C. E. MARSHALL.

ANCHORS.

No. 195,766. Patented Oct. 2, 1877

FIG. 1.

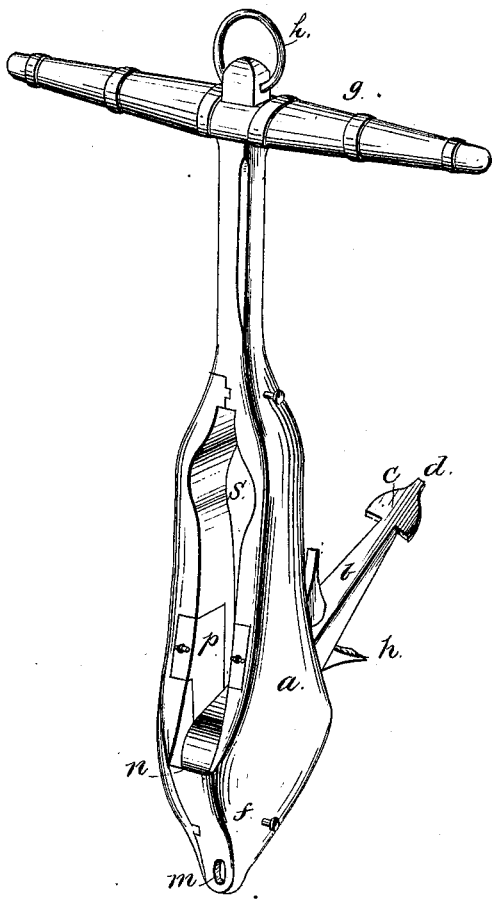


FIG. 2.

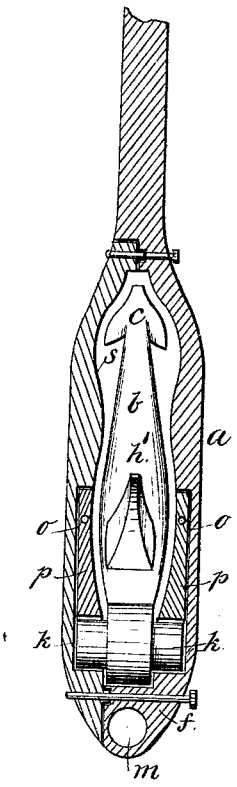
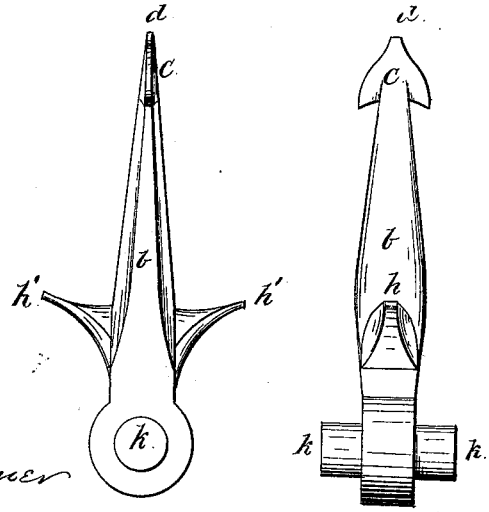


FIG. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES E. MARSHALL, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO BARBARA H. HILL, OF SAME PLACE.

IMPROVEMENT IN ANCHORS.

Specification forming part of Letters Patent No. **195,766**, dated October 2, 1877; application filed August 1, 1877.

To all whom it may concern:

Be it known that I, CHARLES E. MARSHALL, of Boston, county of Suffolk, and State of Massachusetts, have invented certain Improvements in Anchors.

The following description, taken in connection with the accompanying plate of drawings, hereinafter referred to, forms a full and exact specification, wherein are set forth the nature and principles of the invention, by which the same may be distinguished from others of a similar class, together with such parts thereof as are claimed as new and are desired to be secured by Letters Patent of the United States.

My invention relates to that class of anchors the arms of which are pivoted to the crown; and the nature thereof consists in certain improvements in the construction of the same, hereinafter shown and described.

In the accompanying plate of drawings, in which corresponding parts are designated by the same letters, Figure 1 is a perspective view of the anchor. Fig. 2 represents a longitudinal section through the shank. Fig. 3 represents the arm detached from the shank.

In the said drawings, *a* designates the shank; *b*, the arm; *c*, the palm or fluke; *d*, the point or bill; *f*, the crown; *g*, the stock, and *h* the ring.

The arm *b* is straight, and is provided with barbs or projections *h'*, to help the fluke to take and retain its hold. It is pivoted within the crown in such a manner as to oscillate within a limited angle by means of the trunnions or cylindrical projections *k*, which fit within corresponding cylindrical slots cut in the crown of the anchor. The oscillation of the said arm is checked by cusps *n* in the crown *f*.

A loop, *m*, is formed upon the crown of the anchor, by means of which it may be readily secured to the bow of the ship.

Slots *o* are cut in the shank, through which the projections upon the arm may be passed when the same is to be placed in position.

The arm is secured in its place by means of the side pieces *p*, which correspond in size with the said slots *o*, and are held by bolts passing through holes cut therein.

The opening *s* in the shank is made of such a size and shape as to allow the said arm to oscillate freely within it.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The slotted shank provided with side pieces *p*, for securing the trunnions of the arm in position.

2. The arm *b*, provided with barbs *h'* on each side thereof, and the shank provided with an opening, *s*, slots for the reception of the trunnions *k*, and loop *m*, combined and operating together as described.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of July, 1877.

CHARLES E. MARSHALL.

Witnesses:
JOHN J. CLAPP,
FREDK. SMALL.