

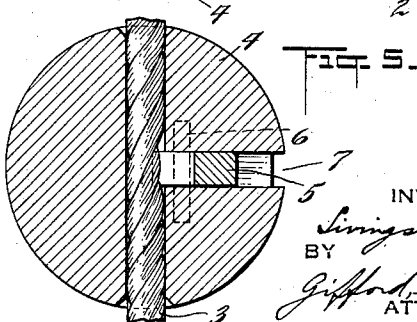
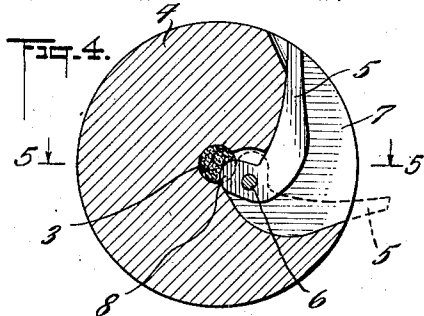
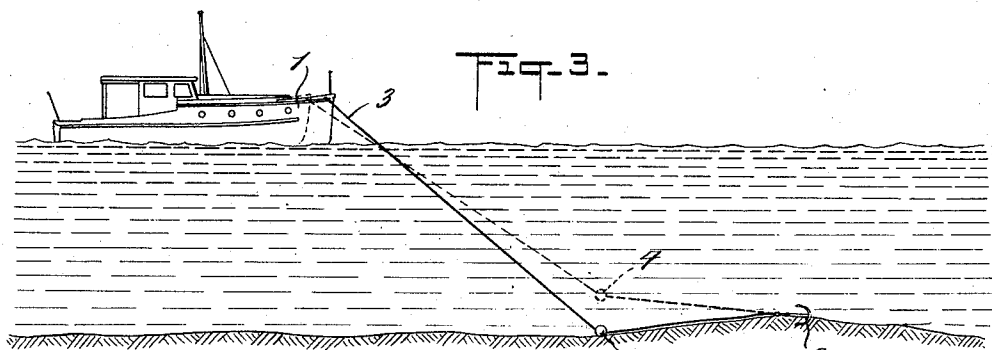
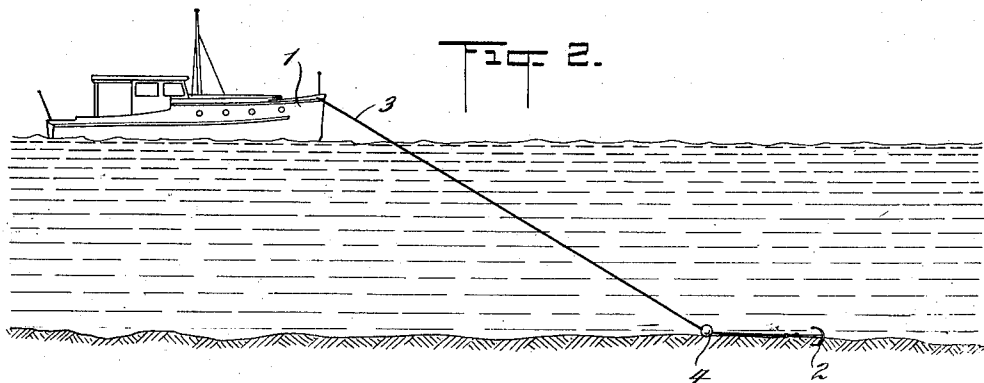
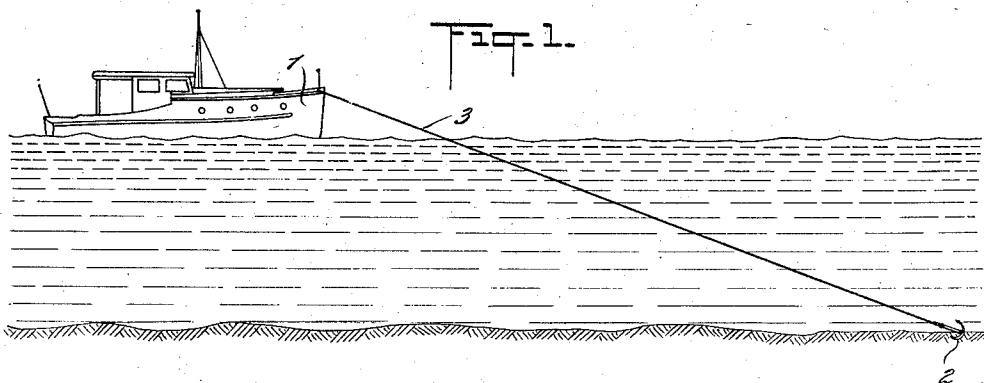
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L. FOUNTAIN

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ANCHORING MEANS

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ANCHORING MEANS

Application filed October 10, 1929. Serial No. 398,614.

This invention relates to a novel and improved anchoring means, the novel features of which will be best understood from the following description and the annexed drawing, in which I have shown a selected embodiment of the invention and in which:

Fig. 1 is a diagram illustrating the relation of an ordinary anchor to the vessel to which it is secured.

Fig. 2 is a view similar to Fig. 1, but showing my invention applied to the anchor hawser.

Fig. 3 is a view similar to Fig. 2, but showing the way in which my invention operates under certain conditions.

