G. C. Pattison,

Anchor.

No. 111144. Patented. Jan. 24. 1871.

FIG. 1.

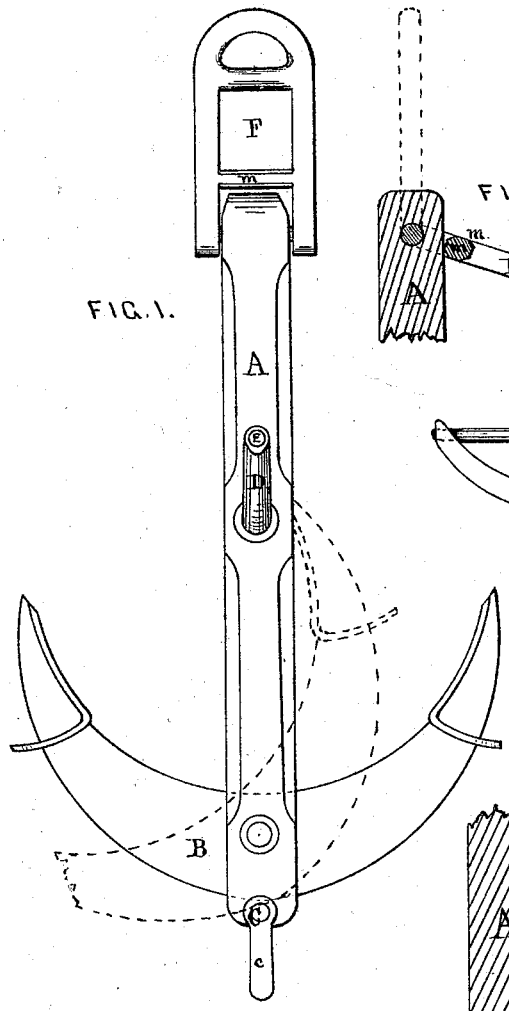


FIG. 3.

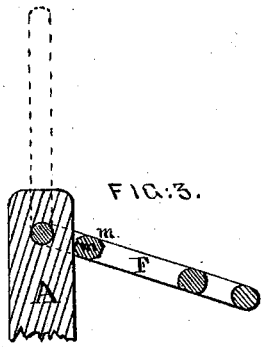


FIG. 2.

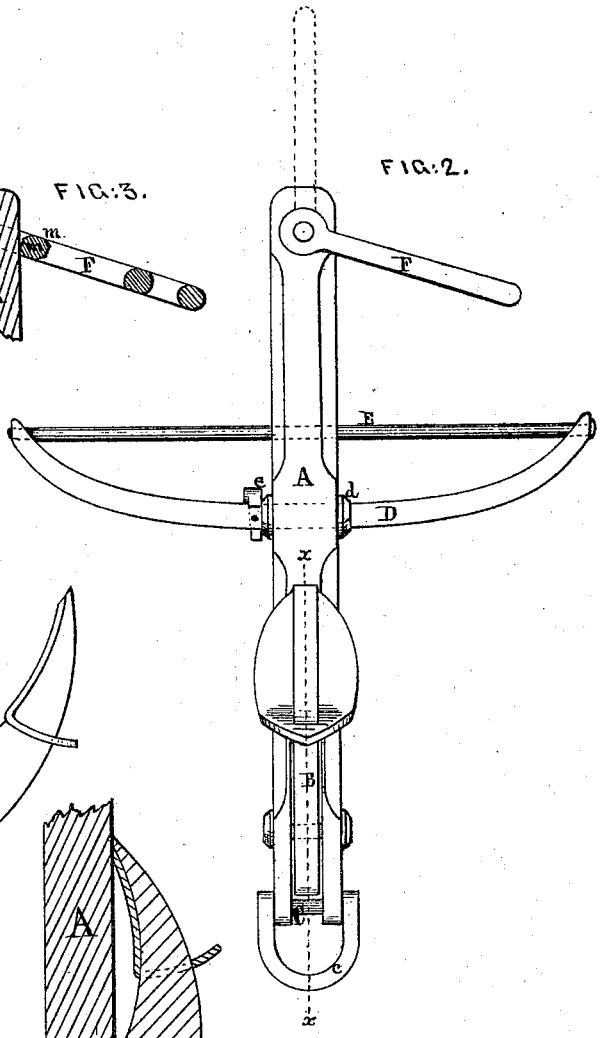
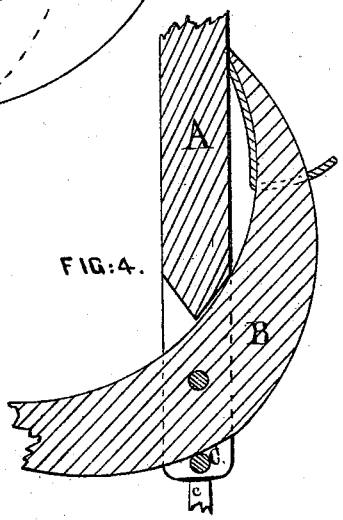


FIG. 4.



