Sept. 8, 1953 E. H. JENSHAK 2,651,277

BOAT ANCHOR WITH SLIDING SHACKLE

Filed Feb. 6, 1951

Fig. 1

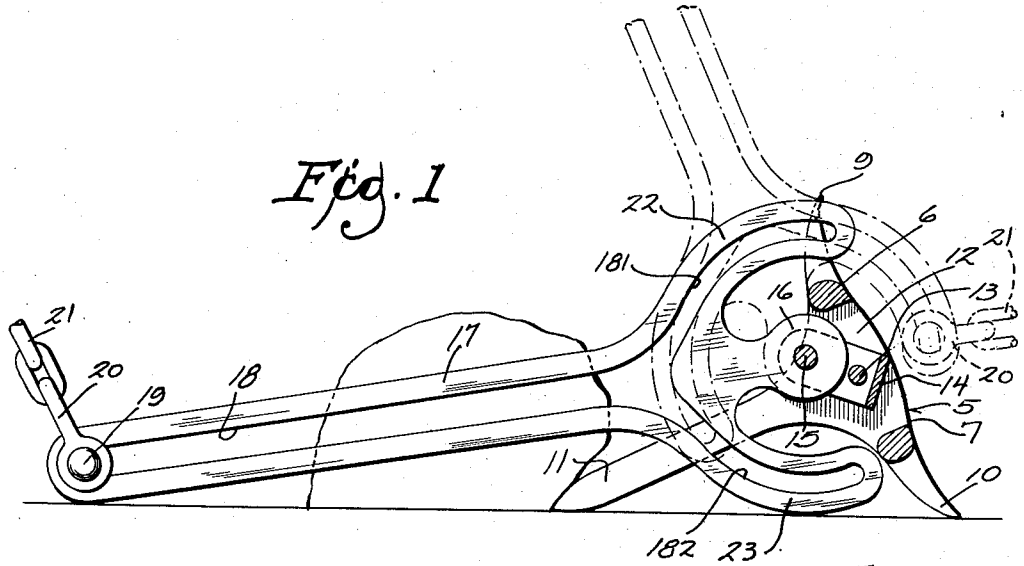


Fig. 2

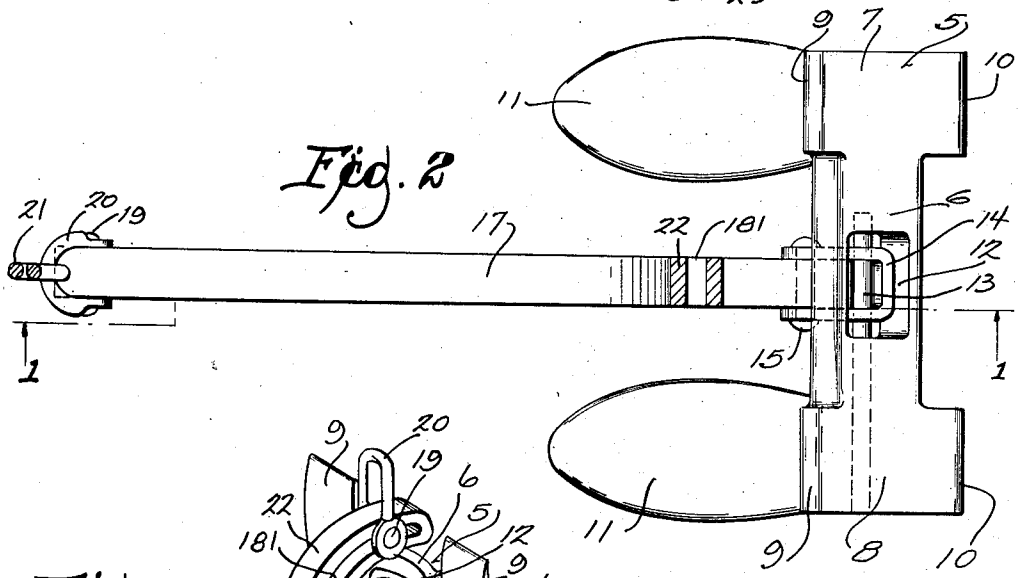
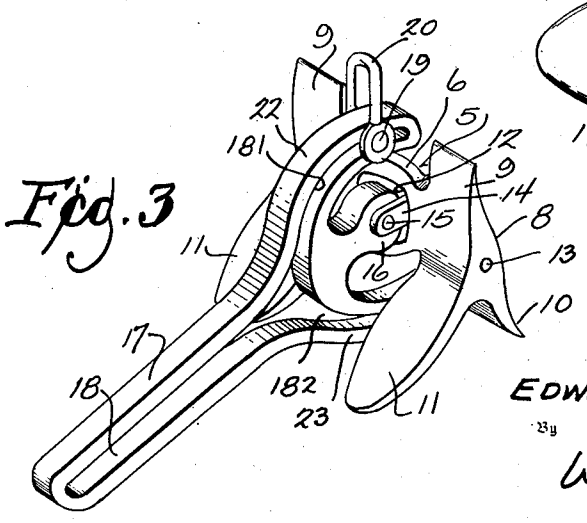


Fig. 3



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BOAT ANCHOR WITH SLIDING SHACKLE

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3 Claims. (Cl. 114—208)

1

This invention relates to a boat anchor with sliding shackle.

The invention involves an arrangement whereby the anchor shank, slotted to provide a way in which the shackle pin is slidable, has branch portions extending around the pivotal connection of the shank with the crown and into which shank extensions, branches of the aforesaid slot are extended so that, whichever side of the anchor is uppermost, the shackle can always move to a position beyond the center of gravity of the crown, as distinguished from the center of gravity of the anchor as a whole, thus advantageously permitting the shank to be pivotally linked with the crown. The pivotal arrangement would not be practicable if the weight of the shank were required to balance a part of the crown weight when the shackle is moved to a position for freeing its flukes from wedging engagement between rocks or the like.

