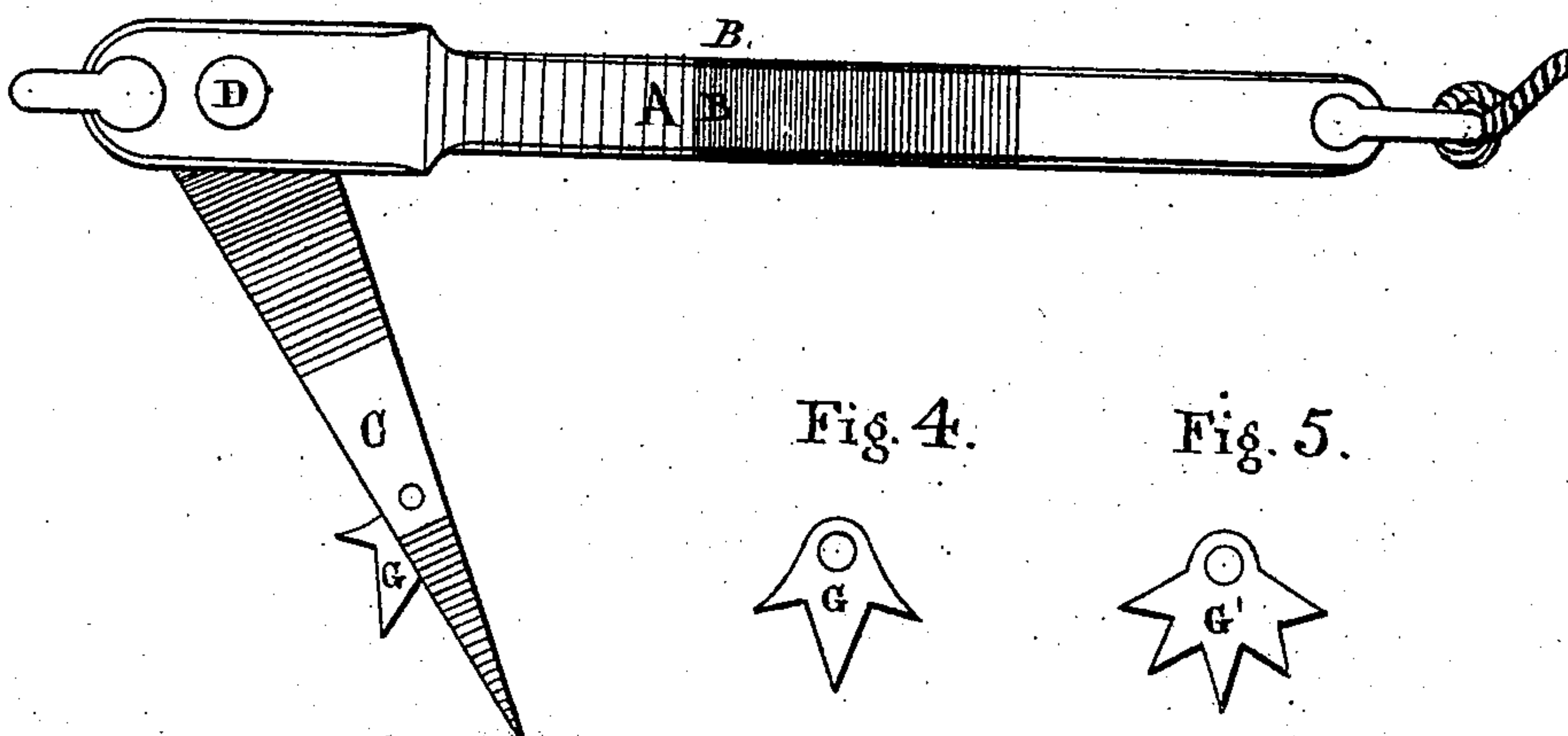


Fig. 4.



Fig. 5.



Fig. 6.