Witnesses
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Atty:

United States Patent Office.

GURNEY C. PATTISON, OF BALTIMORE, MARYLAND.

Letters Patent No. 111,144, dated January 24, 1871.

IMPROVEMENT IN ANCHORS.

The Schedule referred to in these Letters Patent and making part of the same.

I, GURNEY C. PATTISON, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain Improvements in Anchors, of which the following is a specification.

The first part of my invention relates to the use, in connection with a stock secured to the shank of an anchor, at or about its mid length, of an extended shackle pivoted to the upper end of the shank, so as to swing, as usual, in either direction, this shackle being provided with a stop-bar to arrest its fall on either side upon a line of inclination extending toward the end of the stock, the object of this part of my invention being to carry out the attached end of the cable so far toward the end of the stock as to greatly lessen the liability of an engagement or entanglement of the cable therewith.

The second part of my invention relates to the use, in anchors carrying a pivoted or swinging fluke-arm, of an auxiliary transverse pin or bolt, inserted through the end of the shank outside of the pivot of the fluke-arm, and parallel thereto, so that the lower or outer edge of the arm will strike against said bolt and bear thereon simultaneously with the contact of its upper point with the side of the shank, as illustrated in fig. 4 of the drawing, the object of this part of my invention being, in the first place, to relieve the pivot-bolt from the strain thereon when the anchor is in use, and in the next place to prevent a loss of the fluke-arm in the event of a breakage or loss of the pivot-bolt.

The ends of the auxiliary bolt may be used to hold a shackle to serve in "catting" the anchor.

Figure 1 of the accompanying drawing is a front elevation of my improved anchor;

Figure 2, a side view thereof;

Figure 3, a sectional view of my improved extended shackle, with a portion of the upper end of the shank; and

Figure 4, a central section of a portion of the pivoted fluke-arm and lower end of the shank of the anchor, in line $x\ x$ of fig. 2.

A is the shank of my improved anchor, forged in the usual manner.

B is the fluke-arm, formed, constructed, and pivoted within a slot or recess in the lower end of the shank A, in the customary manner.

C, a bolt inserted through suitable apertures in the shank A, outside of the pivot-bolt of the fluke-arm, but parallel thereto, at such a distance therefrom, with relation to the width of the fluke-arm B, as that, when the fluke-arm swings upon its pivot in either direction, its lower edge will strike against said lower bolt simultaneously with the contact of its upper point with the side of the shank, as clearly illustrated in fig. 4, thus affording a stay or support to the arm, which will serve to relieve its pivot-pin, in a great measure, from the strain thereon when the anchor is engaged, and also a security against a loss of the fluke-arm in case of a fracture or detachment of said pivot-pin.

c is a shackle secured to the lower end of the shank by means of the bolt C.

D is a curved rod or bar of round iron constituting the stock of my improved anchor. It is inserted through a circular aperture pierced through the shank A, about midway its length, at right angles to the fluke-arm, as illustrated in the drawing, and from its position may be made much shorter than in ordinary anchors, and yet produce the same effect as the long stocks thereof. Its curved ends are turned upward, as shown in fig. 1.

A shoulder, *d*, formed upon the bar arrests it when it has passed far enough through the shank, and a key and washer, *e*, on the opposite side of the shank, secure it firmly in place.

By removing this key *e* the stock is readily detached from the shank to facilitate stowage.

This curved round-iron stock D is strengthened by means of a straight cross-rod, E, inserted through a second aperture in the shank A, and secured at either end to the ends of the stock, so as to form a chord to its arc, as fully illustrated in fig. 1.

The fastenings of this cross-rod are such as to permit its easy disengagement for the purpose of detaching the stock from the anchor.

F is an improved shackle, of an extended form, provided with a lower cross-bar, *m*, formed in such proximity to its pivot as that, when the shackle is turned down on either side of the shank, this bar will strike against the shank (see fig. 3) and support the shackle at an angle of inclination which will cause its end to project downwardly toward the end of the stock, as shown in figs. 1, 2, and 3.

By using this extended shackle and arresting its fall at the inclination given, the chain or cable secured thereto is carried out so far from the shank toward the end of the stock, and is so held as greatly to lessen the liability of its entanglement therewith.

The distance to be left between the pivot of the shackle and the lower cross-bar or stop *m*, must be determined by the width or thickness of the shank A, so as to obtain the desired contact of the cross-bar with said shank at the right point.

I claim as my invention—

1. An extended shackle, G, provided with an inner cross-bar or stop, *m*, to arrest its movements, as herein described, and combined with the shank A of

an anchor, fitted with a stock about midway its length, substantially in the manner and for the purpose herein set forth.

2. An auxiliary bolt, C, inserted through the end of the shank A of an anchor, outside of the pivot-bolt holding its fluke-arm B, and so combined with the latter as to afford support thereto when thrown out for engagement, all substantially as herein set forth.

Witness my hand to this specification.

G. C. PATTISON.

Witnesses:

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