In the drawings:

Fig. 1 is a view in section in the plane indicated at 1—1 in Fig. 2.

Fig. 2 is a plan view of my improved anchor with one of the shank arms broken away.

Fig. 3 is a detail view showing the anchor in perspective on a reduced scale with the shackle moved to a position which it may occupy when the anchor is to be lifted.

The construction of the crown 5 is one in which a transverse web 6 connects a pair of heads 7 and 8, each of which is of generally T-shaped form having oppositely directed flukes 9 and 10 and each having a third fluke 11 projecting substantially at right angles to flukes 9 and 10.

The transverse web 6 has a central aperture at 12 across which extends a pin 13 which may be driven in through the head 8 as indicated in dotted lines in Fig. 2. A clevis link 14 pivoted on the pin 13 carries a pin 15 extending through the eye 16 at the inner end of the anchor shank 17. Thus, the inner end of the anchor shank has, by reason of its linked connection with the crown, considerable freedom of movement respecting the crown.

The shank 17 has a longitudinally extending slot at 18 in which the shackle pin 19 of the chain shackle 20 is slidable and pivotal. The anchor chain 21 is connected to the shackle in the usual way.

The shank 17 is unique in that it is provided at its inner end with symmetrically opposite arcuate arms 22, 23 which are substantially concentric with the pintle pin 15 of clevis link 14, and of such arcuate extent that even when the shank

2

is inclined downwardly in the position shown in Fig. 1, the upwardly projecting arm 22 at its inner end extends about the crown web 6 beyond the center of gravity of the crown.

Branch slots 181 and 182 communicating with slot 18 and with each other extend throughout the length of the arms 22 and 23 of the shank so that, if one of the lowermost flukes 10 of the anchor (or the fluke 9 if the anchor is inverted) becomes caught, it is easily possible by manipulating the anchor chain 21 to draw the shackle 20 and shackle pin 19 longitudinally of the shank and into the extension slot 181 or 182 of the arm that is uppermost, the movement continuing until the chain is nearly in line with the shank and pulling in a direction to disengage the fluke, as shown in dotted lines in Fig. 1.

The shank is, nevertheless, entirely free to move pivotally and if the boat is moved even further to the right as viewed in Fig. 1, the tension of the anchor chain may then draw the shank upwardly into and beyond the position in which it is shown in dotted lines, thus making possible this additional maneuver to free an anchor that is badly fouled. It will be observed that the clearance between the eye 16 and the respective branch arms 22 and 23 of the shank is such that either arm can move freely about the transverse web 6 through a very substantial range of movement as indicated by the dotted line position in which the shank is shown.

It is noted that in the dotted line position of Fig. 1 the transverse web 6 acts as a stop against which the base of arm 22 engages to preclude further pivotal movement of the shank respecting the crown. Upon engagement of arm 22 with web 6 further line pull on the chain is transmitted directly to fluke 10 engaged in the bottom. This pull will cause the entire anchor to pivot about fluke 10 as a fulcrum. When the anchor has tipped far enough to engage fluke 9 with the bottom, the fulcrum is shifted to the point of engagement of the fluke 9 with the bottom and the anchor will continue to tip about this point until fluke 11 re-engages the bottom in the direction of line pull. The shackle 20 will then slip along the slot into the shank 17 and to the end thereof. This sequence of events is particularly useful if the wind shifts to drift the boat over the anchor. Thus the anchor will re-engage the bottom to anchor the boat.

It will be understood that the use of two arms connected oppositely at opposite sides of the shank, and encircling the crown in opposite directions is to be preferred because it makes the

anchor symmetrical, so that it will function as above described regardless of which side of the anchor is uppermost.

I claim:

1. An anchor comprising in combination a crown comprising a transverse and centrally apertured web having heads at its opposite ends and flukes carried by the respective heads in positions laterally spaced by said web, a pintle pin disposed transversely of the web and spanning the aperture thereof, a shackle link pivoted upon said pin and provided with a pivot pin, an anchor shank having an eye pivoted upon the pin last mentioned and provided with arcuately extending arms spaced at opposite sides of the eye and extending arcuately thereabout, the said shank having a longitudinally extending slot and the arms having branch slots communicating with the shank slot and with each other, and a shackle having a shackle pin slidable and oscillatory in the respective slots for movement from the free end of the shank to the extremities of the slots of the respective arms, the said arm slots extending beyond a line through the center of gravity of the crown and the spacing of the respective arms from the shank eye being such as to receive portions of said web in the event of relative oscillatory movement of the shank respecting the crown.

2. An anchor comprising a crown having spaced correspondingly disposed flukes for engagement with the bottom, web means connecting the flukes, and pairs of auxiliary flukes projecting from the crown in opposite directions from the bases of the first mentioned flukes for positioning the first flukes, a shank pivotally connected to said crown, said shank being provided with an arm extending obliquely about said connection and a runway along said shank and arm, and an anchor line coupling movable along said runway longitudinally of said shank and along said arm whereby the line may be shifted from one position in which line pull is exerted at the end of the shank to engage one auxiliary fluke of each pair with the bottom and another position in which the line pull is exerted at the end of the arm to engage another auxiliary fluke of each pair with the bottom.

3. The device of claim 2 in which said web means provides a stop to limit the arc through which the shank may swing, whereby line pull on said coupling in one position thereof will pivot the shank until it engages the stop, further line pull being effective to tip the anchor about the engaged flukes to re-engage the other flukes with the bottom in the direction of line pull.

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