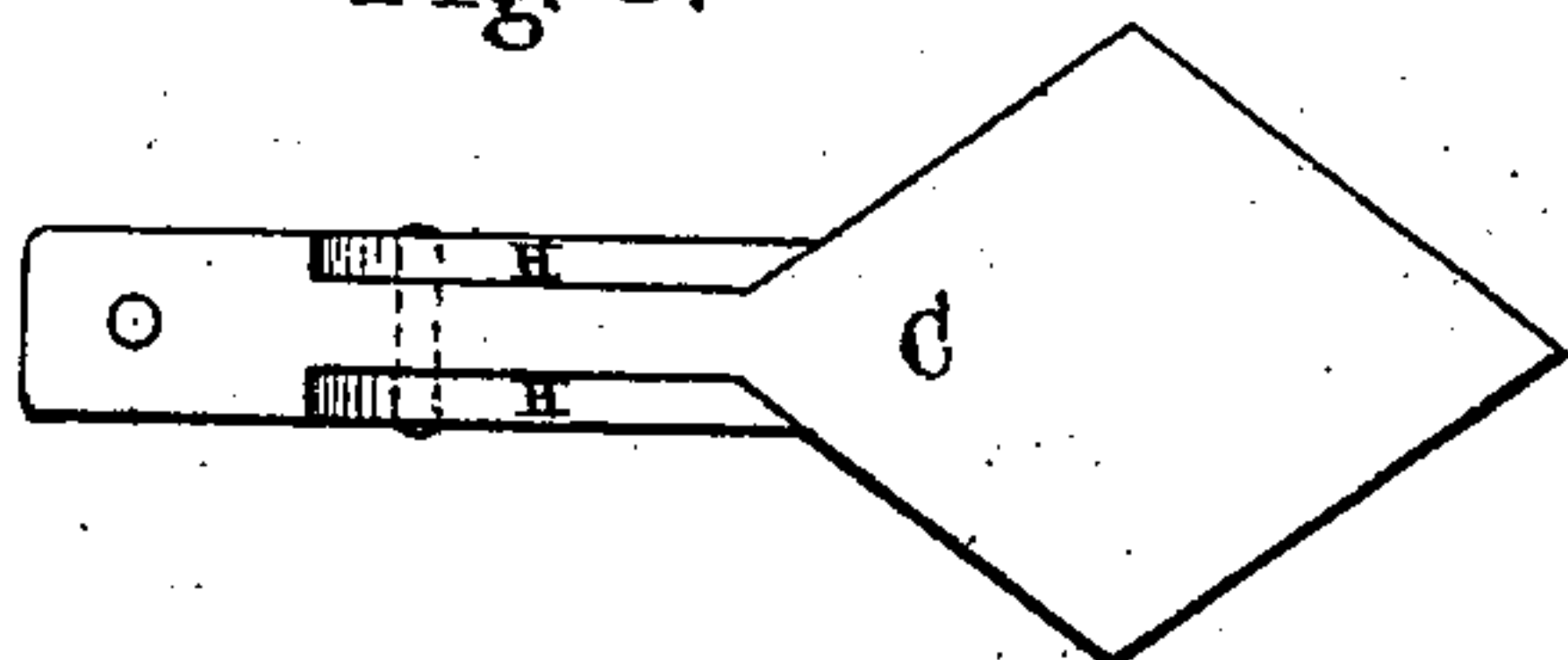
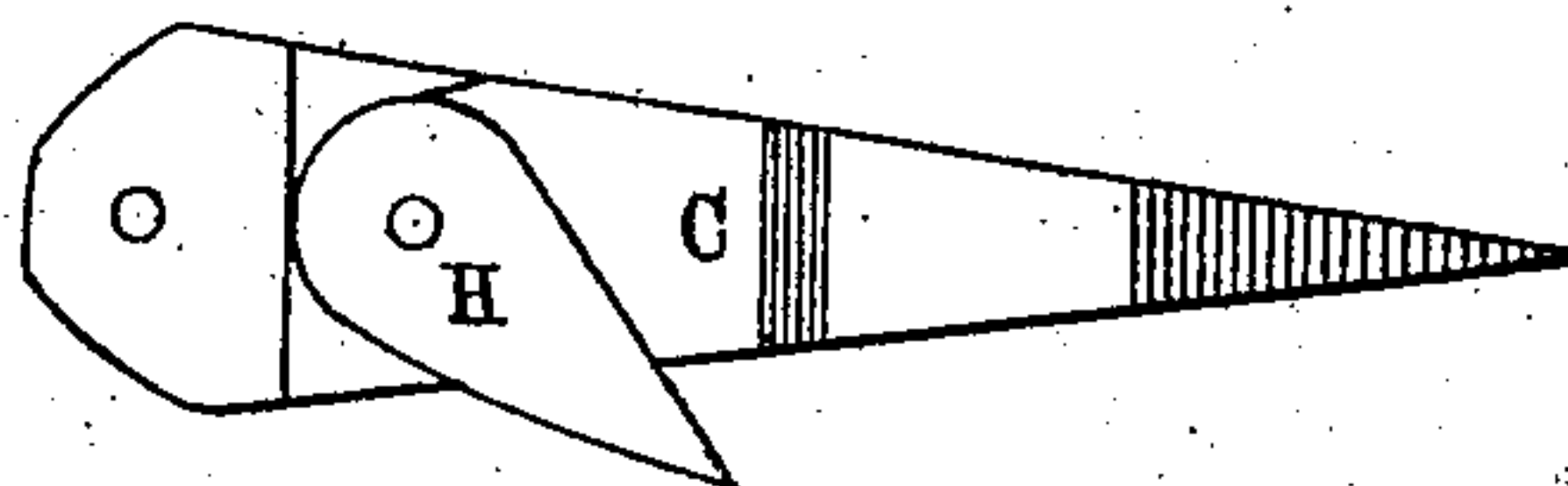


Fig. 7.



Witnesses.

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Inventor.

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att'y.

UNITED STATES PATENT OFFICE.

GURNEY C. PATTISON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN ANCHORS.

Specification forming part of Letters Patent No. 102,583, dated May 3, 1870.

