

E. T. STARR.
ANCHOR.

No. 493,901.

Patented Mar. 21, 1893.

Fig. 1

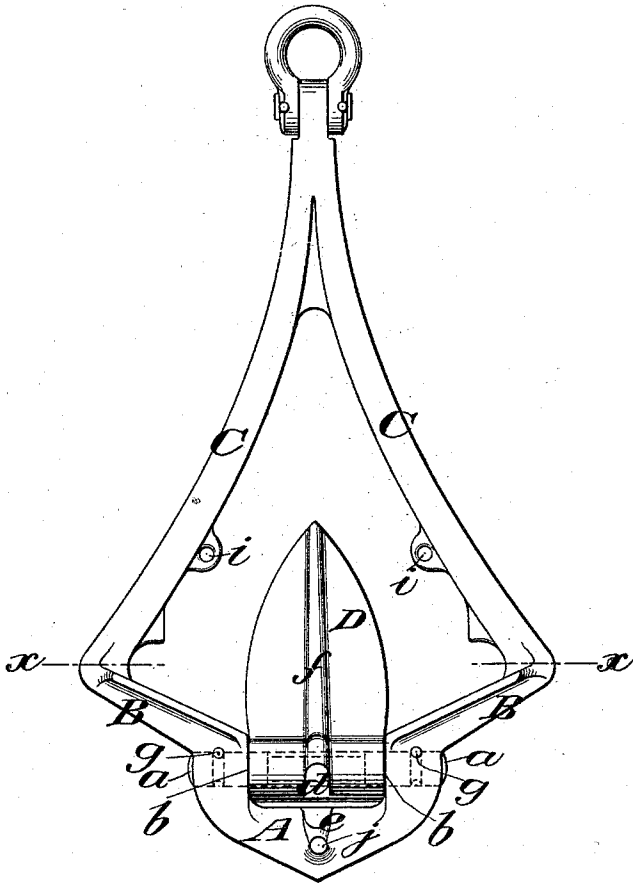


Fig. 2.

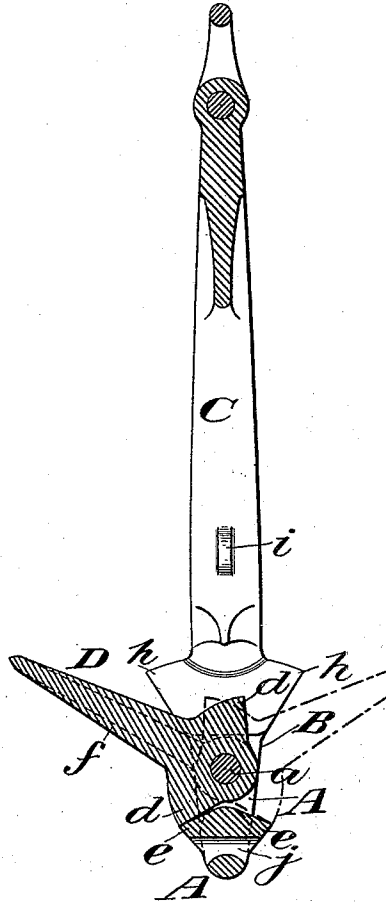


Fig. 3.

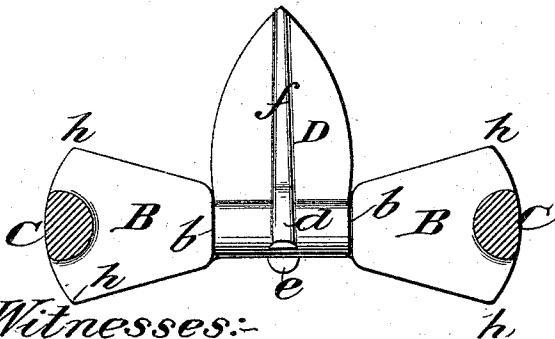
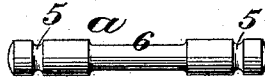


Fig. 5.



Witnesses:-
D. N. Maynard
C. Sundgren

Inventor:-
Eben Starr
 by attorneys
Flower & Seward

(No Model.)

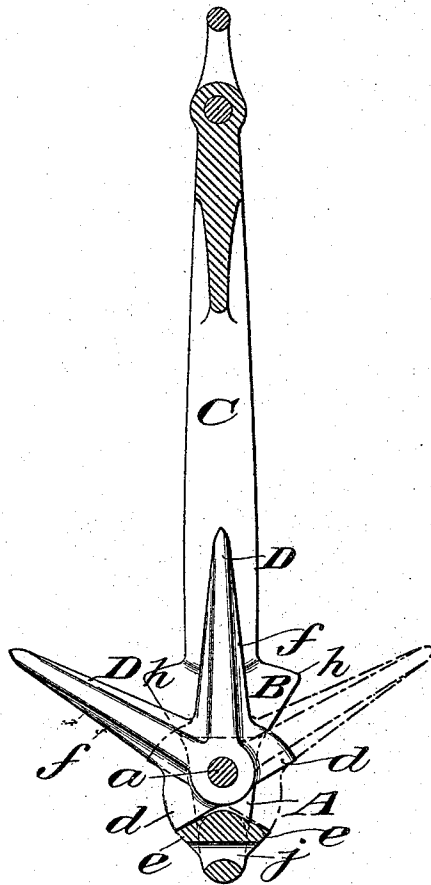
2 Sheets—Sheet 2.

