# C. C. Pattison,

## Anchor.

No. 102584. Patented May 3. 1870.

FIG:1.

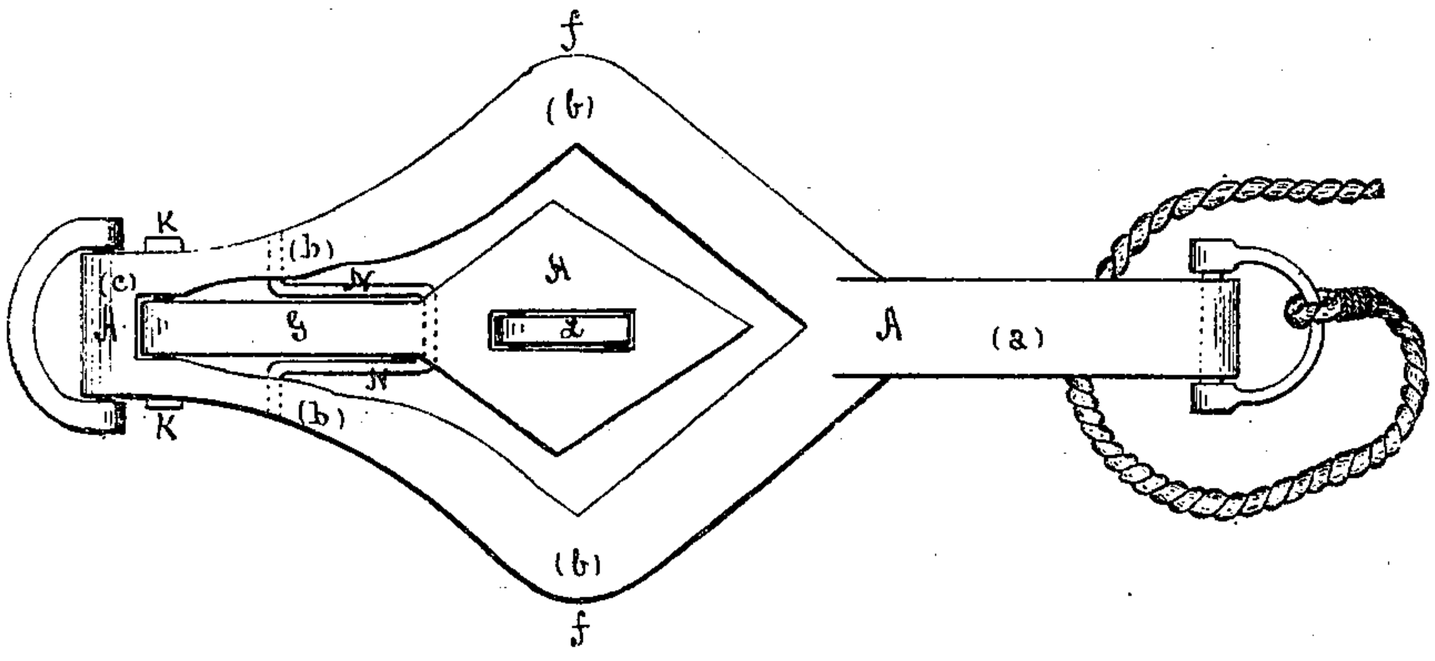
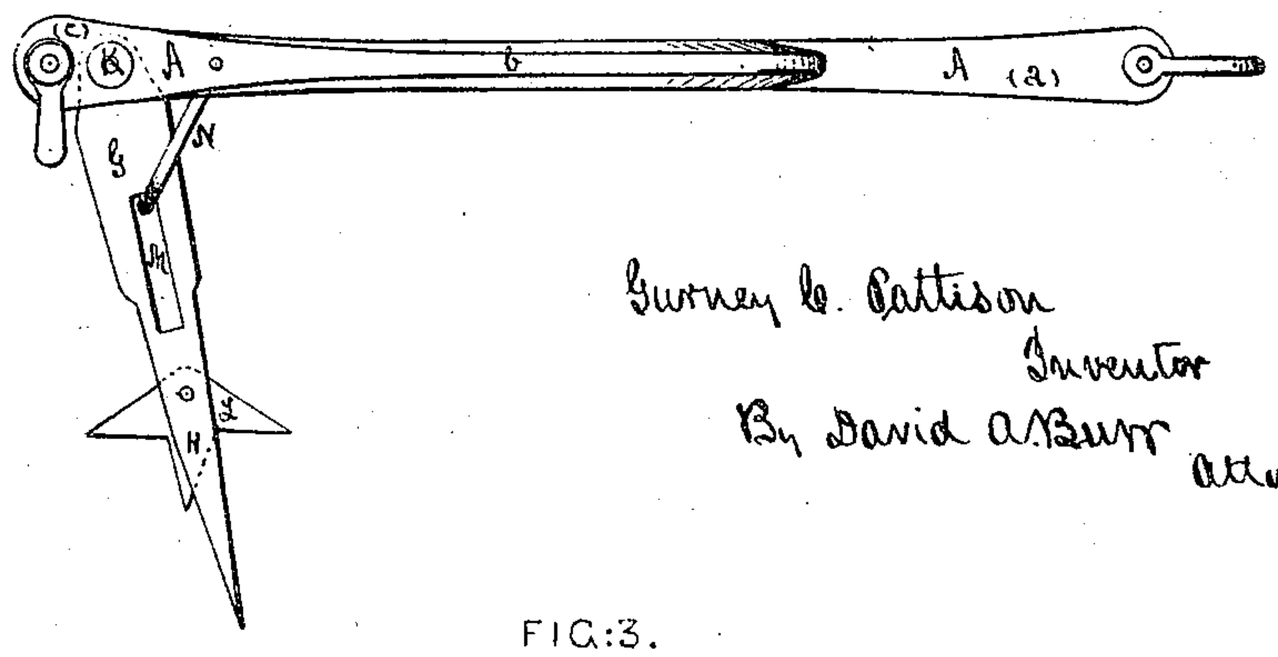