To all whom it may concern:

Be it known that I, GURNEY C. PATTISON, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain Improvements in the Construction of Non-Fouling Anchors, of which the following is a specification.

My invention consists of improvements in that class of anchors known as "non-fouling anchors," and in which all projections—such as the stock or the unused arm or fluke of ordinary anchors, by which the cable can foul in swinging, or upon which a vessel can be injured when in shallow water—are dispensed with, the flukes being pivoted and arranged to lie within the shank entirely out of the way when not in use.

Said improvements relate to the combination of a pivoted catch with the pivoted fluke of a non-fouling anchor, to subserve the same end as the horn upon the fluke of an ordinary anchor, and operate to prevent the palm from dragging over the ground by causing it to take hold thereof, the end attained by the stock of an ordinary anchor.

Figure 1 of the accompanying drawings is a plan view of my improved non-fouling anchor hung up by a ring at the bottom thereof; Fig. 2, a central longitudinal section thereof in the line *x x* of Fig. 1; Fig. 3, a side elevation of the anchor bent to a cable by its upper ring and engaged with the ground to hold the ship. Figs. 4 and 5 are detached views, illustrating different forms of my swinging catches; Fig. 6, a detached view of the fluke, illustrating catches combined laterally therewith. Fig. 7 being a side view of the same.

A is the shank or body of my improved anchor. It is made solid in one piece by bending a suitable iron bar upon itself and welding the two edges together along the line of contact at the upper end, *a*, of the shank, and the two ends together at its lower extremity, *b*, an intermediate open space, *E*, being left to inclose a pivoted fluke. The shank *A* is enlarged or widened centrally in such manner as to form projections *B B* on either side or edge thereof, extending so far as to prevent the anchor from resting upon either side or edge when thrown out, and insure its falling or turning upon one of the faces through which the pivoted fluke swings.

The opening *E* to receive the fluke may be

made to conform with the outward configuration of the stock, thereby leaving space for a wide diamond-shaped palm upon the fluke, as illustrated in the drawings, Figs. 1 and 6.

C is the fluke of the anchor, pivoted, in the usual manner, in the shank *A*, so as to swing freely in either direction through the opening therein.

D is the pivot upon which the fluke swings. Its movements are arrested (see Fig. 3) by suitable shoulders, *c c*, Fig. 2, on the lower end thereof, which strike against the lower end of the opening or slot *E* in the shank.

F is a slot cut in the fluke *C*, within which is pivoted a pointed catch, *G*, in such manner as that it may swing out in either direction to about an angle of forty-five degrees, when its further movement is arrested by suitable stops, or in the manner indicated respecting the fluke *C*. The catch *G* may be provided with one, two, or more points, as illustrated in the drawings.

H H, Figs. 6 and 7, are catches pivoted upon the sides of the fluke *C* and which are free to vibrate or swing outward either in both directions, or else the one to the right and the other to the left until they attain an angle of about forty-five degrees with the fluke, when they are arrested from further movement in that direction by suitable stops, as in the case of the catches *G*.

K is a bolt or pin inserted through a suitable aperture in the shank *A* and into the fluke *C*, to lock the same when the anchor is not in use. This bolt may be secured by a lanyard to the chains or rail from whence the anchor is hung, to be ready for use.

When my improved anchor is thrown out, the peculiar diamond form of the shank causes it to fall or turn with one of its faces to the ground, so that the fluke will rest thereon. In this position one of the points of the catch *G* will be forced into the ground, and, so soon as there is a strain upon the anchor drawing it forward, the fluke will be thereby tripped, so that its point will be forced into the ground, and a hold thus surely and immediately obtained, obviating the danger and risk of a dragging of the anchor over and upon the ground on hard bottoms, incident to anchors without horns. So soon as the fluke engages with the bottom the catch is relieved from all strain:

When not required in use, the anchor may be fished or catted and hung up by its lower ring. (See Fig. 1.) Its fluke C and the catch G will then lie parallel to the shank, so that the anchor is at once compact and ready for service, presenting no projections which can injure the bows of the vessel; or it may be locked with the bolt K and stowed in the chains or inboard with great convenience. It is peculiarly adapted for use upon vessels of war, not only because of the facility with which it may be stowed away and protected from exposure to an enemy's shells, but because, from its compact form, it will not break and splinter when struck by a shot, as in the case of ordinary anchors.

Where the shank of the anchor is simply slotted to receive a narrow straight-sided fluke, instead of being enlarged, as hereinbefore described, to receive a widened fluke, I form the

projections B B separately, and afterward secure them to the shank instead of producing them by an outward bend or curve of the shank proper.

I do not herein claim the central side projections or angular elbows, B B, of my improved anchor, nor the diamond form imparted thereto by such angular projections, as I am about to make this feature of my improvements the subject-matter of claim in a separate application for Letters Patent; but

I claim as my invention—

One or more auxiliary pivoted catches, G or H, in combination with the swinging fluke of a non-fouling anchor, substantially as and for the purpose herein described.

G. C. PATTISON.

In presence of—

EDM. F. BROWN,
DAVID A. BURR.