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Fig. 4.



Witnesses:-
N. H. Raymond
C. Sundgren

Inventor:-
Eben T. Starr
by attorneys
Binns & Howard

UNITED STATES PATENT OFFICE.

EBEN T. STARR, OF NEW YORK, ASSIGNOR TO THE STARR ANCHOR COMPANY, OF HEMPSTEAD, NEW YORK.

ANCHOR.

SPECIFICATION forming part of Letters Patent No. 493,901, dated March 21, 1893.

Application filed April 11, 1892. Serial No. 428,619. (No model.)

To all whom it may concern:

Be it known that I, EBEN T. STARR, of the city of New York, in the county and State of New York, have invented a new and useful

5 Improvement in Anchors, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to that class of anchors which have a divided or double shank, the two branches of which are so connected with the crown of the anchor as to serve as

10 guards against fouling. The object of this invention is to obtain an increase in strength and holding power in such anchors with a given weight of metal.

15 Figure 1 is a front view of an anchor constructed according to my invention, with a single fluke reversible to one side or the other of the shank. Fig. 2 is a central longitudinal section at right angles to Fig. 1. Fig. 3 represents a transverse section in the line $x x$ of Fig. 1. Fig. 4 is a central sectional view showing my invention embodied in an anchor with a double fluke. Fig. 5 is a longitudinal view of a pin by which the fluke is

25 pivoted into the crown of the anchor. A designates the crown of the anchor having projecting from it in opposite directions two arms B B with which are connected respectively the two branches C C of the divided shank.

D is the fluke pivoted into the crown A by a pin a and reversible toward either side of the anchor as indicated in Figs. 2 and 4 so that it may always assume an operative position according to which side of the anchor comes downward to the ground or bottom. The crown, the arms and the shank are made integral, the crown being undivided and continuous across the fluke but having in its interior a parallel-sided recess $b b$ between the sides of which is arranged the reversible fluke D, the pivot pin a passing through the said fluke and through the sides of the crown below or outside of the arms. On opposite sides of the crown are fixed stops $e e$ each to serve as a bearing for a corresponding one of two opposite projections $d d$, provided on the

50 the crown when it comes to its holding posi-

tion on either side of the crown by the projection d and stop e on that side of the crown. The projections d are represented as formed by continuations of strengthening ribs f which are forged or otherwise formed on opposite sides of the fluke integral therewith. The pivot pin a is represented as being at and for some distance from its ends of a uniform size to fit easily in holes of a corresponding size provided for its reception in the fluke and in the portion of the crown outside of the recess b therein. The said pin a has in it circumferential grooves $5, 5$ (see Fig. 5) to receive pins $g g$ which are inserted transversely to the said pin in holes provided for them in proper positions in the crown, the said pins g, g , which are driven tightly into their places, serving to confine the pin a lengthwise and keep it in place but not interfering with the free turning of the said pin. The said pin a being loose both in the fluke and in the crown, the fluke is not likely to become fixed in the crown by rust. The said pin is represented as having its central portion reduced in size for a portion of its length less than the width of the fluke to do away with friction where no bearing is necessary. The arms B B are represented at $h h$ as spread laterally from their connection with the branches A of the shank and formed with points to serve as auxiliary flukes for giving additional hold to the anchor. The branches C C of the shank are shown provided with inwardly projecting eyes i through which a lashing or lanyard may be passed to secure the fluke D in a central position in which when it is a single one, it will be sheathed and kept out of the way of surrounding objects until it is desired to let the anchor go when the said lashing or lanyard is cut or removed. In the case of the double fluke the lanyard applied through the eyes i , will secure it so that it projects only on one side of the shank.

Through the central portion of the crown outside of the reversible fluke is provided an eye j for the reception of a hook for "fishing" the anchor, or for otherwise suspending it or assisting in its suspension. The eye j so arranged at the farthest possible point

from the head of the shank affords the greatest facility for fishing or otherwise handling the anchor.

5 What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination in an anchor, of a divided or double shank, a continuous crown connecting the two branches of the shank, and provided with projecting flukes at each
10 end and side a reversible fluke pivoted between the said branches and fixed stops formed on and projecting from opposite sides of the crown for stopping the said fluke in
15 operative positions on either side of the anchor, substantially as herein set forth.

2. The combination with the divided shank and the crown provided with stops *c c* on opposite sides, of the reversible fluke construct-

ed with longitudinal strengthening ribs and with stop projections *f* formed by continuations of said ribs, substantially as herein set forth. 20

3. The combination with the divided shank, the undivided crown and the reversible fluke, of the grooved pivot *a* fitted loosely to both
25 the crown and the pins *g* inserted through the crown in the grooves of the said pivot to confine the said pivot longitudinally while leaving it free to turn in the crown and leaving
30 the fluke free to turn upon it, substantially as herein set forth.

EBEN T. STARR.

Witnesses:

FREDK. HAYNES,
LIDA M. EGBERT.