FIG:2




Witnesses
E. H. Young
O. W. Bailey Jr.

Inventor
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FIG:3.

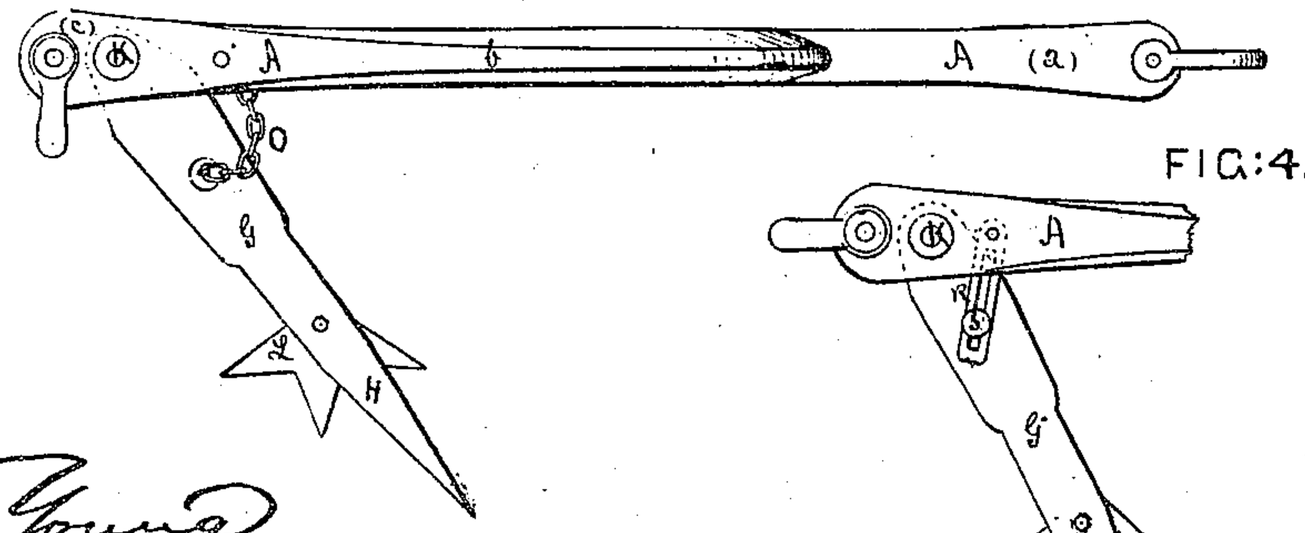


FIG:4.

# UNITED STATES PATENT OFFICE.

GURNEY C. PATTISON, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN ANCHORS.

Specification forming part of Letters Patent No. **102,584**, dated May 3, 1870.

*To all whom it may concern:*

Be it known that I, GURNEY C. PATTISON, of the city and county of Baltimore, and State of Maryland, have invented a new and useful Improvement in the Construction of Pivoted-Fluke Anchors, of which the following is a specification.