Fig. 4 is a sectional view through the scope ball shown in Figs. 2 and 3, this view being taken at right angles to the length of the hawser.

Fig. 5 is a view on the line 5—5 of Fig. 4.

Referring first to Fig. 1, I have indicated therein a vessel 1 upon a surface of a body of water, and anchored by means of a usual anchor 2 which is connected to the vessel by a hawser 3. It will be seen that the pull exerted by the vessel upon the anchor has a vertical component of substantial amount, tending to lift the flukes of the anchor out of the bottom. The amount of this lifting component of course will vary with the depth of the water and with the length of hawser.

In Figs. 2 and 3 I have shown my invention applied to the hawser, this invention comprising what I term a scope ball 4 slidably mounted on the hawser and of such weight as normally to bring the hawser to the bottom of the water, as indicated in Fig. 2. It will be seen that a ball placed in this position will hold the anchor flat on the bottom, so as to allow the flukes to remain substantially vertical with respect to the bottom, and permit them to penetrate more deeply into the material at the bottom and thus hold faster. At the same time, the weight of the anchor may be reduced, because of the fact that the ball increases the holding power of the anchor for the above reasons. When applied to existing anchors, of course, the holding power being increased, as mentioned

above, the necessity of providing additional anchors is avoided to a large degree.

Another advantage in the invention will be seen from a study of Figs. 2 and 3, and particularly of Fig. 3. It will be seen that the length of hawser necessary to use is much less than in Fig. 1, where no scope ball is employed. The scope of movement of the vessel is thus reduced and the vessel is prevented from swinging in a large circle, which is an important feature particularly in case the anchorage is congested. As the vessel rises and falls with the motion of the water, substantially no strain is placed upon the anchor itself, but, instead, the ball is lifted to some such position as indicated in dotted lines in Fig. 3, the hawser and the vessel moving accordingly.

In Figs. 4 and 5, I have shown a selected means for securing the scope ball to the hawser, this means being shown as a cam latch 5, in the form of a lever mounted on a pivot 6 disposed in a slot 7 extending transversely from the hawser hole in the center of the ball outwardly to its periphery. This latch has a nose 8 which is adapted to be swung into engagement with the hawser, as indicated by full lines in Fig. 4, or out of engagement therewith as indicated by dotted lines in the same figure. In its movement from inoperative or unlocking position to operative or locking position, this nose which forms the cam portion of the latch will engage the hawser on opposite sides of a line drawn from the pivot to the center of the hawser, so that the final movement of the lever to operative or locking position will serve to lock the latch against accidental displacement, the hawser yieldingly holding the latch in locking position. It will also be seen that the latch is disposed entirely within the confines of the ball when in locking position.

It will, of course, be understood that the scope ball exemplifies a weight which is preferably made in the form of a ball, although the exact configuration may be varied, if found desirable or expedient. The ball may be made of any suitable material which will give the desired weight, and while I have shown one ball in position on

a hawser, it will, of course, be understood that a plurality may be used if found desirable. By making the ball slidable on the hawser, and by providing means for adjustably securing it in position thereon, it will be obvious that the holding effect of the anchor may be easily varied by varying the position of the ball or balls on the hawser. For example, the holding power may be increased by hauling in on the hawser until the ball comes to the surface, and then unlatching the ball and pulling it along the hawser to increase its distance from the anchor.

I claim:

1. In combination, a hawser having one end secured to a vessel and the other to an anchor, a weight slidably mounted on said hawser, and means to hold the weight in desired position on the hawser.

2. In combination, a hawser having one end secured to a vessel and the other to an anchor, a weight slidably mounted on said hawser, and means for locking said weight to the hawser in desired position.

3. In combination, a hawser having one end secured to a vessel and the other to an anchor, and a weight having a hole through which said hawser passes, whereby the weight may be moved to desired position on the hawser.

4. In combination, a hawser having one end secured to a vessel and the other to an anchor, a weight having a hole through which said hawser passes, whereby the weight may be moved to desired position on the hawser, and means for locking said weight to the hawser in desired position.

5. In combination, a hawser having one end secured to a vessel and the other to an anchor, a weight having a hole through which said hawser passes, whereby the weight may be moved to desired position on the hawser, said weight having a slot extending transversely to said hole, and a cam latch pivoted in said slot and having a portion adapted to engage said hawser to lock the weight thereto.

6. In combination, a hawser having one end secured to a vessel and the other to an anchor, a weight having a hole through which said hawser passes, whereby the weight may be moved to desired position on the hawser, and a lever pivotally mounted on said weight and adapted to engage said hawser to lock the weight thereto.

7. In combination, a hawser having one end secured to a vessel and the other to an anchor, a weight having a hole through which said hawser passes, whereby the weight may be moved to desired position on the hawser, and a lever pivotally mounted on said weight, and having a cam portion adapted to engage said hawser to lock the weight thereto, said lever being disposed substan-

tially entirely within a recess in said weight when the weight is locked to the hawser.

8. In combination, a hawser having one end secured to a vessel and the other to an anchor, a weight having a hole through which said hawser passes, whereby the weight may be moved to desired position on the hawser, and a lever pivotally mounted on said weight and having a cam portion adapted to engage said hawser to lock the weight thereto, said cam portion in its locking and unlocking positions engaging said hawser on opposite sides of a line from said pivot to the center of the hawser.

LIVINGSTON FOUNTAIN.

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