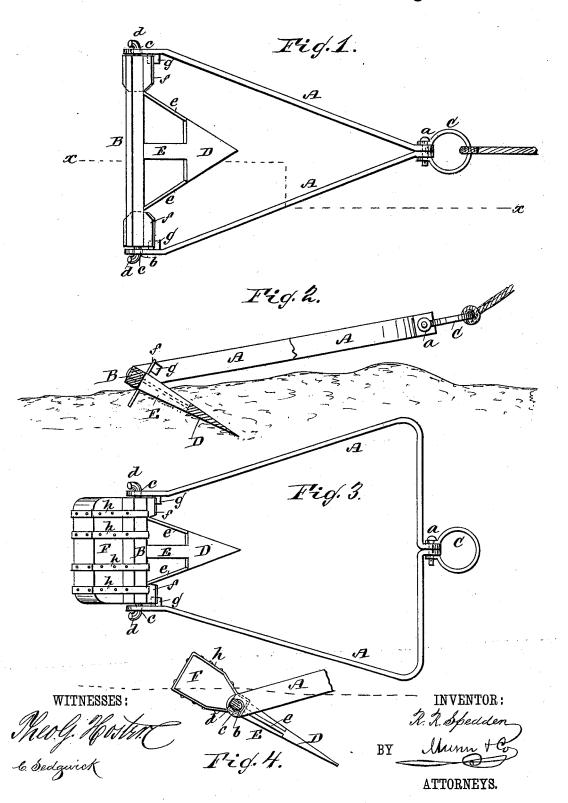
## R. R. SPEDDEN.

ANCHOR.

No. 347,972.

Patented Aug. 24, 1886.



## UNITED STATES PATENT OFFICE.

ROBERT R. SPEDDEN, OF ASTORIA, OREGON.

## ANCHOR.

SPECIFICATION forming part of Letters Patent No. 347,972, dated August 24, 1886.

Application filed December 26, 1885. Serial No. 186,749. (No model.)

To all whom it may concern:

Be it known that I, ROBERT R. SPEDDEN, of Astoria, in the county of Clatsop and State of Oregon, have invented a new and useful 5 Improvement in Anchors, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which-

Figure 1 is a plan view of my improved 10 anchor. Fig. 2 is a side elevation, partly in section, showing the anchor in engagement with the ground. Fig. 3 is a plan view of a modified form of my improved anchor. Fig. 4 is a side elevation of a part of the same.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

The object of my invention is to construct an anchor of separable parts, so that it may 20 be readily taken apart for storage or shipment, to admit of the interchange of parts, so that one anchor may serve in place of the several anchors at present required.

My invention consists in the construction 25 and arrangement of parts, as will be herein-

after fully described and claimed.

The side bars, A, which form the shank of the anchor, are arranged to form with the shaft B a triangular frame, the ends of the bars be-30 ing parallel with each other. The adjacent ends are received in a shackle, C, and fastened together and to the shackle by a bolt, a, passing transversely through the shackle and through the ends of the bars A. In the oppo-35 site ends of the bars A are formed apertures b, for receiving the journals c of the shaft B. The journals c are curved beyond their bearing surfaces, forming hooks d, which retain the ends of the bars A on the shaft B.

A fluke, D, is supported by the arm E upon the shaft B, and the angles of the fluke nearest the shaft B are connected with the shaft by rods e. These rods prevent the engagement of the anchor-cable with the fluke D.

Upon the inner face of the shaft B are secured plates f, which extend beyond the shaft laterally and beyond the edges of the side bars, A, and on the side bars, A, near the shaft B, there are stops g, which, being in the path of the plates f, arrest the motion of the plates and stop the shaft B, bringing the fluke D into position to enter the ground. The plates f and another comprising an open frame, the side bars of which have their ends parallel and apertured, the shaft B, having hooked journals

and the stops g are arranged with relation to the side bars, A, and the fluke D so that when either side of the anchor touches the ground 55 and is drawn along by the cable the plates f, by engagement with the surface of the ground, turn the shaft B and cause the point of the fluke D to enter the ground, the angle formed by the side bars, A, and the fluke being limited 60 by the plates f and stops g. When the plates f are insufficient to cause the shaft B to be turned in the manner described, a block, F, of wood or other material, is secured to the shaft B by straps h, as shown in Fig. 3.

When the anchor is lowered, the block F, striking the ground, causes the shaft to turn and bring the fluke D into engagement with the surface of the ground, when the further forward movement of the anchor causes the 70 fluke to enter the ground, as shown in Fig. 4.

When it is desired to use a short shaft, B, and a pointed fluke, D, I bend the side bars outward, making the frame of trapezoidal form, the cable end being wider than the end in 75 which the shaft B is carried, as shown in Fig. 3.

When it is desired to take the anchor apart, for the purpose of storing it or moving it, the bolt a is removed from the shackle and from the ends of the side bars, A, when, by turning 80 the side bars, they may be removed from the hooked ends of the journals, and the several parts of the anchor may be compactly arranged.

I am aware that an anchor has been constructed with a triangular frame having a piv-85 oted fluke, the shaft of which had arms that engaged stops on the frame; but the frame of said anchor was either welded or riveted, so that it could not be taken apart. In some instances the fluke-shaft had screw-threaded 90 ends and nuts for securing it in place. In my construction the shaft has hooked pivots, so that no screw-threading and nuts will be required, and this expense is avoided; and, further, I use the triangular fluke, which is pref- 95 erable to other forms, and use the bars e to prevent the cable from being caught on the upper angular corners thereof.

Having thus described my invention, what I claim as new, and desire to secure by Letters 100 Patent, is-

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c d on its ends, fitting removably in the apertures in the lower ends of the side bars of the frame, and a fluke between its ends, and a removable pin, a, and shackle C, connecting the opposite ends of the frame, whereby the frame may be readily taken apart without the use of tools, substantially as set forth.

tools, substantially as set forth.

2. In an anchor, the fluke-shaft having the triangular fluke D and the bars e, connecting to the said fluke at the ends of the base with the fluke-shaft, whereby the cable is prevented

from being caught by the said angular ends at the base of the fluke, substantially as set forth.

3. The combination, with the fluke-shaft and fluke, of a block,  $\mathbf{F}$ , secured thereto in the 15 plane of the fluke by the straps h, substantially as set forth.

ROBERT R. SPEDDEN.

Witnesses:

C. H. PAGE, S. G. INGALLS.