Figure 1 is a plan view of one face of my improved anchor, with its fluke closed within the shank, as when it is stowed away on shipboard; Fig. 2, a side view thereof, with its fluke-arm and fluke swung out to the position which it assumes when it is engaged and holding a vessel; Fig. 3, a similar view, illustrating a chain support for the fluke-arm; and Fig. 4, a detached view of the fluke-arm and a portion of the lower end of the shank, illustrating another form of tie or support.

The first part of my invention relates to the form of the shank or body of the anchor, and its design is to prevent the possibility of the anchor resting or dragging upon or over the ground upon its side in such a position as that its fluke cannot catch and take hold. If the fluke-arm be pivoted, the anchor must fall to the ground with the axis of its pivot parallel to the ground, or nearly so, to produce an engagement of the fluke therewith. To insure this result, I form knees or projections centrally on each side of the shank in a plane coincident with or parallel to the axis of the pivot, thereby imparting to the central part of the shank a diamond form, so that if, when the anchor is thrown out, it strikes upon one edge or side or the other, it will not rest thereon, but will turn and fall over upon one of its faces, as illustrated in the drawings.

The second part of my invention relates to the support of the pivoted fluke-arm when it is thrown out to take hold of the ground, by means of a shackle, chain, or stay-bar, which, without interfering with a proper movement of the fluke-arm, will stay the same and relieve its pivot-pin from the great strain otherwise brought to bear thereon when the fluke of the anchor is in position to hold a vessel.

A in the accompanying drawings is the body or shank of my improved anchor. Its upper end, *a*, is made straight and solid, but its lower end from above its center is divided into two arms, *b b*, inclosing an open space through which the fluke-arm and fluke swing, these two arms meeting and being reunited in a solid end piece, *c*. The two arms *b b* are made to project laterally so far as to form knees or elbows, presenting angles *f f*, Fig. 1, on each side of the shank, so that when the anchor is thrown out, if it strikes upon either side, these projections will cause it to tip and turn over upon one face or the other.

G is the fluke-arm of the anchor, terminating in a wide fluke or palm, H. K is the pivot upon which the fluke-arm swings; L, an auxiliary catch, pivoted within a slot formed in the palm H, and operating to quicken and insure a prompt engagement of the fluke with the ground when it strikes; M, Fig. 2, a longitudinal slot, cut transversely in the fluke-arm G, equidistant from the pivot D and catch L; N, a shackle or link passing through said slot, and whose ends are pivoted to the inner side of the shank, or, rather, of the divided arms *b b* thereof, on each side of the fluke-arm G, swinging through between them. The shackle moves back and forth in the slot as the fluke-arm swings to the one side or the other, and its length is so proportioned as that when the fluke-arm has swung out on either side to an angle of about eighty degrees, as illustrated in Fig. 2, its further movement is arrested by the shackle, which acts then as a tie to support the arm and transmit to the shank the force of the strain thereon.

As a substitute for the pivoted shackle N, working in the longitudinal slot M, as illustrated in Figs. 1 and 2, I employ a chain, O, attached at either end to the inner sides of the arms *b b* of the shank A on each side of its winging fluke-arm G, and which is made to pass through a simple aperture in said arm, as illustrated in Fig. 3. This chain O is of such a length and is so secured to the shank as to form a diagonal tie for the fluke-arm when it has swung out to a proper angle, so as to support it there and prevent its further movement. The spaces between the fluke-arm G and the arms *b b* of the shank A are enlarged sufficiently to allow the chain to pass through freely with the fluke-arm as it swings through the opening.

To obviate the objections incidental to the formation of a slot, or the perforation of an aperture in the fluke-arm, having a tendency to weaken the same, I contemplate pivoting

slotted bars R R, Fig. 4, and inserting pins *s s* on each side of the fluke-arm through the slots in said bars, so that the bars may slide upon said pins in the movements of the fluke-arm. These slotted bars R operate in the same manner as the shackle N, Fig. 2, to limit the play of the fluke-arm and afford it due support.

The movements of the bars may be reversed by pivoting them to the fluke-arm instead of to the shank-arms, and inserting the steady-pins *s* in the latter.

I claim as my invention—

1. Lateral elbows or angular projections *f f*, formed upon or combined with the shank of a pivoted-fluke anchor, substantially in the manner and for the purpose herein set forth.

2. A movable shackle, chain, or tie-bar, combined with the shank and the pivoted fluke-arm of an anchor, to operate as a diagonal tie, for the purpose of supporting the fluke-arm when it is thrown out from the shank in either direction, substantially as herein set forth.

The foregoing specification of my improvement in anchors signed by me this 7th day of March, 1870.

G. C. PATTISON.

In presence of—
GEO. L. HARRISON,
DAVID A. BURR.